STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ROBERT GORDON
DIRECTOR

April 12, 2019

Shanna Janu, Project Officer
Centers for Medicare and Medicaid Services
7500 Security Boulevard
Mail Stop S2-01-16
Baltimore, Maryland 21244-1850

Dear Ms. Janu,

Re: Project Number 11-W-00245/5 – Healthy Michigan Plan

Enclosed is the annual report for Healthy Michigan Plan. It covers the 2018 calendar year. The report provides operational information, program enrollment, and policy changes related to the waiver as specified in the Special Terms and Conditions.

Should you have any questions related to the information contained in this report, please contact Jacqueline Coleman by phone at (517) 284-1190, or by e-mail at colemanj@michigan.gov.

Sincerely,

[redacted]

Penny Rutledge, Director
Actuarial Division

cc: Ruth Hughes
Angela Garner

Enclosure (21)

Healthy Michigan Demonstration

Section 1115 Annual Report

Demonstration Year: 9 (01/01/2018 – 12/31/2018)

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Introduction

On April 1, 2014, Michigan expanded its Medicaid program to include adults with income up to 133 percent of the Federal Poverty Level (FPL). To accompany this expansion, the Michigan Adult Benefits Waiver (ABW) was amended and transformed to establish the Healthy Michigan Plan, through which the Michigan Department of Health & Human Services (MDHHS) will test innovative approaches to beneficiary cost sharing and financial responsibility for health care for the new adult eligibility group. Organized service delivery systems will be utilized to improve coherence and overall program efficiency. The overarching themes used in the benefit design are increasing access to quality health care, encouraging the utilization of high-value services, and promoting beneficiary adoption of healthy behaviors and using evidence-based practice initiatives. The Healthy Michigan Plan provides a full health care benefit package as required under the Affordable Care Act including all the Essential Health Benefits required by federal law and regulation. The new adult population with incomes above 100 percent of the FPL are required to make contributions toward the cost of their health care. In addition, all newly eligible adults from 0 to 133 percent of the FPL are subject to copayments consistent with federal regulations.

State law requires MDHHS to partner with the Michigan Department of Treasury to garnish state tax returns and lottery winnings for members consistently failing to meet payment obligations associated with the Healthy Michigan Plan. Prior to the initiation of the garnishment process, members are notified in writing of payment obligations and rights to a review. Debts associated with the MI Health Account are not reported to credit reporting agencies. Members non-compliant with cost-sharing requirements do not face loss of eligibility, denial of enrollment in a health plan, or denial of services.

MDHHS's goals in the demonstration are to:

- Improve access to healthcare for uninsured or underinsured low-income Michigan citizens;
- Improve the quality of healthcare services delivered;
- Reduce uncompensated care;
- Strengthen beneficiary engagement and personal responsibility;
- Encourage individuals to seek preventive care and encourage the adoption of healthy behaviors;
- Support coordinated strategies to address social determinants of health in order to promote positive health outcomes, greater independence, and improved quality of life;
- Help uninsured or underinsured individuals manage their health care issues; and
- Encourage quality, continuity, and appropriate medical care.

Enrollment and Benefits Information

MDHHS began enrolling new beneficiaries into the program beginning April 1, 2014. Beneficiaries who were enrolled in the ABW were automatically transitioned into the Healthy Michigan Plan effective April 1, 2014. Potential enrollees can apply for the program via the

MDHHS website, by calling a toll-free number or by visiting their local MDHHS office. At this time, MDHHS does not anticipate any changes in the population served or the benefits offered. The following table display new enrollments and disenrollments by month:

Table 1: Healthy Michigan Plan Enrollment Activity January 2018 – December 2018		
Month	New Enrollment	Disenrollment
January 2018	33,582	29,045
February 2018	28,806	28,155
March 2018	29,880	29,076
April 2018	30,741	31,298
May 2018	29,447	33,694
June 2018	29,056	35,140
July 2018	29,983	32,820
August 2018	31,322	33,565
September 2018	29,735	30,089
October 2018	29,927	29,434
November 2018	32,123	34,081
December 2018	32,842	28,595

Most Healthy Michigan Plan beneficiaries choose a health plan as opposed to automatic assignment to a health plan. As of December 2018, 303,937 or, 57 percent, of the State's 534,457 Healthy Michigan Plan health plan enrollees selected a health plan. The remaining managed care enrolled beneficiaries were automatically assigned to a health plan. All Medicaid Health Plan members have an opportunity to change their plan within 90 days of enrollment into the plan. During this year, 26,294 of all Healthy Michigan Plan health plan enrollees changed health plans. This year, 10,402 or approximately 40 percent, of beneficiaries that changed plans were previously automatically assigned to a health plan. The remaining beneficiaries were those that changed plans after selecting a health plan.

Healthy Michigan Plan members can reduce cost-sharing requirements through the completion of Health Risk Assessments and engaging in healthy behaviors. MDHHS has developed a standard Health Risk Assessment form to be completed annually. Health Risk Assessment forms and reports are located on the MDHHS website. The Health Risk Assessment document is completed in two parts. The member typically completes the first section of the form with the assistance of the Healthy Michigan Plan enrollment broker. Members that are automatically assigned to a health plan are not surveyed. The remainder of the form is completed at the member's initial primary care visit. Completion of the remaining Health Risk Assessment sections (beyond those completed through the State's enrollment broker) requires beneficiaries to schedule an annual appointment, select a Healthy Behavior, and have member results completed by their primary care provider. The primary care provider securely sends the completed Health Risk Assessment to the appropriate Medicaid Health Plan.

To improve the ability of individuals to participate in the Healthy Behaviors Incentives Program, additional mechanisms to document healthy behaviors were added April 1, 2018 for individuals who may have completed healthy behavior activities but do not have a submitted Health Risk Assessment for documentation. The mechanisms include claims/encounters review for beneficiaries who utilize preventive and wellness services as well as documented participation in approved wellness and population health management programs.

Healthy Michigan Plan managed care members are rewarded for addressing behaviors necessary for improving health. All individuals who complete a healthy behavior are eligible for a 50 percent reduction in copays for the rest of the year once the enrollee has paid 2 percent of their income in copays. Individuals who pay a contribution (those above 100 percent of the Federal Poverty Level) will also be eligible for a 50 percent reduction in their monthly contribution. To encourage consistent multi-year participation in the Healthy Behaviors Incentives Program, individuals who pay a contribution (those above 100 percent of the Federal Poverty Level) will have their monthly contribution waived in its entirety if they complete an annual Health Risk Assessment on time each year over 2 or more years. Individuals who do not pay a contribution (those below 100 percent of the Federal Poverty Level) are eligible for a gift card for completion of the Health Risk Assessment only, however this incentive was retired October 1, 2018. Once retired, the incentives will be consistent across all three healthy behavior options. The most recent Healthy Behaviors Incentives Program Report has been included as an attachment.

The following table details Health Risk Assessment data collected by the Medicaid Health Plans for the year. The table reflects the changes to the State's Healthy Behaviors program over the course of the year:

Table 2: Health Risk Assessment Health Plan Data				
January 2018 – March 2018				
Month	Health Risk Assessments Submitted	Gift Cards Earned	Reductions Earned	Reductions Applied
January 2018	3,337	2,560	769	997
February 2018	4,081	3,112	957	860
March 2018	3,458	2,522	923	995
April 2018 – December 2018				
Month	Health Risk Assessments Submitted	Wellness Programs Submitted	Preventative Services Completed	Reductions Applied
April 2018	13,215	6,352	60,981	75,000
May 2018	6,526	467	56,031	59,550
June 2018	4,996	200	45,146	63,908
July 2018	6,283	2,683	51,723	1,853
August 2018	4,196	3,255	54,538	680
September 2018	5,843	953	46,497	492
October 2018	4,229	2,014	54,347	15,516
November 2018	5,293	1,181	92,983	19,196
December 2018	4,042	1,023	49,982	14,371

Enrollment Counts for Year and Year to Date

Healthy Michigan Plan enrollment in this year has remained consistent with previous years. In addition to stable Healthy Michigan Plan enrollment, MDHHS saw the standard number of disenrollments from the plan as reported in the Monthly Enrollment Reports to CMS. Healthy Michigan disenrollment reflects individuals who were disenrolled during a redetermination of eligibility or switched coverage due to eligibility for other Medicaid program benefits. In most cases beneficiaries disenrolled from the Healthy Michigan Plan due to eligibility for other

Medicaid programs. Movement between Medicaid programs is not uncommon and MDHHS expects that beneficiaries will continue to shift between Healthy Michigan and other Medicaid programs as their eligibility changes. Enrollment counts in the table below are for unique members for identified time periods.

Table 3: Enrollment Counts for Year and Year to Date			
Demonstration Population	Total Number of Demonstration Beneficiaries Year Ending – 12/2018	Current Enrollees (year to date)	Disenrolled in Current Year
Healthy Michigan Adults	985,028	985,028	374,992

Outreach/Innovation Activities to Assure Access

MDHHS utilizes the Healthy Michigan Program website to provide information to both beneficiaries and providers. The Healthy Michigan Plan website contains information on eligibility, how to apply, services covered, cost sharing requirements, frequently asked questions, Health Risk Assessment completion, and provider information. The site also provides a link for members to make MI Health Account payments. MDHHS also has a mailbox, healthymichiganplan@michigan.gov, for questions or comments about the Healthy Michigan Plan.

MDHHS continues to work closely with provider groups through meetings, Medicaid provider policy bulletins, and various interactions with community partners and provider trade associations. MDHHS continues to provide progress reports to the Medical Care Advisory Council (MCAC) at regularly scheduled yearly meetings. These meetings provide an opportunity for attendees to provide program comments or suggestions. The minutes for the 2018 meetings have been attached as an enclosure. MCAC meeting agendas and minutes are also available on the MDHHS website.

Collection and Verification of Encounter Data and Enrollment Data

As a mature managed care state, all Medicaid Health Plans submit encounter data to MDHHS for the services provided to Healthy Michigan Plan beneficiaries following the existing MDHHS data submission requirements. MDHHS continues to utilize encounter data to prepare MI Health Account statements with a low volume of adjustments. MDHHS works closely with the plans in reviewing, monitoring and investigating encounter data anomalies. MDHHS and the Medicaid Health Plans work collaboratively to correct any issues discovered as part of the review process.

Operational/Policy/Systems/Fiscal Developmental Issues

MDHHS regularly meets with the staff of Medicaid Health Plans to address operational issues, programmatic issues, and policy updates and clarifications. Updates and improvements to the Community Health Automated Medicaid Processing System (CHAMPS), the State's Medicaid Management Information System (MMIS) happen continually, and MDHHS strives to keep the health plans informed and functioning at the highest level. At these meetings, Medicaid policy bulletins and letters that impact the program are discussed, as are other operational issues.

Additionally, these operational meetings include a segment of time dedicated to the oversight of the MI Health Account contactor. MDHHS and the health plans receive regular updates regarding MI Health Account activity and functionality. The following policies with Healthy Michigan Plan impact were issued by the State during the year covered by this report:

Table 4: Medicaid Policy Bulletins with Healthy Michigan Plan Impact January 2018 – December 2018		
Issue Date	Subject	Link
01/30/2018	Home Help Travel Time Payment for Shopping and Laundry Services	MSA 17-39
01/30/2018	Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) Code Updates	MSA 18-01
01/30/2018	Update to the Coverage of Physician-Administered Drugs and Biological Products	MSA 18-02
01/30/2018	Clarification to Age Limitations for Durable Medical Equipment, Prosthetics, Orthotics and Supplies	MSA 18-03
03/01/2018	MI Marketplace Option and Healthy Michigan Plan Updates	MSA 18-05
03/01/2018	Updates to the Medicaid Provider Manual; MDHHS Wrap Around Code List Format Change	MSA 18-06
03/05/2018	Managed Care Network Provider Enrollment in the Community Health Automated Medicaid Processing System (CHAMPS)	MSA 18-07
06/01/2018	Home Help Agency Provider Standards	MSA 18-09
06/01/2018	Pediatric Outpatient Intensive Feeding Program Services	MSA 18-10
06/01/2018	Medicaid Laboratory Reimbursement Rates	MSA 18-11
06/01/2018	Updates to the Medicaid Provider Manual; Clarification for Services Provided to Beneficiaries Receiving Hospice Services; Code Updates	MSA 18-16
06/01/2018	Expanded Access to Dental Benefits for Pregnant Women	MSA 18-18
06/29/2018	Hospital 340B Final Settlement Adjustment Process	MSA 18-14
06/29/2018	Medical Verification for Transportation – Physician Signature and Travel Reimbursement Clarifications	MSA 18-20
08/24/2018	Rate Update for Neonatal and Pediatric Critical Care and Intensive Care Services	MSA 18-26
08/31/2018	Inpatient Long-Acting Reversible Contraception (LARC) Reimbursement	MSA 18-22
08/31/2018	Opioid Health Home Pilot Program	MSA 18-27
08/31/2018	Enrollment and Reimbursement Changes for Occupational Therapists, Physical Therapists, Speech-Language Pathologists, and Audiologists; New Medicaid Provider Manual Therapy Services Chapter; Revised Therapy Prior Authorization Form (MSA-115); Therapy Service Modifier Update	MSA 18-29
08/31/2018	Labor for Repairs to Manual and Power Wheelchairs and Power Operated Vehicles (POVs)	MSA 18-30
08/31/2018	Update to the Coverage of Physician Assistant Services	MSA 18-31
08/31/2018	Updates to the Medicaid Provider Manual; Clarification to Bulletin MSA 17-21; Code Updates	MSA 18-32
08/31/2018	Copayment Exemption for Drugs to Treat Mental Health Conditions and Substance Use Disorders	MSA 18-35
10/01/2018	Ordering of Genetic Laboratory Services by Physician Assistants (PAs) and Advanced Practice Registered Nurses (APRNs)	MSA18-34

Table 4: Medicaid Policy Bulletins with Healthy Michigan Plan Impact Continued		
January 2018 – December 2018		
Issue Date	Subject	Link
10/01/2018	Ordering of Genetic Laboratory Services by Physician Assistants (PAs) and Advanced Practice Registered Nurses (APRNs)	MSA18-34
10/01/2018	Face-to-Face Claim Requirements for Durable Medical Equipment (DME) Providers; Home Health Agencies Providing DME	MSA 18-36
10/01/2018	Return of Dental Radiographs; Maxillary Partial Denture Update	MSA 18-38
11/01/2018	Rescinding the MI Marketplace Option	MSA 18-42
11/30/2018	Clarification of Medicaid Outreach Policy	MSA 18-41
11/30/2018	Standard Consent Form	MSA 18-44
11/30/2018	Updates to the Medicaid Provider Manual	MSA 18-45
11/30/2018	Updates to Audiology Supply and Device Reimbursement Rates and Bone-Anchored Hearing Device (BAHD) Coverage	MSA 18-46
11/30/2018	Enforcement of Medicaid Provider Enrollment Requirement for Medicaid Health Plan and Dental Health Plan Typical Providers	MSA 18-47
11/30/2018	Network Adequacy Standards	MSA 18-49
11/30/2018	Claims for Medicaid Beneficiaries Eligible for Medicare	MSA 18-50
12/28/2018	Clarification of Blood Lead Level Test Results	MSA 18-52

Financial/Budget Neutrality Development Issues

Healthy Michigan Plan expenditures for all plan eligible groups are included in the budget neutrality monitoring table below as reported in the CMS Medicaid and Children's Health Insurance Program Budget and Expenditure System. Expenditures include those that both occurred and were paid in the same year in addition to adjustments to expenditures paid after the year of service. The State will continue to update data for each demonstration year as it becomes available. This year, MDHHS reported $13,944,703.00 in administrative costs during the demonstration year in CMS 64.10 WAIV files submitted to CMS.

Table 5: Healthy Michigan Plan Budget Neutrality Monitoring Table				
	Approved HMP PMPM	Actual HMP PMPM (YTD)	Total Expenditures (YTD)	Total Member Months (YTD)
DY 5 – PMPM	$667.36	$477.93	$1,785,163,789.00	3,735,223
DY 6 – PMPM	$602.21	$476.03	$3,459,953,024.00	7,268,325
DY 7 – PMPM	$569.80	$500.12	$3,881,328,418.00	7,760,816
DY 8 – PMPM	$598.86	$471.27	$3,926,870,468.00	8,332,607
DY 9 – PMPM	$629.40	$438.30	$3,694,728,398.00	8,429,736

Beneficiary Month Reporting

The beneficiary counts below include information for each of the designated months during the year and include retroactive eligibility through December 31, 2018.

Table 6: Healthy Michigan Plan Beneficiary Month Reporting	
January 2018 – December 2018	
Month	Count
January 2018	711,150
February 2018	711,801
March 2018	712,605
April 2018	712,048
May 2018	707,801
June 2018	701,717
July 2018	698,880
August 2018	696,637
September 2018	696,283
October 2018	696,776
November 2018	694,818
December 2018	699,065
Total	8,439,581

Consumer Issues

This year, the total number of Healthy Michigan Plan complaints reported to MDHHS was 165 Complaints reported to MDHHS are detailed by category in the table below. Overall, with over 8.4 million member months during the year, MDHHS is encouraged by its low rate of contacts related to Healthy Michigan Plan complaints. MDHHS will continue to monitor calls to the Beneficiary Helpline to identify issues and improve member experience.

Table 7: Healthy Michigan Plan Complaints Reported to MDHHS				
January 2018 – December 2018				
	Obtaining Prescriptions	Other Covered Services	Transportation	Total
Count	123	33	9	165
Percent	75%	20%	5%	

Quality Assurance/Monitoring Activity

MDHHS completes Performance Monitoring Reports (PMR) for all Medicaid Health Plans that were licensed and approved to provide coverage to Michigan's Medicaid beneficiaries during the reporting period. These reports are based on data submitted by the health plans. Health plans submit data for the following items: grievance and appeal reporting, a log of beneficiary contacts, financial reports, encounter data, pharmacy encounter data, provider rosters, primary care provider-to-member ratio reports, and access to care reports. The measures for the Healthy Michigan Plan population will mirror those used for the traditional Medicaid population. In addition, MDHHS will monitor trends specific to this new population over time.

MDHHS developed Healthy Michigan Plan Performance Monitoring Specifications in 2014. Many of the measures for fiscal year 2015 were informational as MDHHS refined its data collection and analysis process. Performance standards were set for these measures in FY2016

and updated for FY2017 and FY2018. Performance areas include Adults' Access to Ambulatory Health Services, Outreach and Engagement to Facilitate Entry to Primary Care, Adults' Generic Drug Utilization, Plan All-Cause Acute 30-Day Readmissions, and Timely Completion of Initial Health Risk Assessment. Two new Healthy Michigan Plan measures, Transition into Consistently Fail to Pay (CFP) Status and Transition out of Consistently Fail to Pay (CFP) Status were added as informational measures in FY2017, and performance standards were added in FY2018. Completion of Annual Health Risk Assessment was also added in FY2018, along with three new informational dental measures: Diagnostic Dental Services, Preventive Dental Services and Restorative (Dental Fillings) Dental Services.

The Pay for Performance Project awards points to Medicaid Health Plans in performance categories based on their delivery of performance criteria. Pay for Performance under the Healthy Michigan Plan began in 2015 and will continue through 2019. For 2018, it is calculated using Cost Sharing and Value-based Services categories.

In compliance with Michigan's Public Act 107, MDHHS examines emergency department utilization and evaluates the health plan efforts to encourage its proper us. Following the first Focus Bonus Emergency Department (ED) Utilization Improvement Project of the Medicaid Health Plans which ran between FY 2015 and FY2017, a second three-year Focus Bonus Emergency Department Utilization Improvement Project started in 2018, which is expected to run through FY2020. Based on the findings from the first ED Utilization Focus Bonus projects combined with current departmental priorities, the second ED Utilization Focus Bonus projects focuses on A) integration with behavioral health, B) substance use disorder treatment, or C) dental services. Medicaid Health Plans began submitting deliverables as a part of the 2018 Pay for Performance Project.

Managed Care Reporting Requirements

MDHHS has established a variety of reporting requirements for the Medicaid Health Plans, many of which are compiled, analyzed and shared with the plans in the PMRs described in the Quality Assurance/Monitoring Activity section of this report. These reports have historically been used for the traditional Medicaid population, and, as indicated above, will also include information for the Healthy Michigan Plan population.

A Healthy Behaviors Incentives Program Report is published quarterly and made available to the public by the Bureau of Medicaid Care Management and Customer Service within MDHHS. This report was updated in 2018 to reflect revisions to the HMP Health Risk Assessment and new mechanisms to document healthy behaviors which were implemented in April 2018. This December 2018 report included data for Health Risk Assessments completed through October-December 2018. The initial assessment questions section of the Health Risk Assessments completed through the enrollment broker had a completion rate of 95 percent. MDHHS is encouraged by the high level of participation by beneficiaries at the initial point of contact.

Completion of the remaining Health Risk Assessment sections (beyond those completed through the State's enrollment broker) requires beneficiary scheduling of an annual appointment and selecting Healthy Behavior(s) in collaboration with a primary care provider. For October-December 2018, among beneficiaries who completed the Health Risk Assessment, 86 percent

agreed to address healthy behaviors, and of those, 57 percent chose to address more than one healthy behavior.

During October 2014, MI Health Account quarterly statement activities began, and Healthy Michigan Plan members began making payments for contributions and copays to the MI Health Account. Beneficiaries can make payments online and by mail. The MI Health Account collection activity was reported in the Healthy Michigan Plan Special Terms and Conditions 31: Assurance of Compliance Report, and this is regularly reported in the MI Health Account Executive Report. This document has been enclosed with this report.

MDHHS has refined the Managed Care Organization grievance and appeal reporting process to collect Healthy Michigan Plan specific data. Grievances are defined in the MDHHS Medicaid Health Plan Grievance/Appeal Summary Reports as an expression of dissatisfaction about any matter other than an action subject to appeal. Appeals are defined as a request for review of the Health Plan's decision that results in any of the following actions:

- The denial or limited authorization of a requested service, including the type or level of service;
- The reduction, suspension, or termination of a previously authorized service;
- The denial, in whole or in part, of a payment for a properly authorized and covered service;
- The failure to provide services in a timely manner, as defined by the State; or
- The failure of the Health Plan to act within the established timeframes for grievance and appeal disposition.

From January to December 2018, there were 1,082 total appeals among all the Medicaid Health Plans. Medicaid Health Plan decisions were upheld in 38 percent of the appeals. From January to December 2018 there were a total of 5,385 grievances. The greatest number of grievances came from the Transportation category. Transportation grievances relate to issues with the transportation benefit and often mirror the complaints members directly reported to MDHHS. Access grievances can include a primary care physician not accepting new patients, limited specialist availability, the refusal of a primary care physician to complete a referral or write a prescription, a lack of services provided by the primary care physician, long wait times for appointments and denied services. Grievances related to quality of care pertain to the level of care issues experienced by beneficiaries. Administrative/Service grievances can include issues with claims, enrollment, eligibility, out-of-network providers and benefits not covered. Issues reported under the Billing category pertain to billing issues. MDHHS will continue to monitor the Medicaid Health Plans Grievance/Appeal Summary Reports to ensure levels of grievances remain low and resolution of grievances is completed in a timely manner. MDHHS has included grievance and appeals data reported by the Medicaid Health Plans from this year in the following tables:

Table 8: Managed Care Organization Appeals
January 2018 – December 2018

	Decision Upheld	Overturned	Undetermined/ Withdrawn	Total
Count	416	592	74	1,082
Percent	38%	55%	7%	

Table 9: Managed Care Organization Grievances						
January 2018 – December 2018						
	Access	Quality of Care	Administrative/Service	Billing	Transportation	Total
Count	1,593	267	1,338	574	1,613	5,385
Percent	30%	5%	25%	11%	30%	

Managed Care Delivery System

MDHHS reviewed a number of systems and program related processes and procedures related to health plan implementation of the Healthy Michigan Plan. This included a detailed investigation into how the plans operationalized cost sharing and incentive procedures, how well plans facilitated entry into primary care, and their processes to facilitate completion of the Health Risk Assessment and appropriately transmitting those Health Risk Assessment results to MDHHS for use in determining eligibility for reductions in cost sharing. On a quarterly basis, MDHHS cross references a random sample of beneficiaries who earned a healthy behaviors incentive based on the attestation on their Health Risk Assessment with beneficiaries who had reductions processed as an additional process to monitor the accurate application of incentives, including cost-sharing reductions. MDHHS is closely monitoring access to care in the Healthy Michigan Plan program for fee-for-service and health plan members. Most recent data indicate that 79 percent of Healthy Michigan Plan managed care enrollees have had an ambulatory or preventive care visit within the prior year and 59 percent had an ambulatory or preventive care visit within 150 days of enrollment.

MDHHS measures racial/ethnic health disparities through three analyses:

1. MDHHS performs an internal analysis to investigate how Healthy Michigan Plan enrollment by race/ethnicity compares to estimates modelled by the Urban Institute's Health Policy Center. This analysis is run on an ad hoc basis.

2. MDHHS conducts a Health Equity Analysis which includes quality measures across four health dimensions: Women – Adult Care and Pregnancy Care, Child and Adolescent Care, Access to Care and Living with Illness. This analysis is in its seventh year and began including Healthy Michigan Plan enrollees starting in 2016 (Healthcare Effectiveness Data and Information Set (HEDIS) 2015 data). Analyses are conducted for all Medicaid Managed Care Enrollees and for each Medicaid health plan. Health disparity analyses conducted include pair-wise disparity analyses between all non-white populations and the white reference population. Annual trending of rates is also conducted to monitor for statistically significant increases or decreases in rates for specific racial/ethnic populations. Through this analysis for 2017 (most recent data), racial/ethnic disparities have been identified for thirteen of the fourteen of the quality measures collected, with the largest disparities identified in the Women – Adult Care and Pregnancy Care health dimension. An Index of Disparity is also calculated for each quality measure. This index is a valuable tool for measuring inequity in health and has been used to create health equity standards. These started in FY2016 through the Pay for Performance. It

was expanded to three measures in FY2017 and to five measures in FY2018. This analysis is run on an annual basis.

3. MDHHS collects race/ethnicity data for internal review for all measures calculated from the MDHHS Medicaid Data Warehouse. Measures which are stratified by race ethnicity include all HMP measures and all CMS adult core set measures which are reported by MDHHS. This analysis is run on a quarterly basis.

MDHHS reviews the provider network submitted by the Medicaid Health Plans quarterly to ensure that networks meet the adequacy criteria specified in the contract. In 2015, Medicaid Health Plans were required to maintain a Primary Care Physician to enrollee ratio of at least one full-time Primary Care Physician per 750 members. In 2016, this was revised to an enrollee ratio of at least one full-time Primary Care Physician per 500 members to further strengthen provider networks and improve access to care. Pre and post implementation network review indicate that all plans maintain an adequate network and are in contract compliance. Network capacity is used in calculating the automatic assignment algorithm as outlined below and plans are given additional points for exceeding this measure.

MDHHS uses the capacity report from the State's enrollment broker (current at time of algorithm development) to determine the Open Primary Care Physician to capacity ratio for each county. When the ratio is less than 1:300, 100 points are added to the plan's score for that county. When the ratio is between 1:300 and 1:450, 50 points are added to the plan's score for that county. 24/7 availability is reviewed annually as part of the comprehensive compliance review and took place in January 2018. All Medicaid Health Plans demonstrated compliance with this criterion.

The External Quality Review (EQR) report includes information on how well plans performed on each aspect of the compliance review, as well as a validation of each plans' HEDIS findings and Performance Improvement Projects. The onsite reviews of plans in 2017 included components specific to the Healthy Michigan Plan. The 2017-2018 EQR Technical Report is scheduled to be published in April 2019.

As part of the EQR process, health plans are required to participate in an annual performance improvement project. In 2017, plans began a new three-year cycle for Performance Improvement Projects. Each plan was required to improve quality and reduce disparities in their timeliness of prenatal care measure. Each plan's proposed project was validated by the MDHHS EQR vendor prior to implementation of interventions. These projects were ongoing though FY2018.

The Healthy Michigan Plan was also incorporated into the Michigan Medicaid Quality Assessment and Improvement Strategy 2015. The Quality Strategy includes detailed information on the methods used to improve care and service delivery to continually improve Michigan's Medicaid program and addresses how Michigan has integrated the Healthy Michigan Plan population throughout the Quality Improvement program. Reporting on the effectiveness of the Healthy Michigan Plan implementation will be included in all future Quality Strategy Annual Reviews.

MDHHS measures health plan performance through annual HEDIS reporting and the internally-derived PMR. All plans are required to undergo the HEDIS reporting process for all members who meet measure-specific eligibility criteria, including Healthy Michigan Plan members. Data for the quarterly PMR comes from the MDHHS Data Warehouse and includes rates specific to Healthy Michigan Plan members. As a result of CMS support via the Adult Medicaid Quality grant, MDHHS was able to build queries to include breakouts by Healthy Michigan Plan and traditional Medicaid for all measures calculated using the Medicaid Data Warehouse. The Michigan Medicaid HEDIS 2018 Results Statewide Aggregate Report and October 2018 PMR are attached to this report.

MDHHS contracted with Health Services Advisory Group, Inc. to conduct and report results of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey for its Medicaid program. MDHHS has included the 2018 Adult Medicaid Health Plan CAHPS Report as an attachment. In 2018, MDHHS conducted a Healthy Michigan Plan specific CAHPS survey. MDHHS has also included the Healthy Michigan Plan CAHPS Report as an attachment.

Additionally, health plan financial information is reviewed on a quarterly basis to assure each plan has adequate working capital, their net worth is not at a negative status and the risk-based capital is between 150 percent and 200 percent. Financial reports were reviewed in May 2018, August 2018 and November 2018. All Medicaid Health Plans demonstrated compliance with the contractual financial requirements.

Lessons Learned

MDHHS continues to learn from the experience of launching a program the size and scope of the Healthy Michigan Plan. This year MDHHS gained valuable insight into primary care practitioner and enrollee views of the Healthy Michigan Plan. The University of Michigan's Institute for Healthcare Policy and Innovation (IHPI) conducted surveys and telephone interviews with primary care practitioners caring for Healthy Michigan Plan patients. Surveyed primary care practitioners reported that the Healthy Michigan Plan has improved access to care and better detection and management of chronic conditions. Primary care practitioners described an increase in new patients and hiring clinicians and staff as a result. Additionally, providers noted that the Healthy Michigan Plan Health Risk Assessment process was administratively burdensome. This feedback informed this year's MDHHS redesign of the Health Risk Assessment and Healthy Behaviors protocol.

This year, IHPI also published its report and supplemental analyses of the Healthy Michigan Voices Enrollee Survey. Surveyed enrollees reported greater access to care, decreased financial burden from health care, and a better awareness of enrollee cost of care through the MI Health Account statements. IHPI also identified education for enrollees on coverage and cost-sharing as areas to improve. For example, many respondents were unaware of the Healthy Michigan Plan dental benefit. MDHHS has since engaged its Medicaid Health Plans to improve utilization of dental benefits for its Healthy Michigan Plan members.

MDHHS worked to initiate Healthy Michigan Plan program changes as directed by Michigan Public Act 208 of 2018. This law directs MDHHS to seek innovative approaches in administering the Healthy Michigan Plan by encouraging and assisting able-bodied adults to engage in healthy behaviors and foster independence. MDHHS staff demonstrated the ability to quickly and effectively collaborate to rescind the MI Marketplace Option and begin the necessary steps to amend the demonstration. Teamwork and communication across the department continue to be valuable assets needed to adapt to new challenges in the Healthy Michigan Plan demonstration.

MDHHS faced the challenge of submitting its demonstration waiver extension application amendment. Collaboration continued to be a key element to the demonstration's success as MDHHS worked with stakeholders to submit a comprehensive document. Working as a team made it possible to meet the objectives of Michigan's State law, Public Act 208 of 2018, in a short period of time. During the 30-day public comment process of the demonstration extension application amendment MDHHS received over 1,000 comments from organizations and individuals. MDHHS staff worked diligently to review, incorporate, and summarize all submitted comments. Stakeholder input continues to be valuable to implementing program changes.

This year, MDHHS worked closely with the Michigan Legislature and CMS to achieve a waiver agreement that met state and federal guidelines. MDHHS continues to call upon CMS guidance and examples provided by other states in implementing its approved demonstration. Part of MDHHS' successful implementation strategy includes its team of department leadership and subject matter experts; many of which have worked on the Healthy Michigan Plan since its beginning in 2014. MDHHS will continue to systematically address each component of the Healthy Michigan Plan to achieve the goals of the demonstration.

Demonstration Evaluation

MDHHS has commissioned the University of Michigan's Institute for Healthcare Policy and Innovation (IHPI) to serve as the Healthy Michigan Plan independent evaluator. The IHPI has developed a comprehensive plan to address the needs of the State and CMS. Demonstration evaluation activities for the Healthy Michigan Plan are utilizing an interdisciplinary team of researchers from the IHPI. The activities of the evaluation will carry in six domains over the course of the evaluation period:

Demonstration evaluation activities for the Healthy Michigan Plan are utilizing an interdisciplinary team of researchers from the IHPI. The activities of the evaluation will be carried out in six domains over the course of the 5-year evaluation period:

I. An analysis of the impact the Healthy Michigan Plan on uncompensated care costs borne by Michigan hospitals;
II. An analysis of the effect of Healthy Michigan Plan on the number of uninsured in Michigan;
III. The impact of Healthy Michigan Plan on increasing healthy behaviors and improving health outcomes;
IV. The viewpoints of beneficiaries and providers of the impact of Healthy Michigan Plan;

V. The impact of Healthy Michigan Plan's contribution requirements on beneficiary utilization; and,
VI. The impact of the MI Health Accounts on beneficiary healthcare utilization.

The Healthy Michigan Plan Evaluation Reports are available on the MDHHS website. Below is a summary of the key activities for the demonstration year:

Domain I
Domain I examines the impact of reducing the number of uninsured individuals on uncompensated care costs to hospitals in Michigan through Medicaid expansion. IHPI conducted an analysis of trends in uncompensated care for Michigan hospitals using Medicare Cost Report data, IHPI is finding that the trends match closely to what it is finding in the Medicaid Cost Report data used in the annual PA 107 of 2013 Report to the Legislature. Medicare Cost Report data was used to compare trends in uncompensated care in Michigan to other states, including those that did and did not expand their Medicaid programs. IHPI presented a summary of findings on multi-year data on uncompensated care in Michigan and other states to MDHHS. This report is available on the Healthy Michigan Plan Evaluation Reports website and has been included as an enclosure.

Domain II
Domain II evaluates the insured/uninsured rates, in general and more specifically by select population groups (e.g., income levels, geographic areas, age, gender, and race/ethnicity). This year, IHPI continued to analyze data from Michigan and other states from two U.S. Census Bureau Surveys (American Community and the Current Population Surveys) to compare trends in uninsurance rates across time, within state and across states. IHPI developed and finalized the report on uninsurance and submitted it to MDHHS. This report is available on the Healthy Michigan Plan Evaluation Reports website and has been included as an enclosure.

Domain III
Domain III assesses healthy behaviors, utilization and health outcomes for individuals enrolled in the Healthy Michigan Plan. This year, IHPI calculated measures on emergency department utilization, healthy behaviors/preventive health service and hospital admissions for the Healthy Michigan demonstration. The Domain III report was completed by IHPI and is available on the Healthy Michigan Plan Evaluation Report website and has been included as an enclosure.

Domain IV
Domain IV examines beneficiary and provider viewpoints of the Healthy Michigan Plan through survey data. This year, IHPI continued to analyze the 2016 Healthy Michigan Voices (HMV) Beneficiary Survey of current enrollees by completing subgroup and multivariate analyses. Further, IHPI conducted analyses of the Eligible But Unenrolled (EBU) interviews, analyses of 2017 HMV survey data and longitudinal analyses of 2016 and 2017 HMV survey data. A report highlighting key findings from the interviews will be submitted to MDHHS in early 2019.

Domains V/VI
Domains V and VI entail analyzing data to assess the impacts of contribution requirements and the MI Health Account statements on beneficiary utilization of health care services, respectively. This year, IHPI conducted analyses of administrative data and HMV survey data specific to Domain V/VI. The Domain V/VI report was completed by IHPI and is available on the Healthy Michigan Plan Evaluation Report website and has been included as an enclosure.

Enclosures/Attachments

1. October – December 2018 Healthy Behaviors Incentives Program Report
2. February 2018 MCAC Minutes
3. June 2018 MCAC Minutes
4. August 2018 MCAC Minutes
5. December 2018 MCAC Minutes
6. January 2019 Performance Monitoring Report
7. January 2019 Performance Monitoring Report: Dental
8. November 2018 MI Health Account Executive Summary
9. Michigan Medicaid HEDIS 2018 Results Statewide Aggregate Report
10. 2018 MDHHS Adult Medicaid Health Plan CAHPS Report
11. 2018 MDHHS Healthy Michigan Plan CAHPS Report
12. Domain I – Hospital Uncompensated Care Report
13. Domain II – Reduction in the Number of Uninsured Report
14. Domain III – Report on Health Behaviors, Utilization, and Health Outcomes in the Healthy Michigan Plan
15. Domain V/VI - Report on the Impact of Cost Sharing in the Healthy Michigan Plan
16. The Healthy Michigan Plan PA 107 §105(d)(8-9) 2017 Report on Uncompensated Care
17. Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan Report
18. 2017 Healthy Michigan Voices New Enrollee Survey Report
19. 2017 Healthy Michigan Voices Follow-Up Survey Report
20. 2017 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan

State Contacts

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Date Submitted to CMS

April 12, 2019

Michigan Department of Health and Human Services

Medical Services Administration

Bureau of Medicaid Care Management and Quality Assurance

Healthy Michigan Plan
Healthy Behaviors Incentives Program Report

Quarterly Report
October-December 2018

Produced by:

Quality Improvement and Program Development - Managed Care Plan Divison

Table of Contents

Introduction

Pursuant to PA 107 of 2013, sections 105d(1)e and 105d(12), a Health Risk Assessment has been developed for the Healthy Michigan Plan (form DCH-1315). It is designed as a two part document, where the beneficiary completes the first three sections and the health care provider completes the last section. It includes questions on a wide range of health issues, a readiness to change assessment, and a discussion about behavior change between the beneficiary and the health care provider. The topics in the assessment cover all of the behaviors identified in PA 107 including alcohol use, substance use disorders, tobacco use, obesity and immunizations. It also includes the recommended healthy behaviors identified in the Michigan Health and Wellness 4X4 Plan, which include annual physicals, healthy diet, regular physical exercise and reducing tobacco use. As of April 2018, three new questions were added on the topics of annual dental visit, access to transportation and unmet basic needs. The question on anxiety and depression was removed and replaced with a question on chronic stress based on feedback regarding the most meaningful ways to ask about self-reported behavioral health status.

Health Risk Assessment Part 1

Health Risk Assessments completion through Michigan ENROLLS

In February 2014, the enrollment broker for the Michigan Department of Health and Human Services (Michigan ENROLLS) began administering the first section of the Health Risk Assessment to Healthy Michigan Plan beneficiaries who call to enroll in a health plan. In addition to asking new beneficiaries all of the questions in Section 1 of the Health Risk Assessment, call center staff inform beneficiaries that an annual preventive visit, including completion of the last three sections of the Health Risk Assessment, is a covered benefit of the Healthy Michigan Plan.

Completion of the Health Risk Assessment is voluntary; callers may refuse to answer some or all of the questions. Beneficiaries who are auto-assigned into a health plan are not surveyed. Survey results from Michigan ENROLLS are updated daily in CareConnect360 for secure transmission to the appropriate health plan to assist with outreach and care management.

The data displayed in Part 1 of this report reflect the responses to 12 questions in Section 1 of the Health Risk Assessment completed through Michigan ENROLLS. As shown in Table I, a total of 404,363 Health Risk Assessments were completed through Michigan ENROLLS as of December 2018. This represents a completion rate of 95.50%. Responses are reported in Tables 1 through 12. Beneficiaries who participated in the Health Risk Assessment but refused to answer specific questions are included in the total population and their answers are reported as “Refused”. Responses are also reported by age and Federal Poverty Level (FPL).

Health Risk Assessment Completion through Michigan ENROLLS

Table I. Count of Health Risk Assessments (HRA) 12 Questions Completed with MI Enrolls Total Aggregate to December 2018

MONTH	COMPLETE	TOTAL
January 2018	11,748	361,520
February 2018	6,296	367,816
March 2018	5,090	372,906
April 2018	5,360	378,266
May 2018	4,268	382,534
June 2018	4,227	386,761
July 2018	3,389	390,150
August 2018	3,404	393,554
September 2018	2,727	396,281
October 2018	2,703	398,984
November 2018	2,379	401,363
December 2018	3,000	404,363

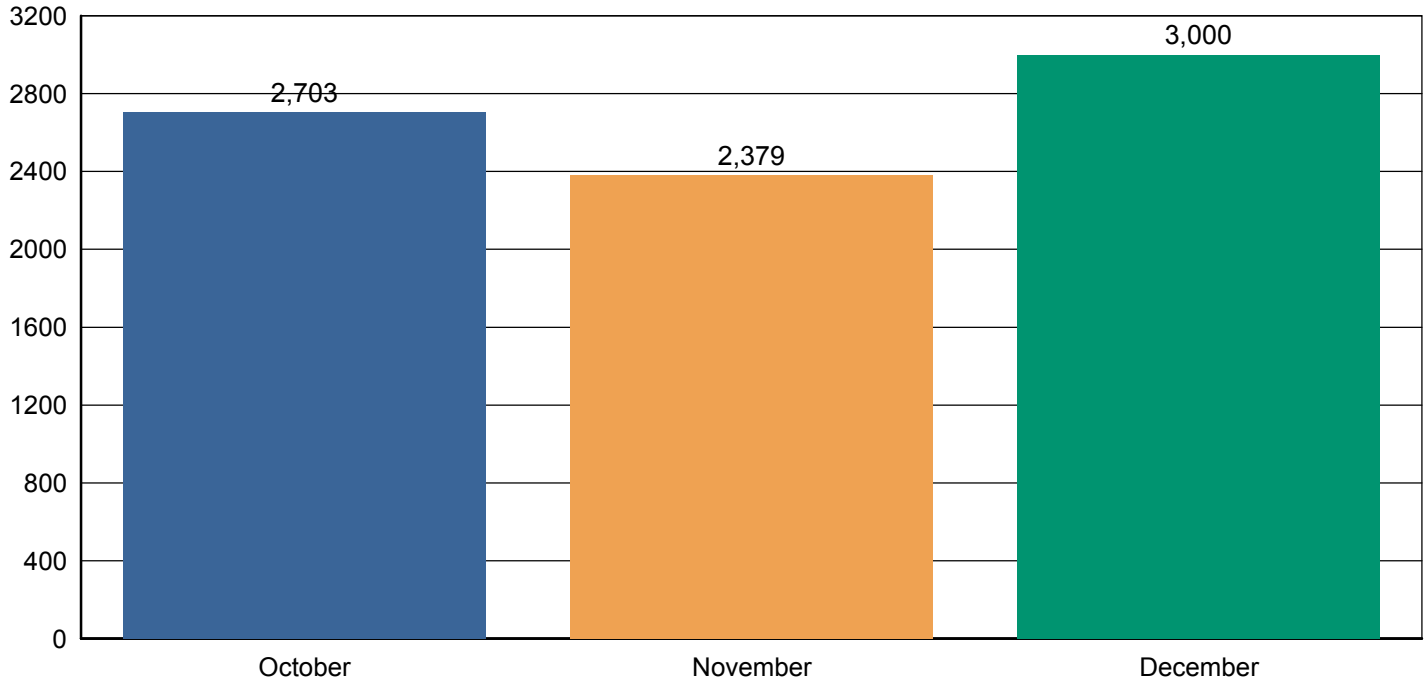
Table II. Demographics of Population that Completed HRA 12 Questions with MI ENROLLS

October 2018 - December 2018

AGE GROUP	COMPLETED HRA	
19 - 34	3,194	39.52%
35 - 49	2,375	29.39%
50 +	2,513	31.09%
GENDER		
F	4,226	52.29%
M	3,856	47.71%
FPL		
< 100% FPL	6,506	80.50%
100 - 133% FPL	1,576	19.50%
TOTAL	**8,082**	**100.00%**

Figure I-1. Health Risk Assessments Completed with MI ENROLLS

October - December 2018



Question 1. General Health Rating

Question 1. In general, how would you rate your health? This question is used to assess self-reported health status. Healthy Michigan Plan enrollees were given the answer options of excellent, very good, good, fair or poor. Table 1 shows the overall answers to this question for the quarter October-December 2018. Among enrollees who completed the survey, this question had a 0.41% refusal rate. Figures 1-1 through 1-3 show the health rating reported for the total population, and by age and FPL.

Table 1. Health Rating for Total Population
October - December 2018

HEALTH RATING	TOTAL	PERCENT
Excellent	971	12.01%
Very Good	2,156	26.68%
Good	2,909	35.99%
Fair	1,577	19.51%
Poor	436	5.40%
Refused	33	0.41%
TOTAL	**8,082**	**100.00%**

Figure 1-1. Health Rating for Total Population
October - December 2018

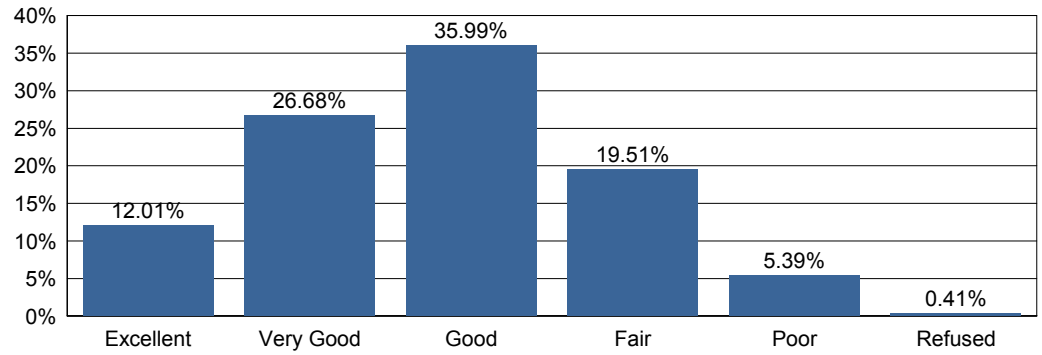


Figure 1-2. Health Rating by Age
October - December 2018

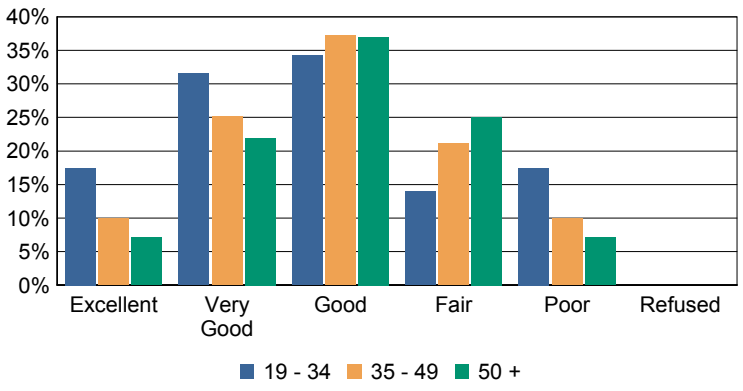
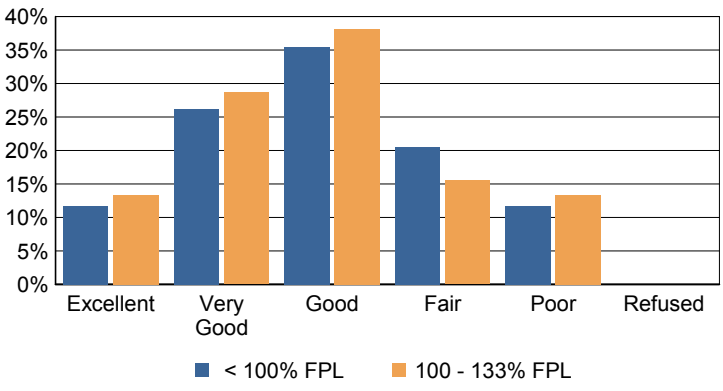


Figure 1-3. Health Rating by FPL
October - December 2018



Question 2. Exercise

Question 2. In the last 7 days, how often did you exercise for at least 20 minutes a day? This question is used to assess self-reported exercise frequency as an important component of maintaining a healthy weight. Healthy Michigan Plan enrollees were given the answer options of every day, 3-6 days, 1-2 days or 0 days. Table 2 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 2.45% refusal rate for this question. Figures 2-1 through 2-3 show the exercise frequency reported for the total population, by age and gender.

Table 2. Exercise Reported for Total Population
October - December 2018

EXERCISE	TOTAL	PERCENT
Every Day	1,835	22.71%
3-6 Days	2,292	28.36%
1-2 Days	1,948	24.10%
No Days	1,809	22.38%
Refused	198	2.45%
TOTAL	**8,082**	**100.00%**

Figure 2-1. Exercise Reported for Total Population
October - December 2018

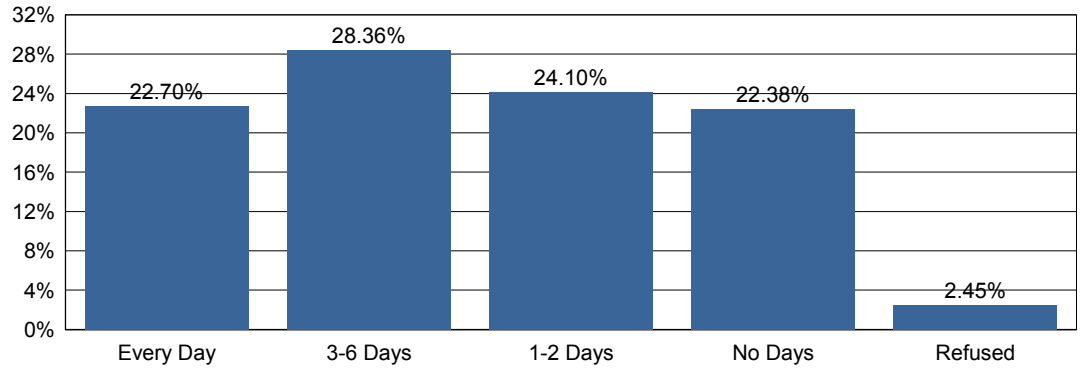


Figure 2-2. Exercise by Age
October - December 2018

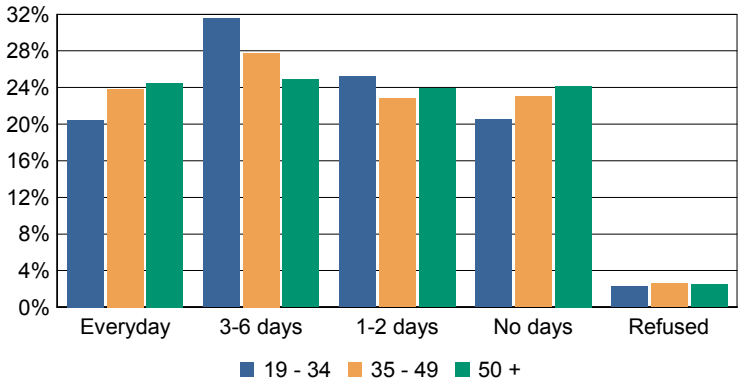
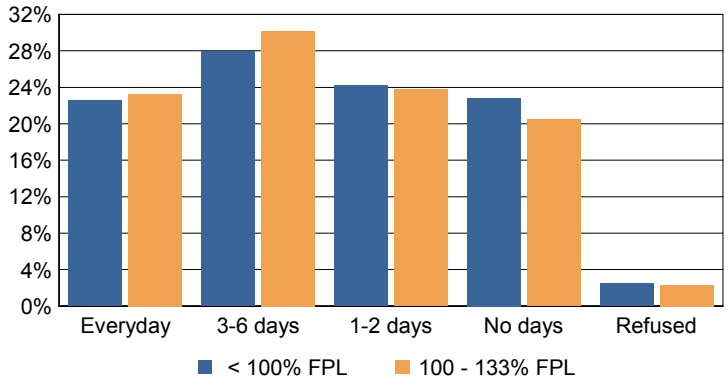


Figure 2-3. Exercise by FPL
October - December 2018



Question 3. Nutrition (Fruits and Vegetables)

Question 3. In the last 7 days, how often did you eat 3 or more servings of fruits or vegetables in a day? This question is used to assess self-reported nutrition as an important component of maintaining a healthy weight. Healthy Michigan Plan enrollees were given the answer options of every day, 3-6 days, 1-2 days or 0 days. Table 3 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 2.41% refusal rate for this question. Figures 3-1 through 3-3 show the nutrition reported for the total population, and by age and gender.

Table 3. Nutrition Reported for Total Population
October - December 2018

NUTRITION	TOTAL	PERCENT
Every Day	2,807	34.73%
3-6 Days	2,792	34.55%
1-2 Days	1,827	22.61%
No Days	461	5.70%
Refused	195	2.41%
TOTAL	**8,082**	**100.00%**

Figure 3-1. Nutrition Reported for Total Population
October - December 2018

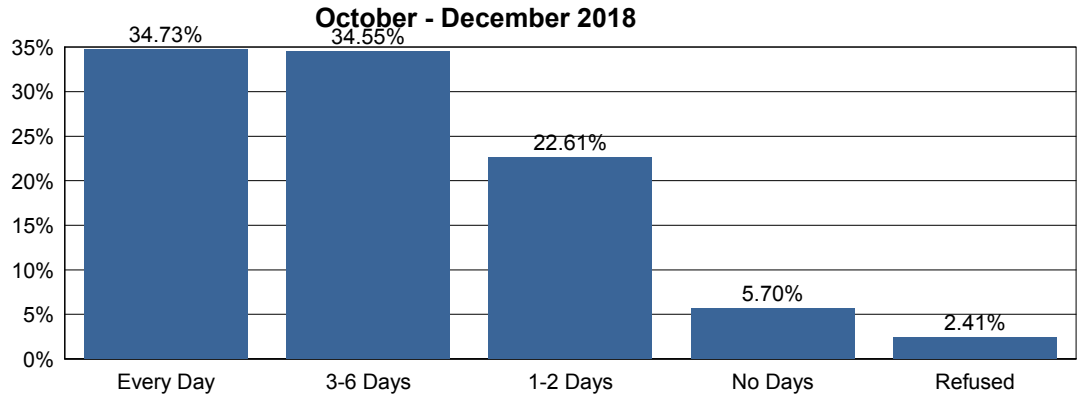


Figure 3-2. Nutrition by Age
October - December 2018

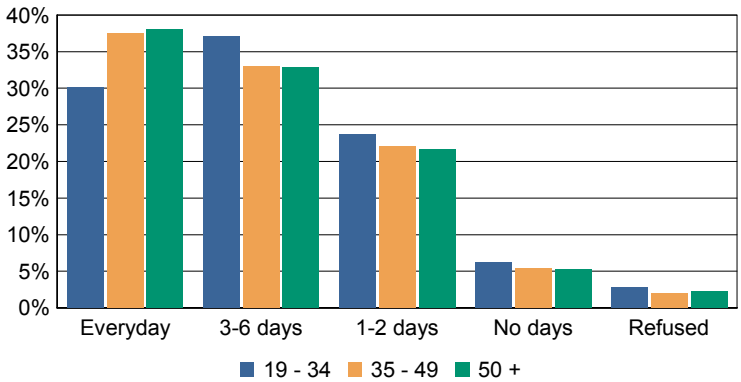
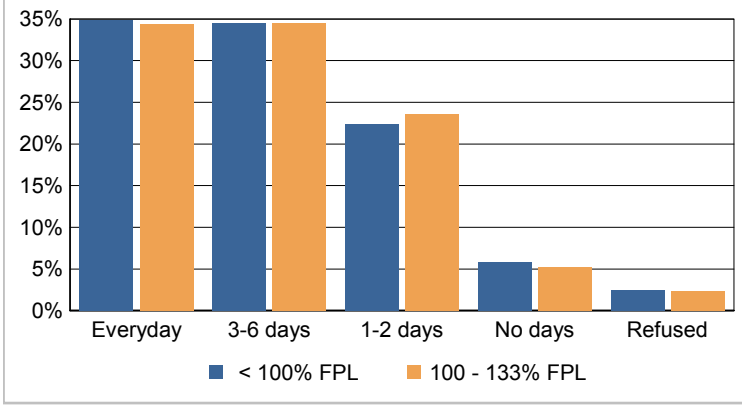


Figure 3-3. Nutrition by FPL
October - December 2018



Question 4. Binge Alcohol Use

Question 4. In the last 7 days, how often did you have (5 or more for men, 4 or more for women) alcoholic drinks at one time?
This question is used to assess self-reported binge alcohol use. Healthy Michigan Plan enrollees were given the answer options of never, once a week, 2-3 a week and more than 3 times during the week. Table 4 shows the combined overall answers to these questions for October-December 2018. Among enrollees who participated in the survey, there was a 0.80% refusal rate for this question. Figures 4-1 through 4-3 show binge alcohol use status reported for the total population, and by age and gender.

Table 4. Binge Alcohol Use Reported for Total Population
October - December 2018

ALCOHOL	TOTAL	PERCENT
Never	6,285	77.77%
Once a Week	1,160	14.35%
2-3 times a Week	451	5.58%
More than 3	121	1.50%
Refused	65	0.80%
TOTAL	**8,082**	**100.00%**

Figure 4-1. Binge Alcohol Use Reported for Total Population
October - December 2018

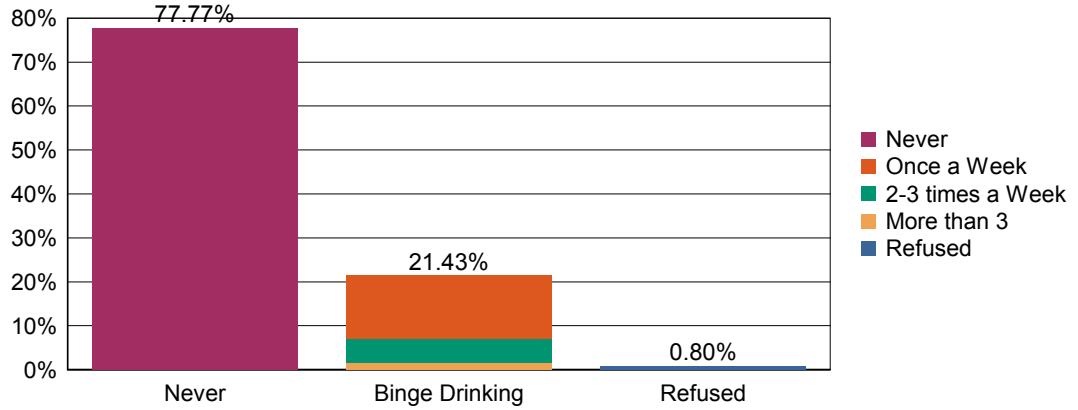


Figure 4-2. Binge Alcohol Use by Age
October - December 2018

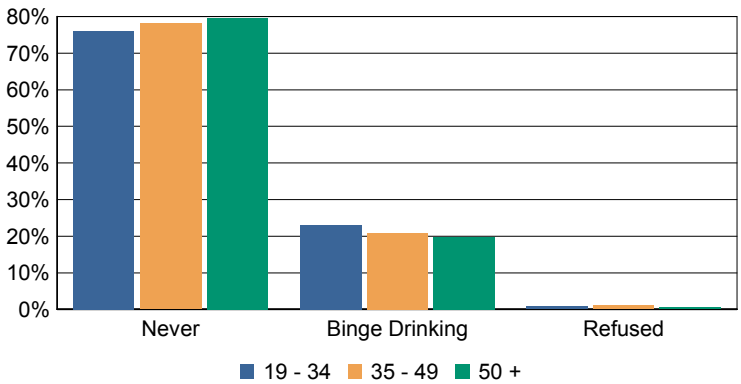
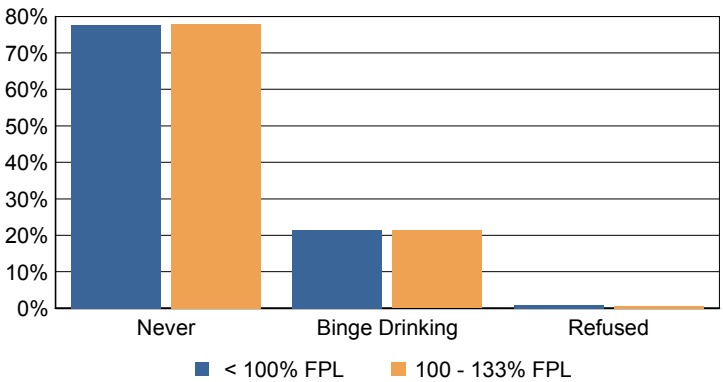


Figure 4-3. Binge Alcohol Use by FPL
October - December 2018



Question 5. Smoking/Tobacco Use

Question 5. In the last 30 days, have you smoked or used tobacco? This question is used to assess self-reported smoking/tobacco use. Healthy Michigan Plan enrollees were given the answer options of yes or no. Enrollees who answered yes, were asked a follow-up question: If YES, do you want to quit smoking or using tobacco? For this follow-up question, enrollees were given the answer options of yes, I am working on quitting or cutting back right now and no. Table 5 shows the combined overall answers to these questions for October-December 2018. Question 5 had a 0.57% refusal rate. Figures 5-1 through 5-3 show smoking/tobacco use reported for the total population, and by age and gender.

Table 5. Smoking/Tobacco Use Reported for Total Population
October - December 2018

TOBACCO USE	TOTAL	PERCENT
No Tobacco Use	5,044	62.41%
Quitting Now	1,174	14.53%
Wants to Quit	1,118	13.83%
Current User	700	8.66%
Refused	46	0.57%
TOTAL	**8,082**	**100.00%**

Figure 5-1. Smoking/Tobacco Use for Total Population
October - December 2018

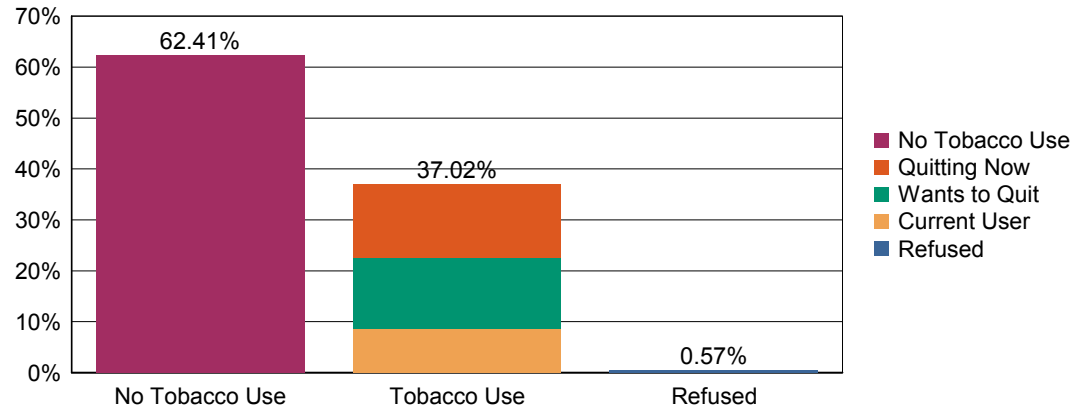


Figure 5-2. Smoking/Tobacco Use by Age
October - December 2018

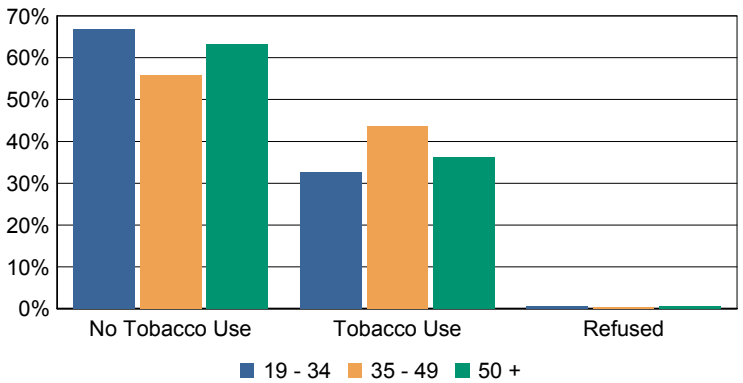
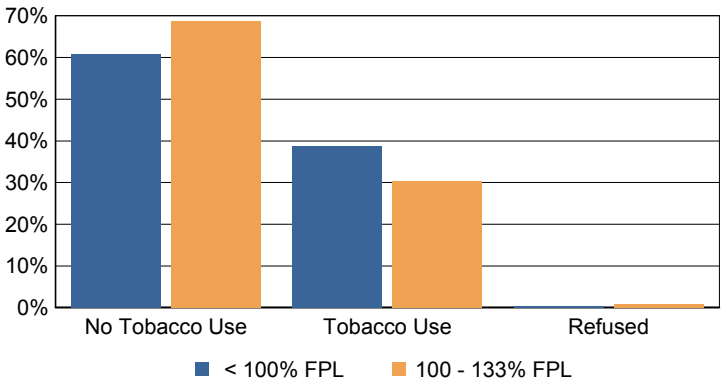


Figure 5-3. Smoking by FPL
October - December 2018



Question 6. Chronic Stress

Question 6. How often is stress a problem for you in handling everyday things such as your health, money, work, or relationships with family and friends? This question is used to assess selfreported mental health status. Healthy Michigan Plan enrollees were given the answer options of almost every day, sometimes, rarely and never. Table 6 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 2.60% refusal rate for this question. Figures 6-1 through 6-3 show anxiety and depression reported for the total population, and by age and FPL.

Table 6. Chronic Stress Reported for Total Population
October - December 2018

STRESS	TOTAL	PERCENT
Almost Every day	2,189	27.09%
Sometimes	2,799	34.63%
Rarely	1,719	21.27%
Never	1,165	14.42%
Refused	210	2.60%
TOTAL	**8,082**	**100.00%**

Figure 6-1. Chronic Stress Reported for Total Population
October - December 2018

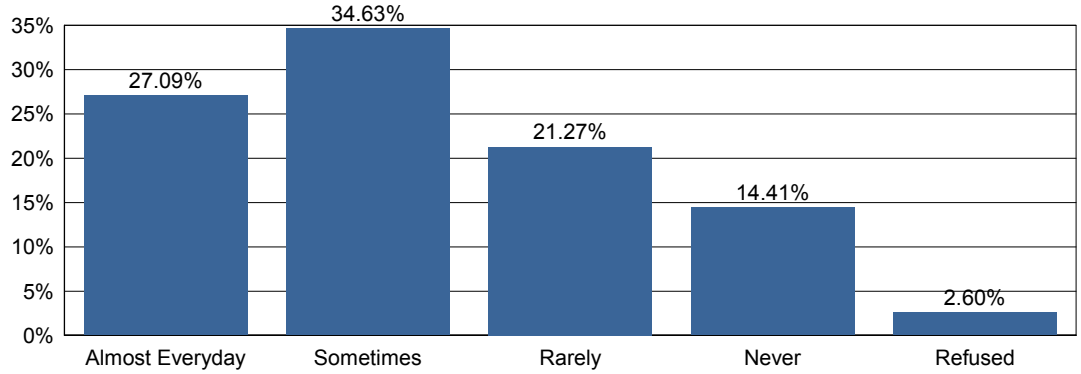


Figure 6-2. Chronic Stress by Age
October - December 2018

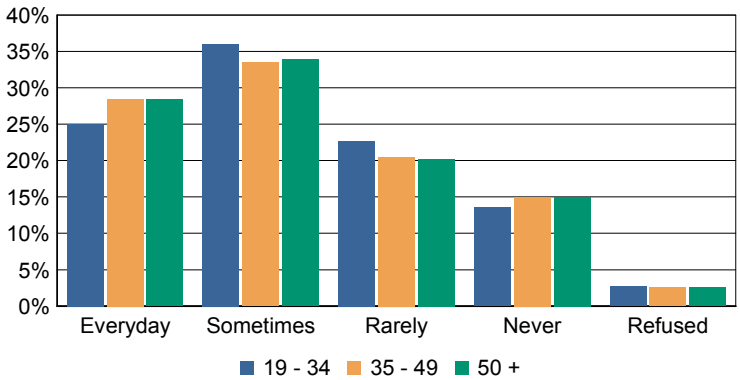
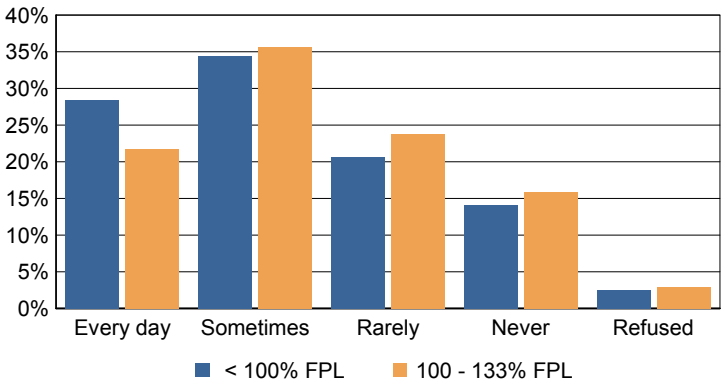


Figure 6-3. Chronic Stress by FPL
October - December 2018

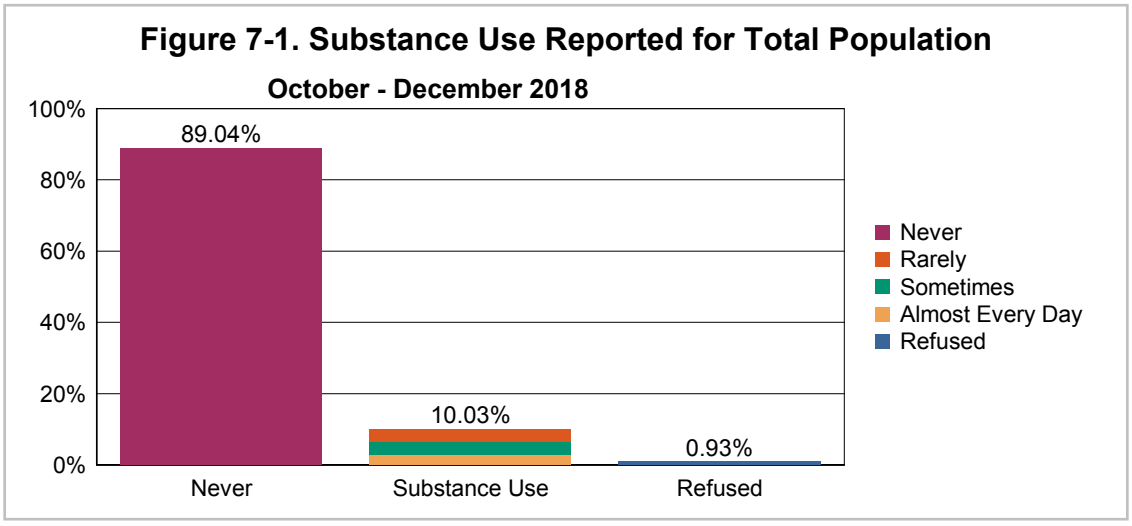


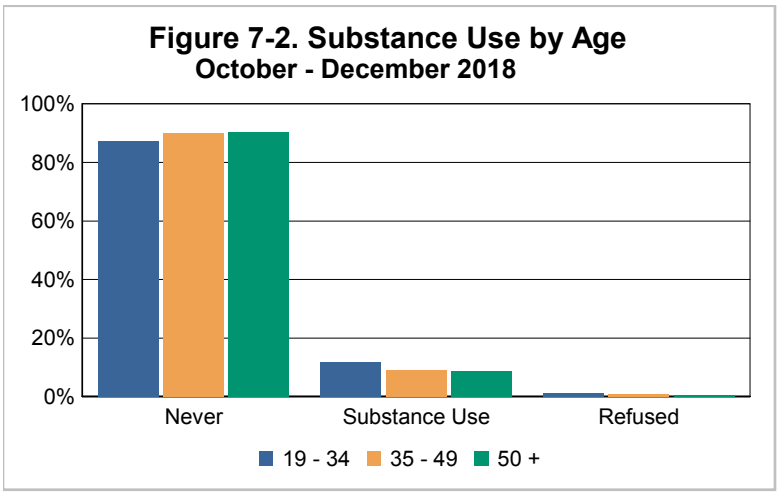
Question 7. Drugs and Substance Use

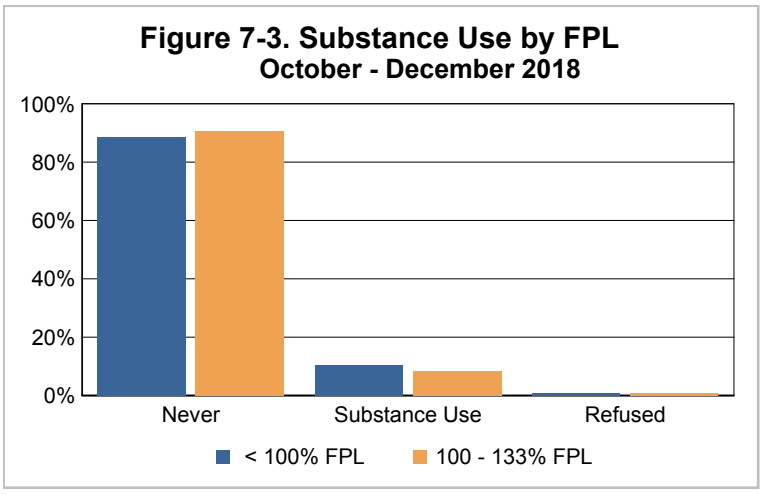
Question 7. Do you use drugs or medications (other than exactly as prescribed for you) which affect your mood or help you to relax? This question is used to assess self-reported substance use. Healthy Michigan Plan enrollees were given the answer options of almost every day, sometimes, rarely and never. Table 7 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 0.93% refusal rate for this question. Figures 7-1 through 7-3 show substance use reported for the total population, and by age and gender.

Table 7. Substance Use Reported for Total Population
October - December 2018

SUBSTANCE USE	TOTAL	PERCENT
Almost Every Day	241	2.98%
Sometimes	299	3.70%
Rarely	271	3.35%
Never	7,196	89.04%
Refused	75	0.93%
TOTAL	**8,082**	**100.00%**







Question 8. Immunization Status (Annual Flu Vaccine)

Question 8. The flu vaccine can be a shot in the arm or a spray in the nose. Have you had a flu shot or flu spray in the last year? This question is used to assess self-reported annual flu vaccine as an indicator of immunization status. Healthy Michigan Plan enrollees were given the answer options of yes or no. Table 8 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 2.39% refusal rate for this question. Figures 8-1 through 8-3 show immunization status reported for the total population, and by age and gender.

Table 8. Immunization Status Reported for Total Population
October - December 2018

IMMUNIZATION	TOTAL	PERCENT
Yes	2,180	26.97%
No	5,709	70.64%
Refused	193	2.39%
TOTAL	**8,082**	**100.00%**

Figure 8-1. Immunization Status Reported for Total Population
October - December 2018

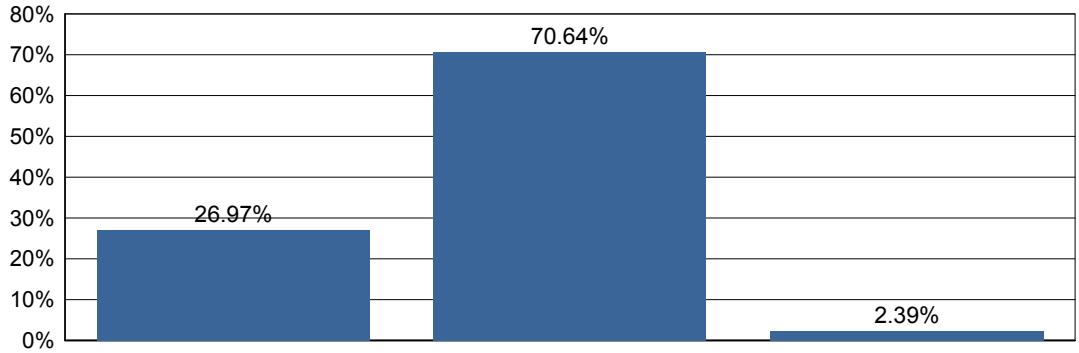


Figure 8-2. Immunization Status by Age
October - December 2018

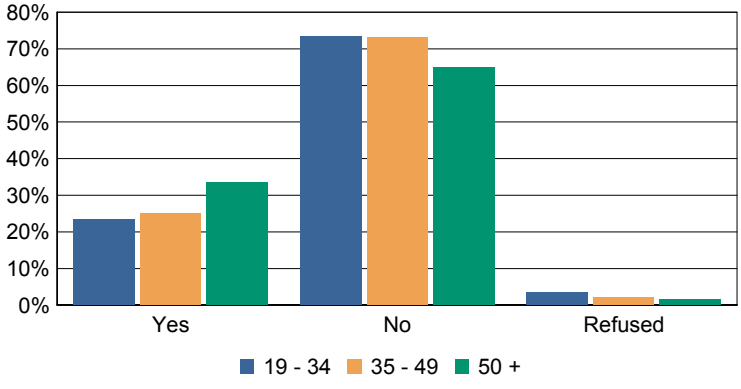
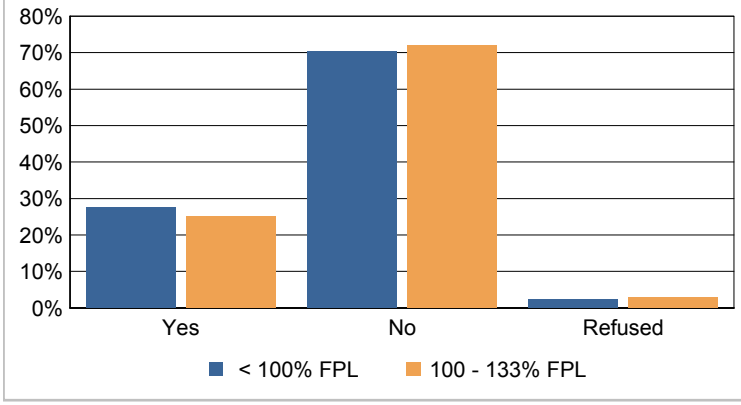


Figure 8-3. Immunization Status by FPL
October - December 2018



Question 9. Well Check Visit

Question 9. A checkup is a visit to a doctor's office that is NOT for a specific problem. How long has it been since your last check-up? This question is used to assess self-reported well check visit. Healthy Michigan Plan enrollees were given the answer options of within the last year, between 1-3 years and more than 3 years. Table 9 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 3.92% refusal rate for this question. Figures 9-1 through 9-3 show well check visit reported for the total population, and by age and gender.

Table 9. Well Check Visit Reported for Total Population
October - December 2018

CHECK-UP	TOTAL	PERCENT
Within the last year	4,691	58.04%
Between 1 & 3 years	1,902	23.53%
More than 3 years	1,172	14.50%
Refused	317	3.92%
TOTAL	**8,082**	**100.00%**

Figure 9-1. Well Check Visit Reported for Total Population
October - December 2018

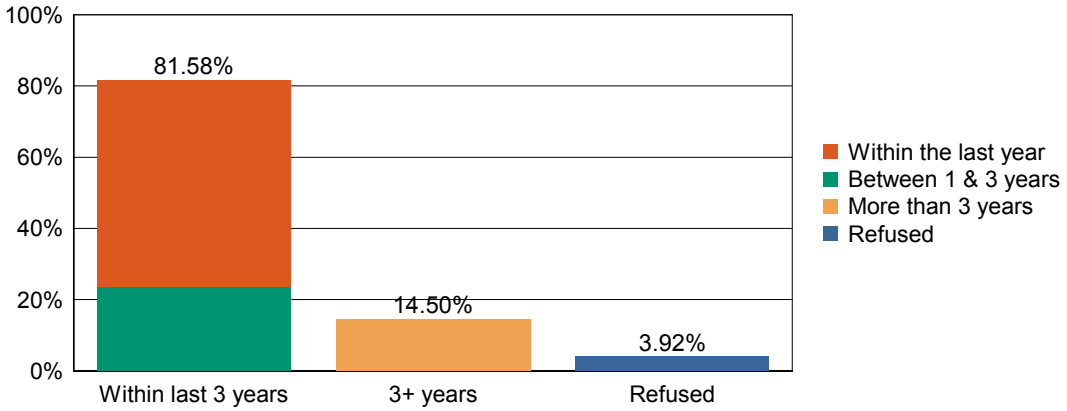


Figure 9-2. Well Check Visit by Age
October - December 2018

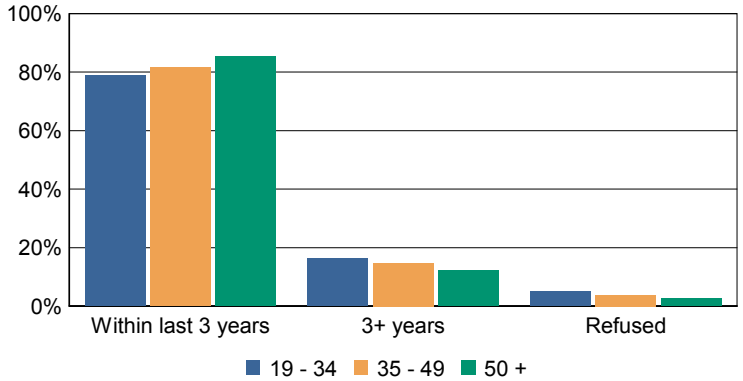
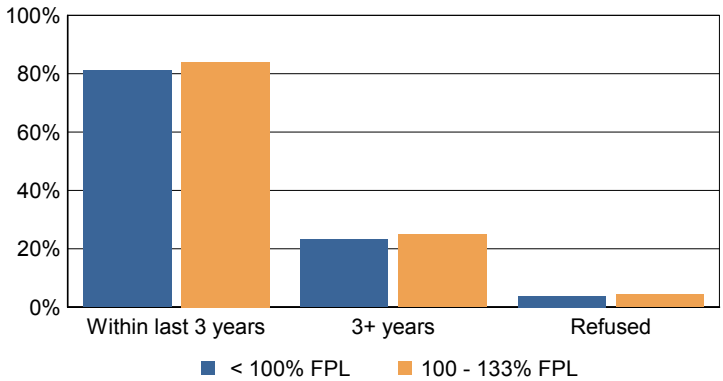


Figure 9-3. Well Check Visit by FPL
October - December 2018



Question 10. Annual Dental Visit

Question 10. How long it has been since you last visited dentist or dental clinic for any reason? This question is used to assess self-reported annual dental visit. Healthy Michigan Plan enrollees were given the answer options of within the last year, between 1-2 years, between 3-5 years, more than 5 years and never. Table 10 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 0.99% refusal rate for this question. Figures 3-1 through 3-3 show well check visit reported for the total population, and by age and gender.

Table 10. Annual Dental Visit Reported for Total Population
October - December 2018

DENTAL VISIT	TOTAL	PERCENT
Within the last year	3,507	43.39%
1-2 years	2,046	25.32%
3-5 years	1,238	15.32%
More than 5 years	1,111	13.75%
Never	100	1.24%
Refused	80	0.99%
TOTAL	**8,082**	**100.00%**

Figure 10-1. Annual Dental Visit Reported for Total Population
October - December 2018

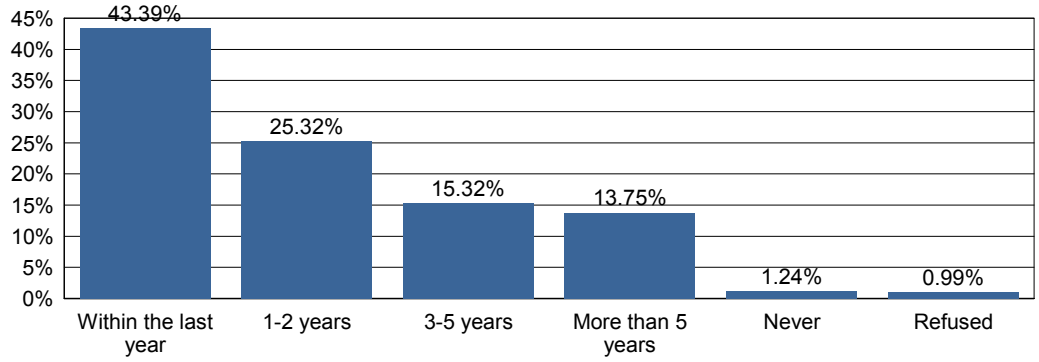


Figure 10-2. Nutrition by Age
October - December 2018

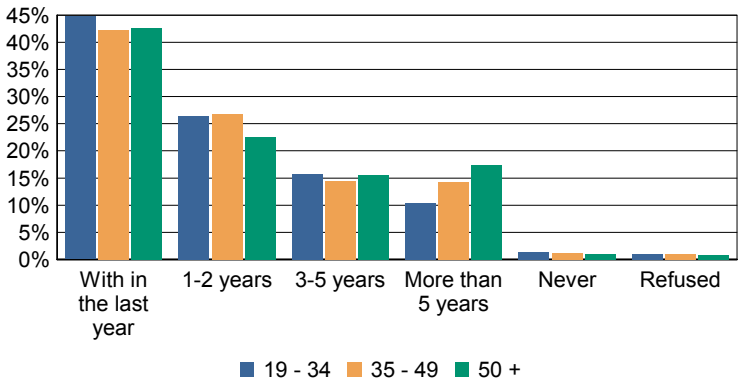
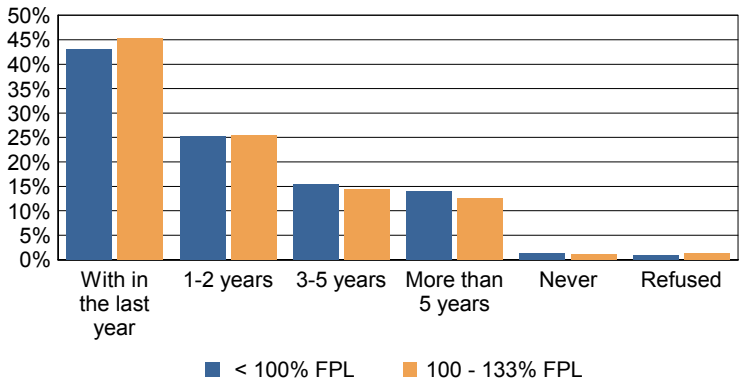


Figure 10-3. Nutrition by FPL
October - December 2018



Question 11. Unmet Basic Needs

Question 11. Do you need help with food, clothing, or housing? This question is used to assess self-reported access to basic needs and services for health. Healthy Michigan Plan enrollees were given the answer options of yes or no. Table 11 shows the overall answers to this question for October-December 2018.Among enrollees who participated in the survey, there was a 1.06% refusal rate for this question. Figures 11-1 through 11-3 show unmet basic needs reported for the total population, and by age and FPL.

Table 11.Unmet Basic Needs Reported for Total Population
October - December 2018

BASIC NEEDS	TOTAL	PERCENT
Yes	2,574	31.85%
No	5,422	67.09%
Refused	86	1.06%
TOTAL	**8,082**	**100.00%**

Figure 11-1. Unmet Basic Needs Reported for Total Population
October - December 2018

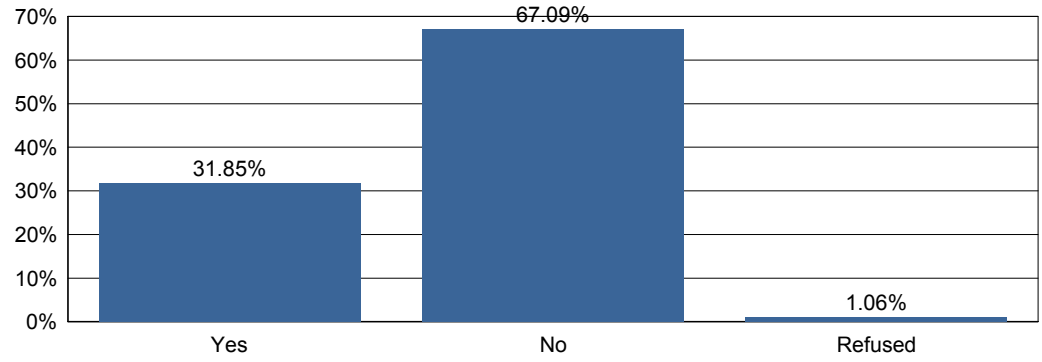


Figure 11-2. Unmet Basic needs by Age
October - December 2018

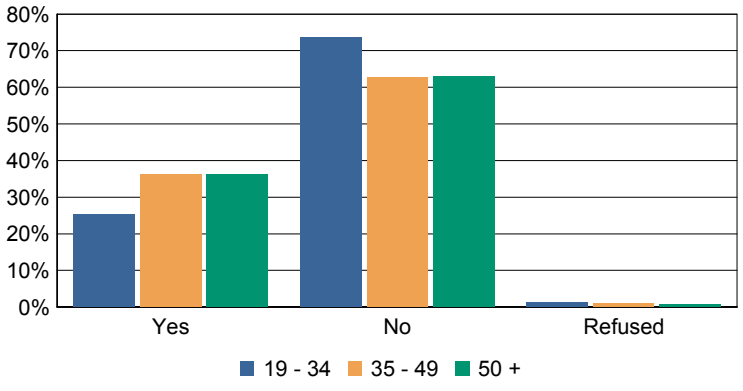
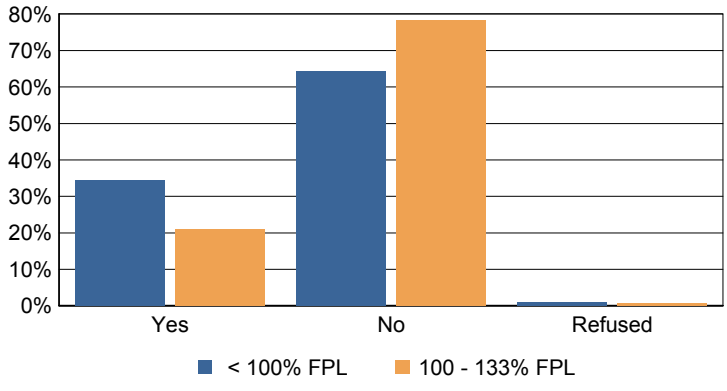


Figure 11-3. Unmet Basic needs by FPL
October - December 2018



Question 12. Access to Transportation

Question 12. Do you have access to transportation for medical appointments? This question is used to assess self-reported access to non-emergent medical transportation(NEMT). NEMT is a Healthy Michigan Plan benefit for Enrollees who need assistance with transportation to medical appointments. Healthy Michigan Plan enrollees were given the answer options of yes, Sometimes or no. Table 12 shows the overall answers to this question for October-December 2018. Among enrollees who participated in the survey, there was a 0.87% refusal rate for this question. Figures 12-1 through 12-3 access to transportation reported for the total population, and by age and FPL.

Table 12. Access to Transportation Reported for Total Population
October - December 2018

TRANSPORTATION	TOTAL	PERCENT
Yes	6,707	82.99%
No	761	9.42%
Sometimes	544	6.73%
Refused	70	0.87%
TOTAL	**8,082**	**100.00%**

Figure 12-1. Access to Transportation Reported for Total Population
October - December 2018

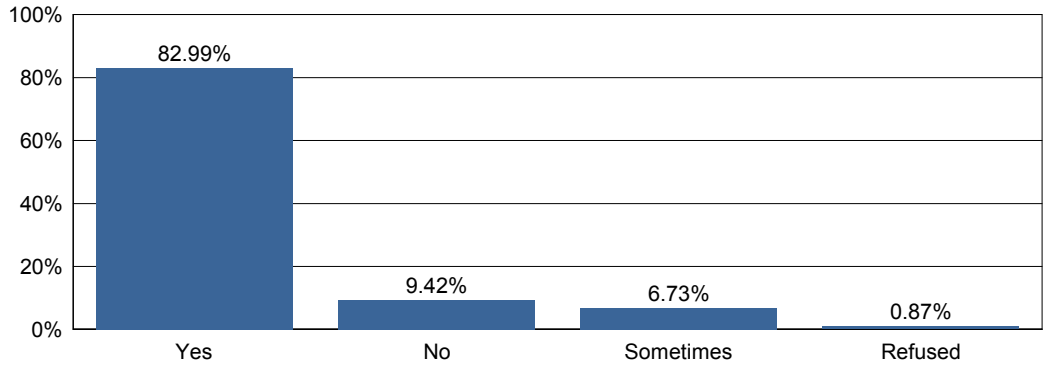


Figure 12-2. Access to Transportation by Age
October - December 2018

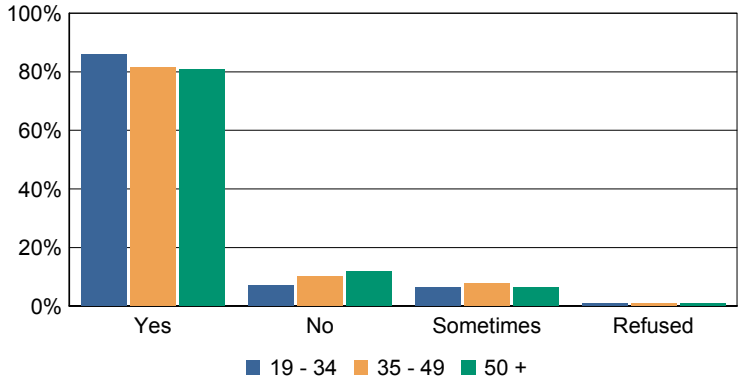
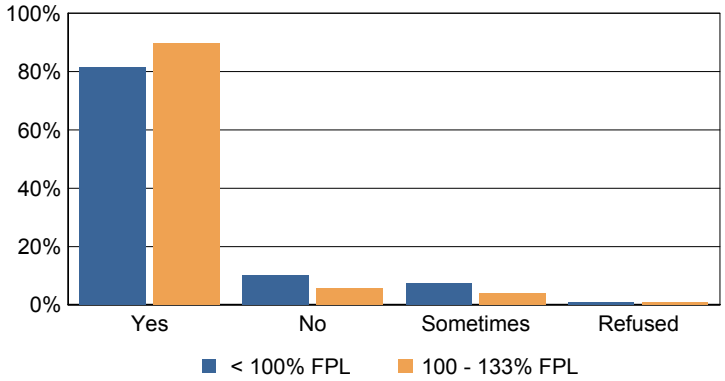


Figure 12-3. Access to Transportation by FPL
October - December 2018



Health Risk Assessment Part 2

Health Risk Assessments completion with Provider Attestation

In April 2014, the Healthy Michigan Plan was launched, and an initial preventive health visit to a primary care provider was promoted for all new beneficiaries. Beneficiaries were also encouraged to complete the last section of the Health Risk Assessment at this initial appointment. This final section of the Health Risk Assessment is designed as a tool for identifying annual healthy behavior goals.

Completion of this section of the Health Risk Assessment is also voluntary. Healthy Michigan Plan Beneficiaries who complete a Health Risk Assessment with a health care provider attestation and agree to maintain or address healthy behaviors are eligible for an incentive. Beginning in April 2018, in discussion with the beneficiary, health care providers also choose between 4 statements to attest to whether the beneficiary achieved or made significant progress towards the healthy behavior goal(s) he or she had previously selected to work on the year before. Only beneficiaries who both made significant progress towards the previous year goal AND select one or more goals for the upcoming year are eligible for an incentive.

The data displayed in Part 2 of this report reflect the healthy behavior goals selected in the final section of the Health Risk Assessment. As shown in Table 13, a total of 13,501 Health Risk Assessments were completed in the October-December 2018 quarter. Health Risk Assessment completion is reported by age, gender and Federal Poverty Level in Table 14.

Among beneficiaries who completed the Health Risk Assessment, 11,633 or 86.2% of beneficiaries agreed to address health risk behaviors. In addition, 1,588 or 11.8% of beneficiaries who completed the Health Risk Assessment chose to maintain current healthy behaviors, meaning that 97.9% of beneficiaries are choosing to address or maintain healthy behaviors. The healthy behaviors goal statements selected are reported in Table 15. Healthy behavior goal statements are also reported by age and FPL in Figures 15-2 and 15-3.

Of the 11,633 beneficiaries who agreed to address health risk behaviors, 57.3% chose to address more than one healthy behavior. Tables 13 and 14 report the most frequently selected health risk behaviors to address, alone and in combination. Figure 18 is a Venn diagram representing the overlapping nature of the multiple healthy behaviors selected.

Health Risk Assessment Completion with Health Care Provider

Table 13. Count of Health Risk Assessments (HRA) Completed with Attestation by Month submitted

MONTH	COMPLETE	TOTAL
January 2018	5,070	246,486
February 2018	6,793	253,279
March 2018	8,732	262,011
April 2018	12,715	274,726
May 2018	5,623	280,349
June 2018	4,533	284,882
July 2018	5,773	290,655
August 2018	3,878	294,533
September 2018	5,707	300,240
October 2018	3,743	303,983
November 2018	4,841	308,824
December 2018	4,917	313,741

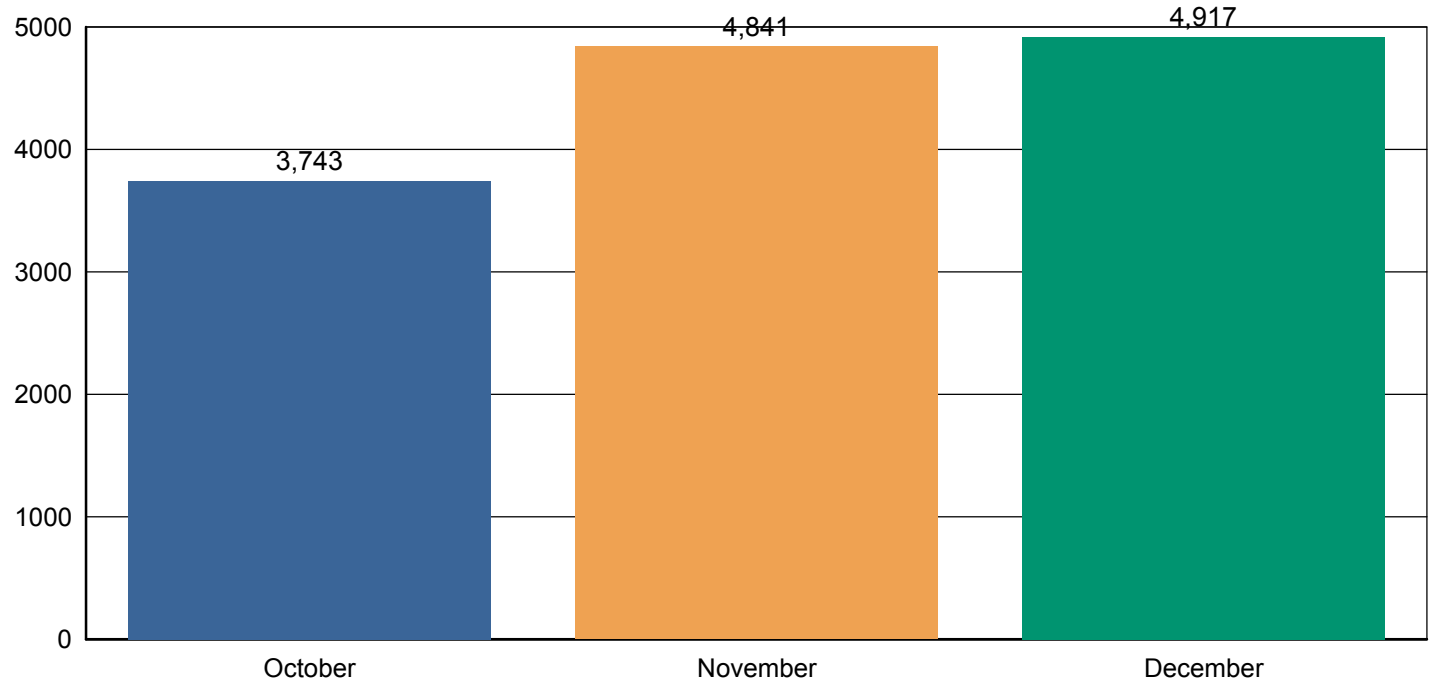
Table 14. Demographics of Population that Completed HRA with Attestation

October 2018 - December 2018

AGE GROUP	COMPLETED HRA	
19 - 34	4,466	33.08%
35 - 49	3,807	28.20%
50 +	5,228	38.72%
GENDER		
F	7,894	58.47%
M	5,607	41.53%
FPL		
< 100% FPL	10,403	77.05%
100 - 133% FPL	3,098	22.95%
TOTAL	**13,501**	**100.00%**

Figure 13-1. Health Risk Assessments Completed with Attestation

October - December 2018



Healthy Behaviors Statement Selection

Section 4. Healthy Behaviors: In discussion with the beneficiary, health care providers choose between 4 statements to attest to the healthy behaviors goals that the beneficiary will strive for this year. The 4 statements are:

A. Patient does not have health risk behaviors that need to be addressed at this times

B. Patient has identified at least one behavior to address over the next year to improve their health

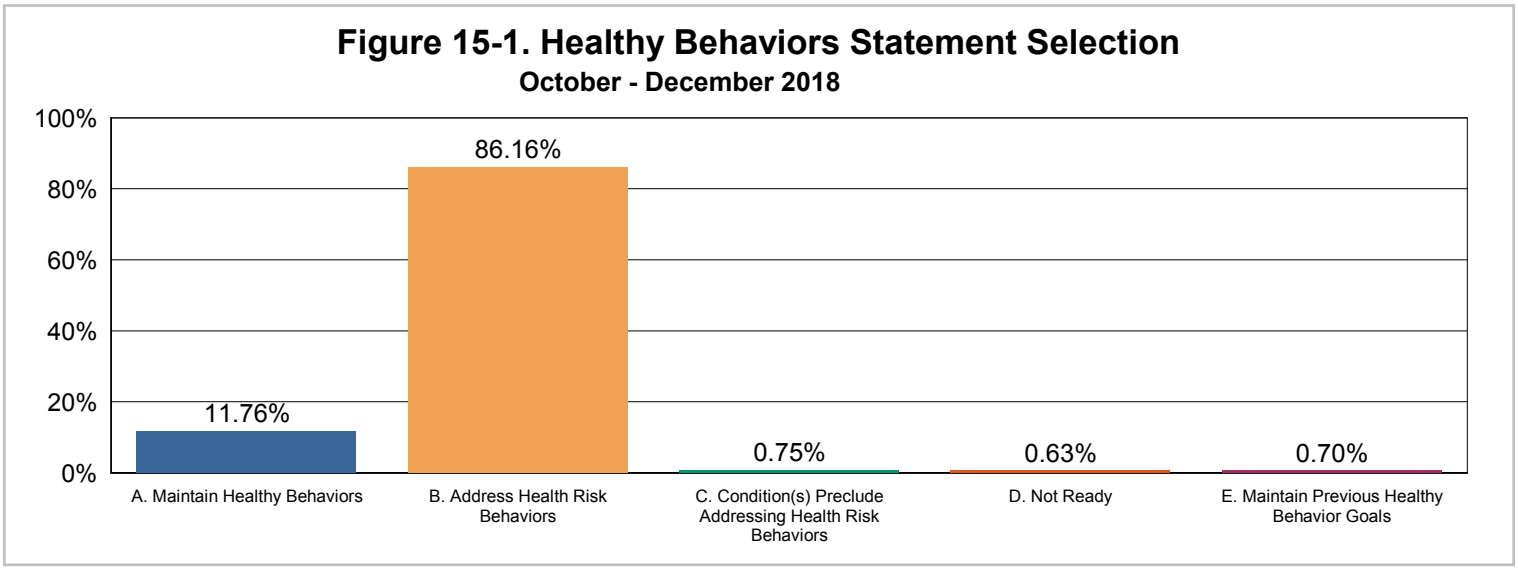
C. Patient has a serious medical, behavioral or social condition or conditions which precludes addressing unhealthy behaviors at this time.

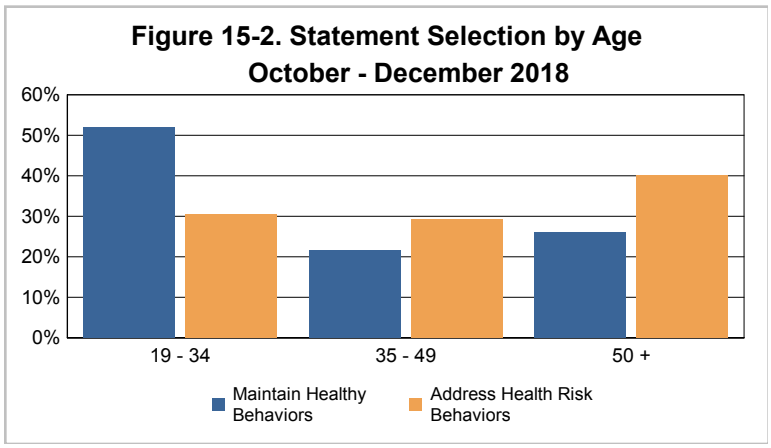
D. Unhealthy behaviors have been identified, patient's readiness to change has been assessed, and patient is not ready to make changes at this time.

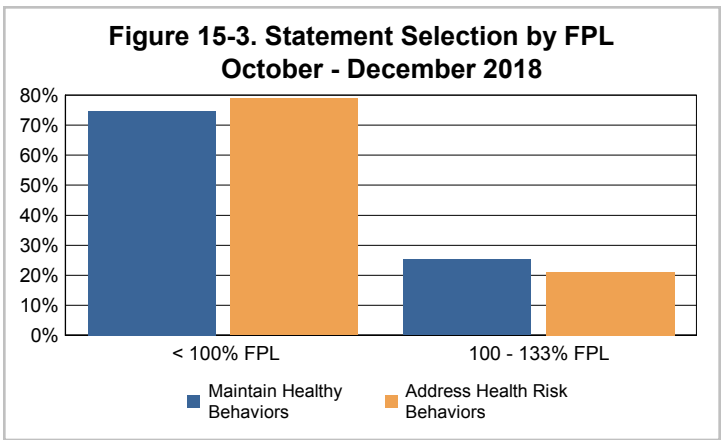
Figures 10-2 through 10-4 show Healthy Behaviors Statement Selections for the total population, and by age and gender.

Table 15. Healthy Behaviors Statement Selection
October - December 2018

CHECK-UP	TOTAL	PERCENT
A. Maintain Healthy Behaviors	1,588	11.76%
B. Address Health Risk Behaviors	11,633	86.16%
C. Condition(s) Preclude Addressing Health Risk Behaviors	101	0.75%
D. Not Ready	85	0.63%
E. Maintain Previous Healthy Behavior Goals	94	0.70%
TOTAL	**13,501**	**100.00%**







Selection of Health Risk Behaviors to Address

Section 4. Healthy Behaviors: In discussion with the beneficiary, when Statement B, "Patient has identified at least one behavior they intend to address over the next year to improve their health" is selected, providers choose one or more of the following 11 statements to identify the healthy behaviors the beneficiary has chosen to address for the year:

1. Increase physical activity, Learn more about nutrition and improve diet, and/or weight loss
2. Reduce/quit tobacco use
3. Annual Influenza vaccine
4. Agrees to follow-up appointment for screening or management (if necessary) of hypertension, cholesterol and/or diabetes
5. Reduce/quit alcohol consumption
6. Treatment for Substance Use Disorder
7. Dental Visit
8. Follow-up appointment for maternity care/reproductive health
9. Follow-up appointment for recommended cancer or other preventative screening(s)
10. Follow-up appointment for mental health/behavioral health
11. Other: explain _____

Of the 11,633 HRAs submitted through October-December 2018 where the beneficiary chose to address health risk behaviors, 57.28% of beneficiaries chose more than one healthy behavior to address. The top 10 most selected behavior combinations and the rate that each behavior was selected in combination and alone are presented in the tables below:

Table 16. Health Risk Behaviors Selected in Combination and Alone

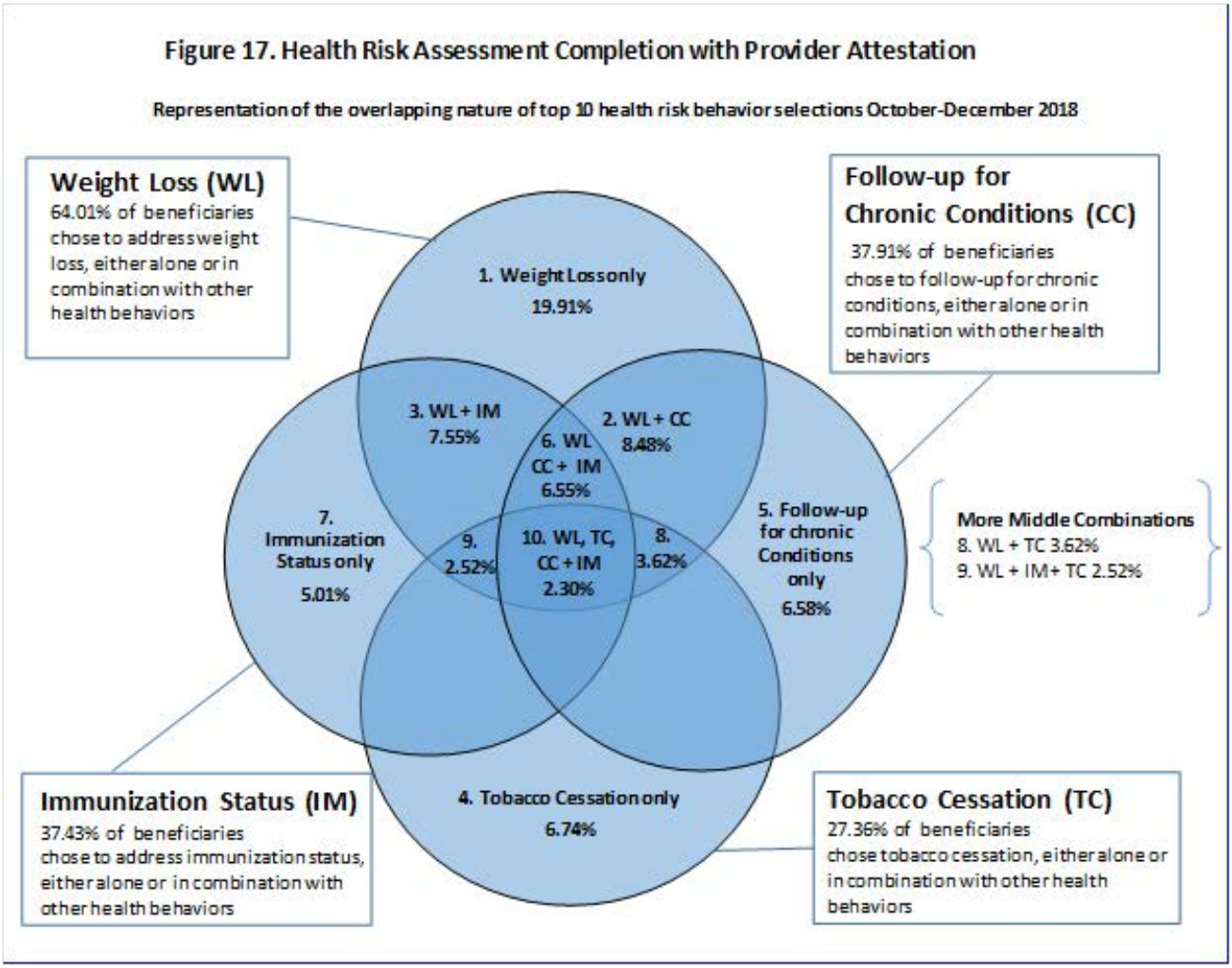
Health Risk Behavior	Chose this behavior and at least one more	Chose ONLY this behavior
Weight Loss	64.01%	19.91%
Tobacco Cessation	27.36%	6.74%
Immunization Status (Annual Flu Vaccine)	37.43%	5.01%
Follow-up for Chronic Conditions	37.91%	6.58%
Addressing Alcohol Abuse	3.75%	0.55%
Addressing Substance Abuse	1.09%	0.12%
Dental visit	6.38%	0.39%
Follow-up appointment for maternity care/reproductive health	1.27%	0.39%
Follow-up appointment for recommended cancer or other preventative screening(s)	9.00%	1.08%
Other	4.33%	1.96%

Table 17. Top 10 Most Selected Health Risk Behavior Combinations

Health Risk Behavior Combination	Count	Percent
1. Weight Loss ONLY	2,316	19.91%
2. Weight Loss, Follow-up for Chronic Conditions	987	8.48%
3. Weight Loss, Immunization Status	878	7.55%
4. Tobacco Cessation ONLY	784	6.74%
5. Follow-up for Chronic Conditions	765	6.58%
6. Weight Loss, Immunization Status, Follow-up for Chronic Conditions	762	6.55%
7. Immunization Status (Annual Flu Vaccine)	583	5.01%
8. Weight Loss, Tobacco Cessation	421	3.62%
9. Weight Loss, Tobacco Cessation, Immunization Status	293	2.52%
10. Weight Loss, Tobacco Cessation, Immunization Status, Follow-up for Chronic Conditions	267	2.30%
Total for Top 10	8,056	69.25%
Total for All Other Combinations	3,577	30.75%
Total	**11,633**	**100.00%**

Figure 17. Health Risk Assessment Completion with Provider Attestation

Representation of the overlapping nature of top 10 health risk behavior selections October-December 2018



Healthy Behaviors Goals Progress

Section 4. Healthy Behaviors Goals Progress: In discussion with the patient, health care providers choose between 4 statements to attest to whether the patient achieved or made significant progress towards the health behavior goal(s) he or she had previously selected to work on the year before. The 4 statements are:

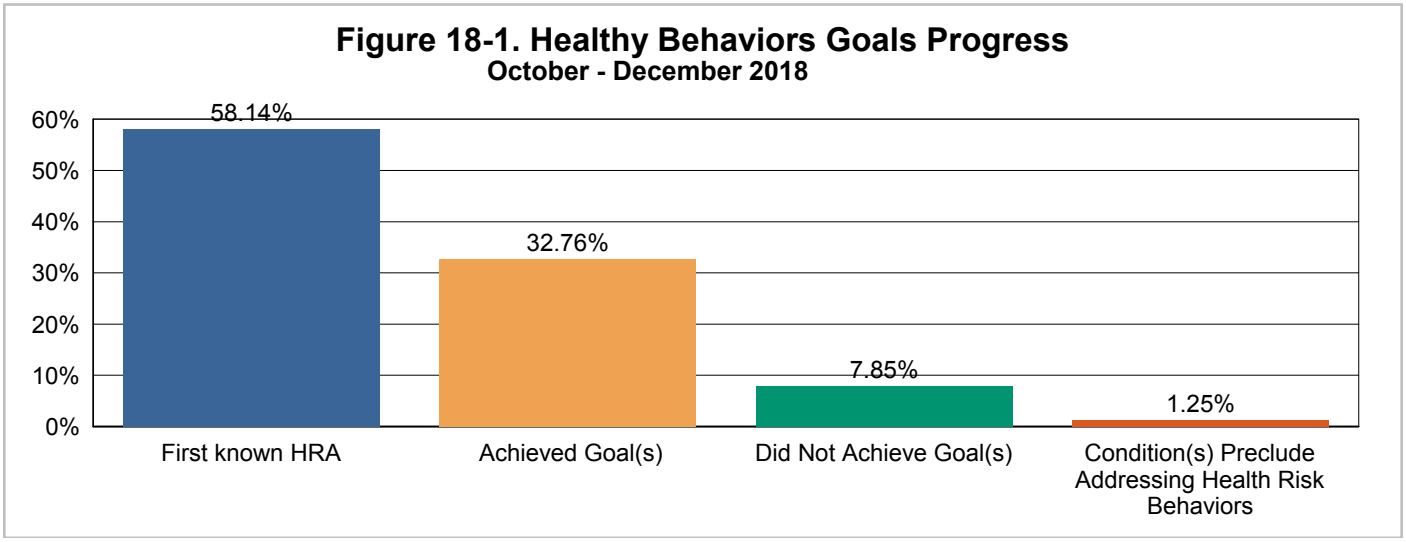
A. Not applicable - this is the first known Healthy Michigan Plan Health Risk Assessment for this patient.
B. Yes
C. No
D. Patient had a serious medical, behavioral, or social condition or conditions which precluded addressing unhealthy behaviors.

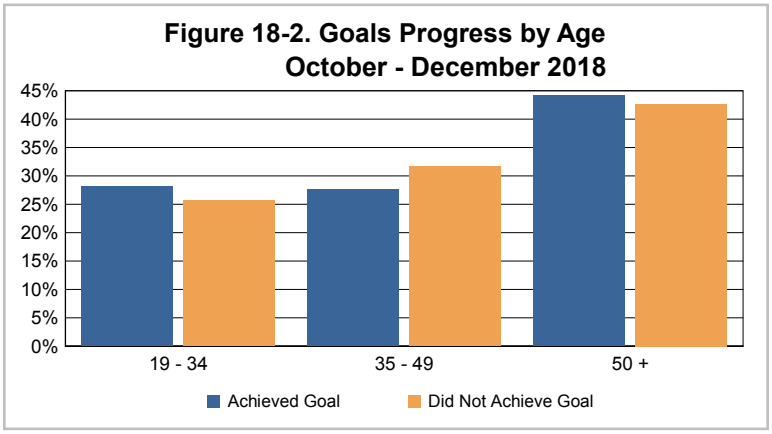
3,137 Health Risk Assessments were submitted during this quarter where this question was not available because the Healthy Behavior Goals Progress question was not available on the original form of the Health Risk Assessment.

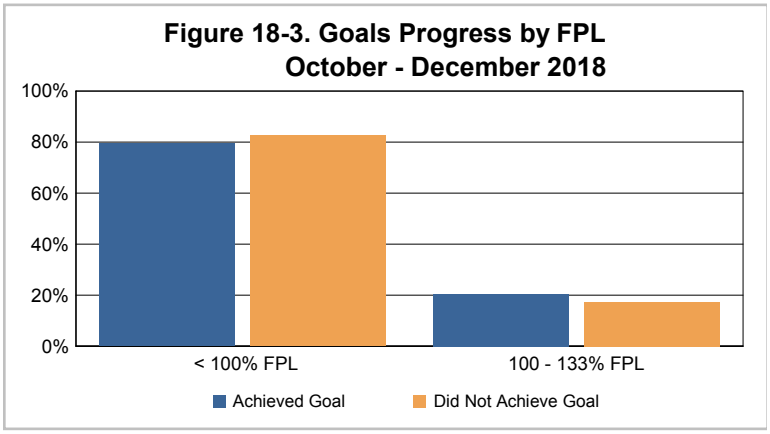
Figures 18-1 through 18-3 show Healthy Behavior Goals Progress for the total population, and by age and FPL.

Table 18. Healthy Behaviors Goals Progress
October - December 2018

GOALS PROGRESS	TOTAL	PERCENT
A. First known HRA	6,026	58.14%
B. Achieved Goal(s)	3,395	32.76%
C. Did Not Achieve Goal(s)	814	7.85%
D. Condition(s) Preclude Addressing Health Risk Behaviors	129	1.25%
TOTAL	**10,364**	**100.00%**







Additional Healthy Behaviors

To improve the ability of individuals to participate in the Healthy Behaviors Incentives Program, additional mechanisms to document healthy behaviors were added April 1, 2018 for individuals who may have completed healthy behavior activities but do not have a submitted Health Risk Assessment for documentation. The mechanisms include documented participation in approved wellness and population health management programs and claims/encounters review for beneficiaries who utilize preventive and wellness services. Completion of these additional healthy behavior options is also voluntary. The data displayed in this section of the report reflect counts of the number of wellness programs and preventive services completed by beneficiaries. Beneficiaries may choose to complete one or more of these programs in a given 12 month period and could therefore be counted more than once in this report. However, they will still only be eligible for one incentive per year.

A total of 4,648 wellness programs were completed in the October-December 2018 quarter. Wellness Program completion is reported by age, gender and Federal Poverty Level in Table 20. Wellness Programs are reported by health domain in Table 21.

A total of 452,989 Preventive Services were completed in the October-December 2018 quarter. Preventive Services completion is reported by age, gender and Federal Poverty Level in Table 23. Preventive Services are reported by health domain in Table 24.

Wellness Programs

Table 19. Count of Wellness Programs Reported for Total population by Months submitted

MONTH	COMPLETE	TOTAL
April 2018	8,982	8,982
May 2018	330	9,312
June 2018	108	9,420
July 2018	3,181	12,601
August 2018	3,902	16,503
September 2018	1,041	17,544
October 2018	2,110	19,654
November 2018	1,304	20,958
December 2018	1,234	22,192

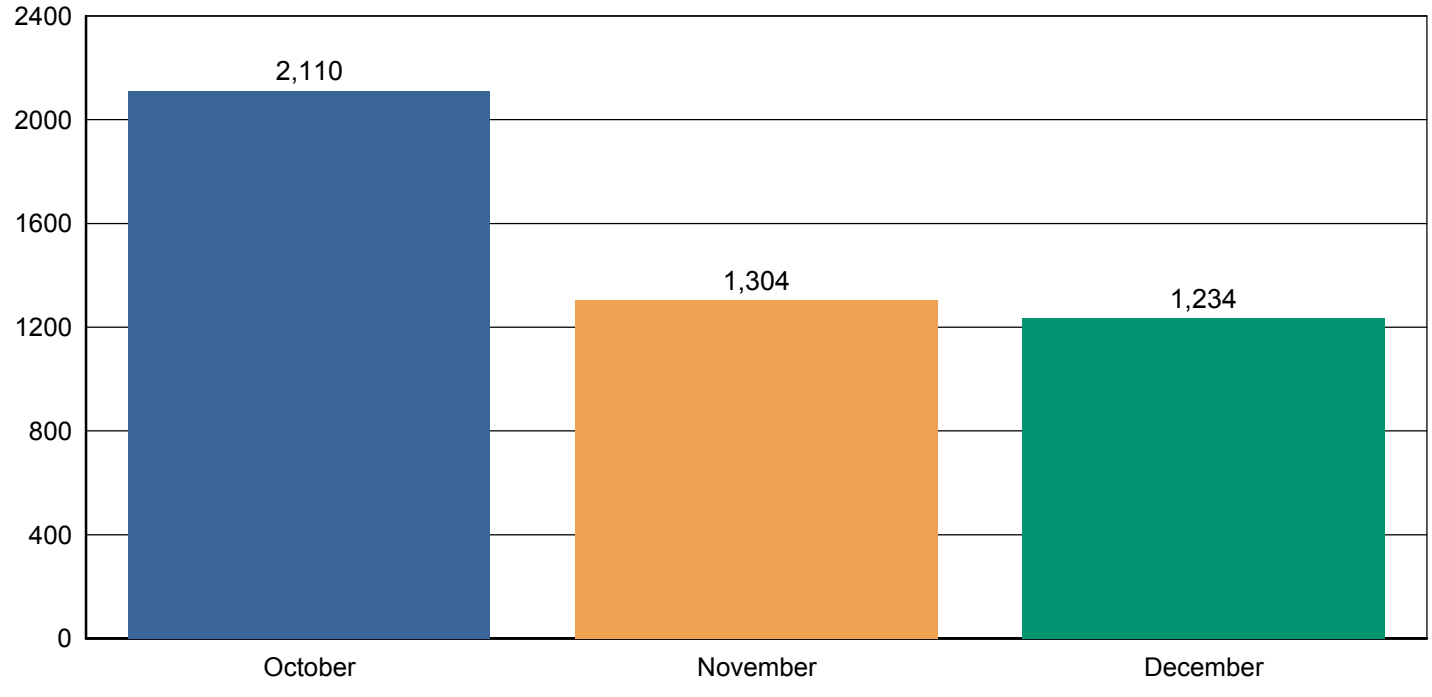
Table 20. Wellness Programs Reported for Age Group, Gender and FPL

October 2018 - December 2018

AGE GROUP	COMPLETED	
19 - 34	1,448	31.15%
35 - 49	1,551	33.37%
50 +	1,649	35.48%
GENDER		
F	2,609	56.13%
M	2,039	43.87%
FPL		
< 100% FPL	3,975	85.52%
100 - 133% FPL	673	14.48%
TOTAL	**4,648**	**100.00%**

Figure 19-1. Wellness Program Reported for Total Population

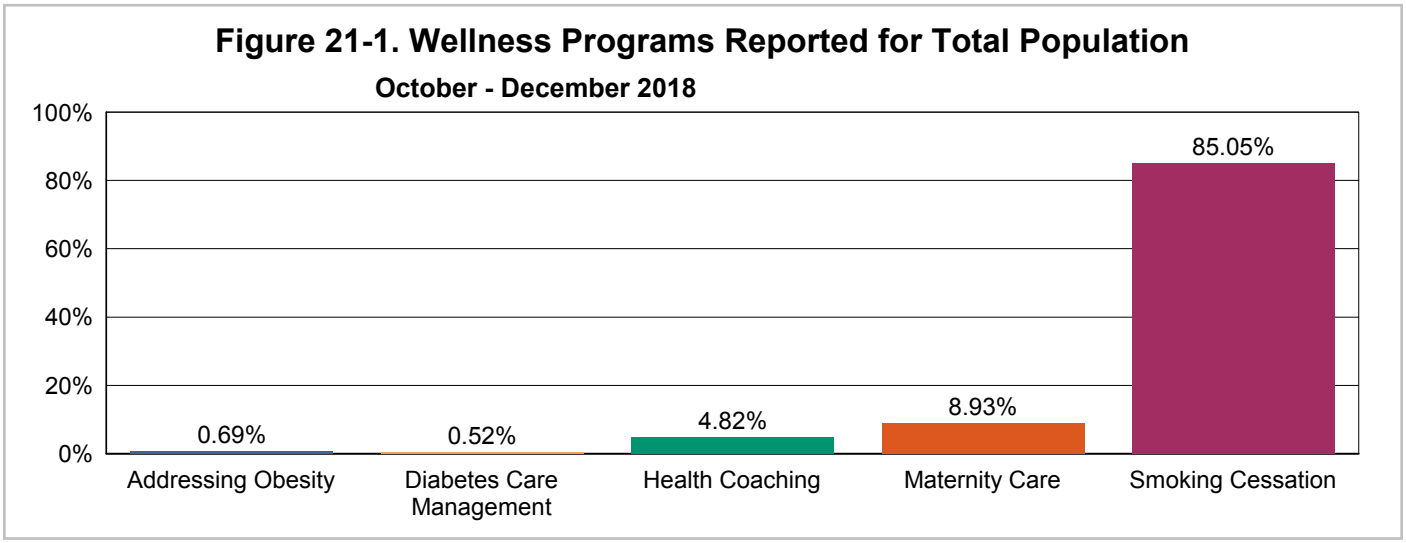
October - December 2018



Wellness Programs: The Managed Care Plans offer a range of wellness and population health management programs to their members as part of the Healthy Behaviors Incentives Program. Ten of the eleven Managed Care Plans offer a tobacco cessation program which follows standardized criteria. For this reason, 85.05% of wellness programs reported are tobacco cessation programs. Completed wellness programs are displayed in Table 21 for the quarter October-December 2018.

Table 21. Particiation in Wellness Programs for Total Population
October - December 2018

Wellness Programs	TOTAL	PERCENT
Addressing Obesity	32	0.69%
Diabetes Care Management	24	0.52%
Health Coaching	224	4.82%
Maternity Care	415	8.93%
Smoking Cessation	3,953	85.05%
TOTAL	**4,648**	**100.00%**



Preventive Sevices

Table 22. Count of Preventive Services Reported for Total population by Months submitted

MONTH	COMPLETE	TOTAL
April 2018	928,165	928,165
May 2018	136,602	1,064,767
June 2018	107,283	1,172,050
July 2018	117,357	1,289,407
August 2018	125,568	1,414,975
September 2018	104,945	1,519,920
October 2018	127,191	1,647,111
November 2018	224,064	1,871,175
December 2018	101,734	1,972,909

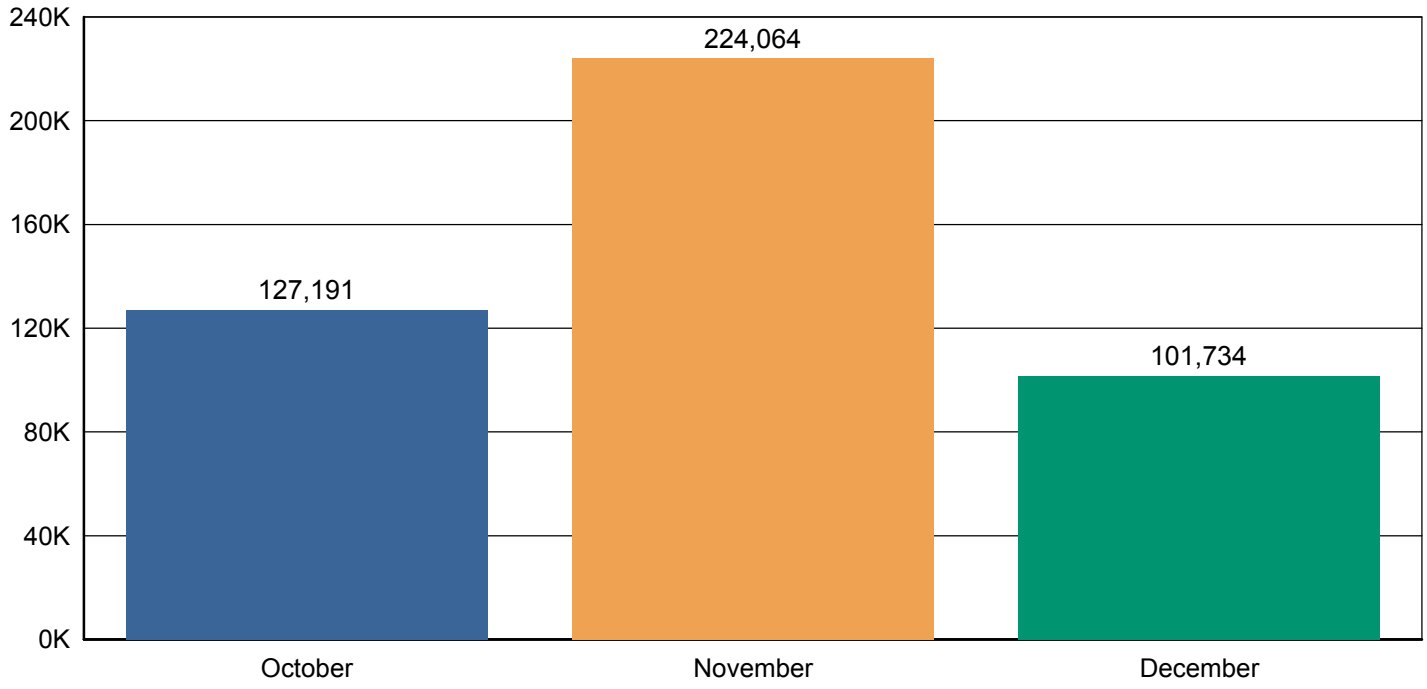
Table 23. Preventive Services Reported for Age Group, Gender and FPL

October 2018 - December 2018

AGE GROUP	COMPLETED	
19 - 34	203,648	44.96%
35 - 49	113,619	25.08%
50 +	135,722	29.96%
GENDER		
F	330,090	72.87%
M	122,899	27.13%
FPL		
< 100% FPL	357,594	78.94%
100 - 133% FPL	95,395	21.06%
TOTAL	**452,989**	**100.00%**

Figure 22-1. Preventive Services Reported for Total Population

October - December 2018



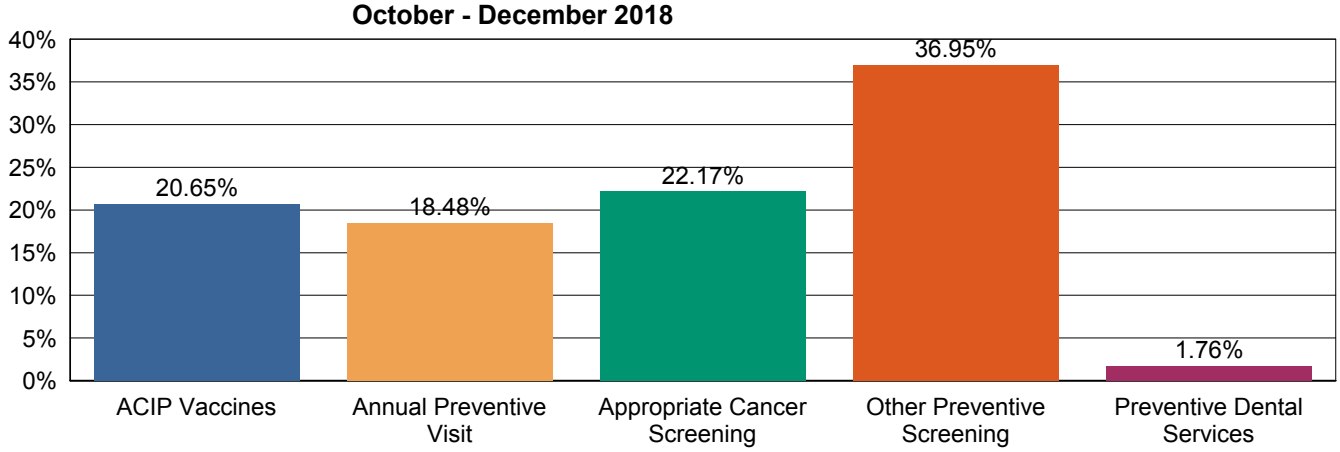
Preventive Services Reported: All Healthy Michigan Plan Enrollees can participate in the Healthy Behaviors Incentives Program by utilizing select preventive services. Utilization of these services are identified through claims/encounter review. The preventive services utilized and their percentage of total preventive services reported are displayed in Table 24 for the quarter October-December 2018. The associated codes for the selected preventive services can be found in Appendix 1.

Table 24. Particiation in Wellness Programs for Total Population
October - December 2018

Preventive Services	TOTAL	PERCENT
ACIP* Vaccines	93,523	20.65%
Annual Preventive Visit	83,724	18.48%
Appropriate Cancer Screening	100,420	22.17%
Other Preventive Screening	167,363	36.95%
Preventive Dental Services	7,959	1.76%
TOTAL	**452,989**	**100.00%**

* CDC Advisory Committee on Immunization Practices (ACIP)

Figure 24-1. Preventive Services Reported for Total Population
October - December 2018



Appendix 1: Healthy Behaviors incentives Program - Preventive Services Procedure and Diagnosis Codes

PREVENTIVE DENTAL SERVICES	
PROCEDURE CODE	DIAGNOSIS CODE
D0120	Z0120, Z0121, Z1384
D0191	Z0120, Z0121, Z1384
D1110	Z0120, Z0121, Z1384
D1354	Z0120, Z0121

ACIP VACCINES	
PROCEDURE CODE	DIAGNOSIS CODE
90620	NA
90621	NA
90630	NA
90632	NA
90636	NA
90649	NA
90650	NA
90651	NA
90654	NA
90656	NA
90658	NA
90661	NA
90670	NA
90673	NA
90674	NA
90686	NA
90688	NA
90707	NA
90714	NA
90715	NA
90716	NA
90732	NA
90733	NA
90734	NA
90736	NA
90740	NA
90744	NA
90746	NA
90747	NA
G0008	NA
G0009	NA
G0010	NA
Q2034	NA
Q2035	NA
Q2036	NA
Q2037	NA
Q2038	NA
Q2039	NA

ANNUAL PREVENTIVE VISIT	
PROCEDURE CODE	DIAGNOSIS CODE
99385	NA
99386	NA
99395	NA
99396	NA
99401	NA
99402	NA

CANCER SCREENING: BREAST	
PROCEDURE CODE	DIAGNOSIS CODE
77063	NA
77067	NA
G0202	NA

CANCER SCREENING: CERVICAL/VAGINAL	
PROCEDURE CODE	DIAGNOSIS CODE
87623	NA
87624	NA
87625	NA
88141	NA
88142	NA
88143	NA
88147	NA
88148	NA
88155	NA
88164	NA
88165	NA
88166	NA
88167	NA
88174	NA
88175	NA
G0101	NA
G0476	NA
Q0091	NA

CANCER SCREENING: COLORECTAL	
PROCEDURE CODE	DIAGNOSIS CODE
45330	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45331	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45333	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45338	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45346	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45378	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45380	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45384	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45385	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
45388	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
81528	NA
82270	NA
82274	Z1211, Z1212, Z1213, Z800, Z8371, Z86010
G0104	NA
G0105	NA
G0121	NA
G0328	NA

CANCER SCREENING: LUNG	
PROCEDURE CODE	DIAGNOSIS CODE
71250	F172, Z122, Z720, Z87891
G0297	NA

CANCER SCREENING: PROSTATE	
PROCEDURE CODE	DIAGNOSIS CODE
84152	Z125, Z8042
84153	Z125, Z8042
84154	Z125, Z8042
G0102	NA
G0103	NA

HEP C VIRUS INFECTION SCREENING	
PROCEDURE CODE	DIAGNOSIS CODE
86803	NA
G0472	NA

HIV SCREENING	
PROCEDURE CODE	DIAGNOSIS CODE
86689	Z114
86701	Z114
86702	Z114
86703	Z114
87389	Z114
87390	Z114
87391	Z114
87534	Z114
87535	Z114
87536	Z114
87537	Z114
87538	Z114
87539	Z114
87806	Z114
G0432	NA
G0433	NA
G0435	NA

OSTEOPOROSIS SCREENING	
PROCEDURE CODE	DIAGNOSIS CODE
76977	Z13820, Z8262
77078	Z13820, Z8262
77080	Z13820, Z8262
77081	Z13820, Z8262

STI SCREENING: CHLAMYDIA	
PROCEDURE CODE	DIAGNOSIS CODE
87110	NA
87270	NA
87320	NA
87490	NA
87491	NA
87492	NA
87810	NA

STI SCREENING: GONORRHEA	
PROCEDURE CODE	DIAGNOSIS CODE
87590	NA
87591	NA
87592	NA
87850	NA

STI SCREENING: HEP B (NONPREGNANT)	
PROCEDURE CODE	DIAGNOSIS CODE
86704	NA
86705	NA
86706	NA
87340	NA
G0499	NA

STI SCREENING: SYPHILIS (NONPREGNANT)	
PROCEDURE CODE	DIAGNOSIS CODE
86592	NA
86593	NA

TUBERCULOSIS SCREENING	
PROCEDURE CODE	DIAGNOSIS CODE
86480	Z111, Z201
86481	Z111, Z201
86580	Z111, Z201
87116	Z111, Z201

Michigan Department of Health and Human Services
Medical Services Administration

Medical Care Advisory Council

Meeting Minutes

Date: Thursday, February 22, 2018

Time: 1:00 p.m. – 4:30 p.m.

Where: Michigan Public Health Institute (MPHI)
2436 Woodlake Circle, Suite 380
Okemos, MI 48864

Attendees: **Council Members:** Emily Schwarzkopf, Deb Brinson, Barry Cargill, Mark Klammer, Alison Hirschel, Amy Zaagman, Bill Mayer, Meghan Swain, Jeff Towns, April Stopczynski, Dan Thompson, Michelle Best (on behalf of Amy Hundley), Travar Pettway, Marion Owen, Dianne Haas, Linda Vail, Vicki Kunz (on behalf of Marilyn Litka-Klein), Melissa Samuel, Karlene Ketola, Lisa Dedden Cooper, Kim Singh, Jane Phillips (on behalf of Jim Milanowski), Bobbi Kuyers (on behalf of Dave Herbel), Stacie Saylor (on behalf of Rebecca Blake)

Staff: Kathy Stiffler, Farah Hanley, Lynda Zeller, Erin Emerson, Dick Miles, Brian Keisling, Jackie Prokop, Marie LaPres, Dave Schneider, Philip Bergquist, Phil Kurdunowicz

Other Attendees: Jane Pilditch, Salli Pung, Mario Azzi, Kelly Bidelman

Welcome, Introductions, Announcements

Emily Schwarzkopf opened the meeting and introductions were made.

Federal Update

Children's Health Insurance Program (CHIP) Reauthorization

Kathy Stiffler announced that congress has reauthorized CHIP for an additional 10 years.

Federal Budget

President Trump has released his FY19 federal budget recommendation, which includes a proposed 22.5% reduction in funding for Medicaid and the provisions of the Affordable Care Act (ACA) by 2028 and a proposed 28% reduction in funding for the Supplemental Nutrition Assistance Program (SNAP), as well as several other proposed reductions in non-defense discretionary spending. Meeting attendees were advised that approval for the proposed budget is a lengthy process, and that the Michigan Department of Health and Human Services (MDHHS) will not take any action on proposed funding levels until they are finalized.

Centers for Medicare & Medicaid Services (CMS) State Medicaid Director Letter – Opportunities to Promote Work and Community Engagement Among Medicaid Beneficiaries

CMS has issued a letter to State Medicaid Directors to indicate that states now have the option to submit Section 1115 waiver requests to implement work requirements as a condition of Medicaid eligibility, a copy of which was distributed to meeting attendees. Ten states have submitted Section 1115 waiver requests under this guidance to date, though MDHHS has no plans to do so at this time pending further direction from department leadership and the state legislature. MDHHS staff and meeting attendees discussed at length the many potential implications of implementing Medicaid work requirements, including concerns about the large staff and resource commitment that would be needed to monitor the employment status of Medicaid beneficiaries.

Budget Update

2019 Budget Update

The FY 2019 executive budget recommendation was released on February 7, 2018 and reflects a 0.6% increase in total statewide spending from FY 2018, including a 0.1% increase in general fund (GF) expenditures. The FY19 executive budget recommendation for MDHHS includes $177 million GF, most of which is allocated to existing programs. The FY19 executive budget recommendation for MDHHS includes:

- $72 million to address Federal Matching Assistance Percentage (FMAP) costs departmentwide;
- $42 million for departmentwide caseload costs;
- $63 million for actuarial soundness costs;
- $29 million for fund shifts;
- $20 million for various Department investments;
- An actuarial soundness increase of 2% for the Prepaid Inpatient Health Plans (PIHPs);
- $1.4 million to increase base salaries for psychiatrists at state psychiatric hospitals;
- Actuarial soundness increases of 1.5% for Medicaid;
- $56 million to account for an FMAP change that reflects a Healthy Michigan Plan adjustment of $30 million GF;
- $7 million GF to support rural hospitals;
- Funding for additional Medical Services Administration support staff;
- $8 million in additional funding for the Department's per- and polyfluoroalkyl substances (PFAS) initiative;
- $4.8 million ongoing funding for local public health departments to address emerging public health threats;
- $2 per person per month increase (1.2%) in the family independence program cash allowance;

- $4.6 million in funding for information technology in support of the Integrated Service Delivery (ISD) initiative; and
- Funding to support MDHHS' Flint initiatives.

Overall, the FY19 executive budget recommendation for MDHHS includes $19 million in new funding, and $55 million in proposed reductions. In response to a question from a meeting attendee asking how the Medical Care Advisory Council (MCAC) can best show support for the proposed budget, Farah Hanley encouraged council members to contact their legislators to indicate their organization's support for the proposal and emphasize the importance of maintaining proposed funding levels to support the department's programs.

Provider Enrollment Requirements

Kathy Stiffler provided an update on Medicaid provider enrollment requirements by noting that while all providers who render services to Michigan Medicaid fee-for-service (FFS) beneficiaries were required to enroll in CHAMPS beginning in 2009, in May 2016 CMS issued a rule requiring all Managed Care Organization (MCO) providers to enroll with Medicaid beginning for rating periods on or after July 1, 2018. While MDHHS was working to implement this rule by the start of Michigan's fiscal year on October 1, 2018, the federal government enacted the 21st Century Cures Act, which requires that MCO providers be enrolled with their states' Medicaid programs by January 1, 2018. However, CMS has indicated that states may apply the 120-day grace period allowed by the Managed Care Rule for this change, which would extend Michigan's deadline for compliance with the 21st Century Cures Act to May 1, 2018. In addition, MDHHS is also working to require all prescribing providers to enroll with Medicaid.

The department had planned to begin denying claims for non-enrolled MCO providers on March 1, 2018, and for non-enrolled prescribing providers on May 1, 2018. However, due to many providers submitting enrollment applications as these dates approach, MDHHS has decided to indefinitely postpone these actions to allow staff the time to process the new applications. The department is also working to release communication to providers regarding this change, although staff emphasized that while the deadlines for enrollment have been postponed indefinitely, providers should still enroll as soon as possible. MDHHS staff and meeting attendees discussed this issue at length.

Integrated Service Delivery

MDHHS staff provided the following updates on the implementation of ISD:

- On January 22, 2018, the department began using a new paper public benefits application for individuals to apply for multiple MDHHS program benefits with a single form.
- Following a pilot demonstration of the new MI Bridges Self-Service Portal in Muskegon county, MDHHS has expanded the new system to Jackson, Genesee, Clinton and Eaton counties to further test its functionality before beginning to make it available statewide on March 19, 2018. The statewide rollout process is expected to be

completed by April 6, 2018.

- The universal caseload pilot in Gratiot and Shiawassee counties that was discussed at the previous MCAC meeting began on February 20, 2018.

Medicaid Managed Care

Healthy Kids Dental Bid Update

MDHHS has completed the process for selecting new vendors to provide services under the ***Healthy Kids Dental*** program, and has awarded statewide contracts to Blue Cross Blue Shield of Michigan, which will work with DentaQuest to provide dental benefits, and Delta Dental. As part of the new contract, MDHHS has included quality metrics to measure each plan's performance and is working to develop an algorithm to auto-assign new beneficiaries to a plan based on these quality measures. The new contracts will begin on October 1, 2018, and the plans may begin drafting marketing materials for MDHHS approval on April 1, 2018. In response to an inquiry regarding reimbursement rates for dental services, MDHHS staff indicated that no changes have been made, and that the department expects to finalize rates for FY19 by July 1, 2018.

Pregnancy Dental Benefit

MDHHS has received funding to provide dental services for pregnant women through the Medicaid Health Plans (MHPs) and is continuing to work on developing a process to identify Medicaid beneficiaries who are pregnant.

Healthy Michigan Plan

Transition to Marketplace for Healthy Michigan Plan Members

Letters sent out February 16, 2018

On February 16, 2018, MDHHS sent letters to approximately 13,500 Healthy Michigan Plan beneficiaries to inform them that they meet the criteria to transition to health coverage in the Marketplace beginning April 1, 2018 under the terms of the second waiver for the Healthy Michigan Plan. As outlined in the letter, MDHHS staff explained that beneficiaries who receive the letter have the right to appeal the decision and may also stay enrolled in the Healthy Michigan Plan if they attest to being medically frail, are pregnant, or complete a Health Risk Assessment (HRA) and engage in a healthy behavior. Beneficiaries who do not follow these steps and are required to transition to the Marketplace will receive an enrollment packet with information about each Marketplace health plan by early April 2018, and will be required to enroll by May 1, 2018. Those who do not choose a health plan will be auto-assigned. Copies of the letter were distributed to meeting attendees, and MDHHS staff and meeting attendees discussed at length the process for transitioning Healthy Michigan Plan beneficiaries to the Marketplace. Additional information about this process is available on the web at www.michigan.gov/mimarketplaceoption. MDHHS staff also indicated that the department worked with the University of Michigan Institute for Health Policy & Innovation to conduct surveys of beneficiaries and providers involved with the Healthy Michigan Plan. The reports from these surveys can be accessed on the web at www.michigan.gov/healthymichiganplan >>

Healthy Michigan Plan Program Information and History, under "CMS Correspondence."

Pregnant Women

Under the terms of the second waiver for the Healthy Michigan Plan, women who become pregnant after transitioning to the Marketplace from the Healthy Michigan Plan may either choose to stay in the Marketplace or receive coverage through regular Medicaid. MDHHS staff and meeting attendees discussed at length ideas for improving this process, including a suggestion for the department to consider allowing pregnant women to enroll directly into an MHP from the Marketplace.

Aged, Blind and Disabled Eligibility Category

Kathy Stiffler shared that MDHHS is continuing to investigate reports that individuals eligible for coverage under the Aged, Blind and Disabled category are being incorrectly classified for coverage by the department, and as a result, the Prepaid Inpatient Health Plans (PIHPs) do not receive the higher capitation rate for providing services to these beneficiaries. However, data indicate that these beneficiaries are instead voluntarily applying for Healthy Michigan Plan coverage, which is a beneficiary decision. Many are also losing coverage completely.

Healthy MI Waiver Renewal Update

On December 12, 2017, MDHHS submitted a renewal application for the Section 1115 Demonstration Waiver for the Healthy Michigan Plan to CMS, which has been posted on the CMS website at www.medicaid.gov for public comment.

Behavioral Health Updates

Section 298 Update

The Michigan legislature directed MDHHS to conduct up to three pilots to test publicly integrated behavioral health and physical health services, which will focus on financial integration. The department issued a Request for Information (RFI) in December 2017 to select the pilot sites and has received responses from five Community Mental Health Services Programs (CMHSPs) wishing to participate. MDHHS is currently working to evaluate the responses to the RFI with the goal of selecting the location of the three pilot sites by March 9, 2018. To be considered for inclusion in the pilot, a CMHSP must have letters of support from 50% of the MHPs in their region and demonstrate full financial integration of behavioral health and physical health services in their application. MDHHS is also exploring options for how best to serve those with specialty behavioral health needs. The targeted implementation date for the pilot programs is October 1, 2018.

The demonstration model for the Stakeholder 298 Initiative will maintain the current funding mechanism in which physical health services are funded through the Medicaid Health Plans and behavioral health services are funded through the PIHPs. The demonstration will be established in Kent County through the local CMHSP, Network180, in partnership with Priority Health. MDHHS has been actively engaged in discussions with Network180 and Priority Health on the implementation of the demonstration model and expects to receive a detailed project plan from the two entities in mid-March.

Additionally, the University of Michigan Institute for Health Policy & Innovation IHPI is in the process of developing a plan to put together an evaluation of the demonstration model, and will identify comparison sites for their study once the pilot begins. MDHHS is also continuing to work toward implementing the 76 policy recommendations for the integration of behavioral health and physical health services proposed by the Section 298 work group. Updates on this process will be posted on the web at www.michigan.gov/stakeholder298 as they become available.

1115 Waiver Update

MDHHS is continuing to communicate with CMS regarding the Section 1115 waiver application to provide all behavioral health services under a single waiver authority. No action has been taken by CMS on the waiver application since the previous MCAC meeting in December, although MDHHS staff have a call scheduled with CMS on Monday, February 26 to further discuss the waiver.

Other

The Behavioral Health and Developmental Disabilities Administration (BHDDA) is also working with other areas of MDHHS to implement the federal Home and Community Based Services (HCBS) Final Rule and the Electronic Visit Verification (EVV) system for personal care service providers.

Mental Health Parity Update

MDHHS staff provided an update on the department's efforts to comply with the Mental Health Parity and Addiction Equity Act of 2008, which requires that states place no more restrictions on behavioral health/substance use disorder benefits than on medical/surgical benefits. To comply with the law, MDHHS will require that, on a statewide basis, PIHPs can place no greater restrictions in any classification of behavioral health/substance use disorder services than the least restrictive restriction in that classification for medical/surgical benefits. Following the last update on mental health parity at the June 2017 MCAC meeting, MDHHS distributed surveys to all Medicaid Health Plans and PIHPs operating in the State of Michigan to gather data on their coverage standards and is in the process of compiling their findings into an assessment and developing a plan for corrective action. The issues the department will seek to address include: prescription drug copays; inpatient and outpatient prior authorization for behavioral health/substance use disorder services; and services for beneficiaries with intellectual and developmental disabilities. MDHHS plans to complete the assessment and

plan for corrective action by the end of April 2018, at which time it will be submitted to CMS and be made publicly available. In response to an inquiry, MDHHS staff indicated that the state does not anticipate a significant increase in costs as a result of compliance with the Mental Health Parity and Addictions Act of 2008.

Long Term Care Updates

Dick Miles provided an update on the following items related to Long Term Care:

- MDHHS is working to submit a renewal application for the MI Choice Waiver to CMS by October 1, 2018.
- Approximately 39,300 individuals are currently enrolled in the MI Health Link demonstration program for individuals who are dually eligible for Medicare and Medicaid. Enrollment in the demonstration has stabilized, and MDHHS is working to secure approval from CMS for waiver applications related to MI Health Link.
- The department is working to implement an EVV system for providers of in-home personal care services, which must be in place by January 1, 2019 per the 21st Century Cures Act.

Managed Long Term Care Services and Supports

A report containing data on long term care services and supports programs in Michigan and other states was distributed to meeting attendees and the document was discussed.

Policy Updates

A policy bulletin handout was distributed to attendees and several updates were discussed.

4:30 – Adjourn

Michigan Department of Health and Human Services
Medical Services Administration

Medical Care Advisory Council

Meeting Minutes

Date: Monday, June 18, 2018

Time: 1:00 p.m. – 4:30 p.m.

Where: Michigan Public Health Institute (MPHI)
2436 Woodlake Circle, Suite 380
Okemos, MI 48864

Attendees: **Council Members:** Emily Schwarzkopf, Mark Klammer, Chris George (for Amy Hundley), Dan Thompson, Dianne Haas, William Mayer, Jeff Towns, Rod Auton, Marilyn Litka-Klein, Lisa Dedden Cooper, Karen MacMaster, Linda Vail, Pam Lupo, April Stopczynski, Mario Azzi, Kim Singh, Rebecca Blake, Deb Brinson, Robert Sheehan, Linda Gibson (for Jim Milanowski)

Staff: Kathy Stiffler, Farah Hanley, Dick Miles, Brian Keisling, Jackie Prokop, Pam Diebolt, Marie LaPres, Dave Schneider, Christina Severin, Jon Villasurda, Cindy Linn, Phil Kurdunowicz

Other Attendees: Randy Walainis, Amy Justus, Jane Pilditch

Welcome, Introductions, Announcements

Emily Schwarzkopf opened the meeting and introductions were made.

Budget Update

2019 Budget Update

Farah Hanley reported that the FY 2019 budget has been approved by both houses of the state legislature and forwarded for Governor Snyder's signature. Effective October 1, 2018, the budget includes an appropriation of $26 billion ($4.46 billion general fund [GF]) for the Michigan Department of Health and Human Services (MDHHS), which is $30 million beyond the Executive Budget Recommendation. Ms. Hanley indicated that while funding for legislative and MDHHS priorities is strong overall, some programs received reduced funding in the FY 19 budget, including a $12 million reduction in funding for the department's autism program, which includes a $7 million reduction by switching from a capitation model to a fee schedule model, and $5 million reduction by reducing the behavioral technician hourly rate from $55 to $50. Other highlights from the MDHHS FY19 budget include:

- $14 million for implementation of the Integrated Service Delivery (ISD) system.
- Actuarial soundness adjustment of 1% for the Medicaid Health Plans (MHPs) and 2% for the Prepaid Inpatient Health Plans (PIHPs).
- $10 million hospital payment ($6 million for rural hospitals and $4 million for OB/GYN hospitals).

- $5 million GF to support medical education loan repayment for primary care physicians and other sub-specialties.
- $2.8 million to $3 million to support an increase in Medicaid neonatal rates from 64% of the Medicare rate to 75%.
- $1.6 million to restore funding to dental clinics.
- Funding for a salary increase for psychiatrists at state psychiatric hospitals.
- $5.5 million GF to support non-Medicaid funded Community Mental Health Services Programs (CMHSPs).
- $9.3 million for Local Health Departments (LHDs) to address emerging public health threats.
- An increase of $2.5 million GF for senior services.
- All funding for Flint initiatives that was requested by the governor was included in the FY19 budget.

Ending Gift Cards for Healthy Michigan Plan

Kathy Stiffler explained that as part of the Healthy Michigan Plan, beneficiaries with incomes above 100% of the federal poverty level (FPL) who complete a healthy behavior receive a reduction in their required contribution. Since Healthy Michigan Plan beneficiaries with incomes below 100% FPL are exempt from contributions, MDHHS currently requires the MHPs to provide these individuals with $50 gift cards for completing a healthy behavior. The FY19 budget rescinds this requirement, though MDHHS staff indicated that the department is seeking clarification from the legislature on whether MHPs may continue to provide gift cards using their own administrative dollars.

Healthy Michigan Plan

Review of Bill

MDHHS staff and meeting attendees discussed SB 897 at length, which outlines proposed changes for Healthy Michigan Plan beneficiaries with incomes above 100% FPL who have been enrolled in the program for 48 cumulative months, as well as instituting workforce engagement requirements for non-exempt Healthy Michigan Plan beneficiaries between the ages of 19 and 62. SB 897 has been approved by both houses of the state legislature and is currently pending final approval by the governor. Copies of the bill were distributed to meeting attendees.

48 Months

Healthy Behaviors

As of June 18, 2018, approximately 1,400 Healthy Michigan Plan beneficiaries have incomes above 100% FPL and have been enrolled in the program for 48 cumulative months. Pending approval of SB 897, these individuals will be required to continue engaging in healthy behaviors **and** contribute 5% of their income toward premiums as a condition of continued enrollment in the Healthy Michigan Plan. Participation in one or more healthy behaviors will

not result in a reduction in cost-sharing obligations, and copayments will no longer apply, as beneficiaries may not exceed 5% of their income toward total cost-sharing.

Suspension of Coverage

Healthy Michigan Plan coverage will be suspended for beneficiaries who choose not to engage in a healthy behavior, or who fail to meet their cost-sharing obligations. For these individuals, MDHHS will apply the department's "consistently fail-to-pay" criteria, which means that coverage will be suspended if the beneficiary has not paid any amount toward their premium obligations for one full quarter, or at least half of their total owed after 12 months. Once a beneficiary's coverage is suspended for failure to pay, coverage may be reinstated at which time the beneficiary contributes a minimum amount and agrees to a payment plan determined by MDHHS. Additionally, third-party payers may also assist beneficiaries with meeting their premium obligations.

In response to an inquiry regarding the anticipated timeline for implementation of these requirements, MDHHS staff reported that the legislature is targeting an effective date of July 1, 2019 for the changes to Healthy Michigan Plan cost-sharing and healthy behavior requirements. MDHHS plans to submit an amendment to the Healthy Michigan Plan waiver renewal application that is currently pending before the Centers for Medicare & Medicaid Services (CMS) by October 1, 2018 to request CMS approval for these changes.

Impact on Sending Beneficiaries to the Marketplace

Pending approval of SB 897, the MI Marketplace Option for Healthy Michigan Plan for beneficiaries who choose not to engage in a healthy behavior has been rescinded. Instead, beneficiaries will be required to engage in a healthy behavior as a condition of continued enrollment in the Healthy Michigan Plan. If they choose not to engage in a healthy behavior, Healthy Michigan Plan coverage will be discontinued per the criteria outlined above. In response to an inquiry, MDHHS staff indicated that the federal government will not allow individuals who are income-eligible for the Healthy Michigan Plan to receive a subsidy for coverage on the Federally Facilitated Marketplace (FFM).

Work Requirements

MDHHS staff indicated that the workforce engagement requirements outlined in SB 897 apply to all able-bodied Healthy Michigan Plan beneficiaries (including those below 100% FPL) between the ages of 19 and 62 who do not meet at least one of the 12 exemption criteria included in the legislation. MDHHS expects that a maximum of 400,000 Healthy Michigan Plan beneficiaries may be impacted by the workforce engagement requirements, though staff are working to determine how many additional enrollees may meet exemption criteria. It is unknown at this time how many are likely to lose coverage given the lack of data or experience to estimate this figure.

Beneficiaries who do not meet a qualifying exemption must self-attest to participation in one of the following qualifying events for an average of 80 hours per month to meet the workforce engagement requirements:

1. Employment, self-employment or income consistent with employment;
2. Education directly related to employment;
3. Job training directly related to employment;
4. Vocational training directly related to employment;
5. Unpaid workforce engagement directly related to employment;
6. Tribal employment programs;
7. Participation in Substance Use Disorder (SUD) treatment;
8. Community service (limit of 3 months within a 12-month period with a registered 501[c][3] organization); or
9. Job search directly related to employment.

A beneficiary is allowed three months of noncompliance within a 12-month reporting period. After three months of noncompliance, recipients who remain noncompliant will not receive coverage for at least one month and will be required to come into compliance before coverage is reinstated. If a beneficiary is found to have misrepresented his or her compliance with the workforce engagement requirements as identified in SB 897, he or she shall not be allowed to participate in the Healthy Michigan Plan for a one-year period. A beneficiary is exempt from the workforce engagement requirements if they meet one or more of the following conditions:

1. A recipient is the caretaker of a family member who is under the age of 6 years. This exemption only applies to one parent at a time to be a caretaker, no matter how many children are being cared for.
2. A recipient who is currently receiving temporary or permanent long-term disability benefits from a private insurer or from the government.
3. A recipient who is a full-time student who is not a dependent of a parent or guardian or whose parent or guardian qualifies for Medicaid.
4. A recipient who is pregnant.
5. A recipient who is the caretaker of a dependent with a disability which the dependent needs full-time care based on a licensed medical professional's order.
6. A recipient who is the caretaker of an incapacitated individual even if the incapacitated individual is not a dependent of the caretaker.
7. A recipient who has proven that he or she has met the good cause temporary exemption.
8. A recipient who has been designated as medically frail.
9. A recipient who has a medical condition that results in a work limitation according to a licensed medical professional's order.
10. A recipient who has been incarcerated within the last 6 months.
11. A recipient who is receiving unemployment benefits from this state.
12. A recipient who is under 21 years of age who had previously been in a foster care placement in this state.

In addition, Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF) beneficiaries who meet exemption criteria for SNAP or TANF work requirements are also exempt from the Healthy Michigan Plan workforce engagement requirements outlined above with no additional reporting requirements. SB 897 requires that MDHHS implement the workforce engagement requirements for the Healthy Michigan Plan by January 1, 2020 pending approval from CMS.

Communications with Beneficiaries

MDHHS plans to begin the process of communicating the details of the workforce engagement requirements with beneficiaries only after CMS approval of Michigan's amended Healthy Michigan Plan Section 1115 Waiver Renewal Request. MDHHS staff also discussed a pending federal court decision on workforce engagement requirements promulgated by the State of Kentucky and the potential impact the court proceedings could have on the future of the Healthy Michigan Plan. To date, CMS has approved waiver requests from Kentucky, Arkansas, Indiana and New Hampshire to implement workforce engagement requirements for Medicaid recipients, with requests from seven additional states pending.

Behavioral Health Updates

MDHHS staff provided several general updates related to behavioral health, including:

- The department is continuing to work with CMS to gain approval for its Section 1115 Pathways to Integration waiver, which would allow MDHHS to provide all behavioral health services under a single waiver authority.
- A $27.5 million federal non-competitive grant has been allocated to the State of Michigan for its State Opioid Response Team, pending approval of an application from the state that is due August 13, 2018.
- Local communities within the state must now apply individually for funding through the Certified Community Behavioral Health Clinics (CCBHC) grant. MDHHS has provided several letters of support on behalf of communities for this funding.
- The Health Resources & Services Administration (HRSA) within the U.S. Department of Health and Human Services has made grants available to expand services to address the opioid epidemic in rural communities. Eleven counties within northern Michigan meet the eligibility criteria to apply for a grant under this program.
- Congress has appropriated $10 billion in federal funding nationwide for FY19 for opioid use disorder treatment, as well as $2.3 billion for behavioral health services. In addition, congress is currently considering 80 additional bills to address behavioral health issues, including legislation to protect data privacy for individuals receiving treatment for Substance Use Disorder (SUD).
- MDHHS is working to establish an Opioid Health Home (OHH) pilot program in Michigan's PIHP Region 2.
- The department is working with stakeholders and the state legislature on several initiatives aimed at increasing access to inpatient psychiatric services.

Section 298 Update

MDHHS is in the process of establishing pilot programs to financially integrate behavioral health and physical health services, as directed by the state legislature. Four CMHSPs have been selected to participate in the pilot programs with the seven MHPs operating in the three pilot regions. The department is also exploring options for including beneficiaries in the pilot programs who are not currently enrolled in an MHP and receive managed behavioral health services through the local PIHP, as well as continuing to work through various other issues related to implementation. The anticipated implementation date of the Section 298 pilot programs is October 1, 2019. Additional information on the Section 298 process is available on the MDHHS website at www.michigan.gov/stakeholder298.

Mental Health Parity Update

MDHHS staff provided an update on the department's efforts to comply with the Mental Health Parity and Addiction Equity Act of 2008, which requires that states place no more restrictions on behavioral health/substance use disorder benefits than on medical/surgical benefits. As part of these efforts, MDHHS has prepared a Mental Health and Substance Use Disorder Parity Assessment and Corrective Action Plan to report findings of an assessment of compliance with the federal parity rules conducted by the Medical Services Administration (MSA). Copies of the report were distributed to meeting attendees, and the document was discussed at length.

Provider Enrollment Requirements

Kathy Stiffler shared an update on the department's ongoing efforts to comply with federal laws and regulations by requiring all providers in the State of Michigan who provide services to Medicaid beneficiaries to enroll with the state's Medicaid program. Medicaid FFS already denies claims for non-enrolled providers. MDHHS initially planned to require the MHPs to deny claims from non-enrolled providers on March 1, 2018, and FFS and the HMPs were to deny claims (at the point of service) for non-enrolled prescribers on May 1, 2018. The department is now considering extending this deadline. MDHHS staff and meeting attendees discussed the issue at length, including ideas for communicating the requirements to providers.

Long Term Care Updates

Dick Miles provided updates on several MDHHS long term care initiatives, which include the following:

- The department is working to submit a renewal application for the MI Choice waiver, which has been posted for public comment. MDHHS plans to submit the renewal application to CMS in July 2018.
- MDHHS is continuing work to develop an Electronic Visit Verification (EVV) system for in-home personal care services by January 1, 2019 in compliance with the requirements of the 21st Century Cures Act.

- Enrollment in the MI Health Link demonstration is now stable with approximately 40,000 individuals currently enrolled.
- MDHHS has contracts with partnering entities to develop proposed models and to engage with stakeholders in the development of managed long term care supports and services.
- The department is also working to update the nursing facility Level of Care Determination (LOCD) determination business process.

Policy Updates

A policy bulletin list was distributed to attendees and the following updates were discussed:

- Bulletin MSA 18-05 – MI Marketplace Option and Healthy Michigan Plan Updates
- Bulletin MSA 18-10 – Pediatric Outpatient Intensive Feeding Program Services
- Bulletin MSA 18-18 – Expanded Access to Dental Benefits for Pregnant Women
- Proposed Policy 1806-Hospital – Inpatient Long-Acting Reversible Contraception (LARC) Device Reimbursement
- Proposed Policy 1807-BHDDA – Opioid Health Home Pilot Program
- Proposed Policy 1814-Hearing – Reinstatement of Adult Hearing Aid Coverage; Update to Disposable Hearing Aid Batteries and Replacement Earmold Coverage

4:30 – Adjourn

Michigan Department of Health and Human Services
Medical Services Administration

Medical Care Advisory Council

Meeting Minutes

Date: Wednesday, August 8, 2018

Time: 1:00 p.m. – 4:30 p.m.

Where: Michigan Public Health Institute (MPHI)
2436 Woodlake Circle, Suite 380
Okemos, MI 48864

Attendees: **Council Members:** Emily Schwarzkopf, Dominick Pallone, Rod Auton, Elmer Cerano, Mark Klammer, Robert Sheehan, Amy Zaagman, April Stopzcynski, Mario Azzi, Rebecca Blake, Karlene Ketola, Jim Milanowski, Lisa Dedden Cooper, David Herbel, Debra Brinson, William Mayer, Marilyn Litka-Klein

Staff: Kathy Stiffler, Lynda Zeller, Erin Emerson, Brian Keisling, Jackie Prokop, Craig Boyce, Leslie Asman, Mary Beth Kern-Collins, Marie LaPres, Dave Schneider, Phil Kurdunowicz

Other Attendees: Salli Pung, Dan Wojciak, Joe Pawluszka, Kellie Bidelman

Welcome, Introductions, Announcements

Emily Schwarzkopf opened the meeting and introductions were made.

Healthy Michigan Plan

Public Act 208 of 2018

Kathy Stiffler provided an overview of Public Act 208 of 2018, which directs the Michigan Department of Health and Human Services (MDHHS) to (1) make changes to the Healthy Michigan Plan for beneficiaries who have been enrolled in the program for 48 cumulative months and have incomes above 100% of the Federal Poverty Level (FPL), and also (2) implement workforce engagement requirements for non-exempt beneficiaries. To implement these changes, MDHHS is working to submit an amendment to its Section 1115 Demonstration Waiver extension application for the Healthy Michigan Plan. The waiver application amendment is currently posted for public comment at www.michigan.gov/healthymichiganplan, and Ms. Stiffler noted that while the formal public comment period officially ends on August 12, 2018, interested parties may continue to submit comments after that date. MDHHS will take comments submitted after August 12 into consideration for future changes to the Healthy Michigan Plan. In addition, public hearings were held to discuss the amendment on July 31, 2018 and August 1, 2018. The waiver application amendment must be submitted to the Centers for Medicare & Medicaid Services (CMS) by October 1, 2018 per the State statute, but the State plans to submit early.

Cumulative 48 months of coverage and over 100% of the federal poverty level (FPL)

PA 208 of 2018 requires that beneficiaries who have been enrolled in the Healthy Michigan Plan for 48 cumulative months and have incomes above 100% of the FPL must engage in a healthy behavior **and** contribute a 5% premium as a condition of continued coverage. Participation in a healthy behavior will no longer result in a reduction in premium obligations, but co-payments will no longer apply, as beneficiaries may not exceed 5% of their income toward total cost-sharing. The targeted implementation date of this change is July 1, 2019.

Rescinds Marketplace Option

PA 208 of 2018 also rescinds the Marketplace Option for Healthy Michigan Plan for beneficiaries who choose not to engage in a healthy behavior. In February 2018, MDHHS notified approximately 15,000 beneficiaries who failed to complete a healthy behavior that they were at risk of transitioning to the Marketplace. At that time, approximately half of those individuals completed a Health Risk Assessment and chose to engage in a healthy behavior. MDHHS has since notified all individuals in this group that the Marketplace Option has been rescinded.

Workforce Engagement Requirements

In addition to the 48 month cumulative enrollment changes and rescinding the Marketplace Option, PA 208 of 2018 requires MDHHS to implement workforce engagement requirements for all beneficiaries ages 19 to 62 as a condition of continued enrollment in the Healthy Michigan Plan. The legislation outlines 10 qualifying events under which individuals can meet workforce engagement requirements, as well as 12 exemption criteria, which were discussed in detail at the previous Medical Care Advisory Council (MCAC) meeting on June 18, 2018. Kathy Stiffler indicated that approximately 400,000 Healthy Michigan Plan beneficiaries may be impacted by the workforce engagement requirements, as this is the number of beneficiaries between the ages of 19-62 who have been identified as not meeting the requirements of current Supplemental Nutritional Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) program workforce engagement requirements. This figure includes individuals who may meet exemption criteria, as some exemptions may require continued attestation.

MDHHS plans to begin the process of communicating the workforce engagement requirements with beneficiaries following approval of the waiver amendment by CMS. In response to an inquiry, Ms. Stiffler indicated that it is unknown at this time how many beneficiaries could potentially lose coverage as a result of the implementation of these requirements. MDHHS is also monitoring the implementation process for similar workforce engagement requirements in other states. MDHHS staff and meeting attendees discussed this issue at length, including details related to the exemption criteria and the implications of the federal court decision on Kentucky's waiver on the potential approval of workforce engagement requirements for other states. Meeting attendees also recommended that the state consider allocating resources for job training, transportation and child care for Healthy Michigan Plan beneficiaries to meet the workforce engagement requirements, and Emily Schwarzkopf offered to draft a letter on behalf of the MCAC to MDHHS leadership and the legislature to request these changes.

Healthy Michigan Waiver Renewal Update – Amendment

Public Hearings

Jackie Prokop provided an overview of some of the comments that were shared at the public hearings held on July 31, 2018 and August 1, 2018. Most comments shared at the hearings reflected concern related to the workforce engagement requirements for Healthy Michigan Plan beneficiaries. Many commenters also requested information on exemption criteria and requested clarity on the criteria for an individual to be designated as "medically frail." As a result of the feedback received at the hearings, MDHHS staff plan to meet to discuss the possible addition of certain diagnosis codes under which an individual may be deemed "medically frail."

Impact if waiver extension amendment is not approved

As currently directed by PA 208 of 2018, the Healthy Michigan Plan must end if the Section 1115 Waiver Extension Amendment is not approved by CMS within a year of submission, though MDHHS staff indicated that members of the legislature have expressed a willingness to re-examine the legislation if this occurs.

Behavioral Health Updates

Lynda Zeller shared the following updates related to recent activities of the Behavioral Health and Developmental Disabilities Administration (BHDDA):

- MDHHS is working to implement an Opioid Health Home pilot program in Michigan's Prepaid Inpatient Health Plan (PIHP) Region 2.
- The department is continuing efforts to increase beneficiary access to state psychiatric hospitals. The state convened the Michigan Inpatient Psychiatric Admissions Discussion (MIPAD) workgroup to discuss this issue, and it has now become a nationwide initiative coordinated by the National Association of State Mental Health Program Directors (NASMHPD) known as Beyond Beds. MDHHS staff and meeting attendees discussed this issue at length.

Section 298 update

A leadership group consisting of the Executive Directors of the four Community Mental Health Services Programs (CMHSP) as well as the CEOs of the seven partnering MHPs involved in the Section 298 initiative for the integration of physical health and behavioral health services has been meeting to discuss a financial model and managed care models for the pilot programs. In addition, several sub-groups have been formed to discuss various components of the pilot models, including technology needs, policy updates, reporting, and finance. MDHHS is also working with a team to evaluate the pilot models in order to move forward with the demonstration project, as well as moving forward with implementing the 76 policy recommendations contained in the final report that was submitted to the legislature in 2017. Additional information about this process is also available on the MDHHS website at www.michigan.gov/stakeholder298.

Pharmacy Benefits Manager

MDHHS is in the process of reviewing bids for a new pharmacy benefits manager contract, which is currently held by Magellan. The department expects to announce the contract award winner in the near future. In response to an inquiry, Kathy Stiffler indicated that MDHHS does not currently require MHPs to return supplemental rebates that they receive to the State and will require the MHPs to deny pharmacy claims for non-enrolled providers. The department has no plans at this time to require MHPs to follow the State's formulary for prescription drugs. MDHHS continues to seek public comment on the current Medicaid Health Plan common formulary once per quarter and make changes based on stakeholder input.

Non-emergency Medical Transportation (NEMT)

MDHHS also plans to submit a Request for Proposal (RFP) by October 1, 2018 for a new NEMT contractor to serve Medicaid Fee-for-Service (FFS) beneficiaries in Wayne, Oakland and Macomb counties. The new contract will take effect April 1, 2019. The current contract is held by Logisticare.

Provider Enrollment Requirements

MDHHS currently requires providers billing Medicaid FFS to be enrolled with Medicaid to receive reimbursement for services. This requirement is not in place for MHPs at this time, but MDHHS will require the MHPs to begin denying claims from non-enrolled providers beginning January 1, 2019. MDHHS will also begin denying pharmacy claims from non-enrolled providers billing through Medicaid FFS and MHPs beginning July 1, 2019. In response to an inquiry regarding whether atypical providers will be required to enroll with Medicaid to receive payment for services, MDHHS staff indicated that discussions have taken place on this issue, but no date for implementation has been set.

Policy Updates

A policy bulletin handout was distributed to attendees and the following updates were discussed:

- Bulletin MSA 18-24 – Reinstatement of Adult Hearing Aid Coverage; Update to Disposable Hearing Aid Batteries and Replacement Earmold Coverage
- Bulletin MSA 18-21 – Timely Hearing Requests
- Proposed Policy 1825-HKD – New Dental Health Plan Choice for Healthy Kids Dental Beneficiaries
- Proposed Policy 1822-Pharmacy – Copayment Exemption for Drugs to Treat Mental Health Conditions and Substance Use Disorders
- Proposed Policy 1821-Lab - Ordering of Genetic Laboratory Services by Physician Assistants (PAs), Registered Nurse Practitioners (NPs), and Certified Nurse Midwives (CNMs)

The meeting was adjourned at 3:00 p.m.

Michigan Department of Health and Human Services
Medical Services Administration

Medical Care Advisory Council

Meeting Minutes

Date: Tuesday, December 4, 2018

Time: 1:00 p.m. – 4:30 p.m.

Where: Michigan Public Health Institute (MPHI)
2436 Woodlake Circle, Suite 380
Okemos, MI 48864

Attendees: **Council Members:** Emily Schwarzkopf, Warren White, Jeff Towns, Amy Zaagman, Dianne Haas, Rod Auton, Deb Brinson, Marilyn Litka-Klein, Barry Cargill, Elmer Cerano, Dan Wojciak (for Allison Hirshel), Katie Macomber (for Karen MacMaster), Chris George, Karlene Ketola, Dave Herbel, Jim Milanowski, Kim Singh, April Stopczynski, Rebecca Blake, Dominick Pallone

Staff: Kathy Stiffler, Farah Hanley, Erin Emerson, Brian Keisling, Dick Miles, Jackie Prokop, Kim Hamilton, Marie LaPres, Cindy Linn, Christina Severin, Phil Kurdunowicz

Other Attendees: Salli Pung, Brenda Look

Welcome, Introductions, Announcements

Emily Schwarzkopf opened the meeting and introductions were made.

Election Outcome – Transition

Kathy Stiffler shared that no official meetings have yet taken place between Michigan Department of Health and Human Services (MDHHS) staff and governor-elect Gretchen Whitmer's transition team. Additionally, Ms. Stiffler announced that due to Civil Service rules limiting the length of time she could serve as Acting Medicaid Director, she has accepted the role of State Medicaid Director full-time for a limited term until a new MDHHS director is appointed by the governor-elect and selects a long-term replacement.

Budget Update

Farah Hanley provided the following updates on the department's budget process:

- MDHHS staff are working to "close the books" on fiscal year (FY) 2018 by reviewing all financial transactions for the department during the year and have identified a shortfall in the area of Information Technology (IT). To make up for this shortfall, MDHHS has submitted a request to the legislature for a one-time transfer of $65 million into the department's IT budget. MDHHS is also in the process of creating a new bureau within the Financial Operations Administration to oversee all IT systems within the department.
- MDHHS submitted a supplemental budget request for FY19 to the legislature to request

funding for the following needs that have been identified since PA 207 of 2018 was signed into law in June 2018:
  - $9.9 million to replace the county share of payment to unlicensed relatives who supervise children in the foster care system;
  - $15 million to prepare to implement the provisions of the Healthy Michigan Plan Section 1115 Demonstration Waiver Extension Amendment request that was submitted to the Centers for Medicare & Medicaid Services (CMS) on September 10, 2018 (HMP 3), which includes workforce engagement requirements;
  - $27 million to support the department's PFAS initiative, which includes the addition of 38 additional full-time equivalent (FTE) employees in the MDHHS Population Health Administration;
  - $7 million for 68 additional staff and one-time improvements at Caro Psychiatric Hospital
  - $7 million for Hepatitis A response efforts, including immunizations;
  - $21.2 million for 246 additional Child Protective Services (CPS); and
  - $10 million for additional CPS reforms.
- MDHHS has begun soliciting requests within the department for FY20 budget priorities, which will not be made public until after the new governor takes office.

A meeting attendee asked if the supplemental budget request would include a wage increase for direct care workers and psychiatrists employed by state psychiatric hospitals. In response, Ms. Hanley indicated that while MDHHS has been supportive of a wage increase for direct care workers, it is not addressed in the supplemental request at this time. However, MDHHS has requested funding for additional staff at state psychiatric hospitals.

Healthy Michigan Plan – Waiver Submission and Update

MDHHS submitted an amendment to the Healthy Michigan Plan Section 1115 Demonstration Waiver Renewal Request to CMS on September 10, 2018. While the department expects that CMS will approve the waiver by December 31, 2018, MDHHS staff reported that CMS has indicated that some portions of the Waiver Amendment (such as the criteria for discontinuing coverage in the case that a beneficiary misrepresents his or her compliance with workforce engagement requirements and the legislative requirement for beneficiaries to engage in "incrementally more challenging" healthy behaviors) may be difficult to approve as written. In this case, MDHHS will discuss with the legislature how to move forward. In the meantime, CMS may choose to approve portions of the Waiver Renewal request prior to December 31, 2018 while discussions on these issues are ongoing, but all portions of the Waiver must be approved by September 10, 2019 for the Healthy Michigan Plan to continue.

HMP 3 - Cumulative 48 Months of Coverage and Over 100% of the Federal Poverty Level

Effective July 1, 2019, Healthy Michigan Plan beneficiaries with incomes above 100% FPL who have been enrolled in the program for 48 cumulative months will be required to contribute 5% of their income and engage in "incrementally more challenging" healthy behaviors as a condition of continued enrollment in the Healthy Michigan Plan.

Community Engagement Requirements

Kathy Stiffler provided an overview of the Community Engagement Requirements included in the Healthy Michigan Plan Section 1115 Demonstration Waiver Renewal Amendment. In response to an inquiry regarding how the $15 million for HMP 3 implementation included in the FY19 supplemental request would be allocated, Ms. Stiffler shared that MDHHS is planning to use much of the funding to set up a non-web-based system for beneficiaries to report their compliance with workforce engagement requirements. The web-based reporting system will be available for those who are able to utilize it, however, Ms. Stiffler emphasized the importance of having an alternative reporting system available for beneficiaries who may not have regular computer access.

Exemptions

Medical Exemption

Healthy Michigan Plan beneficiaries who attest to being "medically frail" will receive a 12-month exemption from compliance with community engagement requirements as a condition of continued enrollment in the Healthy Michigan Plan. After this period, they may continue to claim "medically frail" status as needed and receive a continued exemption from this requirement. In response to an inquiry regarding the definition of "medically frail," Jackie Prokop indicated that MDHHS has compiled a list of approximately 500 qualifying diagnoses under which beneficiaries would meet these criteria.

Reporting Process and Frequencies

MDHHS staff and meeting attendees discussed at length the process for Healthy Michigan Plan beneficiaries to report compliance with community engagement requirements. To maintain coverage, beneficiaries will be required to report participation in a qualifying event as defined in Public Act 208 of 2018 each month. If they fail to report, they will receive a notice from MDHHS indicating that that have chosen to use one of three months of allowed noncompliance for that 12-month period. If a beneficiary exceeds three months of noncompliance with community engagement requirements within a 12-month period, their coverage under the Healthy Michigan Plan will be suspended for one year.

Community-Based Organization Supports and Assistance

MDHHS staff and meeting attendees also discussed ideas to provide training for community partners to assist Healthy Michigan Plan beneficiaries with the new process for reporting compliance with community engagement requirements or attesting to being medically frail. In addition, Kathy Stiffler indicated that a draft plan for MDHHS community outreach related to the new Healthy Michigan Plan processes will available for discussion at the next Medical Care Advisory Council (MCAC) meeting.

Focus Groups - Reviewing Beneficiary Material

Kathy Stiffler reported that the department plans to convene focus groups to preview beneficiary material that will be used to communicate information related to HMP 3 and community engagement requirements for Healthy Michigan Plan beneficiaries, and asked meeting attendees to provide recommendations for groups or individuals who would be a good fit to participate in these focus groups. MDHHS staff and meeting attendees continued to discuss various issued related to the Healthy Michigan Plan at length, including the status of waivers submitted by other states requesting to implement community engagement requirements.

Long Term Care Updates

Dick Miles provided the following updates related to Long Term Care:

- MDHHS plans to release a report in December 2018 that will provide the details of a proposed Managed Long-Term Services and Supports (MLTSS) model.

- Enrollment in MI Health Link peaked at approximately 39,600 enrollees in the beginning of 2018 and is now under 36,000. MDHHS is working to resolve issues related to enrollment discrepancies between Medicare and Medicaid and has suspended the monthly passive enrollment process into MI Health Link while these problems are addressed. The MI Health Link demonstration is currently authorized under waiver authority through December 31, 2020, and MDHHS is planning to discuss with CMS the possibility of extending the program beyond that date.

- The state legislature is considering a bill during the current “lame duck” session that would modify the ballot initiative passed in 2018 to increase the minimum wage, which would have budget implications for MDHHS with respect to payment to Home Help personal care services providers. In addition, the legislature is also considering a bill to mandate zip code exclusivity to Program of All-Inclusive Care for the Elderly (PACE) organizations.

- The MI Choice Waiver has been renewed for an additional five years.

- MDHHS is continuing the stakeholder engagement process in preparation for implementing an Electronic Visit Verification (EVV) system for personal care service providers by January 1, 2020.

- The department is in the process of developing a Brain Injury Waiver chapter for the Medicaid Provider Manual. In addition, MDHHS released bulletin MSA 18-48, regarding a Medicaid Provider Manual chapter specific to Nursing Facility Level of Care Determination (LOCD) on November 30, 2018.

Public Charge

MDHHS staff and meeting attendees discussed new proposed rules by the Trump administration that would expand the benefits that could be considered in determining whether a person is likely to become a public charge to include Medicaid, housing assistance, Medicare Part D, and the Supplemental Nutrition Assistance Program (SNAP). A person deemed likely to become a public charge can be denied admission to the U.S. or the ability to become a lawful permanent resident. Handouts containing supplemental information on the proposed Public Charge rule were distributed to meeting attendees, and the issue was discussed at length.

Behavioral Health Updates

Erin Emerson reported that MDHHS has submitted a Section 1115 waiver to provide all behavioral health services under a single waiver authority to CMS. CMS has communicated an alternative approach to MDHHS that involves maintaining several waivers. MDHHS is working with CMS to identify technical assistance needs and next steps, but is targeting approval by October 1, 2019.

Section 298 Update

MDHHS staff provided an update on the progress of the Section 298 initiative to integrate behavioral health and physical health services. Meeting attendees were provided with copies of the Section 298 Progress Report, which was prepared by MDHHS and submitted to the legislature on November 1, 2018 as required by the FY19 appropriations act (Public Act 207 of 2018). The report contains a summary of the pilots and demonstration project, an update on the current progress in implementing the pilots and demonstration project, and an update on the implementation of policy changes related to the recommendations from the final report of the 298 Facilitation Workgroup. The document was discussed at length, and meeting attendees were also directed to the MDHHS website at www.michigan.gov/stakeholder298 for additional information on the Section 298 initiative.

Dental Update

Healthy Kids Dental

Effective October 1, 2018, MDHHS awarded contracts to both Delta Dental and Blue Cross Blue Shield of Michigan to provide services to beneficiaries of the ***Healthy Kids Dental*** program. While the department randomly assigns beneficiaries to a plan upon enrollment, five out of every six new enrollees are currently assigned to Blue Cross Blue Shield of Michigan to ensure sustainability of two different plans, as Delta Dental was the sole participating health plan prior to October 1, 2018. Once enrollment in Blue Cross Blue Shield reaches 200,000 ***Healthy Kids Dental*** beneficiaries, MDHHS will begin to randomly assign each new enrollee to a different plan. Once assigned to a plan, beneficiaries may then choose to enroll in a different plan if they wish.

Pregnant Women Dental

Kathy Stiffler shared that in an effort to improve access to services, dental coverage has been added as a benefit for pregnant women enrolled in a Medicaid Health Plan for up to three months post-partum effective July 1, 2018. As part of this process, MDHHS has been working to improve coordination of benefits between physical health and dental health providers to better identify women who are eligible for this benefit. MDHHS staff and meeting attendees continued to discuss additional ideas for how to improve this process, including a suggestion by one attendee to extend the managed care dental benefit to all adults.

Provider Enrollment Requirements

MDHHS staff and meeting attendees discussed at length the requirement that all typical providers must be enrolled in the Community Health Automated Medicaid Processing System (CHAMPS) to receive payments from Medicaid Health Plans and Dental Health Plans. Following previous communications that suspended the deadline for compliance with this requirement, due to staffing issues at the department, MDHHS issued bulletin MSA 18-47 on November 30, 2018, to inform providers that Medicaid Health Plans and Dental Health Plans may no longer issue payments to providers who are not enrolled in CHAMPS effective January 1, 2019.

A meeting attendee reported that many entities with a large number of providers had been waiting to see a hard deadline before completing the CHAMPS enrollment process, as they wanted to ensure that there would be no systems issues that would act as a barrier to compliance. In response, MDHHS staff indicated that the department has been in communication with providers regarding the January 1, 2019 deadline for compliance, but that staff were not aware of provider concerns related to potential systems issues. Kathy Stiffler further indicated that MDHHS currently plans to begin denying pharmacy claims from non-enrolled prescribing typical providers beginning July 1, 2019, but may consider postponing the deadline to accommodate hospital residency programs that receive a new class of resident physicians on July 1, 2019.

Policy Updates

School Mental Health and Registered Nurse Services

Jackie Prokop shared that MDHHS is working with stakeholders to develop a State Plan Amendment and corresponding policy that will allow schools to receive Medicaid matching funds to expand behavioral health and nursing services for general education students. MDHHS staff and meeting attendees discussed the issue at length.

Policies to Note

A policy bulletin handout was distributed to attendees.

Medical Services Administration
Bureau of Medicaid Care Management and Quality Assurance

PERFORMANCE MONITORING REPORT

Healthy Michigan Plan Measures

Composite – All Plans

January 2019

Produced by:
Quality Improvement and Program Development – Managed Care Plan Division

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Healthy Michigan Plan

Appendixes

Figures

Table

Executive Summary

This Performance Monitoring Report (PMR) is produced by the Quality Improvement and Program Development (QIPD) Section of the Managed Care Plan Division (MCPD) to track quality, access, and utilization in the Michigan Medicaid program to better support high quality care for beneficiaries.

The Michigan Department of Health and Human Services (MDHHS) monitors the performance of the State's Medicaid Health Plans (MHPs) through 27 key performance measures aimed at improving the quality and efficiency of health care services provided to the Michigan residents enrolled in a Medicaid program. These measures include MDHHS Administrative Measures, Healthy Michigan Plan (HMP) Measures, HMP Dental Measures, CMS Core Set Measures, Health Equity HEDIS Measures, HEDIS Measures and Managed Care Quality Measures. **This report focuses only on the following HMP Measures:**

Healthy Michigan Plan (HMP) Measures				
Adults' Generic Drug Utilization	*Completion of Annual HRA*	*Outreach & Engagement to Facilitate Entry to PCP*	*Transition into Consistently Fail to Pay (CFP) Status*	*Transition out of Consistently Fail to Pay (CFP) Status*

Data for these measures are represented on a quarterly basis. The body of the report contains a cross-plan analysis of the most current data available for each of these measures. Measurement Periods may vary and are based on the specifications for that individual measure. Appendix A contains specific three letter codes identifying each of the MHPs. Appendix B contains the one-year plan specific analysis for each measure.

MHPs are contractually obligated to achieve specified standards for most measures. The following table displays the number of MHPs meeting or exceeding the standards for the performance measure versus total MHPs, as reported in the Performance Monitoring Report, during the listed quarter for fiscal year 2019 unless otherwise noted.

Table 1: Fiscal Year 2019[1]

Quarterly Reported Measures	**Reported in 1st Quarter**		**Reported in 2nd Quarter**		**Reported in 3rd Quarter**		**Reported in 4th Quarter**	
Adults' Generic Drug Utilization	N/A							
Completion of Annual HRA	N/A							
Outreach & Engagement to Facilitate Entry to PCP	9/11							
	> 100% FPL	≤100% FPL	> 100% FPL	≤100% FPL	> 100% FPL	≤100% FPL	> 100% FPL	≤100% FPL
Transition into CFP Status – Cohort 1	10/11	11/11						
Transition into CFP Status – Cohort 2	10/11	9/11						
Transition into CFP Status – Cohort 3	11/11	10/11						
Transition out of CFP Status – Cohort 1	7/11	10/11						
Transition into CFP Status – Cohort 2	10/11	9/11						
Transition into CFP Status – Cohort 3	8/11	10/11						

[1] N/A will be shown for measures where the standard is Informational Only.

Healthy Michigan Plan Enrollment

The Healthy Michigan Plan (HMP-MC) enrollment has remained steady over the past year. In December 2018, enrollment was 534,526, down 6,045 enrollees (1.1%) from January 2018. A decrease of 5,639 enrollees (1.0%) was realized between November 2018 and December 2018.

Figure 1: HMP-MC Enrollment, January 2018 – December 2018

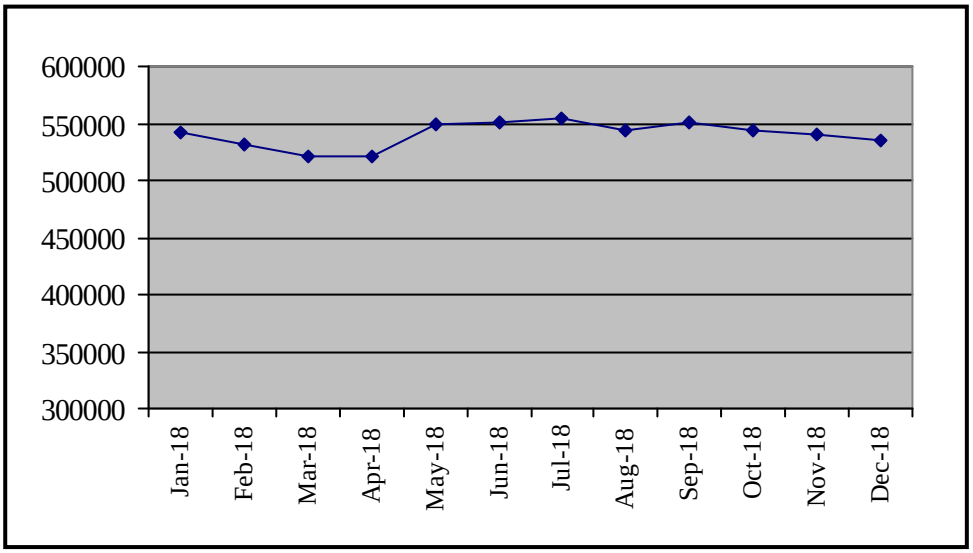
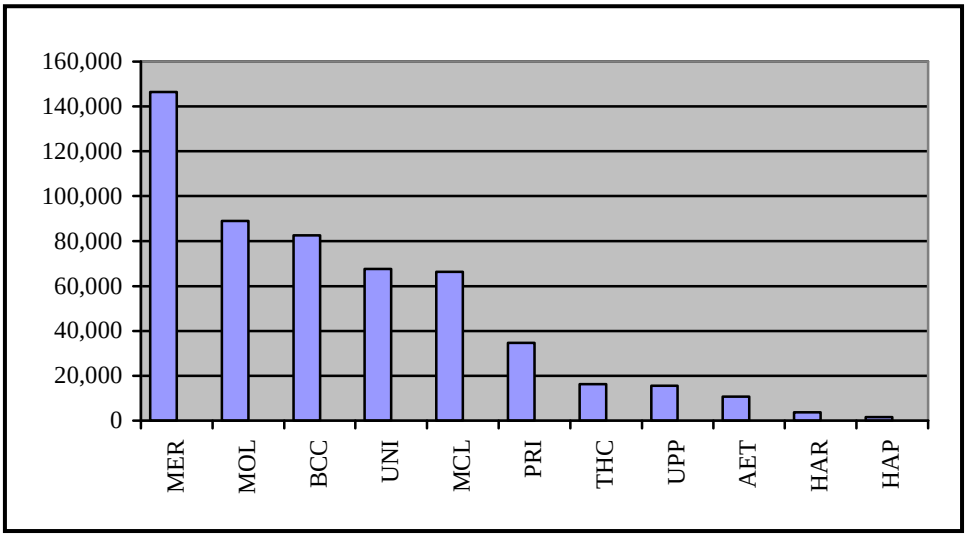


Figure 2: HMP-MC Enrollment by Medicaid Health Plan, December 2018



Medicaid Health Plan News

The Performance Monitoring Report contains data for all Healthy Michigan Medicaid Health Plans, where data is available. Eleven Medicaid Health Plans are contracted with the State of Michigan to provide comprehensive health care services.

As of January 1, 2019, HAP Midwest (MID) has changed their name to HAP Empowered (HAP). All references to MID in this report should now reflect the new HAP acronym.

Cross-Plan Performance Monitoring Analyses

The following section includes a cross-plan analysis for each performance measure. An analysis of the most current data available for each performance measure is included. For detailed questions regarding measurement periods or standards, see the Performance Monitoring Specifications.

Adults' Generic Drug Utilization

Measure
The percentage of generic prescriptions filled for adult members of health plans during the measurement period.

Standard
N/A – Informational Only

Measurement Period
April 2018 –June 2018

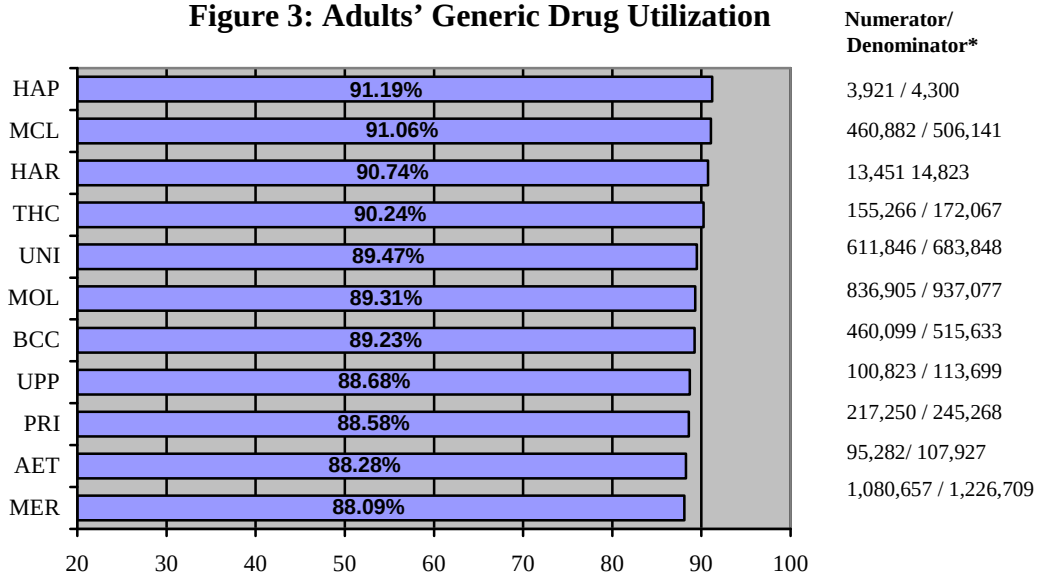
Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Table 2: Comparison across Medicaid Programs

Medicaid Program	Numerator	Denominator	Percentage
Michigan Medicaid All	4,099,856	4,598,191	89.16%
Fee For Service (FFS) only	15,537	17,391	89.34%
Managed Care only	4,054,022	4,547,147	89.16%
MA-MC	2,035,318	2,293,177	88.76%
HMP-MC	1,978,984	2,209,794	89.56%

Figure 3: Adults' Generic Drug Utilization



Adult's Generic Drug Utilization Percentages

*Numerator depicts the number of eligible beneficiaries who had generic prescriptions filled. Denominator depicts the total number of eligible beneficiaries.

Completion of Annual Health Risk Assessment (HRA)

Measure
The percentage of new Healthy Michigan Plan beneficiaries enrolled in a health plan who had a second Health Risk Assessment (HRA) completed within one year (defined as 11-15 months) of their first HRA.

Standard
N/A – Informational Only

Measurement Period
July 2017 – June 2018

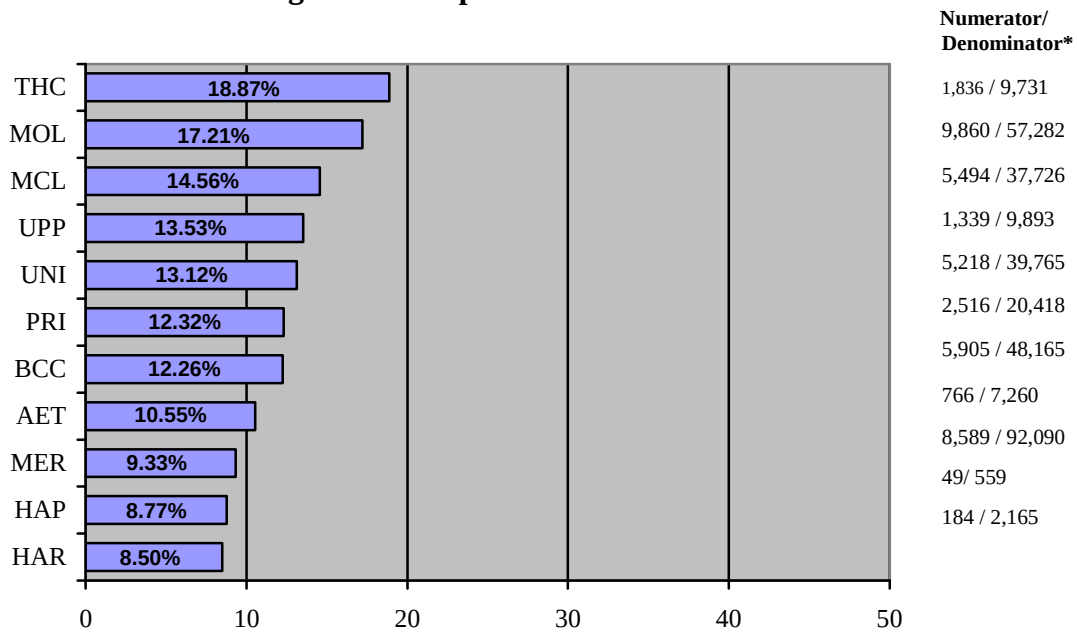
Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Table 3: Program Total

Medicaid Program	Numerator	Denominator	Percentage
HMP-MC	49,121	393,125	12.50%

Figure 4: Completion of Annual HRA



Completion of Annual HRA Percentages

*Numerator depicts the number of eligible beneficiaries who completed a second HRA within one year (defined as 11-15 months) of their first HRA. Denominator depicts the total number of eligible beneficiaries.

Outreach and Engagement to Facilitate Entry to Primary Care

Measure
The percentage of Healthy Michigan Plan health plan enrollees who have an ambulatory or preventive care visit within 150 days of enrollment into a health plan who had not previously had an ambulatory or preventive care visit since enrollment in Healthy Michigan Plan.

Standard
At or above 50% (as shown on bar graph below)

Enrollment Dates
January 2018 – March 2018

Data Source
MDHHS Data Warehouse

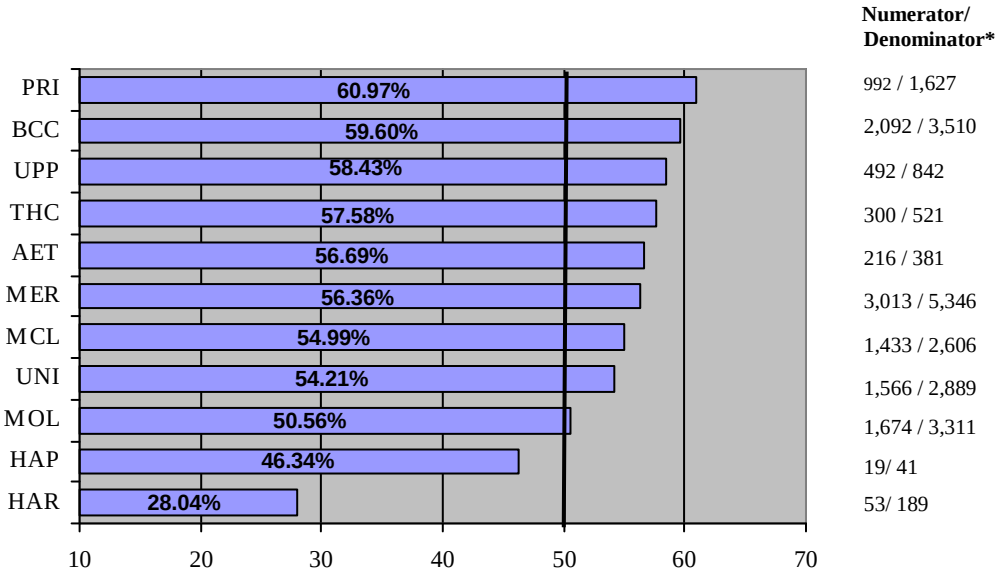
Measurement Frequency
Quarterly

Summary: Nine plans met or exceeded the standard, while two plans (HAP and HAR) did not. Results ranged from 28.04% to 60.97%.

Table 4: Program Total[2]

Medicaid Program	Numerator	Denominator	Percentage
HMP-MC	15,677	25,090	62.48%

Figure 5: Outreach & Engagement to Facilitate Entry to Primary Care



Outreach & Engagement to Facilitate Entry to Primary Care Percentages

*Numerator depicts the number of eligible beneficiaries who had an ambulatory or preventive care visit within 150 days of enrollment in a health plan. Denominator depicts the total number of eligible beneficiaries.

[2] This includes visits during the HMP FFS period prior to enrollment in a Medicaid health plan.

Transition into Consistently Fail to Pay (CFP) Status

Measure
The percentage of Healthy Michigan Plan beneficiaries who transitioned from non-CFP status into CFP status during the last quarter of the measurement period.

Standard
Income level over 100% FPL - At or **below** 30%
Income level up to 100% FPL – At or **below** 7%

Measurement Period
November 2017 – December 2018

Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

*****This is a reverse measure. A lower rate indicates better performance.***

Summary:
In ***Cohort 1***, for income levels over 100% FPL, 10 plans met or exceeded the standard, while one plan (HAR) did not. Results ranged from 8.67% to 54.55%. For income levels up to 100% FPL, all plans met or exceeded the standard. Results ranged from 0.00% to 5.31%.
In ***Cohort 2***, for income levels over 100% FPL, 10 plans met or exceeded the standard while one plan (HAR) did not. Results ranged from 9.33% to 33.33%. For income levels up to 100% FPL, nine plans met or exceeded the standard, while two plans (HAP and HAR) did not. Results ranged from 4.41% to 14.29%.
In ***Cohort 3***, for income levels over 100% FPL, all plans met or exceeded the standard. Results ranged from 7.69% to 19.44%. For income levels up to 100% FPL, 10 plans met or exceeded the standard, while one plan (HAP) did not. Results ranged from 3.82% to 11.11%

Figure 6: Transition into CFP Status - Cohort 1

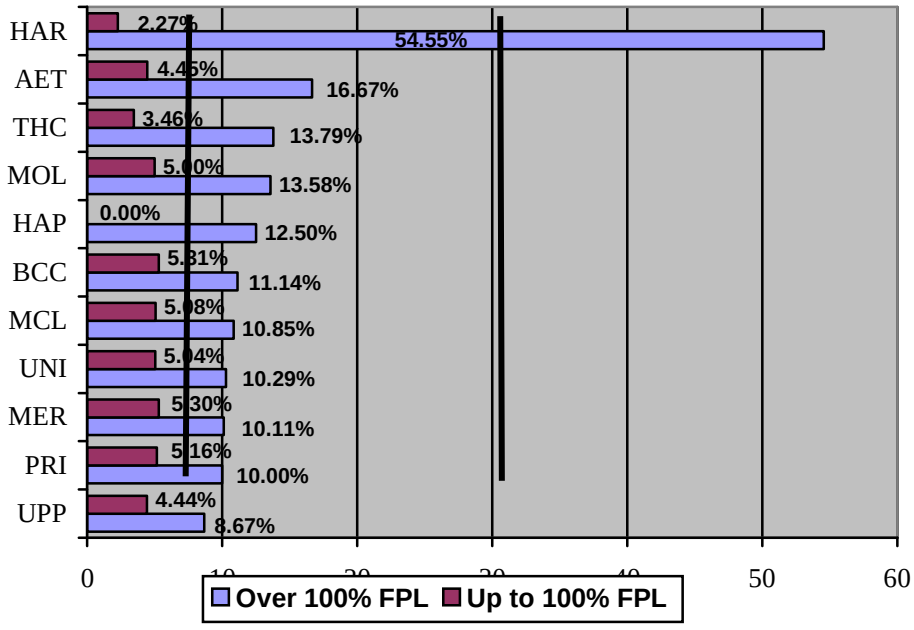


Figure 7: Transition into CFP Status - Cohort 2

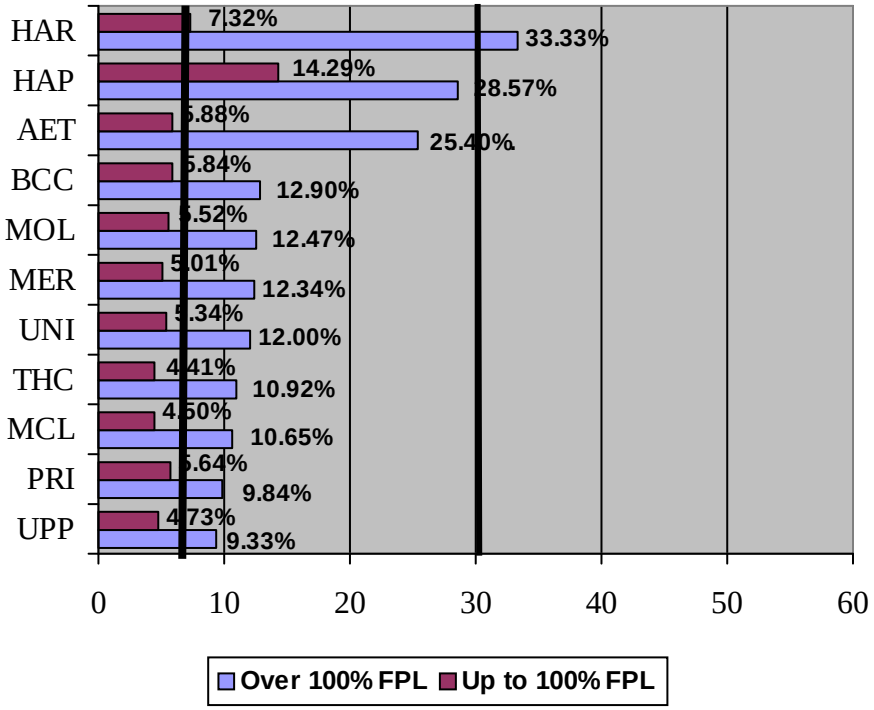
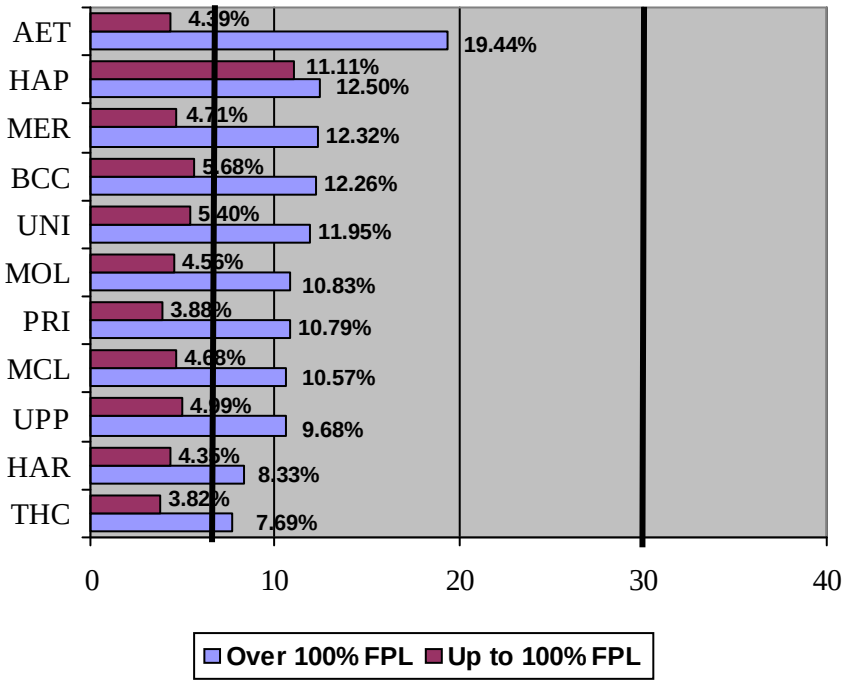


Figure 8: Transition into CFP Status - Cohort 3



Transition out of Consistently Fail to Pay (CFP) Status

Measure
The percentage of Healthy Michigan Plan beneficiaries who transitioned from CFP status to non-CFP status during the last quarter of the measurement period.

Standard
Income level over 100% FPL - At or above 2%
Income level up to 100% FPL – At or above **2**%

Measurement Period
November 2017 – December 2018

Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Summary:
In ***Cohort 1***, for income levels over 100% FPL, seven plans met or exceeded the standard, while four plans (AET, HAP, HAR, and THC) did not. Results ranged from 0.00% to 4.59%. For income levels up to 100% FPL, 10 plans met or exceeded the standard, while one plan (HAR) did not. Results ranged from 0.00% to 7.57%.
In ***Cohort 2***, for income levels over 100% FPL, 10 plans met or exceeded the standard while one plan (HAR) did not. Results ranged from 0.00% to 14.29%. For income levels up to 100% FPL, nine plans met or exceeded the standard, while two plans (AET and HAP) did not. Results ranged from 0.00% to 7.14%.
In ***Cohort 3***, for income levels over 100% FPL, eight plans met or exceeded the standard, while three plans (AET, HAP and THC) did not. Results ranged from 0.00% to 5.52%. For income levels up to 100% FPL, 10 plans met or exceeded the standard, while one plan (HAP) did not. Results ranged from 0.00% to 6.68%.

Figure 9: Transition out of CFP Status - Cohort 1

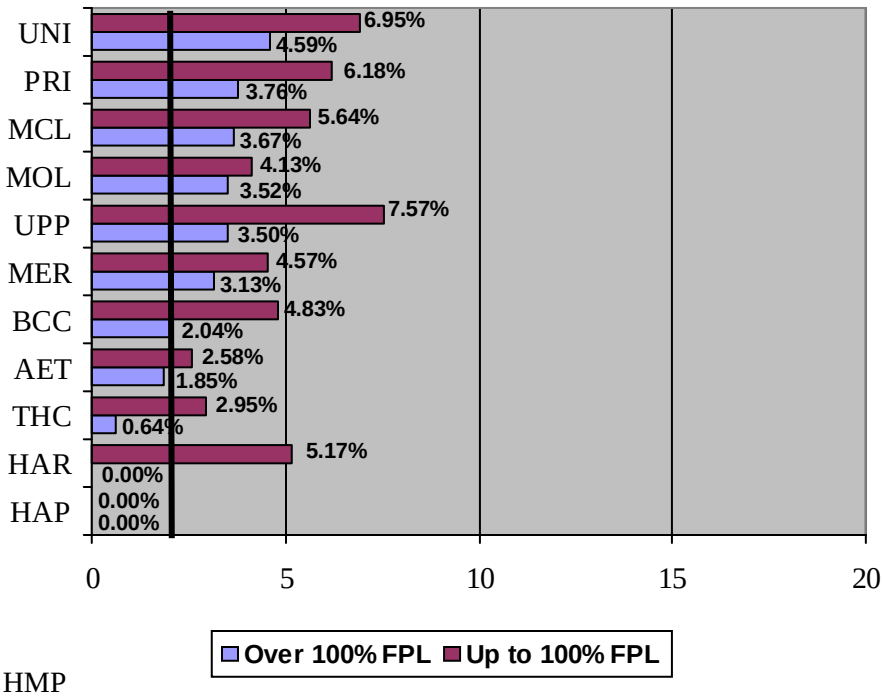


Figure 10: Transition out of CFP Status - Cohort 2

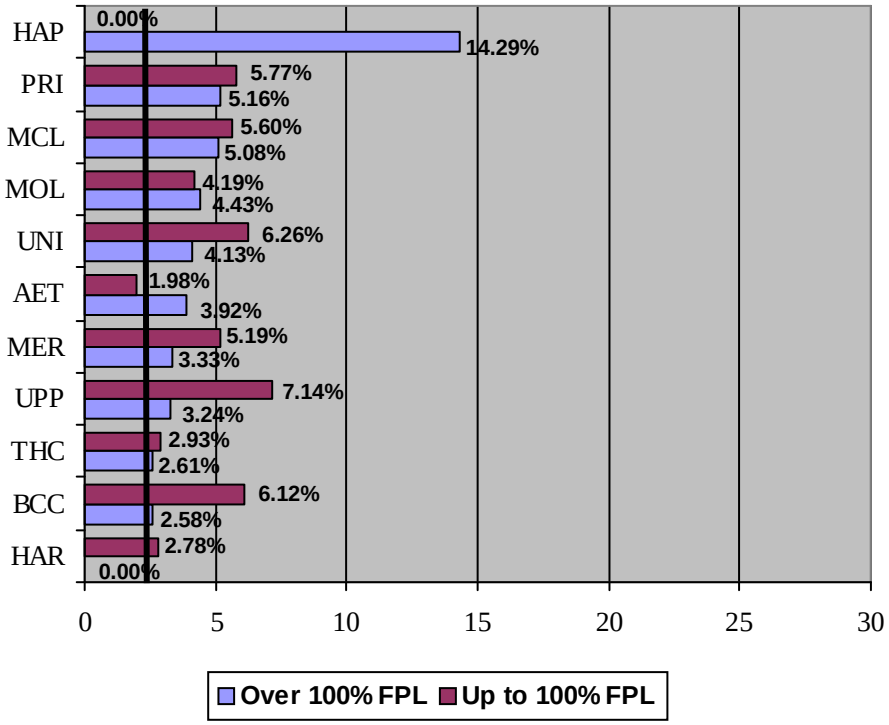
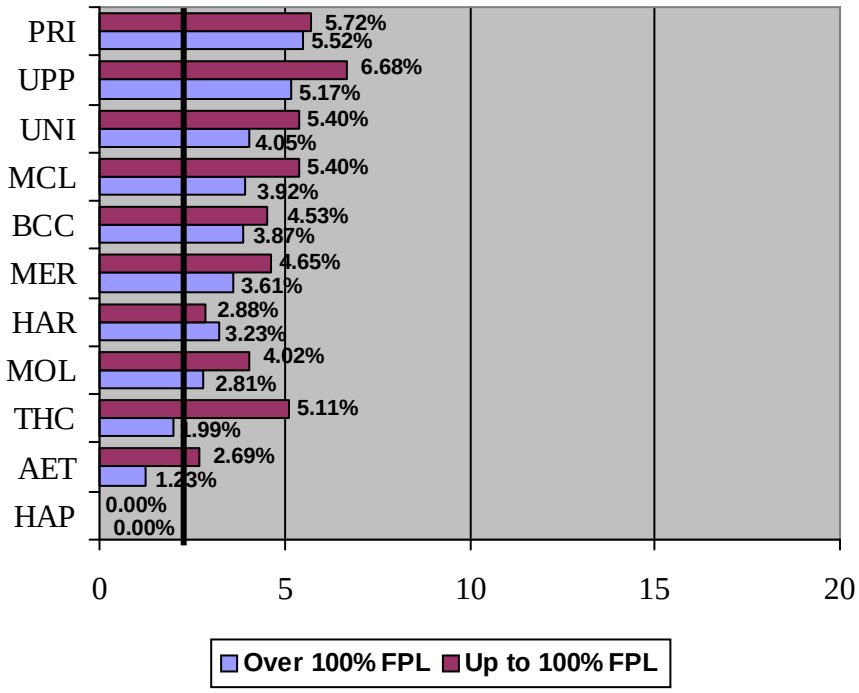


Figure 11: Transition out of CFP Status - Cohort 3



Appendix A: Three Letter Medicaid Health Plan Codes

Below is a list of three letter codes established by MDHHS identifying each Medicaid Health Plan.

AET	Aetna Better Health of Michigan
BCC	Blue Cross Complete of Michigan
HAP	HAP Empowered
HAR	Harbor Health Plan
MCL	McLaren Health Plan
MER	Meridian Health Plan of Michigan
MOL	Molina Healthcare of Michigan
PRI	Priority Health Choice
THC	Total Health Care
UNI	UnitedHealthcare Community Plan
UPP	Upper Peninsula Health Plan

Appendix B: One Year Plan-Specific Analysis

Aetna Better Health of Michigan – AET

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**88.28%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**10.55%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**56.69%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**16.67%**	**Yes**	**25.40%**	**Yes**	**19.44%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**4.45%**	**Yes**	**5.88%**	**Yes**	**4.39%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**1.85%**	**No**	**3.92%**	**Yes**	**1.23%**	**No**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**2.58%**	**Yes**	**1.98%**	**No**	**2.69%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Blue Cross Complete of Michigan – BCC

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**89.23%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**12.26%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**59.60%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**11.14%**	**Yes**	**12.90%**	**Yes**	**12.26%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.31%**	**Yes**	**5.84%**	**Yes**	**5.68%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**2.04%**	**Yes**	**2.58%**	**Yes**	**3.87%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**4.83%**	**Yes**	**6.12%**	**Yes**	**4.53%**	**Yes**

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Appendix B: One Year Plan-Specific Analysis

HAP Empowered – HAP

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**91.19%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**8.77%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**46.34%**	**N/A**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**12.50%**	**Yes**	**28.57%**	**Yes**	**12.50%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**0.00%**	**Yes**	**14.29%**	**No**	**11.11%**	**No**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**0.00%**	**No**	**14.29%**	**Yes**	**0.00%**	**No**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**0.00%**	**No**	**0.00%**	**No**	**0.00%**	**No**

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Appendix B: One Year Plan-Specific Analysis

Harbor Health Plan – HAR

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**90.74%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**8.50%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**28.04%**	**No**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**54.55%**	**No**	**33.33%**	**No**	**8.33%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**2.27%**	**Yes**	**7.32%**	**No**	**4.35%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**0.00%**	**No**	**0.00%**	**No**	**3.23%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**5.17%**	**Yes**	**2.78%**	**Yes**	**2.88%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

McLaren Health Plan – MCL

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**91.06%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**14.56%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**54.99%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**10.85%**	**Yes**	**10.65%**	**Yes**	**10.57%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.08%**	**Yes**	**4.50%**	**Yes**	**4.68%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**3.67%**	**Yes**	**5.08%**	**Yes**	**3.92%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**5.64%**	**Yes**	**5.60%**	**Yes**	**5.40%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Meridian Health Plan of Michigan – MER

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**88.09%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**9.33%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**56.36%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**10.11%**	**Yes**	**12.34%**	**Yes**	**12.32%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.30%**	**Yes**	**5.01%**	**Yes**	**4.71%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**3.13%**	**Yes**	**3.33%**	**Yes**	**3.61%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**4.57%**	**Yes**	**5.19%**	**Yes**	**4.65%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Molina Healthcare of Michigan – MOL

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**89.31%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**17.21%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**50.56%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**13.58%**	**Yes**	**12.47%**	**Yes**	**10.83%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.00%**	**Yes**	**5.52%**	**Yes**	**4.56%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**3.52%**	**Yes**	**4.43%**	**Yes**	**2.81%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**4.13%**	**Yes**	**4.19%**	**Yes**	**4.02%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Priority Health Choice – PRI

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**88.58%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**12.32%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**60.97%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**10.00%**	**Yes**	**9.84%**	**Yes**	**10.79%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.16%**	**Yes**	**5.64%**	**Yes**	**3.88%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**3.76%**	**Yes**	**5.16%**	**Yes**	**5.52%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**6.18%**	**Yes**	**5.77%**	**Yes**	**5.72%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Total Health Care – THC

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**90.24%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**18.87%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**57.58%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**13.79%**	**Yes**	**10.92%**	**Yes**	**7.69%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**3.46%**	**Yes**	**4.41%**	**Yes**	**3.82%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**0.64%**	**No**	**2.61%**	**Yes**	**1.99%**	**No**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**2.95%**	**Yes**	**2.93%**	**Yes**	**5.11%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

UnitedHealthcare Community Plan – UNI

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**89.47%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**13.12%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**54.21%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**10.29%**	**Yes**	**12.00**	**Yes**	**11.95%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**5.04%**	**Yes**	**5.34%**	**Yes**	**5.40%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**4.59%**	**Yes**	**4.13%**	**Yes**	**4.05%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**6.95%**	**Yes**	**6.26%**	**Yes**	**5.40%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Upper Peninsula Health Plan – UPP

HEALTHY MICHIGAN PLAN:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Adults' Generic Drug Utilization	**Apr 18 – Jun 18**	**Informational Only**	**88.68%**	**N/A**
Completion of Annual HRA	**Jul 17 – Jun 18**	**Informational Only**	**13.53%**	**N/A**
Outreach/Engagement to Facilitate Entry to Primary Care	**Jan 18 – Mar 18**	**50%**	**58.43%**	**Yes**

Transition into CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
30%	**8.67%**	**Yes**	**9.33%**	**Yes**	**9.68%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
7%	**4.44%**	**Yes**	**4.73%**	**Yes**	**4.99%**	**Yes**

This is a reverse measure. A lower rate indicates better performance.

Transition out of CFP Status: [Nov 17 – Dec 18]						
Standard >100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**3.50%**	**Yes**	**3.24%**	**Yes**	**5.17%**	**Yes**
Standard ≤100% FPL	**Cohort 1 Result**	**Standard Achieved**	**Cohort 2 Result**	**Standard Achieved**	**Cohort 3 Result**	**Standard Achieved**
2%	**7.57%**	**Yes**	**7.14%**	**Yes**	**6.68%**	**Yes**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Medical Services Administration
Bureau of Medicaid Care Management and Quality Assurance

PERFORMANCE MONITORING REPORT

Healthy Michigan Plan – Dental Measures

Composite – All Plans

January 2019
Revised February 27, 2019

Produced by:
Quality Improvement and Program Development – Managed Care Plan Division

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Healthy Michigan Plan Dental Measures

Appendixes

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Executive Summary

This Dental Performance Monitoring Report (PMR) is produced by the Quality Improvement and Program Development (QIPD) Section of the Managed Care Plan Division (MCPD) to track quality, access, and utilization in the Michigan Medicaid program to better support high quality care for beneficiaries.

The Michigan Department of Health and Human Services (MDHHS) monitors the performance of the State's Medicaid Health Plans (MHPs) through 27 key performance measures aimed at improving the quality and efficiency of health care services provided to the Michigan residents enrolled in a Medicaid program. These measures include MDHHS Administrative Measures, Healthy Michigan Plan (HMP) Measures, HMP Dental Measures, CMS Core Set Measures, Health Equity HEDIS Measures, HEDIS Measures and Managed Care Quality Measures. **This report focuses only on the following HMP Dental Measures:**

Healthy Michigan Plan		
Diagnostic Dental Services	*Preventive Dental Services*	*Restorative (Dental Filings) Dental Services*

Data for these measures will be represented on a quarterly basis. The body of the report contains a cross-plan analysis of the most current data available for each of these measures. Measurement Periods may vary and are based on the specifications for that individual measure. Appendix A contains specific three letter codes identifying each of the MHPs. Appendix B contains the one-year plan specific analysis for each measure.

The following table displays the number of MHPs meeting or exceeding the standards for the performance measure versus total MHPs, as reported in the Performance Monitoring Report, during the listed quarter for fiscal year 2019 unless otherwise noted.

Table 1: Fiscal Year 2019[1]

Quarterly Reported Measures	Reported in 1st Quarter	Reported in 2nd Quarter	Reported in 3rd Quarter	Reported in 4th Quarter
Diagnostic Dental Services	N/A			
Preventive Dental Services	N/A			
Restorative (Dental Fillings) Dental Services	N/A			

[1] N/A will be shown for measures where the standard is Informational Only.

Healthy Michigan Plan Enrollment

The Healthy Michigan Plan (HMP-MC) enrollment has remained steady over the past year. In December 2018, enrollment was 534,526, down 6,045 enrollees (1.1%) from January 2018. A decrease of 5,639 enrollees (1.0%) was realized between November 2018 and December 2018.

Figure 1: HMP-MC Enrollment, January 2018 – December 2018

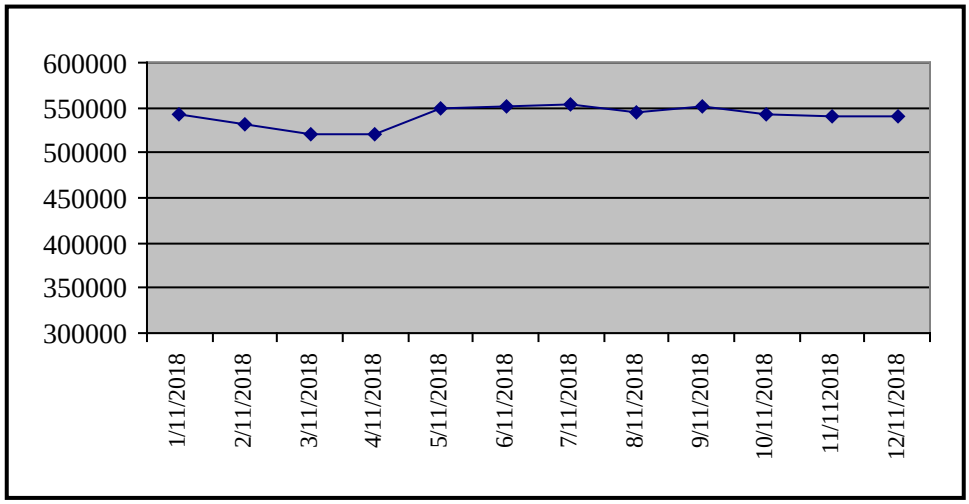
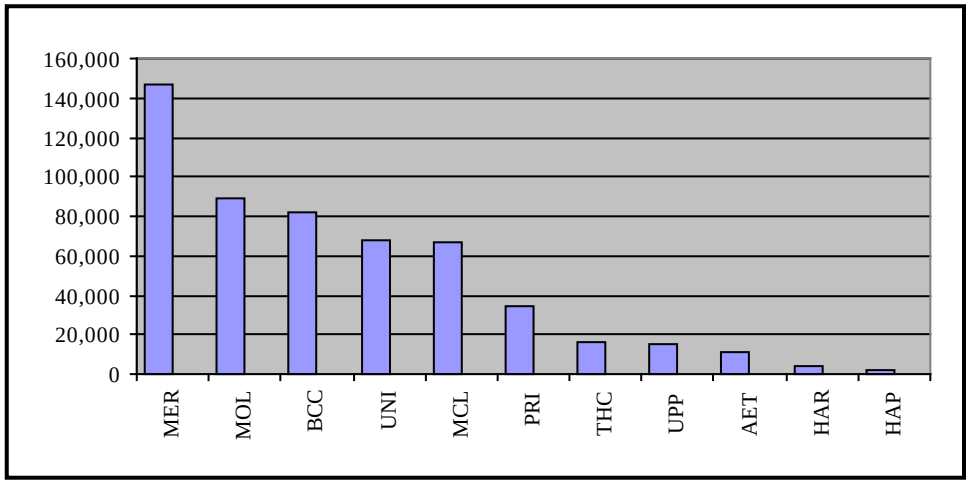


Figure 2: HMP-MC Enrollment by Medicaid Health Plan, December 2018



Medicaid Health Plan News

The Performance Monitoring Report contains data for all Healthy Michigan Medicaid Health Plans, where data is available. Eleven Medicaid Health Plans are contracted with the State of Michigan to provide comprehensive health and services.

As of January 1, 2019, HAP Midwest (MID) has changed their name to HAP Empowered (HAP). All references to MID in this report should now reflect the new HAP acronym.

Cross-Plan Performance Monitoring Analyses

The following section includes a cross-plan analysis for each performance measure. An analysis of the most current data available for each performance measure is included. For detailed questions regarding measurement periods or standards, see the Performance Monitoring Specifications.

Diagnostic Dental Services

Measure
The percentage of Healthy Michigan Plan enrollees between the ages of 19 and 64 who received at least one diagnostic dental service within the measurement period.

Standard
N/A – Informational Only

Measurement Period
July 2017 –June 2018

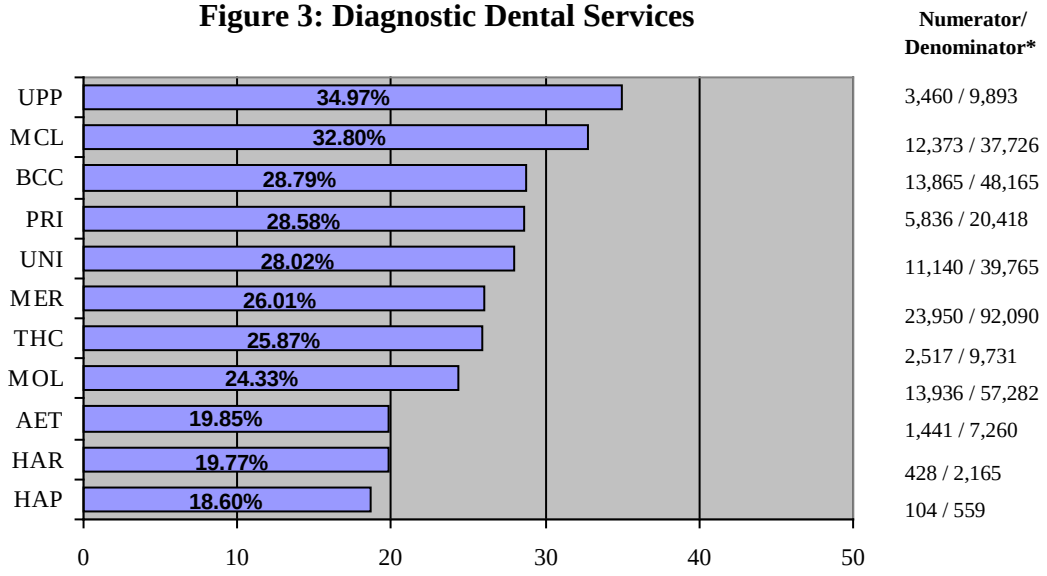
Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Table 2: Comparison across Medicaid Programs

Medicaid Program	Numerator	Denominator	Percentage
HMP Fee For Service (FFS) Only	1,002	5,879	17.04%
HMP Managed Care (MC) Only	91,959	332,673	27.64%

Figure 3: Diagnostic Dental Services



Diagnostic Dental Services Percentages

*Numerator depicts the number of eligible beneficiaries between the ages of 19 and 64 who had at least one diagnostic dental service. Denominator depicts the total number of eligible beneficiaries.

Preventive Dental Services

Measure
The percentage of Healthy Michigan Plan enrollees between the ages of 19 and 64 who received at least one preventive dental service within the measurement period.

Standard
N/A – Informational Only

Measurement Period
July 2017 –June 2018

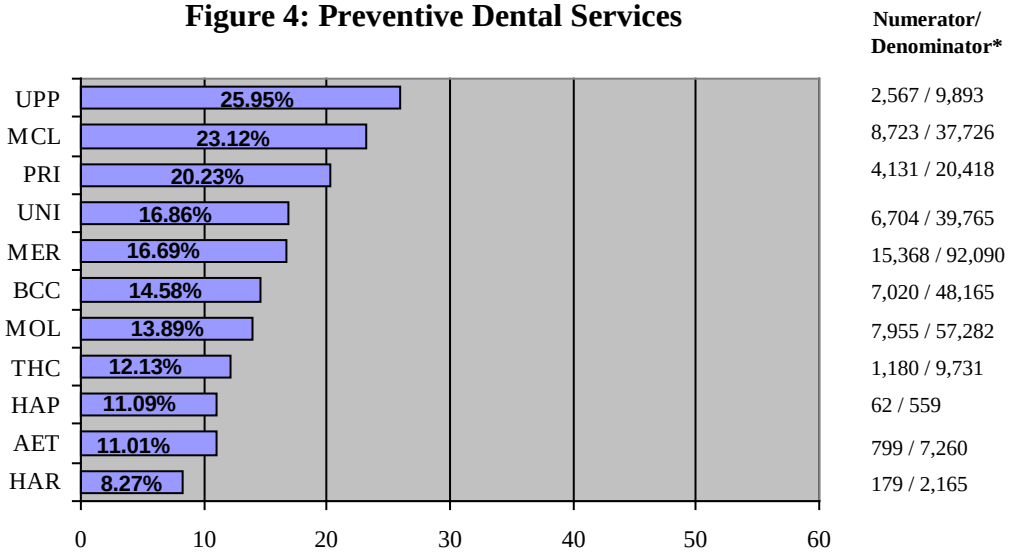
Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Table 3: Comparison across Medicaid Programs

Medicaid Program	Numerator	Denominator	Percentage
HMP Fee For Service (FFS) Only	528	5,879	8.98%
HMP Managed Care (MC) Only	56,406	332,673	16.96%

Figure 4: Preventive Dental Services



Preventive Dental Services Percentages

*Numerator depicts the number of eligible beneficiaries between the ages of 19 and 64 who had at least one preventive dental service. Denominator depicts the total number of eligible beneficiaries.

Restorative (Dental Fillings) Services

Measure
The percentage of total eligible Healthy Michigan Plan enrollees between the ages of 19 and 64 who received at least one restorative (dental fillings) dental service within the measurement period.

Standard
N/A – Informational Only

Measurement Period
July 2017 –June 2018

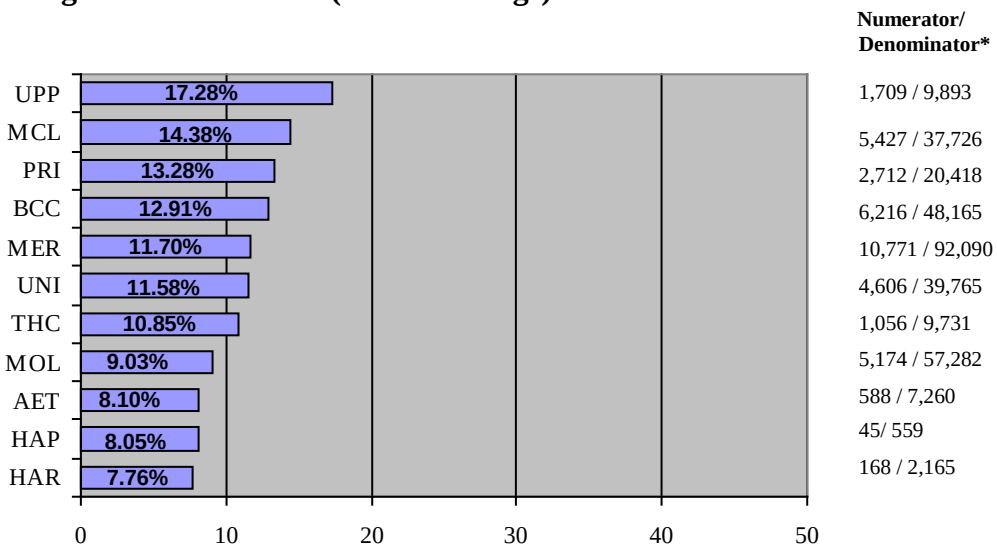
Data Source
MDHHS Data Warehouse

Measurement Frequency
Quarterly

Table 4: Comparison across Medicaid Programs

Medicaid Program	Numerator	Denominator	Percentage
HMP Fee For Service (FFS) Only	411	5,879	6.99%
HMP Managed Care (MC) Only	39,786	332,673	11.96%

Figure 5: Restorative (Dental Fillings) Dental Services



Restorative (Dental Fillings) Dental Services Percentages

*Numerator depicts the number of eligible beneficiaries between the ages of 19 and 64 who had at least one restorative dental service. Denominator depicts the total number of eligible beneficiaries.

Appendix A: Three Letter Medicaid Health Plan Codes

Below is a list of three letter codes established by MDHHS identifying each Medicaid Health Plan.

AET	Aetna Better Health of Michigan
BCC	Blue Cross Complete of Michigan
HAP	HAP Empowered
HAR	Harbor Health Plan
MCL	McLaren Health Plan
MER	Meridian Health Plan of Michigan
MOL	Molina Healthcare of Michigan
PRI	Priority Health Choice
THC	Total Health Care
UNI	UnitedHealthcare Community Plan
UPP	Upper Peninsula Health Plan

Appendix B: One Year Plan-Specific Analysis

Aetna Better Health of Michigan – AET

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**19.85%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**11.01%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**8.10%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Blue Cross Complete – BCC

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**28.79%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**14.58%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**12.91%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

HAP Empowered – HAP

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**18.60%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**11.09%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**8.05%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Harbor Health Plan – HAR

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**19.77%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**8.27%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**7.76%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

McLaren Health Plan – MCL

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**32.80%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**23.12%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**14.38%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Meridian Health Plan of Michigan – MER

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**26.01%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**16.69%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**11.70%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Molina Healthcare of Michigan – MOL

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**24.33%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**13.89%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**9.03%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Priority Health Choice – PRI

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**28.58%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**20.23%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**13.28%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Total Health Care – THC

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**25.87%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**12.13%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**10.85%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

UnitedHealthcare Community Plan – UNI

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**28.02%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**16.86%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**11.58%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

Appendix B: One Year Plan-Specific Analysis

Upper Peninsula Health Plan – UPP

HEALTHY MICHIGAN PLAN – DENTAL MEASURES:

Performance Measure	Measurement Period	Standard	Plan Result	Standard Achieved
Diagnostic Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**34.97%**	**N/A**
Preventive Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**25.95%**	**N/A**
Restorative (Dental Fillings) Dental Services	**Jul 17 – Jun 18**	**Informational Only**	**17.28%**	**N/A**

- Shaded areas represent data that are newly reported this month.
- For questions regarding measurement periods or standards, see the Performance Monitoring Specifications

MI HEALTH ACCOUNT

EXECUTIVE SUMMARY REPORT

DECEMBER 2018

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

MAXIMUS contracts with each Healthy Michigan Plan health plan to operate the MI Health Account (MIHA). The MIHA documents health care costs and payments for health plan members eligible for the Healthy Michigan Plan. Any amount the beneficiary owes to the MIHA is reflected in the quarterly statement that is mailed to the beneficiary. The MIHA quarterly statement shows the total amount owed for co-pays and/or contributions.

A co-pay is a fixed amount beneficiaries pay for a health care service. Before a beneficiary is enrolled in managed care, the beneficiary will pay any co-pays directly to their provider at the time of service. Once enrolled in managed care, co-pays for health plan covered services will be paid into the MIHA.

A contribution is the amount of money that is paid toward health care coverage. **Beneficiaries with incomes at or below 100% of the Federal Poverty Level (FPL) will NOT have a contribution.** Beneficiaries above 100% FPL are required to pay contributions that are based on income and family size. The quarterly statement informs beneficiaries what to pay for co-pays and contributions each month for the next three months, includes payment coupons with instructions on how to make a payment, as well as tips on how to reduce costs (Healthy Behavior incentives). The statement lists the services the beneficiary has received, the amount the beneficiary has paid, what amount they still need to pay, and the amount the health plan has paid.

Quarterly Statement Mailing Guidelines

- The first quarterly statement is mailed six months after a beneficiary joins a health plan. After that, quarterly statements are sent every three months.
- A beneficiary follows his or her own enrollment quarter based on their enrollment effective date**.**
- Quarterly statements are mailed by the 15th calendar day of each month
- Statements are not mailed to beneficiaries if there are no health care services to display or payment due for a particular quarter.

Chart 1 displays the statement mailing activity for the past three months. It also displays the calendar year totals since January 2018 and the program totals from October 2014 to September 2018.

Chart 1: Account Statement Mailing

Month Statement Mailed	Statements Mailed	Statements Requiring a Copay Only	Statements Requiring a Contribution Only	Statements Requiring a Copay and Contribution	Percentage of Statements Requiring Payment
Jul-18	131,235	24,229	11,282	14,255	37.92%
Aug-18	99,250	18,178	8,773	11,051	38.29%
Sep-18	106,549	18,870	8,429	11,105	36.04%
Calendar YTD	**1,014,070**	**182,219**	**90,799**	**106,157**	**37.39%**
Program Total	**4,267,100**	**877,917**	**376,097**	**460,851**	**40.19%**

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

Payments for the MIHA are due on the 15th of the month following the month they were billed.

Chart 2 displays a collection history of the number of beneficiaries that have paid co-pays and contributions. Completed quarterly payment cycles are explained and reflected in Chart 3. Calendar year totals are from January 2018. Program totals are from October 2014 through September 2018. Please note that beneficiaries that pay both co-pays and contributions will show in each chart.

Chart 2: Copays & Contributions Paid

Copays

Statement Month	Amount of copays owed	Amount of copays paid	Percentage of copays paid	Number of beneficiaries who owed copays	Number of beneficiaries who paid copays
Jul-18	$380,862.71	$107,951.91	28%	38,484	14,376
Aug-18	$295,437.74	$87,283.22	30%	29,229	11,315
Sep-18	$316,351.34	$114,226.16	36%	29,975	13,006
Calendar YTD	**$2,851,738.45**	**$1,031,661.04**	**36%**	**288,376**	**126,094**
Program Total	**$11,026,398.05**	**$4,707,744.29**	**43%**	**1,338,768**	**640,412**

Contributions

Statement Month	Amount of contributions owed	Amount of contributions paid	Percentage of contributions paid	Number of beneficiaries who owed contributions	Number of beneficiaries who paid contributions
Jul-18	$1,639,452.13	$278,837.66	17%	25,537	8,623
Aug-18	$1,267,862.32	$237,688.95	19%	19,824	7,088
Sep-18	$1,253,292.67	$235,505.42	19%	19,534	7,455
Calendar YTD	**$12,587,034.41**	**$3,043,583.09**	**24%**	**196,956**	**79,547**
Program Total	**$50,343,509.69**	**$16,615,271.15**	**33%**	**836,948**	**396,224**

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

Chart 3 displays the total amount collected by completed quarter, by enrollment month. For example, beneficiaries who enrolled in May 2014 received their first quarterly statement in November 2014. These individuals had until February 2015 to pay in full, which constitutes a completed quarter. The Percentage Collected will change even in completed quarters because payments received are applied to the oldest invoice owed.

Chart 3: Quarterly Collection

Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'APR-14	Oct 2014 - Dec 2014	$23,457.60	$16,820.47	71.71%
'APR-14	Jan 2015 - Mar 2015	$192,657.39	$149,714.01	77.71%
'APR-14	Apr 2015 - Jun 2015	$165,029.70	$124,945.62	75.71%
'APR-14	Jul 2015 - Sep 2015	$162,432.32	$118,186.25	72.76%
'APR-14	Oct 2015 - Dec 2015	$152,842.31	$109,654.14	71.74%
'APR-14	Jan 2016 - Mar 2016	$139,271.58	$99,645.13	71.55%
'APR-14	Apr 2016 - Jun 2016	$185,867.52	$126,936.34	68.29%
'APR-14	Jul 2016 - Sep 2016	$137,114.31	$88,960.40	64.88%
'APR-14	Oct 2016 - Dec 2016	$171,297.41	$113,383.56	66.19%
'APR-14	Jan 2017 - Mar 2017	$169,282.09	$109,551.54	64.72%
'APR-14	Apr 2017 - Jun 2017	$146,059.21	$74,206.00	50.81%
'APR-14	Jul 2017 - Sep 2017	$126,357.96	$53,881.82	42.64%
'APR-14	Oct 2017 - Dec 2017	$120,551.98	$51,046.75	42.34%
'APR-14	Jan 2018 - Mar 2018	$122,703.72	$49,535.12	40.37%
'APR-14	Apr 2018 - Jun 2018	$80,389.34	$28,912.36	35.97%
'APR-14	Jul 2018 - Sep 2018	$75,955.49	$25,113.77	33.06%
'APR-14	Oct 2018 - Dec 2018	$81,380.88	$21,309.28	26.18%
'MAY-14	Nov 2014 - Jan 2015	$35,655.43	$28,220.21	79.15%
'MAY-14	Feb 2015 - Apr 2015	$56,526.22	$43,932.63	77.72%
'MAY-14	May 2015 - Jul 2015	$45,782.47	$35,336.98	77.18%
'MAY-14	Aug 2015 - Oct 2015	$41,586.21	$31,777.07	76.41%
'MAY-14	Nov 2015 - Jan 2016	$39,437.66	$30,175.64	76.51%
'MAY-14	Feb 2016 - Apr 2016	$37,362.78	$27,944.83	74.79%
'MAY-14	May 2016 - Jul 2016	$44,794.49	$31,977.38	71.39%
'MAY-14	Aug 2016 - Oct 2016	$39,295.29	$28,449.83	72.4%
'MAY-14	Nov 2016 - Jan 2017	$44,695.12	$32,367.97	72.42%
'MAY-14	Feb 2017 - Apr 2017	$39,845.30	$27,101.00	68.02%
'MAY-14	May 2017 - Jul 2017	$35,074.71	$19,156.68	54.62%
'MAY-14	Aug 2017 - Oct 2017	$34,399.02	$17,978.55	52.26%
'MAY-14	Nov 2017 - Jan 2018	$31,205.90	$16,787.38	53.8%
'MAY-14	Feb 2018 - Apr 2018	$31,152.60	$16,865.74	54.14%
'MAY-14	May 2018 - Jul 2018	$21,575.95	$10,238.60	47.45%
'MAY-14	Aug 2018 - Oct 2018	$19,119.01	$8,385.81	43.86%
'JUN-14	Dec 2014 - Feb 2015	$455,203.30	$369,357.76	81.14%
'JUN-14	Mar 2015 - May 2015	$347,389.32	$281,408.50	81.01%
'JUN-14	Jun 2015 - Aug 2015	$345,607.10	$278,163.17	80.49%
'JUN-14	Sep 2015 - Nov 2015	$326,415.87	$256,326.62	78.53%
'JUN-14	Dec 2015 - Feb 2016	$233,525.92	$180,784.99	77.42%
'JUN-14	Mar 2016 - May 2016	$262,632.64	$201,770.77	76.83%
'JUN-14	Jun 2016 - Aug 2016	$217,861.12	$162,849.97	74.75%
'JUN-14	Sep 2016 - Nov 2016	$302,840.97	$236,647.23	78.14%
'JUN-14	Dec 2016 - Feb 2017	$277,478.31	$211,393.40	76.18%
'JUN-14	Mar 2017 - May 2017	$244,615.04	$168,085.65	68.71%
'JUN-14	Jun 2017 - Aug 2017	$222,758.05	$129,495.96	58.13%

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

MAXIMUS

Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'JUN-14	Sep 2017 - Nov 2017	$217,130.25	$123,913.61	57.07%
'JUN-14	Dec 2017 - Feb 2018	$193,293.50	$107,530.40	55.63%
'JUN-14	Mar 2018 - May 2018	$187,553.07	$101,167.56	53.94%
'JUN-14	Jun 2018 - Aug 2018	$151,182.13	$69,778.31	46.16%
'JUN-14	Sep 2018 - Nov 2018	$148,049.86	$62,467.41	42.19%
'JUL-14	Jan 2015 - Mar 2015	$339,159.00	$262,594.71	77.43%
'JUL-14	Apr 2015 - Jun 2015	$251,012.51	$195,309.69	77.81%
'JUL-14	Jul 2015 - Sep 2015	$240,976.79	$184,953.04	76.75%
'JUL-14	Oct 2015 - Dec 2015	$220,014.08	$166,780.79	75.8%
'JUL-14	Jan 2016 - Mar 2016	$194,019.42	$146,277.92	75.39%
'JUL-14	Apr 2016 - Jun 2016	$208,994.14	$153,146.85	73.28%
'JUL-14	Jul 2016 - Sep 2016	$162,226.17	$116,241.33	71.65%
'JUL-14	Oct 2016 - Dec 2016	$188,598.76	$136,547.24	72.4%
'JUL-14	Jan 2017 - Mar 2017	$179,536.76	$125,560.07	69.94%
'JUL-14	Apr 2017 - Jun 2017	$154,786.10	$84,314.14	54.47%
'JUL-14	Jul 2017 - Sep 2017	$136,815.83	$65,315.24	47.74%
'JUL-14	Oct 2017 - Dec 2017	$126,884.72	$60,929.20	48.02%
'JUL-14	Jan 2018 - Mar 2018	$124,709.23	$56,850.16	45.59%
'JUL-14	Apr 2018 - Jun 2018	$82,225.37	$32,726.38	39.8%
'JUL-14	Jul 2018 - Sep 2018	$77,075.09	$27,897.56	36.2%
'JUL-14	Oct 2018 - Dec 2018	$77,535.22	$22,069.92	28.46%
'AUG-14	Feb 2015 - Apr 2015	$169,476.78	$132,251.75	78.04%
'AUG-14	May 2015 - Jul 2015	$121,394.66	$91,650.00	75.5%
'AUG-14	Aug 2015 - Oct 2015	$110,906.72	$87,453.02	78.85%
'AUG-14	Nov 2015 - Jan 2016	$103,044.07	$80,017.98	77.65%
'AUG-14	Feb 2016 - Apr 2016	$96,065.74	$73,223.40	76.22%
'AUG-14	May 2016 - Jul 2016	$103,687.65	$74,378.19	71.73%
'AUG-14	Aug 2016 - Oct 2016	$84,842.02	$61,388.36	72.36%
'AUG-14	Nov 2016 - Jan 2017	$99,520.32	$72,461.51	72.81%
'AUG-14	Feb 2017 - Apr 2017	$93,668.01	$67,126.60	71.66%
'AUG-14	May 2017 - Jul 2017	$77,312.69	$38,823.69	50.22%
'AUG-14	Aug 2017 - Oct 2017	$70,548.41	$34,789.96	49.31%
'AUG-14	Nov 2017 - Jan 2018	$65,633.73	$33,465.43	50.99%
'AUG-14	Feb 2018 - Apr 2018	$63,241.02	$30,643.07	48.45%
'AUG-14	May 2018 - Jul 2018	$50,032.83	$20,512.34	41%
'AUG-14	Aug 2018 - Oct 2018	$43,149.89	$15,603.68	36.16%
'SEP-14	Mar 2015 - May 2015	$211,840.10	$155,669.99	73.48%
'SEP-14	Jun 2015 - Aug 2015	$147,099.89	$108,842.28	73.99%
'SEP-14	Sep 2015 - Nov 2015	$149,572.93	$111,399.18	74.48%
'SEP-14	Dec 2015 - Feb 2016	$120,277.14	$88,752.68	73.79%
'SEP-14	Mar 2016 - May 2016	$134,903.89	$95,442.28	70.75%
'SEP-14	Jun 2016 - Aug 2016	$95,799.21	$62,351.42	65.09%
'SEP-14	Sep 2016 - Nov 2016	$111,249.72	$79,429.41	71.4%
'SEP-14	Dec 2016 - Feb 2017	$109,834.92	$77,346.09	70.42%
'SEP-14	Mar 2017 - May 2017	$102,664.01	$62,051.66	60.44%
'SEP-14	Jun 2017 - Aug 2017	$85,827.31	$41,170.08	47.97%
'SEP-14	Sep 2017 - Nov 2017	$78,053.16	$36,168.92	46.34%
'SEP-14	Dec 2017 - Feb 2018	$74,919.28	$34,149.56	45.58%
'SEP-14	Mar 2018 - May 2018	$69,527.93	$30,124.02	43.33%
'SEP-14	Jun 2018 - Aug 2018	$56,878.28	$20,571.72	36.17%

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

MAXIMUS

Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'SEP-14	Sep 2018 - Nov 2018	$53,520.99	$17,145.75	32.04%
'OCT-14	Apr 2015 - Jun 2015	$173,373.32	$127,006.14	73.26%
'OCT-14	Jul 2015 - Sep 2015	$125,054.82	$95,130.82	76.07%
'OCT-14	Oct 2015 - Dec 2015	$124,093.00	$94,095.59	75.83%
'OCT-14	Jan 2016 - Mar 2016	$118,662.94	$89,396.65	75.34%
'OCT-14	Apr 2016 - Jun 2016	$134,740.12	$97,382.69	72.27%
'OCT-14	Jul 2016 - Sep 2016	$99,337.02	$68,192.82	68.65%
'OCT-14	Oct 2016 - Dec 2016	$114,507.12	$83,669.14	73.07%
'OCT-14	Jan 2017 - Mar 2017	$111,155.57	$79,543.21	71.56%
'OCT-14	Apr 2017 - Jun 2017	$94,462.95	$50,444.45	53.4%
'OCT-14	Jul 2017 - Sep 2017	$79,478.92	$36,982.16	46.53%
'OCT-14	Oct 2017 - Dec 2017	$73,250.53	$34,168.49	46.65%
'OCT-14	Jan 2018 - Mar 2018	$71,453.55	$32,773.29	45.87%
'OCT-14	Apr 2018 - Jun 2018	$48,492.73	$20,005.82	41.26%
'OCT-14	Jul 2018 - Sep 2018	$43,160.24	$15,333.73	35.53%
'OCT-14	Oct 2018 - Dec 2018	$45,799.05	$12,285.56	26.82%
'NOV-14	May 2015 - Jul 2015	$194,152.12	$142,083.22	73.18%
'NOV-14	Aug 2015 - Oct 2015	$125,654.45	$93,779.64	74.63%
'NOV-14	Nov 2015 - Jan 2016	$132,332.02	$101,936.82	77.03%
'NOV-14	Feb 2016 - Apr 2016	$133,055.91	$99,391.74	74.7%
'NOV-14	May 2016 - Jul 2016	$153,563.42	$104,095.91	67.79%
'NOV-14	Aug 2016 - Oct 2016	$116,548.31	$78,357.73	67.23%
'NOV-14	Nov 2016 - Jan 2017	$137,023.98	$96,395.37	70.35%
'NOV-14	Feb 2017 - Apr 2017	$131,713.40	$88,026.94	66.83%
'NOV-14	May 2017 - Jul 2017	$111,533.59	$48,595.53	43.57%
'NOV-14	Aug 2017 - Oct 2017	$88,785.03	$38,132.55	42.95%
'NOV-14	Nov 2017 - Jan 2018	$82,658.37	$37,125.13	44.91%
'NOV-14	Feb 2018 - Apr 2018	$81,738.14	$34,513.21	42.22%
'NOV-14	May 2018 - Jul 2018	$61,627.81	$19,925.57	32.33%
'NOV-14	Aug 2018 - Oct 2018	$51,610.34	$15,884.25	30.78%
'DEC-14	Jun 2015 - Aug 2015	$104,848.89	$79,112.27	75.45%
'DEC-14	Sep 2015 - Nov 2015	$81,369.22	$63,542.27	78.09%
'DEC-14	Dec 2015 - Feb 2016	$67,133.11	$53,000.53	78.95%
'DEC-14	Mar 2016 - May 2016	$79,893.82	$60,570.08	75.81%
'DEC-14	Jun 2016 - Aug 2016	$67,457.36	$46,415.01	68.81%
'DEC-14	Sep 2016 - Nov 2016	$70,832.97	$49,701.02	70.17%
'DEC-14	Dec 2016 - Feb 2017	$69,192.06	$48,402.06	69.95%
'DEC-14	Mar 2017 - May 2017	$68,563.56	$41,775.14	60.93%
'DEC-14	Jun 2017 - Aug 2017	$57,498.58	$25,388.06	44.15%
'DEC-14	Sep 2017 - Nov 2017	$48,837.23	$21,955.84	44.96%
'DEC-14	Dec 2017 - Feb 2018	$46,380.12	$21,421.58	46.19%
'DEC-14	Mar 2018 - May 2018	$43,414.14	$19,371.69	44.62%
'DEC-14	Jun 2018 - Aug 2018	$35,321.79	$13,002.33	36.81%
'DEC-14	Sep 2018 - Nov 2018	$33,292.08	$10,111.70	30.37%
'JAN-15	Jul 2015 - Sep 2015	$210,677.93	$162,882.79	77.31%
'JAN-15	Oct 2015 - Dec 2015	$169,585.60	$130,588.14	77%
'JAN-15	Jan 2016 - Mar 2016	$165,126.32	$129,891.35	78.66%
'JAN-15	Apr 2016 - Jun 2016	$189,716.40	$140,391.78	74%
'JAN-15	Jul 2016 - Sep 2016	$155,177.09	$106,070.47	68.35%
'JAN-15	Oct 2016 - Dec 2016	$160,957.38	$115,342.88	71.66%

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

MAXIMUS

Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'JAN-15	Jan 2017 - Mar 2017	$162,384.67	$116,841.47	71.95%
'JAN-15	Apr 2017 - Jun 2017	$141,757.73	$77,930.69	54.97%
'JAN-15	Jul 2017 - Sep 2017	$124,226.37	$57,893.77	46.6%
'JAN-15	Oct 2017 - Dec 2017	$111,136.32	$50,752.02	45.67%
'JAN-15	Jan 2018 - Mar 2018	$107,638.88	$47,715.90	44.33%
'JAN-15	Apr 2018 - Jun 2018	$70,073.72	$27,588.36	39.37%
'JAN-15	Jul 2018 - Sep 2018	$61,649.63	$22,989.99	37.29%
'JAN-15	Oct 2018 - Dec 2018	$59,639.03	$17,304.06	29.01%
'FEB-15	Aug 2015 - Oct 2015	$205,336.19	$158,472.49	77.18%
'FEB-15	Nov 2015 - Jan 2016	$132,268.72	$105,322.58	79.63%
'FEB-15	Feb 2016 - Apr 2016	$146,567.80	$118,805.31	81.06%
'FEB-15	May 2016 - Jul 2016	$189,513.98	$138,915.13	73.3%
'FEB-15	Aug 2016 - Oct 2016	$151,241.43	$108,371.63	71.65%
'FEB-15	Nov 2016 - Jan 2017	$151,111.92	$109,504.18	72.47%
'FEB-15	Feb 2017 - Apr 2017	$150,349.45	$106,979.15	71.15%
'FEB-15	May 2017 - Jul 2017	$133,681.50	$68,286.64	51.08%
'FEB-15	Aug 2017 - Oct 2017	$117,637.14	$59,083.21	50.22%
'FEB-15	Nov 2017 - Jan 2018	$99,904.51	$50,849.34	50.9%
'FEB-15	Feb 2018 - Apr 2018	$95,886.57	$47,044.70	49.06%
'FEB-15	May 2018 - Jul 2018	$74,038.74	$30,960.39	41.82%
'FEB-15	Aug 2018 - Oct 2018	$62,568.69	$24,691.07	39.46%
'MAR-15	Sep 2015 - Nov 2015	$220,798.51	$160,097.09	72.51%
'MAR-15	Dec 2015 - Feb 2016	$100,208.06	$75,964.32	75.81%
'MAR-15	Mar 2016 - May 2016	$109,512.25	$85,906.73	78.44%
'MAR-15	Jun 2016 - Aug 2016	$124,589.54	$91,486.54	73.43%
'MAR-15	Sep 2016 - Nov 2016	$128,725.59	$94,997.97	73.8%
'MAR-15	Dec 2016 - Feb 2017	$113,533.49	$80,658.98	71.04%
'MAR-15	Mar 2017 - May 2017	$114,568.36	$71,205.17	62.15%
'MAR-15	Jun 2017 - Aug 2017	$106,037.10	$51,472.59	48.54%
'MAR-15	Sep 2017 - Nov 2017	$94,996.82	$44,485.19	46.83%
'MAR-15	Dec 2017 - Feb 2018	$79,113.78	$36,631.37	46.3%
'MAR-15	Mar 2018 - May 2018	$75,628.30	$35,353.38	46.75%
'MAR-15	Jun 2018 - Aug 2018	$61,276.03	$21,754.02	35.5%
'MAR-15	Sep 2018 - Nov 2018	$58,197.73	$18,320.57	31.48%
'APR-15	Oct 2015 - Dec 2015	$275,334.72	$198,170.33	71.97%
'APR-15	Jan 2016 - Mar 2016	$137,128.70	$104,130.77	75.94%
'APR-15	Apr 2016 - Jun 2016	$171,168.99	$133,323.86	77.89%
'APR-15	Jul 2016 - Sep 2016	$148,705.39	$109,670.87	73.75%
'APR-15	Oct 2016 - Dec 2016	$155,492.99	$113,378.39	72.92%
'APR-15	Jan 2017 - Mar 2017	$142,981.37	$102,438.61	71.64%
'APR-15	Apr 2017 - Jun 2017	$136,097.20	$79,733.26	58.59%
'APR-15	Jul 2017 - Sep 2017	$122,906.27	$64,485.97	52.47%
'APR-15	Oct 2017 - Dec 2017	$112,610.74	$57,431.36	51%
'APR-15	Jan 2018 - Mar 2018	$102,555.59	$49,932.01	48.69%
'APR-15	Apr 2018 - Jun 2018	$68,826.52	$30,038.86	43.64%
'APR-15	Jul 2018 - Sep 2018	$63,397.75	$25,043.38	39.5%
'APR-15	Oct 2018 - Dec 2018	$61,783.72	$19,141.63	30.98%
'MAY-15	Nov 2015 - Jan 2016	$189,386.44	$138,763.89	73.27%
'MAY-15	Feb 2016 - Apr 2016	$124,466.53	$99,354.42	79.82%
'MAY-15	May 2016 - Jul 2016	$166,186.41	$127,554.67	76.75%

HEALTHY MICHIGAN PLAN
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MAXIMUS

Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'MAY-15	Aug 2016 - Oct 2016	$143,521.02	$108,289.57	75.45%
'MAY-15	Nov 2016 - Jan 2017	$140,231.50	$102,380.24	73.01%
'MAY-15	Feb 2017 - Apr 2017	$119,793.71	$85,365.07	71.26%
'MAY-15	May 2017 - Jul 2017	$116,901.29	$63,852.03	54.62%
'MAY-15	Aug 2017 - Oct 2017	$107,472.81	$57,108.25	53.14%
'MAY-15	Nov 2017 - Jan 2018	$96,357.41	$51,086.33	53.02%
'MAY-15	Feb 2018 - Apr 2018	$89,016.95	$46,103.57	51.79%
'MAY-15	May 2018 - Jul 2018	$68,026.43	$30,683.98	45.11%
'MAY-15	Aug 2018 - Oct 2018	$58,958.43	$24,313.04	41.24%
'JUN-15	Dec 2015 - Feb 2016	$158,939.55	$108,733.51	68.41%
'JUN-15	Mar 2016 - May 2016	$105,862.81	$77,456.79	73.17%
'JUN-15	Jun 2016 - Aug 2016	$97,394.14	$70,517.13	72.4%
'JUN-15	Sep 2016 - Nov 2016	$109,689.22	$78,935.22	71.96%
'JUN-15	Dec 2016 - Feb 2017	$98,518.24	$68,724.47	69.76%
'JUN-15	Mar 2017 - May 2017	$88,609.68	$54,272.84	61.25%
'JUN-15	Jun 2017 - Aug 2017	$81,437.75	$40,880.07	50.2%
'JUN-15	Sep 2017 - Nov 2017	$78,161.58	$38,302.12	49%
'JUN-15	Dec 2017 - Feb 2018	$69,573.59	$32,972.04	47.39%
'JUN-15	Mar 2018 - May 2018	$62,877.43	$28,466.46	45.27%
'JUN-15	Jun 2018 - Aug 2018	$52,110.72	$19,715.23	37.83%
'JUN-15	Sep 2018 - Nov 2018	$49,585.28	$15,989.38	32.25%
'JUL-15	Jan 2016 - Mar 2016	$150,380.48	$108,707.92	72.29%
'JUL-15	Apr 2016 - Jun 2016	$110,611.07	$80,332.98	72.63%
'JUL-15	Jul 2016 - Sep 2016	$93,601.97	$65,451.57	69.93%
'JUL-15	Oct 2016 - Dec 2016	$96,706.71	$66,584.47	68.85%
'JUL-15	Jan 2017 - Mar 2017	$90,294.94	$60,530.35	67.04%
'JUL-15	Apr 2017 - Jun 2017	$77,537.90	$39,347.41	50.75%
'JUL-15	Jul 2017 - Sep 2017	$71,260.08	$33,051.87	46.38%
'JUL-15	Oct 2017 - Dec 2017	$66,162.44	$29,195.60	44.13%
'JUL-15	Jan 2018 - Mar 2018	$64,167.68	$27,531.63	42.91%
'JUL-15	Apr 2018 - Jun 2018	$42,076.07	$16,510.02	39.24%
'JUL-15	Jul 2018 - Sep 2018	$39,728.55	$13,926.40	35.05%
'JUL-15	Oct 2018 - Dec 2018	$39,847.25	$10,786.99	27.07%
'AUG-15	Feb 2016 - Apr 2016	$157,237.67	$104,419.97	66.41%
'AUG-15	May 2016 - Jul 2016	$111,770.02	$73,335.25	65.61%
'AUG-15	Aug 2016 - Oct 2016	$94,080.62	$64,780.23	68.86%
'AUG-15	Nov 2016 - Jan 2017	$103,876.27	$70,754.13	68.11%
'AUG-15	Feb 2017 - Apr 2017	$92,728.82	$59,295.74	63.95%
'AUG-15	May 2017 - Jul 2017	$77,192.85	$34,811.36	45.1%
'AUG-15	Aug 2017 - Oct 2017	$71,999.86	$32,340.78	44.92%
'AUG-15	Nov 2017 - Jan 2018	$65,692.96	$29,201.76	44.45%
'AUG-15	Feb 2018 - Apr 2018	$63,213.38	$27,061.51	42.81%
'AUG-15	May 2018 - Jul 2018	$46,460.54	$16,146.53	34.75%
'AUG-15	Aug 2018 - Oct 2018	$40,334.42	$12,533.94	31.08%
'SEP-15	Mar 2016 - May 2016	$125,604.62	$84,150.08	67%
'SEP-15	Jun 2016 - Aug 2016	$79,869.72	$50,208.56	62.86%
'SEP-15	Sep 2016 - Nov 2016	$73,904.63	$51,584.74	69.8%
'SEP-15	Dec 2016 - Feb 2017	$77,319.95	$52,686.04	68.14%
'SEP-15	Mar 2017 - May 2017	$74,301.60	$43,799.21	58.95%
'SEP-15	Jun 2017 - Aug 2017	$61,729.49	$26,686.35	43.23%

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

MAXIMUS

Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'SEP-15	Sep 2017 - Nov 2017	$56,385.31	$24,546.58	43.53%
'SEP-15	Dec 2017 - Feb 2018	$53,062.61	$22,506.53	42.42%
'SEP-15	Mar 2018 - May 2018	$49,090.58	$19,662.26	40.05%
'SEP-15	Jun 2018 - Aug 2018	$38,733.70	$12,231.63	31.58%
'SEP-15	Sep 2018 - Nov 2018	$36,908.56	$10,325.69	27.98%
'OCT-15	Apr 2016 - Jun 2016	$144,831.96	$88,499.91	61.11%
'OCT-15	Jul 2016 - Sep 2016	$87,975.00	$57,220.68	65.04%
'OCT-15	Oct 2016 - Dec 2016	$95,049.55	$64,836.27	68.21%
'OCT-15	Jan 2017 - Mar 2017	$93,101.50	$61,612.74	66.18%
'OCT-15	Apr 2017 - Jun 2017	$85,300.41	$41,227.31	48.33%
'OCT-15	Jul 2017 - Sep 2017	$68,811.05	$27,445.47	39.89%
'OCT-15	Oct 2017 - Dec 2017	$64,701.91	$27,333.37	42.25%
'OCT-15	Jan 2018 - Mar 2018	$62,456.72	$25,796.27	41.3%
'OCT-15	Apr 2018 - Jun 2018	$41,063.59	$14,104.73	34.35%
'OCT-15	Jul 2018 - Sep 2018	$34,766.70	$11,256.29	32.38%
'OCT-15	Oct 2018 - Dec 2018	$36,063.41	$8,771.05	24.32%
'NOV-15	May 2016 - Jul 2016	$171,424.33	$104,648.58	61.05%
'NOV-15	Aug 2016 - Oct 2016	$115,042.09	$73,527.79	63.91%
'NOV-15	Nov 2016 - Jan 2017	$127,432.85	$82,336.83	64.61%
'NOV-15	Feb 2017 - Apr 2017	$120,595.95	$72,716.44	60.3%
'NOV-15	May 2017 - Jul 2017	$107,394.49	$39,951.45	37.2%
'NOV-15	Aug 2017 - Oct 2017	$75,605.78	$29,861.80	39.5%
'NOV-15	Nov 2017 - Jan 2018	$66,668.27	$28,293.92	42.44%
'NOV-15	Feb 2018 - Apr 2018	$66,945.50	$27,300.07	40.78%
'NOV-15	May 2018 - Jul 2018	$49,824.37	$15,650.03	31.41%
'NOV-15	Aug 2018 - Oct 2018	$39,129.86	$11,797.25	30.15%
'DEC-15	Jun 2016 - Aug 2016	$157,133.97	$97,383.30	61.97%
'DEC-15	Sep 2016 - Nov 2016	$125,938.44	$81,567.04	64.77%
'DEC-15	Dec 2016 - Feb 2017	$128,066.10	$82,951.48	64.77%
'DEC-15	Mar 2017 - May 2017	$132,551.80	$70,455.35	53.15%
'DEC-15	Jun 2017 - Aug 2017	$112,588.18	$43,951.72	39.04%
'DEC-15	Sep 2017 - Nov 2017	$82,394.80	$32,460.86	39.4%
'DEC-15	Dec 2017 - Feb 2018	$77,652.46	$30,987.11	39.9%
'DEC-15	Mar 2018 - May 2018	$75,991.13	$29,988.32	39.46%
'DEC-15	Jun 2018 - Aug 2018	$58,750.86	$18,507.48	31.5%
'DEC-15	Sep 2018 - Nov 2018	$51,639.19	$13,812.33	26.75%
'JAN-16	Jul 2016 - Sep 2016	$202,507.20	$131,216.21	64.8%
'JAN-16	Oct 2016 - Dec 2016	$160,106.61	$104,889.94	65.51%
'JAN-16	Jan 2017 - Mar 2017	$153,407.60	$102,992.23	67.14%
'JAN-16	Apr 2017 - Jun 2017	$143,714.87	$72,806.22	50.66%
'JAN-16	Jul 2017 - Sep 2017	$120,585.31	$51,830.34	42.98%
'JAN-16	Oct 2017 - Dec 2017	$97,866.88	$42,769.20	43.7%
'JAN-16	Jan 2018 - Mar 2018	$100,496.66	$43,842.40	43.63%
'JAN-16	Apr 2018 - Jun 2018	$66,741.58	$25,507.13	38.22%
'JAN-16	Jul 2018 - Sep 2018	$55,882.77	$19,747.34	35.34%
'JAN-16	Oct 2018 - Dec 2018	$53,960.73	$14,841.24	27.5%
'FEB-16	Aug 2016 - Oct 2016	$273,791.21	$188,043.71	68.68%
'FEB-16	Nov 2016 - Jan 2017	$213,902.61	$147,238.48	68.83%
'FEB-16	Feb 2017 - Apr 2017	$194,850.02	$131,415.83	67.44%
'FEB-16	May 2017 - Jul 2017	$182,512.51	$93,083.34	51%

HEALTHY MICHIGAN PLAN
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Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'FEB-16	Aug 2017 - Oct 2017	$152,779.14	$75,759.65	49.59%
'FEB-16	Nov 2017 - Jan 2018	$121,683.05	$60,857.22	50.01%
'FEB-16	Feb 2018 - Apr 2018	$116,371.06	$57,550.06	49.45%
'FEB-16	May 2018 - Jul 2018	$87,253.58	$35,341.09	40.5%
'FEB-16	Aug 2018 - Oct 2018	$75,911.13	$28,518.15	37.57%
'MAR-16	Sep 2016 - Nov 2016	$246,471.23	$164,548.87	66.76%
'MAR-16	Dec 2016 - Feb 2017	$175,282.35	$120,276.65	68.62%
'MAR-16	Mar 2017 - May 2017	$170,279.38	$98,222.89	57.68%
'MAR-16	Jun 2017 - Aug 2017	$159,205.68	$70,703.74	44.41%
'MAR-16	Sep 2017 - Nov 2017	$137,553.93	$58,485.66	42.52%
'MAR-16	Dec 2017 - Feb 2018	$108,946.37	$45,113.19	41.41%
'MAR-16	Mar 2018 - May 2018	$103,577.27	$42,950.33	41.47%
'MAR-16	Jun 2018 - Aug 2018	$81,337.39	$27,238.46	33.49%
'MAR-16	Sep 2018 - Nov 2018	$75,343.02	$21,577.78	28.64%
'APR-16	Oct 2016 - Dec 2016	$235,009.64	$146,677.10	62.41%
'APR-16	Jan 2017 - Mar 2017	$182,620.11	$116,840.10	63.98%
'APR-16	Apr 2017 - Jun 2017	$179,989.64	$85,549.46	47.53%
'APR-16	Jul 2017 - Sep 2017	$157,709.35	$64,053.88	40.62%
'APR-16	Oct 2017 - Dec 2017	$132,443.34	$52,890.85	39.93%
'APR-16	Jan 2018 - Mar 2018	$116,124.49	$45,761.29	39.41%
'APR-16	Apr 2018 - Jun 2018	$82,083.00	$28,642.09	34.89%
'APR-16	Jul 2018 - Sep 2018	$71,726.74	$22,155.02	30.89%
'APR-16	Oct 2018 - Dec 2018	$72,657.37	$15,625.96	21.51%
'MAY-16	Nov 2016 - Jan 2017	$239,092.19	$146,926.62	61.45%
'MAY-16	Feb 2017 - Apr 2017	$183,688.32	$108,499.02	59.07%
'MAY-16	May 2017 - Jul 2017	$172,940.84	$68,742.55	39.75%
'MAY-16	Aug 2017 - Oct 2017	$153,117.65	$58,032.43	37.9%
'MAY-16	Nov 2017 - Jan 2018	$125,430.99	$48,046.89	38.31%
'MAY-16	Feb 2018 - Apr 2018	$110,378.27	$42,299.49	38.32%
'MAY-16	May 2018 - Jul 2018	$82,119.32	$25,997.75	31.66%
'MAY-16	Aug 2018 - Oct 2018	$72,691.41	$19,987.90	27.5%
'JUN-16	Dec 2016 - Feb 2017	$146,747.66	$93,799.70	63.92%
'JUN-16	Mar 2017 - May 2017	$122,886.48	$64,828.43	52.75%
'JUN-16	Jun 2017 - Aug 2017	$112,441.15	$47,505.44	42.25%
'JUN-16	Sep 2017 - Nov 2017	$105,840.61	$43,249.23	40.86%
'JUN-16	Dec 2017 - Feb 2018	$92,648.33	$36,066.42	38.93%
'JUN-16	Mar 2018 - May 2018	$80,334.23	$29,524.28	36.75%
'JUN-16	Jun 2018 - Aug 2018	$66,981.12	$20,976.60	31.32%
'JUN-16	Sep 2018 - Nov 2018	$64,597.34	$16,773.40	25.97%
'JUL-16	Jan 2017 - Mar 2017	$172,231.25	$106,159.45	61.64%
'JUL-16	Apr 2017 - Jun 2017	$148,027.17	$66,211.11	44.73%
'JUL-16	Jul 2017 - Sep 2017	$131,730.94	$48,763.82	37.02%
'JUL-16	Oct 2017 - Dec 2017	$121,145.50	$43,185.44	35.65%
'JUL-16	Jan 2018 - Mar 2018	$113,979.92	$41,189.10	36.14%
'JUL-16	Apr 2018 - Jun 2018	$67,843.11	$22,775.75	33.57%
'JUL-16	Jul 2018 - Sep 2018	$64,912.47	$19,778.08	30.47%
'JUL-16	Oct 2018 - Dec 2018	$64,275.21	$14,798.44	23.02%
'AUG-16	Feb 2017 - Apr 2017	$186,417.24	$83,312.32	44.69%
'AUG-16	May 2017 - Jul 2017	$159,736.00	$62,727.26	39.27%
'AUG-16	Aug 2017 - Oct 2017	$144,863.01	$56,896.74	39.28%

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Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'AUG-16	Nov 2017 - Jan 2018	$130,476.37	$48,608.89	37.25%
'AUG-16	Feb 2018 - Apr 2018	$118,900.79	$41,170.87	34.63%
'AUG-16	May 2018 - Jul 2018	$82,600.06	$24,039.93	29.1%
'AUG-16	Aug 2018 - Oct 2018	$77,001.96	$19,548.57	25.39%
'SEP-16	Mar 2017 - May 2017	$163,491.45	$68,135.81	41.68%
'SEP-16	Jun 2017 - Aug 2017	$125,773.32	$47,590.85	37.84%
'SEP-16	Sep 2017 - Nov 2017	$107,408.41	$42,489.60	39.56%
'SEP-16	Dec 2017 - Feb 2018	$100,121.34	$37,541.30	37.5%
'SEP-16	Mar 2018 - May 2018	$91,164.29	$32,534.17	35.69%
'SEP-16	Jun 2018 - Aug 2018	$67,341.10	$19,125.45	28.4%
'SEP-16	Sep 2018 - Nov 2018	$64,814.68	$15,396.60	23.75%
'OCT-16	Apr 2017 - Jun 2017	$207,873.75	$80,889.40	38.91%
'OCT-16	Jul 2017 - Sep 2017	$160,611.22	$57,743.69	35.95%
'OCT-16	Oct 2017 - Dec 2017	$137,823.67	$50,945.75	36.96%
'OCT-16	Jan 2018 - Mar 2018	$129,765.26	$46,786.40	36.05%
'OCT-16	Apr 2018 - Jun 2018	$83,210.30	$25,653.18	30.83%
'OCT-16	Jul 2018 - Sep 2018	$70,048.65	$18,464.54	26.36%
'OCT-16	Oct 2018 - Dec 2018	$76,442.63	$14,865.11	19.45%
'NOV-16	May 2017 - Jul 2017	$179,357.68	$66,157.47	36.89%
'NOV-16	Aug 2017 - Oct 2017	$121,766.04	$42,416.47	34.83%
'NOV-16	Nov 2017 - Jan 2018	$105,800.78	$38,977.01	36.84%
'NOV-16	Feb 2018 - Apr 2018	$102,869.60	$35,602.45	34.61%
'NOV-16	May 2018 - Jul 2018	$76,243.58	$20,482.96	26.87%
'NOV-16	Aug 2018 - Oct 2018	$56,816.46	$14,883.78	26.2%
'DEC-16	Jun 2017 - Aug 2017	$170,023.67	$59,665.77	35.09%
'DEC-16	Sep 2017 - Nov 2017	$111,794.53	$39,416.71	35.26%
'DEC-16	Dec 2017 - Feb 2018	$99,541.49	$34,681.97	34.84%
'DEC-16	Mar 2018 - May 2018	$98,168.24	$32,009.57	32.61%
'DEC-16	Jun 2018 - Aug 2018	$79,140.13	$21,197.30	26.78%
'DEC-16	Sep 2018 - Nov 2018	$68,724.28	$15,117.69	22%
'JAN-17	Jul 2017 - Sep 2017	$233,737.86	$92,592.94	39.61%
'JAN-17	Oct 2017 - Dec 2017	$161,586.38	$62,329.61	38.57%
'JAN-17	Jan 2018 - Mar 2018	$158,100.11	$61,730.00	39.04%
'JAN-17	Apr 2018 - Jun 2018	$107,870.29	$37,060.85	34.36%
'JAN-17	Jul 2018 - Sep 2018	$94,249.01	$26,872.64	28.51%
'JAN-17	Oct 2018 - Dec 2018	$87,381.25	$18,782.47	21.49%
'FEB-17	Aug 2017 - Oct 2017	$206,941.34	$87,530.27	42.3%
'FEB-17	Nov 2017 - Jan 2018	$146,671.65	$61,287.21	41.79%
'FEB-17	Feb 2018 - Apr 2018	$134,026.62	$56,951.17	42.49%
'FEB-17	May 2018 - Jul 2018	$101,968.24	$35,079.67	34.4%
'FEB-17	Aug 2018 - Oct 2018	$84,064.16	$26,992.92	32.11%
'MAR-17	Sep 2017 - Nov 2017	$212,843.49	$96,362.87	45.27%
'MAR-17	Dec 2017 - Feb 2018	$154,104.91	$66,135.84	42.92%
'MAR-17	Mar 2018 - May 2018	$144,930.04	$62,492.72	43.12%
'MAR-17	Jun 2018 - Aug 2018	$115,884.63	$41,551.29	35.86%
'MAR-17	Sep 2018 - Nov 2018	$105,555.36	$31,816.34	30.14%
'APR-17	Oct 2017 - Dec 2017	$289,887.16	$110,187.07	38.01%
'APR-17	Jan 2018 - Mar 2018	$221,228.66	$83,319.29	37.66%
'APR-17	Apr 2018 - Jun 2018	$147,020.69	$51,496.92	35.03%
'APR-17	Jul 2018 - Sep 2018	$129,013.87	$38,953.91	30.19%

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

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Chart 3: Quarterly Collection				
Enrollment Month	Quarterly Pay Cycles	Amount Owed	Amount Collected	Percentage Collected
'APR-17	Oct 2018 - Dec 2018	$126,112.32	$26,413.63	20.94%
'MAY-17	Nov 2017 - Jan 2018	$170,975.85	$65,446.09	38.28%
'MAY-17	Feb 2018 - Apr 2018	$134,635.29	$50,028.98	37.16%
'MAY-17	May 2018 - Jul 2018	$97,802.23	$32,087.57	32.81%
'MAY-17	Aug 2018 - Oct 2018	$85,328.59	$22,491.00	26.36%
'JUN-17	Dec 2017 - Feb 2018	$157,483.21	$60,671.01	38.53%
'JUN-17	Mar 2018 - May 2018	$122,960.70	$43,990.84	35.78%
'JUN-17	Jun 2018 - Aug 2018	$95,361.24	$29,259.26	30.68%
'JUN-17	Sep 2018 - Nov 2018	$94,926.81	$23,184.32	24.42%
'JUL-17	Jan 2018 - Mar 2018	$216,671.62	$75,207.79	34.71%
'JUL-17	Apr 2018 - Jun 2018	$96,598.25	$31,587.66	32.7%
'JUL-17	Jul 2018 - Sep 2018	$105,190.92	$28,933.70	27.51%
'JUL-17	Oct 2018 - Dec 2018	$105,464.51	$20,282.12	19.23%
'AUG-17	Feb 2018 - Apr 2018	$136,781.31	$47,136.39	34.46%
'AUG-17	May 2018 - Jul 2018	$72,243.25	$23,454.64	32.47%
'AUG-17	Aug 2018 - Oct 2018	$68,242.16	$19,156.85	28.07%
'SEP-17	Mar 2018 - May 2018	$158,369.85	$49,027.43	30.96%
'SEP-17	Jun 2018 - Aug 2018	$91,551.06	$25,522.77	27.88%
'SEP-17	Sep 2018 - Nov 2018	$90,086.57	$20,706.02	22.98%
'OCT-17	Apr 2018 - Jun 2018	$119,463.45	$36,256.29	30.35%
'OCT-17	Jul 2018 - Sep 2018	$87,520.93	$22,907.00	26.17%
'OCT-17	Oct 2018 - Dec 2018	$104,112.28	$18,437.19	17.71%
'NOV-17	May 2018 - Jul 2018	$121,092.78	$35,835.16	29.59%
'NOV-17	Aug 2018 - Oct 2018	$84,254.84	$21,028.95	24.96%
'DEC-17	Jun 2018 - Aug 2018	$129,077.56	$35,594.86	27.58%
'DEC-17	Sep 2018 - Nov 2018	$93,149.92	$22,066.49	23.69%
'JAN-18	Jul 2018 - Sep 2018	$129,922.27	$44,861.08	34.53%
'JAN-18	Oct 2018 - Dec 2018	$116,849.83	$28,106.49	24.05%
'FEB-18	Aug 2018 - Oct 2018	$88,015.69	$34,107.19	38.75%
'MAR-18	Sep 2018 - Nov 2018	$93,131.39	$25,551.72	27.44%
'APR-18	Oct 2018 - Dec 2018	$146,369.68	$34,205.97	23.37%

HEALTHY MICHIGAN PLAN
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Payments for the MIHA can be made one of two ways. Beneficiaries can mail a check or money order to the MIHA payment address. The payment coupon is not required to send in a payment by mail. Beneficiaries also have the option to pay online using a bank account.

Chart 4 displays a three month history of the percentage of payments made into the MIHA.

Chart 4: Methods of Payment

	Jul-18	Aug-18	Sep-18
Percent Paid Online	32.53%	34.79%	32.35%
Percent Paid by Mail	67.47%	65.21%	67.65%

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Adjustment Activities

Beneficiaries are not required to pay co-pays and/or contributions when specific criteria are met. In these cases, an adjustment is made to the beneficiary's quarterly statement.

This includes populations that are exempt; beneficiaries that are under age 21, pregnant, in hospice and Native American beneficiaries. It also includes beneficiaries who were not otherwise exempt, but have met their five percent maximum cost share and beneficiaries whose Federal Poverty Level is no longer in a range that requires a contribution.

Chart 5A shows the number of beneficiaries that met these adjustments for the specified month, calendar year since January 2018 and the cumulative total for the program from October 2014 through September 2018.

Chart 5A: Adjustment Activities

	Jul-18		Aug-18		Sep-18	
	#	Total $	#	Total $	#	Total $
Beneficiary is under age 21	671	$41,117.00	535	$33,263.00	512	$31,834.00
Pregnancy	180	$3,487.62	178	$4,968.72	177	$4,567.53
Hospice	0	$0.00	0	$0.00	0	$0.00
Native American	17	$1,530.34	15	$1,856.00	23	$1,971.00
Five Percent Cost Share Limit Met	40,465	$402,946.28	29,245	$275,829.38	34,116	$364,913.84
FPL No longer >100% - Contribution	0	$0.00	0	$0.00	0	$0.00
TOTAL	**41,333**	**$449,081.24**	**29,973**	**$315,917.10**	**34,828**	**$403,286.37**
	Jul-18 to Sept-18		**Calendar YTD**		**Program YTD**	
	#	Total $	#	Total $	#	Total $
Beneficiary is under age 21	1,718	$106,214.00	5,114	$315,599.00	24,964	$1,444,573.29
Pregnancy	535	$13,023.87	1,255	$32,895.49	10,669	$258,393.61
Hospice	0	$0.00	0	$0.00	0	$0.00
Native American	55	$5,357.34	152	$16,347.67	1,009	$75,437.01
Five Percent Cost Share Limit Met	103,826	$1,043,689.50	310,043	$3,044,068.44	1,386,625	$15,043,606.56
FPL No longer >100% - Contribution	0	$0.00	1	$63.00	286	$10,467.69
TOTAL	**106,134**	**$1,168,284.71**	**316,565**	**$3,408,973.60**	**1,423,553**	**$16,832,478.16**

HEALTHY MICHIGAN PLAN
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Healthy Behavior Incentives

Beneficiaries may qualify for reductions in co-pays and/or contributions due to Healthy Behavior incentives. All health plans offer enrolled beneficiaries financial incentives that reward healthy behaviors and personal responsibility. To be eligible for incentives a beneficiary must first complete a health risk assessment (HRA) with their primary care provider (PCP) and agree to address or maintain health behaviors.

Co-pays – Beneficiaries can receive a 50% reduction in co-pays once they have paid 2% of their income in co-pays AND agree to address or maintain healthy behaviors.

Contributions - Beneficiaries can receive a 50% reduction in contributions if they complete an HRA with a PCP attestation AND agree to address or maintain healthy behaviors.

Gift Cards – Beneficiaries at or below 100% FPL receive a $50.00 gift card if they complete an HRA with a PCP attestation AND agree to address or maintain healthy behaviors.

Chart 5B shows the number of beneficiaries that qualified for a reduction in co-pays and/or contributions due to Healthy Behavior incentives for the specified month, calendar year since January 2018 and the cumulative total for the program from October 2014 through September 2018.

Chart 5B: Healthy Behaviors

	Jul-18		Aug-18		Sep-18	
	#	Total $	#	Total $	#	Total $
Co-pay	3,499	$17,672.35	2,604	$13,600.13	2,445	$13,636.95
Contribution	8,654	$288,921.50	6,869	$229,778.00	6,766	$228,984.00
Gift Cards	3,780	n/a	2,996	n/a	2,649	n/a
TOTAL	**15,933**	**$306,593.85**	**12,469**	**$243,378.13**	**11,860**	**$242,620.95**
	Jul 18 to Sept-18		**Calendar YTD**		**Program YTD**	
	#	Total $	#	Total $	#	Total $
Co-pay	8,548	$44,909.43	17,969	$94,663.70	57,306	$319,606.49
Contribution	22,289	$747,683.50	47,156	$1,560,740.00	121,320	$3,996,063.77
Gift Cards	9,425	n/a	27,069	n/a	159,018	n/a
TOTAL	**40,262**	**$792,592.93**	**92,194**	**$1,655,403.70**	**337,644**	**$4,315,670.26**

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Typically, beneficiaries will pay a co-pay for the following services:

- Some Physician Office Visits (including free standing Urgent Care Centers)
- Outpatient Hospital Clinic Visit
- Outpatient Non-Emergent ER Visit (co-pay not required for emergency services)
- Inpatient Hospital Stay (co-pay not required for emergency admissions)
- Pharmacy (brand name and generic)
- Vision Services
- Dental Visits
- Chiropractic Visits
- Hearing Aids
- Podiatric Visits

If a beneficiary receives any of the above services for a chronic condition, the co-pay will be waived and the beneficiary will not be billed. This promotes greater access to high value services that prevent the progression of and complications related to chronic disease.

Chart 6 shows the number of beneficiaries whose co-pays were waived and the dollar amount waived due to receiving services for chronic conditions. Co-pay adjustments for high value services are processed quarterly based on the beneficiaries' individual enrollment and statement cycles.

Chart 6: Waived Copays for High Value Services

Month	# of Beneficiaries with Copays Waived	Total Dollar Amount Waived
Jul-18	73,478	$743,337
Aug-18	55,485	$570,270
Sep-18	61,242	$667,675
Calendar YTD	**556,025**	**$5,652,654**
Program Total	**1,394,289**	**$13,307,954**

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Beneficiaries who do not pay three consecutive months they have been billed co-pays or contributions or who have not paid at least 50% of the total billed amount in the past 12 months, are considered “consistently failing to pay (CFP)” status. Once a beneficiary is in CFP status, the following language is added to the quarterly statement: “If your account is overdue, you may have a penalty. For example, if you have a healthy behavior reduction, you could lose it. Your information may also be sent to the Michigan Department of Treasury. They can take your overdue amount from your tax refund or future lottery winnings. Your doctor cannot refuse to see you because of an overdue amount.” Beneficiaries that are in CFP status and have a total amount owed of at least $50 can be referred to the Department of Treasury for collection.

Chart 7 displays the past due collection history and the number of beneficiaries that have past due balances that can be collected through the Department of Treasury. These numbers are cumulative from quarter to quarter.

Chart 7: Past Due Collection Amounts

Month	# of Beneficiaries with Past Due Co-pays/Contributions	# of Beneficiaries with Past Due Co-pays/Contributions that Can be Sent to Treasury
Jul-18	221,906	95,731
Aug-18	223,509	96,317
Sep-18	227,161	97,819

Chart 8 displays the total amount of past due invoices according to the length of time the invoice has been outstanding. Each length of time displays the unique number of beneficiaries for that time period. The total number of delinquent beneficiaries is also listed along with the corresponding delinquent amount owed.

Chart 8: Delinquent Copay and Contribution Amounts by Aging Category

Days	0-30 Days	31-60 Days	61-90 Days	91-120 Days	>120 Days	TOTAL
Amount Due	$1,038,405.86	$881,843.27	$821,205.30	$756,129.19	$18,552,431.43	**$22,050,015.05**
Number of Beneficiaries That Owe	79,990	67,580	61,826	57,764	232,120	**266,821**

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Beneficiaries are mailed a letter that informs them of the amount that could be collected by the Department of Treasury. This pre-offset notice is mailed each year in July. Beneficiaries are given 30 days from the date of the letter to make a payment or file a dispute with the Department of Health and Human Services (DHHS) for the amount owed.

Chart 9 displays the beneficiary payment activity as a result of the pre-offset notice.

Chart 9: Pre-Offset Notices

Month/Year	# of Beneficiaries that Received an Offset Notice	Total Amount Owed	# of Beneficiaries that Paid Following Pre-Offset Notice	Total Amount Collected
Jul-15	5,893	$589,770.20	2,981	$78,670.02
Jul-16	41,460	$5,108,153.13	3,832	$404,921.47
Jul-17	68,201	$10,049,454.41	19,071	$2,339,095.79
Jul-18	90,926	$15,763,446.50	9,686	$1,184,177.61
Calendar YTD	**90,926**	**$15,763,446.50**	**9,686**	**$1,184,177.61**
Program Total	**206,480**	**$31,510,824.24**	**35,570**	**$4,006,864.89**

Beneficiaries are referred to the Department of Treasury each year in November for income tax refund or lottery winnings offset if they still owe at least $50 following the pre-offset notice.

Chart 10 displays the number of beneficiaries that were referred to Treasury.

Chart 10: Offsets Sent to Treasury

Month	# of Beneficiaries Sent to Treasury for Collection	Total Amount Sent to Treasury for Collection
Nov-15	4,635	$460,231.19
Nov-16	31,932	$3,946,091.28
Nov-17	49,857	$7,178,042.86
Nov-18	73,944	$12,549,788.93

HEALTHY MICHIGAN PLAN
MI HEALTH ACCOUNT: DECEMBER 2018

The Department of Treasury may offset tax refunds or lottery winnings up to the amount referred to them from the MI Health Account.

Chart 11 displays collection activities by the Department of Treasury.

Chart 11: Collected by Treasury

Tax Year	Collected by Taxes		Collected by Lottery		Total Collected	
	#	Total	#	Total	#	Total
2016	2,151	$207,873.10	7	$485.67	2,158	$208,358.77
2017	19,401	$2,186,302.74	68	$7,926.14	19,469	$2,194,228.88
2018	26,894	$3,328,649.31	99	$15,008.57	26,993	$3,343,657.88
2019	19	$2,155.35	1	$96.00	20	$2,251.35
Calendar YTD	**19**	**$2,155.35**	**1**	**$96.00**	**20**	**$2,251.35**
Program Total	**48,465**	**5,724,980.50**	**175**	**23,516.38**	**48,640**	**5,748,496.88**

Michigan Department of Health & Human Services

RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

2018 HEDIS Aggregate Report for Michigan Medicaid

October 2018

HSAG HEALTH SERVICES ADVISORY GROUP

HSAG HEALTH SERVICES ADVISORY GROUP

Table of Contents

1. Executive Summary

Introduction

During 2017, the Michigan Department of Health and Human Services (MDHHS) contracted with 11 health plans to provide managed care services to Michigan Medicaid enrollees. MDHHS expects its contracted Medicaid health plans (MHPs) to support claims systems, membership and provider files, as well as hardware/software management tools that facilitate valid reporting of the Healthcare Effectiveness Data and Information Set (HEDIS®)[1-1] measures. MDHHS contracted with Health Services Advisory Group, Inc. (HSAG), to calculate statewide average rates based on the MHPs' rates and evaluate each MHP's current performance level, as well as the statewide performance, relative to national Medicaid percentiles.

MDHHS selected HEDIS measures to evaluate Michigan MHPs within the following eight measure domains:

- Child & Adolescent Care
- Women—Adult Care
- Access to Care
- Obesity
- Pregnancy Care
- Living With Illness
- Health Plan Diversity
- Utilization

Of note, measures in the Health Plan Diversity and Utilization measure domains are provided within this report for information purposes only as they assess the health plans' use of services and/or describe health plan characteristics and are not related to performance. Therefore, most of these rates were not evaluated in comparison to national percentiles, and changes in these rates across years were not analyzed by HSAG for statistical significance.

The performance levels are based on national percentiles and were set at specific, attainable rates. MHPs that met the high performance level (HPL) exhibited rates that were among the top in the nation. The low performance level (LPL) was set to identify MHPs with the greatest need for improvement. Details describing these performance levels are presented in Section 2, "How to Get the Most From This Report."

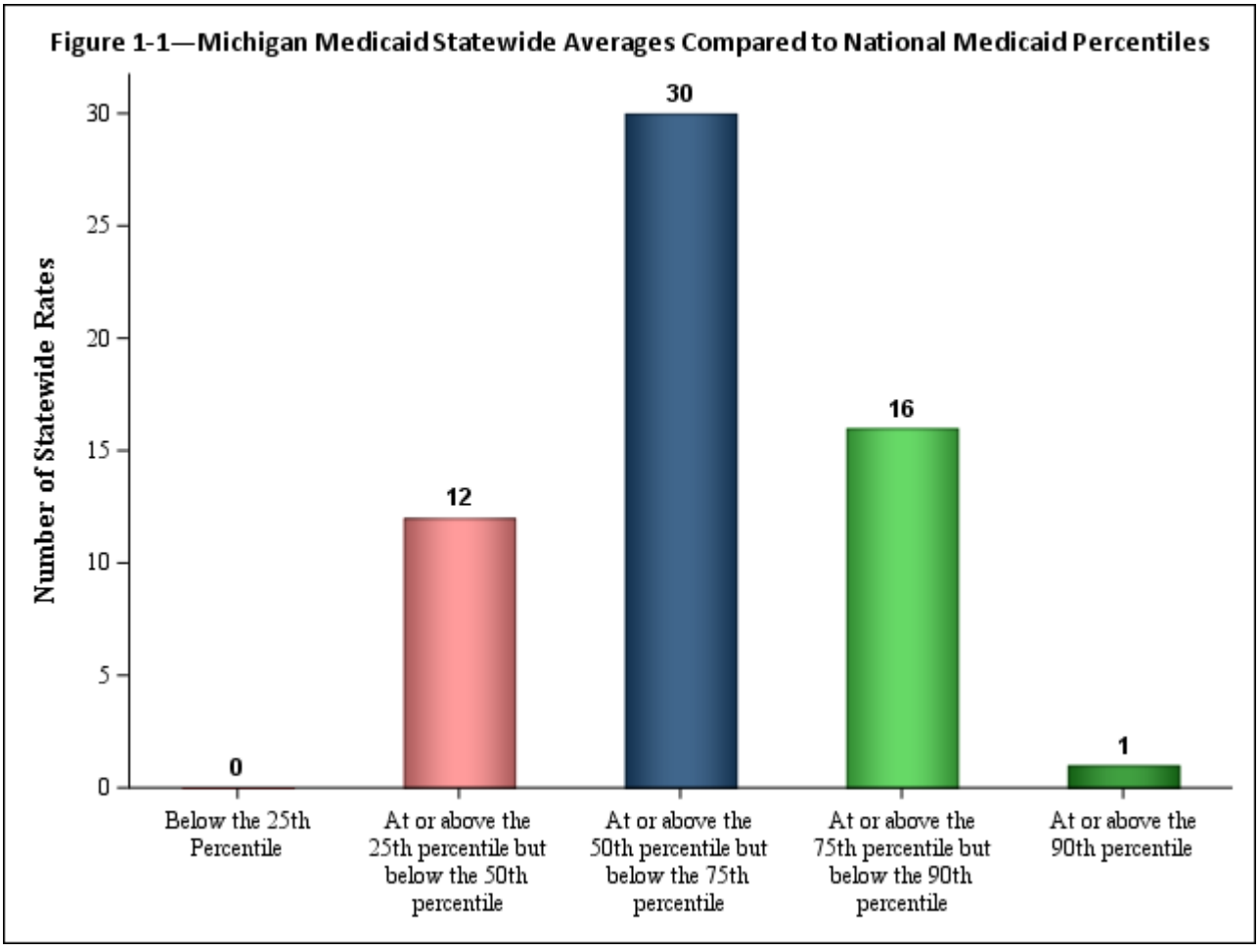
[1-1] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

In addition, Section 11 ("HEDIS Reporting Capabilities—Information Systems Findings") provides a summary of the HEDIS data collection processes used by the Michigan MHPs and the audit findings in relation to the National Committee for Quality Assurance's (NCQA's) information system (IS) standards.[1-2]

Summary of Performance

Figure 1-1 compares the Michigan Medicaid program's overall rates with NCQA's Quality Compass® national Medicaid HMO percentiles for HEDIS 2018, which are referred to as "national Medicaid percentiles" throughout this report.[1-3] For measures that were comparable to national Medicaid percentiles, the bars represent the number of Michigan Medicaid Weighted Average (MWA) measure indicator rates that fell into each national Medicaid percentile range.

Figure 1-1—Michigan Medicaid Statewide Averages Compared to National Medicaid Percentiles



[1-2] National Committee for Quality Assurance. *HEDIS® 2018, Volume 5: HEDIS Compliance Audit™: Standards, Policies and Procedures*. Washington D.C.

[1-3] Quality Compass® is a registered trademark for the National Committee for Quality Assurance (NCQA).

Of the 59 reported rates that were comparable to national Medicaid percentiles, none of the MWA rates fell below the national Medicaid 25th percentile. Most MWA rates (about 80 percent) ranked at or above the national Medicaid 50th percentile, indicating high performance statewide compared to national standards. A summary of MWA performance for each measure domain is presented on the following pages.

Child & Adolescent Care

For the Child & Adolescent Care domain, six of 18 (33.3 percent) MWA rates demonstrated significant increases from HEDIS 2017 to HEDIS 2018. Of note, three of the six rates that increased were *Childhood Immunization Status* measure indicators (*Combinations 7*, *9*, and *10*), and the rate increases were due primarily to relatively small increases in the rotavirus and hepatitis A vaccination rates. Nearly all MWA rates (83 percent) ranked at or above the national Medicaid 50th percentile, with two rates ranking at or above the national Medicaid 75th percentile. The *Well-Child Visits in the First 15 Months of Life* measure was an area of strength in this domain, as the MWA was both above the 75th percentile and demonstrated a significant increase. Of note, the *Appropriate Testing for Children With Pharyngitis* rate had a significant increase by upwards of 8 percentage points, with nine of 11 plans (82 percent) demonstrating significant increases.

Conversely, the MWA rates for *Appropriate Treatment for Children With Upper Respiratory Infection* and *Follow-Up Care for Children Prescribed ADHD Medication* fell below the national Medicaid 50th percentile, suggesting opportunities for improvement. However, caution should be used when comparing the HEDIS 2018 rates for the *Follow-Up Care for Children Prescribed ADHD Medication* measure indicators to national Medicaid percentiles and prior years' rates due to changes to the technical specifications for this measure for HEDIS 2018.

Women—Adult Care

For the four MWA rates in the Women—Adult Care domain that could be compared to national Medicaid percentiles or prior years' rates, *Cervical Cancer Screening* and *Chlamydia Screening in Women—Ages 16 to 20 Years* demonstrated a significant improvement from HEDIS 2017 to HEDIS 2018. Further, all four MWA rates ranked at or above the national Medicaid 50th percentile, with three of the rates ranking at or above the national Medicaid 75th percentile, indicating overall positive performance in the areas of cervical cancer and chlamydia screenings for women.

Access to Care

For the Access to Care domain, two of nine (22.2 percent) measure indicators, *Adults' Access to Preventive/Ambulatory Health Services—Ages 65+ Years* and *Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis*, demonstrated significant increases from HEDIS 2017 to HEDIS 2018. Of note, the *Adults' Access to Preventive/Ambulatory Health Services—Ages 65+ Years* measure indicator demonstrated an area of strength in this domain, with the MWA rate ranking above the national

Medicaid 75th percentile and three MHPs demonstrating significant increases from HEDIS 2017 to HEDIS 2018. Additionally, seven of nine (77.8 percent) MWA rates ranked at or above the national Medicaid 50th percentile, indicating positive performance in the area of Access to Care compared to national standards.

Conversely, six of nine (67 percent) MWA rates within the Access to Care domain demonstrated significant decreases from HEDIS 2017 to HEDIS 2018. Of note, the MWA rates for *Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months* and *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years* fell below the national Medicaid 50th percentile and demonstrated significant decreases. In addition, 10 of 11 (90.9 percent) MHPs' rates and the MWA demonstrated significant decreases from HEDIS 2017 to HEDIS 2018 for the *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years* and *Total* measure indicators. These declines in performance suggest opportunities for improving access to preventive/ambulatory services for adults ages 20 to 64 years and access to primary care physicians for children and adolescents.

Obesity

The four MWA rates included in the Obesity domain demonstrated a significant improvement from HEDIS 2017 to HEDIS 2018. Additionally, all four MWA rates ranked at or above the national Medicaid 50th percentile, demonstrating overall positive performance related to obesity. Of note, the MWA rate for *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total* ranked at or above the national Medicaid 75th percentile, and the MWA rate for *Adult BMI Assessment* ranked at or above the national Medicaid 90th percentile.

Pregnancy Care

One of the two measure indicators in the Pregnancy Care domain, *Prenatal and Postpartum Care—Postpartum Care,* ranked at or above the national Medicaid 50th percentile. For the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* measure, the MWA rate fell below the national Medicaid 50th percentile and demonstrated a significant decline from HEDIS 2017 to HEDIS 2018, indicating opportunities for improvement in prenatal care.

Living With Illness

For the Living With Illness domain, 11 of 21 (52.4 percent) MWA rates that could be compared to national Medicaid percentiles or prior years' rates demonstrated significant improvement from HEDIS 2017 to HEDIS 2018. Of note, four MHPs and the MWA demonstrated significant improvement of more than 5 percentage points for the *Antidepressant Medication Management* measure indicators. Please note, caution should be used when comparing the 2018 rates for *Antidepressant Medication Management* to national Medicaid percentiles and prior years' rates due to changes to the technical measure specifications for HEDIS 2018.

Additionally, 16 of 21 (76.2 percent) MWA rates ranked at or above the national Medicaid 50th percentile, with nine MWA rates ranking at or above the national Medicaid 75th percentile. The following nine rates demonstrated positive performance: *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed* and *Medical Attention for Nephropathy*; *Medication Management for People With Asthma—Medication Compliance 50%—Total* and *Medication Compliance 75%—Total*; *Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit* and *Discussing Cessation Medications*; *Antidepressant Medication Management—Effective Acute Phase Treatment* and *Effective Continuation Phase Treatment*; and *Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications*.

Conversely, only one MWA rate, *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)*, demonstrated a significant decline in performance from HEDIS 2017 to HEDIS 2018. Further, the MWA rates for *Asthma Medication Ratio—Total*, *Diabetes Monitoring for People With Diabetes and Schizophrenia*, *Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia*, and *Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs* and *Diuretics* fell below the national Medicaid 50th percentile, indicating opportunities for improvement for these measures.

Health Plan Diversity

Although measures under this domain are not performance measures and are not compared to national Medicaid percentiles, changes observed in the results may provide insight into how select member characteristics affect the MHPs' provision of services and care. The *Race/Ethnicity Diversity of Membership* measure shows that the HEDIS 2018 statewide rates for different racial/ethnic groups were fairly stable across years, with less than 1 percentage point difference between HEDIS 2017 and HEDIS 2018 rates for all racial/ethnic groups.

For the *Language Diversity of Membership* measure, HEDIS 2018 rates remained similar to prior years, with Michigan members reporting that they used English as the preferred spoken language for healthcare and preferred language for written materials, with less than 1 percentage point difference between HEDIS 2017 and HEDIS 2018.

Utilization

For the *Emergency Department Visits—Total* and *Outpatient Visits—Total* indicators, the Michigan average remained steady from HEDIS 2016 to HEDIS 2018 for the number of visits per 1,000 member months.[1-4] Because the measure of outpatient visits is not linked to performance, the results for this measure are not comparable to national Medicaid percentiles.

[1-4] For the *Emergency Department Visits* indicator, a lower rate indicates better performance (i.e., low rates of emergency department visits suggest more appropriate service utilization).

Limitations and Considerations

Due to changes in Michigan's managed care program in 2016, HAP Midwest Health Plan's (MID's) eligible population decreased substantially. Therefore, HSAG suggests that caution be exercised when comparing MID's HEDIS 2018 rates to prior years' results.

2. How to Get the Most From This Report

Introduction

This reader's guide is designed to provide supplemental information to the reader that may aid in the interpretation and use of the results presented in this report.

Michigan Medicaid Health Plan Names

Table 2-1 presents a list of the Michigan MHPs discussed within this report and their corresponding abbreviations.

Table 2-1—2018 Michigan MHP Names and Abbreviations

MHP Name	Abbreviation
Aetna Better Health of Michigan	AET
Blue Cross Complete of Michigan	BCC
Harbor Health Plan	HAR
McLaren Health Plan	MCL
Meridian Health Plan of Michigan	MER
HAP Midwest Health Plan	MID
Molina Healthcare of Michigan	MOL
Priority Health Choice, Inc.	PRI
Total Health Care, Inc.	THC
UnitedHealthcare Community Plan	UNI
Upper Peninsula Health Plan	UPP

Summary of Michigan Medicaid HEDIS 2018 Measures

Within this report, HSAG presents the Michigan Medicaid Weighted Average (MWA) (i.e., statewide average rates) and MHP-specific performance on HEDIS measures selected by MDHHS for HEDIS 2018. These measures were grouped into the following eight domains of care: Child & Adolescent Care, Women—Adult Care, Access to Care, Obesity, Pregnancy Care, Living With Illness, Health Plan Diversity, and Utilization. While performance is reported primarily at the measure indicator level, grouping these measures into domains encourages MHPs and MDHHS to consider the measures as a whole rather than in isolation and to develop the strategic and tactical changes required to improve overall performance.

Table 2-2 shows the selected HEDIS 2018 measures and measure indicators as well as the corresponding domains of care and the reporting methodologies for each measure. The data collection or calculation method is specified by NCQA in the *HEDIS 2018 Volume 2 Technical Specifications*. Data collection methodologies are described in detail in the next section.

Table 2-2—Michigan Medicaid HEDIS 2018 Required Measures

Performance Measures	HEDIS Data Collection Methodology
Child & Adolescent Care	
Childhood Immunization Status—Combinations 2–10	Hybrid
Well-Child Visits in the First 15 Months of Life—Six or More Visits	Hybrid
Lead Screening in Children	Administrative
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	Hybrid
Adolescent Well-Care Visits	Hybrid
Immunizations for Adolescents—Combination 1 (Meningococcal, Tdap)	Hybrid
Appropriate Treatment for Children With Upper Respiratory Infection	Administrative
Appropriate Testing for Children With Pharyngitis	Administrative
Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase and *Continuation and Maintenance Phase*	Administrative
Women—Adult Care	
Breast Cancer Screening	Administrative
Cervical Cancer Screening	Hybrid
Chlamydia Screening in Women—Ages 16 to 20 Years, Ages 21 to 24 Years, and *Total*	Administrative
Access to Care	
Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months, Ages 25 Months to 6 Years, Ages 7 to 11 Years, and *Ages 12 to 19 Years*	Administrative
Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years, Ages 45 to 64 Years, Ages 65 Years and Older, and *Total*	Administrative
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	Administrative
Obesity	
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total, Counseling for Nutrition—Total, and *Counseling for Physical Activity—Total*	Hybrid
Adult BMI Assessment	Hybrid

Performance Measures	HEDIS Data Collection Methodology
Pregnancy Care	
Prenatal and Postpartum Care—Timeliness of Prenatal Care and *Postpartum Care*	Hybrid
Living With Illness	
Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing, HbA1c Poor Control (>9.0%), HbA1c Control (<8.0%), Eye Exam (Retinal) Performed, Medical Attention for Nephropathy, and *Blood Pressure Control (<140/90 mm Hg)*	Hybrid
Medication Management for People with Asthma—Medication Compliance 50%—Total and *Medication Compliance 75%—Total*	Administrative
Asthma Medication Ratio—Total	Administrative
Controlling High Blood Pressure	Hybrid
Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit, Discussing Cessation Medications, and *Discussing Cessation Strategies*	Administrative
Antidepressant Medication Management—Effective Acute Phase Treatment and *Effective Continuation Phase Treatment*	Administrative
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	Administrative
Diabetes Monitoring for People With Diabetes and Schizophrenia	Administrative
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	Administrative
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	Administrative
Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs, Diuretics, and *Total*	Administrative
Health Plan Diversity	
Race/Ethnicity Diversity of Membership	Administrative
Language Diversity of Membership—Spoken Language Preferred for Health Care, Preferred Language for Written Materials, and *Other Language Needs*	Administrative
Utilization	
Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits—Total and *Outpatient Visits—Total*	Administrative
Inpatient Utilization—General Hospital/Acute Care	Administrative
Use of Opioids From Multiple Providers (Per 1,000 Members)—Multiple Prescribers, Multiple Pharmacies, and *Multiple Prescribers and Multiple Pharmacies*	Administrative
Use of Opioids at High Dosage (Per 1,000 Members)	Administrative

Data Collection Methods

Administrative Method

The administrative method requires that MHPs identify the eligible population (i.e., the denominator) using administrative data, derived from claims and encounters. In addition, the numerator(s), or services provided to the members in the eligible population, are derived solely using administrative data collected during the reporting year. Medical record review data from the prior year may be used as supplemental data. Medical records collected during the current year cannot be used to retrieve information. When using the administrative method, the entire eligible population becomes the denominator, and sampling is not allowed.

Hybrid Method

The hybrid method requires that MHPs identify the eligible population using administrative data and then extract a systematic sample of members from the eligible population, which becomes the denominator. Administrative data are used to identify services provided to those members. Medical records must then be reviewed for those members who do not have evidence of a service being provided using administrative data.

The hybrid method generally produces higher rates because the completeness of documentation in the medical record exceeds what is typically captured in administrative data; however, the medical record review component of the hybrid method is considered more labor intensive. For example, the MHP has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure and chooses to use the hybrid method. After randomly selecting 411 eligible members, the MHP finds that 161 members had evidence of a postpartum visit using administrative data. The MHP then obtains and reviews medical records for the 250 members who did not have evidence of a postpartum visit using administrative data. Of those 250 members, 54 were found to have a postpartum visit recorded in the medical record review. Therefore, the final rate for this measure, using the hybrid method, would be (161 + 54)/411, or 52.3 percent, a 13.1 percentage point increase from the administrative only rate of 39.2 percent.

Understanding Sampling Error

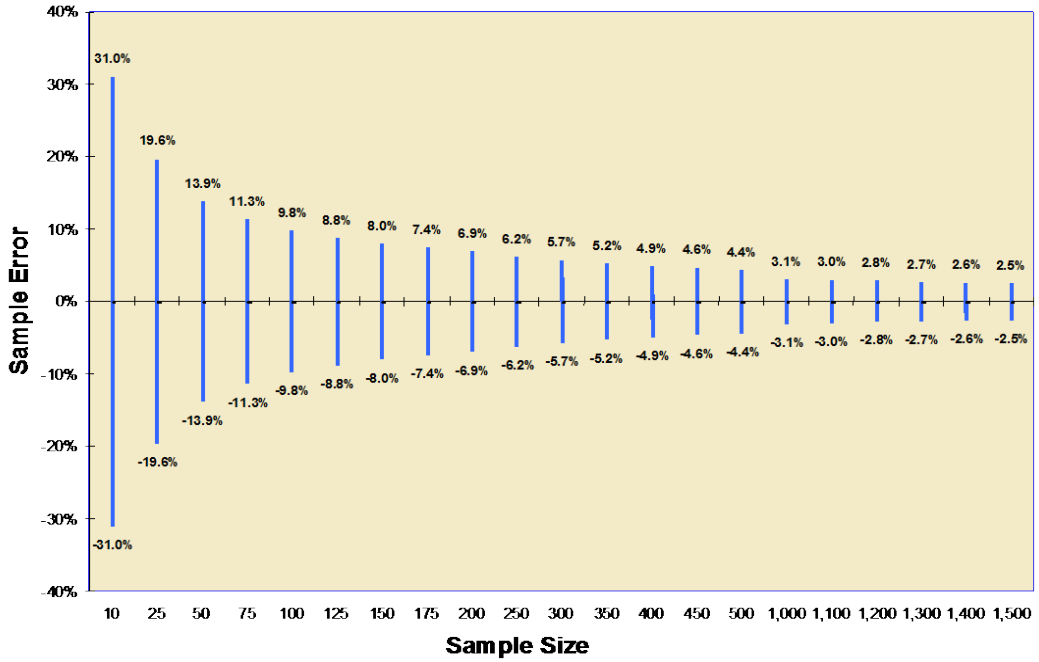
Correct interpretation of results for measures collected using HEDIS hybrid methodology requires an understanding of sampling error. It is rarely possible, logistically or financially, to complete medical record review for the entire eligible population for a given measure. Measures collected using the HEDIS hybrid method include only a sample from the eligible population, and statistical techniques are used to maximize the probability that the sample results reflect the experience of the entire eligible population.

For results to be generalized to the entire eligible population, the process of sample selection must be such that everyone in the eligible population has an equal chance of being selected. The HEDIS hybrid method prescribes a systematic sampling process selecting at least 411 members of the eligible

population. MHP may use a 5 percent, 10 percent, 15 percent, or 20 percent oversample to replace invalid cases (e.g., a male selected for *Postpartum Care*).

Figure 2-1 shows that if 411 members are included in a measure, the margin of error is approximately ± 4.9 percentage points. Note that the data in this figure are based on the assumption that the size of the eligible population is greater than 2,000. The smaller the sample included in the measure, the larger the sampling error.

Figure 2-1—Relationship of Sample Size to Sample Error



As Figure 2-1 shows, sample error decreases as the sample size gets larger. Consequently, when sample sizes are very large and sampling errors are very small, almost any difference is statistically significant. This does not mean that all such differences are important. On the other hand, the difference between two measured rates may not be statistically significant but may, nevertheless, be important. The judgment of the reviewer is always a requisite for meaningful data interpretation.

Data Sources and Measure Audit Results

MHP-specific performance displayed in this report was based on data elements obtained from the Interactive Data Submission System (IDSS) files supplied by the MHPs. Prior to HSAG's receipt of the MHPs' IDSS files, all of the MHPs were required by MDHHS to have their HEDIS 2018 results examined and verified through an NCQA HEDIS Compliance Audit.

Through the audit process, each measure indicator rate reported by an MHP was assigned an NCQA-defined audit result. HEDIS 2018 measure indicator rates received one of seven predefined audit results: *Reportable (R)*, *Small Denominator (NA)*, *Biased Rate (BR)*, *No Benefit (NB)*, *Not Required (NQ)*, *Unaudited (UN)*, and *Not Reported (NR)*. The audit results are defined in Section 12.

Rates designated as *NA*, *BR*, *NB*, *NQ*, *UN*, or *NR* are not presented in this report. All measure indicator rates that are presented in this report have been verified as an unbiased estimate of the measure. Please see Section 11 for additional information on NCQA's Information System (IS) standards and the audit findings for the MHPs.

Calculation of Statewide Averages

For all measures, HSAG collected the audited results, numerator, denominator, rate, and eligible population elements reported in the files submitted by MHPs to calculate the MWA rate. Given that the MHPs varied in membership size, the MWA rate was calculated for most of the measures based on MHPs' eligible populations. Weighting the rates by the eligible population sizes ensured that a rate for an MHP with 125,000 members, for example, had a greater impact on the overall MWA rate than a rate for the MHP with only 10,000 members. For MHPs' rates reported as *NA*, the numerators, denominators, and eligible populations were included in the calculations of the MWA rate. MHP rates reported as *BR*, *NB*, *NQ*, *UN*, or *NR* were excluded from the MWA rate calculation. However, traditional unweighted statewide Medicaid average rates were calculated for utilization-based measures to align with calculations from prior years' deliverables.

Evaluating Measure Results

National Benchmark Comparisons

Benchmark Data

HEDIS 2018 MHP and MWA rates were compared to the corresponding national HEDIS benchmarks, which are expressed in percentiles of national performance for different measures. For comparative purposes, HSAG used the most recent data available from NCQA at the time of the publication of this report to evaluate the HEDIS 2018 rates: NCQA's Quality Compass national Medicaid HMO percentiles for HEDIS 2017, which are referred to as "national Medicaid percentiles" throughout this report. Of note, rates for the *Medication Management for People With Asthma—Medication Compliance 50%—Total* measure indicator were compared to the NCQA's Audit Means and Percentiles national Medicaid HMO percentiles for HEDIS 2017.

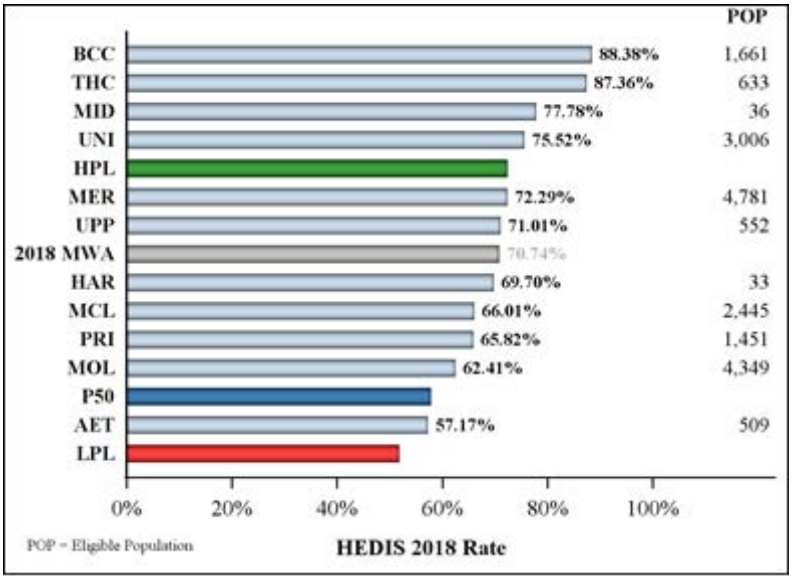
Additionally, benchmarking data (i.e., NCQA's Quality Compass and NCQA's Audit Means and Percentiles) are the proprietary intellectual property of NCQA; therefore, this report does not display any actual percentile values. As a result, rate comparisons to benchmarks are illustrated within this report using proxy displays.

Figure Interpretation

For each performance measure indicator presented in Sections 3 through 8 of this report, the horizontal bar graph figure positioned on the right side of the page presents each MHP's performance against the HEDIS 2018 MWA (i.e., the bar shaded gray); the high performance level (HPL) (i.e., the green shaded bar), representing the national Medicaid 90th percentile; the P50 bar (i.e., the blue shaded bar), representing the national Medicaid 50th percentile; and the low performance level (LPL) (i.e., the red shaded bar), representing the national Medicaid 25th percentile.

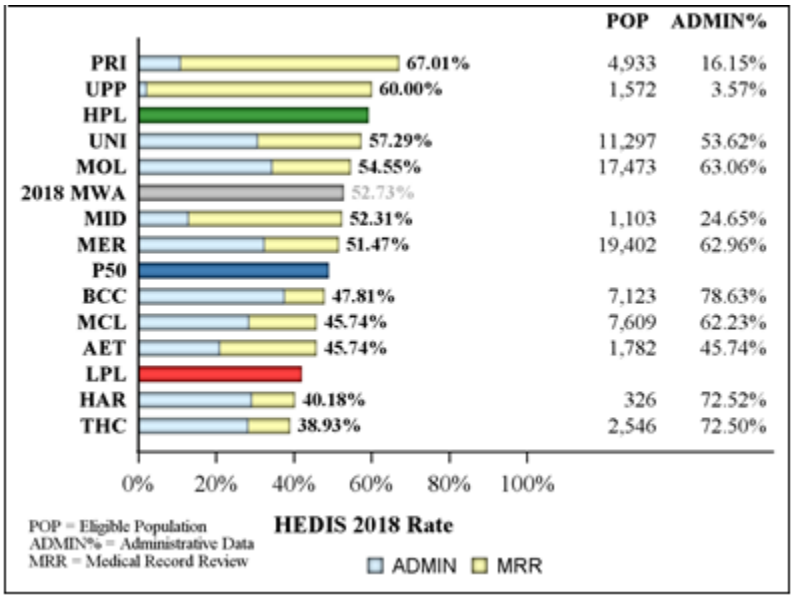
For measures for which lower rates indicate better performance, the 10th percentile (rather than the 90th percentile) and the 75th percentile (rather than the 25th percentile) are considered the HPL and LPL, respectively. An example of the horizontal bar graph figure for measure indicators reported administratively is shown below in Figure 2-2.

Figure 2-2—Sample Horizontal Bar Graph Figure for Administrative Measures



For performance measure rates that were reported using the hybrid method, the "ADMIN%" column presented with each horizontal bar graph figure displays the percentage of the rate derived from administrative data (e.g., claims data and supplemental data). The portion of the bar shaded yellow represents the proportion of the total measure rate attributed to medical record review, while the portion of the bar shaded light blue indicates the proportion of the measure rate that was derived using the administrative method. This percentage describes the level of claims/encounter data completeness of the MHP data for calculating a particular performance measure. A low administrative data percentage suggests that the MHP relied heavily on medical records to report the rate. Conversely, a high administrative data percentage indicates that the MHP's claims/encounter data were relatively complete for use in calculating the performance measure indicator rate. An administrative percentage of 100 percent indicates that the MHP did not report the measure indicator rate using the hybrid method. An example of the horizontal bar graph figure for measure indicators reported using the hybrid method is shown in Figure 2-3.

Figure 2-3—Sample Horizontal Bar Graph Figure for Hybrid Measures



Percentile Rankings and Star Ratings

In addition to illustrating MHP and statewide performance via side-by-side comparisons to national percentiles, benchmark comparisons are denoted within Appendix B of this report using the percentile ranking performance levels and star ratings defined below in Table 2-3.

Table 2-3—Percentile Ranking Performance Levels

Star Rating	Performance Level
★★★★★	At or above the national Medicaid 90th percentile
★★★★	At or above the national Medicaid 75th percentile but below the national Medicaid 90th percentile
★★★	At or above the national Medicaid 50th percentile but below the national Medicaid 75th percentile
★★	At or above the national Medicaid 25th percentile but below the national Medicaid 50th percentile
★	Below the national Medicaid 25th percentile
NA	NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Measures in the Health Plan Diversity and Utilization measure domains are designed to capture the frequency of services provided and characteristics of the populations served. With the exception of *Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits*, *Use of Opioids From Multiple Providers*, and *Use of Opioids at High Dosage*, higher or lower rates in these domains do not necessarily indicate better or worse performance. A lower rate for *Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits* may indicate a more favorable performance since lower rates of emergency department services may indicate better utilization of services. Further, measures under the Health Plan Diversity measure domain provide insight into how member race/ethnicity or language characteristics are compared to national distributions and are not suggestive of plan performance.

For the *Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits* measure, HSAG inverted the star ratings to be consistently applied to this measure as with the other HEDIS measures. For example, the 10th percentile (a lower rate) was inverted to become the 90th percentile, indicating better performance.

Of note, MHP and statewide average rates were rounded to the second decimal place before performance levels were determined. As HSAG assigned star ratings, an em dash (—) was presented to indicate that the measure indicator was not required and not presented in previous years' HEDIS deliverables; or that a performance level was not presented in this report either because the measure did not have an applicable benchmark or a comparison to benchmarks was not appropriate.

Performance Trend Analysis

In addition to the star rating results, HSAG also compared HEDIS 2018 MWA and MHP rates to the corresponding HEDIS 2017 rates. HSAG also evaluated the extent of changes observed in the rates between years. Year-over-year performance comparisons are based on the Chi-square test of statistical significance with a *p* value <0.05 for MHP rate comparisons and a *p* value <0.01 for MWA rate comparisons. Note that statistical testing could not be performed on the utilization-based measures domain given that variances were not available in the IDSS files for HSAG to use for statistical testing. Further statistical testing was not performed on the health plan diversity measures because these measures are for information purposes only.

In general, results from statistical significance testing provide information on whether a change in the rate may suggest improvement or decline in performance. Throughout the report, references to "significant" changes in performance are noted; these instances refer to statistically significant differences between performance from HEDIS 2017 to HEDIS 2018. At the statewide level, if the number of MHPs reporting *NR* or *BR* differs vastly from year to year, the statewide performance may not represent all of the contracted MHPs, and any changes observed across years may need to take this factor into consideration. Nonetheless, changes (regardless of whether they are statistically significant) could be related to the following factors independent of any effective interventions designed to improve the quality of care:

- Substantial changes in measure specifications. The "Measure Changes Between HEDIS 2017 and HEDIS 2018" section below lists measures with specification changes made by NCQA.
- Substantial changes in membership composition within the MHP.

Table and Figure Interpretation

Within Sections 3 through 8 and Appendix B of this report, performance measure indicator rates and results of significance testing between HEDIS 2017 and HEDIS 2018 are presented in tabular format. HEDIS 2018 rates shaded green with one cross ($^{+}$) indicate a statistically significant improvement in performance from the previous year. HEDIS 2018 rates shaded red with two crosses ($^{++}$) indicate a statistically significant decline in performance from the previous year. The colors used are provided below for reference:

$^{+}$ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

$^{++}$ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

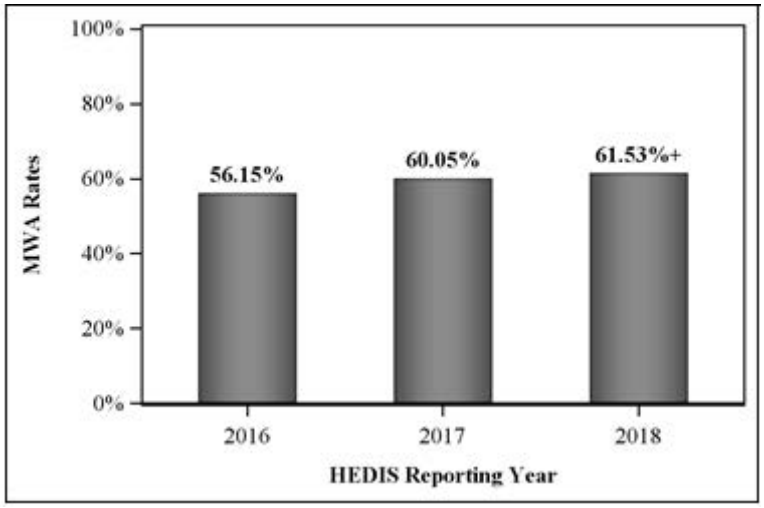
Additionally, benchmark comparisons are denoted within Sections 3 through 8. Performance levels are represented using the following percentile rankings:

Table 2-4—Percentile Ranking Performance Levels

Percentile Ranking and Shading	Performance Level
≥90th	At or above the national Medicaid 90th percentile
≥75th and ≤89th	At or above the national Medicaid 75th percentile but below the national Medicaid 90th percentile
≥50th and ≤74th	At or above the national Medicaid 50th percentile but below the national Medicaid 75th percentile
≥25th and ≤49th	At or above the national Medicaid 25th percentile but below the national Medicaid 50th percentile
≤25th	Below the national Medicaid 25th percentile

For each performance measure indicator presented in Sections 3 through 8 of this report, the vertical bar graph figure positioned on the left side of the page presents the HEDIS 2016, HEDIS 2017, and HEDIS 2018 MWAs with significance testing performed between the HEDIS 2017 and HEDIS 2018 MWAs. Within these figures, HEDIS 2018 rates with one cross (+) indicate a statistically significant improvement in performance from HEDIS 2017. HEDIS 2018 rates with two crosses (++) indicate a statistically significant decline in performance from HEDIS 2017. An example of the vertical bar graph figure for measure indicators reported is included in Figure 2-4.

Figure 2-4—Sample Vertical Bar Graph Figure Showing Statistically Significant Improvement



Interpreting Results Presented in This Report

HEDIS results can differ among MHPs and even across measures for the same MHP.

The following questions should be asked when examining these data:

How accurate are the results?

All Michigan MHPs are required by MDHHS to have their HEDIS results confirmed through an NCQA HEDIS Compliance Audit. As a result, any rate included in this report has been verified as an unbiased estimate of the measure. NCQA's HEDIS protocol is designed so that the hybrid method produces results with a sampling error of ± 5 percent at a 95 percent confidence level.

To show how sampling error affects the accuracy of results, an example was provided in the "Data Collection Methods" section above. When an MHP uses the hybrid method to derive a *Postpartum Care* rate of 52 percent, the true rate is actually within ± 5 percentage points of this rate, due to sampling error. For a 95 percent confidence level, the rate would be between 47 percent and 57 percent. If the target is a rate of 55 percent, it cannot be said with certainty whether the true rate between 47 percent and 57 percent meets or does not meet the target level.

To prevent such ambiguity, this report uses a standardized methodology that requires the reported rate to be at or above the threshold level to be considered as meeting the target. For internal purposes, MHPs should understand and consider the issue of sampling error when evaluating HEDIS results.

How do Michigan Medicaid rates compare to national percentiles?

For each measure, an MHP ranking presents the reported rate in order from highest to lowest, with bars representing the established HPL, LPL, and the national HEDIS 2017 Medicaid 50th percentile. In addition, the HEDIS 2016, 2017, and 2018 MWA rates are presented for comparison purposes.

Michigan MHPs with reported rates above the 90th percentile (HPL) rank in the top 10 percent of all MHPs nationally. Similarly, MHPs reporting rates below the 25th percentile (LPL) rank in the bottom 25 percent nationally for that measure.

How are Michigan MHPs performing overall?

For each domain of care, a performance profile analysis compares the 2018 MWA for each rate with the 2016 and 2017 MWA and the national HEDIS 2017 Medicaid 50th percentile.

Measure Changes Between HEDIS 2017 and HEDIS 2018

The following is a list of measures with technical specification changes that NCQA announced for HEDIS 2018.[2-1] These changes may have an effect on the HEDIS 2018 rates that are presented in this report.

Appropriate Treatment for Children With Upper Respiratory Infection

- Revised the episode date to allow for multiple diagnoses of URI and to exclude members who had other diagnoses on the same date of service.
- Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.

Appropriate Testing for Children With Pharyngitis

- Revised the episode date to allow for multiple diagnoses of pharyngitis and to exclude members who had other diagnoses on the same date of service.
- Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.

Follow-Up Care for Children Prescribed ADHD Medication

- Added telehealth as eligible for one visit for the continuation and maintenance phase.
- Clarified that for the continuation and maintenance phase, visits must be on different dates of service.
- Note added: Do not count visits billed with a telehealth modifier (Telehealth Modifier Value Set) or billed with a telehealth place of service (POS) code (Telehealth POS Value Set).
- Clarification under Admin specifications: Replace the paragraph after the first two bullets with the following text:
  - Only one of the two visits (during days 31–300) may be a telephone visit (Telephone Visits Value Set) or a telehealth visit. Identify follow-up visits using the code combinations below. Then, identify telehealth visits by the presence of a telehealth modifier (Telehealth Modifier Value Set) or the presence of a telehealth POS code (Telehealth POS Value Set) on the claim.
- Added value sets: Add the following as the fifth and sixth bullets in the last paragraph:
  - Add Visits Group 1 Value Set with Telehealth POS Value Set
  - Add Visits Group 2 Value Set with Telehealth POS Value Set

Breast Cancer Screening

- Added digital breast tomosynthesis as a method for meeting numerator criteria.

[2-1] National Committee for Quality Assurance. *HEDIS® 2018, Volume 2: Technical Specifications for Health Plans.* Washington, DC: NCQA Publication, 2016.

Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis

- Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents

- Clarified in the Notes that documentation related to a member's "appetite" does not meet criteria for the *Counseling for Nutrition* measure indicator.

Prenatal and Postpartum Care

- Updated the administrative numerator specification to indicate when codes must be on the same claim and when codes can occur on different dates of service.
- Revised Decision Rule 3 to allow **either** (rather than any) of the criteria where the practitioner type is a primary care provider (PCP).

Comprehensive Diabetes Care

- Added bilateral eye enucleation to the *Eye Exam (Retinal) Performed* measure indicator.
- Revised the language in step 1 of the *BP Control <140/90 mm Hg* Numerator and added *Notes* clarifying the intent when excluding BP readings from the numerator.
- Clarified the medical record requirements for evidence of angiotensin converting enzyme (ACE) inhibitor/angiotensin receptor blocker (ARB) therapy (for the *Medical Attention for Nephropathy* measure indicator).
- Added "sacubitril-valsartan" to the description of Antihypertensive combinations in the ACE Inhibitor/ARB Medications List.
- Revised the Data Elements for Reporting table to reflect the removal of the Final Sample Size (FSS) when reporting using the hybrid methodology.
- Replaced a bullet under Admin Specifications for the eye exams numerator: Replaced the eighth bullet with the following text:
  - Two unilateral eye enucleations (Unilateral Eye Enucleation Value Set) with service dates 14 days or more apart. For example, if the service date for the first unilateral eye enucleation was February 1 of the measurement year, the service date for the second unilateral eye enucleation must be on or after February 15.

Controlling High Blood Pressure

- Clarified that a diagnosis code for hypertension documented in the medical record may be used to confirm the diagnosis of hypertension.
- Clarified that the pregnancy optional exclusion should be applied to only female members.
- Revised the language in step 1 of the Numerator and added *Notes* clarifying the intent when excluding BP readings from the numerator.

- Replaced the bullet under hybrid specifications—Denominator: Replace the last bullet under the second paragraph with the following text:
  - A diagnosis code for essential hypertension (from the Essential Hypertension Value Set) documented in the medical record.

Antidepressant Medication Management

- Added telehealth and telehealth modifiers.

Annual Monitoring for Patients on Persistent Medications

- Removed the annual monitoring for members on digoxin rate.
- Added "sacubitril-valsartan" to the description of Antihypertensive combinations in the ACE Inhibitor/ARB Medications List.

Ambulatory Care

- Clarified how to identify an ED visit that resulted in an inpatient stay.
- Removed the Alcohol and Other Drug (AOD) Rehab and Detox Value Set from the required exclusions (exclusions will be identified based on a principal diagnosis of chemical dependency).
- Revised the data elements tables to indicate that rates are calculated for the Visits/1,000 Member Months/Years in the unknown category.

Inpatient Utilization

- Revised the data elements tables to indicate that rates are calculated for the Discharges/1,000 Member Months/Years in the unknown category.

3. Child & Adolescent Care

Introduction

The Child & Adolescent Care measure domain encompasses the following MDHHS measures:

- *Childhood Immunization Status—Combinations 2–10*
- *Well-Child Visits in the First 15 Months of Life—Six or More Visits*
- *Lead Screening in Children*
- *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
- *Adolescent Well-Care Visits*
- *Immunizations for Adolescents—Combination 1 (Meningococcal, Tdap)*
- *Appropriate Treatment for Children With Upper Respiratory Infection*
- *Appropriate Testing for Children With Pharyngitis*
- *Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase* and *Continuous and Maintenance Phase*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section. For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 3-1 presents the MWA performance for the measure indicators under the Child & Adolescent Care measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 3-1—HEDIS 2018 MWA Performance Levels and Trend Results for Child & Adolescent Care

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Childhood Immunization Status				
Combination 2	76.35%	-0.60	1	2
Combination 3	72.28%	-0.56	0	1
Combination 4	70.75%	+0.32	0	1
Combination 5	62.63%	+0.90	0	0
Combination 6	39.93%	+0.09	0	0
Combination 7	61.53%	**+1.48+**	0	0
Combination 8	39.56%	+0.36	1	0
Combination 9	35.85%	**+1.38+**	1	0
Combination 10	35.55%	**+1.57+**	1	0
Well-Child Visits in the First 15 Months of Life				
Six or More Visits	71.89%	**+2.10+**	1	0
Lead Screening in Children				
Lead Screening in Children	80.55%	-0.43	0	1
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life				
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	75.19%	**-0.90++**	0	1
Adolescent Well-Care Visits				
Adolescent Well-Care Visits	56.75%	**+1.06+**	1	1
Immunizations for Adolescents				
Combination 1	85.14%	**-1.59++**	0	1
Appropriate Treatment for Children With Upper Respiratory Infection				
Appropriate Treatment for Children With Upper Respiratory Infection	88.83%	-0.11	3	2
Appropriate Testing for Children With Pharyngitis				
Appropriate Testing for Children With Pharyngitis	79.20%	**+8.29+**	9	0
Follow-Up Care for Children Prescribed ADHD Medication[3]				
Initiation Phase	43.86%	+1.32	1	0
Continuation and Maintenance Phase	53.56%	-1.47	1	1

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	≥25th and ≤49th	≥50th and ≤74th	≥75th and ≤89th	≥90th

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

Green Shading+ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading++ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

[3] Due to changes in the technical specifications for this measure, exercise caution when trending rates between 2018 and prior years.

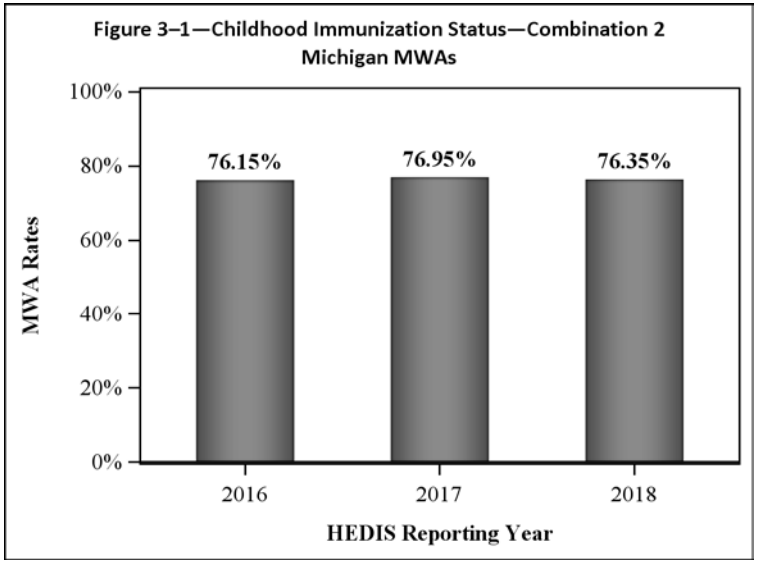
Table 3-1 shows that for the Child & Adolescent Care domain, six of 18 (33.3 percent) MWA rates demonstrated significant increases from HEDIS 2017 to HEDIS 2018. Of note, three of the six rates that increased were *Childhood Immunization Status* measure indicators (*Combinations 7*, *9*, and *10*), and the rate increases were due primarily to relatively small increases in the rotavirus and hepatitis A vaccination rates. Nearly all MWA rates (83 percent) ranked at or above the national Medicaid 50th percentile, with two rates ranking at or above the national Medicaid 75th percentile. The *Well-Child Visits in the First 15 Months of Life* measure was an area of strength in this domain, as the MWA was both above the 75th percentile and demonstrated a significant increase. Of note, the *Appropriate Testing for Children With Pharyngitis* rate had a significant increase by upwards of 8 percentage points, with nine of 11 plans (82 percent) demonstrating significant increases.

Conversely, the MWA rates for *Appropriate Treatment for Children With Upper Respiratory Infection* and *Follow-Up Care for Children Prescribed ADHD Medication* fell below the national Medicaid 50th percentile, suggesting opportunities for improvement. However, caution should be used when comparing the HEDIS 2018 rates for the *Follow-Up Care for Children Prescribed ADHD Medication* measure indicators to national Medicaid percentiles and prior years' rates due to changes to the technical specifications for this measure for HEDIS 2018.

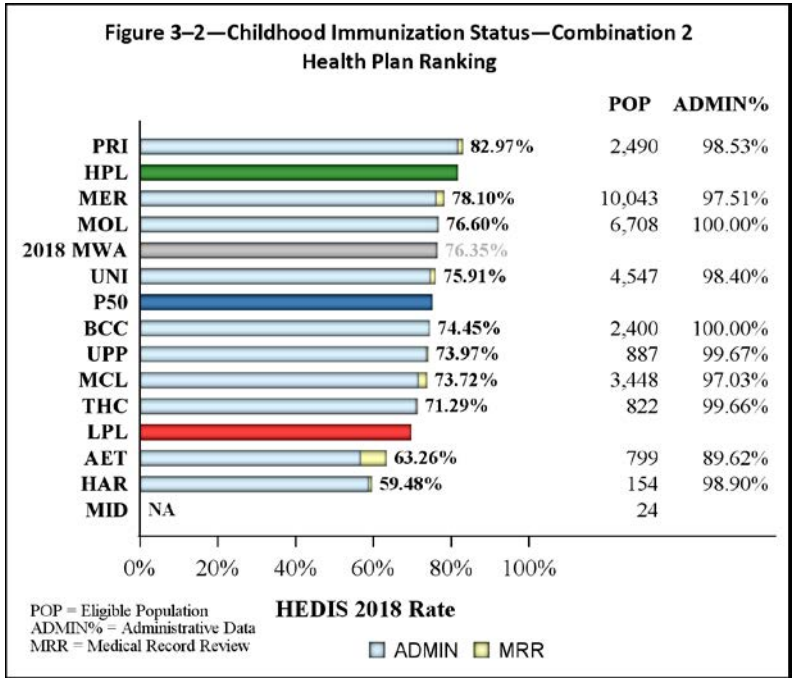
Measure-Specific Findings

Childhood Immunization Status—Combination 2

Childhood Immunization Status—Combination 2 assesses the percentage of children 2 years of age who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; and one chicken pox.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



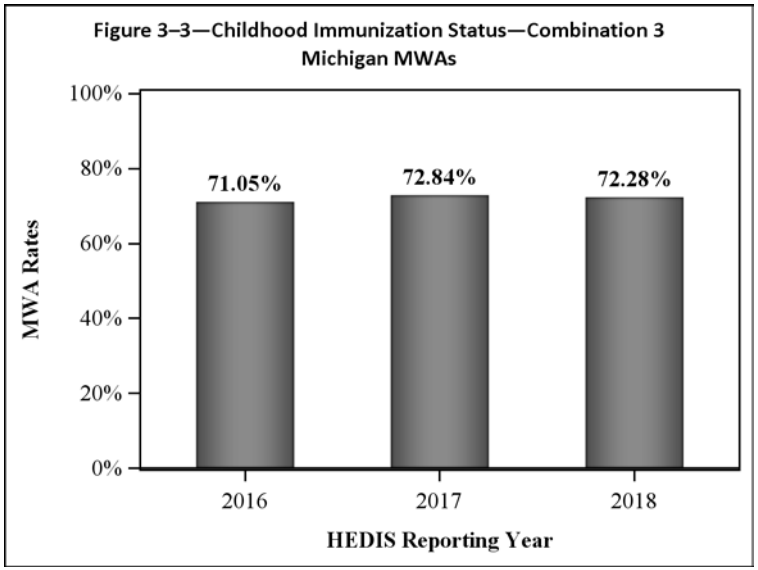
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Four MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

Childhood Immunization Status—Combination 3

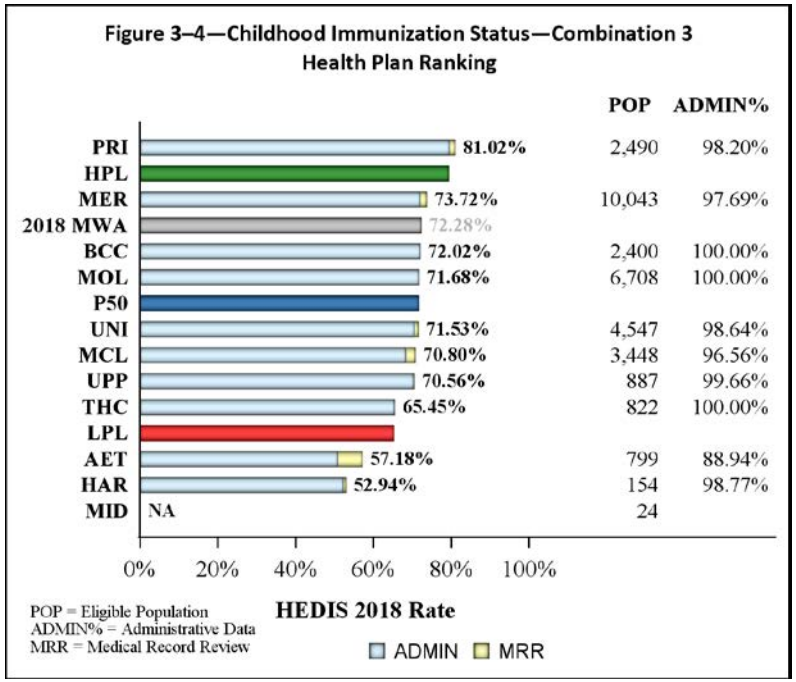
Childhood Immunization Status—Combination 3 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; and four pneumococcal conjugate.

Figure 3–3—Childhood Immunization Status—Combination 3
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 3–4—Childhood Immunization Status—Combination 3
Health Plan Ranking



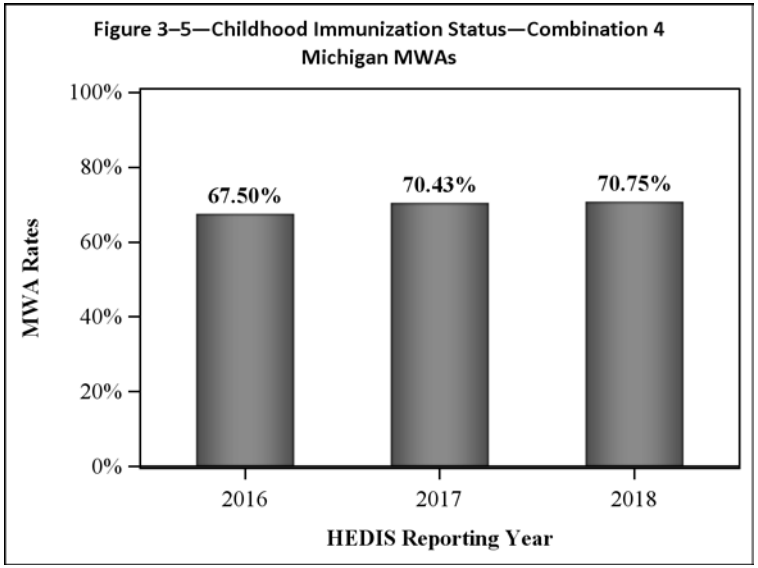
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Four MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by nearly 30 percentage points.

Childhood Immunization Status—Combination 4

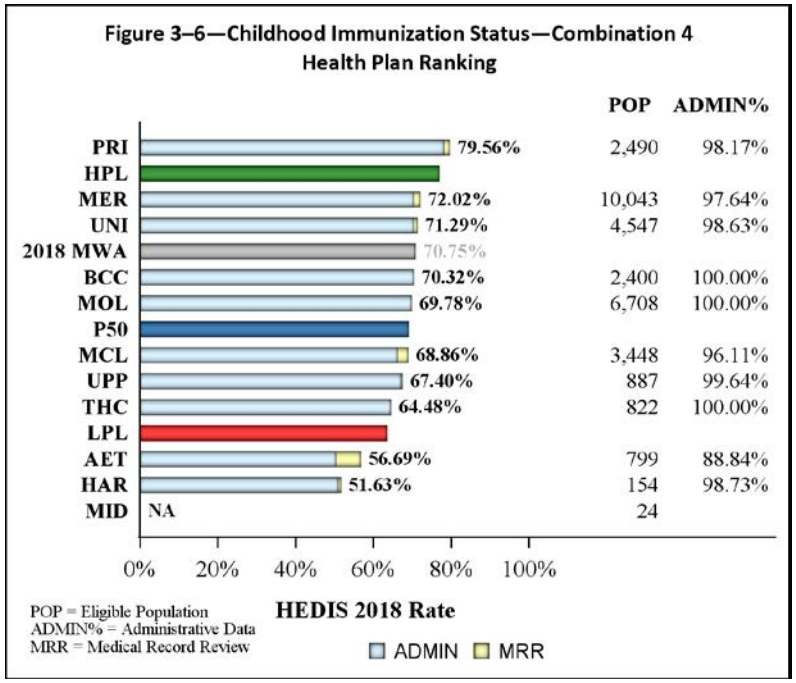
Childhood Immunization Status—Combination 4 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; and one hepatitis A.

Figure 3–5—Childhood Immunization Status—Combination 4
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 3–6—Childhood Immunization Status—Combination 4
Health Plan Ranking

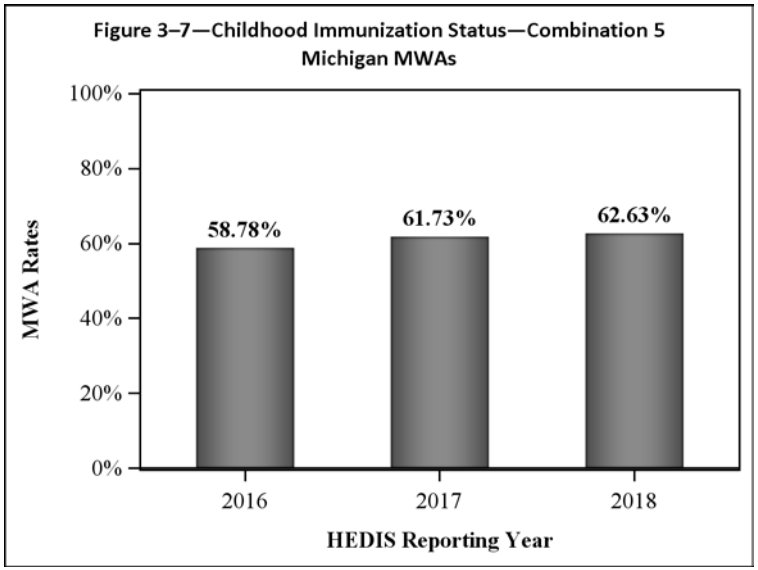


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

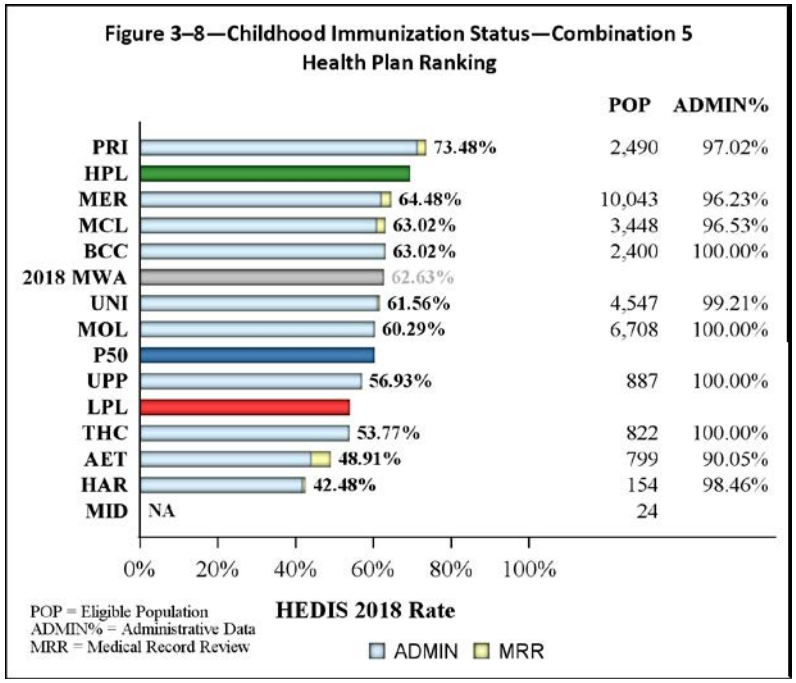
Five MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by nearly 30 percentage points.

Childhood Immunization Status—Combination 5

Childhood Immunization Status—Combination 5 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; and two or three rotavirus.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



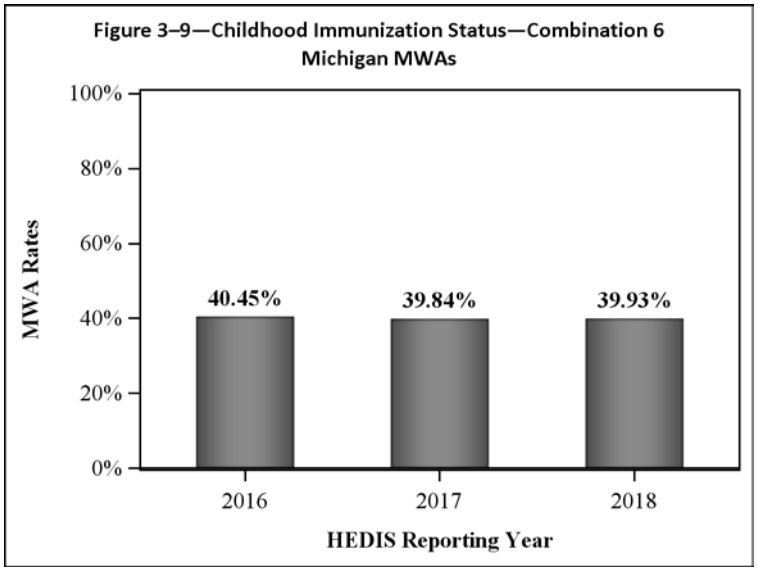
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Three MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Childhood Immunization Status—Combination 6

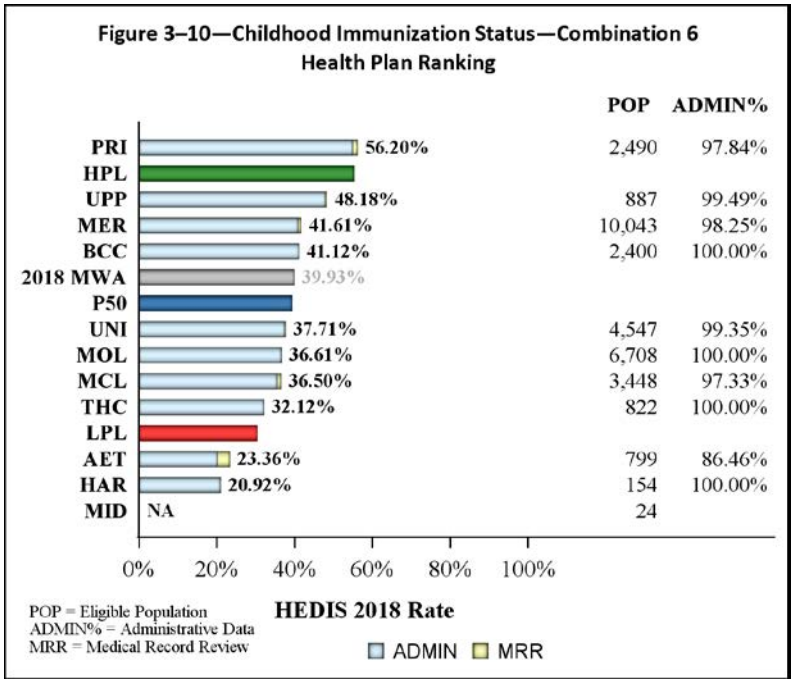
Childhood Immunization Status—Combination 6 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; and two influenza.

Figure 3–9—Childhood Immunization Status—Combination 6
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 3–10—Childhood Immunization Status—Combination 6
Health Plan Ranking

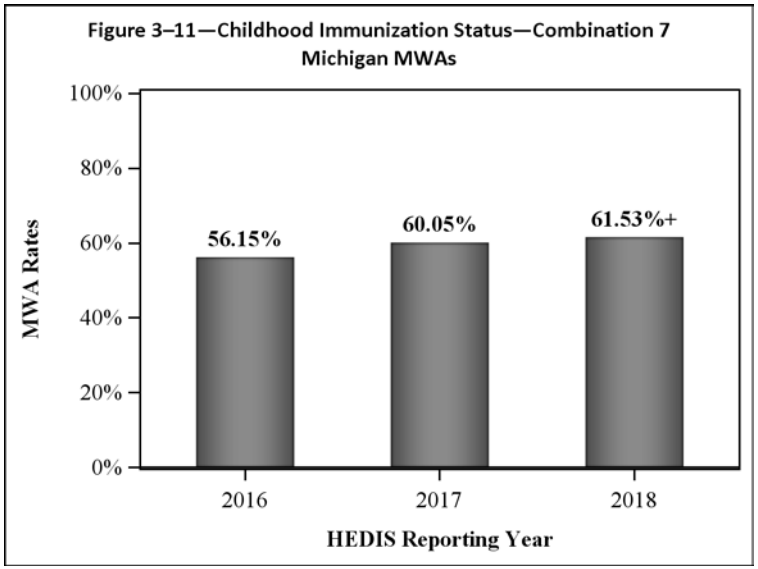


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Four MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 35 percentage points.

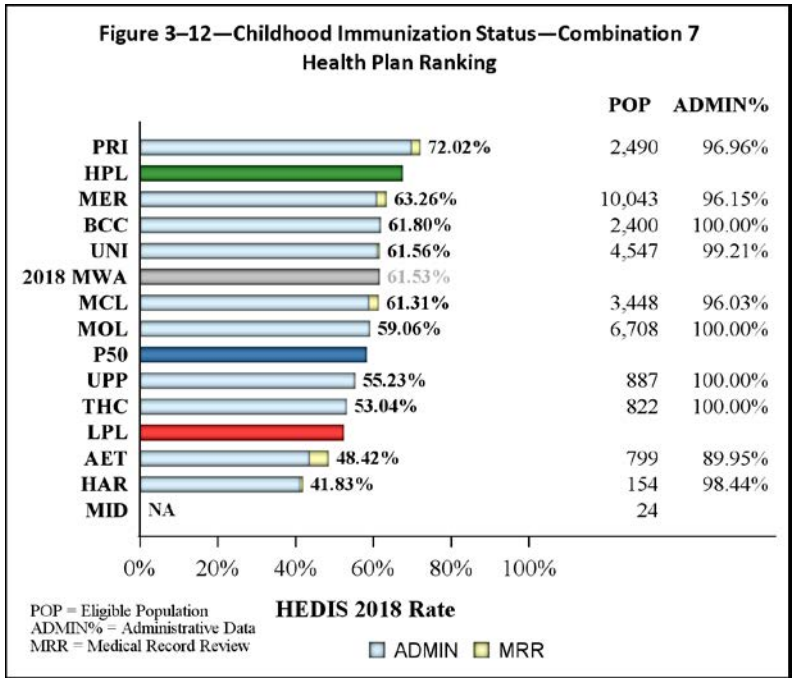
Childhood Immunization Status—Combination 7

Childhood Immunization Status—Combination 7 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; one hepatitis A; and two or three rotavirus.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

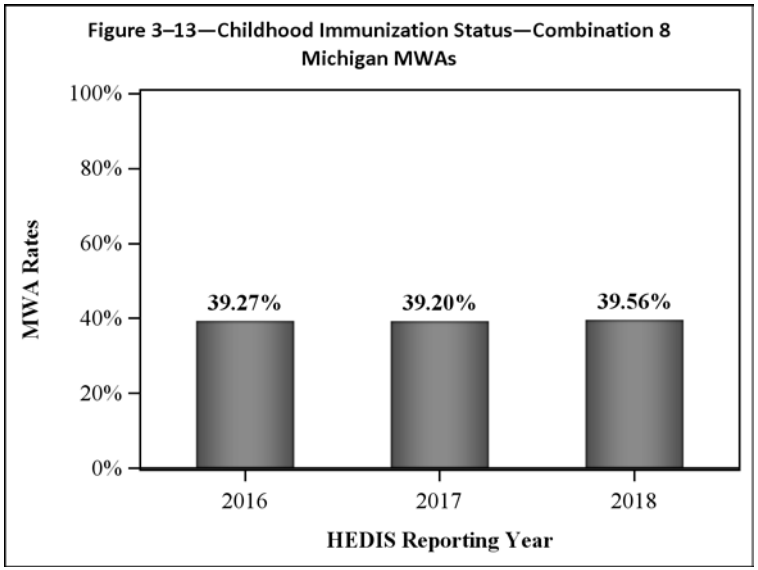


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

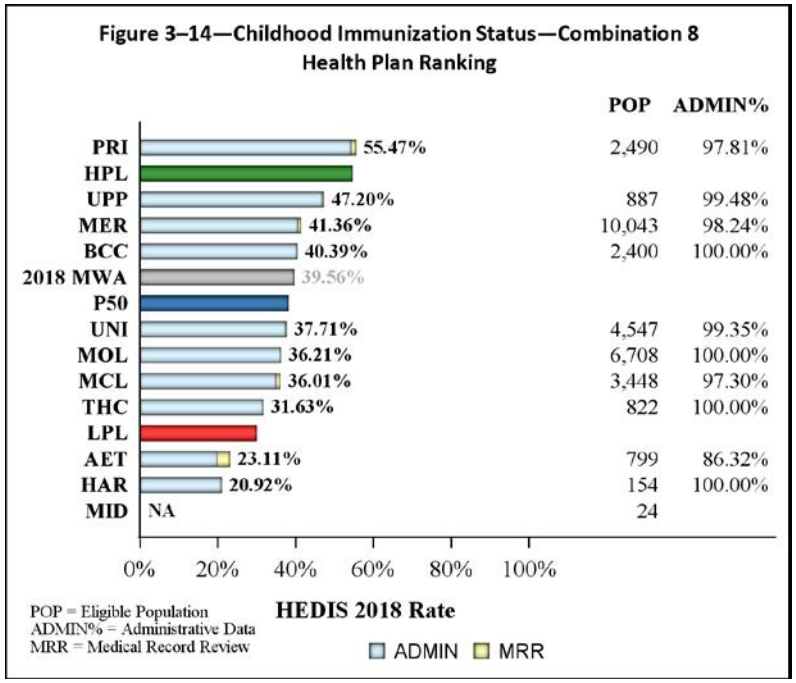
Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Childhood Immunization Status—Combination 8

Childhood Immunization Status—Combination 8 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; one hepatitis A; and two influenza.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



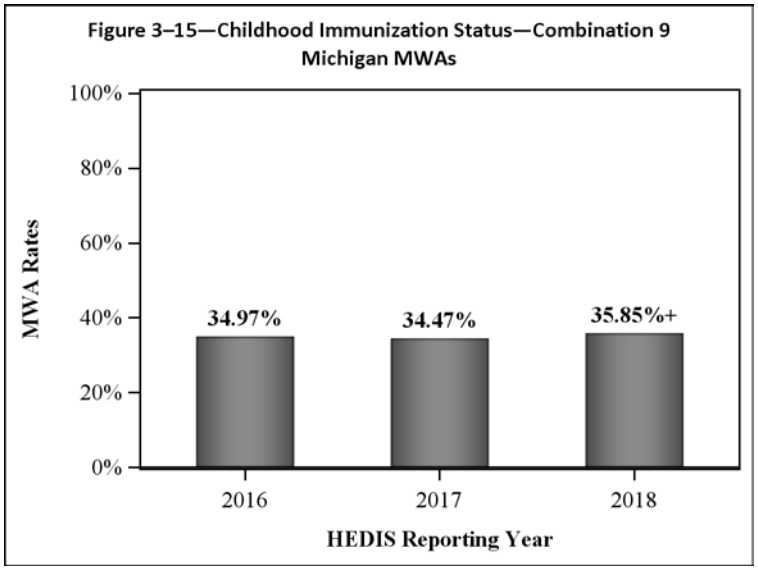
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Four MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Childhood Immunization Status—Combination 9

Childhood Immunization Status—Combination 9 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; two or three rotavirus; and two influenza.

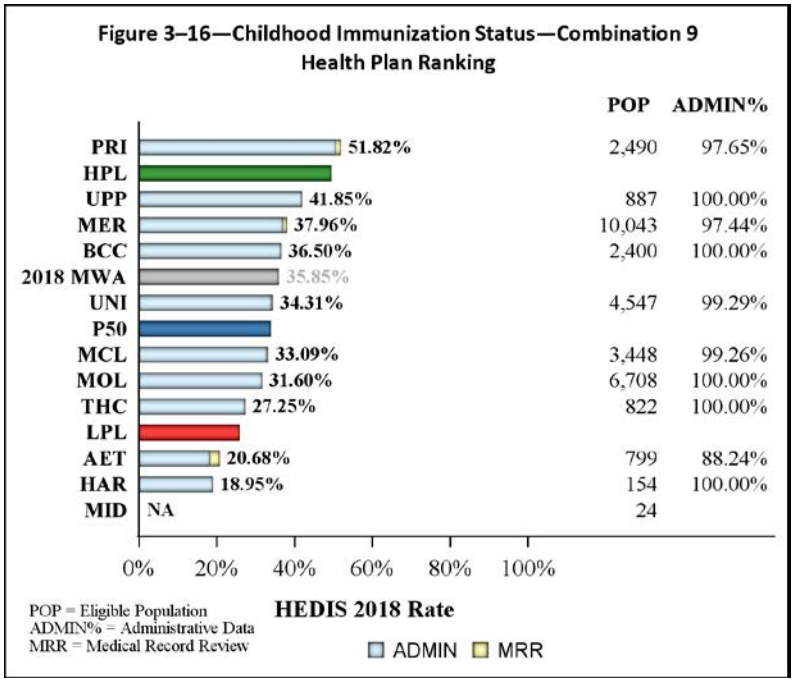
Figure 3–15—Childhood Immunization Status—Combination 9
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 3–16—Childhood Immunization Status—Combination 9
Health Plan Ranking



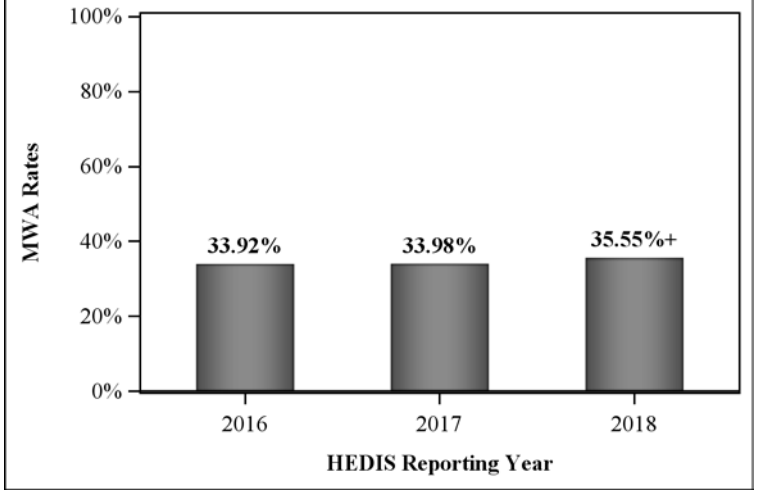
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Childhood Immunization Status—Combination 10

Childhood Immunization Status—Combination 10 assesses the percentage of children 2 years of age during the measurement year who received the following vaccines by their second birthday: four diphtheria, tetanus, and acellular pertussis; three polio; one measles, mumps, and rubella; three haemophilus influenzae type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; one hepatitis A; two or three rotavirus; and two influenza.

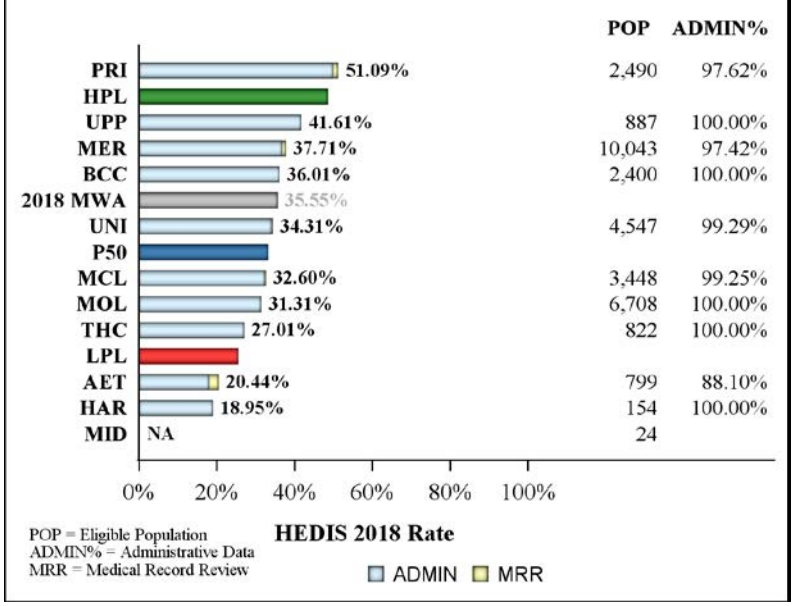
Figure 3–17—Childhood Immunization Status—Combination 10
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 3–18—Childhood Immunization Status—Combination 10
Health Plan Ranking

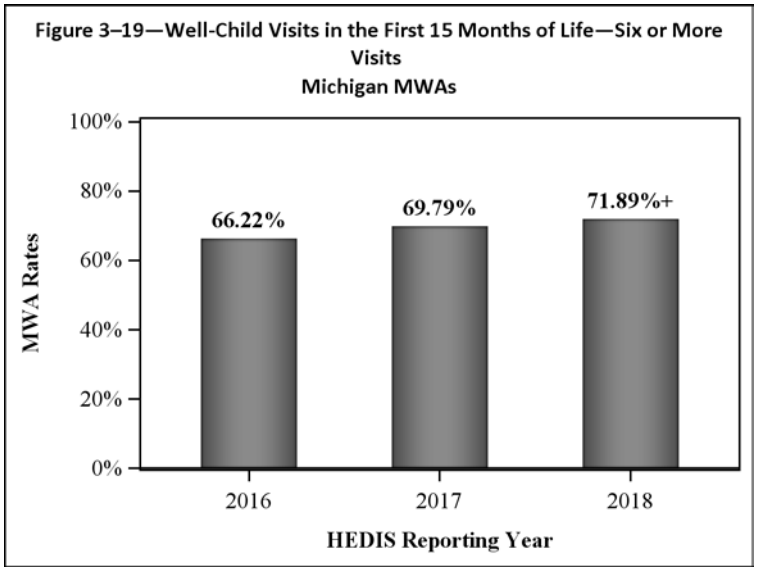


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

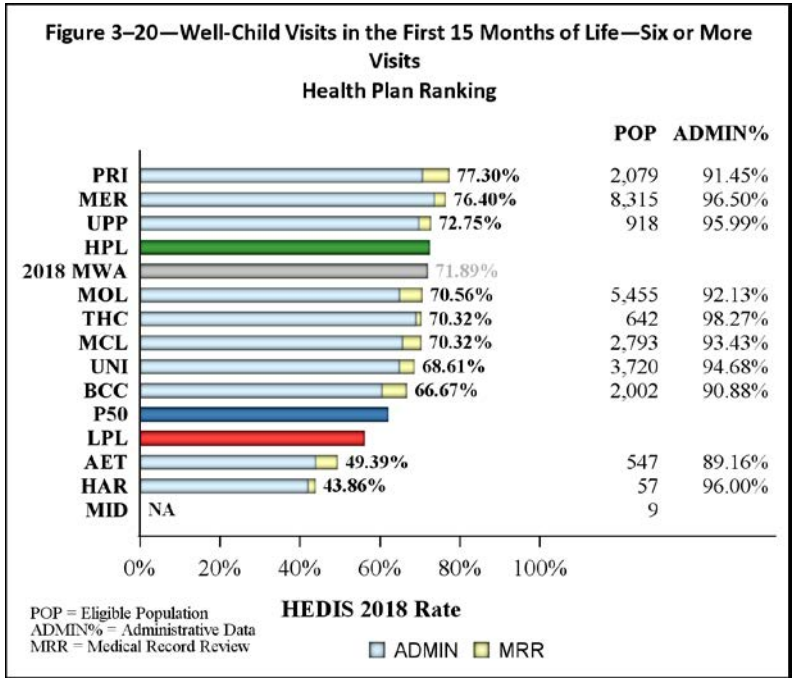
Well-Child Visits in the First 15 Months of Life–Six or More Well-Child Visits

Well-Child Visits in the First 15 Months of Life—Six or More Visits assesses the percentage of members who turned 15 months old during the measurement year and who received six or more well-child visits with a PCP during their first 15 months of life.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

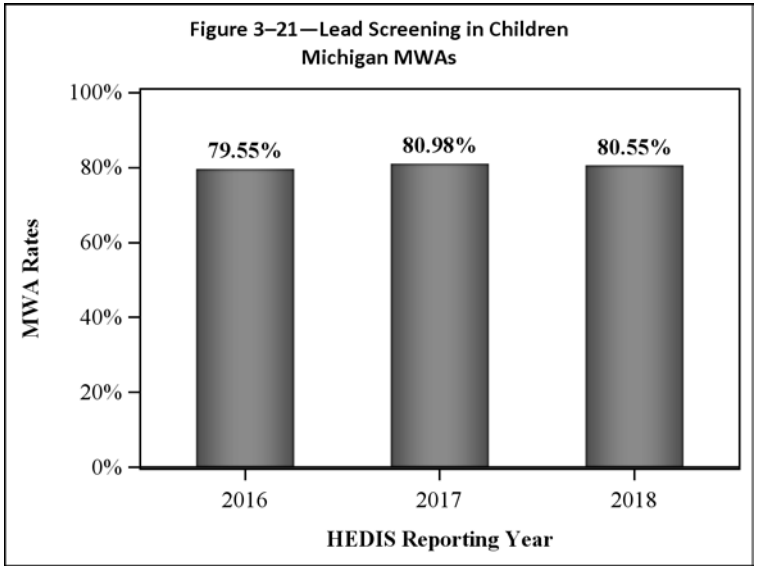


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

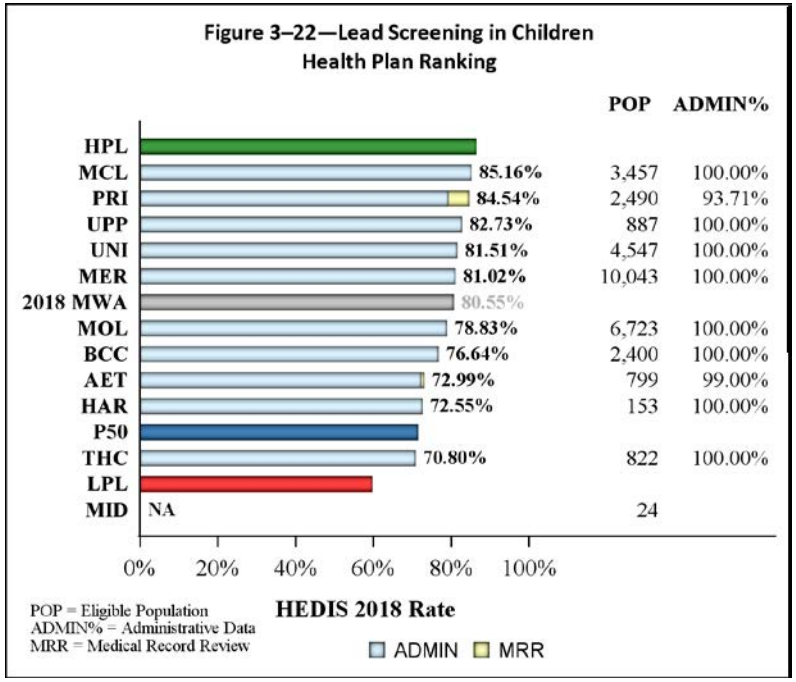
Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Lead Screening in Children

Lead Screening in Children assesses the percentage of children 2 years of age who had one or more capillary or venous lead blood test for lead poisoning by their second birthday.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



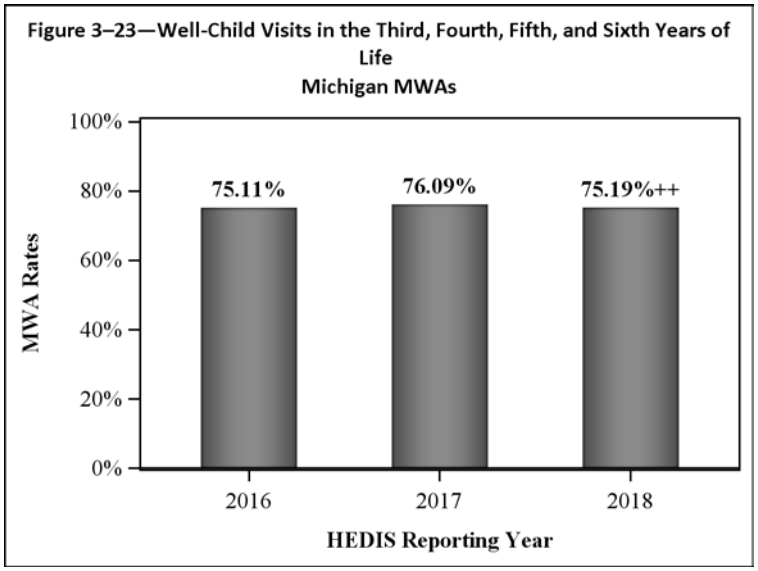
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Nine MHPs and the MWA ranked above the national Medicaid 50th percentile, and all MHPs with reportable rates fell between the HPL and the LPL. MHP performance varied by approximately 15 percentage points.

Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life

Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life is a measure of the percentage of members who were 3, 4, 5, or 6 years old and received one or more well-child visits with a PCP during the measurement year.

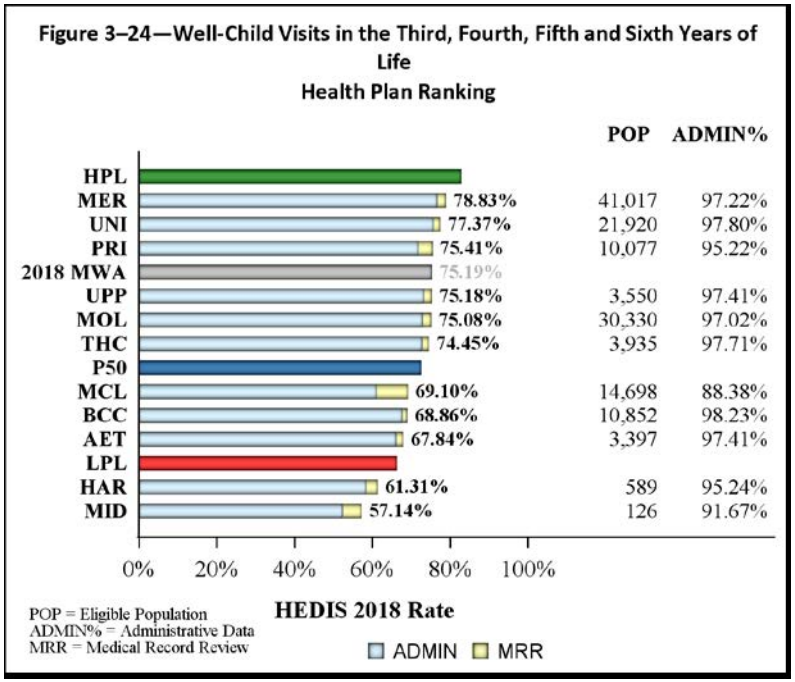
Figure 3–23—Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life
Michigan MWAs



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.

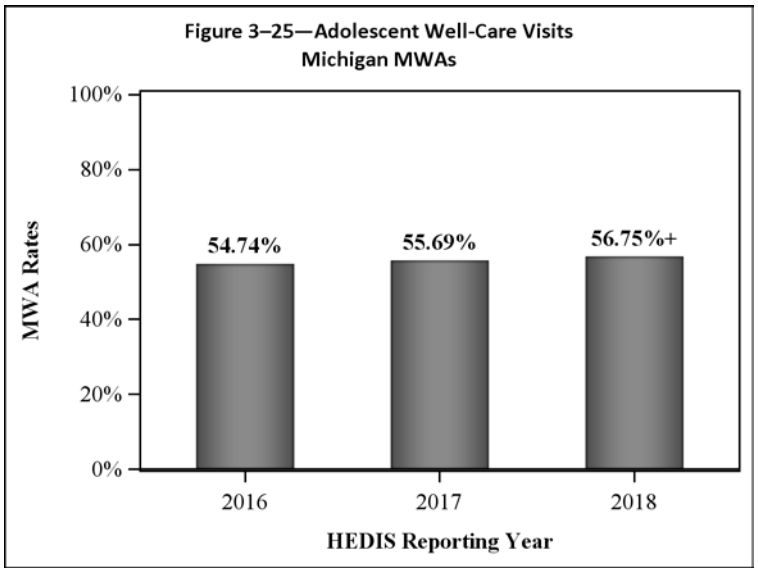
Figure 3–24—Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life
Health Plan Ranking



Six MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

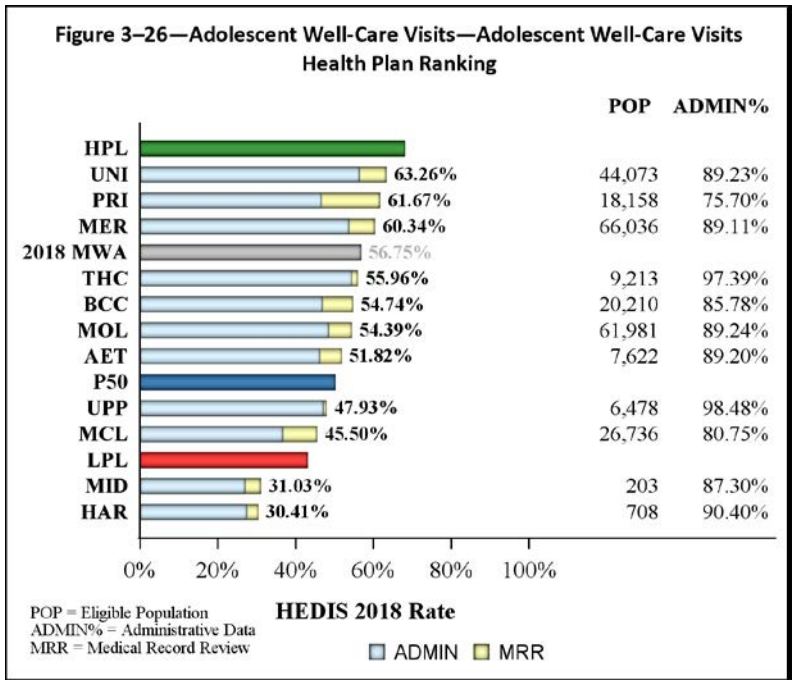
Adolescent Well-Care Visits

Adolescent Well-Care Visits assesses the percentage of members who were 12 to 21 years of age and who had at least one comprehensive well-care visit with a PCP or an obstetrician/gynecologist (OB/GYN) during the measurement year.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

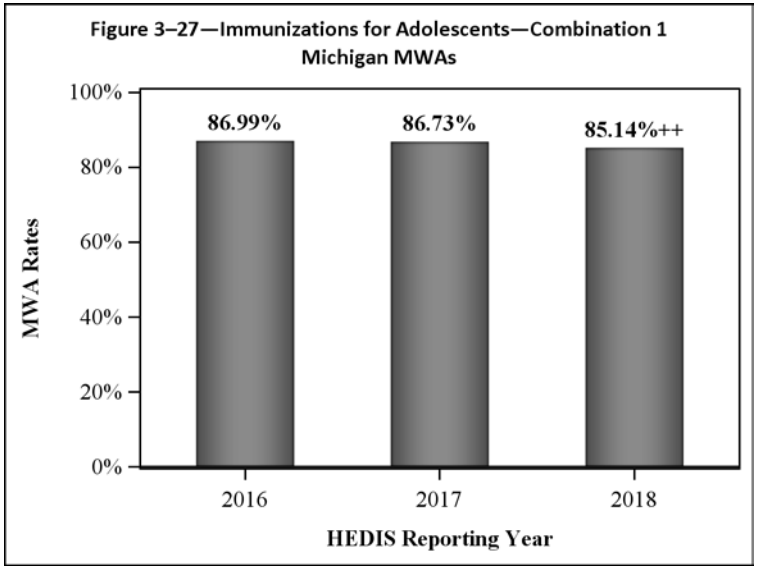
The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.



Seven MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

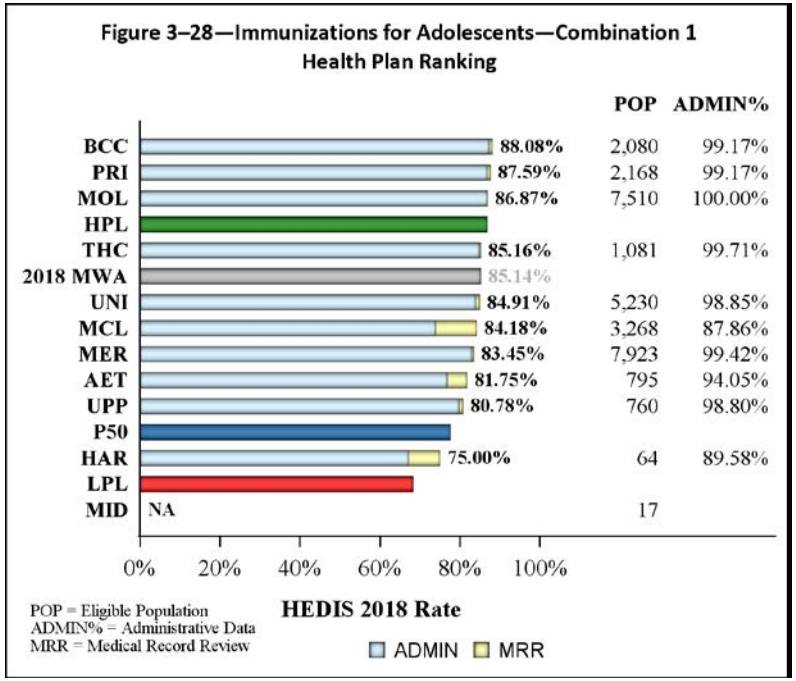
Immunizations for Adolescents—Combination 1 (Meningococcal, Tdap)

Immunizations for Adolescents—Combination 1 (Meningococcal, Tdap) assesses the percentage of adolescents 13 years of age who had the following by their 13th birthday: one dose of meningococcal vaccine and acellular pertussis vaccine (Tdap).



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



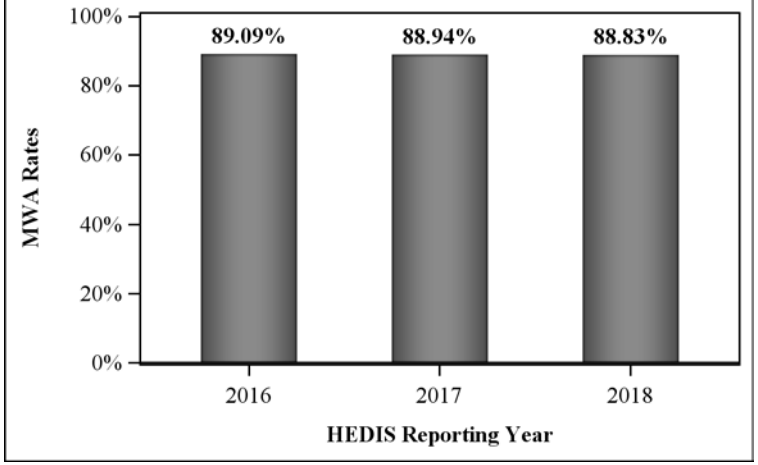
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Nine MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. No MHPs with reportable rates fell below the LPL. MHP performance varied by over 10 percentage points.

Appropriate Treatment for Children With Upper Respiratory Infection

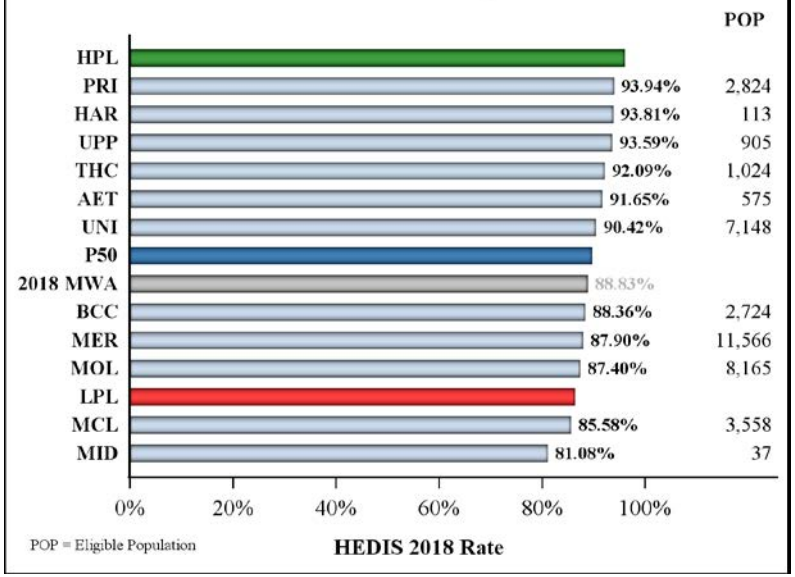
Appropriate Treatment for Children With Upper Respiratory Infection assesses the percentage of children 3 months to 18 years of age who were given a diagnosis of upper respiratory infection and were not dispensed an antibiotic prescription. Due to changes in the technical specifications for this measure indicator, exercise caution when trending rates between 2017 and prior years.

Figure 3–29—Appropriate Treatment for Children With Upper Respiratory Infection
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

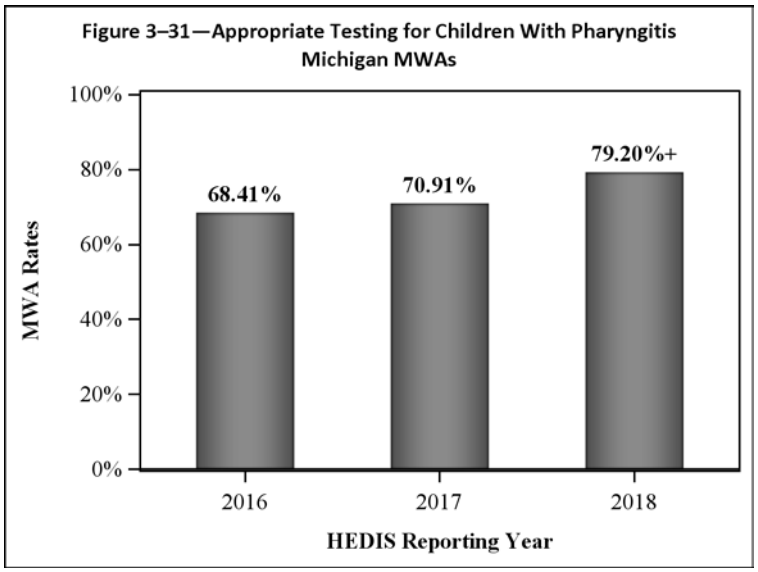
Figure 3–30—Appropriate Treatment for Children With Upper Respiratory Infection
Health Plan Ranking



Six MHPs ranked above the national Medicaid 50th percentile but fell below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 10 percentage points.

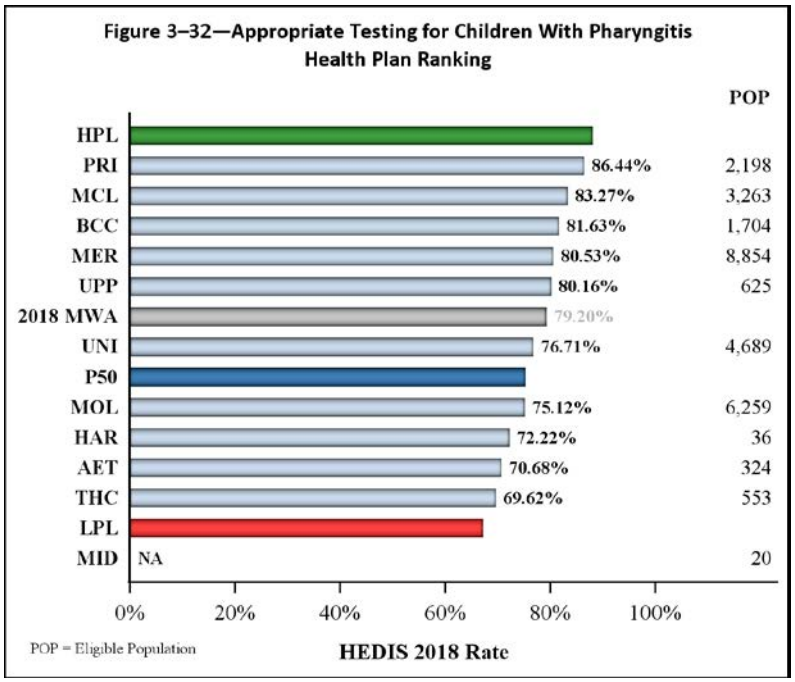
Appropriate Testing for Children With Pharyngitis

Appropriate Testing for Children With Pharyngitis assesses the percentage of children 3 to18 years of age who were diagnosed with pharyngitis, were dispensed an antibiotic, and received a group A streptococcus test for the episode.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.



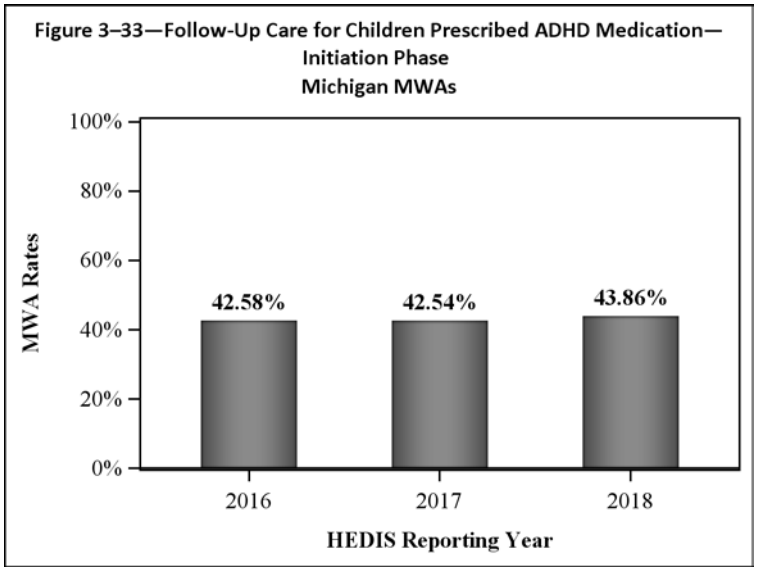
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Six MHPs and the MWA ranked above the national Medicaid 50th percentile, and all MHPs with reportable rates fell between the HPL and the LPL. MHP performance varied by over 15 percentage points.

Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase

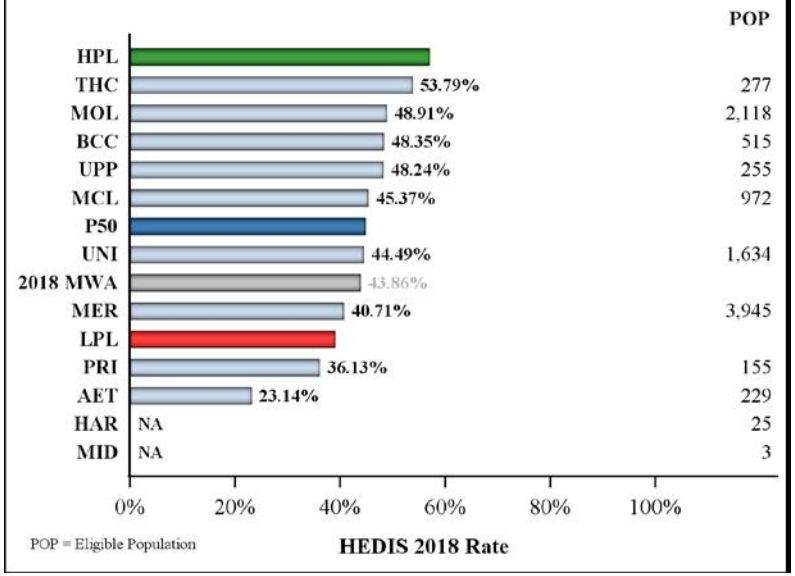
Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase assesses the percentage of children 6 to 12 years of age who were newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication and who had one follow-up visit with a practitioner with prescribing authority during the 30-day initiation phase. Due to changes in the technical specifications for this measure, exercise caution when trending rates between 2018 and prior years.

Figure 3–33—Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 3–34—Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase
Health Plan Ranking



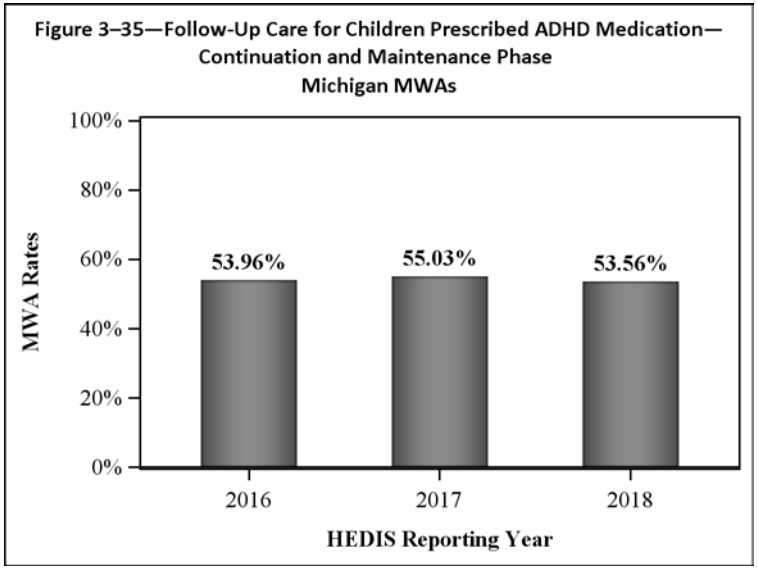
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs ranked above the national Medicaid 50th percentile but fell below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Follow-Up Care for Children Prescribed ADHD Medication—Continuation and Maintenance Phase

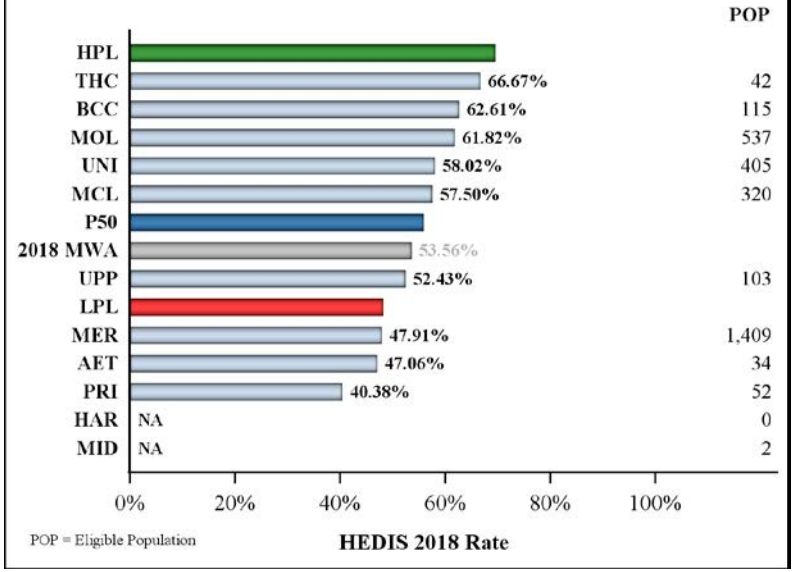
Follow-Up Care for Children Prescribed ADHD Medication—Continuation and Maintenance Phase assesses the percentage of children 6 to 12 years of age newly prescribed ADHD medication who remained on the medication for at least 210 days and who, in addition to the visit in the initiation phase, had at least two follow-up visits with a practitioner within 270 days (nine months) after the initiation phase ended. Due to changes in the technical specifications for this measure, exercise caution when trending rates between 2018 and prior years.

Figure 3–35—Follow-Up Care for Children Prescribed ADHD Medication—Continuation and Maintenance Phase
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 3–36—Follow-Up Care for Children Prescribed ADHD Medication—Continuation and Maintenance Phase
Health Plan Ranking



NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs ranked above the national Medicaid 50th percentile but fell below the HPL. Three MHPs fell below the LPL. MHP performance varied by over 25 percentage points.

4. Women—Adult Care

Introduction

The Women—Adult Care measure domain encompasses the following MDHHS measures:

- *Breast Cancer Screening*
- *Cervical Cancer Screening*
- *Chlamydia Screening in Women—Ages 16 to 20 Years, Ages 21 to 24 Years,* and *Total*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section. For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 4-1 presents the Michigan MWA performance for the measure indicators under the Women—Adult Care measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 4-1—HEDIS 2018 MWA Performance Levels and Trend Results for Women—Adult Care

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Breast Cancer Screening[3]				
Breast Cancer Screening	62.13%	NC	NC	NC
Cervical Cancer Screening				
Cervical Cancer Screening	66.19%	+1.35+	1	1

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Chlamydia Screening in Women				
Ages 16 to 20 Years	63.28%	**+1.01+**	2	0
Ages 21 to 24 Years	68.65%	-0.24	1	0
Total	65.65%	+0.42	1	0

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	≥25th and ≤49th	≥50th and ≤74th	≥75th and ≤89th	≥90th

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

Green Shading+ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading++ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

NC indicates that a comparison is not appropriate, or the measure did not have an applicable benchmark.

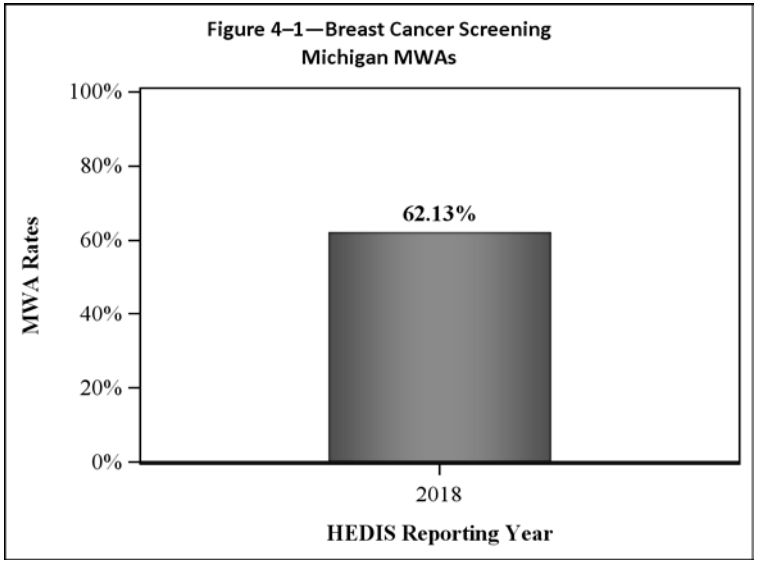
Table 4-1 shows that for the four MWA rates in the Women—Adult Care domain that could be compared to national Medicaid percentiles or prior years' rates, *Cervical Cancer Screening* and *Chlamydia Screening in Women—Ages 16 to 20 Years* demonstrated a significant improvement from HEDIS 2017 to HEDIS 2018. Further, all four MWA rates ranked at or above the national Medicaid 50th percentile, with three of the rates ranking at or above the national Medicaid 75th percentile, indicating overall positive performance in the areas of cervical cancer and chlamydia screenings for women.

Measure-Specific Findings

Breast Cancer Screening

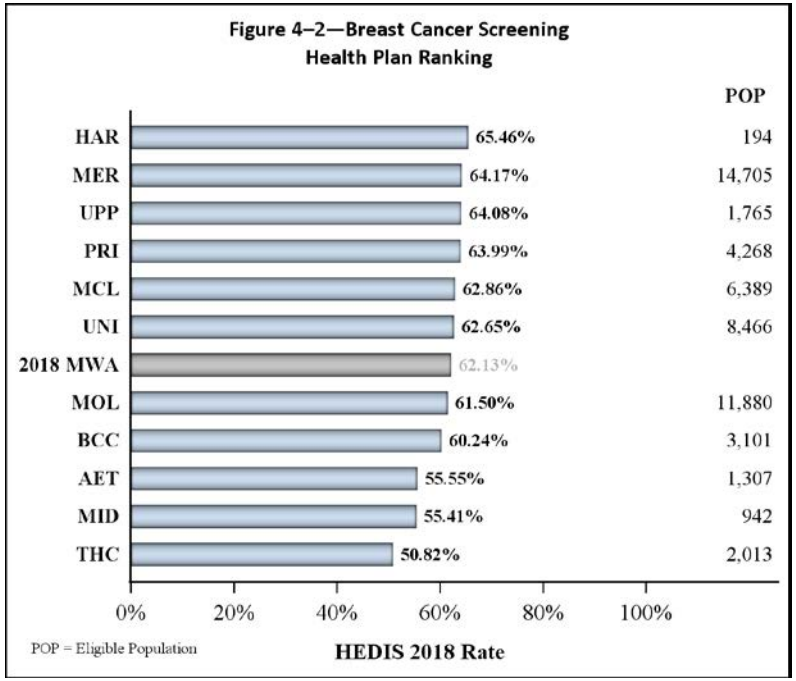
Breast Cancer Screening assesses the percentage of women 50 to 74 years of age who had a mammogram to screen for breast cancer on or after October 1 two years prior to the measurement year.

Figure 4–1—Breast Cancer Screening
Michigan MWAs



Due to changes in the technical specifications in HEDIS 2018 for the *Breast Cancer Screening* measure, a comparison to prior year's results is not appropriate. The rate in the chart above is presented for information purposes only.

Figure 4–2—Breast Cancer Screening
Health Plan Ranking



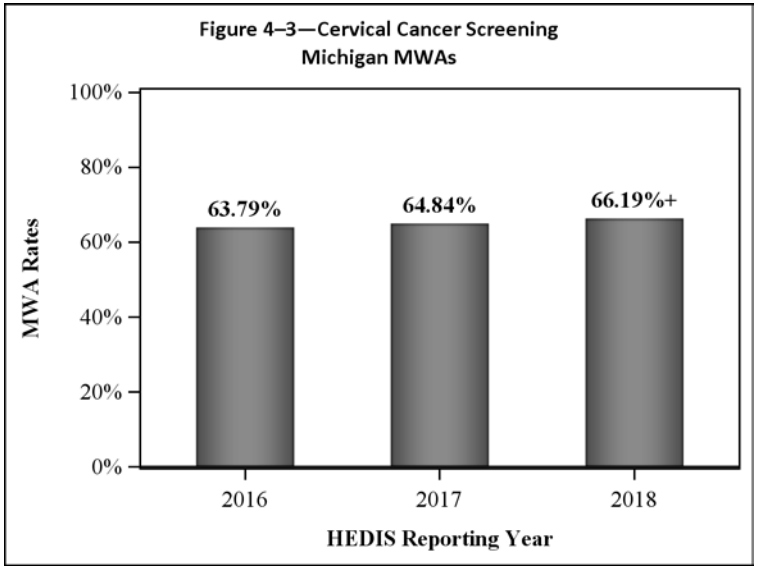
Due to changes in the technical specifications in HEDIS 2018 for the *Breast Cancer Screening* measure, a comparison to benchmarks is not appropriate. The rates in the chart above are presented for information purposes only. MHP performance varied by almost 15 percentage points.

Cervical Cancer Screening

Cervical Cancer Screening assesses the percentage of women 21 to 64 years of age who were screened for cervical cancer using either of the following criteria:

- Women ages 21 to 64 who had cervical cytology performed every three years.
- Women ages 30 to 64 who had cervical cytology/human papillomavirus co-testing every five years.

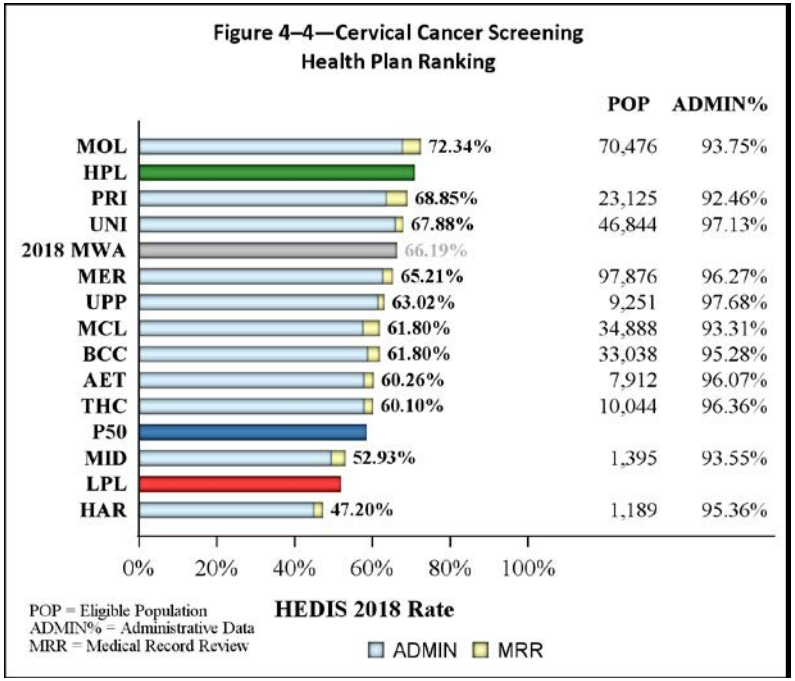
Figure 4–3—Cervical Cancer Screening
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

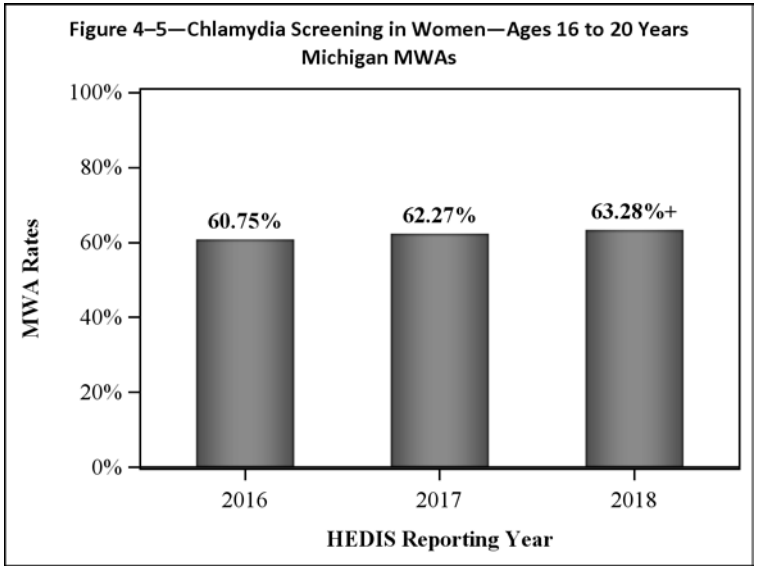
Figure 4–4—Cervical Cancer Screening
Health Plan Ranking



Nine MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 25 percentage points.

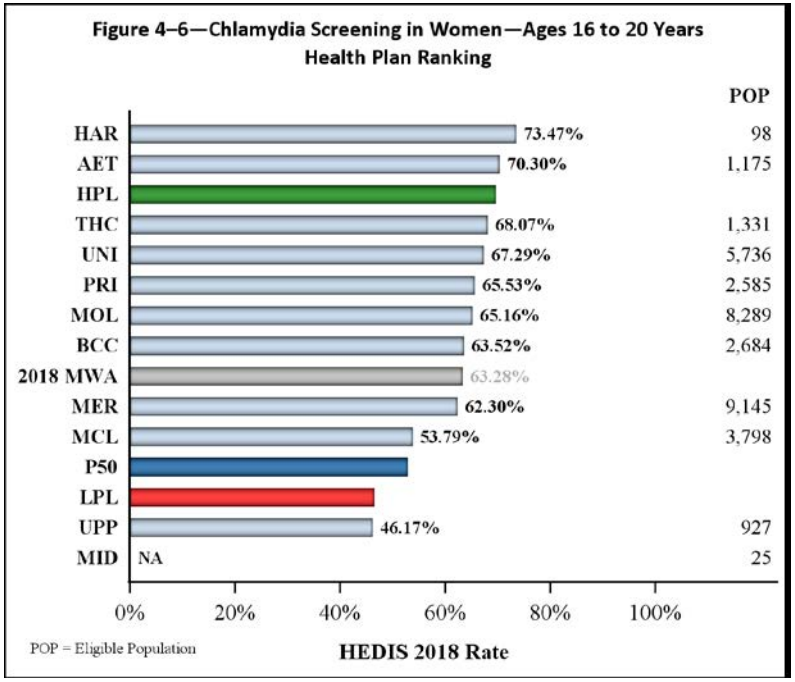
Chlamydia Screening in Women—Ages 16–20 Years

Chlamydia Screening in Women—Ages 16–20 Years assesses the percentage of women 16 to 20 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

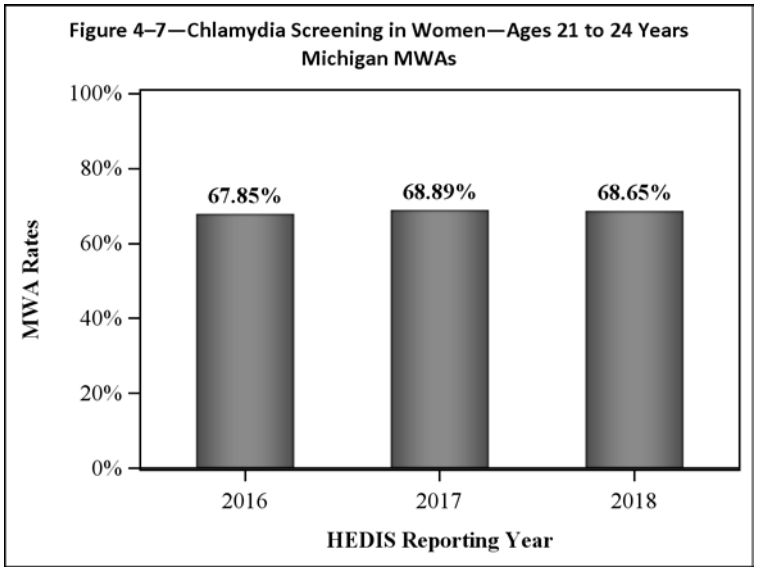


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

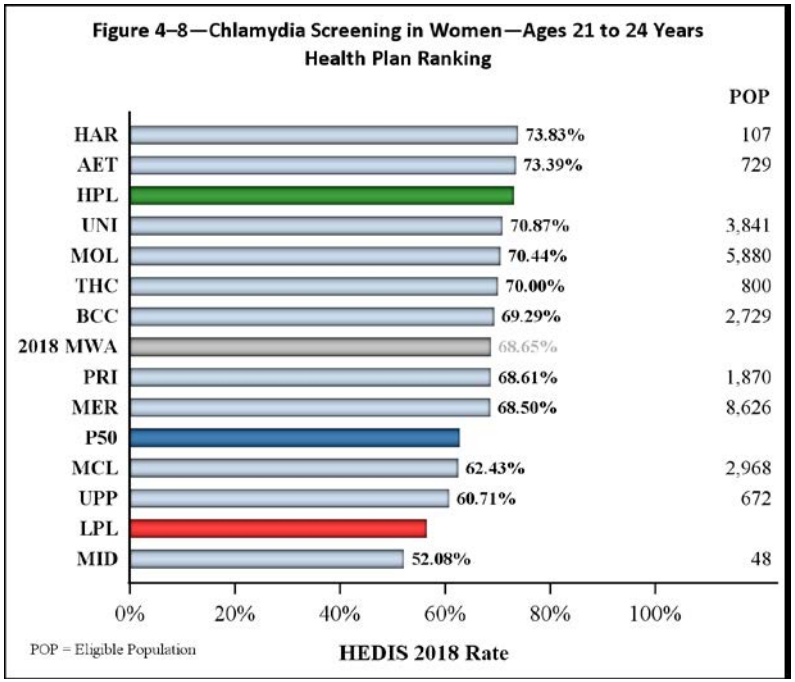
Nine MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 25 percentage points.

Chlamydia Screening in Women—21–24 Years

Chlamydia Screening in Women—21–24 Years assesses the percentage of women 21 to 24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.



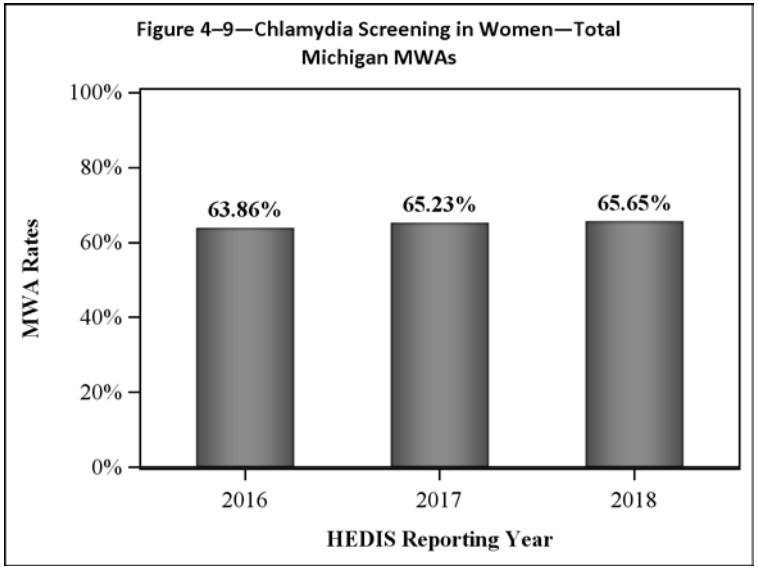
The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



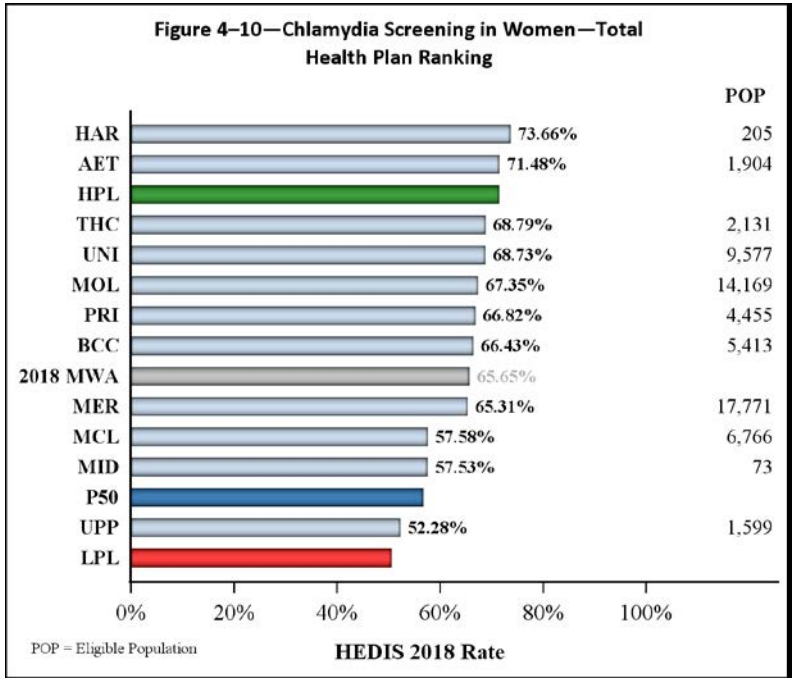
Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 20 percentage points.

Chlamydia Screening in Women–Total

Chlamydia Screening in Women—Total represents the percentage of women 16 to 24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

5. Access to Care

Introduction

The Access to Care measure domain encompasses the following MDHHS measures:

- *Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months, Ages 25 Months to 6 Years, Ages 7 to 11 Years,* and *Ages 12 to 19 Years*
- *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years, Ages 45 to 64 Years, Ages 65 and Older,* and *Total*
- *Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section. For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 5-1 presents the Michigan MWA performance for the measure indicators under the Access to Care measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 5-1—HEDIS 2018 MWA Performance Levels and Trend Results for Access to Care

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Children and Adolescents' Access to Primary Care Practitioners				
Ages 12 to 24 Months	95.16%	**-0.90++**	0	4
Ages 25 Months to 6 Years	87.89%	**-1.19++**	0	7
Ages 7 to 11 Years	91.13%	-0.26	0	2
Ages 12 to 19 Years	90.42%	**-0.37++**	0	2
Adults' Access to Preventive/Ambulatory Health Services				
Ages 20 to 44 Years	78.64%	**-3.04++**	0	10
Ages 45 to 64 Years	87.57%	**-1.64++**	0	9
Ages 65+ Years	91.79%	**+1.53+**	3	0
Total	82.25%	**-2.48++**	0	10

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis				
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	32.20%	+2.97+	4	0

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	≥25th and ≤49th	≥50th and ≤74th	≥75th and ≤89th	≥90th

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

Green Shading+ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading++ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

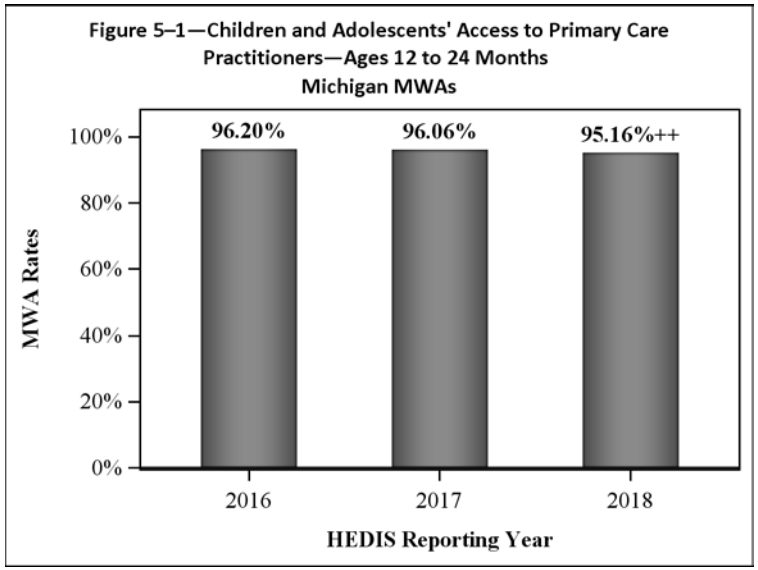
Table 5-1 shows that for the Access to Care domain, two of nine (22.2 percent) measure indicators, *Adults' Access to Preventive/Ambulatory Health Services—Ages 65+ Years* and *Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis*, demonstrated significant increases from HEDIS 2017 to HEDIS 2018. Of note, the *Adults' Access to Preventive/Ambulatory Health Services—Ages 65+ Years* measure indicator demonstrated an area of strength in this domain, with the MWA rate ranking above the national Medicaid 75th percentile, and three MHPs demonstrating significant increases from HEDIS 2017 to HEDIS 2018. Additionally, seven of nine (77.8 percent) MWA rates ranked at or above the national Medicaid 50th percentile, indicating positive performance in the area of Access to Care compared to national standards.

Conversely, six of nine (67 percent) MWA rates within the Access to Care domain demonstrated significant decreases from HEDIS 2017 to HEDIS 2018. Of note, the MWA rates for *Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months* and *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years* fell below the national Medicaid 50th percentile and demonstrated significant decreases. In addition, 10 of 11 (90.9 percent) MHPs' rates and the MWA demonstrated significant decreases from HEDIS 2017 to HEDIS 2018 for the *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years* and *Total* measure indicators. These declines in performance suggest opportunities for improving access to preventive/ambulatory services for adults ages 20 to 64 years and access to primary care physicians for children and adolescents.

Measure-Specific Findings

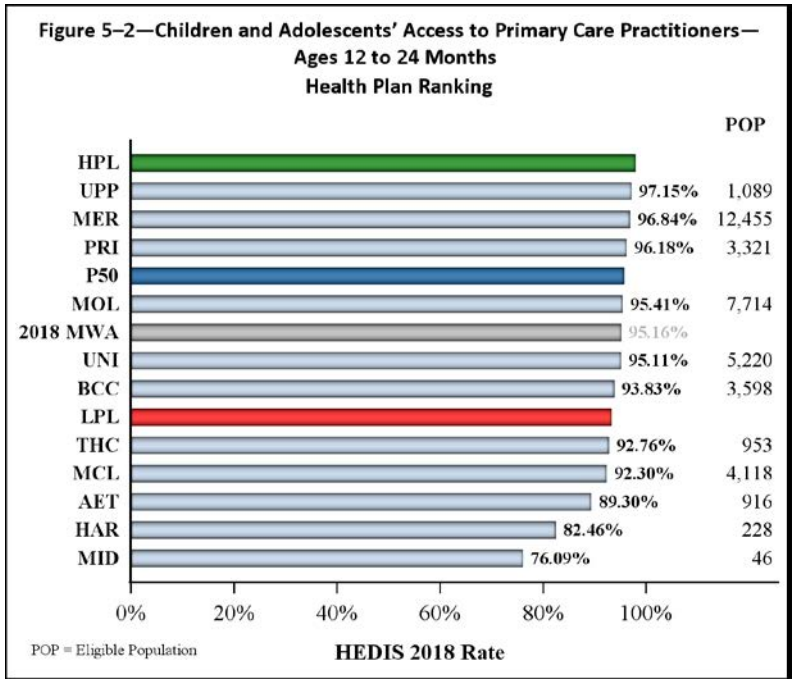
Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months

Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months assesses the percentage of members 12 to 24 months of age who had a visit with a PCP during the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

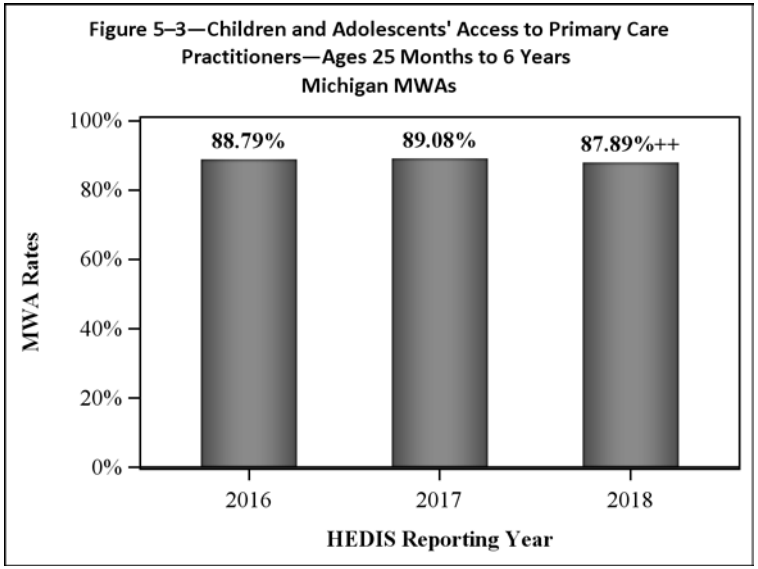
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Three MHPs ranked above the national Medicaid 50th percentile but below the HPL. Five MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

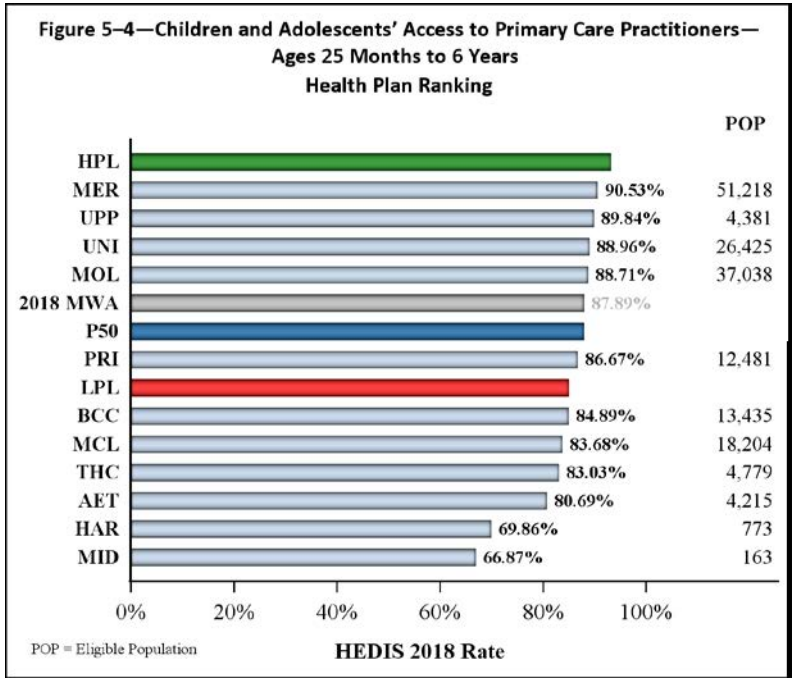
Children and Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years

Children and Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years assesses the percentage of members 25 months to 6 years of age who had a visit with a PCP during the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

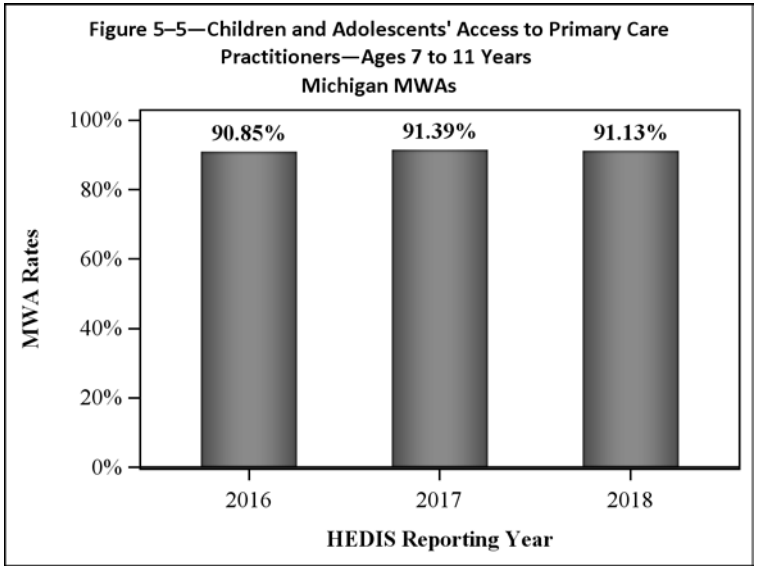
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



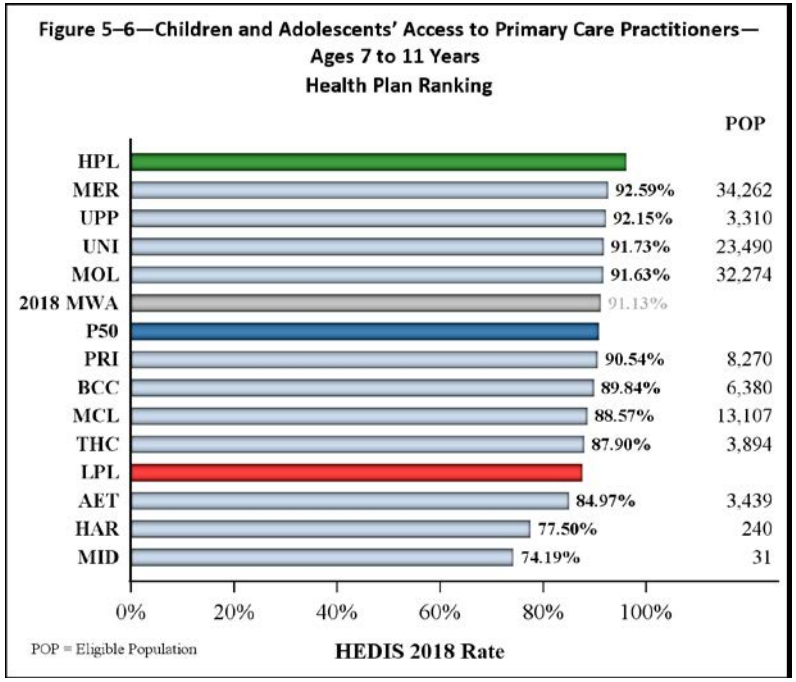
Four MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Six MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

Children and Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years

Children and Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years assesses the percentage of members 7 to 11 years of age who had a visit with a PCP during the measurement year or the year prior to the measurement year.



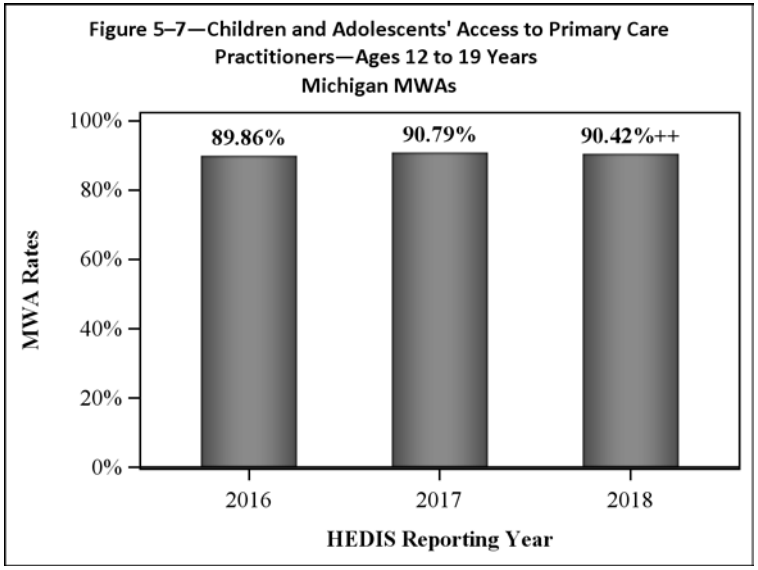
The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



Four MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Three MHPs fell below the LPL. MHP performance varied by over 15 percentage points.

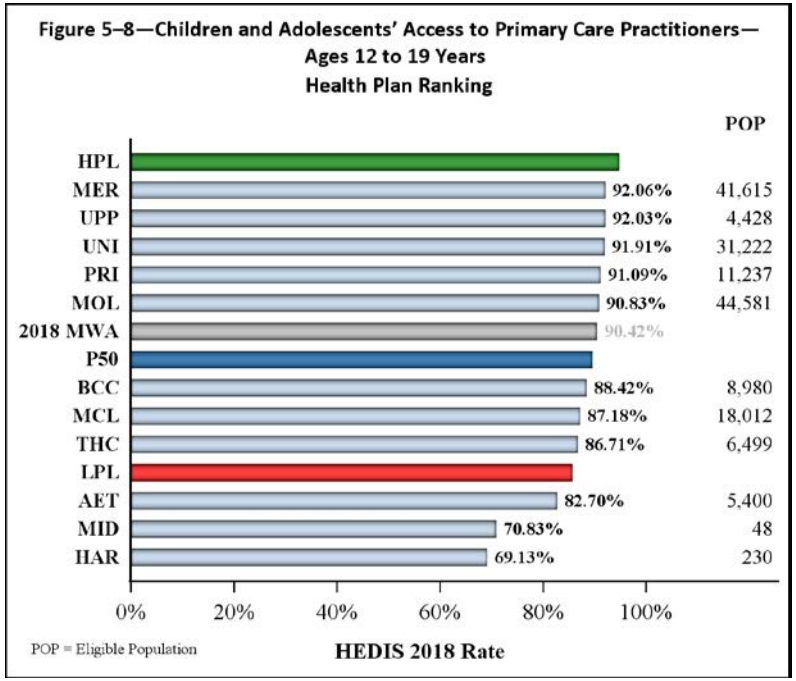
Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years

Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years assesses the percentage of members 12 to 19 years of age who had a visit with a PCP during the measurement year or the year prior to the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

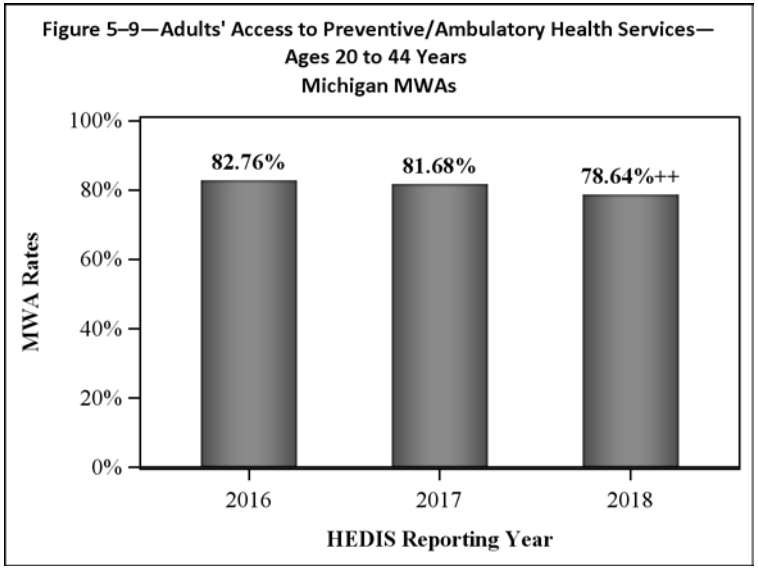
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Five MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Three MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

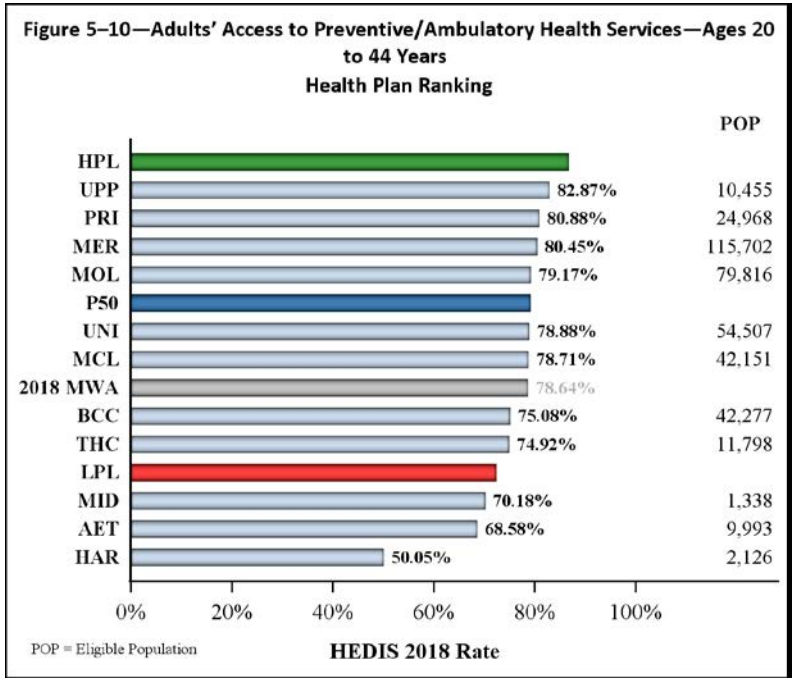
Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years

Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years assesses the percentage of members 20 to 44 years of age who had an ambulatory or preventive care visit during the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

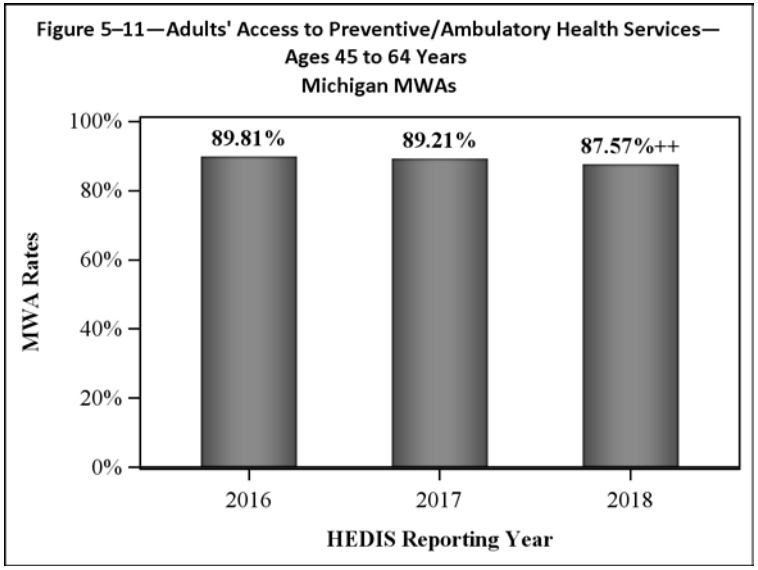
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Four MHPs ranked above the national Medicaid 50th percentile but below the HPL. Three MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

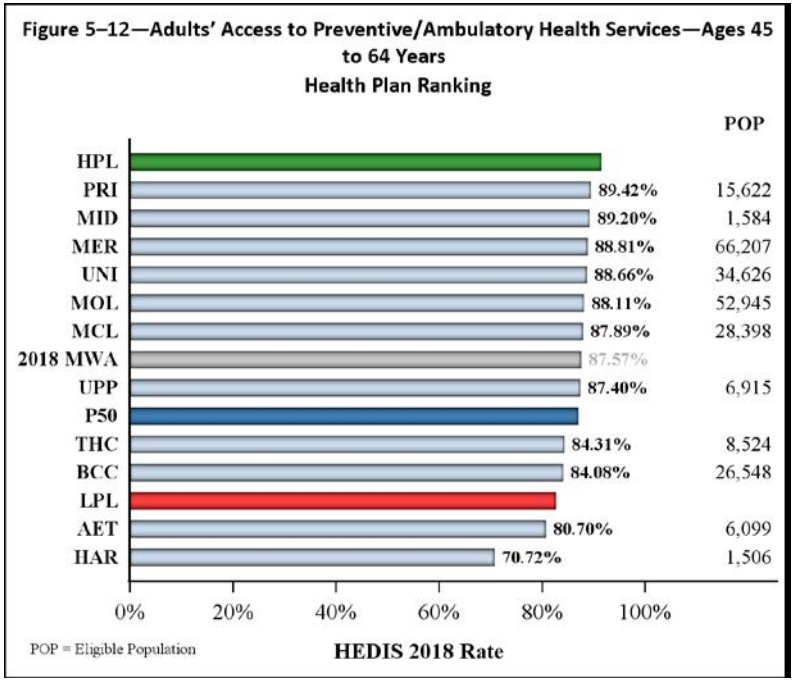
Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years

Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years assesses the percentage of members 45 to 64 years of age who had an ambulatory or preventive care visit during the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

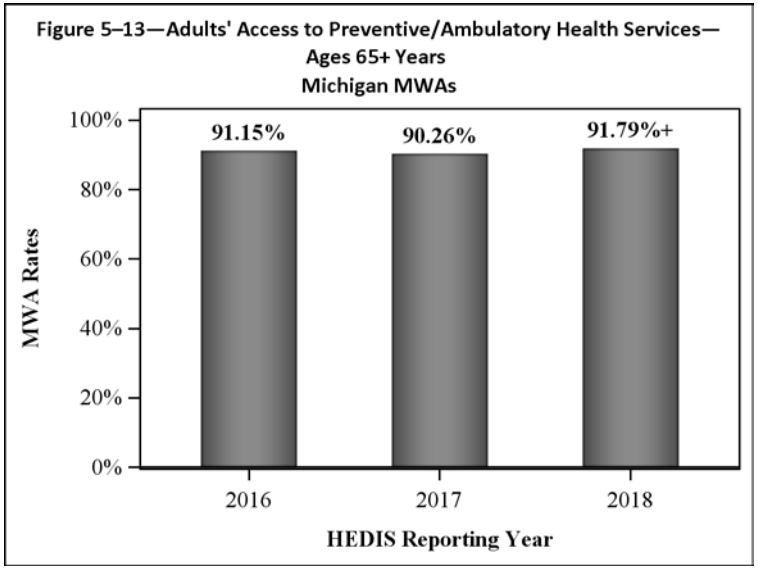
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Seven MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 15 percentage points.

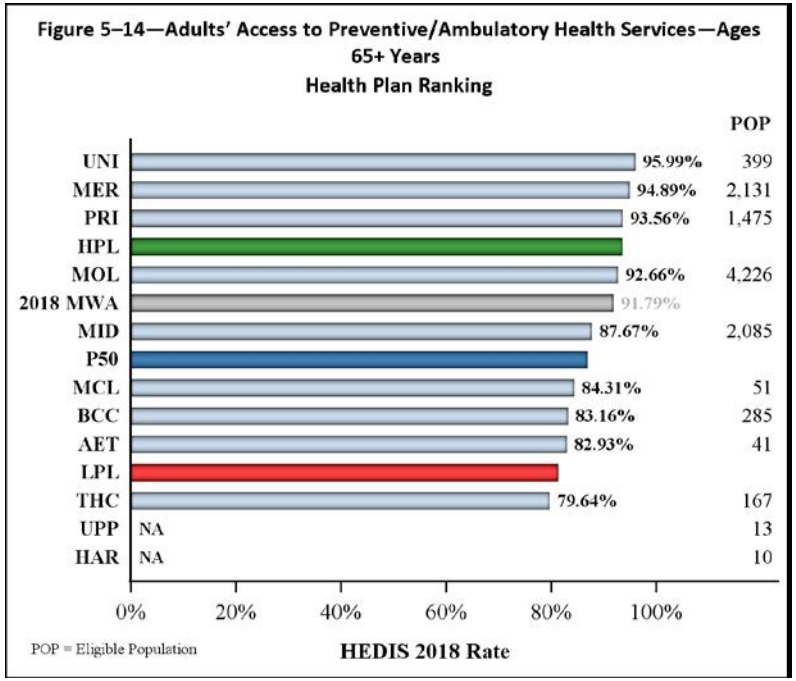
Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older

Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older assesses the percentage of members 65 years of age or older who had an ambulatory or preventive care visit during the measurement year.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

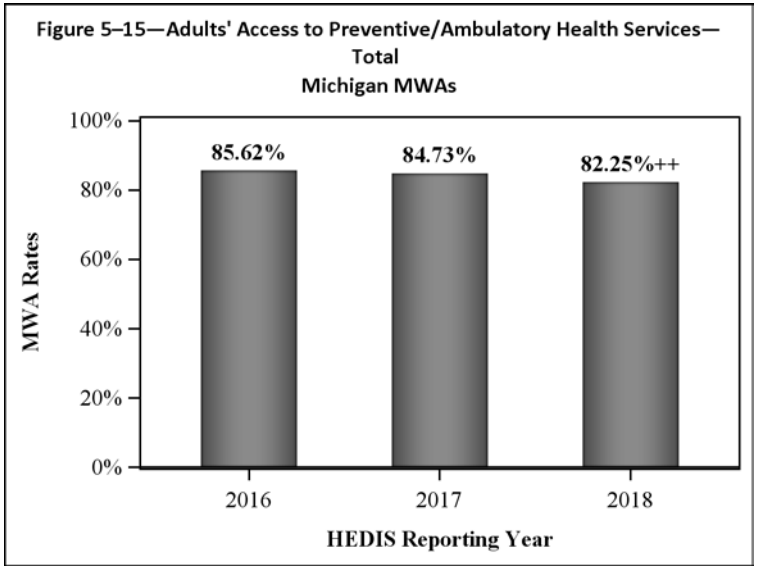


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 15 percentage points.

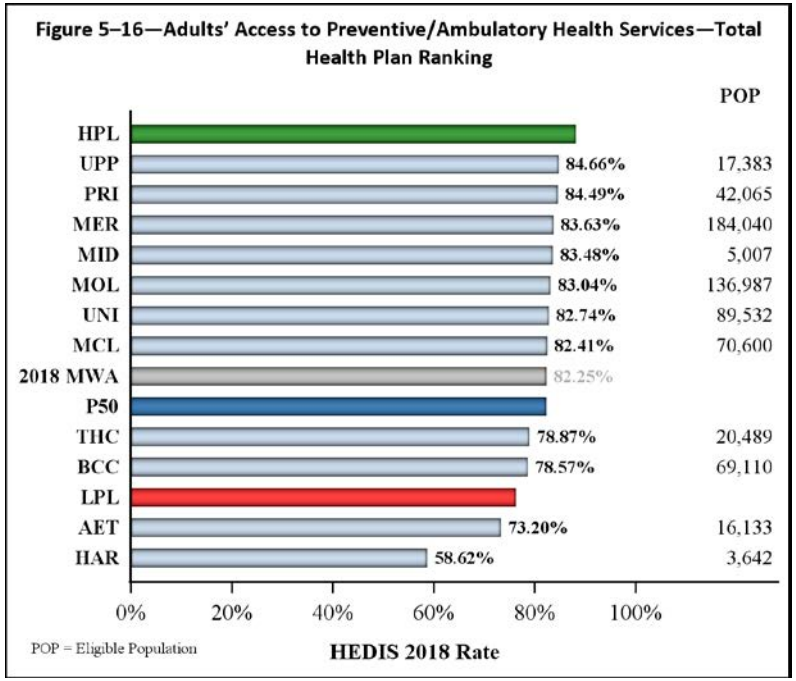
Adults' Access to Preventive/Ambulatory Health Services—Total

Adults' Access to Preventive/Ambulatory Health Services—Total assesses the percentage of members 20 years of age and older who had an ambulatory or preventive care visit during the measurement year.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

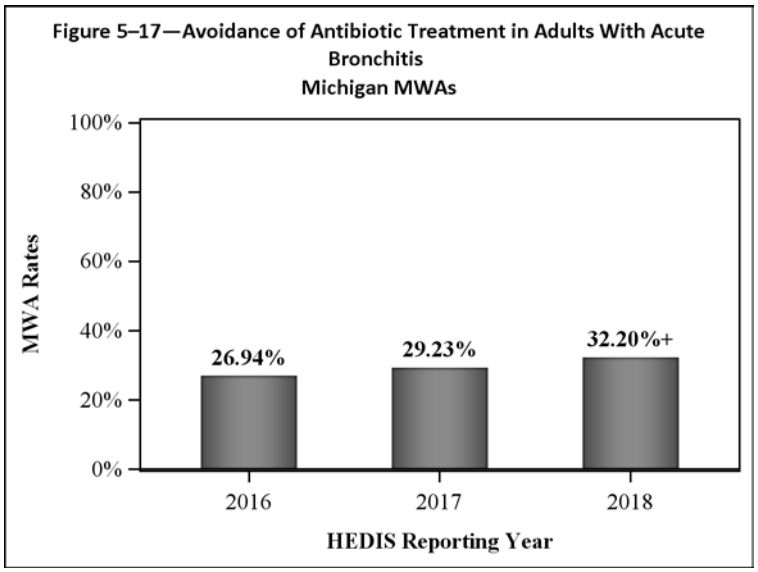
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Seven MHPs and the MWA ranked above the national Medicaid 50th percentile but below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 25 percentage points.

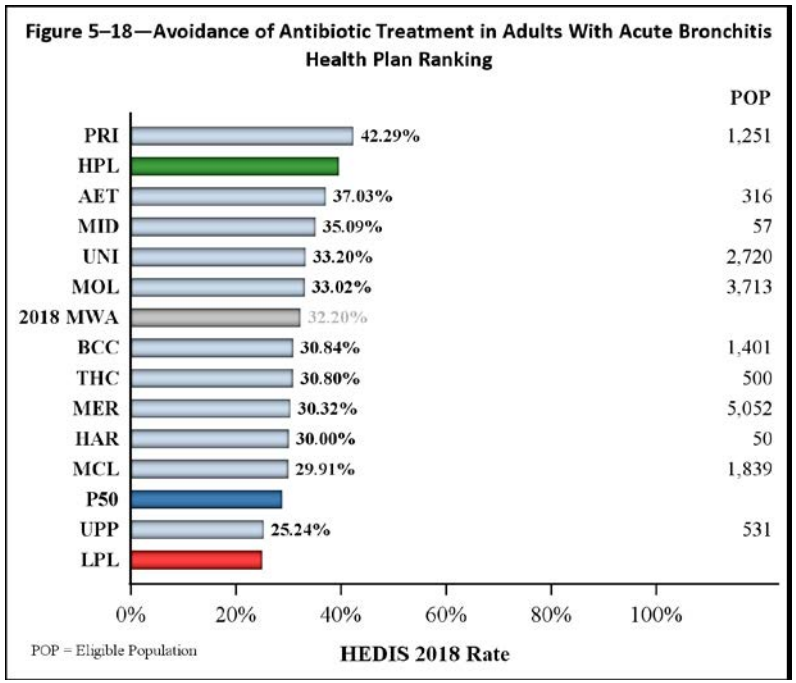
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis

Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis assesses the percentage of members 18 to 64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription. Due to changes in the technical specifications for this measure indicator, exercise caution when trending rates between 2017 and prior years.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.



Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 15 percentage points.

6. Obesity

Introduction

The Obesity measure domain encompasses the following MDHHS measures:

- *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total, Counseling for Nutrition—Total,* and *Counseling for Physical Activity—Total*
- *Adult BMI Assessment*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section. For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 6-1 presents the Michigan MWA performance for the measure indicators under the Obesity measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 6-1—HEDIS 2018 MWA Performance Levels and Trend Results for Obesity

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents				
BMI Percentile Documentation—Total	84.40%	+2.30+	2	2
Counseling for Nutrition—Total	74.50%	+2.29+	0	1
Counseling for Physical Activity—Total	67.49%	+6.25+	3	1

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Adult BMI Assessment				
Adult BMI Assessment	94.47%	**+1.61+**	1	1

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	*≥25th and ≤49th*	*≥50th and ≤74th*	*≥75th and ≤89th*	*≥90th*

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

Green Shading[+] *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading[++] *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

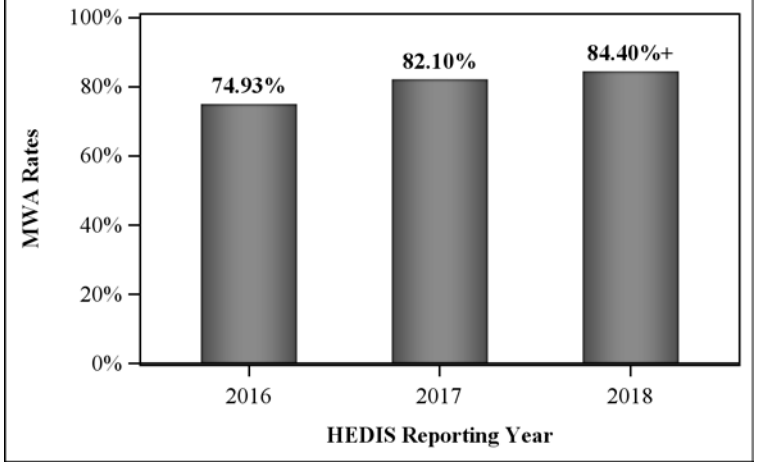
Table 6-1 shows that the four MWA rates included in the Obesity domain demonstrated a significant improvement from HEDIS 2017 to HEDIS 2018. Additionally, all four MWA rates ranked at or above the national Medicaid 50th percentile, demonstrating overall positive performance related to obesity. Of note, the MWA rate for *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total* ranked at or above the national Medicaid 75th percentile, and the MWA rate for *Adult BMI Assessment* ranked at or above the national Medicaid 90th percentile.

Measure-Specific Findings

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total assesses the percentage of members 3 to 17 years of age who had an outpatient visit with a PCP or OB/GYN and who had evidence of BMI percentile documentation during the measurement year.

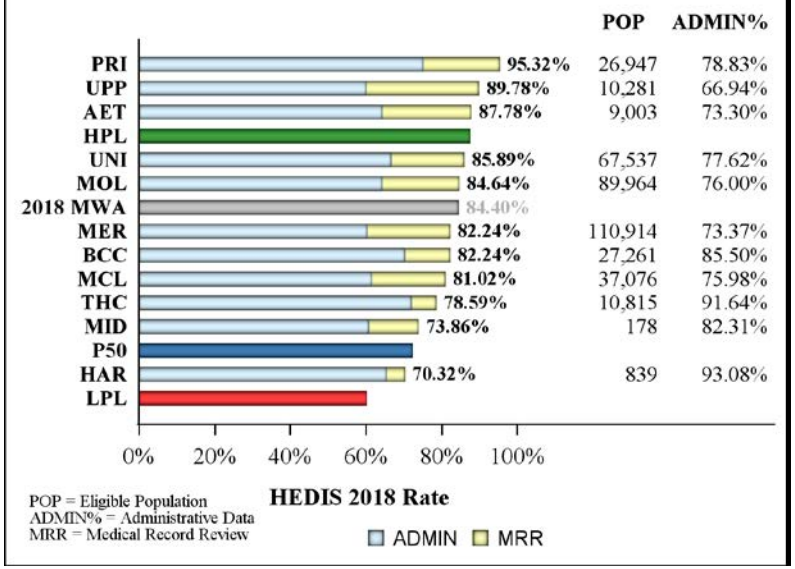
Figure 6–1—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 6–2—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—BMI Percentile Documentation—Total
Health Plan Ranking



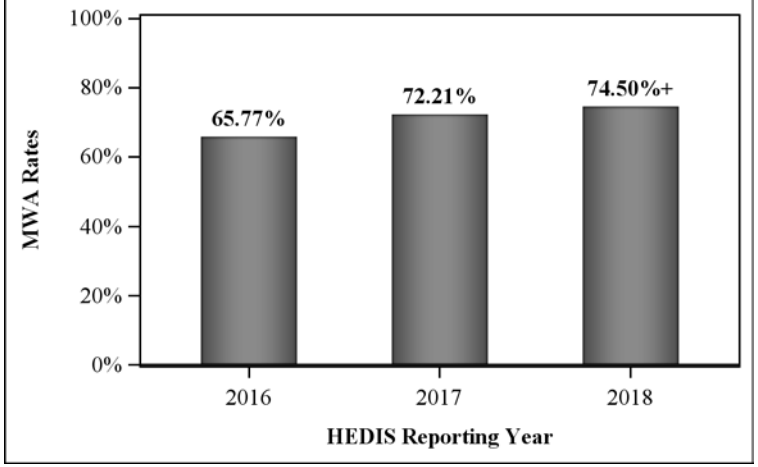
POP = Eligible Population
ADMIN% = Administrative Data
MRR = Medical Record Review

Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by 25 percentage points.

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Nutrition—Total

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Nutrition—Total assesses the percentage of members 3 to 17 years of age who had an outpatient visit with a PCP or OB/GYN and who had evidence of counseling for nutrition during the measurement year.

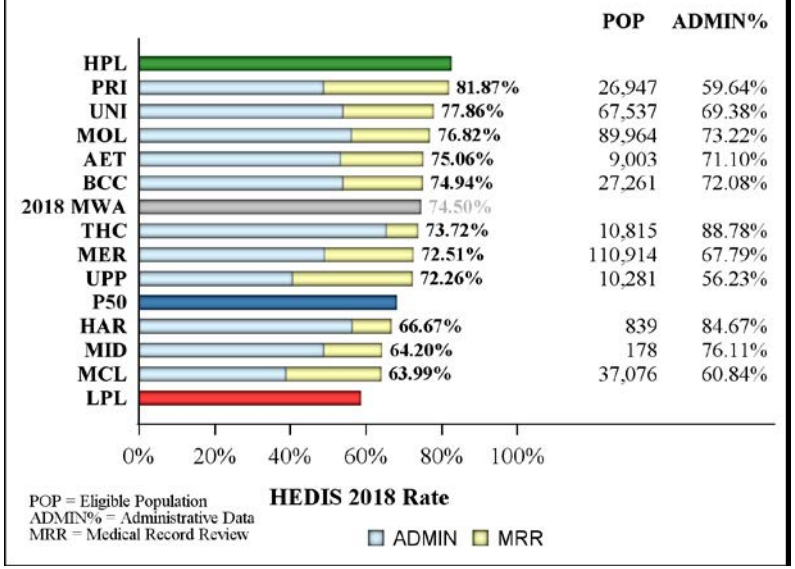
Figure 6–3—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Nutrition—Total
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 6–4—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Nutrition—Total
Health Plan Ranking

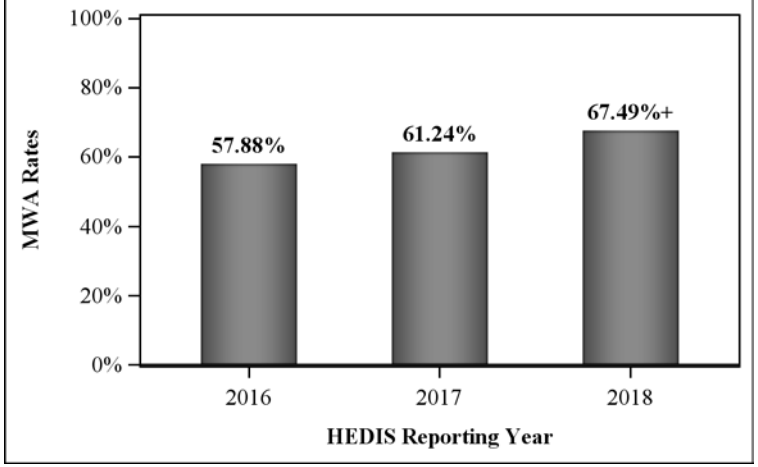


Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, and all MHPs fell between the HPL and the LPL. MHP performance varied by over 15 percentage points.

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Physical Activity—Total

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Physical Activity—Total assesses the percentage of members 3 to 17 years of age who had an outpatient visit with a PCP or OB/GYN and who had evidence of counseling for physical activity during the measurement year.

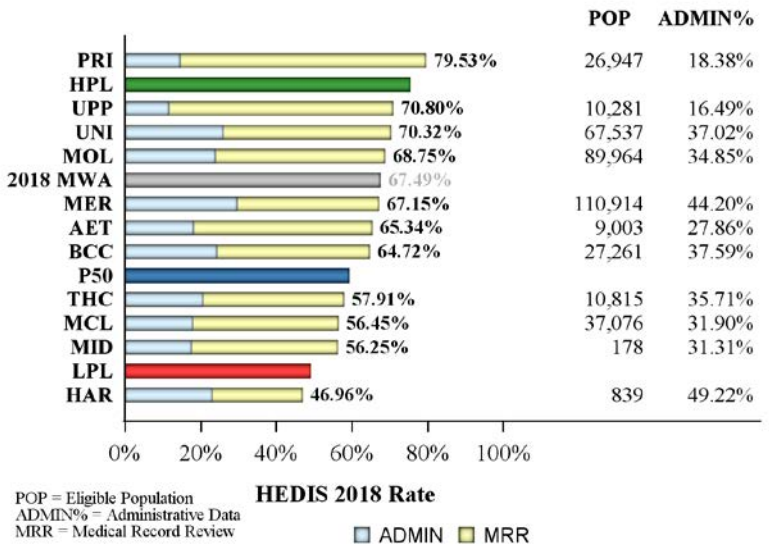
Figure 6–5—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Physical Activity—Total
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 6–6—Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents—Counseling for Physical Activity—Total
Health Plan Ranking

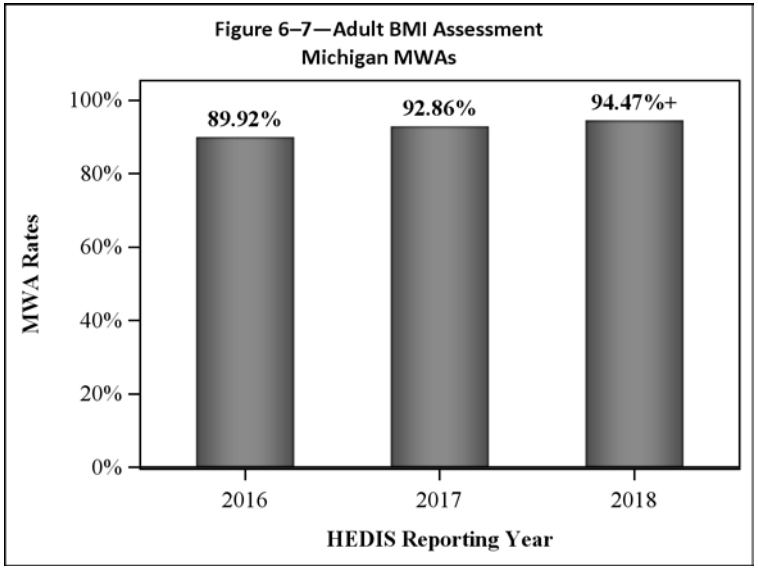


Seven MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 30 percentage points.

Adult BMI Assessment

Adult BMI Assessment assesses the percentage of members 18 to 74 years of age who had an outpatient visit and whose body mass index (BMI) was documented during the measurement year or the year prior to the measurement year.

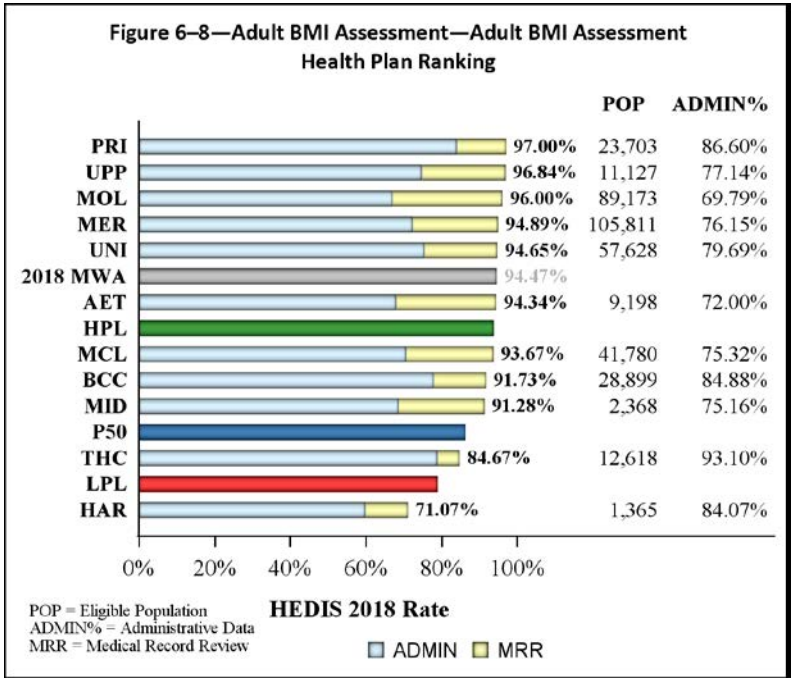
Figure 6–7—Adult BMI Assessment
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 6–8—Adult BMI Assessment—Adult BMI Assessment
Health Plan Ranking



Nine MHPs ranked above the national Medicaid 50th percentile, with six MHPs and the MWA ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 25 percentage points.

7. Pregnancy Care

Introduction

The Pregnancy Care measure domain encompasses the following MDHHS measures:

- *Prenatal and Postpartum Care—Timeliness of Prenatal Care* and *Postpartum Care*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section.

For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 7-1 presents the Michigan MWA performance for the measure indicators under the Pregnancy Care measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 7-1—HEDIS 2018 MWA Performance Levels and Trend Results for Pregnancy Care

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Prenatal and Postpartum Care				
Timeliness of Prenatal Care	80.23%	**-1.34++**	1	3
Postpartum Care	67.27%	**-1.69++**	1	0

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	≥25th and ≤49th	≥50th and ≤74th	≥75th and ≤89th	≥90th

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

Green Shading+ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading++ *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

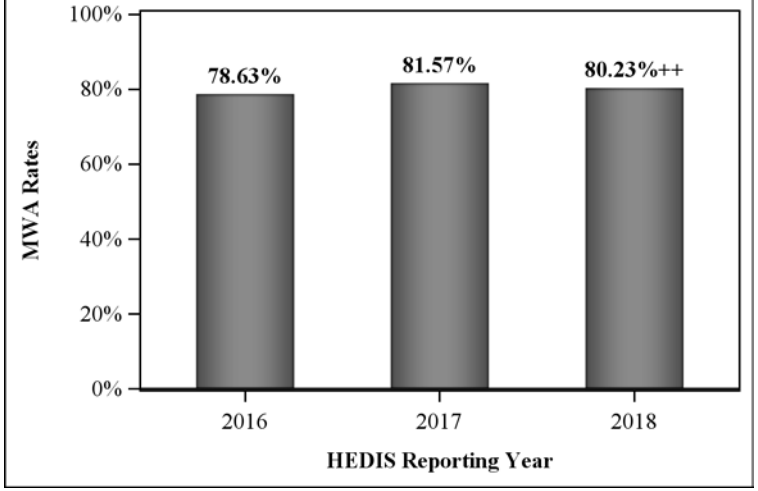
Table 7-1 shows that one of the two measure indicators in the Pregnancy Care domain, *Prenatal and Postpartum Care—Postpartum Care*, ranked at or above the national Medicaid 50th percentile. For the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* measure, the MWA rate fell below the national Medicaid 50th percentile and demonstrated a significant decline from HEDIS 2017 to HEDIS 2018, indicating opportunities for improvement in prenatal care.

Measure-Specific Findings

Prenatal and Postpartum Care—Timeliness of Prenatal Care

Prenatal and Postpartum Care—Timeliness of Prenatal Care assesses the percentage of deliveries that received a prenatal care visit as a member of the MHP in the first trimester or within 42 days of enrollment in the MHP.

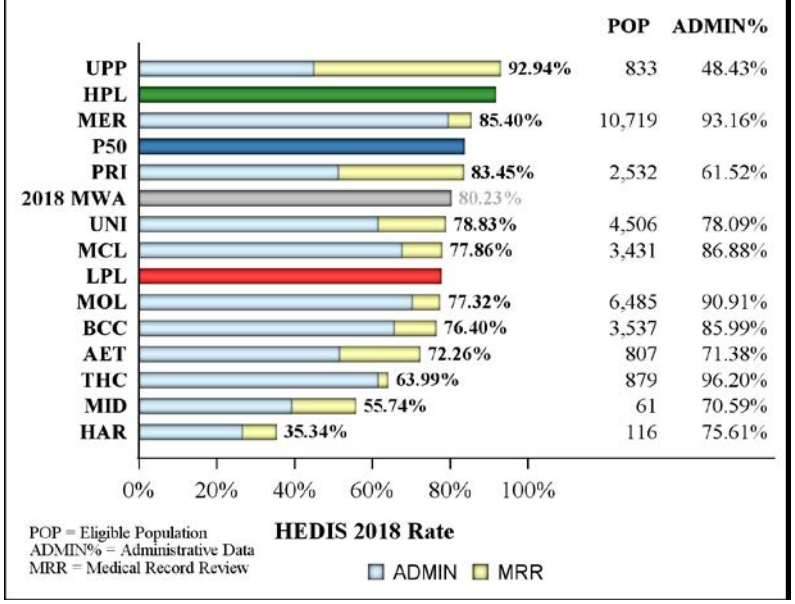
Figure 7–1—Prenatal and Postpartum Care—Timeliness of Prenatal Care
Michigan MWAs



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.

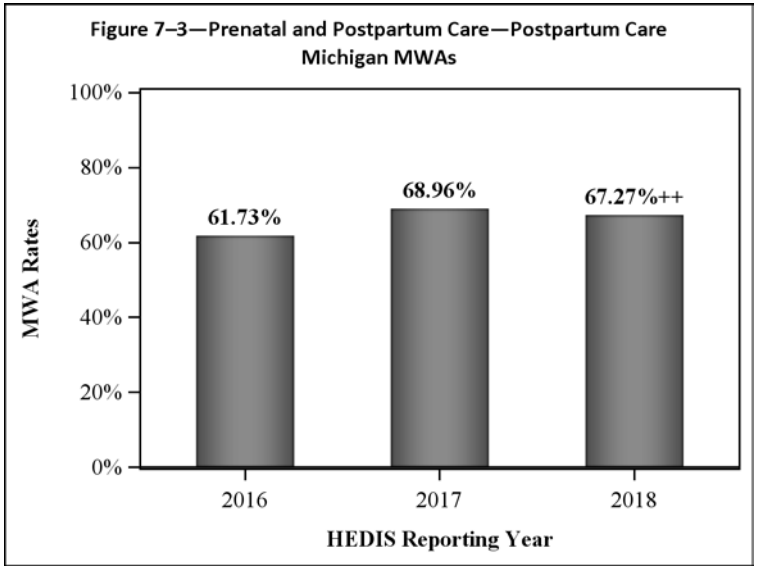
Figure 7–2—Prenatal and Postpartum Care—Timeliness of Prenatal Care
Health Plan Ranking



Two MHPs ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Six MHPs fell below the LPL. MHP performance varied by over 55 percentage points.

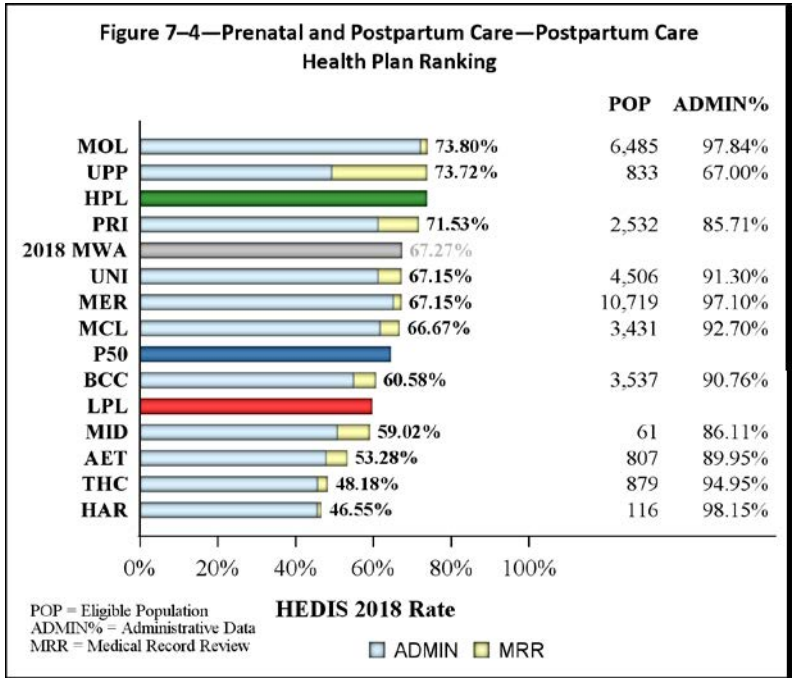
Prenatal and Postpartum Care—Postpartum Care

Prenatal and Postpartum Care—Postpartum Care represents the percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. Four MHPs fell below the LPL. MHP performance varied by over 25 percentage points.

8. Living With Illness

Introduction

The Living With Illness measure domain encompasses the following MDHHS measures:

- *Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing*, *HbA1c Poor Control (>9.0%)*, *HbA1c control (<8.0%)*, *Eye Exam (Retinal) Performed*, *Medical Attention for Nephropathy*, and *Blood Pressure Control (<140/90 mm Hg)*
- *Medication Management for People with Asthma—Medication Compliance 50%—Total* and *Medication Compliance 75%—Total*
- *Asthma Medication Ratio—Total*
- *Controlling High Blood Pressure*
- *Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit*, *Discussing Cessation Medications*, and *Discussing Cessations Strategies*
- *Antidepressant Medication Management—Effective Acute Phase Treatment* and *Effective Continuation Phase Treatment*
- *Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications*
- *Diabetes Monitoring for People With Diabetes and Schizophrenia*
- *Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia*
- *Adherence to Antipsychotic Medications for Individuals With Schizophrenia*
- *Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs*, *Diuretics*, and *Total*

Please see the "How to Get the Most From This Report" section for guidance on interpreting the figures presented within this section. For reference, additional analyses for each measure indicator are displayed in Appendices A, B, and C.

Summary of Findings

Table 8-1 presents the Michigan MWA performance for the measure indicators under the Living With Illness measure domain. The table lists the HEDIS 2018 MWA rates and performance levels, a comparison of the HEDIS 2017 MWA to the HEDIS 2018 MWA for each measure indicator with trend analysis results, and a summary of the MHPs with rates demonstrating statistically significant changes from HEDIS 2017 to HEDIS 2018.

Table 8-1—HEDIS 2018 MWA Performance Levels and Trend Results for Living With Illness

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Comprehensive Diabetes Care				
Hemoglobin A1C (HbA1c) Testing	88.81%	**+1.02+**	0	2
*HbA1c Poor Control (>9.0%)**	36.88%	**+0.81++**	1	3
HbA1c Control (<8.0%)	52.73%	-0.43	0	2
Eye Exam (Retinal) Performed	64.18%	**+1.33+**	0	0
Medical Attention for Nephropathy	91.94%	**+0.80+**	0	0
Blood Pressure Control (<140/90 mm Hg)	62.23%	+0.50	0	2
Medication Management for People With Asthma				
Medication Compliance 50%—Total[3]	70.74%	-0.59	3	2
Medication Compliance 75%—Total	49.83%	-0.13	4	2
Asthma Medication Ratio				
Total	62.06%	-0.57	1	1
Controlling High Blood Pressure				
Controlling High Blood Pressure	58.21%	**+1.46+**	1	2
Medical Assistance With Smoking and Tobacco Use Cessation[4]				
Advising Smokers and Tobacco Users to Quit	80.59%	**+0.44+**	0	0
Discussing Cessation Medications	57.14%	**+1.19+**	0	0
Discussing Cessation Strategies	47.32%	**+1.43+**	0	0
Antidepressant Medication Management[5]				
Effective Acute Phase Treatment	58.27%	**+5.55+**	4	0
Effective Continuation Phase Treatment	41.25%	**+5.22+**	4	1
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications				
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	84.31%	**+1.22+**	3	0
Diabetes Monitoring for People With Diabetes and Schizophrenia				
Diabetes Monitoring for People With Diabetes and Schizophrenia	69.97%	+0.96	0	0
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia				
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	76.86%	+7.22	1	0
Adherence to Antipsychotic Medications for Individuals With Schizophrenia				
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	63.18%	**+2.02+**	3	1

Measure	HEDIS 2018 MWA and Performance Level[1]	HEDIS 2017 MWA–HEDIS 2018 MWA Comparison[2]	Number of MHPs With Statistically Significant Improvement in HEDIS 2018	Number of MHPs With Statistically Significant Decline in HEDIS 2018
Annual Monitoring for Patients on Persistent Medications				
ACE Inhibitors or ARBs	86.60%	-0.40	3	2
Diuretics	86.64%	-0.44	2	1
Total[6]	86.62%	NC	NC	NC

[1] 2018 performance levels were based on comparisons of the HEDIS 2018 MWA measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks. 2018 performance levels represent the following percentile comparisons:

≤25th	≥25th and ≤49th	≥50th and ≤74th	≥75th and ≤89th	≥90th

[2] HEDIS 2017 MWA to HEDIS 2018 MWA comparisons were based on a Chi-square test of statistical significance with a p-value <0.01 due to large denominators.

Green Shading[+] *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant improvement from the HEDIS 2017 MWA.*

Red Shading[++] *Indicates that the HEDIS 2018 MWA demonstrated a statistically significant decline from the HEDIS 2017 MWA.*

[3] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medication Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[4] To align with calculations from prior years, the weighted average for this measure used the eligible population for the survey rather than the number of people who responded as being smokers.

[5] Due to changes in the technical specifications for this measure, exercise caution when trending rates between 2018 and prior years.

[6] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

NC indicates that a comparison is not appropriate, or the measure did not have an applicable benchmark.

** For this indicator, a lower rate indicates better performance.*

Table 8-1 shows that for the Living With Illness domain, 11 of 21 (52.4 percent) MWA rates that could be compared to national Medicaid percentiles or prior years' rates demonstrated significant improvement from HEDIS 2017 to HEDIS 2018. Of note, four MHPs and the MWA demonstrated significant improvement of more than 5 percentage points for the *Antidepressant Medication Management* measure indicators. Please note, caution should be used when comparing the 2018 rates for *Antidepressant Medication Management* to national Medicaid percentiles and prior years' rates due to changes to the technical measure specifications for HEDIS 2018.

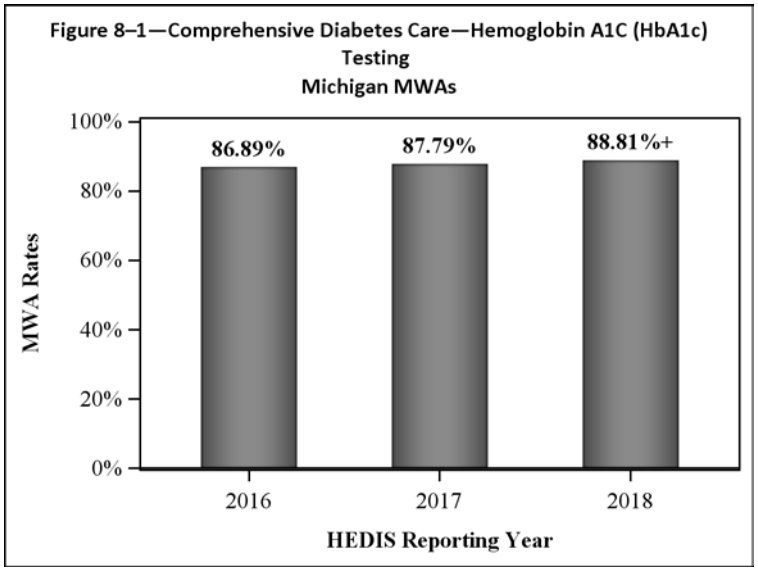
Additionally, 16 of 21 (76.2 percent) MWA rates ranked at or above the national Medicaid 50th percentile, with nine MWA rates ranking at or above the national Medicaid 75th percentile. The following nine rates demonstrated positive performance: *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed* and *Medical Attention for Nephropathy*; *Medication Management for People With Asthma—Medication Compliance 50%—Total* and *Medication Compliance 75%—Total*; *Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit* and *Discussing Cessation Medications*; *Antidepressant Medication Management—Effective Acute Phase Treatment* and *Effective Continuation Phase Treatment*; and *Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications*.

Conversely, only one MWA rate, *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)*, demonstrated a significant decline in performance from HEDIS 2017 to HEDIS 2018. Further, the MWA rates for *Asthma Medication Ratio—Total*, *Diabetes Monitoring for People With Diabetes and Schizophrenia*, *Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia*, and *Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs* and *Diuretics* fell below the national Medicaid 50th percentile, indicating opportunities for improvement for these measures.

Measure-Specific Findings

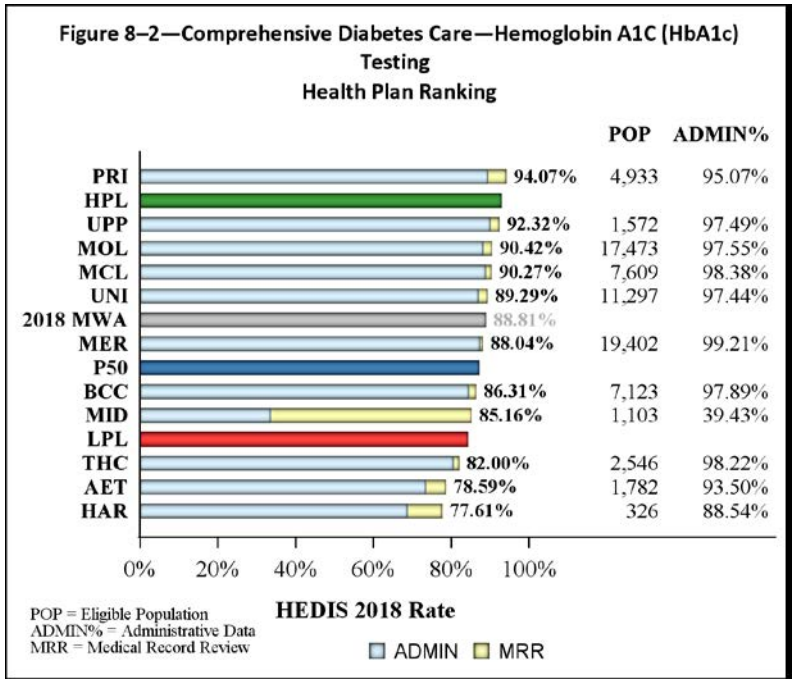
Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing

Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had HbA1c testing.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

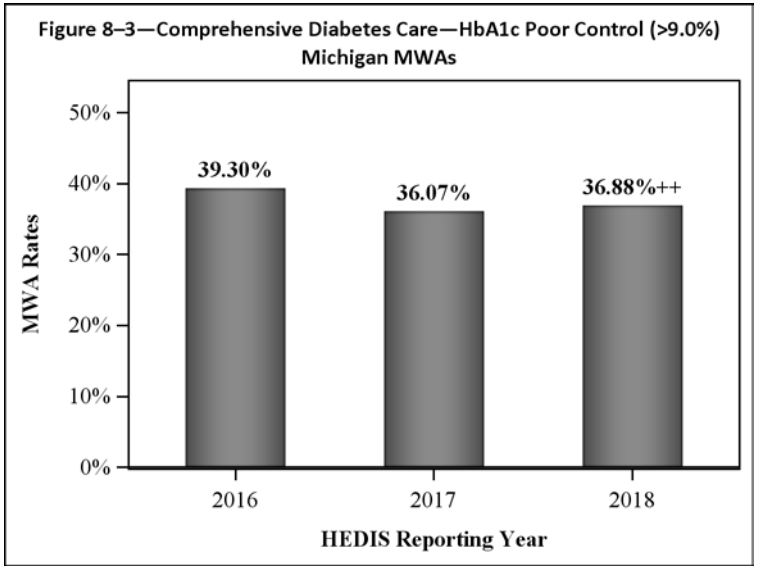
The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.



Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Three MHPs fell below the LPL. MHP performance varied by over 15 percentage points.

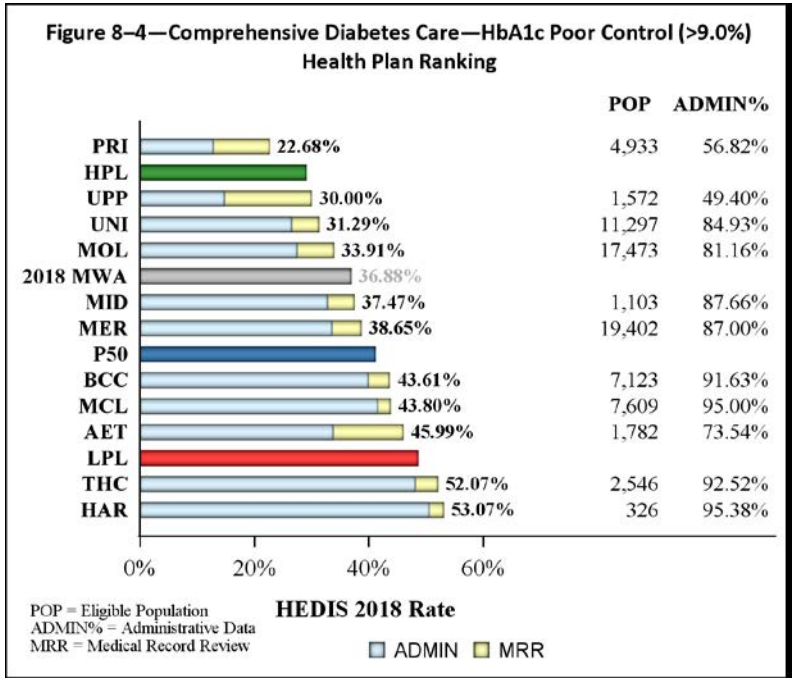
Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)

Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%) assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had HbA1c poor control. For this measure, a lower rate indicates better performance.



Rates with two crosses (++) indicate a significant decline in performance from the previous year.

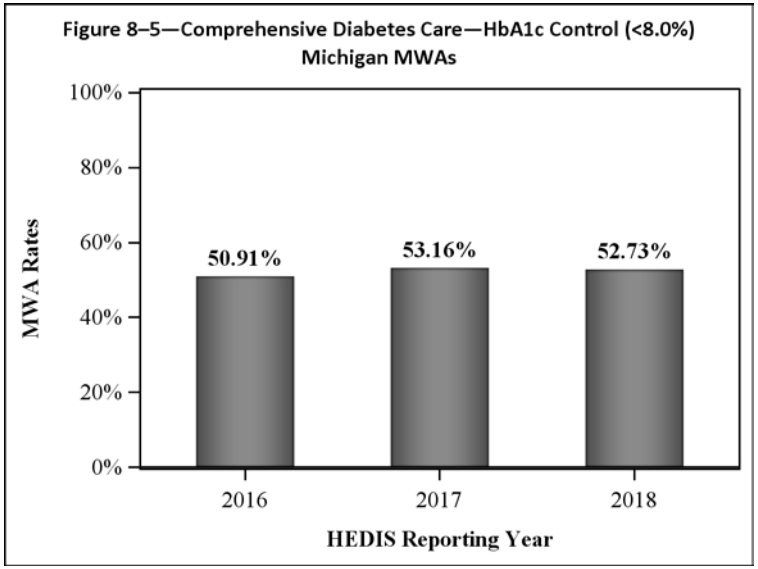
The HEDIS 2018 MWA rate significantly declined from HEDIS 2017.



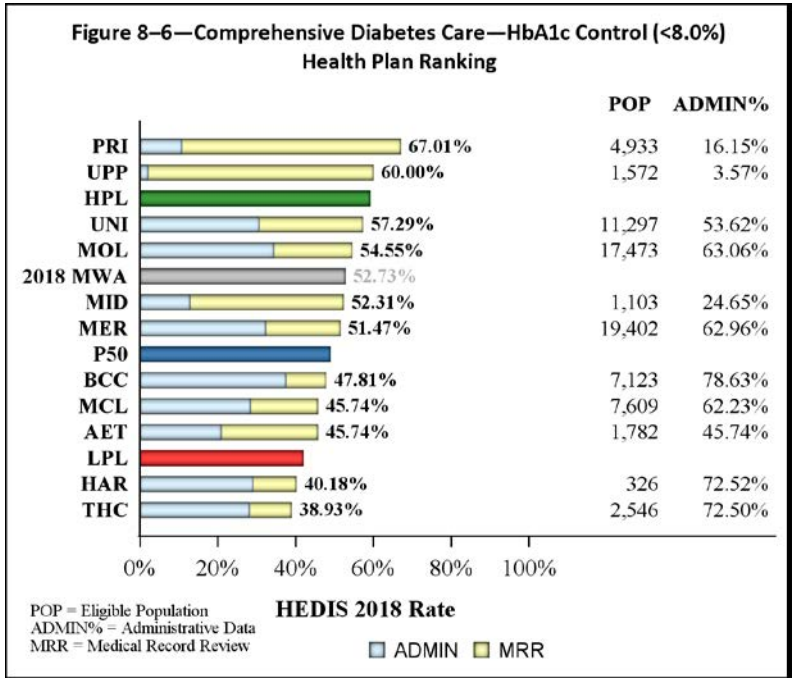
Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Comprehensive Diabetes Care—HbA1c Control (<8.0%)

Comprehensive Diabetes Care—HbA1c Control (<8.0%) assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had HbA1c control (<8.0%).



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

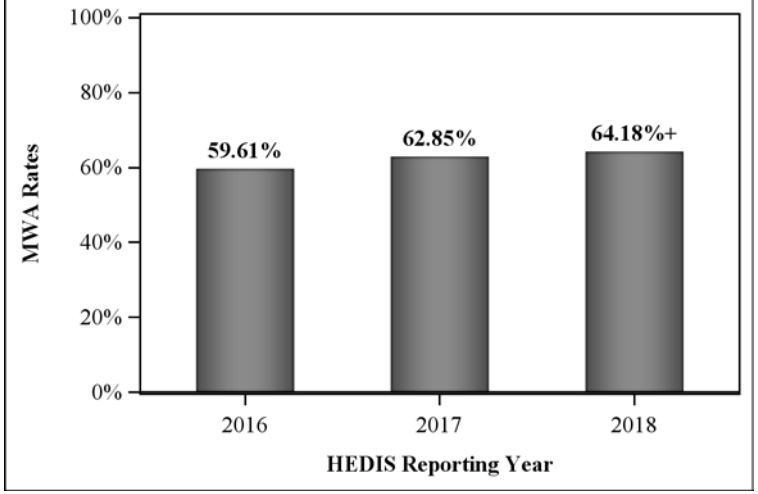


Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 25 percentage points.

Comprehensive Diabetes Care—Eye Exam (Retinal) Performed

Comprehensive Diabetes Care—Eye Exam (Retinal) Performed assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had an eye exam (retinal) performed.

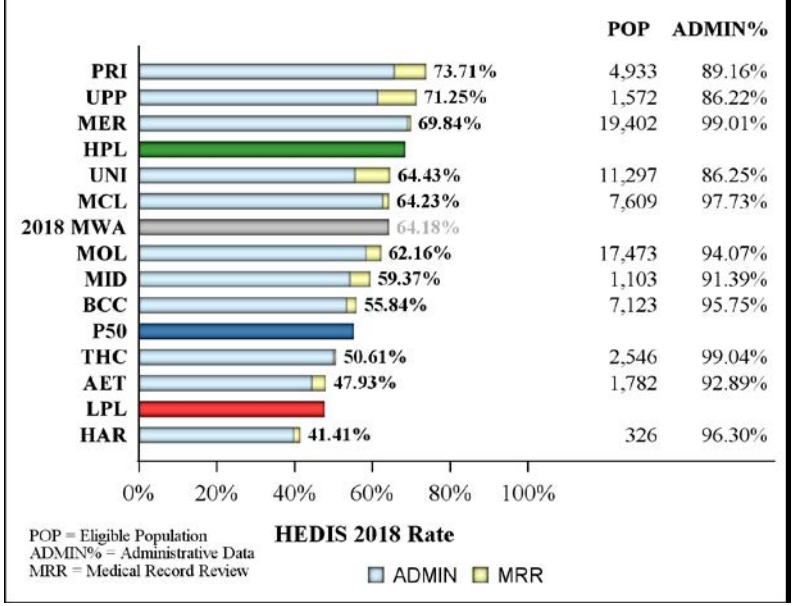
Figure 8–7—Comprehensive Diabetes Care—Eye Exam (Retinal) Performed
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

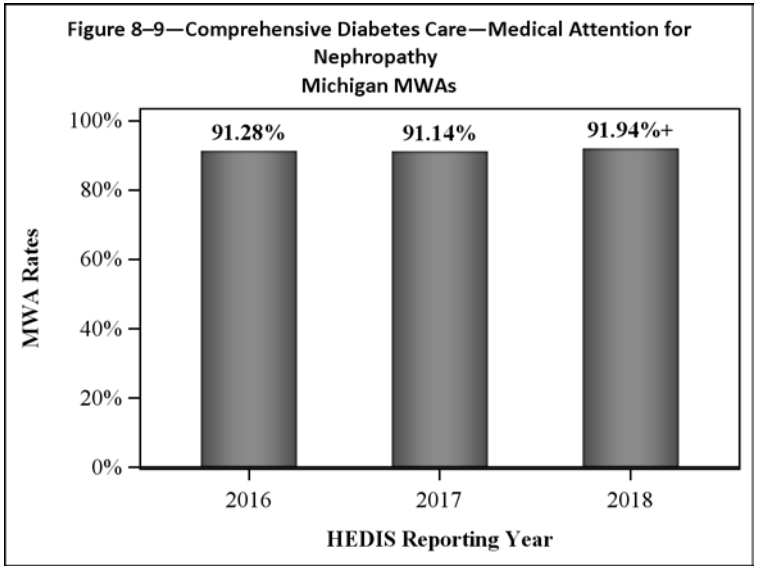
Figure 8–8—Comprehensive Diabetes Care—Eye Exam (Retinal) Performed
Health Plan Ranking



Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 30 percentage points.

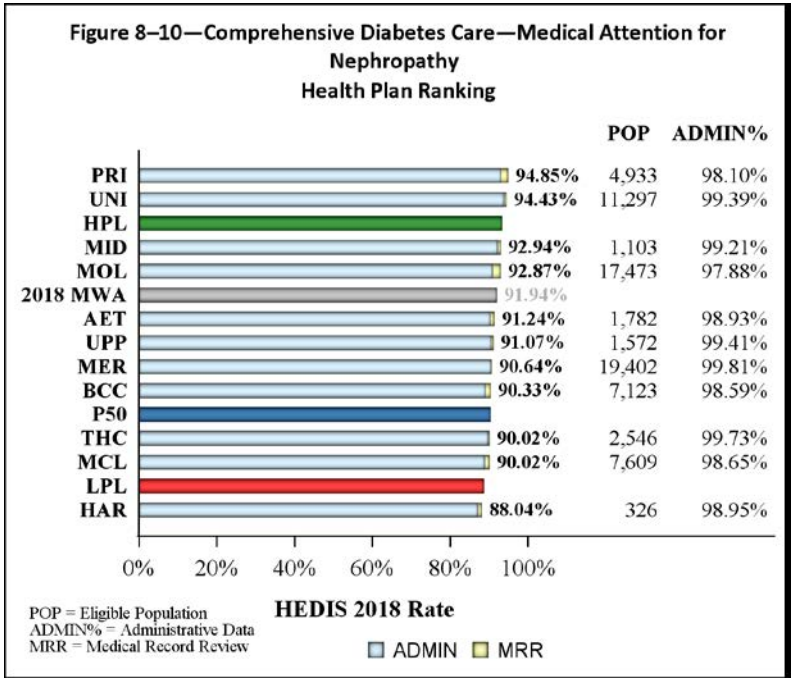
Comprehensive Diabetes Care—Medical Attention for Nephropathy

Comprehensive Diabetes Care—Medical Attention for Nephropathy assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had medical attention for nephropathy.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

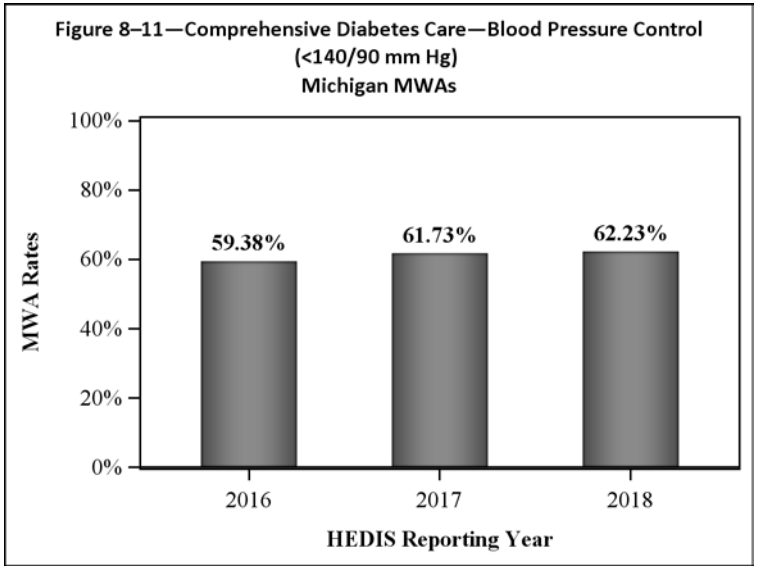


Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. One MHP ranked below the LPL. MHP performance varied by over 5 percentage points.

Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)

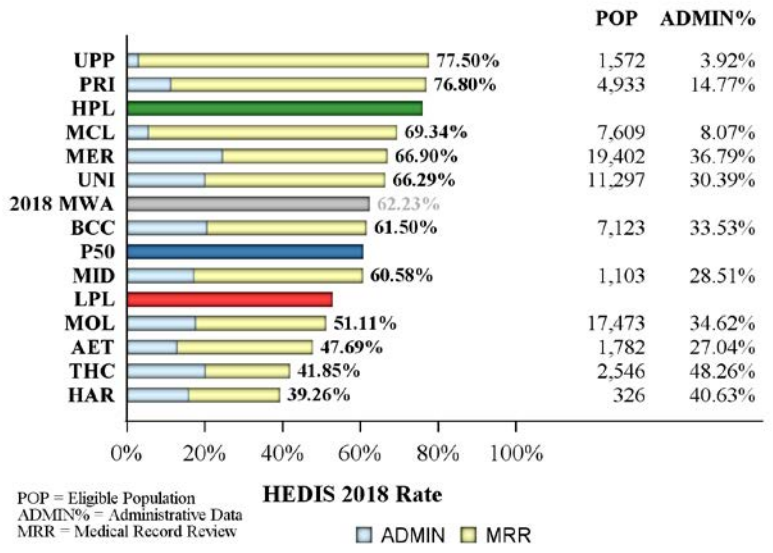
Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg) assesses the percentage of members 18 to 75 years of age with diabetes (type 1 and type 2) who had blood pressure control (<140/90 mm Hg).

Figure 8–11—Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg) Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

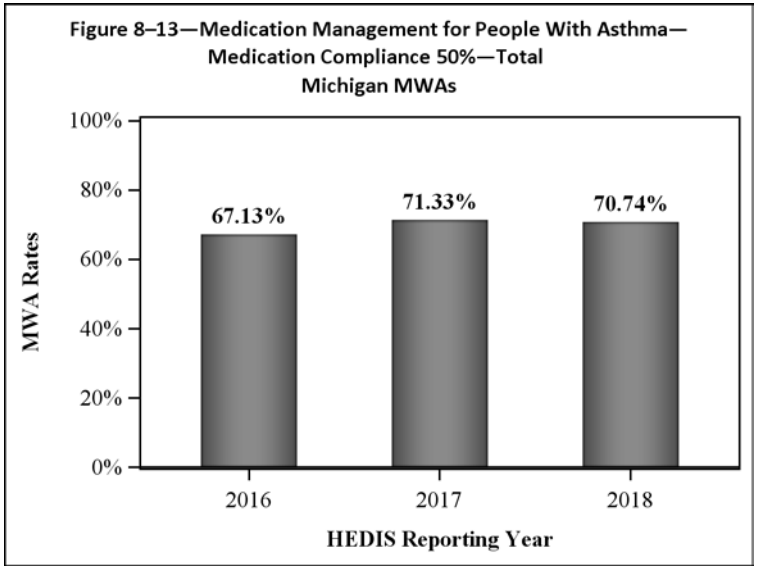
Figure 8–12—Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg) Health Plan Ranking



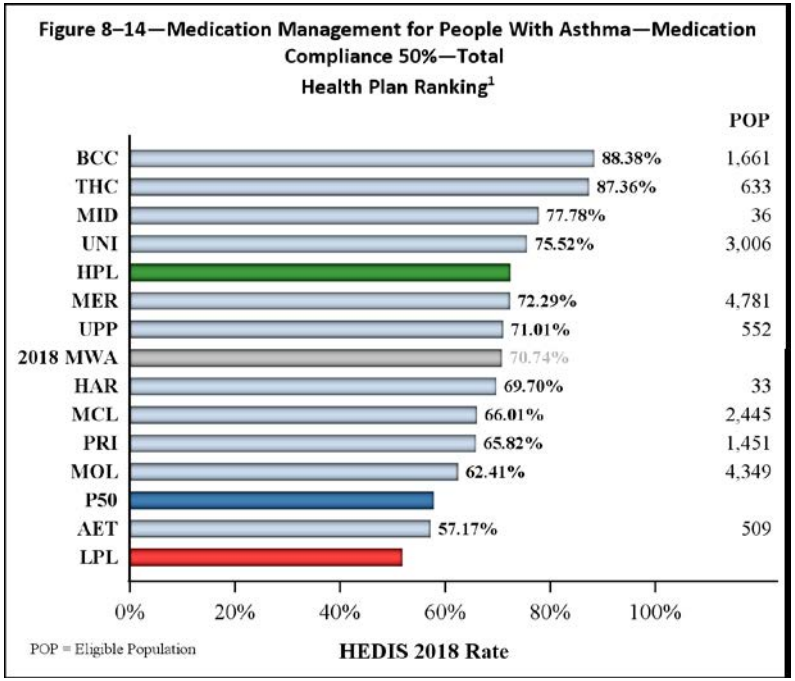
Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. Four MHPs fell below the LPL. MHP performance varied by over 35 percentage points.

Medication Management for People with Asthma—Medication Compliance 50%—Total

Medication Management for People with Asthma—Medication Compliance 50%—Total assesses the percentage of members 5 to 64 years of age who were identified as having persistent asthma and were dispensed appropriate medications that they continued to take for at least 50 percent of their treatment period.



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.



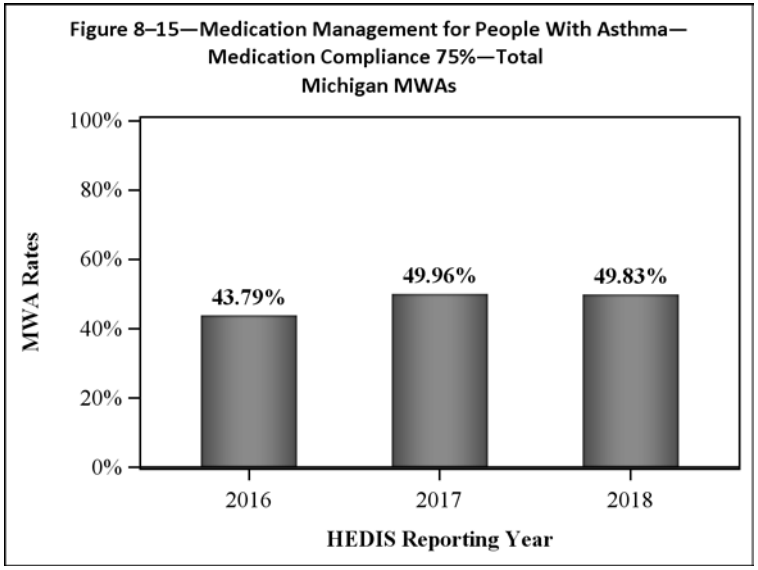
[1] *Quality Compass percentiles for this measure were not available; therefore, the rates for this measure indicator were compared to the NCQA Audit Means and Percentiles.*

Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with four MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Medication Management for People with Asthma—Medication Compliance 75%—Total

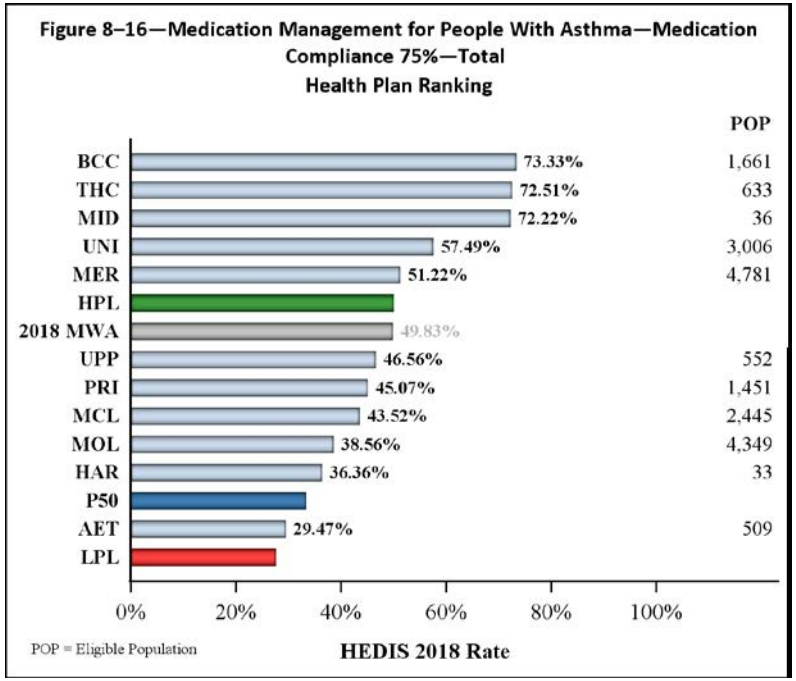
Medication Management for People with Asthma—Medication Compliance 75%—Total assesses the percentage of members 5 to 64 years of age during the measurement year who were identified as having persistent asthma and were dispensed appropriate medications that they continued to take for at least 75 percent of their treatment period.

Figure 8–15—Medication Management for People With Asthma—Medication Compliance 75%—Total
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 8–16—Medication Management for People With Asthma—Medication Compliance 75%—Total
Health Plan Ranking

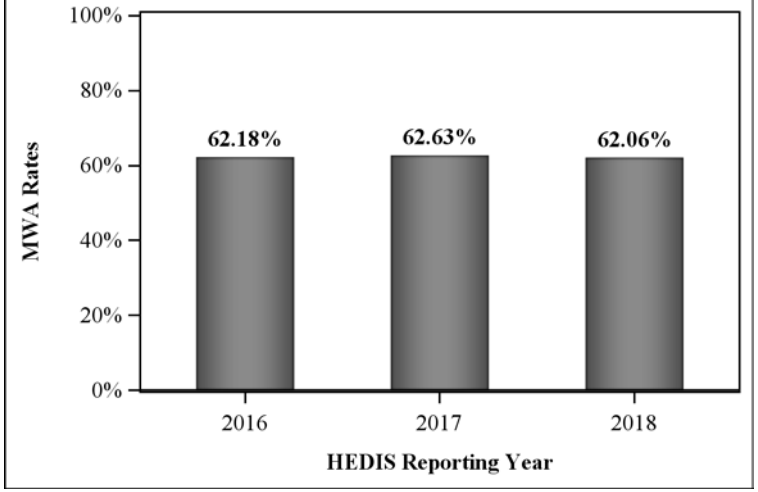


Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with five MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 40 percentage points.

Asthma Medication Ratio—Total

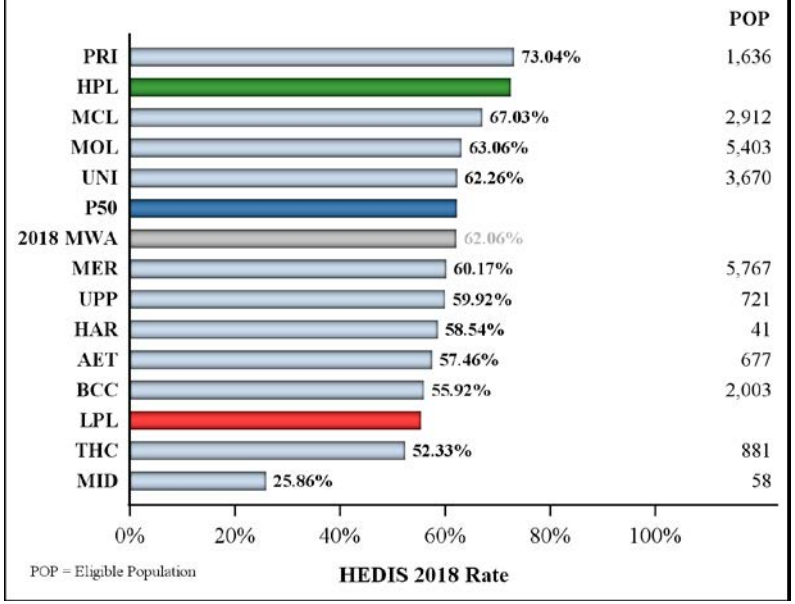
Asthma Medication Ratio—Total assesses the percentage of patients 5 to 64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.

Figure 8–17—Asthma Medication Ratio—Total
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 8–18—Asthma Medication Ratio—Total
Health Plan Ranking

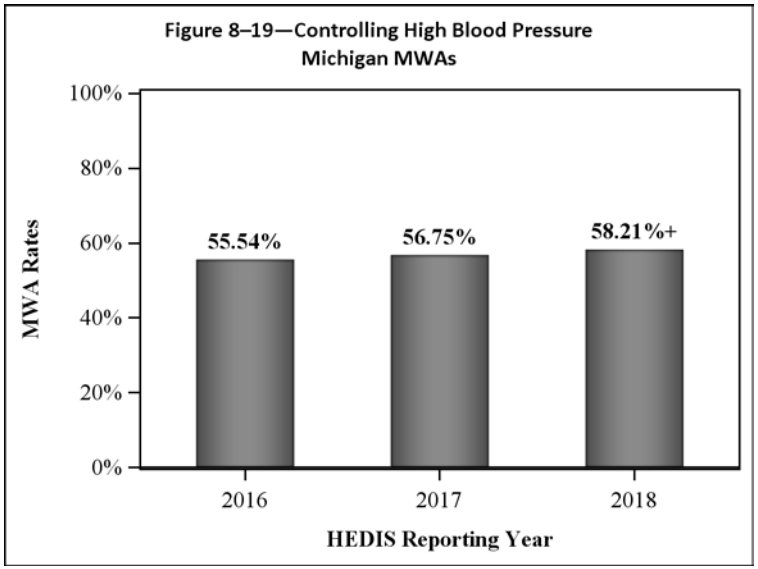


Four MHPs ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 45 percentage points.

Controlling High Blood Pressure

Controlling High Blood Pressure assesses the percentage of members 18 to 85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled during the measurement year based on the following criteria: Members 18 to 59 years of age whose BP was <140/90 mm Hg; Members 60 to 85 years of age with a diagnosis of diabetes whose BP was <140/90 mm Hg; and Members 60 to 85 years of age without a diagnosis of diabetes whose BP was <150/90 mm Hg.

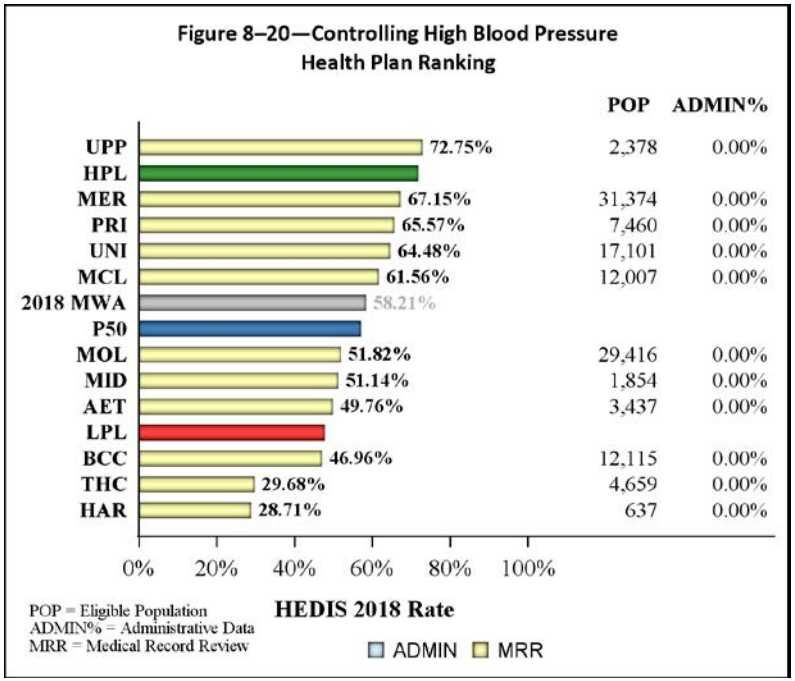
Figure 8–19—Controlling High Blood Pressure
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

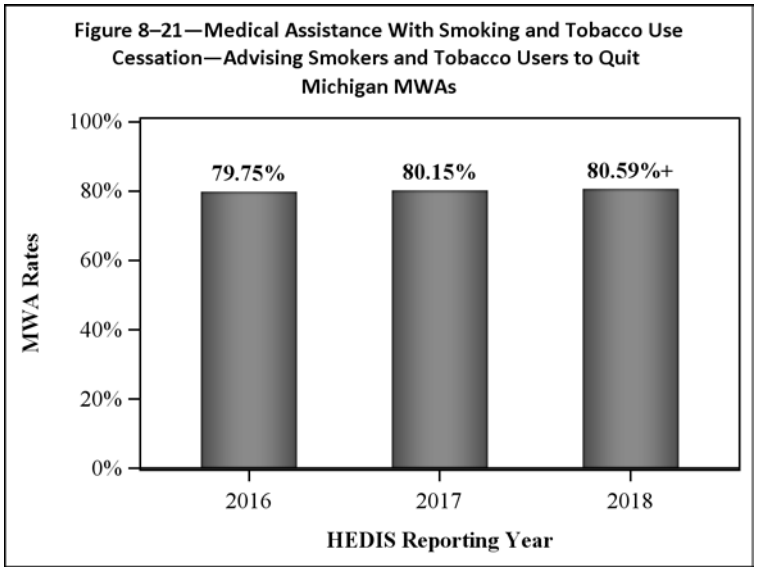
Figure 8–20—Controlling High Blood Pressure
Health Plan Ranking



Five MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. Three MHPs fell below the LPL. MHP performance varied by over 40 percentage points.

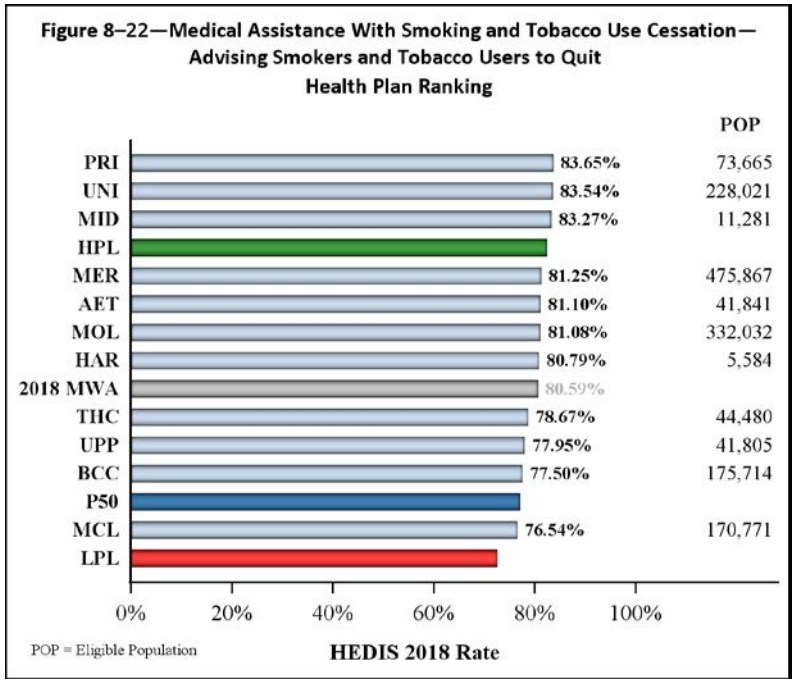
Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit

Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit assesses the percentage of members 18 years of age and older who are current smokers or tobacco users and who received cessation advice during the measurement year.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

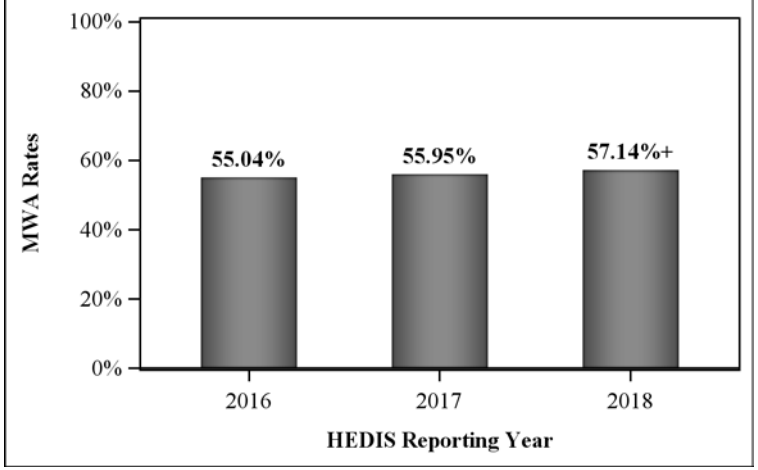


Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 5 percentage points.

Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Medications

Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Medications assesses the percentage of members 18 years of age and older who are current smokers or tobacco users and who discussed or were recommended cessation medications during the measurement year.

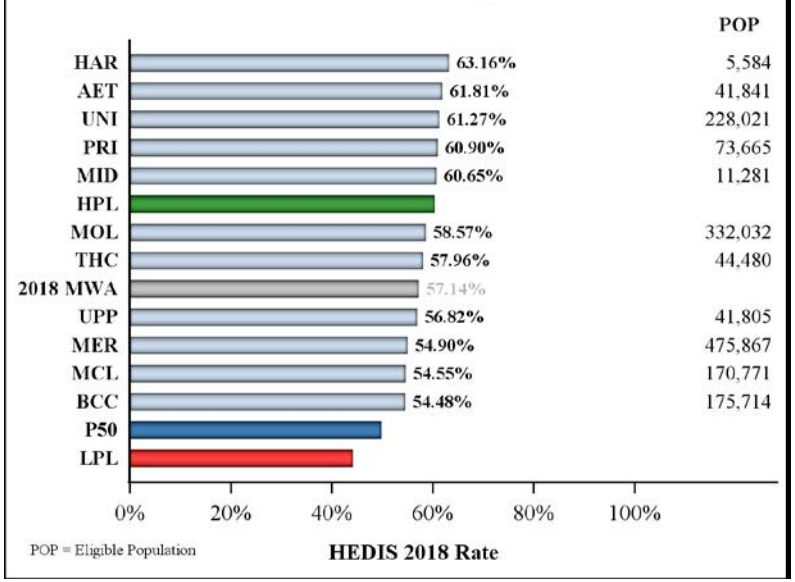
Figure 8–23—Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Medications
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

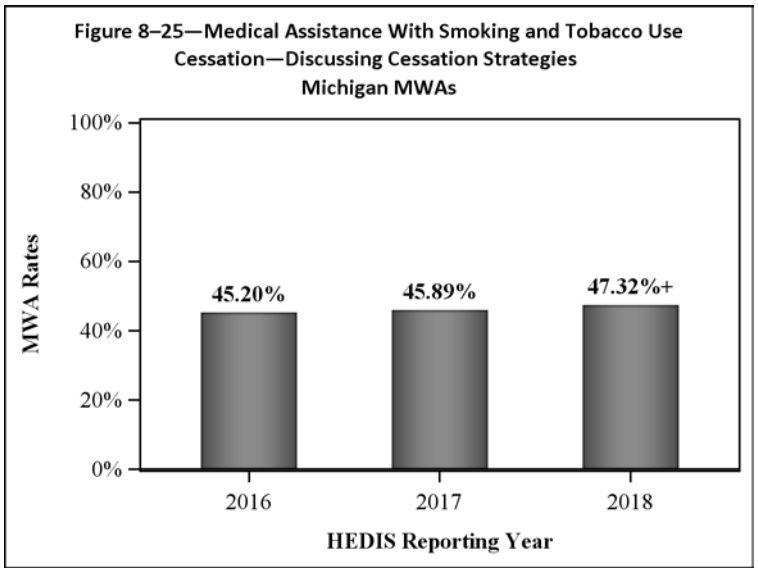
Figure 8–24—Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Medications
Health Plan Ranking



Eleven MHPs and the MWA ranked above the national Medicaid 50th percentile, with five MHPs ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 5 percentage points.

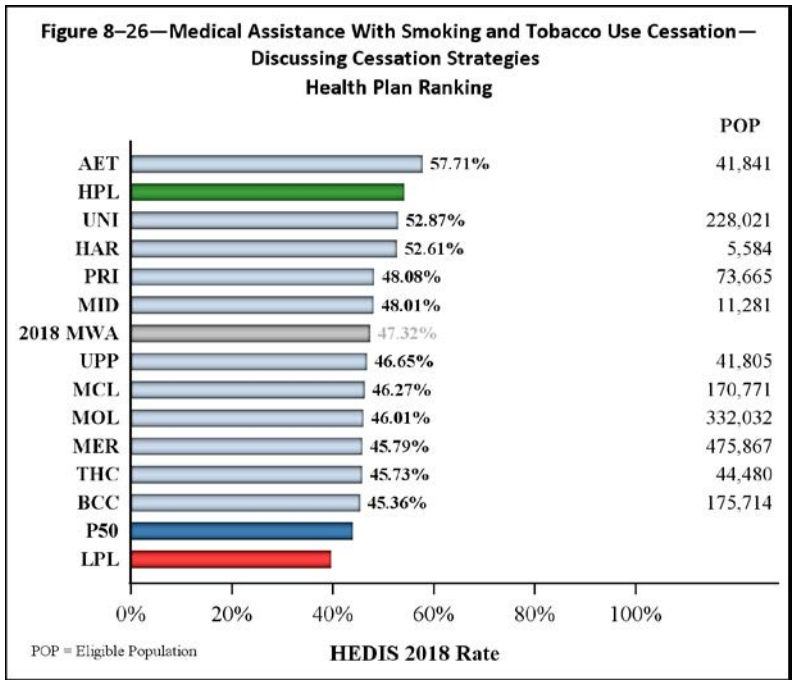
Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Strategies

Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Strategies assesses the percentage of members 18 years of age or older who are current smokers or tobacco users and who discussed or were provided cessation methods or strategies during the measurement year.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

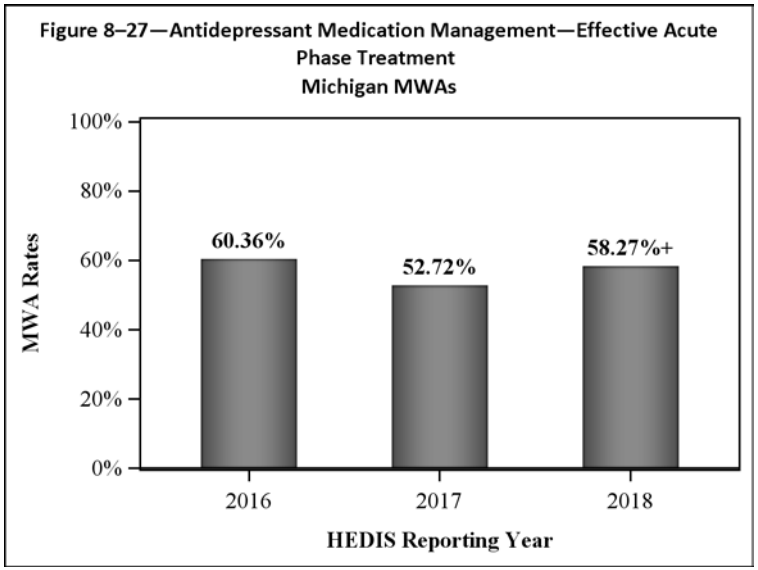


Eleven MHPs and the MWA ranked above the national Medicaid 50th percentile, with one MHP ranking above the HPL. No MHPs fell below the LPL. MHP performance varied by over 10 percentage points.

Antidepressant Medication Management—Effective Acute Phase Treatment

Antidepressant Medication Management—Effective Acute Phase Treatment assesses the percentage of patients 18 years of age and older who were treated with antidepressant medication, had a diagnosis of major depression, and who remained on an antidepressant medication treatment for at least 84 days (12 weeks). Due to changes in the technical specifications for this measure indicator, exercise caution when trending rates between 2018 and prior years.

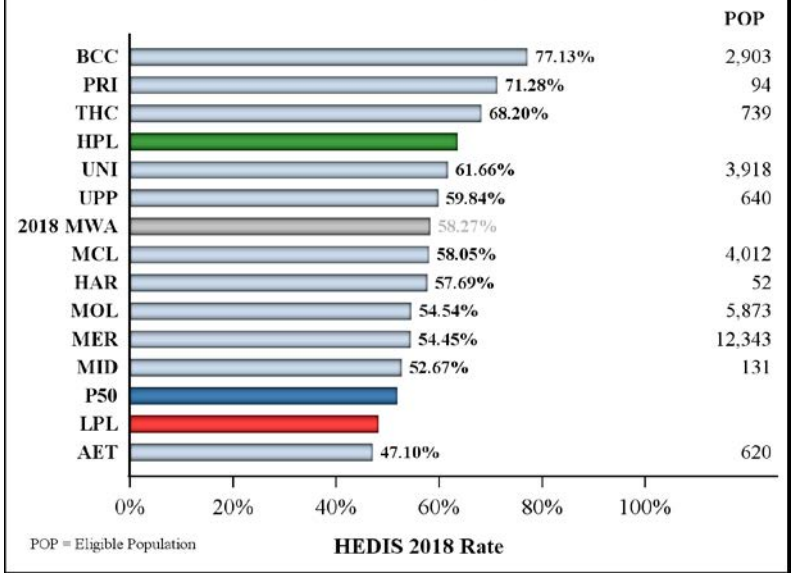
Figure 8–27—Antidepressant Medication Management—Effective Acute Phase Treatment
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 8–28—Antidepressant Medication Management—Effective Acute Phase Treatment
Health Plan Ranking

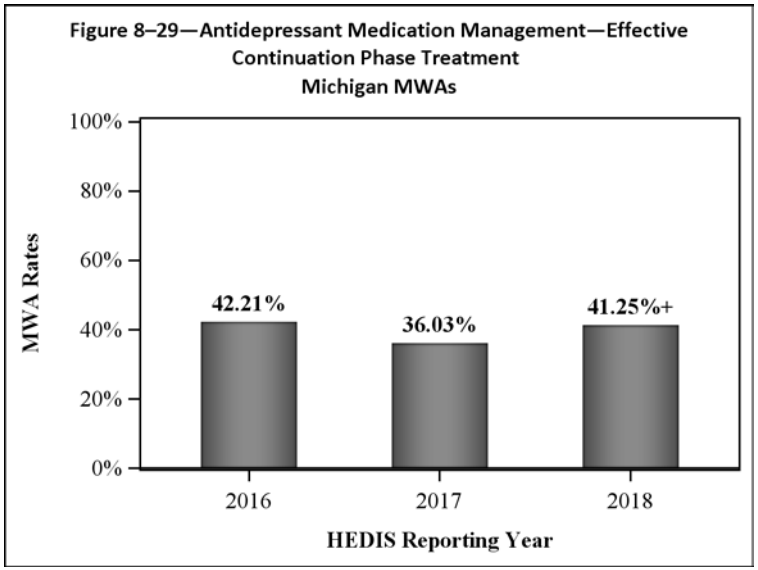


Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 30 percentage points.

Antidepressant Medication Management—Effective Continuation Phase Treatment

Antidepressant Medication Management—Effective Continuation Phase Treatment assesses the percentage of patients 18 years of age and older who were treated with antidepressant medication, had a diagnosis of major depression, and who remained on an antidepressant medication treatment for at least 180 days (6 months). Due to changes in the technical specifications for this measure indicator, exercise caution when trending rates between 2018 and prior years.

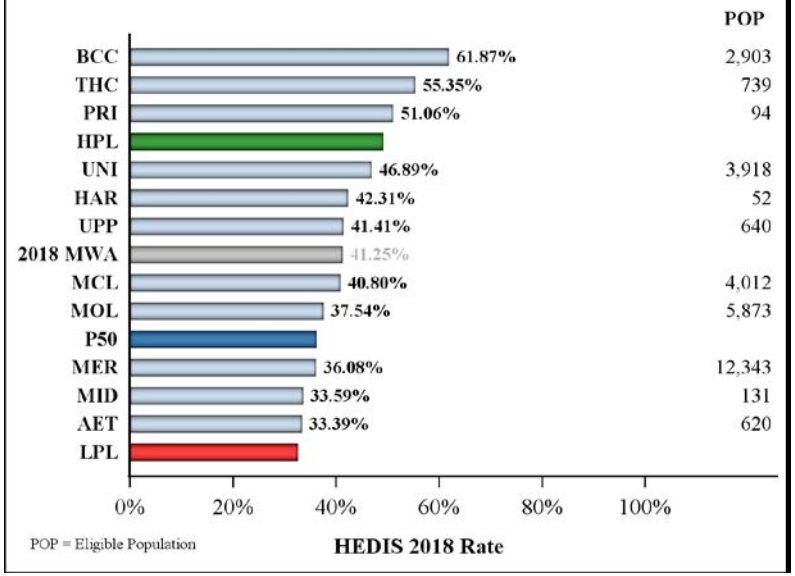
Figure 8–29—Antidepressant Medication Management—Effective Continuation Phase Treatment
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 8–30—Antidepressant Medication Management—Effective Continuation Phase Treatment
Health Plan Ranking

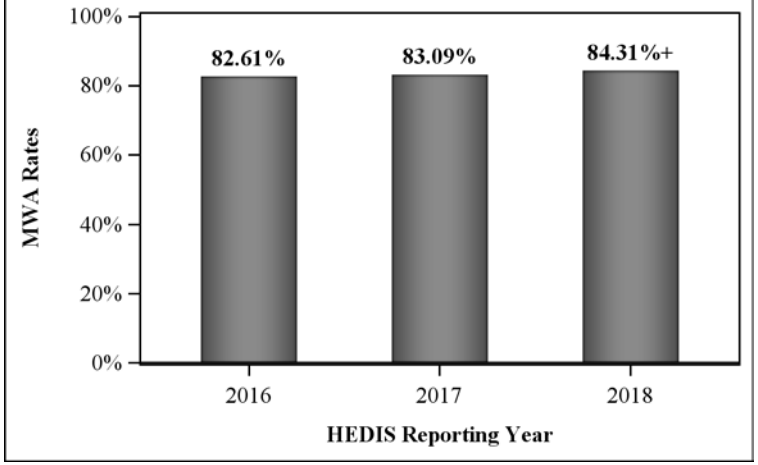


Eight MHPs and the MWA ranked above the national Medicaid 50th percentile, with three MHPs ranking above the HPL. No MHP fell below the LPL. MHP performance varied by over 25 percentage points.

Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications

Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications assesses the percentage of members between 18 and 64 years of age with schizophrenia or bipolar disorder who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.

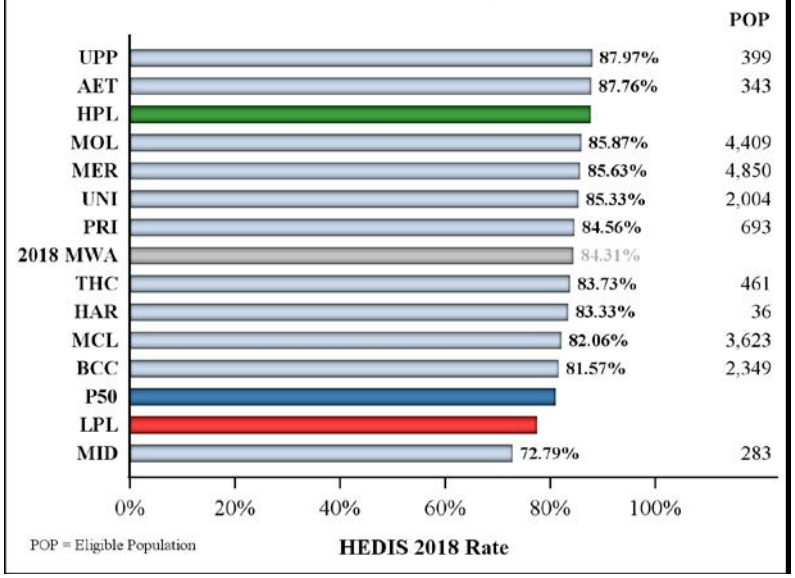
Figure 8–31—Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications
Michigan MWAs



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.

Figure 8–32—Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications
Health Plan Ranking

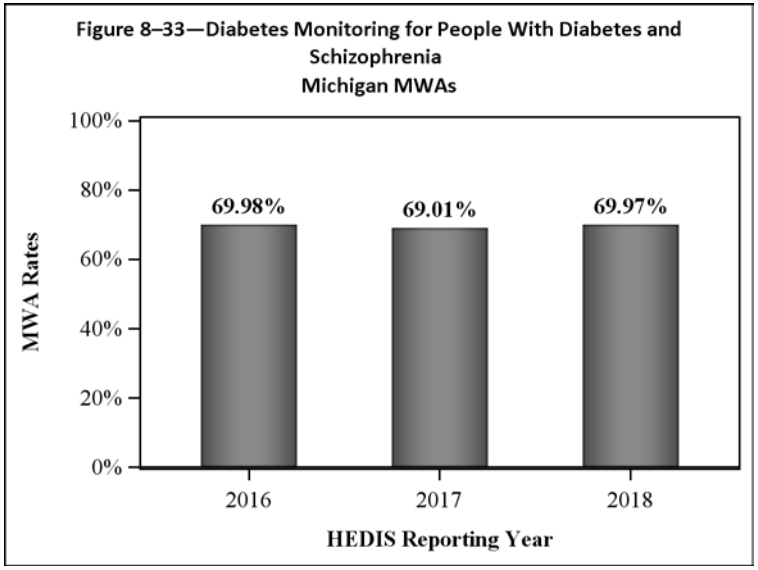


Ten MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. One MHP fell below the LPL. MHP performance varied by over 15 percentage points.

Diabetes Monitoring for People With Diabetes and Schizophrenia

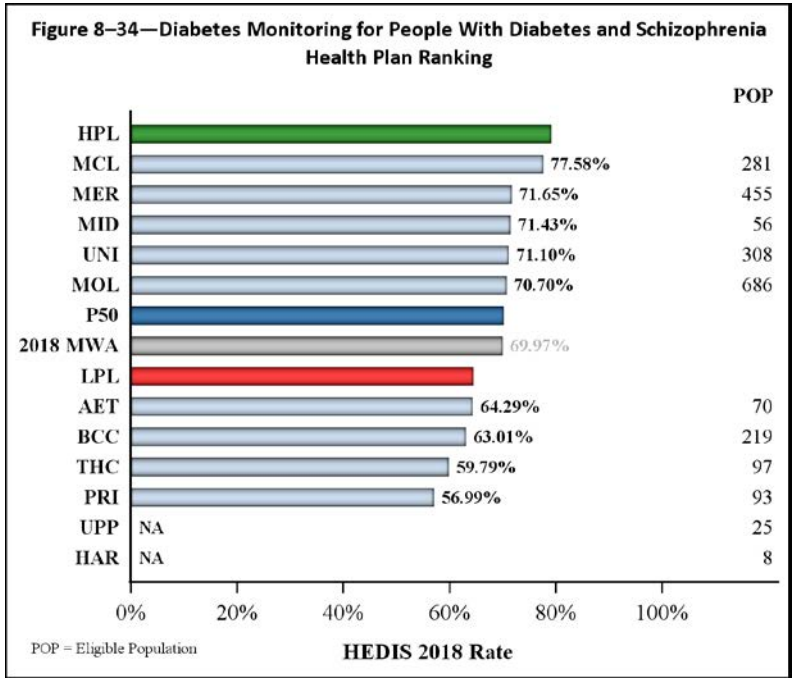
Diabetes Monitoring for People With Diabetes and Schizophrenia assesses the percentage of members between 18 and 64 years of age with schizophrenia and diabetes, who had both a low-density lipoprotein cholesterol (LDL-C) test and an HbA1c test during the measurement year.

Figure 8–33—Diabetes Monitoring for People With Diabetes and Schizophrenia
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 8–34—Diabetes Monitoring for People With Diabetes and Schizophrenia
Health Plan Ranking



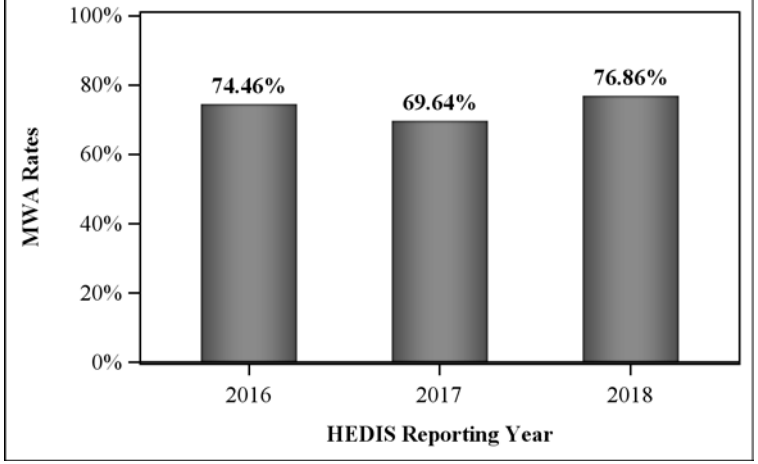
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Five MHPs ranked above the national Medicaid 50th percentile but below the HPL. Four MHPs fell below the LPL. MHP performance varied by over 20 percentage points.

Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia

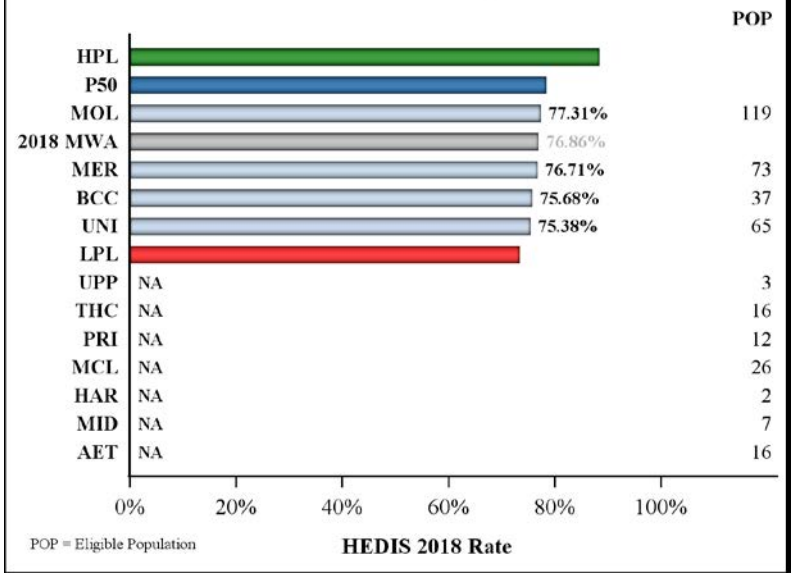
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia assesses the percentage of members between 18 and 64 years of age with schizophrenia and cardiovascular disease who had an LDL-C test during the measurement year.

Figure 8–35—Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 8–36—Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia
Health Plan Ranking

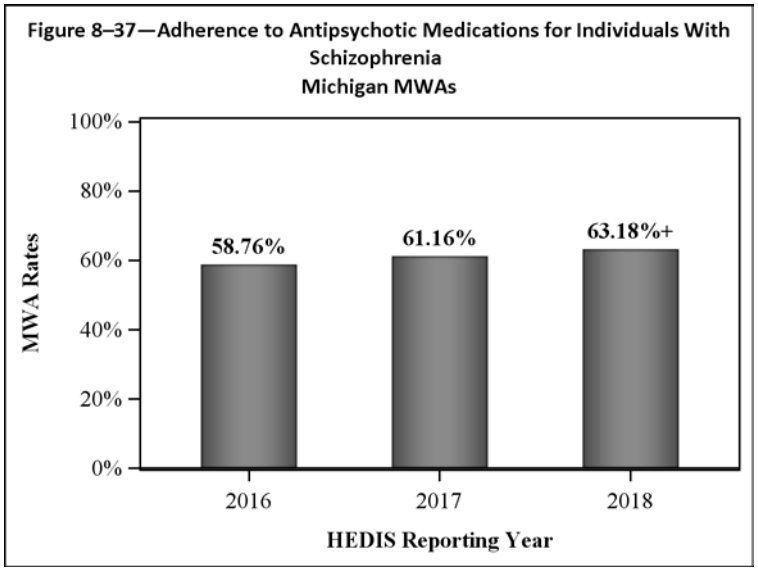


NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

No MHPs with reportable rates ranked above the HPL or national Medicaid 50th percentile. All MHPs with a reportable rate and the MWA fell below the national Medicaid 50th percentile but above the LPL. MHP performance varied by about 2 percentage points.

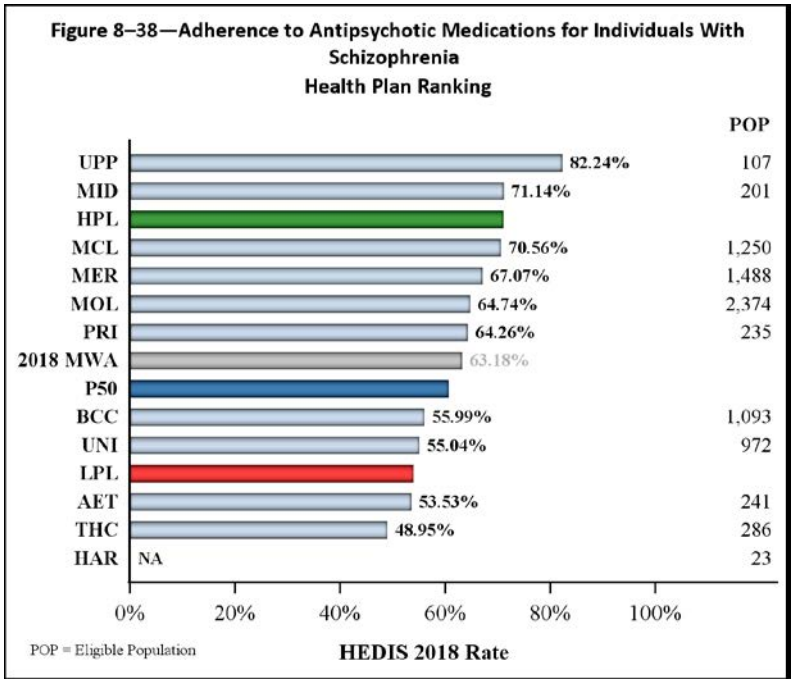
Adherence to Antipsychotic Medications for Individuals With Schizophrenia

Adherence to Antipsychotic Medications for Individuals With Schizophrenia assesses the percentage of members between 19 and 64 years of age with schizophrenia who were dispensed and remained on an antipsychotic medication for at least 80 percent of their treatment period.



Rates with one cross (+) indicate a significant improvement in performance from the previous year.

The HEDIS 2018 MWA rate significantly improved from HEDIS 2017.



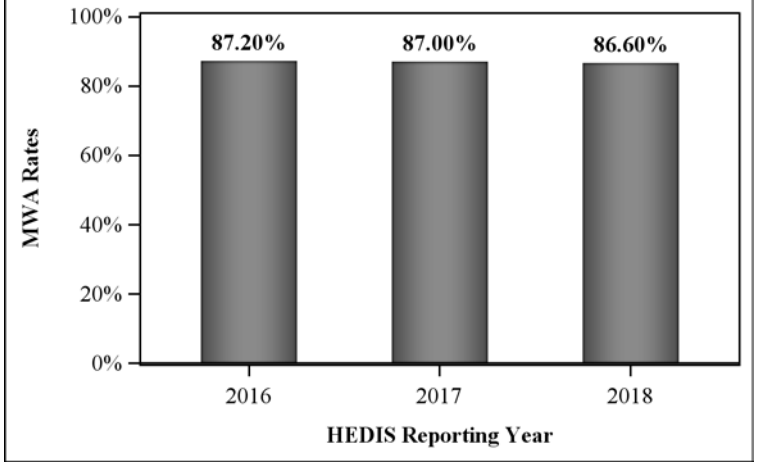
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Six MHPs and the MWA ranked above the national Medicaid 50th percentile, with two MHPs ranking above the HPL. Two MHPs fell below the LPL. MHP performance varied by over 30 percentage points.

Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs

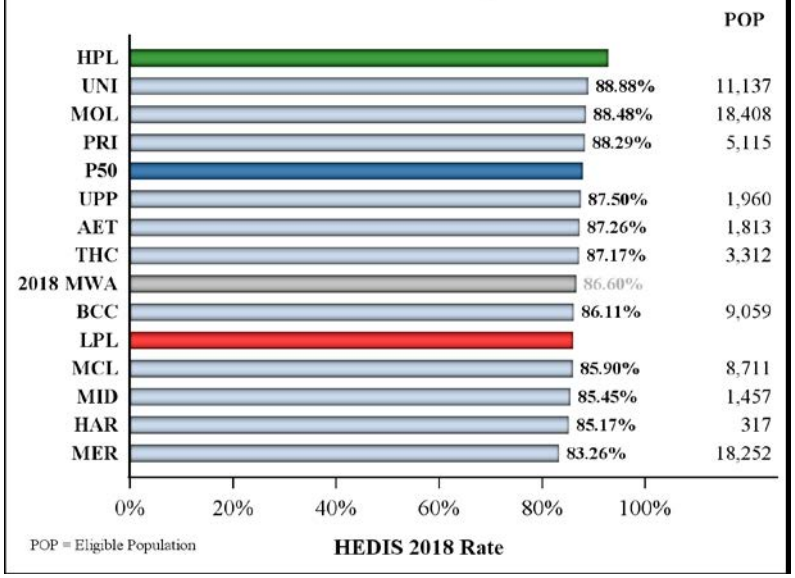
Annual Monitoring for Patients on Persistent Medications–ACE Inhibitors or ARBs assesses the percentage of patients 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) and had at least one serum potassium and serum creatinine therapeutic monitoring test in the measurement year.

Figure 8–39—Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

Figure 8–40—Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs
Health Plan Ranking

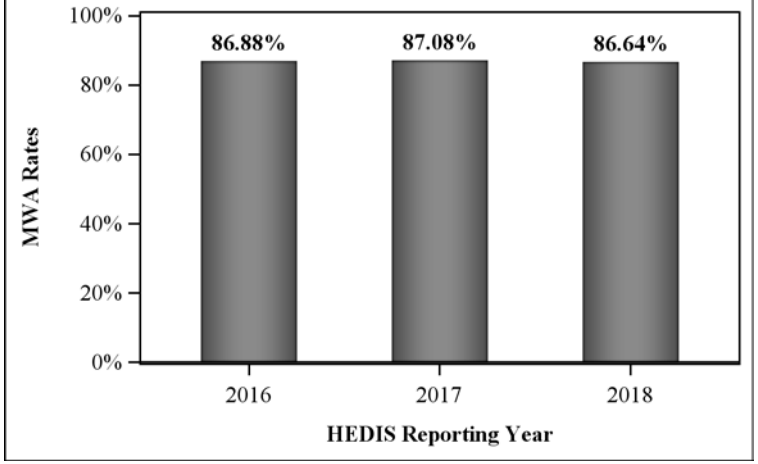


Three MHPs ranked above the national Medicaid 50th percentile but below the HPL. Four MHPs fell below the LPL. MHP performance varied by over 5 percentage points.

Annual Monitoring for Patients on Persistent Medications—Diuretics

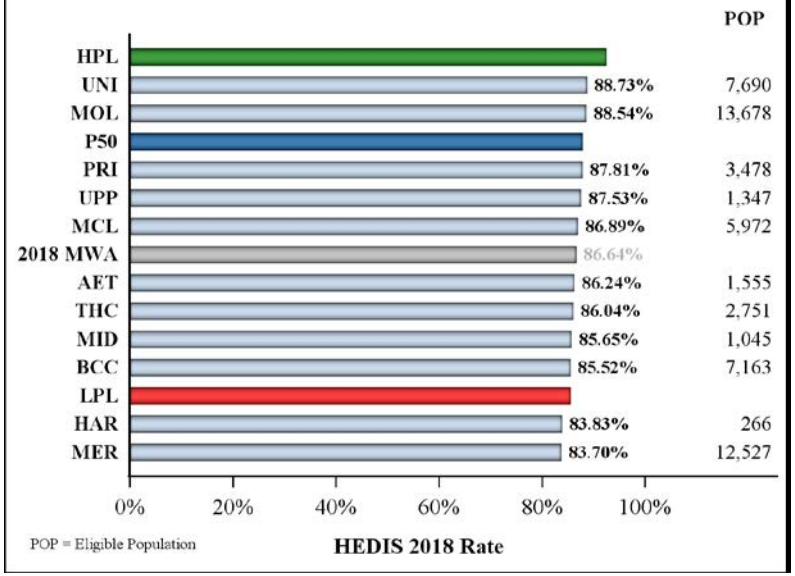
Annual Monitoring for Patients on Persistent Medications—Diuretics assesses the percentage of patients 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for diuretics and had at least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year.

Figure 8–41—Annual Monitoring for Patients on Persistent Medications—Diuretics
Michigan MWAs



The HEDIS 2018 MWA rate did not demonstrate a significant change from 2017 to 2018.

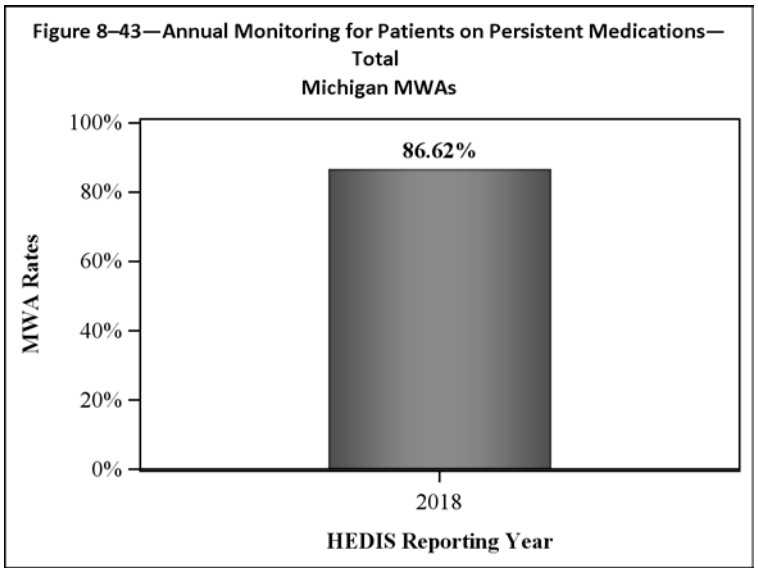
Figure 8–42—Annual Monitoring for Patients on Persistent Medications—Diuretics
Health Plan Ranking



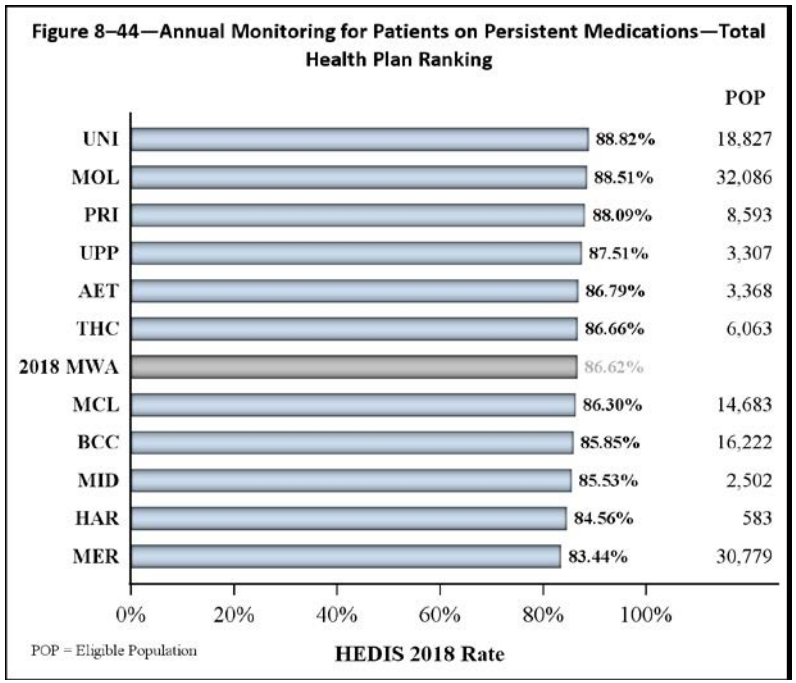
Two MHPs ranked above the national Medicaid 50th percentile but below the HPL. Two MHPs fell below the LPL. MHP performance varied by over 5 percentage points.

Annual Monitoring for Patients on Persistent Medications—Total

Annual Monitoring for Patients on Persistent Medications–Total assesses the percentage of patients 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for ACE inhibitors or ARBs, or diuretics during the measurement year and had at least one therapeutic monitoring event for the agent in the measurement year.



Due to changes in the technical specifications in HEDIS 2018 for the *Annual Monitoring for Patients on Persistent Medications—Total* measure indicator, a comparison to prior years' results is not appropriate. The rate in the chart above is presented for information purposes only.



Due to changes in the technical specifications in HEDIS 2018 for the *Annual Monitoring for Patients on Persistent Medications—Total* measure indicator, a comparison to benchmarks is not appropriate. The rates in the chart above are presented for information purposes only. MHP performance varied by over 5 percentage points.

9. Health Plan Diversity

Introduction

The Utilization measure domain encompasses the following MDHHS measures:

- *Race/Ethnicity Diversity of Membership*
- *Language Diversity of Membership*

Summary of Findings

Although measures under this domain are not performance measures and are not compared to national Medicaid percentiles, changes observed in the results may provide insight into how select member characteristics affect the MHPs' provision of services and care. The *Race/Ethnicity Diversity of Membership* measure shows that the HEDIS 2018 statewide rates for different racial/ethnic groups were fairly stable across years, with less than 1 percentage point difference between HEDIS 2017 and HEDIS 2018 rates for all racial/ethnic groups.

For the *Language Diversity of Membership* measure, HEDIS 2018 rates remained similar to prior years, with Michigan members reporting using English as the preferred spoken language for healthcare and preferred language for written materials, with less than 1 percentage point difference between HEDIS 2017 and HEDIS 2018.

Race/Ethnicity Diversity of Membership

Measure Definition

Race/Ethnicity Diversity of Membership is an unduplicated count and percentage of members enrolled at any time during the measurement year, by race and ethnicity.

Results

Tables 9-1a and 9-1b show that the statewide rates for reported racial/ethnic groups remained consistent from HEDIS 2016 to HEDIS 2018.

Table 9-1a—MHP and MWA Results for Race/Ethnicity Diversity of Membership

MHP	Eligible Population	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian and Other Pacific Islander
AET	57,443	26.57%	60.54%	0.15%	0.65%	0.06%
BCC	262,751	45.03%	34.27%	0.44%	1.64%	0.08%
HAR	13,623	27.17%	51.38%	0.12%	0.00%	0.99%
MCL	248,361	66.14%	18.23%	0.51%	0.65%	0.07%
MER	653,627	61.91%	21.40%	0.46%	0.70%	0.05%
MID	10,401	47.76%	35.71%	0.00%	2.04%	0.21%
MOL	440,337	45.47%	33.92%	0.26%	0.32%	<0.01%
PRI	159,208	62.18%	14.10%	0.55%	0.83%	0.07%
THC	67,951	30.89%	54.27%	0.28%	1.15%	0.06%
UNI	319,389	51.27%	30.28%	0.25%	2.05%	0.01%
UPP	57,352	87.26%	1.54%	2.30%	0.24%	0.05%
HEDIS 2018 MWA		**54.36%**	**27.37%**	**0.43%**	**0.93%**	**0.05%**
HEDIS 2017 MWA		**53.98%**	**27.55%**	**0.45%**	**0.89%**	**0.12%**
HEDIS 2016 MWA		**54.01%**	**28.00%**	**0.49%**	**1.09%**	**0.05%**

Table 9-1b—MHP and MWA Results for Race/Ethnicity Diversity of Membership (Continued)

MHP	Eligible Population	Some Other Race	Two or More Races	Unknown	Declined	Hispanic or Latino*
AET	57,443	0.00%	0.00%	4.43%	7.61%	3.14%
BCC	262,751	7.17%	0.00%	8.24%	3.14%	5.49%
HAR	13,623	3.96%	0.00%	16.38%	0.00%	3.96%
MCL	248,361	5.45%	0.00%	8.96%	0.00%	5.45%
MER	653,627	0.02%	0.00%	6.08%	9.38%	5.75%
MID	10,401	2.72%	0.00%	11.57%	0.00%	2.72%
MOL	440,337	<0.01%	<0.01%	20.02%	0.00%	6.70%
PRI	159,208	0.01%	0.00%	22.27%	0.00%	10.59%
THC	67,951	2.63%	0.00%	10.72%	0.00%	2.63%
UNI	319,389	0.00%	0.00%	16.15%	0.00%	5.60%
UPP	57,352	1.64%	0.00%	0.00%	6.96%	1.64%
HEDIS 2018 MWA		**1.57%**	**0.00%**	**11.88%**	**3.40%**	**5.90%**
HEDIS 2017 MWA		**1.33%**	**0.00%**	**12.44%**	**3.25%**	**5.46%**
HEDIS 2016 MWA		**1.23%**	**0.00%**	**12.23%**	**2.89%**	**5.27%**

** Starting from HEDIS 2011, the rates associated with members of Hispanic origin were not based on the total number of members in the health plan. Therefore, the rates presented here were calculated by HSAG using the total number of members reported from the Hispanic or Latino column divided by the total number of members in the health plan reported in the MHP IDSS files.*

Language Diversity of Membership

Measure Definition

Language Diversity of Membership is an unduplicated count and percentage of members enrolled at any time during the measurement year by spoken language preferred for healthcare and the preferred language for written materials.

Results

Table 9-2 shows that the percentage of Michigan members using English as the preferred spoken language for healthcare remained consistent when compared to the previous years, with almost 90 percent of members reporting English as their preferred spoken language for healthcare at the statewide level.

Table 9-2—MHP and MWA Results for Language Diversity of Membership—Spoken Language Preferred for Healthcare

MHP	Eligible Population	English	Non-English	Unknown	Declined
AET	57,443	0.00%	0.00%	100.00%	0.00%
BCC	262,751	97.48%	2.46%	0.06%	0.00%
HAR	13,623	98.98%	0.99%	0.03%	0.00%
MCL	248,361	95.62%	0.77%	3.61%	0.00%
MER	653,627	98.62%	1.35%	0.03%	0.00%
MID	10,401	100.00%	0.00%	0.00%	0.00%
MOL	440,337	98.66%	1.27%	0.07%	0.00%
PRI	159,208	0.00%	0.00%	100.00%	0.00%
THC	67,951	99.13%	0.87%	0.00%	0.00%
UNI	319,389	95.63%	4.37%	<0.01%	0.00%
UPP	57,352	99.95%	0.03%	0.02%	0.00%
HEDIS 2018 MWA		**88.48%**	**1.64%**	**9.88%**	**0.00%**
HEDIS 2017 MWA		**88.52%**	**1.49%**	**10.00%**	**0.00%**
HEDIS 2016 MWA		**88.26%**	**1.11%**	**10.63%**	**0.00%**

Table 9-3 shows that for each MHP over 95 percent of Michigan members who reported a language reported English as the language preferred for written materials. At the statewide level, English remained the preferred language for written materials for most (over 70 percent) Michigan members from HEDIS 2016 to HEDIS 2018.

Table 9-3—MHP and MWA Results for Language Diversity of Membership—Preferred Language for Written Materials

MHP	Eligible Population	English	Non-English	Unknown	Declined
AET	57,443	0.00%	0.00%	100.00%	0.00%
BCC	262,751	97.48%	2.46%	0.06%	0.00%
HAR	13,623	0.00%	0.00%	100.00%	0.00%
MCL	248,361	0.00%	0.00%	100.00%	0.00%
MER	653,627	98.62%	1.35%	0.03%	0.00%
MID	10,401	100.00%	0.00%	0.00%	0.00%
MOL	440,337	98.66%	1.27%	0.07%	0.00%
PRI	159,208	0.00%	0.00%	100.00%	0.00%
THC	67,951	99.13%	0.87%	0.00%	0.00%
UNI	319,389	95.63%	4.37%	<0.01%	0.00%
UPP	57,352	99.95%	0.03%	0.02%	0.00%
HEDIS 2018 MWA		**77.53%**	**1.55%**	**20.93%**	**0.00%**
HEDIS 2017 MWA		**77.72%**	**1.40%**	**20.88%**	**0.00%**
HEDIS 2016 MWA		**70.13%**	**1.08%**	**28.79%**	**0.00%**

Table 9-4 shows that over half of Michigan members reported English as their preferred language for other language needs, and slightly less than half of Michigan members had Unknown listed as their preferred language for other language needs. Please note that *Language Diversity of Membership—Other Language Needs* captures data collected from questions that cannot be mapped to any other category (e.g., What is the primary language spoken at home?).

Table 9-4—MHP and MWA Results for Language Diversity of Membership—Other Language Needs

MHP	Eligible Population	English	Non-English	Unknown	Declined
AET	57,443	99.13%	0.76%	0.11%	0.00%
BCC	262,751	0.00%	0.00%	100.00%	0.00%
HAR	13,623	0.00%	0.00%	100.00%	0.00%
MCL	248,361	0.00%	0.00%	100.00%	0.00%
MER	653,627	98.62%	1.35%	0.03%	0.00%
MID	10,401	100.00%	0.00%	0.00%	0.00%
MOL	440,337	98.66%	1.27%	0.07%	0.00%
PRI	159,208	0.00%	0.00%	100.00%	0.00%
THC	67,951	99.13%	0.87%	0.00%	0.00%
UNI	319,389	0.00%	<0.01%	100.00%	0.00%
UPP	57,352	0.00%	0.00%	100.00%	0.00%
HEDIS 2018 MWA		**52.99%**	**0.68%**	**46.33%**	**0.00%**
HEDIS 2017 MWA		**54.13%**	**0.64%**	**45.23%**	**0.00%**
HEDIS 2016 MWA		**52.71%**	**0.51%**	**46.78%**	**0.00%**

10. Utilization

Introduction

The Utilization measure domain encompasses the following MDHHS measures:

- *Ambulatory Care—Total (Per 1,000 Member Months)*
  - *Emergency Department Visits—Total*
  - *Outpatient Visits—Total*
- *Inpatient Utilization—General Hospital/Acute Care*
  - *Total Inpatient—Discharges per 1,000 Member Months—Total*
  - *Total Inpatient—Average Length of Stay—Total*
  - *Maternity—Discharges per 1,000 Member Months—Total*
  - *Maternity—Average Length of Stay—Total*
  - *Surgery—Discharges per 1,000 Member Months—Total*
  - *Surgery—Average Length of Stay—Total*
  - *Medicine—Discharges per 1,000 Member Months—Total*
  - *Medicine—Average Length of Stay—Total*
- *Use of Opioids From Multiple Providers*
  - *Multiple Prescribers*
  - *Multiple Pharmacies*
  - *Multiple Prescribers and Multiple Pharmacies*
- *Use of Opioids at High Dosage*
  - *Use of Opioids at High Dosage*

The following tables present the HEDIS 2018 MHP-specific rates as well as the Michigan Medicaid Average (MA) for HEDIS 2018, HEDIS 2017, and HEDIS 2016. To align with calculations from prior years, HSAG calculated traditional averages for measure indicators in the Utilization measure domain; therefore, the MA is presented rather than the Medicaid Weighted Average (MWA), which was calculated and presented for all other measures. All measures in this domain are designed to describe the frequency of specific services provided by MHPs and are not risk adjusted. Therefore, it is important to assess utilization supplemented by information on the characteristics of each MHP's population.

Summary of Findings

As stated above, reported rates for the MHPs and MA rates for the Utilization measure domain did not take into account the characteristics of the population; therefore, HSAG could not draw conclusions on performance based on the reported utilization results. Nonetheless, combined with other performance

metrics, the MHP and MA utilization results provide additional information that MHPs and MDHHS may use to assess barriers or patterns of utilization when evaluating improvement interventions.

Measure-Specific Findings

Ambulatory Care—Total (Per 1,000 Member Months)

The *Ambulatory* Care—*Total (Per 1,000 Member Months)* measure summarizes use of ambulatory care for *Emergency Department Visits—Total* and *Outpatient Visits—Total*. In this section, the results for the total age group are presented.

Results

Table 10-1 shows *Emergency Department Visits—Total* and *Outpatient Visits—Total* per 1,000 member months for ambulatory care for the total age group.

Table 10-1—Ambulatory Care—Total (Per 1,000 Member Months) for Total Age Group

MHP	Member Months	Emergency Department Visits—Total*	Outpatient Visits—Total
AET	532,014	82.21	301.45
BCC	2,212,604	64.19	400.42
HAR	105,779	71.57	225.08
MCL	2,239,264	74.32	558.58
MER	5,889,136	73.23	396.18
MID	90,722	71.25	506.48
MOL	4,282,886	70.06	422.90
PRI	1,485,824	71.90	381.02
THC	628,430	70.05	336.34
UNI	3,019,347	69.56	380.46
UPP	533,773	61.07	339.03
HEDIS 2018 MA	—	**70.86**	**386.18**
HEDIS 2017 MA	—	**74.37**	**389.30**
HEDIS 2016 MA	—	**74.00**	**373.49**

** A lower rate may indicate more favorable performance for this measure indicator (i.e., low rates of emergency department services may indicate better utilization of services).*

For the *Emergency Department Visits—Total* and *Outpatient Visits—Total* indicators, the Michigan average remained steady from HEDIS 2016 to HEDIS 2018 for the number of visits per 1,000 member months.

Inpatient Utilization—General Hospital/Acute Care—Total

The *Inpatient Utilization—General Hospital/Acute Care—Total* measure summarizes use of acute inpatient care and services in four categories: *Total Inpatient*, *Medicine*, *Surgery*, and *Maternity*.

Results

Table 10-2 shows the member months for all ages and the *Total Discharges per 1,000 Member Months* for the total age group. The values in the table below are presented for information purposes only.

Table 10-2—Inpatient Utilization—General Hospital/Acute Care: Total Discharges per 1,000 Member Months for Total Age Group

MHP	Member Months	Total Inpatient	Maternity**	Surgery	Medicine
AET	532,335	8.17	2.62	1.75	4.47
BCC	2,212,604	7.55	2.75	1.73	3.68
HAR	105,779	7.43	0.88	1.88	4.30
MCL	2,239,264	8.84	2.66	2.16	4.71
MER	5,889,136	7.55	3.16	1.71	3.57
MID	90,722	12.18	1.19	2.94	8.52
MOL	4,282,886	7.63	2.56	1.85	3.93
PRI	1,485,824	6.80	2.95	1.57	3.17
THC	628,430	10.34	2.40	2.08	6.44
UNI	3,019,347	6.33	2.56	1.49	3.00
UPP	533,773	6.26	2.42	1.81	2.65
HEDIS 2018 MA	—	**8.10**	**2.38**	**1.91**	**4.40**
HEDIS 2017 MA	—	**8.68**	**2.36**	**2.30**	**4.48**
HEDIS 2016 MA	—	**8.27**	**2.59**	**1.83**	**4.52**

*** The Maternity measure indicators were calculated using member months for members 10 to 64 years of age.*

Table 10-3 displays the *Total Average Length of Stay* for all ages and are presented for information purposes only.

Table 10-3—Inpatient Utilization—General Hospital/Acute Care: Total Average Length of Stay for Total Age Group

MHP	Member Months	Total Inpatient	Maternity	Surgery	Medicine
AET	532,335	4.14	2.62	6.47	3.88
BCC	2,212,604	3.98	2.61	6.22	3.72
HAR	105,779	4.89	2.40	6.14	4.82
MCL	2,239,264	4.44	2.24	5.96	4.69
MER	5,889,136	3.99	2.58	6.38	3.74
MID	90,722	5.80	3.03	8.07	5.25
MOL	4,282,886	4.58	2.72	7.69	3.98
PRI	1,485,824	3.62	2.65	4.48	3.85
THC	628,430	4.58	2.69	7.05	4.32
UNI	3,019,347	4.18	2.56	6.74	3.91
UPP	533,773	3.98	2.77	5.67	3.66
HEDIS 2018 MA	—	**4.38**	**2.62**	**6.44**	**4.17**
HEDIS 2017 MA	—	**4.02**	**2.61**	**5.91**	**3.67**
HEDIS 2016 MA	—	**3.98**	**2.63**	**6.18**	**3.64**

Use of Opioids From Multiple Providers

The *Use of Opioids From Multiple Providers* is a first-year measure that summarizes use of prescription opioids received from four or more providers. Three rates are reported: *Multiple Prescribers*, *Multiple Pharmacies*, and *Multiple Prescribers and Multiple Pharmacies*.

Results

Table 10-4 shows the HEDIS 2018 rate per 1,000 members receiving prescription opioids. The values in the table below are presented for information purposes only.

Table 10-4—Use of Opioids From Multiple Providers (Per 1,000 Members)*

MHP	Use of Opioids From Multiple Providers—Eligible Population	Use of Opioids From Multiple Providers—Multiple Prescribers[1]	Use of Opioids From Multiple Providers—Multiple Pharmacies[1]	Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies [1]
AET	3,131	230.92	107.31	60.36
BCC	13,428	203.46	162.05	84.60
HAR	447	255.03	337.81	241.61
MCL	14,317	151.71	87.45	33.88
MER	36,741	214.34	71.53	44.12
MID	1,274	169.54	48.67	28.26
MOL	28,275	224.19	86.93	59.06
PRI	7,197	294.43	91.29	55.72
THC	4,982	199.52	84.30	52.59
UNI	16,940	184.59	1.36	0.83
UPP	2,845	237.61	92.79	65.73
HEDIS 2018 MA	—	**209.04**	**80.47**	**47.15**
HEDIS 2017 MA	—	—	—	—
HEDIS 2016 MA	—	—	—	—

**For this measure, a lower rate indicates better performance.*

[1] *This measure is a first-year measure; therefore, the measure does not have an applicable benchmark.*

Use of Opioids at High Dosage

The *Use of Opioids at High Dosage* is a first-year measure that summarizes use of prescription opioids received at a high dosage.

Results

Table 10-5 shows the HEDIS 2018 rate per 1,000 members receiving prescription opioids at a high dosage. The values in the table below are presented for information purposes only.

Table 10-5—Use of Opioids at High Dosage (Per 1,000 Members)*

MHP	Eligible Population	Rate[1]
AET	2,722	18.37
BCC	11,459	72.08
HAR	387	5.17
MCL	12,702	23.70
MER	32,247	26.48
MID	1,080	0.00
MOL	25,074	21.38
PRI	6,238	39.28
THC	4,435	80.72
UNI	15,030	35.33
UPP	2,549	30.99
HEDIS 2018 MA	—	**33.20**
HEDIS 2017 MA	—	—
HEDIS 2016 MA	—	—

** For this measure, a lower rate indicates better performance.*

[1] This measure is a first-year measure; therefore, the measure does not have an applicable benchmark.

HEDIS Reporting Capabilities—Information Systems Findings

NCQA's IS standards are the guidelines used by certified HEDIS compliance auditors to assess an MHP's ability to report HEDIS data accurately and reliably.[11-1] Compliance with the guidelines also helps an auditor to understand an MHP's HEDIS reporting capabilities. For HEDIS 2018, MHPs were assessed on six IS standards. To assess an MHP's adherence to the IS standards, HSAG reviewed several documents for the MHPs. These included the MHPs' final audit reports (FARs), IS compliance tools, and the IDSS files approved by their respective NCQA-licensed audit organization (LO).

All the Michigan MHPs contracted with the same LOs as they did in the prior year to conduct the NCQA HEDIS Compliance Audit™.[11-2] The MHPs were able to select the LO of their choice. Overall, the Michigan MHPs consistently maintain the same LOs across reporting years.

For HEDIS 2018, all but one MHP contracted with an external software vendor for HEDIS measure production and rate calculation. HSAG reviewed the MHPs' FARs and ensured that these software vendors participated in and passed the NCQA's Measure Certification process. MHPs could purchase the software with certified measures and generate HEDIS measure results internally or provide all data to the software vendor to generate HEDIS measures for them. Either way, using software with NCQA-certified measures may reduce the MHPs' burden for reporting and help ensure rate validity. For the MHP that calculated its rate using internally developed source code, the auditor selected a core set of measures and manually reviewed the programming codes to verify accuracy and compliance with HEDIS 2018 technical specifications.

HSAG found that, in general, all MHPs' IS and processes were compliant with the applicable IS standards and the HEDIS determination reporting requirements related to the measures for HEDIS 2018. The following sections present NCQA's IS standards and summarize the audit findings related to each IS standard for the MHPs.

11-1 National Committee for Quality Assurance. *HEDIS® 2017, Volume 5: HEDIS Compliance Audit™: Standards, Policies and Procedures.* Washington D.C.

11-2 NCQA HEDIS Compliance Audit™ is a trademark of the National Committee for Quality Assurance (NCQA).

IS 1.0—Medical Service Data—Sound Coding Methods and Data Capture, Transfer, and Entry

This standard assesses whether:

- Industry standard codes are used and all characters are captured.
- Principal codes are identified and secondary codes are captured.
- Nonstandard coding schemes are fully documented and mapped back to industry standard codes.
- Standard submission forms are used and capture all fields relevant to measure reporting; all proprietary forms capture equivalent data; and electronic transmission procedures conform to industry standards.
- Data entry processes are timely and accurate and include sufficient edit checks to ensure the accurate entry of submitted data in transaction files for measure reporting.
- The organization continually assesses data completeness and takes steps to improve performance.
- The organization regularly monitors vendor performance against expected performance standards.

All MHPs were fully compliant with *IS 1.0, Medical Service Data—Sound Coding Methods and Data Capture, Transfer, and Entry*. The auditors confirmed that the MHPs captured all necessary data elements appropriately for HEDIS reporting. A majority of the MHPs accepted industry standard codes on industry standard forms. Any nonstandard code that was used for measure reporting was mapped to industry standard code appropriately. Adequate validation processes such as built-in edit checks, data monitoring, and quality control audits were in place to ensure that only complete and accurate claims and encounter data were used for HEDIS reporting.

IS 2.0—Enrollment Data—Data Capture, Transfer, and Entry

This standard assesses whether:

- The organization has procedures for submitting measure-relevant information for data entry, and whether electronic transmissions of membership data have necessary procedures to ensure accuracy.
- Data entry processes are timely and accurate and include sufficient edit checks to ensure accurate entry of submitted data in transaction files.
- The organization continually assesses data completeness and takes steps to improve performance.
- The organization regularly monitors vendor performance against expected performance standards.

All MHPs were fully compliant with *IS 2.0, Enrollment Data—Data Capture, Transfer, and Entry*. Data fields required for HEDIS measure reporting were captured appropriately. Based on the auditors' review, 10 of the MHPs processed eligibility files in a timely manner, but Aetna Better Health of Michigan had timeliness issues related to the processing of newborn enrollments. These issues were corrected by the MHP and reviewed by the auditor, who determined no impact to reporting. Enrollment information housed in the MHPs' systems was reconciled against the enrollment files provided by the

State. Sufficient data validations were in place to ensure that only accurate data were used for HEDIS reporting.

IS 3.0—Practitioner Data—Data Capture, Transfer, and Entry

This standard assesses whether:

- Provider specialties are fully documented and mapped to HEDIS provider specialties necessary for measure reporting.
- The organization has effective procedures for submitting measure-relevant information for data entry, and whether electronic transmissions of practitioner data are checked to ensure accuracy.
- Data entry processes are timely and accurate and include edit checks to ensure accurate entry of submitted data in transaction files.
- The organization continually assesses data completeness and takes steps to improve performance.
- The organization regularly monitors vendor performance against expected performance standards.

Ten of the MHPs were fully compliant with *IS 3.0, Practitioner Data—Data Capture, Transfer, and Entry*, whereas one MHP was only partially compliant with this standard. The MHPs had sufficient processes in place to capture all data elements required for HEDIS reporting. Primary care practitioners and specialists were appropriately identified by all MHPs. Provider specialties were fully and accurately mapped to HEDIS-specified provider types. Adequate validation processes were in place to ensure that only accurate provider data were used for HEDIS reporting.

IS 4.0—Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight

This standard assesses whether:

- Forms capture all fields relevant to measure reporting and whether electronic transmission procedures conform to industry standards and have necessary checking procedures to ensure data accuracy (logs, counts, receipts, hand-off and sign-off).
- Retrieval and abstraction of data from medical records are reliably and accurately performed.
- Data entry processes are timely and accurate and include sufficient edit checks to ensure accurate entry of submitted data in the files for measure reporting.
- The organization continually assesses data completeness and takes steps to improve performance.
- The organization regularly monitors vendor performance against expected performance standards.

All MHPs were fully compliant with *IS 4.0, Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight*. Medical record data were used by all MHPs to report HEDIS hybrid measures. Medical record abstraction tools were reviewed and approved by the MHPs' auditors for HEDIS reporting. Contracted vendor staff or internal staff used by the MHPs had sufficient qualification

and training in the current year's HEDIS technical specifications and the use of MHP-specific abstraction tools to accurately conduct medical record reviews. Sufficient validation processes and edit checks were in place to ensure data completeness and data accuracy. Aetna Better Health of Michigan struggled to provide the auditor with final counts following medical record review validation; however, the auditor received the required documentation to resolve the issues and determined there was no impact to reporting.

IS 5.0—Supplemental Data—Capture, Transfer, and Entry

This standard assesses whether:

- Nonstandard coding schemes are fully documented and mapped to industry standard codes.
- The organization has effective procedures for submitting measure-relevant information for data entry and whether electronic transmissions of data have validation procedures to ensure accuracy.
- Data entry processes are timely and accurate and include edit checks to ensure accurate entry of submitted data in transaction files.
- The organization continually assesses data completeness and takes steps to improve performance.
- The organization regularly monitors vendor performance against expected performance standards.

All MHPs were fully compliant with *IS 5.0, Supplemental Data—Capture, Transfer, and Entry*. Supplemental data sources used by the MHPs were verified and approved by the auditors. The auditors performed primary source verification of a sample of records selected from each nonstandard supplemental database used by the MHPs. In addition, the auditors reviewed the supplemental data impact reports provided by the MHPs for reasonability. Validation processes such as reconciliation between original data sources and MHP-specific data systems, edit checks, and system validations ensured data completeness and data accuracy. There were no issues noted regarding how the MHPs managed the collection, validation, and integration of the various supplemental data sources. The auditors continued to encourage the MHPs to explore ways to maximize the use of supplemental data.

IS 7.0—Data Integration—Accurate HEDIS Reporting, Control Procedures That Support HEDIS Reporting Integrity

This standard assesses whether:

- Nonstandard coding schemes are fully documented and mapped to industry standard codes.
- Data transfers to repository from transaction files are accurate.
- File consolidations, extracts, and derivations are accurate.
- Repository structure and formatting are suitable for measures and enable required programming efforts.
- Report production is managed effectively and operators perform appropriately.

- Measure reporting software is managed properly with regard to development, methodology, documentation, revision control, and testing.
- Physical control procedures ensure measure data integrity such as physical security, data access authorization, disaster recovery facilities, and fire protection.
- The organization regularly monitors vendor performance against expected performance standards.

Ten of the MHPs were fully compliant with *IS 7.0, Data Integration—Accurate HEDIS Reporting Control Procedures That Support HEDIS Reporting Integrity*, and one MHP was not fully compliant with this standard. All the MHPs but one contracted with a software vendor producing NCQA-certified measures to calculate HEDIS rates. For the MHP that did not use a software vendor, the auditor requested, reviewed, and approved source code for a selected core set of HEDIS measures. For all MHPs, the auditors determined that data mapping, data transfers, and file consolidations were sufficient. Adequate validation processes were in place for 10 of the MHPs to ensure that only accurate and complete data were used for HEDIS reporting. Aetna Better Health of Michigan did not have a mechanism in place to monitor or ensure that all data feeds were received for loading. However, the rates submitted were reportable and were not materially biased. The auditors did not document any issues with the MHPs' data integration and report production processes. Sufficient vendor oversight was in place for each MHP using a software vendor.

Glossary

Table 12-1 below provides definitions of terms and acronyms used throughout this report.

Table 12-1—Definition of Terms

Term	Description
ADHD	Attention-deficit/hyperactivity disorder.
Audit Result	The HEDIS auditor's final determination, based on audit findings, of the appropriateness of the MHP to publicly report its HEDIS measure rates. Each measure indicator rate included in the HEDIS audit receives an audit result of *Reportable (R)*, *Small Denominator (NA)*, *Biased Rate (BR)*, *No Benefit (NB)*, *Not Required (NQ)*, *Not Reported (NR)*, and *Unaudited (UN)*.
ADMIN%	Percentage of the rate derived using administrative data (e.g., claims data and immunization registry).
BMI	Body mass index.
BR	Biased Rate; indicates that the MHP's reported rate was invalid, therefore, the rate was not presented.
CVX	Vaccine administered codes.
Data Completeness	The degree to which occurring services/diagnoses appear in the MHP's administrative data systems.
Denominator	The number of members who meet all criteria specified in a measure for inclusion in the eligible population. When using the administrative method, the entire eligible population becomes the denominator. When using the hybrid method, a sample of the eligible population becomes the denominator.
DTaP	Diphtheria, tetanus toxoids, and acellular pertussis vaccine.
ED	Emergency department.
EDD	Estimated date of delivery.
EDI	Electronic data interchange; the direct computer-to-computer transfer of data.
Encounter Data	Billing data received from a capitated provider. (Although the MHP does not reimburse the provider for each encounter, submission of encounter data allows the MHP to collect the data for future HEDIS reporting.)
FAR	Following the MHP's completion of any corrective actions, an auditor completes the final audit report (FAR), documenting all final findings and results of the HEDIS audit. The FAR includes a summary report, IS capabilities assessment, medical record review validation findings, measure results, and the auditor's audit opinion (the final audit statement).

Term	Description
HEDIS	The Healthcare Effectiveness Data and Information Set (HEDIS), developed and maintained by NCQA, is a set of performance measures used to assess the quality of care provided by managed health care organizations.
HEDIS Repository	The data warehouse where all data used for HEDIS reporting are stored.
Hep A	Hepatitis A vaccine.
Hep B	Hepatitis B vaccine.
HiB Vaccine	Haemophilus influenza type B vaccine.
HMO	Health maintenance organization.
HPL	High performance level. (For most performance measures, MDHHS defined the HPL as the most recent national Medicaid 90th percentile. For measures such as *Comprehensive Diabetes Care—HbA1c Poor Control [>9.0%]*, in which lower rates indicate better performance, the 10th percentile [rather than the 90th percentile] is considered the HPL.)
HPV	Human papillomavirus vaccine.
HSAG	Health Services Advisory Group, Inc., the State's external quality review organization.
Hybrid Measures	Measures that can be reported using the hybrid method.
IDSS	The Interactive Data Submission System, a tool used to submit data to NCQA.
IPV	Inactivated polio virus vaccine.
IS	Information system: an automated system for collecting, processing, and transmitting data.
IS Standards	Information System (IS) standards: an NCQA-defined set of standards that measure how an organization collects, stores, analyzes, and reports medical, customer service, member, practitioner, and vendor data.[12-1]
LPL	Low performance level. (For most performance measures, MDHHS defined the LPL as the most recent national Medicaid 25th percentile. For measures such as *Comprehensive Diabetes Care—HbA1c Poor Control [>9.0%]*, in which lower rates in indicate better performance, the 75th percentile [rather than the 25th percentile] is considered the LPL).
Material Bias	For most measures reported as a rate, any error that causes a ± 5 percent difference in the reported rate is considered materially biased. For non-rate measures, any error that causes a ± 10 percent difference in the reported rate or calculation is considered materially biased.
Medical Record Validation	The process that the MHP's medical record abstraction staff uses to identify numerator positive cases.

[12-1] National Committee for Quality Assurance. *HEDIS Compliance Audit Standards, Policies and Procedures, Volume 5*. Washington D.C.

Term	Description
Medicaid Percentiles	The NCQA national percentiles for each HEDIS measure for the Medicaid product line used to compare the MHP's performance and assess the reliability of the MHP's HEDIS rates.
MDHHS	Michigan Department of Health and Human Services.
MHP	Medicaid health plan.
MMR	Measles, mumps, and rubella vaccine.
MRR	Medical record review.
NA	Small Denominator: indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate, resulting in an NA designation.
NB	No Benefit: indicates that the required benefit to calculate the measure was not offered.
NCQA	The National Committee for Quality Assurance (NCQA) is a not-for-profit organization that assesses, through accreditation reviews and standardized measures, the quality of care provided by managed healthcare delivery systems; reports results of those assessments to employers, consumers, public purchasers, and regulators; and ultimately seeks to improve the health care provided within the managed care industry.
NR	Not Reported: indicates that the MHP chose not to report the required HEDIS 2018 measure indicator rate. This designation was assigned to rates during previous reporting years to indicate one of the following designations: The MHP chose not to report the required measure indicator rate, or the MHP's reported rate was invalid.
Numerator	The number of members in the denominator who received all the services as specified in the measure.
NQ	Not Required: indicates that the MHP was not required to report this measure.
OB/GYN	Obstetrician/Gynecologist.
PCP	Primary care practitioner.
PCV	Pneumococcal conjugate vaccine.
POP	Eligible population.
Provider Data	Electronic files containing information about physicians such as type of physician, specialty, reimbursement arrangement, and office location.
RV	Rotavirus vaccine.
Software Vendor	A third party, with source code certified by NCQA, that contracts with the MHP to write source code for HEDIS measures. (For the measures to be certified, the vendor must submit programming codes associated with the measure to NCQA for automated testing of program logic, and a minimum percentage of the measures must receive a "Pass" or "Pass With Qualifications" designation.)

Term	Description
UN	Unaudited: indicates that the organization chose to report a measure that is not required to be audited. This result applies only to a limited set of measures.
URI	Upper respiratory infection.
Quality Compass	NCQA Quality Compass benchmark.
VZV	Varicella zoster virus (chicken pox) vaccine.

Appendix A. Tabular Results

Appendix A presents tabular results for each measure indicator. Where applicable, the results provided include the eligible population and rate as well as the Michigan Medicaid Weighted Average (MWA) for HEDIS 2016, HEDIS 2017, and HEDIS 2018. To align with calculations from prior years, HSAG calculated traditional averages for measure indicators in the Utilization measure domain; therefore, the Medicaid Average (MA) is presented for utilization-based measures. Yellow shading with one cross ($^{+}$) indicates that the HEDIS 2018 rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Child & Adolescent Care Performance Measure Results

Table A-1—MHP and MWA Results for Childhood Immunization Status

Plan	Eligible Population	Combo 2 Rate	Combo 3 Rate	Combo 4 Rate	Combo 5 Rate	Combo 6 Rate	Combo 7 Rate	Combo 8 Rate	Combo 9 Rate	Combo 10 Rate
AET	799	63.26%	57.18%	56.69%	48.91%	23.36%	48.42%	23.11%	20.68%	20.44%
BCC	2,400	74.45%	72.02%+	70.32%+	63.02%+	41.12%+	61.80%+	40.39%+	36.50%+	36.01%+
HAR	154	59.48%	52.94%	51.63%	42.48%	20.92%	41.83%	20.92%	18.95%	18.95%
MCL	3,448	73.72%	70.80%	68.86%	63.02%+	36.50%	61.31%+	36.01%	33.09%	32.60%
MER	10,043	78.10%+	73.72%+	72.02%+	64.48%+	41.61%+	63.26%+	41.36%+	37.96%+	37.71%+
MID	24	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOL	6,708	76.60%+	71.68%+	69.78%+	60.29%+	36.61%	59.06%+	36.21%	31.60%	31.31%
PRI	2,490	82.97%+	81.02%+	79.56%+	73.48%+	56.20%+	72.02%+	55.47%+	51.82%+	51.09%+
THC	822	71.29%	65.45%	64.48%	53.77%	32.12%	53.04%	31.63%	27.25%	27.01%
UNI	4,547	75.91%+	71.53%	71.29%+	61.56%+	37.71%	61.56%+	37.71%	34.31%+	34.31%+
UPP	887	73.97%	70.56%	67.40%	56.93%	48.18%+	55.23%	47.20%+	41.85%+	41.61%+
HEDIS 2018 MWA		**76.35%+**	**72.28%+**	**70.75%+**	**62.63%+**	**39.93%+**	**61.53%+**	**39.56%+**	**35.85%+**	**35.55%+**
HEDIS 2017 MWA		**76.95%**	**72.84%**	**70.43%**	**61.73%**	**39.84%**	**60.05%**	**39.20%**	**34.47%**	**33.98%**
HEDIS 2016 MWA		**76.15%**	**71.05%**	**67.50%**	**58.78%**	**40.45%**	**56.15%**	**39.27%**	**34.97%**	**33.92%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-2—MHP and MWA Results for Immunizations for Adolescents

Plan	Eligible Population	Combination 1 Rate
AET	795	81.75%+
BCC	2,080	88.08%+
HAR	64	75.00%
MCL	3,268	84.18%+
MER	7,923	83.45%+
MID	17	NA
MOL	7,510	86.87%+
PRI	2,168	87.59%+
THC	1,081	85.16%+
UNI	5,230	84.91%+
UPP	760	80.78%+
HEDIS 2018 MWA		**85.14%+**
HEDIS 2017 MWA		**86.73%**
HEDIS 2016 MWA		**86.99%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-3—MHP and MWA Results for Well-Child Visits and Adolescent Well-Care Visits

Plan	Well-Child Visits in the First 15 Months of Life—Six or More Visits—Eligible Population	Well-Child Visits in the First 15 Months of Life—Six or More Visits—Rate	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life—Eligible Population	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life—Rate	Adolescent Well-Care Visits—Eligible Population	Adolescent Well-Care Visits—Rate
AET	547	49.39%	3,397	67.84%	7,622	51.82%+
BCC	2,002	66.67%+	10,852	68.86%	20,210	54.74%+
HAR	57	43.86%	589	61.31%	708	30.41%
MCL	2,793	70.32%+	14,698	69.10%	26,736	45.50%
MER	8,315	76.40%+	41,017	78.83%+	66,036	60.34%+
MID	9	NA	126	57.14%	203	31.03%
MOL	5,455	70.56%+	30,330	75.08%+	61,981	54.39%+
PRI	2,079	77.30%+	10,077	75.41%+	18,158	61.67%+
THC	642	70.32%+	3,935	74.45%+	9,213	55.96%+
UNI	3,720	68.61%+	21,920	77.37%+	44,073	63.26%+
UPP	918	72.75%+	3,550	75.18%+	6,478	47.93%
HEDIS 2018 MWA		**71.89%+**		**75.19%+**		**56.75%+**
HEDIS 2017 MWA		**69.79%**		**76.09%**		**55.69%**
HEDIS 2016 MWA		**66.22%**		**75.11%**		**54.74%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-4—MHP and MWA Results for Lead Screening in Children

Plan	Eligible Population	Rate
AET	799	72.99%+
BCC	2,400	76.64%+
HAR	153	72.55%+
MCL	3,457	85.16%+
MER	10,043	81.02%+
MID	24	NA
MOL	6,723	78.83%+
PRI	2,490	84.54%+
THC	822	70.80%
UNI	4,547	81.51%+
UPP	887	82.73%+
HEDIS 2018 MWA		**80.55%+**
HEDIS 2017 MWA		**80.98%**
HEDIS 2016 MWA		**79.55%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-5—MHP and MWA Results for Appropriate Treatment for Children With Upper Respiratory Infection

Plan	Eligible Population	Rate
AET	575	91.65%+
BCC	2,724	88.36%
HAR	113	93.81%+
MCL	3,558	85.58%
MER	11,566	87.90%
MID	37	81.08%
MOL	8,165	87.40%
PRI	2,824	93.94%+
THC	1,024	92.09%+
UNI	7,148	90.42%+
UPP	905	93.59%+
HEDIS 2018 MWA		**88.83%**
HEDIS 2017 MWA		**88.94%**
HEDIS 2016 MWA		**89.09%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-6—MHP and MWA Results for Appropriate Testing for Children With Pharyngitis

Plan	Eligible Population	Rate
AET	324	70.68%
BCC	1,704	81.63%+
HAR	36	72.22%
MCL	3,263	83.27%+
MER	8,854	80.53%+
MID	20	NA
MOL	6,259	75.12%
PRI	2,198	86.44%+
THC	553	69.62%
UNI	4,689	76.71%+
UPP	625	80.16%+
HEDIS 2018 MWA		**79.20%+**
HEDIS 2017 MWA		**70.91%**
HEDIS 2016 MWA		**68.41%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-7—MHP and MWA Results for Follow-Up Care for Children Prescribed ADHD Medication Phase—Initiation Phase and Continuation and Maintenance Phase

Plan	Initiation Phase—Eligible Population	Initiation Phase—Rate[1]	Continuation and Maintenance Phase—Eligible Population	Continuation and Maintenance Phase—Rate[1]
AET	229	23.14%	34	47.06%
BCC	515	48.35%+	115	62.61%+
HAR	25	NA	0	NA
MCL	972	45.37%+	320	57.50%+
MER	3,945	40.71%	1,409	47.91%
MID	3	NA	2	NA
MOL	2,118	48.91%+	537	61.82%+
PRI	155	36.13%	52	40.38%
THC	277	53.79%+	42	66.67%+
UNI	1,634	44.49%	405	58.02%+
UPP	255	48.24%+	103	52.43%
HEDIS 2018 MWA		**43.86%**		**53.56%**
HEDIS 2017 MWA		**42.54%**		**55.03%**
HEDIS 2016 MWA		**42.58%**		**53.96%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.
[1]Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when comparing rates between 2018 and prior years.

Women—Adult Care Performance Measure Results

Table A-8—MHP and MWA Results for Breast and Cervical Cancer Screening in Women

Plan	Breast Cancer Screening—Eligible Population	Breast Cancer Screening—Rate[1]	Cervical Cancer Screening—Eligible Population	Cervical Cancer Screening—Rate
AET	1,307	55.55%	7,912	60.26%+
BCC	3,101	60.24%	33,038	61.80%+
HAR	194	65.46%	1,189	47.20%
MCL	6,389	62.86%	34,888	61.80%+
MER	14,705	64.17%	97,876	65.21%+
MID	942	55.41%	1,395	52.93%
MOL	11,880	61.50%	70,476	72.34%+
PRI	4,268	63.99%	23,125	68.85%+
THC	2,013	50.82%	10,044	60.10%+
UNI	8,466	62.65%	46,844	67.88%+
UPP	1,765	64.08%	9,251	63.02%+
HEDIS 2018 MWA		**62.13%**		**66.19%+**
HEDIS 2017 MWA		—		**64.84%**
HEDIS 2016 MWA		—		**63.79%**

Yellow shading with one cross (+) indicates the HEDIS 2017 MHP or MWA rate was at or above the Quality Compass HEDIS 2016 national Medicaid 50th percentile.

[1] *Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.*

Table A-9—MHP and MWA Results for Chlamydia Screening in Women

Plan	Ages 16 to 20 Years—Eligible Population	Ages 16 to 20 Years—Rate	Ages 21 to 24 Years—Eligible Population	Ages 21 to 24 Years—Rate	Total—Eligible Population	Total—Rate
AET	1,175	70.30%+	729	73.39%+	1,904	71.48%+
BCC	2,684	63.52%+	2,729	69.29%+	5,413	66.43%+
HAR	98	73.47%+	107	73.83%+	205	73.66%+
MCL	3,798	53.79%+	2,968	62.43%	6,766	57.58%+
MER	9,145	62.30%+	8,626	68.50%+	17,771	65.31%+
MID	25	NA	48	52.08%	73	57.53%+
MOL	8,289	65.16%+	5,880	70.44%+	14,169	67.35%+
PRI	2,585	65.53%+	1,870	68.61%+	4,455	66.82%+
THC	1,331	68.07%+	800	70.00%+	2,131	68.79%+
UNI	5,736	67.29%+	3,841	70.87%+	9,577	68.73%+
UPP	927	46.17%	672	60.71%	1,599	52.28%
HEDIS 2018 MWA		**63.28%+**		**68.65%+**		**65.65%+**
HEDIS 2017 MWA		**62.27%**		**68.89%**		**65.23%**
HEDIS 2016 MWA		**60.75%**		**67.85%**		**63.86%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Access to Care Performance Measure Results

Table A-10—MHP and MWA Results for Children and Adolescents' Access to Primary Care Practitioners

Plan	Ages 12 to 24 Months—Eligible Population	Ages 12 to 24 Months— Rate	Ages 25 Months to 6 Years—Eligible Population	Ages 25 Months to 6 Years— Rate	Ages 7 to 11 Years—Eligible Population	Ages 7 to 11 Years—Rate	Ages 12 to 19 Years—Eligible Population	Ages 12 to 19 Years—Rate
AET	916	89.30%	4,215	80.69%	3,439	84.97%	5,400	82.70%
BCC	3,598	93.83%	13,435	84.89%	6,380	89.84%	8,980	88.42%
HAR	228	82.46%	773	69.86%	240	77.50%	230	69.13%
MCL	4,118	92.30%	18,204	83.68%	13,107	88.57%	18,012	87.18%
MER	12,455	96.84%+	51,218	90.53%+	34,262	92.59%+	41,615	92.06%+
MID	46	76.09%	163	66.87%	31	74.19%	48	70.83%
MOL	7,714	95.41%	37,038	88.71%+	32,274	91.63%+	44,581	90.83%+
PRI	3,321	96.18%+	12,481	86.67%	8,270	90.54%	11,237	91.09%+
THC	953	92.76%	4,779	83.03%	3,894	87.90%	6,499	86.71%
UNI	5,220	95.11%	26,425	88.96%+	23,490	91.73%+	31,222	91.91%+
UPP	1,089	97.15%+	4,381	89.84%+	3,310	92.15%+	4,428	92.03%+
HEDIS 2018 MWA		**95.16%**		**87.89%+**		**91.13%+**		**90.42%+**
HEDIS 2017 MWA		**96.06%**		**89.08%**		**91.39%**		**90.79%**
HEDIS 2016 MWA		**96.20%**		**88.79%**		**90.85%**		**89.86%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-11—MHP and MWA Results for Adults' Access to Preventive/Ambulatory Health Services

Plan	Ages 20 to 44 Years—Eligible Population	Ages 20 to 44 Years—Rate	Ages 45 to 64 Years—Eligible Population	Ages 45 to 64 Years—Rate	Ages 65+ Years—Eligible Population	Ages 65+ Years—Rate	Total—Eligible Population	Total—Rate
AET	9,993	68.58%	6,099	80.70%	41	82.93%	16,133	73.20%
BCC	42,277	75.08%	26,548	84.08%	285	83.16%	69,110	78.57%
HAR	2,126	50.05%	1,506	70.72%	10	NA	3,642	58.62%
MCL	42,151	78.71%	28,398	87.89%+	51	84.31%	70,600	82.41%+
MER	115,702	80.45%+	66,207	88.81%+	2,131	94.89%+	184,040	83.63%+
MID	1,338	70.18%	1,584	89.20%+	2,085	87.67%+	5,007	83.48%+
MOL	79,816	79.17%+	52,945	88.11%+	4,226	92.66%+	136,987	83.04%+
PRI	24,968	80.88%+	15,622	89.42%+	1,475	93.56%+	42,065	84.49%+
THC	11,798	74.92%	8,524	84.31%	167	79.64%	20,489	78.87%
UNI	54,507	78.88%	34,626	88.66%+	399	95.99%+	89,532	82.74%+
UPP	10,455	82.87%+	6,915	87.40%+	13	NA	17,383	84.66%+
HEDIS 2018 MWA		**78.64%**		**87.57%+**		**91.79%+**		**82.25%+**
HEDIS 2017 MWA		**81.68%**		**89.21%**		**90.26%**		**84.73%**
HEDIS 2016 MWA		**82.76%**		**89.81%**		**91.15%**		**85.62%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-12—MHP and MWA Results for Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis

Plan	Eligible Population	Rate
AET	316	37.03%+
BCC	1,401	30.84%+
HAR	50	30.00%+
MCL	1,839	29.91%+
MER	5,052	30.32%+
MID	57	35.09%+
MOL	3,713	33.02%+
PRI	1,251	42.29%+
THC	500	30.80%+
UNI	2,720	33.20%+
UPP	531	25.24%
HEDIS 2018 MWA		**32.20%+**
HEDIS 2017 MWA		**29.23%**
HEDIS 2016 MWA		**26.94%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Obesity Performance Measure Results

Table A-13—MHP and MWA Results for Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents

Plan	Eligible Population	BMI Percentile—Total—Rate	Counseling for Nutrition—Total—Rate	Counseling for Physical Activity—Total—Rate
AET	9,003	87.78%+	75.06%+	65.34%+
BCC	27,261	82.24%+	74.94%+	64.72%+
HAR	839	70.32%	66.67%	46.96%
MCL	37,076	81.02%+	63.99%	56.45%
MER	110,914	82.24%+	72.51%+	67.15%+
MID	178	73.86%+	64.20%	56.25%
MOL	89,964	84.64%+	76.82%+	68.75%+
PRI	26,947	95.32%+	81.87%+	79.53%+
THC	10,815	78.59%+	73.72%+	57.91%
UNI	67,537	85.89%+	77.86%+	70.32%+
UPP	10,281	89.78%+	72.26%+	70.80%+
HEDIS 2018 MWA		**84.40%+**	**74.50%+**	**67.49%+**
HEDIS 2017 MWA		**82.10%**	**72.21%**	**61.24%**
HEDIS 2016 MWA		**74.93%**	**65.77%**	**57.88%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-14—MHP and MWA Results for Adult BMI Assessment

Plan	Eligible Population	Rate
AET	9,198	94.34%+
BCC	28,899	91.73%+
HAR	1,365	71.07%
MCL	41,780	93.67%+
MER	105,811	94.89%+
MID	2,368	91.28%+
MOL	89,173	96.00%+
PRI	23,703	97.00%+
THC	12,618	84.67%
UNI	57,628	94.65%+
UPP	11,127	96.84%+
HEDIS 2018 MWA		**94.47%+**
HEDIS 2017 MWA		**92.86%**
HEDIS 2016 MWA		**89.92%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Pregnancy Care Performance Measure Results

Table A-15—MHP and MWA Results for Prenatal and Postpartum Care

Plan	Eligible Population	Timeliness of Prenatal Care—Rate	Postpartum Care—Rate
AET	807	72.26%	53.28%
BCC	3,537	76.40%	60.58%
HAR	116	35.34%	46.55%
MCL	3,431	77.86%	66.67%+
MER	10,719	85.40%+	67.15%+
MID	61	55.74%	59.02%
MOL	6,485	77.32%	73.80%+
PRI	2,532	83.45%	71.53%+
THC	879	63.99%	48.18%
UNI	4,506	78.83%	67.15%+
UPP	833	92.94%+	73.72%+
HEDIS 2018 MWA		**80.23%**	**67.27%+**
HEDIS 2017 MWA		**81.57%**	**68.96%**
HEDIS 2016 MWA		**78.63%**	**61.73%**

Yellow shading with one cross (+) indicates the HEDIS 2017 MHP or MWA rate was at or above the Quality Compass HEDIS 2016 national Medicaid 50th percentile.

Living With Illness Performance Measure Results

Table A-16—MHP and MWA Results for Comprehensive Diabetes Care

Plan	Eligible Population	Hemoglobin A1c (HbA1c) Testing—Rate	HbA1c Control (<8.0%)—Rate	Eye Exam (Retinal) Performed—Rate	Blood Pressure Control (<140 90 mmHg)—Rate	HbA1c Poor Control (>9.0%)—Rate*	Medical Attention for Nephropathy—Rate
AET	1,782	78.59%	45.74%	47.93%	47.69%	45.99%	91.24%+
BCC	7,123	86.31%	47.81%	55.84%+	61.50%+	43.61%	90.33%+
HAR	326	77.61%	40.18%	41.41%	39.26%	53.07%	88.04%
MCL	7,609	90.27%+	45.74%	64.23%+	69.34%+	43.80%	90.02%
MER	19,402	88.04%+	51.47%+	69.84%+	66.90%+	38.65%+	90.64%+
MID	1,103	85.16%	52.31%+	59.37%+	60.58%	37.47%+	92.94%+
MOL	17,473	90.42%+	54.55%+	62.16%+	51.11%	33.91%+	92.87%+
PRI	4,933	94.07%+	67.01%+	73.71%+	76.80%+	22.68%+	94.85%+
THC	2,546	82.00%	38.93%	50.61%	41.85%	52.07%	90.02%
UNI	11,297	89.29%+	57.29%+	64.43%+	66.29%+	31.29%+	94.43%+
UPP	1,572	92.32%+	60.00%+	71.25%+	77.50%+	30.00%+	91.07%+
HEDIS 2018 MWA		**88.81%+**	**52.73%+**	**64.18%+**	**62.23%+**	**36.88%+**	**91.94%+**
HEDIS 2017 MWA		**87.79%**	**53.16%**	**62.85%**	**61.73%**	**36.07%**	**91.14%**
HEDIS 2016 MWA		**86.89%**	**50.91%**	**59.61%**	**59.38%**	**39.30%**	**91.28%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
** For this indicator, a lower rate indicates better performance.*

Table A-17—MHP and MWA Results for Medication Management for People With Asthma

Plan	Eligible Population	Medication Compliance 50%—Total—Rate[1]	Medication Compliance 75%—Total—Rate
AET	509	57.17%	29.47%
BCC	1,661	88.38%+	73.33%+
HAR	33	69.70%+	36.36%+
MCL	2,445	66.01%+	43.52%+
MER	4,781	72.29%+	51.22%+
MID	36	77.78%+	72.22%+
MOL	4,349	62.41%+	38.56%+
PRI	1,451	65.82%+	45.07%+
THC	633	87.36%+	72.51%+
UNI	3,006	75.52%+	57.49%+
UPP	552	71.01%+	46.56%+
HEDIS 2018 MWA		**70.74%+**	**49.83%+**
HEDIS 2017 MWA		**71.33%**	**49.96%**
HEDIS 2016 MWA		**67.13%**	**43.79%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

[1]Please note, the Medication Compliance 50%-Total measure indicator was compared to the 2017 national Medicaid NCQA Audit Means and Percentiles as Quality Compass benchmarks are not available for this measure.

Table A-18—MHP and MWA Results for Asthma Medication Ratio

Plan	Eligible Population	Rate
AET	677	57.46%
BCC	2,003	55.92%
HAR	41	58.54%
MCL	2,912	67.03%+
MER	5,767	60.17%
MID	58	25.86%
MOL	5,403	63.06%+
PRI	1,636	73.04%+
THC	881	52.33%
UNI	3,670	62.26%+
UPP	721	59.92%
HEDIS 2018 MWA		**62.06%**
HEDIS 2017 MWA		**62.63%**
HEDIS 2016 MWA		**62.18%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-19—MHP and MWA Results for Controlling High Blood Pressure

Plan	Eligible Population	Rate
AET	3,437	49.76%
BCC	12,115	46.96%
HAR	637	28.71%
MCL	12,007	61.56%+
MER	31,374	67.15%+
MID	1,854	51.14%
MOL	29,416	51.82%
PRI	7,460	65.57%+
THC	4,659	29.68%
UNI	17,101	64.48%+
UPP	2,378	72.75%+
HEDIS 2018 MWA		**58.21%+**
HEDIS 2017 MWA		**56.75%**
HEDIS 2016 MWA		**55.54%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-20—MHP and MWA Results for Medical Assistance With Smoking and Tobacco Use Cessation

Plan	Eligible Population	Advising Smokers and Tobacco Users to Quit—Rate	Discussing Cessation Medications—Rate	Discussing Cessation Strategies—Rate
AET	41,841	81.10%+	61.81%+	57.71%+
BCC	175,714	77.50%+	54.48%+	45.36%+
HAR	5,584	80.79%+	63.16%+	52.61%+
MCL	170,771	76.54%	54.55%+	46.27%+
MER	475,867	81.25%+	54.90%+	45.79%+
MID	11,281	83.27%+	60.65%+	48.01%+
MOL	332,032	81.08%+	58.57%+	46.01%+
PRI	73,665	83.65%+	60.90%+	48.08%+
THC	44,480	78.67%+	57.96%+	45.73%+
UNI	228,021	83.54%+	61.27%+	52.87%+
UPP	41,805	77.95%+	56.82%+	46.65%+
HEDIS 2018 MWA		**80.59%+**	**57.14%+**	**47.32%+**
HEDIS 2017 MWA		**80.15%**	**55.95%**	**45.89%**
HEDIS 2016 MWA		**79.75%**	**55.04%**	**45.20%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-21—MHP and MWA Results for Antidepressant Medication Management

Plan	Eligible Population	Effective Acute Phase Treatment—Rate[1]	Effective Continuation Phase Treatment—Rate[1]
AET	620	47.10%	33.39%
BCC	2,903	77.13%+	61.87%+
HAR	52	57.69%+	42.31%+
MCL	4,012	58.05%+	40.80%+
MER	12,343	54.45%+	36.08%
MID	131	52.67%+	33.59%
MOL	5,873	54.54%+	37.54%+
PRI	94	71.28%+	51.06%+
THC	739	68.20%+	55.35%+
UNI	3,918	61.66%+	46.89%+
UPP	640	59.84%+	41.41%+
HEDIS 2018 MWA		**58.27%+**	**41.25%+**
HEDIS 2017 MWA		**52.72%**	**36.03%**
HEDIS 2016 MWA		**60.36%**	**42.21%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

[1] *Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when comparing rates between 2018 and prior years.*

Table A-22—MHP and MWA Results for Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications

Plan	Eligible Population	Rate
AET	343	87.76%+
BCC	2,349	81.57%+
HAR	36	83.33%+
MCL	3,623	82.06%+
MER	4,850	85.63%+
MID	283	72.79%
MOL	4,409	85.87%+
PRI	693	84.56%+
THC	461	83.73%+
UNI	2,004	85.33%+
UPP	399	87.97%+
HEDIS 2018 MWA		**84.31%+**
HEDIS 2017 MWA		**83.09%**
HEDIS 2016 MWA		**82.61%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

Table A-23—MHP and MWA Results for Diabetes Monitoring for People With Diabetes and Schizophrenia

Plan	Eligible Population	Rate
AET	70	64.29%
BCC	219	63.01%
HAR	8	NA
MCL	281	77.58%+
MER	455	71.65%+
MID	56	71.43%+
MOL	686	70.70%+
PRI	93	56.99%
THC	97	59.79%
UNI	308	71.10%+
UPP	25	NA
HEDIS 2018 MWA		**69.97%**
HEDIS 2017 MWA		**69.01%**
HEDIS 2016 MWA		**69.98%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.
NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-24—MHP and MWA Results for Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia

Plan	Eligible Population	Rate
AET	16	NA
BCC	37	75.68%
HAR	2	NA
MCL	26	NA
MER	73	76.71%
MID	7	NA
MOL	119	77.31%
PRI	12	NA
THC	16	NA
UNI	65	75.38%
UPP	3	NA
HEDIS 2018 MWA		**76.86%**
HEDIS 2017 MWA		**69.64%**
HEDIS 2016 MWA		**74.46%**

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-25—MHP and MWA Results for Adherence to Antipsychotic Medications for Individuals With Schizophrenia

Plan	Eligible Population	Rate
AET	241	53.53%
BCC	1,093	55.99%
HAR	23	NA
MCL	1,250	70.56%+
MER	1,488	67.07%+
MID	201	71.14%+
MOL	2,374	64.74%+
PRI	235	64.26%+
THC	286	48.95%
UNI	972	55.04%
UPP	107	82.24%+
HEDIS 2018 MWA		**63.18%+**
HEDIS 2017 MWA		**61.16%**
HEDIS 2016 MWA		**58.76%**

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

Table A-26—MHP and MWA Results for Annual Monitoring for Patients on Persistent Medications

Plan	ACE Inhibitors or ARBs—Eligible Population	ACE Inhibitors or ARBs—Rate	Diuretics—Eligible Population	Diuretics—Rate	Total—Eligible Population	Total—Rate[1]
AET	1,813	87.26%	1,555	86.24%	3,368	86.79%
BCC	9,059	86.11%	7,163	85.52%	16,222	85.85%
HAR	317	85.17%	266	83.83%	583	84.56%
MCL	8,711	85.90%	5,972	86.89%	14,683	86.30%
MER	18,252	83.26%	12,527	83.70%	30,779	83.44%
MID	1,457	85.45%	1,045	85.65%	2,502	85.53%
MOL	18,408	88.48%+	13,678	88.54%+	32,086	88.51%
PRI	5,115	88.29%+	3,478	87.81%	8,593	88.09%
THC	3,312	87.17%	2,751	86.04%	6,063	86.66%
UNI	11,137	88.88%+	7,690	88.73%+	18,827	88.82%
UPP	1,960	87.50%	1,347	87.53%	3,307	87.51%
HEDIS 2018 MWA		**86.60%**		**86.64%**		**86.62%**
HEDIS 2017 MWA		**87.00%**		**87.08%**		—
HEDIS 2016 MWA		**87.20%**		**86.88%**		—

Yellow shading with one cross (+) indicates the HEDIS 2018 MHP or MWA rate was at or above the Quality Compass HEDIS 2017 national Medicaid 50th percentile.

[1] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

Health Plan Diversity and Utilization Measure Results

The Health Plan Diversity and Utilization measures' MHP and MWA results are presented in tabular format in Section 9 and Section 10 of this report.

Appendix B. Trend Tables

Appendix B includes trend tables for the MHPs. Where applicable, each measure's HEDIS 2016, HEDIS 2017, and HEDIS 2018 rates are presented. HEDIS 2017 and HEDIS 2018 rates were compared based on a Chi-square test of statistical significance with a *p* value <0.05. Values in the 2017–2018 Comparison column that are shaded green with one cross ($^{+}$) indicate statistically significant improvement from the previous year. Values in the 2017–2018 Comparison column shaded red with two crosses ($^{++}$) indicate a statistically significant decline in performance from the previous year.

Details regarding the trend analysis and performance ratings are found in Section 2.

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	68.75%	69.68%	63.26%	-6.42++	★
Combination 3	60.88%	64.12%	57.18%	-6.94++	★
Combination 4	58.80%	63.43%	56.69%	-6.74++	★
Combination 5	49.77%	50.69%	48.91%	-1.78	★
Combination 6	29.40%	27.08%	23.36%	-3.72	★
Combination 7	48.61%	50.00%	48.42%	-1.58	★
Combination 8	29.17%	27.08%	23.11%	-3.97	★
Combination 9	24.31%	22.92%	20.68%	-2.24	★
Combination 10	24.31%	22.92%	20.44%	-2.48	★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	44.68%	48.61%	49.39%	+0.78	★
Lead Screening in Children					
Lead Screening in Children	73.61%	73.15%	72.99%	-0.16	★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	71.30%	71.67%	67.84%	-3.83	★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	51.39%	48.84%	51.82%	+2.98	★★★
Immunizations for Adolescents					
Combination 1	89.68%	82.87%	81.75%	-1.12	★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	89.72%	90.49%	91.65%	+1.16	★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	55.44%	62.92%	70.68%	+7.76+	★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	23.73%	19.46%	23.14%	+3.68	★
Continuation and Maintenance Phase	36.59%	32.26%	47.06%	+14.80	★

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	55.55%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	64.47%	64.07%	60.26%	-3.81	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	66.77%	69.86%	70.30%	+0.44	★★★★★
Ages 21 to 24 Years	71.24%	76.35%	73.39%	-2.96	★★★★★
Total	68.44%	72.25%	71.48%	-0.77	★★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	90.84%	86.31%	89.30%	+2.99	★
Ages 25 Months to 6 Years	81.16%	83.09%	80.69%	-2.40++	★
Ages 7 to 11 Years	86.76%	85.88%	84.97%	-0.91	★
Ages 12 to 19 Years	83.70%	83.04%	82.70%	-0.34	★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	76.58%	72.47%	68.58%	-3.89++	★
Ages 45 to 64 Years	85.73%	82.70%	80.70%	-2.00++	★
Ages 65+ Years	NA	NA	82.93%	NC	★★
Total	80.23%	76.42%	73.20%	-3.22++	★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	35.83%	32.89%	37.03%	+4.14	★★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	70.30%	78.01%	87.78%	+9.77+	★★★★★
Counseling for Nutrition—Total	64.60%	71.30%	75.06%	+3.76	★★★
Counseling for Physical Activity—Total[4]	55.45%	58.80%	65.34%	+6.54	★★★
Adult BMI Assessment					
Adult BMI Assessment	90.21%	90.96%	94.34%	+3.38	★★★★★

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	62.38%	65.89%	72.26%	+6.37[+]	★
Postpartum Care	45.56%	51.74%	53.28%	+1.54	★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	84.36%	86.31%	78.59%	-7.72[++]	★
*HbA1c Poor Control (>9.0%)**	46.41%	42.38%	45.99%	+3.61	★★
HbA1c Control (<8.0%)	45.38%	48.34%	45.74%	-2.60	★★
Eye Exam (Retinal) Performed	49.36%	47.90%	47.93%	+0.03	★★
Medical Attention for Nephropathy	91.03%	92.05%	91.24%	-0.81	★★★
Blood Pressure Control (<140/90 mm Hg)	52.18%	55.41%	47.69%	-7.72[++]	★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	66.55%	83.19%	57.17%	-26.02[++]	★★
Medication Compliance 75%—Total	39.93%	63.26%	29.47%	-33.79[++]	★★
Asthma Medication Ratio					
Total	41.49%	61.03%	57.46%	-3.57	★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	39.91%	52.93%	49.76%	-3.17	★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	79.92%	80.65%	81.10%	+0.45	★★★★
Discussing Cessation Medications	55.74%	58.06%	61.81%	+3.75	★★★★★
Discussing Cessation Strategies	46.22%	51.63%	57.71%	+6.08	★★★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	37.84%	52.90%	47.10%	-5.80	★

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	24.59%	40.00%	33.39%	-6.61[++]	★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	83.87%	80.47%	87.76%	+7.29[+]	★★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	66.00%	57.81%	64.29%	+6.48	★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	51.37%	55.87%	53.53%	-2.34	★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	82.94%	84.25%	87.26%	+3.01[+]	★★
Diuretics	83.69%	85.50%	86.24%	+0.74	★★
Total[4]	—	—	86.79%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	18.01%	26.93%	26.57%	-0.36	NC
Total—Black or African American	70.29%	60.30%	60.54%	+0.24	NC
Total—American-Indian and Alaska Native	0.12%	0.15%	0.15%	0.00	NC
Total—Asian	0.60%	0.66%	0.65%	-0.01	NC

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.03%	0.04%	0.06%	+0.02	NC
Total—Some Other Race	0.00%	0.00%	0.00%	0.00	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	9.89%	5.66%	4.43%	-1.23	NC
Total—Declined	1.07%	6.26%	7.61%	+1.35	NC
Total—Hispanic or Latino	2.58%	2.92%	3.14%	+0.22	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Non-English	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Unknown	100.00%	100.00%	100.00%	0.00	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Non-English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Unknown	100.00%	100.00%	100.00%	0.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	99.34%	99.25%	99.13%	-0.12	NC
Other Language Needs—Non-English	0.15%	0.63%	0.76%	+0.13	NC
Other Language Needs—Unknown	0.50%	0.13%	0.11%	-0.02	NC

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	83.70	83.32	82.21	-1.11	★
Outpatient Visits—Total	267.80	299.52	301.45	+1.93	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	7.76	8.43	8.17	-0.26	NC
Total Inpatient—Average Length of Stay—Total	3.81	3.93	4.14	+0.21	NC
Maternity—Discharges per 1,000 Member Months—Total	2.20	2.05	2.62	+0.57	NC
Maternity—Average Length of Stay—Total	2.83	2.58	2.62	+0.04	NC
Surgery—Discharges per 1,000 Member Months—Total	1.34	2.05	1.75	-0.30	NC
Surgery—Average Length of Stay—Total	6.03	6.35	6.47	+0.12	NC
Medicine—Discharges per 1,000 Member Months—Total	4.81	4.86	4.47	-0.39	NC
Medicine—Average Length of Stay—Total	3.52	3.33	3.88	+0.55	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	230.92	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	107.31	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	60.36	NC	NC

Table B-1—AET Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	18.37	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate, or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	76.16%	79.40%	74.45%	-4.95	★★
Combination 3	70.07%	75.00%	72.02%	-2.98	★★★
Combination 4	68.13%	72.45%	70.32%	-2.13	★★★
Combination 5	59.85%	62.96%	63.02%	+0.06	★★★
Combination 6	43.55%	41.20%	41.12%	-0.08	★★★
Combination 7	58.39%	60.88%	61.80%	+0.92	★★★
Combination 8	42.58%	40.51%	40.39%	-0.12	★★★
Combination 9	37.96%	34.49%	36.50%	+2.01	★★★
Combination 10	36.98%	33.80%	36.01%	+2.21	★★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	67.40%	71.06%	66.67%	-4.39	★★★
Lead Screening in Children					
Lead Screening in Children	75.18%	76.16%	76.64%	+0.48	★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	79.32%	72.92%	68.86%	-4.06	★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	60.10%	50.69%	54.74%	+4.05	★★★
Immunizations for Adolescents					
Combination 1	86.86%	85.65%	88.08%	+2.43	★★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	92.52%	90.15%	88.36%	-1.79++	★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	72.61%	75.43%	81.63%	+6.20+	★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	39.92%	51.28%	48.35%	-2.93	★★★
Continuation and Maintenance Phase	50.98%	57.53%	62.61%	+5.08	★★★

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	60.24%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	63.99%	61.83%	61.80%	-0.03	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	68.96%	64.21%	63.52%	-0.69	★★★★
Ages 21 to 24 Years	70.30%	70.56%	69.29%	-1.27	★★★
Total	69.65%	67.39%	66.43%	-0.96	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	94.89%	95.34%	93.83%	-1.51++	★★
Ages 25 Months to 6 Years	85.57%	85.86%	84.89%	-0.97++	★
Ages 7 to 11 Years	90.84%	89.09%	89.84%	+0.75	★★
Ages 12 to 19 Years	89.38%	89.30%	88.42%	-0.88	★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	78.39%	78.83%	75.08%	-3.75++	★★
Ages 45 to 64 Years	86.09%	86.92%	84.08%	-2.84++	★★
Ages 65+ Years	78.06%	79.89%	83.16%	+3.27	★★
Total	81.69%	82.13%	78.57%	-3.56++	★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	31.84%	27.49%	30.84%	+3.35	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	89.54%	86.57%	82.24%	-4.33	★★★★
Counseling for Nutrition—Total	78.83%	73.61%	74.94%	+1.33	★★★
Counseling for Physical Activity—Total[4]	69.10%	64.58%	64.72%	+0.14	★★★
Adult BMI Assessment					
Adult BMI Assessment	89.78%	89.10%	91.73%	+2.63	★★★★

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	80.54%	77.26%	76.40%	-0.86	★
Postpartum Care	57.66%	62.41%	60.58%	-1.83	★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	86.86%	85.28%	86.31%	+1.03	★★
*HbA1c Poor Control (>9.0%)**	37.59%	41.62%	43.61%	+1.99	★★
HbA1c Control (<8.0%)	53.65%	46.36%	47.81%	+1.45	★★
Eye Exam (Retinal) Performed	62.04%	57.53%	55.84%	-1.69	★★★
Medical Attention for Nephropathy	93.07%	90.02%	90.33%	+0.31	★★★
Blood Pressure Control (<140/90 mm Hg)	58.39%	55.84%	61.50%	+5.66	★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	76.62%	88.36%	88.38%	+0.02	★★★★★
Medication Compliance 75%—Total	58.26%	74.39%	73.33%	-1.06	★★★★★
Asthma Medication Ratio					
Total	53.96%	54.59%	55.92%	+1.33	★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	54.99%	46.03%	46.96%	+0.93	★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	77.27%	75.28%	77.50%	+2.22	★★★
Discussing Cessation Medications	52.86%	50.14%	54.48%	+4.34	★★★
Discussing Cessation Strategies	46.70%	41.71%	45.36%	+3.65	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	75.97%	74.52%	77.13%	+2.61	★★★★★

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	59.74%	60.78%	61.87%	+1.09	★★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	89.19%	81.20%	81.57%	+0.37	★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	60.34%	63.74%	63.01%	-0.73	★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	75.68%	NC	★★
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	52.40%	57.38%	55.99%	-1.39	★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	86.52%	86.46%	86.11%	-0.35	★★
Diuretics	84.75%	86.15%	85.52%	-0.63	★★
Total[4]	—	—	85.85%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	36.95%	42.89%	45.03%	+2.14	NC
Total—Black or African American	44.44%	35.79%	34.27%	-1.52	NC
Total—American-Indian and Alaska Native	0.38%	0.42%	0.44%	+0.02	NC
Total—Asian	1.20%	1.63%	1.64%	+0.01	NC

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.08%	0.07%	0.08%	+0.01	NC
Total—Some Other Race	3.47%	6.59%	7.17%	+0.58	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	13.48%	10.00%	8.24%	-1.76	NC
Total—Declined	0.00%	2.61%	3.14%	+0.53	NC
Total—Hispanic or Latino	0.00%	1.58%	5.49%	+3.91	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	99.17%	97.90%	97.48%	-0.42	NC
Spoken Language Preferred for Health Care—Non-English	0.37%	1.52%	2.46%	+0.94	NC
Spoken Language Preferred for Health Care—Unknown	0.46%	0.59%	0.06%	-0.53	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	99.17%	97.90%	97.48%	-0.42	NC
Preferred Language for Written Materials—Non-English	0.37%	1.52%	2.46%	+0.94	NC
Preferred Language for Written Materials—Unknown	0.46%	0.59%	0.06%	-0.53	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	70.18	68.98	64.19	-4.79	★★
Outpatient Visits—Total	554.98	396.06	400.42	+4.36	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	9.18	7.94	7.55	-0.39	NC
Total Inpatient—Average Length of Stay—Total	4.31	3.92	3.98	+0.06	NC
Maternity—Discharges per 1,000 Member Months—Total	2.80	2.80	2.75	-0.05	NC
Maternity—Average Length of Stay—Total	2.94	2.65	2.61	-0.04	NC
Surgery—Discharges per 1,000 Member Months—Total	2.44	1.90	1.73	-0.17	NC
Surgery—Average Length of Stay—Total	6.75	6.37	6.22	-0.15	NC
Medicine—Discharges per 1,000 Member Months—Total	4.54	3.87	3.68	-0.19	NC
Medicine—Average Length of Stay—Total	3.65	3.43	3.72	+0.29	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	203.46	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	162.05	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	84.60	NC	NC

Table B-2—BCC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	72.08	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate, or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	79.86%	NA	NA	NC	NC
Combination 3	73.84%	NA	NA	NC	NC
Combination 4	71.30%	NA	NA	NC	NC
Combination 5	63.43%	NA	NA	NC	NC
Combination 6	38.43%	NA	NA	NC	NC
Combination 7	61.34%	NA	NA	NC	NC
Combination 8	37.27%	NA	NA	NC	NC
Combination 9	33.10%	NA	NA	NC	NC
Combination 10	31.94%	NA	NA	NC	NC
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	56.02%	NA	NA	NC	NC
Lead Screening in Children					
Lead Screening in Children	74.07%	NA	NA	NC	NC
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	76.85%	56.36%	57.14%	+0.78	★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	54.99%	24.07%	31.03%	+6.96	★
Immunizations for Adolescents					
Combination 1	87.73%	NA	NA	NC	NC
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	88.19%	NA	81.08%	NC	★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	67.98%	NA	NA	NC	NC
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	31.86%	NA	NA	NC	NC
Continuation and Maintenance Phase	33.33%	NA	NA	NC	NC

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	55.41%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	59.35%	52.26%	52.93%	+0.67	★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	58.75%	NA	NA	NC	NC
Ages 21 to 24 Years	64.76%	47.62%	52.08%	+4.46	★
Total	61.37%	44.83%	57.53%	+12.70	★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	95.21%	NA	76.09%	NC	★
Ages 25 Months to 6 Years	86.58%	65.71%	66.87%	+1.16	★
Ages 7 to 11 Years	89.22%	75.76%	74.19%	-1.57	★
Ages 12 to 19 Years	87.47%	68.00%	70.83%	+2.83	★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	77.66%	73.02%	70.18%	-2.84	★
Ages 45 to 64 Years	88.04%	90.16%	89.20%	-0.96	★★★★
Ages 65+ Years	89.06%	85.05%	87.67%	+2.62[+]	★★★
Total	82.14%	83.86%	83.48%	-0.38	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	33.23%	NA	35.09%	NC	★★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	74.17%	87.64%	73.86%	-13.78[++]	★★★
Counseling for Nutrition—Total	62.80%	70.79%	64.20%	-6.59	★★
Counseling for Physical Activity—Total[4]	54.98%	64.04%	56.25%	-7.79	★★
Adult BMI Assessment					
Adult BMI Assessment	85.42%	89.95%	91.28%	+1.33	★★★★

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	71.93%	50.00%	55.74%	+5.74	★
Postpartum Care	51.04%	40.38%	59.02%	+18.64+	★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	85.93%	86.37%	85.16%	-1.21	★★
*HbA1c Poor Control (>9.0%)**	48.44%	39.90%	37.47%	-2.43	★★★
HbA1c Control (<8.0%)	45.04%	52.31%	52.31%	0.00	★★★
Eye Exam (Retinal) Performed	57.19%	54.74%	59.37%	+4.63	★★★
Medical Attention for Nephropathy	88.74%	94.89%	92.94%	-1.95	★★★★
Blood Pressure Control (<140/90 mm Hg)	44.74%	57.91%	60.58%	+2.67	★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	62.98%	NA	77.78%	NC	★★★★★
Medication Compliance 75%—Total	34.90%	NA	72.22%	NC	★★★★★
Asthma Medication Ratio					
Total	60.26%	NA	25.86%	NC	★
Controlling High Blood Pressure					
Controlling High Blood Pressure	53.86%	60.58%	51.14%	-9.44++	★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	81.74%	82.11%	83.27%	+1.16	★★★★★
Discussing Cessation Medications	52.57%	58.30%	60.65%	+2.35	★★★★★
Discussing Cessation Strategies	44.21%	44.44%	48.01%	+3.57	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	37.50%	47.12%	52.67%	+5.55	★★★

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	23.44%	31.73%	33.59%	+1.86	★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	81.58%	68.00%	72.79%	+4.79	★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	65.69%	64.10%	71.43%	+7.33	★★★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	5.04%	69.41%	71.14%	+1.73	★★★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	86.17%	83.40%	85.45%	+2.05	★
Diuretics	84.95%	84.75%	85.65%	+0.90	★★
Total[4]	—	—	85.53%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	43.61%	46.63%	47.76%	+1.13	NC
Total—Black or African American	37.40%	35.69%	35.71%	+0.02	NC
Total—American-Indian and Alaska Native	0.18%	0.00%	0.00%	0.00	NC
Total—Asian	2.02%	2.36%	2.04%	-0.32	NC

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.18%	0.29%	0.21%	-0.08	NC
Total—Some Other Race	4.58%	2.64%	2.72%	+0.08	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	12.03%	12.39%	11.57%	-0.82	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	4.58%	2.64%	2.72%	+0.08	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	100.00%	100.00%	100.00%	0.00	NC
Spoken Language Preferred for Health Care—Non-English	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Unknown	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	0.00%	0.00%	100.00%	+100.00	NC
Preferred Language for Written Materials—Non-English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Unknown	100.00%	100.00%	0.00%	-100.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	100.00%	+100.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	0.00%	-100.00	NC

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	66.64	75.28	71.25	-4.03	★★
Outpatient Visits—Total	405.99	539.45	506.48	-32.97	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	9.24	16.85	12.18	-4.67	NC
Total Inpatient—Average Length of Stay—Total	3.87	BR	5.80	NC	NC
Maternity—Discharges per 1,000 Member Months—Total	2.77	1.30	1.19	-0.11	NC
Maternity—Average Length of Stay—Total	2.52	BR	3.03	NC	NC
Surgery—Discharges per 1,000 Member Months—Total	2.16	3.59	2.94	-0.65	NC
Surgery—Average Length of Stay—Total	6.26	BR	8.07	NC	NC
Medicine—Discharges per 1,000 Member Months—Total	5.06	12.46	8.52	-3.94	NC
Medicine—Average Length of Stay—Total	3.38	BR	5.25	NC	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	169.54	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	48.67	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	28.26	NC	NC

Table B-3—MID Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	0.00	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate, or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	48.57%	60.71%	59.48%	-1.23	★
Combination 3	44.29%	50.00%	52.94%	+2.94	★
Combination 4	42.86%	46.43%	51.63%	+5.20	★
Combination 5	32.86%	37.50%	42.48%	+4.98	★
Combination 6	21.43%	19.64%	20.92%	+1.28	★
Combination 7	31.43%	35.71%	41.83%	+6.12	★
Combination 8	20.00%	19.64%	20.92%	+1.28	★
Combination 9	18.57%	16.07%	18.95%	+2.88	★
Combination 10	17.14%	16.07%	18.95%	+2.88	★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	NA	NA	43.86%	NC	★
Lead Screening in Children					
Lead Screening in Children	71.43%	67.86%	72.55%	+4.69	★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	62.89%	69.68%	61.31%	**-8.37**$^{++}$	★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	35.51%	42.82%	30.41%	**-12.41**$^{++}$	★
Immunizations for Adolescents					
Combination 1	58.33%	68.42%	75.00%	+6.58	★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	96.61%	90.34%	93.81%	+3.47	★★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	NA	59.09%	72.22%	+13.13	★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	NA	NA	NA	NC	NC
Continuation and Maintenance Phase	NA	NA	NA	NC	NC

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	65.46%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	42.58%	56.20%	47.20%	**-9.00**$^{++}$	★
Chlamydia Screening in Women					
Ages 16 to 20 Years	71.88%	70.49%	73.47%	+2.98	★★★★★
Ages 21 to 24 Years	73.47%	70.67%	73.83%	+3.16	★★★★★
Total	72.84%	70.59%	73.66%	+3.07	★★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	82.35%	86.05%	82.46%	-3.59	★
Ages 25 Months to 6 Years	73.16%	76.97%	69.86%	**-7.11**$^{++}$	★
Ages 7 to 11 Years	71.65%	79.14%	77.50%	-1.64	★
Ages 12 to 19 Years	67.02%	65.25%	69.13%	+3.88	★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	56.44%	59.28%	50.05%	**-9.23**$^{++}$	★
Ages 45 to 64 Years	76.43%	77.85%	70.72%	**-7.13**$^{++}$	★
Ages 65+ Years	NA	NA	NA	NC	NC
Total	66.87%	68.12%	58.62%	**-9.50**$^{++}$	★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	40.00%	20.51%	30.00%	+9.49	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	73.97%	79.08%	70.32%	**-8.76**$^{++}$	★★
Counseling for Nutrition—Total	69.83%	79.81%	66.67%	**-13.14**$^{++}$	★★
Counseling for Physical Activity—Total[4]	57.66%	57.91%	46.96%	**-10.95**$^{++}$	★
Adult BMI Assessment					
Adult BMI Assessment	74.19%	90.27%	71.07%	**-19.20**$^{++}$	★

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	34.41%	47.13%	35.34%	-11.79	★
Postpartum Care	33.33%	42.53%	46.55%	+4.02	★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	75.64%	88.00%	77.61%	**-10.39**$^{++}$	★
*HbA1c Poor Control (>9.0%)**	73.08%	41.33%	53.07%	**+11.74**$^{++}$	★
HbA1c Control (<8.0%)	22.22%	52.67%	40.18%	**-12.49**$^{++}$	★
Eye Exam (Retinal) Performed	46.15%	45.67%	41.41%	-4.26	★
Medical Attention for Nephropathy	91.03%	90.00%	88.04%	-1.96	★
Blood Pressure Control (<140/90 mm Hg)	31.20%	46.33%	39.26%	-7.07	★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	NA	NA	69.70%	NC	★★★★
Medication Compliance 75%—Total	NA	NA	36.36%	NC	★★★
Asthma Medication Ratio					
Total	NA	43.90%	58.54%	+14.64	★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	31.39%	34.06%	28.71%	-5.35	★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	78.41%	79.06%	80.79%	+1.73	★★★★
Discussing Cessation Medications	54.51%	58.99%	63.16%	+4.17	★★★★★
Discussing Cessation Strategies	45.28%	50.00%	52.61%	+2.61	★★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	NA	NA	57.69%	NC	★★★★

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	NA	NA	42.31%	NC	★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	NA	72.73%	83.33%	+10.60	★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	NA	NA	NA	NC	NC
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	NA	NA	NA	NC	NC
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	87.30%	87.79%	85.17%	-2.62	★
Diuretics	85.20%	85.19%	83.83%	-1.36	★
Total[4]	—	—	84.56%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	2.39%	28.46%	27.17%	-1.29	NC
Total—Black or African American	44.08%	51.78%	51.38%	-0.40	NC
Total—American-Indian and Alaska Native	10.69%	1.13%	0.12%	-1.01	NC
Total—Asian	15.88%	2.09%	0.00%	-2.09	NC

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.00%	0.00%	0.99%	+0.99	NC
Total—Some Other Race	0.00%	0.00%	3.96%	+3.96	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	26.96%	16.54%	16.38%	-0.16	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	0.00%	3.59%	3.96%	+0.37	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	72.57%	99.04%	98.98%	-0.06	NC
Spoken Language Preferred for Health Care—Non-English	0.51%	0.92%	0.99%	+0.07	NC
Spoken Language Preferred for Health Care—Unknown	26.93%	0.05%	0.03%	-0.02	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Non-English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Unknown	100.00%	100.00%	100.00%	0.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	79.99	82.34	71.57	-10.77	★★
Outpatient Visits—Total	241.28	251.03	225.08	-25.95	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	9.83	9.03	7.43	-1.60	NC
Total Inpatient—Average Length of Stay—Total	3.89	4.15	4.89	+0.74	NC
Maternity—Discharges per 1,000 Member Months—Total	1.76	0.26	0.88	+0.62	NC
Maternity—Average Length of Stay—Total	2.47	2.47	2.40	-0.07	NC
Surgery—Discharges per 1,000 Member Months—Total	2.09	2.73	1.88	-0.85	NC
Surgery—Average Length of Stay—Total	5.67	4.80	6.14	+1.34	NC
Medicine—Discharges per 1,000 Member Months—Total	6.06	4.85	4.30	-0.55	NC
Medicine—Average Length of Stay—Total	3.56	3.53	4.82	+1.29	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	255.03	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	337.81	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	241.61	NC	NC

Table B-4—HAR Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	5.17	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	74.70%	79.81%	73.72%	-6.09++	★★
Combination 3	68.61%	75.67%	70.80%	-4.87	★★
Combination 4	64.72%	73.97%	68.86%	-5.11	★★
Combination 5	54.99%	68.13%	63.02%	-5.11	★★★
Combination 6	38.93%	40.88%	36.50%	-4.38	★★
Combination 7	53.04%	66.42%	61.31%	-5.11	★★★
Combination 8	38.44%	40.88%	36.01%	-4.87	★★
Combination 9	32.85%	37.71%	33.09%	-4.62	★★
Combination 10	32.85%	37.71%	32.60%	-5.11	★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	66.42%	64.48%	70.32%	+5.84	★★★★
Lead Screening in Children					
Lead Screening in Children	92.21%	94.40%	85.16%	-9.24++	★★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	71.29%	70.07%	69.10%	-0.97	★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	46.23%	47.20%	45.50%	-1.70	★★
Immunizations for Adolescents					
Combination 1	82.73%	84.43%	84.18%	-0.25	★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	86.74%	86.33%	85.58%	-0.75	★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	70.37%	70.40%	83.27%	+12.87+	★★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	42.27%	39.67%	45.37%	+5.70+	★★★
Continuation and Maintenance Phase	54.07%	43.98%	57.50%	+13.52+	★★★

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	62.86%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	63.02%	56.93%	61.80%	+4.87	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	50.36%	52.81%	53.79%	+0.98	★★★
Ages 21 to 24 Years	60.12%	59.87%	62.43%	+2.56+	★★
Total	54.81%	56.01%	57.58%	+1.57	★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	95.44%	94.66%	92.30%	-2.36++	★
Ages 25 Months to 6 Years	86.68%	87.10%	83.68%	-3.42++	★
Ages 7 to 11 Years	87.98%	89.00%	88.57%	-0.43	★★
Ages 12 to 19 Years	86.62%	88.30%	87.18%	-1.12++	★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	83.34%	82.10%	78.71%	-3.39++	★★
Ages 45 to 64 Years	89.87%	89.58%	87.89%	-1.69++	★★★
Ages 65+ Years	90.48%	NA	84.31%	NC	★★
Total	86.05%	85.18%	82.41%	-2.77++	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	23.00%	26.35%	29.91%	+3.56+	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	66.67%	83.45%	81.02%	-2.43	★★★★
Counseling for Nutrition—Total	50.85%	60.34%	63.99%	+3.65	★★
Counseling for Physical Activity—Total[4]	44.53%	50.85%	56.45%	+5.60	★★
Adult BMI Assessment					
Adult BMI Assessment	87.83%	91.48%	93.67%	+2.19	★★★★

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	76.40%	86.13%	77.86%	-8.27++	★★
Postpartum Care	63.99%	64.23%	66.67%	+2.44	★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	89.42%	87.59%	90.27%	+2.68	★★★★
*HbA1c Poor Control (>9.0%)**	36.50%	48.54%	43.80%	-4.74	★★
HbA1c Control (<8.0%)	51.09%	41.61%	45.74%	+4.13	★★
Eye Exam (Retinal) Performed	56.20%	58.03%	64.23%	+6.20	★★★★
Medical Attention for Nephropathy	92.15%	88.87%	90.02%	+1.15	★★
Blood Pressure Control (<140/90 mm Hg)	61.50%	66.24%	69.34%	+3.10	★★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	59.94%	84.33%	66.01%	-18.32++	★★★★
Medication Compliance 75%—Total	38.39%	67.87%	43.52%	-24.35++	★★★★
Asthma Medication Ratio					
Total	65.18%	66.09%	67.03%	+0.94	★★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	54.74%	58.64%	61.56%	+2.92	★★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	77.60%	76.79%	76.54%	-0.25	★★
Discussing Cessation Medications	50.54%	54.94%	54.55%	-0.39	★★★
Discussing Cessation Strategies	42.25%	47.70%	46.27%	-1.43	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	58.33%	45.65%	58.05%	+12.40+	★★★★

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	39.15%	29.70%	40.80%	+11.10+	★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	81.62%	82.62%	82.06%	-0.56	★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	63.59%	72.17%	77.58%	+5.41	★★★★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	66.45%	63.27%	70.56%	+7.29+	★★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	86.14%	84.68%	85.90%	+1.22+	★
Diuretics	86.37%	85.62%	86.89%	+1.27+	★★
Total[4]	—	—	86.30%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	68.72%	66.67%	66.14%	-0.53	NC
Total—Black or African American	15.26%	17.27%	18.23%	+0.96	NC
Total—American-Indian and Alaska Native	0.55%	0.54%	0.51%	-0.03	NC
Total—Asian	0.71%	0.00%	0.65%	+0.65	NC

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.07%	0.79%	0.07%	-0.72	NC
Total—Some Other Race	5.05%	5.51%	5.45%	-0.06	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	9.64%	9.22%	8.96%	-0.26	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	5.05%	5.51%	5.45%	-0.06	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	96.40%	96.45%	95.62%	-0.83	NC
Spoken Language Preferred for Health Care—Non-English	0.20%	0.77%	0.77%	0.00	NC
Spoken Language Preferred for Health Care—Unknown	3.40%	2.78%	3.61%	+0.83	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	NR	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Non-English	NR	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Unknown	100.00%	100.00%	100.00%	0.00	NC
Preferred Language for Written Materials—Declined	NR	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	70.80	70.81	74.32	+3.51	★
Outpatient Visits—Total	430.13	552.80	558.58	+5.78	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	7.42	8.38	8.84	+0.46	NC
Total Inpatient—Average Length of Stay—Total	3.45	3.87	4.44	+0.57	NC
Maternity—Discharges per 1,000 Member Months—Total	2.65	2.72	2.66	-0.06	NC
Maternity—Average Length of Stay—Total	2.33	2.46	2.24	-0.22	NC
Surgery—Discharges per 1,000 Member Months—Total	2.01	4.09	2.16	-1.93	NC
Surgery—Average Length of Stay—Total	4.85	4.70	5.96	+1.26	NC
Medicine—Discharges per 1,000 Member Months—Total	3.47	1.47	4.71	+3.24	NC
Medicine—Average Length of Stay—Total	3.27	3.61	4.69	+1.08	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	151.71	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	87.45	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	33.88	NC	NC

Table B-5—MCL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	23.70	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

NR indicates that the auditor determined that the HEDIS 2016 rate was materially biased or that the MHP chose not report a rate for this measure indicator.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*
★★★★ *= 75th to 89th percentile*
★★★ *= 50th to 74th percentile*
★★ *= 25th to 49th percentile*
★ *= Below 25th percentile*

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	77.91%	78.60%	78.10%	-0.50	★★★
Combination 3	72.79%	74.88%	73.72%	-1.16	★★★
Combination 4	68.84%	71.63%	72.02%	+0.39	★★★
Combination 5	59.07%	64.42%	64.48%	+0.06	★★★
Combination 6	42.79%	40.70%	41.61%	+0.91	★★★
Combination 7	55.81%	62.33%	63.26%	+0.93	★★★★
Combination 8	41.86%	40.00%	41.36%	+1.36	★★★
Combination 9	36.28%	35.81%	37.96%	+2.15	★★★
Combination 10	35.35%	35.35%	37.71%	+2.36	★★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	75.21%	74.88%	76.40%	+1.52	★★★★★
Lead Screening in Children					
Lead Screening in Children	80.32%	81.14%	81.02%	-0.12	★★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	77.27%	78.42%	78.83%	+0.41	★★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	59.72%	64.42%	60.34%	-4.08	★★★★
Immunizations for Adolescents					
Combination 1	86.11%	86.60%	83.45%	-3.15	★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	89.77%	89.44%	87.90%	-1.54++	★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	72.84%	73.43%	80.53%	+7.10+	★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	45.88%	41.74%	40.71%	-1.03	★★
Continuation and Maintenance Phase	57.59%	55.97%	47.91%	-8.06++	★

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	64.17%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	63.91%	65.50%	65.21%	-0.29	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	60.65%	60.49%	62.30%	+1.81+	★★★★
Ages 21 to 24 Years	68.47%	69.23%	68.50%	-0.73	★★★
Total	64.41%	64.88%	65.31%	+0.43	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	97.69%	97.37%	96.84%	-0.53++	★★★
Ages 25 Months to 6 Years	91.25%	90.69%	90.53%	-0.16	★★★
Ages 7 to 11 Years	92.57%	92.53%	92.59%	+0.06	★★★
Ages 12 to 19 Years	92.74%	92.90%	92.06%	-0.84++	★★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	85.37%	83.55%	80.45%	-3.10++	★★★
Ages 45 to 64 Years	91.57%	90.46%	88.81%	-1.65++	★★★
Ages 65+ Years	91.50%	92.62%	94.89%	+2.27+	★★★★★
Total	87.70%	86.17%	83.63%	-2.54++	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	23.57%	26.18%	30.32%	+4.14+	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	74.53%	81.48%	82.24%	+0.76	★★★★
Counseling for Nutrition—Total	68.22%	73.15%	72.51%	-0.64	★★★
Counseling for Physical Activity—Total[4]	55.14%	59.49%	67.15%	+7.66+	★★★
Adult BMI Assessment					
Adult BMI Assessment	94.08%	96.28%	94.89%	-1.39	★★★★★

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	88.11%	82.87%	85.40%	+2.53	★★★
Postpartum Care	68.53%	71.30%	67.15%	-4.15	★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	85.60%	87.79%	88.04%	+0.25	★★★
*HbA1c Poor Control (>9.0%)**	39.97%	35.42%	38.65%	+3.23	★★★
HbA1c Control (<8.0%)	50.23%	52.67%	51.47%	-1.20	★★★
Eye Exam (Retinal) Performed	61.87%	67.63%	69.84%	+2.21	★★★★★
Medical Attention for Nephropathy	88.67%	91.45%	90.64%	-0.81	★★★
Blood Pressure Control (<140/90 mm Hg)	68.15%	65.65%	66.90%	+1.25	★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	71.23%	72.33%	72.29%	-0.04	★★★★
Medication Compliance 75%—Total	48.68%	51.35%	51.22%	-0.13	★★★★★
Asthma Medication Ratio					
Total	69.48%	61.92%	60.17%	-1.75	★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	67.79%	67.15%	67.15%	0.00	★★★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	80.16%	81.16%	81.25%	+0.09	★★★★
Discussing Cessation Medications	55.69%	54.30%	54.90%	+0.60	★★★
Discussing Cessation Strategies	44.88%	44.68%	45.79%	+1.11	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	70.45%	50.92%	54.45%	+3.53+	★★★
Effective Continuation Phase Treatment	50.24%	31.77%	36.08%	+4.31+	★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	80.27%	83.11%	85.63%	+2.52+	★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	73.63%	66.04%	71.65%	+5.61	★★★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	80.00%	55.88%	76.71%	+20.83+	★★
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	61.59%	63.52%	67.07%	+3.55+	★★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	87.38%	86.53%	83.26%	-3.27++	★
Diuretics	87.53%	86.88%	83.70%	-3.18++	★
Total[4]	—	—	83.44%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	62.24%	61.97%	61.91%	-0.06	NC
Total—Black or African American	21.29%	21.51%	21.40%	-0.11	NC
Total—American-Indian and Alaska Native	0.45%	0.49%	0.46%	-0.03	NC
Total—Asian	0.77%	0.73%	0.70%	-0.03	NC

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.06%	0.06%	0.05%	-0.01	NC
Total—Some Other Race	0.00%	0.00%	0.02%	+0.02	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	5.66%	5.76%	6.08%	+0.32	NC
Total—Declined	9.53%	9.48%	9.38%	-0.10	NC
Total—Hispanic or Latino	5.66%	5.75%	5.75%	0.00	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	98.87%	98.69%	98.62%	-0.07	NC
Spoken Language Preferred for Health Care—Non-English	1.13%	1.29%	1.35%	+0.06	NC
Spoken Language Preferred for Health Care—Unknown	0.00%	0.02%	0.03%	+0.01	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	98.87%	98.69%	98.62%	-0.07	NC
Preferred Language for Written Materials—Non-English	1.13%	1.29%	1.35%	+0.06	NC
Preferred Language for Written Materials—Unknown	0.00%	0.02%	0.03%	+0.01	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	98.87%	98.69%	98.62%	-0.07	NC
Other Language Needs—Non-English	1.13%	1.29%	1.35%	+0.06	NC
Other Language Needs—Unknown	0.00%	0.02%	0.03%	+0.01	NC

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	80.18	77.48	73.23	-4.25	★
Outpatient Visits—Total	392.51	398.30	396.18	-2.12	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	8.23	8.10	7.55	-0.55	NC
Total Inpatient—Average Length of Stay—Total	3.86	3.99	3.99	0.00	NC
Maternity—Discharges per 1,000 Member Months—Total	2.65	3.42	3.16	-0.26	NC
Maternity—Average Length of Stay—Total	2.50	2.55	2.58	+0.03	NC
Surgery—Discharges per 1,000 Member Months—Total	1.02	1.90	1.71	-0.19	NC
Surgery—Average Length of Stay—Total	5.73	6.29	6.38	+0.09	NC
Medicine—Discharges per 1,000 Member Months—Total	5.33	3.74	3.57	-0.17	NC
Medicine—Average Length of Stay—Total	3.98	3.77	3.74	-0.03	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	214.34	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	71.53	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	44.12	NC	NC

Table B-6—MER Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	26.48	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	73.73%	71.74%	76.60%	+4.86^{+}	★★★
Combination 3	68.43%	68.65%	71.68%	+3.03	★★★
Combination 4	65.56%	67.11%	69.78%	+2.67	★★★
Combination 5	60.26%	58.28%	60.29%	+2.01	★★★
Combination 6	36.42%	35.98%	36.61%	+0.63	★★
Combination 7	57.84%	57.17%	59.06%	+1.89	★★★
Combination 8	35.32%	35.32%	36.21%	+0.89	★★
Combination 9	33.33%	30.68%	31.60%	+0.92	★★
Combination 10	32.23%	30.24%	31.31%	+1.07	★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	63.84%	68.79%	70.56%	+1.77	★★★★
Lead Screening in Children					
Lead Screening in Children	72.19%	78.15%	78.83%	+0.68	★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	76.15%	75.89%	75.08%	-0.81	★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	57.21%	52.48%	54.39%	+1.91	★★★
Immunizations for Adolescents					
Combination 1	90.54%	90.07%	86.87%	-3.20^{++}	★★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	88.44%	86.82%	87.40%	+0.58	★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	62.82%	67.17%	75.12%	+7.95^{+}	★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	37.42%	48.40%	48.91%	+0.51	★★★
Continuation and Maintenance Phase	45.83%	65.97%	61.82%	-4.15	★★★

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	61.50%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	65.63%	65.69%	72.34%	+6.65^{+}	★★★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	63.25%	63.27%	65.16%	+1.89^{+}	★★★★
Ages 21 to 24 Years	70.83%	70.37%	70.44%	+0.07	★★★★
Total	66.33%	66.23%	67.35%	+1.12^{+}	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	96.39%	96.02%	95.41%	-0.61	★★
Ages 25 Months to 6 Years	88.57%	89.57%	88.71%	-0.86^{++}	★★★
Ages 7 to 11 Years	91.64%	92.52%	91.63%	-0.89^{++}	★★★
Ages 12 to 19 Years	90.53%	90.88%	90.83%	-0.05	★★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	82.66%	81.58%	79.17%	-2.41^{++}	★★★
Ages 45 to 64 Years	89.94%	89.24%	88.11%	-1.13^{++}	★★★
Ages 65+ Years	96.13%	91.02%	92.66%	+1.64^{+}	★★★★
Total	85.79%	84.82%	83.04%	-1.78^{++}	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	27.70%	30.18%	33.02%	+2.84^{+}	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	80.46%	80.61%	84.64%	+4.03	★★★★
Counseling for Nutrition—Total	67.82%	71.39%	76.82%	+5.43	★★★★
Counseling for Physical Activity—Total[4]	63.68%	63.59%	68.75%	+5.16	★★★★
Adult BMI Assessment					
Adult BMI Assessment	90.15%	97.14%	96.00%	-1.14	★★★★★

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	78.20%	83.33%	77.32%	-6.01++	★
Postpartum Care	67.87%	75.80%	73.80%	-2.00	★★★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	86.04%	87.64%	90.42%	+2.78	★★★★
*HbA1c Poor Control (>9.0%)**	41.44%	32.45%	33.91%	+1.46	★★★★
HbA1c Control (<8.0%)	50.90%	56.73%	54.55%	-2.18	★★★★
Eye Exam (Retinal) Performed	57.43%	62.03%	62.16%	+0.13	★★★
Medical Attention for Nephropathy	92.12%	90.73%	92.87%	+2.14	★★★★
Blood Pressure Control (<140/90 mm Hg)	55.41%	55.19%	51.11%	-4.08	★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	55.61%	57.76%	62.41%	+4.65+	★★★
Medication Compliance 75%—Total	30.92%	34.13%	38.56%	+4.43+	★★★
Asthma Medication Ratio					
Total	61.35%	60.91%	63.06%	+2.15	★★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	53.60%	49.04%	51.82%	+2.78	★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	83.54%	80.93%	81.08%	+0.15	★★★★
Discussing Cessation Medications	56.32%	57.56%	58.57%	+1.01	★★★★
Discussing Cessation Strategies	45.94%	43.62%	46.01%	+2.39	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	51.46%	48.20%	54.54%	+6.34+	★★★

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	34.29%	32.61%	37.54%	+4.93+	★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	84.61%	83.10%	85.87%	+2.77+	★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	71.16%	72.50%	70.70%	-1.80	★★★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	63.33%	76.32%	77.31%	+0.99	★★
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	66.61%	61.20%	64.74%	+3.54+	★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	88.15%	87.44%	88.48%	+1.04+	★★★
Diuretics	87.55%	87.29%	88.54%	+1.25+	★★★
Total[4]	—	—	88.51%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	47.85%	46.28%	45.47%	-0.81	NC
Total—Black or African American	32.33%	32.97%	33.92%	+0.95	NC
Total—American-Indian and Alaska Native	0.26%	0.28%	0.26%	-0.02	NC
Total—Asian	0.36%	0.32%	0.32%	0.00	NC

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.00%	0.00%	0.00%	0.00	NC
Total—Some Other Race	0.00%	0.00%	0.00%	0.00	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	19.20%	20.15%	20.02%	-0.13	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	6.63%	6.40%	6.70%	+0.30	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	98.99%	98.76%	98.66%	-0.10	NC
Spoken Language Preferred for Health Care—Non-English	0.91%	1.12%	1.27%	+0.15	NC
Spoken Language Preferred for Health Care—Unknown	0.10%	0.12%	0.07%	-0.05	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	98.99%	98.76%	98.66%	-0.10	NC
Preferred Language for Written Materials—Non-English	0.91%	1.12%	1.27%	+0.15	NC
Preferred Language for Written Materials—Unknown	0.10%	0.12%	0.07%	-0.05	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	98.99%	98.76%	98.66%	-0.10	NC
Other Language Needs—Non-English	0.91%	1.12%	1.27%	+0.15	NC
Other Language Needs—Unknown	0.10%	0.12%	0.07%	-0.05	NC

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	75.32	71.94	70.06	-1.88	★★
Outpatient Visits—Total	410.12	424.09	422.90	-1.19	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	8.97	7.42	7.63	+0.21	NC
Total Inpatient—Average Length of Stay—Total	4.45	4.62	4.58	-0.04	NC
Maternity—Discharges per 1,000 Member Months—Total	2.97	2.65	2.56	-0.09	NC
Maternity—Average Length of Stay—Total	2.73	2.78	2.72	-0.06	NC
Surgery—Discharges per 1,000 Member Months—Total	1.90	1.82	1.85	+0.03	NC
Surgery—Average Length of Stay—Total	7.44	7.75	7.69	-0.06	NC
Medicine—Discharges per 1,000 Member Months—Total	4.98	3.71	3.93	+0.22	NC
Medicine—Average Length of Stay—Total	4.03	4.04	3.98	-0.06	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	224.19	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	86.93	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	59.06	NC	NC

Table B-7—MOL Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	21.38	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	82.88%	80.29%	82.97%	+2.68	★★★★★
Combination 3	80.89%	77.13%	81.02%	+3.89	★★★★★
Combination 4	78.16%	76.16%	79.56%	+3.40	★★★★★
Combination 5	70.72%	69.34%	73.48%	+4.14	★★★★★
Combination 6	57.07%	55.23%	56.20%	+0.97	★★★★★
Combination 7	68.49%	68.37%	72.02%	+3.65	★★★★★
Combination 8	56.08%	54.74%	55.47%	+0.73	★★★★★
Combination 9	51.61%	50.36%	51.82%	+1.46	★★★★★
Combination 10	50.62%	49.88%	51.09%	+1.21	★★★★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	69.16%	70.06%	77.30%	+7.24+	★★★★★
Lead Screening in Children					
Lead Screening in Children	83.39%	85.83%	84.54%	-1.29	★★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	79.17%	76.34%	75.41%	-0.93	★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	52.58%	54.63%	61.67%	+7.04+	★★★★
Immunizations for Adolescents					
Combination 1	89.69%	91.24%	87.59%	-3.65	★★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	93.71%	93.63%	93.94%	+0.31	★★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	79.07%	78.49%	86.44%	+7.95+	★★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	39.06%	35.03%	36.13%	+1.10	★
Continuation and Maintenance Phase	42.13%	33.33%	40.38%	+7.05	★

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	63.99%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	63.06%	67.45%	68.85%	+1.40	★★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	63.93%	65.53%	65.53%	0.00	★★★★
Ages 21 to 24 Years	72.21%	70.08%	68.61%	-1.47	★★★
Total	67.36%	67.45%	66.82%	-0.63	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	97.75%	96.96%	96.18%	-0.78	★★★
Ages 25 Months to 6 Years	89.34%	89.67%	86.67%	**-3.00++**	★★
Ages 7 to 11 Years	92.05%	91.78%	90.54%	**-1.24++**	★★
Ages 12 to 19 Years	90.36%	90.92%	91.09%	+0.17	★★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	85.15%	83.72%	80.88%	**-2.84++**	★★★
Ages 45 to 64 Years	91.31%	90.79%	89.42%	**-1.37++**	★★★★
Ages 65+ Years	88.57%	94.38%	93.56%	-0.82	★★★★★
Total	87.58%	86.74%	84.49%	**-2.25++**	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	30.96%	37.91%	42.29%	+4.38+	★★★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	75.41%	88.08%	95.32%	+7.24+	★★★★★
Counseling for Nutrition—Total	60.66%	78.10%	81.87%	+3.77	★★★★
Counseling for Physical Activity—Total[4]	57.92%	73.72%	79.53%	+5.81	★★★★★
Adult BMI Assessment					
Adult BMI Assessment	80.10%	95.56%	97.00%	+1.44	★★★★★

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	63.56%	78.59%	83.45%	+4.86	★★
Postpartum Care	61.44%	69.34%	71.53%	+2.19	★★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	94.89%	92.15%	94.07%	+1.92	★★★★★
*HbA1c Poor Control (>9.0%)**	27.92%	31.93%	22.68%	-9.25+	★★★★★
HbA1c Control (<8.0%)	60.40%	62.41%	67.01%	+4.60	★★★★★
Eye Exam (Retinal) Performed	68.80%	71.72%	73.71%	+1.99	★★★★★
Medical Attention for Nephropathy	94.34%	91.61%	94.85%	+3.24	★★★★★
Blood Pressure Control (<140/90 mm Hg)	49.27%	75.91%	76.80%	+0.89	★★★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	75.03%	60.00%	65.82%	+5.82+	★★★★
Medication Compliance 75%—Total	54.29%	37.01%	45.07%	+8.06+	★★★★
Asthma Medication Ratio					
Total	84.31%	74.90%	73.04%	-1.86	★★★★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	44.13%	67.15%	65.57%	-1.58	★★★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	79.10%	81.48%	83.65%	+2.17	★★★★★
Discussing Cessation Medications	51.75%	55.97%	60.90%	+4.93	★★★★★
Discussing Cessation Strategies	43.60%	46.62%	48.08%	+1.46	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	61.09%	64.29%	71.28%	+6.99	★★★★★

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	45.87%	53.06%	51.06%	-2.00	★★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	84.21%	84.70%	84.56%	-0.14	★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	65.52%	60.98%	56.99%	-3.99	★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	58.06%	62.34%	64.26%	+1.92	★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	87.19%	88.01%	88.29%	+0.28	★★★
Diuretics	85.64%	88.08%	87.81%	-0.27	★★
Total[4]	—	—	88.09%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	61.56%	61.71%	62.18%	+0.47	NC
Total—Black or African American	13.23%	13.87%	14.10%	+0.23	NC
Total—American-Indian and Alaska Native	0.56%	0.55%	0.55%	0.00	NC
Total—Asian	0.91%	0.91%	0.83%	-0.08	NC

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.06%	0.06%	0.07%	+0.01	NC
Total—Some Other Race	0.00%	0.00%	0.01%	+0.01	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	23.67%	22.89%	22.27%	-0.62	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	10.06%	10.73%	10.59%	-0.14	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Non-English	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Unknown	100.00%	100.00%	100.00%	0.00	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Non-English	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Unknown	100.00%	100.00%	100.00%	0.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	76.40	75.21	71.90	-3.31	★★
Outpatient Visits—Total	382.40	378.48	381.02	+2.54	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	6.99	7.00	6.80	-0.20	NC
Total Inpatient—Average Length of Stay—Total	NR	3.54	3.62	+0.08	NC
Maternity—Discharges per 1,000 Member Months—Total	3.18	3.25	2.95	-0.30	NC
Maternity—Average Length of Stay—Total	NR	2.60	2.65	+0.05	NC
Surgery—Discharges per 1,000 Member Months—Total	1.62	1.63	1.57	-0.06	NC
Surgery—Average Length of Stay—Total	NR	4.35	4.48	+0.13	NC
Medicine—Discharges per 1,000 Member Months—Total	3.11	3.10	3.17	+0.07	NC
Medicine—Average Length of Stay—Total	NR	3.80	3.85	+0.05	NC
Use of Opioids From Multiple Providers(Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	294.43	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	91.29	NC	NC
Use of Opioids From Multiple Prescribers and Multiple Pharmacies	—	—	55.72	NC	NC

Table B-8—PRI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	39.28	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

NR indicates that the auditor determined that the HEDIS 2016 rate was materially biased or that the MHP chose not report a rate for this measure indicator.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	64.58%	71.53%	71.29%	-0.24	★★
Combination 3	58.56%	65.28%	65.45%	+0.17	★★
Combination 4	57.41%	63.66%	64.48%	+0.82	★★
Combination 5	45.60%	53.70%	53.77%	+0.07	★
Combination 6	27.31%	27.55%	32.12%	+4.57	★★
Combination 7	44.91%	52.78%	53.04%	+0.26	★★
Combination 8	27.08%	27.31%	31.63%	+4.32	★★
Combination 9	23.61%	22.45%	27.25%	+4.80	★★
Combination 10	23.38%	22.22%	27.01%	+4.79	★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	54.86%	64.71%	70.32%	+5.61	★★★★
Lead Screening in Children					
Lead Screening in Children	72.69%	70.74%	70.80%	+0.06	★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	69.44%	70.49%	74.45%	+3.96	★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	48.61%	52.08%	55.96%	+3.88	★★★
Immunizations for Adolescents					
Combination 1	81.74%	83.80%	85.16%	+1.36	★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	87.55%	89.66%	92.09%	+2.43+	★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	57.57%	63.11%	69.62%	+6.51+	★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	53.61%	50.00%	53.79%	+3.79	★★★★
Continuation and Maintenance Phase	70.67%	62.79%	66.67%	+3.88	★★★★

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	50.82%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	60.19%	60.88%	60.10%	-0.78	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	63.48%	71.37%	68.07%	-3.30	★★★★
Ages 21 to 24 Years	67.51%	70.63%	70.00%	-0.63	★★★★
Total	65.09%	71.09%	68.79%	-2.30	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	87.60%	93.83%	92.76%	-1.07	★
Ages 25 Months to 6 Years	83.98%	85.89%	83.03%	-2.86++	★
Ages 7 to 11 Years	86.73%	87.88%	87.90%	+0.02	★★
Ages 12 to 19 Years	85.17%	87.39%	86.71%	-0.68	★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	77.44%	76.89%	74.92%	-1.97++	★★
Ages 45 to 64 Years	86.31%	86.07%	84.31%	-1.76++	★★
Ages 65+ Years	72.60%	80.24%	79.64%	-0.60	★
Total	81.12%	80.81%	78.87%	-1.94++	★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	33.06%	27.33%	30.80%	+3.47	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	72.92%	78.87%	78.59%	-0.28	★★★
Counseling for Nutrition—Total	65.28%	71.13%	73.72%	+2.59	★★★
Counseling for Physical Activity—Total[4]	56.25%	49.06%	57.91%	+8.85+	★★
Adult BMI Assessment					
Adult BMI Assessment	89.29%	89.50%	84.67%	-4.83	★★

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	68.91%	71.13%	63.99%	**-7.14⁺⁺**	★
Postpartum Care	47.33%	48.83%	48.18%	-0.65	★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	82.98%	82.95%	82.00%	-0.95	★
*HbA1c Poor Control (>9.0%)**	53.19%	42.92%	52.07%	**+9.15⁺⁺**	★
HbA1c Control (<8.0%)	37.39%	49.01%	38.93%	**-10.08⁺⁺**	★
Eye Exam (Retinal) Performed	40.27%	46.27%	50.61%	+4.34	★★
Medical Attention for Nephropathy	91.03%	91.32%	90.02%	-1.30	★★
Blood Pressure Control (<140/90 mm Hg)	47.57%	50.68%	41.85%	**-8.83⁺⁺**	★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	84.59%	85.96%	87.36%	+1.40	★★★★★
Medication Compliance 75%—Total	66.27%	69.98%	72.51%	+2.53	★★★★★
Asthma Medication Ratio					
Total	34.24%	47.11%	52.33%	+5.22⁺	★
Controlling High Blood Pressure					
Controlling High Blood Pressure	43.05%	38.53%	29.68%	**-8.85⁺⁺**	★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	78.16%	79.95%	78.67%	-1.28	★★★
Discussing Cessation Medications	50.69%	55.16%	57.96%	+2.80	★★★★
Discussing Cessation Strategies	42.29%	47.12%	45.73%	-1.39	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	89.55%	55.59%	68.20%	+12.61⁺	★★★★★

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	73.34%	39.92%	55.35%	+15.43⁺	★★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	77.60%	82.33%	83.73%	+1.40	★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	57.45%	59.26%	59.79%	+0.53	★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	56.16%	48.47%	48.95%	+0.48	★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	85.62%	87.84%	87.17%	-0.67	★★
Diuretics	85.07%	87.27%	86.04%	-1.23	★★
Total[4]	—	—	86.66%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	31.09%	30.70%	30.89%	+0.19	NC
Total—Black or African American	54.16%	53.90%	54.27%	+0.37	NC
Total—American-Indian and Alaska Native	0.23%	0.27%	0.28%	+0.01	NC
Total—Asian	1.15%	1.21%	1.15%	-0.06	NC

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.07%	0.06%	0.06%	0.00	NC
Total—Some Other Race	2.45%	2.55%	2.63%	+0.08	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	10.84%	11.31%	10.72%	-0.59	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	2.45%	2.55%	2.63%	+0.08	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	99.38%	99.21%	99.13%	-0.08	NC
Spoken Language Preferred for Health Care—Non-English	0.44%	0.79%	0.87%	+0.08	NC
Spoken Language Preferred for Health Care—Unknown	0.18%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	99.38%	99.21%	99.13%	-0.08	NC
Preferred Language for Written Materials—Non-English	0.44%	0.79%	0.87%	+0.08	NC
Preferred Language for Written Materials—Unknown	0.18%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	99.38%	99.21%	99.13%	-0.08	NC
Other Language Needs—Non-English	0.44%	0.79%	0.87%	+0.08	NC
Other Language Needs—Unknown	0.18%	0.00%	0.00%	0.00	NC

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	72.75	73.95	70.05	-3.90	★★
Outpatient Visits—Total	320.89	333.36	336.34	+2.98	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	10.45	10.15	10.34	+0.19	NC
Total Inpatient—Average Length of Stay—Total	4.34	4.01	4.58	+0.57	NC
Maternity—Discharges per 1,000 Member Months—Total	2.70	2.37	2.40	+0.03	NC
Maternity—Average Length of Stay—Total	2.66	2.63	2.69	+0.06	NC
Surgery—Discharges per 1,000 Member Months—Total	2.35	2.30	2.08	-0.22	NC
Surgery—Average Length of Stay—Total	7.63	6.54	7.05	+0.51	NC
Medicine—Discharges per 1,000 Member Months—Total	6.10	6.07	6.44	+0.37	NC
Medicine—Average Length of Stay—Total	3.64	3.45	4.32	+0.87	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	199.52	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	84.30	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	52.59	NC	NC

Table B-9—THC Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	80.72	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	76.16%	78.35%	75.91%	-2.44	★★★
Combination 3	71.78%	72.51%	71.53%	-0.98	★★
Combination 4	67.15%	70.07%	71.29%	+1.22	★★★
Combination 5	58.15%	57.66%	61.56%	+3.90	★★★
Combination 6	38.69%	38.93%	37.71%	-1.22	★★
Combination 7	54.74%	55.96%	61.56%	+5.60	★★★
Combination 8	36.25%	38.20%	37.71%	-0.49	★★
Combination 9	32.85%	31.63%	34.31%	+2.68	★★★
Combination 10	30.66%	30.90%	34.31%	+3.41	★★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	61.56%	66.67%	68.61%	+1.94	★★★
Lead Screening in Children					
Lead Screening in Children	78.86%	77.13%	81.51%	+4.38	★★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	73.21%	79.08%	77.37%	-1.71	★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	54.74%	58.88%	63.26%	+4.38	★★★★
Immunizations for Adolescents					
Combination 1	87.50%	85.40%	84.91%	-0.49	★★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	87.89%	89.46%	90.42%	+0.96+	★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	63.13%	71.07%	76.71%	+5.64+	★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	44.57%	41.48%	44.49%	+3.01	★★
Continuation and Maintenance Phase	59.46%	53.85%	58.02%	+4.17	★★★

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	62.65%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	65.85%	69.10%	67.88%	-1.22	★★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	62.26%	66.04%	67.29%	+1.25	★★★★
Ages 21 to 24 Years	69.46%	71.37%	70.87%	-0.50	★★★★
Total	65.12%	68.21%	68.73%	+0.52	★★★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	96.54%	96.20%	95.11%	-1.09++	★★
Ages 25 Months to 6 Years	89.66%	89.27%	88.96%	-0.31	★★★
Ages 7 to 11 Years	91.17%	91.77%	91.73%	-0.04	★★★
Ages 12 to 19 Years	90.51%	91.88%	91.91%	+0.03	★★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	83.01%	81.34%	78.88%	-2.46++	★★
Ages 45 to 64 Years	91.13%	89.97%	88.66%	-1.31++	★★★
Ages 65+ Years	95.84%	94.79%	95.99%	+1.20	★★★★★
Total	86.34%	84.82%	82.74%	-2.08++	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	24.42%	32.40%	33.20%	+0.80	★★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	71.05%	81.02%	85.89%	+4.87	★★★★
Counseling for Nutrition—Total	68.86%	76.64%	77.86%	+1.22	★★★★
Counseling for Physical Activity—Total[4]	62.04%	62.53%	70.32%	+7.79+	★★★★
Adult BMI Assessment					
Adult BMI Assessment	89.12%	85.40%	94.65%	+9.25+	★★★★★

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	76.03%	80.54%	78.83%	-1.71	★★
Postpartum Care	52.06%	67.40%	67.15%	-0.25	★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	86.81%	88.61%	89.29%	+0.68	★★★
*HbA1c Poor Control (>9.0%)**	34.17%	32.50%	31.29%	-1.21	★★★★
HbA1c Control (<8.0%)	54.58%	56.11%	57.29%	+1.18	★★★★
Eye Exam (Retinal) Performed	64.31%	65.14%	64.43%	-0.71	★★★★
Medical Attention for Nephropathy	93.06%	92.36%	94.43%	+2.07	★★★★★
Blood Pressure Control (<140/90 mm Hg)	62.64%	62.08%	66.29%	+4.21	★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	69.44%	67.42%	75.52%	+8.10[+]	★★★★★
Medication Compliance 75%—Total	45.00%	41.51%	57.49%	+15.98[+]	★★★★★
Asthma Medication Ratio					
Total	64.68%	66.80%	62.26%	-4.54[++]	★★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	52.32%	56.93%	64.48%	+7.55[+]	★★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	78.86%	82.17%	83.54%	+1.37	★★★★★
Discussing Cessation Medications	59.35%	60.80%	61.27%	+0.47	★★★★★
Discussing Cessation Strategies	48.02%	50.56%	52.87%	+2.31	★★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	49.55%	59.84%	61.66%	+1.82	★★★★

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	31.59%	46.87%	46.89%	+0.02	★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	85.54%	85.99%	85.33%	-0.66	★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	74.48%	74.29%	71.10%	-3.19	★★★
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	80.00%	74.03%	75.38%	+1.35	★★
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	60.02%	60.59%	55.04%	-5.55[++]	★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	88.68%	89.75%	88.88%	-0.87[++]	★★★
Diuretics	88.75%	89.19%	88.73%	-0.46	★★★
Total[4]	—	—	88.82%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	50.65%	50.85%	51.27%	+0.42	NC
Total—Black or African American	31.80%	30.38%	30.28%	-0.10	NC
Total—American-Indian and Alaska Native	0.24%	0.26%	0.25%	-0.01	NC
Total—Asian	2.37%	2.11%	2.05%	-0.06	NC

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.01%	0.01%	0.01%	0.00	NC
Total—Some Other Race	0.00%	0.00%	0.00%	0.00	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	14.94%	16.40%	16.15%	-0.25	NC
Total—Declined	0.00%	0.00%	0.00%	0.00	NC
Total—Hispanic or Latino	5.30%	5.61%	5.60%	-0.01	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	95.33%	95.71%	95.63%	-0.08	NC
Spoken Language Preferred for Health Care—Non-English	4.67%	4.28%	4.37%	+0.09	NC
Spoken Language Preferred for Health Care—Unknown	0.00%	0.00%	0.00%	0.00	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	95.33%	95.71%	95.63%	-0.08	NC
Preferred Language for Written Materials—Non-English	4.67%	4.28%	4.37%	+0.09	NC
Preferred Language for Written Materials—Unknown	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	73.22	72.58	69.56	-3.02	★★
Outpatient Visits—Total	367.42	368.15	380.46	+12.31	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	6.59	5.59	6.33	+0.74	NC
Total Inpatient—Average Length of Stay—Total	4.23	4.33	4.18	-0.15	NC
Maternity—Discharges per 1,000 Member Months—Total	2.74	2.49	2.56	+0.07	NC
Maternity—Average Length of Stay—Total	2.62	2.57	2.56	-0.01	NC
Surgery—Discharges per 1,000 Member Months—Total	1.61	1.37	1.49	+0.12	NC
Surgery—Average Length of Stay—Total	6.76	6.56	6.74	+0.18	NC
Medicine—Discharges per 1,000 Member Months—Total	3.06	2.44	3.00	+0.56	NC
Medicine—Average Length of Stay—Total	3.92	4.37	3.91	-0.46	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	184.59	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	1.36	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	0.83	NC	NC

Table B-10—UNI Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	35.33	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Child & Adolescent Care					
Childhood Immunization Status					
Combination 2	78.10%	73.24%	73.97%	+0.73	★★
Combination 3	73.24%	71.53%	70.56%	-0.97	★★
Combination 4	66.67%	65.21%	67.40%	+2.19	★★
Combination 5	55.47%	54.99%	56.93%	+1.94	★★
Combination 6	43.55%	42.09%	48.18%	+6.09	★★★★
Combination 7	52.07%	51.58%	55.23%	+3.65	★★
Combination 8	41.61%	39.17%	47.20%	+8.03+	★★★★
Combination 9	37.23%	34.55%	41.85%	+7.30+	★★★★
Combination 10	36.01%	32.85%	41.61%	+8.76+	★★★★
Well-Child Visits in the First 15 Months of Life					
Six or More Visits	74.21%	74.21%	72.75%	-1.46	★★★★★
Lead Screening in Children					
Lead Screening in Children	88.56%	82.43%	82.73%	+0.30	★★★★
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	69.59%	73.97%	75.18%	+1.21	★★★
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	42.09%	44.50%	47.93%	+3.43	★★
Immunizations for Adolescents					
Combination 1	81.75%	80.90%	80.78%	-0.12	★★★
Appropriate Treatment for Children With Upper Respiratory Infection					
Appropriate Treatment for Children With Upper Respiratory Infection	90.27%	91.15%	93.59%	+2.44+	★★★★
Appropriate Testing for Children With Pharyngitis					
Appropriate Testing for Children With Pharyngitis	68.97%	63.09%	80.16%	+17.07+	★★★
Follow-Up Care for Children Prescribed ADHD Medication[3]					
Initiation Phase	53.16%	42.98%	48.24%	+5.26	★★★
Continuation and Maintenance Phase	57.65%	45.36%	52.43%	+7.07	★★

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Women – Adult Care					
Breast Cancer Screening[4]					
Breast Cancer Screening	—	—	64.08%	NC	NC
Cervical Cancer Screening					
Cervical Cancer Screening	62.53%	67.15%	63.02%	-4.13	★★★
Chlamydia Screening in Women					
Ages 16 to 20 Years	46.95%	44.93%	46.17%	+1.24	★
Ages 21 to 24 Years	56.06%	58.75%	60.71%	+1.96	★★
Total	50.96%	51.13%	52.28%	+1.15	★★
Access to Care					
Children and Adolescents' Access to Primary Care Practitioners					
Ages 12 to 24 Months	97.65%	97.26%	97.15%	-0.11	★★★★
Ages 25 Months to 6 Years	90.18%	90.64%	89.84%	-0.80	★★★
Ages 7 to 11 Years	90.60%	91.82%	92.15%	+0.33	★★★
Ages 12 to 19 Years	92.33%	91.60%	92.03%	+0.43	★★★
Adults' Access to Preventive/Ambulatory Health Services					
Ages 20 to 44 Years	86.23%	84.99%	82.87%	-2.12++	★★★
Ages 45 to 64 Years	88.42%	87.55%	87.40%	-0.15	★★★
Ages 65+ Years	86.44%	91.18%	NA	NC	NC
Total	87.10%	86.02%	84.66%	-1.36++	★★★
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis					
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	43.48%	25.77%	25.24%	-0.53	★★
Obesity					
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents					
BMI Percentile—Total	91.97%	88.81%	89.78%	+0.97	★★★★★
Counseling for Nutrition—Total	65.94%	67.40%	72.26%	+4.86	★★★
Counseling for Physical Activity—Total[4]	64.23%	64.96%	70.80%	+5.84	★★★★
Adult BMI Assessment					
Adult BMI Assessment	95.62%	95.38%	96.84%	+1.46	★★★★★

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Pregnancy Care					
Prenatal and Postpartum Care					
Timeliness of Prenatal Care	86.13%	91.48%	92.94%	+1.46	★★★★★
Postpartum Care	71.78%	72.75%	73.72%	+0.97	★★★★★
Living With Illness					
Comprehensive Diabetes Care					
Hemoglobin A1c (HbA1c) Testing	91.61%	91.04%	92.32%	+1.28	★★★★
*HbA1c Poor Control (>9.0%)**	28.65%	24.73%	30.00%	+5.27++	★★★★
HbA1c Control (<8.0%)	58.21%	59.14%	60.00%	+0.86	★★★★★
Eye Exam (Retinal) Performed	66.06%	67.56%	71.25%	+3.69	★★★★★
Medical Attention for Nephropathy	91.97%	92.11%	91.07%	-1.04	★★★
Blood Pressure Control (<140/90 mm Hg)	75.73%	76.70%	77.50%	+0.80	★★★★★
Medication Management for People With Asthma					
Medication Compliance 50%—Total	53.63%	66.08%	71.01%	+4.93	★★★★
Medication Compliance 75%—Total	22.71%	38.11%	46.56%	+8.45+	★★★★
Asthma Medication Ratio					
Total	64.55%	58.44%	59.92%	+1.48	★★
Controlling High Blood Pressure					
Controlling High Blood Pressure	63.99%	71.05%	72.75%	+1.70	★★★★★
Medical Assistance With Smoking and Tobacco Use Cessation					
Advising Smokers and Tobacco Users to Quit	79.43%	79.18%	77.95%	-1.23	★★★
Discussing Cessation Medications	55.95%	56.90%	56.82%	-0.08	★★★★
Discussing Cessation Strategies	45.39%	45.57%	46.65%	+1.08	★★★
Antidepressant Medication Management[3]					
Effective Acute Phase Treatment	61.13%	59.86%	59.84%	-0.02	★★★★

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Effective Continuation Phase Treatment	40.34%	42.69%	41.41%	-1.28	★★★★
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications					
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	87.20%	88.18%	87.97%	-0.21	★★★★★
Diabetes Monitoring for People With Diabetes and Schizophrenia					
Diabetes Monitoring for People With Diabetes and Schizophrenia	NA	NA	NA	NC	NC
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia					
Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia	NA	NA	NA	NC	NC
Adherence to Antipsychotic Medications for Individuals With Schizophrenia					
Adherence to Antipsychotic Medications for Individuals With Schizophrenia	60.22%	82.18%	82.24%	+0.06	★★★★★
Annual Monitoring for Patients on Persistent Medications					
ACE Inhibitors or ARBs	87.49%	87.60%	87.50%	-0.10	★★
Diuretics	89.29%	88.64%	87.53%	-1.11	★★
Total[4]	—	—	87.51%	NC	NC
Health Plan Diversity[5]					
Race/Ethnicity Diversity of Membership					
Total—White	87.07%	87.04%	87.26%	+0.22	NC
Total—Black or African American	1.41%	1.46%	1.54%	+0.08	NC
Total—American-Indian and Alaska Native	2.53%	2.41%	2.30%	-0.11	NC
Total—Asian	0.28%	0.26%	0.24%	-0.02	NC

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Total—Native Hawaiian and Other Pacific Islander	0.06%	0.05%	0.05%	0.00	NC
Total—Some Other Race	1.39%	1.49%	1.64%	+0.15	NC
Total—Two or More Races	0.00%	0.00%	0.00%	0.00	NC
Total—Unknown	0.00%	0.00%	0.00%	0.00	NC
Total—Declined	7.25%	7.30%	6.96%	-0.34	NC
Total—Hispanic or Latino	1.39%	1.49%	1.64%	+0.15	NC
Language Diversity of Membership					
Spoken Language Preferred for Health Care—English	99.93%	99.94%	99.95%	+0.01	NC
Spoken Language Preferred for Health Care—Non-English	0.04%	0.03%	0.03%	0.00	NC
Spoken Language Preferred for Health Care—Unknown	0.03%	0.03%	0.02%	-0.01	NC
Spoken Language Preferred for Health Care—Declined	0.00%	0.00%	0.00%	0.00	NC
Preferred Language for Written Materials—English	99.93%	99.94%	99.95%	+0.01	NC
Preferred Language for Written Materials—Non-English	0.04%	0.03%	0.03%	0.00	NC
Preferred Language for Written Materials—Unknown	0.03%	0.03%	0.02%	-0.01	NC
Preferred Language for Written Materials—Declined	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Non-English	0.00%	0.00%	0.00%	0.00	NC
Other Language Needs—Unknown	100.00%	100.00%	100.00%	0.00	NC

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Other Language Needs—Declined	0.00%	0.00%	0.00%	0.00	NC
Utilization[5]					
Ambulatory Care—Total (Per 1,000 Member Months)					
*ED Visits—Total**	64.81	66.21	61.07	-5.14	★★★
Outpatient Visits—Total	334.91	341.01	339.03	-1.98	NC
Inpatient Utilization—General Hospital/Acute Care—Total					
Total Inpatient—Discharges per 1,000 Member Months—Total	6.34	6.54	6.26	-0.28	NC
Total Inpatient—Average Length of Stay—Total	3.60	3.79	3.98	+0.19	NC
Maternity—Discharges per 1,000 Member Months—Total	2.05	2.61	2.42	-0.19	NC
Maternity—Average Length of Stay—Total	2.72	2.80	2.77	-0.03	NC
Surgery—Discharges per 1,000 Member Months—Total	1.63	1.95	1.81	-0.14	NC
Surgery—Average Length of Stay—Total	4.69	5.42	5.67	+0.25	NC
Medicine—Discharges per 1,000 Member Months—Total	3.20	2.66	2.65	-0.01	NC
Medicine—Average Length of Stay—Total	3.46	3.32	3.66	+0.34	NC
Use of Opioids From Multiple Providers (Per 1,000 Members)*					
Use of Opioids From Multiple Providers—Multiple Prescribers	—	—	237.61	NC	NC
Use of Opioids From Multiple Providers—Multiple Pharmacies	—	—	92.79	NC	NC
Use of Opioids From Multiple Providers—Multiple Prescribers and Multiple Pharmacies	—	—	65.73	NC	NC

Table B-11—UPP Trend Table

Measure	HEDIS 2016	HEDIS 2017	HEDIS 2018	2017–2018 Comparison[1]	2018 Performance Level[2]
Use of Opioids at High Dosage (Per 1,000 Members)*					
Use of Opioids at High Dosage	—	—	30.99	NC	NC

[1] HEDIS 2017 to HEDIS 2018 comparisons were based on a Chi-square test of statistical significance with a p value of <0.05. 2017–2018 Comparisons shaded green with one cross (+) indicate statistically significant improvement from the previous year. 2017–2018 Comparisons shaded red with two crosses (++) indicate a statistically significant decline in performance from the previous year.

[2] 2018 Performance Levels were based on comparisons of the HEDIS 2018 measure indicator rates to national Medicaid Quality Compass HEDIS 2017 benchmarks, with the exception of the Medications Management for People With Asthma—Medication Compliance 50%—Total measure indicator rate, which was compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmark.

[3] Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when trending rates between 2018 and prior years.

[4] Due to changes in the technical specifications for this measure in HEDIS 2018, NCQA does not recommend trending between 2018 and prior years; therefore, prior year rates are not displayed and comparisons to benchmarks are not performed for this measure.

[5] Significance testing was not performed for utilization-based or health plan description measure indicator rates and any Performance Levels for 2018 or 2017–2018 Comparisons provided for these measures are for information purposes only.

** For this indicator, a lower rate indicates better performance.*

— indicates that the rate is not presented in this report as the measure is a first-year measure; therefore, no trending information is available. This symbol may also indicate that NCQA recommended a break in trending; therefore, no prior year rates are displayed.

NC indicates that a comparison is not appropriate or the measure did not have an applicable benchmark.

NA indicates that the MHP followed the specifications, but the denominator was too small (<30) to report a valid rate.

2018 Performance Levels represent the following percentile comparisons:

★★★★★ *= 90th percentile and above*

★★★★ *= 75th to 89th percentile*

★★★ *= 50th to 74th percentile*

★★ *= 25th to 49th percentile*

★ *= Below 25th percentile*

Appendix C. Performance Summary Stars

Introduction

This section presents the MHPs' performance summary stars for each measure within the following measure domains:

- Child & Adolescent Care
- Women—Adult Care
- Access to Care
- Obesity
- Pregnancy Care
- Living With Illness
- Utilization

Performance ratings were assigned by comparing the MHPs' HEDIS 2018 rates to the HEDIS 2017 Quality Compass national Medicaid benchmarks (from ★ representing *Poor Performance* to ★★★★★ representing *Excellent Performance*). Please note, HSAG assigned performance ratings to only one measure in the Utilization measure domain, *Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits*. Measures in the Health Plan Diversity domain and the remaining utilization-based measure rates were not evaluated based on comparisons to national benchmarks; however, rates for these measure indicators are presented in Appendices A and B. Due to changes in the technical specifications for *Breast Cancer Screening* and *Annual Monitoring for Patients on Persistent Medications—Total* in HEDIS 2018, NCQA does not recommend comparing these measures' rates to national Medicaid benchmarks; therefore, these measures are not displayed in this appendix. Additional details about the performance comparisons and star ratings are found in Section 2.

Child & Adolescent Care Performance Summary Stars

Table C-1—Child & Adolescent Care Performance Summary Stars (Table 1 of 3)

MHP	*Childhood Immunization Status—Combination 2*	*Childhood Immunization Status—Combination 3*	*Childhood Immunization Status—Combination 4*	*Childhood Immunization Status—Combination 5*	*Childhood Immunization Status—Combination 6*	*Childhood Immunization Status—Combination 7*
AET	★	★	★	★	★	★
BCC	★★	★★★	★★★	★★★	★★★	★★★
HAR	★	★	★	★	★	★
MCL	★★	★★	★★	★★★	★★	★★★
MER	★★★	★★★	★★★	★★★	★★★	★★★★
MID	NA	NA	NA	NA	NA	NA
MOL	★★★	★★★	★★★	★★★	★★	★★★
PRI	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
THC	★★	★★	★★	★	★★	★★
UNI	★★★	★★	★★★	★★★	★★	★★★
UPP	★★	★★	★★	★★	★★★★	★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

Table C-2—Child & Adolescent Care Performance Summary Stars (Table 2 of 3)

MHP	*Childhood Immunization Status—Combination 8*	*Childhood Immunization Status—Combination 9*	*Childhood Immunization Status—Combination 10*	*Well-Child Visits in the First 15 Months of Life—Six or More Visits*	*Lead Screening in Children*	*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
AET	★	★	★	★	★★★	★★
BCC	★★★	★★★	★★★	★★★	★★★	★★
HAR	★	★	★	★	★★★	★
MCL	★★	★★	★★	★★★★	★★★★	★★
MER	★★★	★★★	★★★	★★★★★	★★★★	★★★★
MID	NA	NA	NA	NA	NA	★
MOL	★★	★★	★★	★★★★	★★★	★★★
PRI	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★
THC	★★	★★	★★	★★★★	★★	★★★
UNI	★★	★★★	★★★	★★★	★★★★	★★★
UPP	★★★★	★★★★	★★★★	★★★★★	★★★★	★★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

Table C-3—Child & Adolescent Care Performance Summary Stars (Table 3 of 3)

MHP	Adolescent Well-Care Visits	Immunizations for Adolescents—Combination 1 (Meningococcal, Tdap)	Appropriate Treatment for Children With Upper Respiratory Infection	Appropriate Testing for Children With Pharyngitis	Follow-Up Care for Children Prescribed ADHD Medication—Initiation Phase[1]	Follow-Up Care for Children Prescribed ADHD Medication—Continuation and Maintenance Phase[1]
AET	★★★	★★★	★★★	★★	★	★
BCC	★★★	★★★★★	★★	★★★	★★★	★★★
HAR	★	★★	★★★★	★★	NA	NA
MCL	★★	★★★★	★	★★★★	★★★	★★★
MER	★★★★	★★★	★★	★★★	★★	★
MID	★	NA	★	NA	NA	NA
MOL	★★★	★★★★★	★★	★★	★★★	★★★
PRI	★★★★	★★★★★	★★★★	★★★★	★	★
THC	★★★	★★★★	★★★	★★	★★★★	★★★★
UNI	★★★★	★★★★	★★★	★★★	★★	★★★
UPP	★★	★★★	★★★★	★★★	★★★	★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

[1] *Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when comparing rates between 2018 and prior years.*

Women—Adult Care Performance Summary Stars

Table C-4—Women—Adult Care Performance Summary Stars

MHP	*Cervical Cancer Screening*	*Chlamydia Screening in Women—Ages 16 to 20 Years*	*Chlamydia Screening in Women—Ages 21 to 24 Years*	*Chlamydia Screening in Women—Total*
AET	★★★	★★★★★	★★★★★	★★★★★
BCC	★★★	★★★★	★★★	★★★★
HAR	★	★★★★★	★★★★★	★★★★★
MCL	★★★	★★★	★★	★★★
MER	★★★	★★★★	★★★	★★★★
MID	★★	NA	★	★★★
MOL	★★★★★	★★★★	★★★★	★★★★
PRI	★★★★	★★★★	★★★	★★★★
THC	★★★	★★★★	★★★★	★★★★
UNI	★★★★	★★★★	★★★★	★★★★
UPP	★★★	★	★★	★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

Access to Care Performance Summary Stars

Table C-5—Access to Care Performance Summary Stars (Table 1 of 2)

MHP	*Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months*	*Children and Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years*	*Children and Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years*	*Children and Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years*	*Adults' Access to Preventive/ Ambulatory Health Services—Ages 20 to 44 Years*	*Adults' Access to Preventive/ Ambulatory Health Services—Ages 45 to 64 Years*
AET	★	★	★	★	★	★
BCC	★★	★	★★	★★	★★	★★
HAR	★	★	★	★	★	★
MCL	★	★	★★	★★	★★	★★★
MER	★★★	★★★	★★★	★★★	★★★	★★★
MID	★	★	★	★	★	★★★★
MOL	★★	★★★	★★★	★★★	★★★	★★★
PRI	★★★	★★	★★	★★★	★★★	★★★★
THC	★	★	★★	★★	★★	★★
UNI	★★	★★★	★★★	★★★	★★	★★★
UPP	★★★★	★★★	★★★	★★★	★★★	★★★

Table C-6—Access to Care Performance Summary Stars (Table 2 of 2)

MHP	*Adults' Access to Preventive/ Ambulatory Health Services—Ages 65 Years and Older*	*Adults' Access to Preventive/ Ambulatory Health Services—Total*	*Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis*
AET	★★	★	★★★★
BCC	★★	★★	★★★
HAR	NA	★	★★★
MCL	★★	★★★	★★★
MER	★★★★★	★★★	★★★
MID	★★★	★★★	★★★★
MOL	★★★★	★★★	★★★
PRI	★★★★★	★★★	★★★★★
THC	★	★★	★★★
UNI	★★★★★	★★★	★★★
UPP	NA	★★★	★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

Obesity Performance Summary Stars

Table C-7—Obesity Performance Summary Stars

MHP	*Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents—BMI Percentile Documentation—Total*	*Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents—Counseling for Nutrition—Total*	*Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents—Counseling for Physical Activity—Total*	*Adult BMI Assessment*
AET	★★★★★	★★★	★★★	★★★★★
BCC	★★★★	★★★	★★★	★★★★
HAR	★★	★★	★	★
MCL	★★★★	★★	★★	★★★★
MER	★★★★	★★★	★★★	★★★★★
MID	★★★	★★	★★	★★★★
MOL	★★★★	★★★★	★★★★	★★★★★
PRI	★★★★★	★★★★	★★★★★	★★★★★
THC	★★★	★★★	★★	★★
UNI	★★★★	★★★★	★★★★	★★★★★
UPP	★★★★★	★★★	★★★★	★★★★★

Pregnancy Care Performance Summary Stars

Table C-8—Pregnancy Care Performance Summary Stars

MHP	*Prenatal and Postpartum Care—Timeliness of Prenatal Care*	*Prenatal and Postpartum Care—Postpartum Care*
AET	★	★
BCC	★	★★
HAR	★	★
MCL	★★	★★★
MER	★★★	★★★
MID	★	★
MOL	★	★★★★★
PRI	★★	★★★★
THC	★	★
UNI	★★	★★★
UPP	★★★★★	★★★★★

Living With Illness Performance Summary Stars

Table C-9—Living With Illness Performance Summary Stars (Table 1 of 4)

MHP	*Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing*	*Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)**	*Comprehensive Diabetes Care—HbA1c Control (<8.0%)*	*Comprehensive Diabetes Care—Eye Exam (Retinal) Performed*	*Comprehensive Diabetes Care—Medical Attention for Nephropathy*	*Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)*
AET	★	★★	★★	★★	★★★	★
BCC	★★	★★	★★	★★★	★★★	★★★
HAR	★	★	★	★	★	★
MCL	★★★★	★★	★★	★★★★	★★	★★★★
MER	★★★	★★★	★★★	★★★★★	★★★	★★★
MID	★★	★★★	★★★	★★★	★★★★	★★
MOL	★★★★	★★★★	★★★★	★★★	★★★★	★
PRI	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
THC	★	★	★	★★	★★	★
UNI	★★★	★★★★	★★★★	★★★★	★★★★★	★★★
UPP	★★★★	★★★★	★★★★★	★★★★★	★★★	★★★★★

** A lower rate indicates better performance for this measure indicator.*

Table C-10—Living With Illness Performance Summary Stars (Table 2 of 4)

MHP	Medication Management for People With Asthma—Medication Compliance 50%—Total[1]	Medication Management for People With Asthma—Medication Compliance 75%—Total	Asthma Medication Ratio—Total	Controlling High Blood Pressure	Medical Assistance With Smoking and Tobacco Use Cessation—Advising Smokers and Tobacco Users to Quit	Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Medications
AET	★★	★★	★★	★★	★★★★	★★★★★
BCC	★★★★★	★★★★★	★★	★	★★★	★★★
HAR	★★★★	★★★	★★	★	★★★★	★★★★★
MCL	★★★★	★★★★	★★★	★★★	★★	★★★
MER	★★★★	★★★★★	★★	★★★★	★★★★	★★★
MID	★★★★★	★★★★★	★	★★	★★★★★	★★★★★
MOL	★★★	★★★	★★★	★★	★★★★	★★★★
PRI	★★★★	★★★★	★★★★★	★★★★	★★★★★	★★★★★
THC	★★★★★	★★★★★	★	★	★★★	★★★★
UNI	★★★★★	★★★★★	★★★	★★★	★★★★★	★★★★★
UPP	★★★★	★★★★	★★	★★★★★	★★★	★★★★

[1] *Indicates the HEDIS 2018 rates for this measure indicator were compared to the national Medicaid NCQA Audit Means and Percentiles HEDIS 2017 benchmarks.*

Table C-11—Living With Illness Performance Summary Stars (Table 3 of 4)

MHP	*Medical Assistance With Smoking and Tobacco Use Cessation—Discussing Cessation Strategies*	*Antidepressant Medication Management—Effective Acute Phase Treatment*[1]	*Antidepressant Medication Management—Effective Continuation Phase Treatment*[1]	*Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications*	*Diabetes Monitoring for People With Diabetes and Schizophrenia*	*Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia*
AET	★★★★★	★	★★	★★★★★	★	NA
BCC	★★★	★★★★★	★★★★★	★★★	★	★★
HAR	★★★★	★★★★	★★★★	★★★	NA	NA
MCL	★★★	★★★★	★★★	★★★	★★★★	NA
MER	★★★	★★★	★★	★★★★	★★★	★★
MID	★★★	★★★	★★	★	★★★	NA
MOL	★★★	★★★	★★★	★★★★	★★★	★★
PRI	★★★	★★★★★	★★★★★	★★★★	★	NA
THC	★★★	★★★★★	★★★★★	★★★	★	NA
UNI	★★★★	★★★★	★★★★	★★★★	★★★	★★
UPP	★★★	★★★★	★★★★	★★★★★	NA	NA

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

[1] *Due to changes in the technical specifications for this measure in HEDIS 2018, exercise caution when comparing rates between 2018 and prior years.*

Table C-12—Living With Illness Performance Summary Stars (Table 4 of 4)

MHP	*Adherence to Antipsychotic Medications for Individuals With Schizophrenia*	*Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs*	*Annual Monitoring for Patients on Persistent Medications—Diuretics*
AET	★	★★	★★
BCC	★★	★★	★★
HAR	NA	★	★
MCL	★★★★	★	★★
MER	★★★★	★	★
MID	★★★★★	★	★★
MOL	★★★	★★★	★★★
PRI	★★★	★★★	★★
THC	★	★★	★★
UNI	★★	★★★	★★★
UPP	★★★★★	★★	★★

NA indicates that the MHP followed the specifications but the denominator was too small (<30) to report a valid rate.

Utilization Performance Summary Stars

Table C-13—Utilization Performance Summary Stars

MHP	*Ambulatory Care—Total (Per 1,000 Member Months)—Emergency Department Visits—Total**
AET	★
BCC	★★
HAR	★★
MCL	★
MER	★
MID	★★
MOL	★★
PRI	★★
THC	★★
UNI	★★
UPP	★★★

** A lower rate may indicate more favorable performance for this measure indicator (i.e., low rates of emergency department services may indicate better utilization of services). Therefore, Quality Compass percentiles were reversed to align with performance (e.g., the 10th percentile [a lower rate] was inverted to become the 90th percentile, indicating better performance).*

2018 Michigan Department of Health and Human Services

Adult Medicaid Health Plan CAHPS® Report

September 2018

HSAG HEALTH SERVICES ADVISORY GROUP

Table of Contents

1. Executive Summary

Introduction

The Michigan Department of Health and Human Services (MDHHS) periodically assesses the perceptions and experiences of members enrolled in the MDHHS Medicaid health plans (MHPs) and the Fee-for-Service (FFS) population as part of its process for evaluating the quality of health care services provided to adult members in the MDHHS Medicaid Program. MDHHS contracted with Health Services Advisory Group, Inc. (HSAG) to administer and report the results of the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Health Plan Survey for the MDHHS Medicaid Program.[1-1,1-2] The goal of the CAHPS Health Plan Survey is to provide performance feedback that is actionable and that will aid in improving overall member satisfaction.

This report presents the 2018 CAHPS results of adult members enrolled in an MHP or FFS. A sample of at least 1,350 adult members was selected from the FFS population and each MHP. The surveys were completed in the Spring of 2018. The standardized survey instrument selected was the CAHPS 5.0 Adult Medicaid Health Plan Survey with the Healthcare Effectiveness Data and Information Set (HEDIS®) supplemental item set.[1-3,1-4]

Report Overview

Results presented in this report include:

- Four global ratings: Rating of Health Plan, Rating of All Health Care, Rating of Personal Doctor, and Rating of Specialist Seen Most Often.
- Five composite measures: Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, Customer Service, and Shared Decision Making.
- Two individual item measures: Coordination of Care and Health Promotion and Education.
- Three Effectiveness of Care measures: Advising Smokers and Tobacco Users to Quit, Discussing Cessation Medications, and Discussing Cessation Strategies.

[1-1] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[1-2] HSAG surveyed the FFS Medicaid population. The 11 MHPs contracted with various survey vendors to administer the CAHPS survey.
[1-3] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).
[1-4] The 2018 CAHPS results were reported to NCQA for the 11 MHPs. The 2018 CAHPS survey results for the FFS population were not reported to NCQA.

HSAG presents aggregate statewide results and compares them to national Medicaid data and the prior year's results, where appropriate. Throughout this report, two statewide aggregate results are presented for comparative purposes:

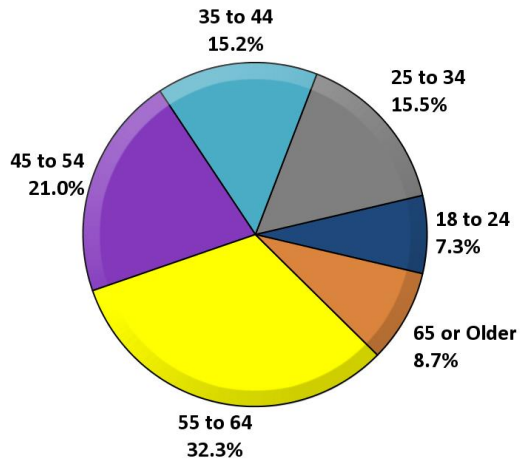
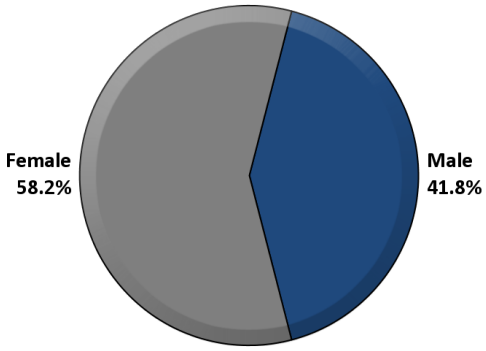
- MDHHS Medicaid Program – Combined results for FFS and the MHPs.
- MDHHS Medicaid Managed Care Program – Combined results for the MHPs.

Key Findings

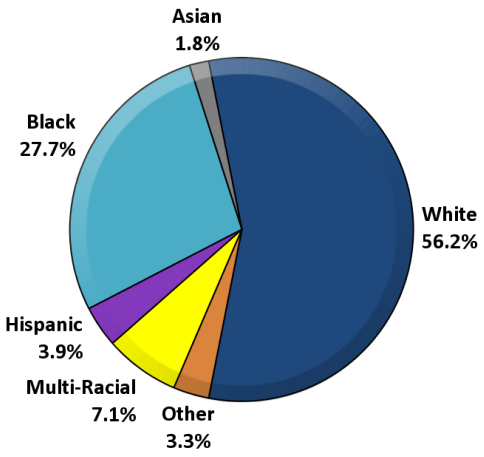
Survey Dispositions and Demographics

Table 1-1 provides an overview of the MDHHS Medicaid Program adult member demographics and survey dispositions. Please note, some percentages displayed in the table below may not total 100 percent due to rounding.

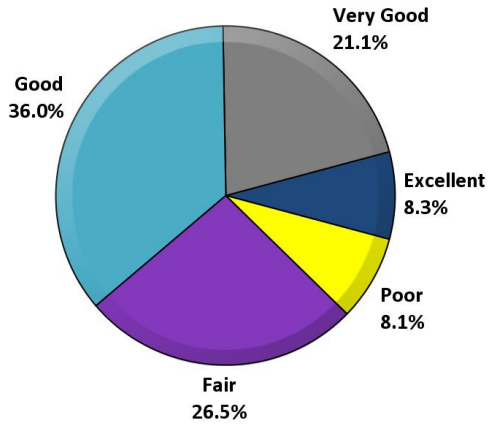
Table 1-1—Member Demographics and Survey Dispositions

Age	Gender
	

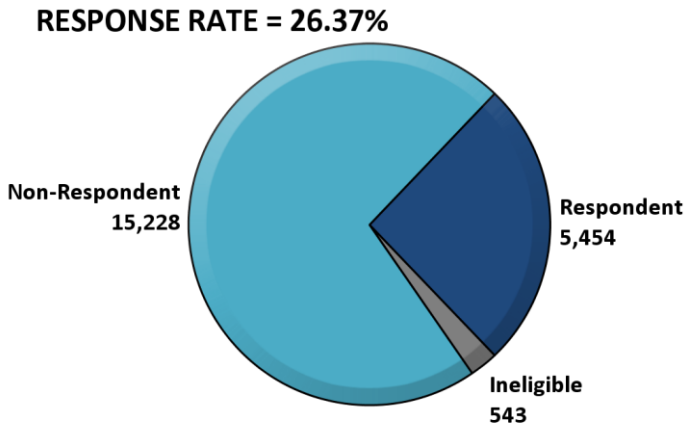
Race/Ethnicity



General Health Status



Survey Dispositions



National Comparisons and Trend Analysis

A three-point mean score was determined for the four CAHPS global ratings, four CAHPS composite measures, and one CAHPS individual item measure. The resulting three-point mean scores were compared to the National Committee for Quality Assurance's (NCQA's) 2018 HEDIS Benchmarks and Thresholds for Accreditation to derive the overall member satisfaction ratings (i.e., star ratings) for each CAHPS measure.[1-5,1-6] In addition, a trend analysis was performed that compared the 2018 CAHPS results to their corresponding 2017 CAHPS results. Table 1-2, on the following page, provides highlights of the National Comparisons and Trend Analysis findings for the MDHHS Medicaid Program. The numbers presented below the stars represent the three-point mean score for each measure, while the stars represent overall member satisfaction ratings when the three-point means were compared to NCQA HEDIS Benchmarks and Thresholds for Accreditation.

[1-5] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

[1-6] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure, and the Health Promotion and Education individual item measure; therefore, these CAHPS measures were excluded from the National Comparisons analysis.

Table 1-2—National Comparisons and Trend Analysis MDHHS Medicaid Program

Measure	National Comparisons	Trend Analysis
Global Rating		
Rating of Health Plan	★★★ 2.47	—
Rating of All Health Care	★★ 2.38	▲
Rating of Personal Doctor	★★★ 2.51	—
Rating of Specialist Seen Most Often	★★★ 2.55	—
Composite Measure		
Getting Needed Care	★★★ 2.42	—
Getting Care Quickly	★★★★ 2.47	—
How Well Doctors Communicate	★★★★★ 2.66	—
Customer Service	★★★★ 2.60	—
Individual Item Measure		
Coordination of Care	★★ 2.39	—

Star Assignments Based on Percentiles

★★★★★ 90th or Above ★★★★ 75th-89th ★★★ 50th-74th ★★ 25th-49th ★ Below 25th

▲ *Statistically significantly higher in 2018 than in 2017.*

▼ *Statistically significantly lower in 2018 than in 2017.*

— *Indicates the 2018 score is not statistically significantly different than the 2017 score.*

The following are highlights of this comparison:

- The MDHHS Medicaid Program scored at or above the 90th percentile on one measure, How Well Doctors Communicate.
- The MDHHS Medicaid Program scored at or between the 75th and 89th percentiles on two measures: Getting Care Quickly and Customer Service.
- The MDHHS Medicaid Program scored at or between the 50th and 74th percentiles on four measures: Rating of Health Plan, Rating of Personal Doctor, Rating of Specialist Seen Most Often, and Getting Needed Care.
- The MDHHS Medicaid Program scored at or between the 25th and 49th percentiles on two measures: Rating of All Health Care and Coordination of Care.

Statewide Comparisons

HSAG calculated top-box rates (i.e., rates of satisfaction) for each global rating, composite measure, individual item measure, and overall rates for the Effectiveness of Care measures. HSAG compared the MHP and FFS results to the MDHHS Medicaid Managed Care Program average to determine if plan or program results were statistically significantly different than the MDHHS Medicaid Managed Care Program average. Table 1-3 through Table 1-5 show the results of this analysis for the global ratings, composite measures, individual item measures, and Effectiveness of Care measures.

Table 1-3—Statewide Comparisons: Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
Fee-for-Service	↓	—	—	—
Aetna Better Health of Michigan	↓	—	—	—
Blue Cross Complete of Michigan	—	—	—	—
HAP Midwest Health Plan	↑	—	—	—
Harbor Health Plan	↓	—	—	—+
McLaren Health Plan	↑	—	—	—
Meridian Health Plan of Michigan	—	—	—	—
Molina Healthcare of Michigan	↓	—	—	—
Priority Health Choice, Inc.	—	—	—	—
Total Health Care, Inc.	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—
Upper Peninsula Health Plan	↑	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below than the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

Table 1-4—Statewide Comparisons: Composite Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Shared Decision Making
Fee-for-Service	—	—	—	↓+	—
Aetna Better Health of Michigan	—	—	—	—+	—
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—	↑	—	—	—
Harbor Health Plan	↓	↓	—	—	—+
McLaren Health Plan	↑	—	—	—+	—
Meridian Health Plan of Michigan	—	—	—	—	↑
Molina Healthcare of Michigan	↓	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	↑	—	—	↑

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below than the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

Table 1-5—Statewide Comparisons: Individual Item and Effectiveness of Care Measures

Plan Name	Coordination of Care	Health Promotion and Education	Advising Smokers and Tobacco Users to Quit	Discussing Cessation Medications	Discussing Cessation Strategies
Fee-for-Service	—	—	—	—	—
Aetna Better Health of Michigan	—	—	—	—	↑
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—	—	—	—	—
Harbor Health Plan	—+	—	—	—	—
McLaren Health Plan	—	—	—	—	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

The results from the Statewide Comparisons presented in Table 1-3 through Table 1-5 revealed that the following plan had three measures that were statistically significantly *higher* than the MDHHS Medicaid Managed Care Program average:

- Upper Peninsula Health Plan

The following plans had two measures that were statistically significantly *higher* than the MDHHS Medicaid Managed Care Program average:

- HAP Midwest Health Plan
- McLaren Health Plan

The following plans had one measure that was statistically significantly higher *than* the MDHHS Medicaid Managed Care Program average:

- Aetna Better Health of Michigan
- Meridian Health Plan of Michigan

Conversely, the following plan had three measures that were statistically significantly *lower* than the MDHHS Medicaid Managed Care Program average:

- Harbor Health Plan

The following plan/population had two measures that were statistically significantly *lower* than the MDHHS Medicaid Managed Care Program average:

- Fee-for-Service
- Molina Healthcare of Michigan

The following plan had one measure that was statistically significantly *lower* than the MDHHS Medicaid Managed Care Program average:

- Aetna Better Health of Michigan

Key Drivers of Satisfaction

HSAG focused the key drivers of satisfaction analysis on the following three global ratings: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. HSAG evaluated these global ratings to determine if particular CAHPS items (i.e., questions) are strongly correlated with one or more of these measures. These individual CAHPS items, which HSAG refers to as "key drivers," are driving levels of satisfaction with each of the three measures. Table 1-6 provides a summary of the key drivers identified for the MDHHS Medicaid Program.

Table 1-6—MDHHS Medicaid Program Key Drivers of Satisfaction

Rating of Health Plan
Respondents reported that their health plan's customer service did not always give them the information or help they needed.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that forms from their health plan were often not easy to fill out.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of All Health Care
Respondents reported that when they talked about starting or stopping a prescription medicine, a doctor or other health provider did not ask what they thought was best for them.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of Personal Doctor
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

2018 CAHPS Performance Measures

The CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set includes 53 core questions that yield 14 measures of satisfaction. These measures include four global rating questions, five composite measures, two individual item measures, and three Effectiveness of Care measures. The global measures (also referred to as global ratings) reflect overall satisfaction with the health plan, health care, personal doctors, and specialists. The composite measures are sets of questions grouped together to address different aspects of care (e.g., "Getting Needed Care" or "Getting Care Quickly"). The individual item measures are individual questions that look at a specific area of care (i.e., "Coordination of Care" and "Health Promotion and Education"). The Effectiveness of Care measures assess the various aspects of providing medical assistance with smoking and tobacco use cessation.

Table 2-1 lists the measures included in the CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set.

Table 2-1—CAHPS Measures

Global Ratings	Composite Measures	Individual Item Measures	Effectiveness of Care Measures
Rating of Health Plan	Getting Needed Care	Coordination of Care	Advising Smokers and Tobacco Users to Quit
Rating of All Health Care	Getting Care Quickly	Health Promotion and Education	Discussing Cessation Medications
Rating of Personal Doctor	How Well Doctors Communicate		Discussing Cessation Strategies
Rating of Specialist Seen Most Often	Customer Service		
	Shared Decision Making		

How CAHPS Results Were Collected

NCQA mandates a specific HEDIS survey methodology to ensure the collection of CAHPS data is consistent throughout all plans. In accordance with NCQA requirements, the sampling procedures and survey protocol were adhered to as described below.

Sampling Procedures

MDHHS provided HSAG with a list of all eligible members for the sampling frame, per HEDIS specifications. HSAG inspected a sample of the file records to check for any apparent problems with the files, such as missing address elements. The MHPs contracted with separate survey vendors to perform sampling. Following HEDIS requirements, members were sampled who met the following criteria:

- Were 18 years of age or older as of December 31, 2017.
- Were currently enrolled in an MHP or FFS.
- Had been continuously enrolled in the plan or program for at least five of the last six months (July through December) of 2017.
- Had Medicaid as a payer.

Next, a systematic sample of members was selected for inclusion in the survey. For each MHP, no more than one member per household was selected as part of the survey samples. A sample of at least 1,350 adult members was selected from the FFS population and each MHP, with one exception.[2-1] Table 3-1 in the Results section provides an overview of the sample sizes for each plan and program.

Survey Protocol

The survey administration protocol employed by the MHPs and FFS was a mixed-mode methodology, which allowed for two methods by which members could complete a survey. The first, or mail phase, consisted of sampled members receiving a survey via mail. Non-respondents received a reminder postcard, followed by a second survey mailing and reminder postcard.

The second phase, or telephone phase, consisted of Computer Assisted Telephone Interviewing (CATI) of members who did not mail in a completed survey. At least three CATI calls to each non-respondent were attempted.[2-2] It has been shown that the addition of the telephone phase aids in the reduction of

[2-1] Some MHPs elected to oversample their population.

[2-2] National Committee for Quality Assurance. *Quality Assurance Plan for HEDIS 2018 Survey Measures.* Washington, DC: NCQA; 2017.

non-response bias by increasing the number of respondents who are more demographically representative of a plan's population.[2-3]

Table 2-2 shows the standard mixed-mode (i.e., mail followed by telephone follow-up) CAHPS timeline used in the administration of the CAHPS surveys.

Table 2-2—CAHPS Mixed-Mode Methodology Survey Timeline

Task	Timeline
Send first questionnaire with cover letter to the adult member.	0 days
Send a postcard reminder to non-respondents 4-10 days after mailing the first questionnaire.	4 – 10 days
Send a second questionnaire (and letter) to non-respondents approximately 35 days after mailing the first questionnaire.	35 days
Send a second postcard reminder to non-respondents 4-10 days after mailing the second questionnaire.	39 – 45 days
Initiate CATI interviews for non-respondents approximately 21 days after mailing the second questionnaire.	56 days
Initiate systematic contact for all non-respondents such that at least three telephone calls are attempted at different times of the day, on different days of the week, and in different weeks.	56 – 70 days
Telephone follow-up sequence completed (i.e., completed interviews obtained or maximum calls reached for all non-respondents) approximately 14 days after initiation.	70 days

[2-3] Fowler FJ Jr., Gallagher PM, Stringfellow VL, et al. "Using Telephone Interviews to Reduce Nonresponse Bias to Mail Surveys of Health Plan Members." *Medical Care*. 2002; 40(3): 190-200.

How CAHPS Results Were Calculated and Displayed

HSAG used the CAHPS scoring approach recommended by NCQA in Volume 3 of HEDIS Specifications for Survey Measures. Based on NCQA's recommendations and HSAG's extensive experience evaluating CAHPS data, HSAG performed a number of analyses to comprehensively assess member satisfaction. In addition to individual plan results, HSAG calculated an MDHHS Medicaid Program average and an MDHHS Medicaid Managed Care Program average. HSAG combined results from FFS and the MHPs to calculate the MDHHS Medicaid Program average. HSAG combined results from the MHPs to calculate the MDHHS Medicaid Managed Care Program average. This section provides an overview of each analysis.

Who Responded to the Survey

The administration of the CAHPS survey is comprehensive and is designed to achieve the highest possible response rate. NCQA defines the response rate as the total number of completed surveys divided by all eligible members of the sample.[2-4] HSAG considered a survey completed if members answered at least three of the following five questions: 3, 15, 24, 28, and 35. Eligible members included the entire sample minus ineligible members. Ineligible members met at least one of the following criteria: they were deceased, were invalid (did not meet the eligible criteria), were mentally or physically incapacitated, or had a language barrier.

$$\textit{Response Rate} = \frac{\textit{Number of Completed Surveys}}{\textit{Sample - Ineligibles}}$$

Demographics of Adult Members

The demographics analysis evaluated demographic information of adult members. The demographic characteristics included age, gender, race/ethnicity, level of education, and general health status. MDHHS should exercise caution when extrapolating the CAHPS results to the entire population if the respondent population differs significantly from the actual population of the plan or program.

National Comparisons

HSAG conducted an analysis of the CAHPS survey results using NCQA HEDIS Specifications for Survey Measures. Although NCQA requires a minimum of at least 100 responses on each item in order to obtain a reportable CAHPS Survey result, HSAG presented results with fewer than 100 responses.

[2-4] National Committee for Quality Assurance. *HEDIS® 2018, Volume 3: Specifications for Survey Measures.* Washington, DC: NCQA; 2017.

Therefore, caution should be exercised when evaluating measures' results with fewer than 100 responses, which are denoted with a cross (+).

Table 2-3 shows the percentiles that were used to determine star ratings for each CAHPS measure.

Table 2-3—Star Ratings

Stars	Percentiles
★★★★★ Excellent	At or above the 90th percentile
★★★★ Very Good	At or between the 75th and 89th percentiles
★★★ Good	At or between the 50th and 74th percentiles
★★ Fair	At or between the 25th and 49th percentiles
★ Poor	Below the 25th percentile

In order to perform the National Comparisons, a three-point mean score was determined for each CAHPS measure. HSAG compared the resulting three-point mean scores to published NCQA HEDIS Benchmarks and Thresholds for Accreditation to derive the overall member satisfaction ratings for each CAHPS measure.[2-5]

Table 2-4, on the following page, shows the NCQA HEDIS Benchmarks and Thresholds for Accreditation used to derive the overall adult Medicaid member satisfaction ratings on each CAHPS measure.[2-6] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure and the Health Promotion and Education individual item measure; therefore, star ratings could not be assigned for these measures.

[2-5] For detailed information on the derivation of three-point mean scores, please refer to *HEDIS® 2018, Volume 3: Specifications for Survey Measures.*

[2-6] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

Table 2-4—Overall Adult Medicaid Member Satisfaction Ratings Crosswalk

Measure	90th Percentile	75th Percentile	50th Percentile	25th Percentile
Rating of Health Plan	2.55	2.51	2.46	2.39
Rating of All Health Care	2.48	2.44	2.39	2.35
Rating of Personal Doctor	2.57	2.53	2.50	2.43
Rating of Specialist Seen Most Often	2.59	2.56	2.51	2.48
Getting Needed Care	2.47	2.43	2.39	2.33
Getting Care Quickly	2.52	2.47	2.43	2.37
How Well Doctors Communicate	2.64	2.58	2.54	2.48
Customer Service	2.61	2.58	2.54	2.48
Coordination of Care	2.53	2.48	2.43	2.36

Statewide Comparisons

Global Ratings, Composite Measures, and Individual Item Measures

For purposes of the Statewide Comparisons analysis, HSAG calculated question summary rates for each global rating and individual item, and global proportions for each composite measure, following NCQA HEDIS Specifications for Survey Measures.[2-7] The scoring of the global ratings, composite measures, and individual item measures involved assigning top-box responses a score of one, with all other responses receiving a score of zero. A "top-box" response was defined as follows:

- "9" or "10" for the global ratings;
- "Usually" or "Always" for the Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, and Customer Service composites, and the Coordination of Care individual item;
- "Yes" for the Shared Decision Making composite and the Health Promotion and Education individual item.

Effectiveness of Care Measures: Medical Assistance with Smoking and Tobacco Use Cessation

HSAG calculated three rates that assess different facets of providing medical assistance with smoking and tobacco use cessation:

- Advising Smokers and Tobacco Users to Quit
- Discussing Cessation Medications
- Discussing Cessation Strategies

[2-7] National Committee for Quality Assurance. *HEDIS® 2018, Volume 3: Specifications for Survey Measures.* Washington, DC: NCQA; 2017.

These rates assess the percentage of smokers or tobacco users who were advised to quit, were recommended cessation medications, and were provided cessation methods or strategies, respectively. Responses of "Sometimes," "Usually," and "Always" were used to determine if the member qualified for inclusion in the numerator. The rates presented follow NCQA's methodology of calculating a rolling average using the current and prior year's results. Please exercise caution when reviewing the trend analysis results for the medical assistance with smoking and tobacco use cessation measures, as the 2018 results contain members who responded to the survey and indicated that they were current smokers or tobacco users in 2017 and 2018.

Weighting

Both a weighted MDHHS Medicaid Program rate and a weighted MDHHS Medicaid Managed Care Program rate were calculated. Results were weighted based on the total eligible population for each plan's or program's adult population. The MDHHS Medicaid Program average includes results from both the MHPs and the FFS population. The MDHHS Medicaid Managed Care Program average is limited to the results of the MHPs (i.e., the FFS population is not included). For the Statewide Comparisons, no threshold number of responses was required for the results to be reported. Measures with fewer than 100 responses are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

MHP Comparisons

The results of the MHPs were compared to the MDHHS Medicaid Managed Care Program average. Two types of hypothesis tests were applied to these results. First, a global *F* test was calculated, which determined whether the difference between MHP means was significant. If the *F* test demonstrated MHP-level differences (i.e., p value < 0.05), then a *t* test was performed for each MHP. The *t* test determined whether each MHP's mean was statistically significantly different from the MDHHS Medicaid Managed Care Program average. This analytic approach follows the Agency for Healthcare Research and Quality's (AHRQ's) recommended methodology for identifying significant plan-level performance differences.

Fee-for-Service Comparisons

The results of the FFS population were compared to the MDHHS Medicaid Managed Care Program average. One type of hypothesis test was applied to these results. A *t* test was performed to determine whether the results of the FFS population were statistically significantly different (i.e., p value < 0.05) from the MDHHS Medicaid Managed Care Program average results.

Trend Analysis

A trend analysis was performed that compared the 2018 CAHPS scores to the corresponding 2017 CAHPS scores to determine whether there were statistically significant differences. A *t* test was performed to determine whether results in 2017 were statistically significantly different from results in 2018. A difference was considered statistically significant if the two-sided p value of the *t* test was less

than 0.05. The two-sided *p* value of the *t* test is the probability of observing a test statistic as extreme as or more extreme than the one actually observed by chance. Measures with fewer than 100 responses are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

Key Drivers of Satisfaction Analysis

HSAG performed an analysis of key drivers of satisfaction for the following measures: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. The purpose of the key drivers of satisfaction analysis is to help decision makers identify specific aspects of care that will most benefit from quality improvement (QI) activities. The analysis provides information on: 1) how ***well*** the MDHHS Medicaid Program is performing on the survey item and 2) how ***important*** that item is to overall satisfaction.

The performance on a survey item was measured by calculating a problem score, in which a negative experience with care was defined as a problem and assigned a "1," and a positive experience with care (i.e., non-negative) was assigned a "0." The higher the problem score, the lower the member satisfaction with the aspect of service measured by that question. The problem score could range from 0 to 1.

For each item evaluated, the relationship between the item's problem score and performance on each of the three measures was calculated using a Pearson product moment correlation, which is defined as the covariance of the two scores divided by the product of their standard deviations. Items were then prioritized based on their overall problem score and their correlation to each measure. Key drivers of satisfaction were defined as those items that:

- Had a problem score that was greater than or equal to the median problem score for all items examined.
- Had a correlation that was greater than or equal to the median correlation for all items examined.

Limitations and Cautions

The findings presented in this CAHPS report are subject to some limitations in the survey design, analysis, and interpretation. MDHHS should consider these limitations when interpreting or generalizing the findings.

Case-Mix Adjustment

The demographics of a response group may impact member satisfaction. Therefore, differences in the demographics of the response group may impact CAHPS results. NCQA does not recommend case-mix adjusting Medicaid CAHPS results to account for these differences; therefore, no case-mix adjusting was performed on these CAHPS results.[2-8]

Non-Response Bias

The experiences of the survey respondent population may be different than that of non-respondents with respect to their health care services and may vary by plan or program. Therefore, MDHHS should consider the potential for non-response bias when interpreting CAHPS results.

Causal Inferences

Although this report examines whether respondents report differences in satisfaction with various aspects of their health care experiences, these differences may not be completely attributable to an MHP or the FFS population. These analyses identify whether respondents give different ratings of satisfaction with their MHP or the FFS population. The survey by itself does not necessarily reveal the exact cause of these differences.

Missing Phone Numbers

The volume of missing telephone numbers may impact the response rates and the validity of the survey results. For instance, a certain segment of the population may be more likely to have missing phone information than other segments.

[2-8] Agency for Healthcare Research and Quality. *CAHPS Health Plan Survey and Reporting Kit 2008*. Rockville, MD: US Department of Health and Human Services; 2008.

Survey Vendor Effects

The CAHPS survey was administered by multiple survey vendors. NCQA developed its Survey Vendor Certification Program to ensure standardization of data collection and the comparability of results across health plans. However, due to the different processes employed by the survey vendors, there is still the small potential for vendor effects. Therefore, survey vendor effects should be considered when interpreting the CAHPS results.

3. Results

Who Responded to the Survey

A total of 21,225 surveys were distributed to adult members. A total of 5,454 surveys were completed. The CAHPS Survey response rate is the total number of completed surveys divided by all eligible members of the sample. A survey was considered complete if members answered at least three of the following five questions on the survey: 3, 15, 24, 28, and 35. Eligible members included the entire sample minus ineligible members. Ineligible members met at least one of the following criteria: they were deceased, were invalid (did not meet the eligible criteria), were mentally or physically incapacitated, or had a language barrier.

Table 3-1 shows the total number of members sampled, the number of surveys completed, the number of ineligible members, and the response rates.

Table 3-1—Total Number of Respondents and Response Rates

Plan Name	Sample Size	Completes	Ineligibles	Response Rates
MDHHS Medicaid Program	**21,225**	**5,454**	**543**	**26.37%**
Fee-for-Service	1,350	380	125	31.02%
MDHHS Medicaid Managed Care Program	**19,875**	**5,074**	**418**	**26.08%**
Aetna Better Health of Michigan	1,485	279	17	19.01%
Blue Cross Complete of Michigan	1,825	382	14	21.09%
HAP Midwest Health Plan	1,350	470	77	36.92%
Harbor Health Plan	1,350	271	51	20.86%
McLaren Health Plan	1,350	351	16	26.31%
Meridian Health Plan of Michigan	1,890	534	39	28.85%
Molina Healthcare of Michigan	2,700	733	61	27.78%
Priority Health Choice, Inc.	1,850	477	22	26.09%
Total Health Care, Inc.	2,160	487	37	22.94%
UnitedHealthcare Community Plan	1,755	417	49	24.44%
Upper Peninsula Health Plan	2,160	673	35	31.67%

Demographics of Adult Members

Table 3-2 depicts the ages of members who completed a CAHPS survey.

Table 3-2—Adult Member Demographics: Age

Plan Name	18 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and older
MDHHS Medicaid Program	**7.3%**	**15.5%**	**15.2%**	**21.0%**	**32.3%**	**8.7%**
Fee-for-Service	7.0%	9.9%	12.1%	12.9%	21.8%	36.3%
MDHHS Medicaid Managed Care Program	**7.3%**	**15.9%**	**15.4%**	**21.6%**	**33.1%**	**6.7%**
Aetna Better Health of Michigan	8.3%	13.8%	17.0%	22.5%	37.0%	1.4%
Blue Cross Complete of Michigan	6.4%	19.3%	15.8%	25.4%	30.7%	2.4%
HAP Midwest Health Plan	1.9%	6.3%	10.2%	14.7%	26.2%	40.7%
Harbor Health Plan	1.5%	14.0%	14.0%	25.4%	43.2%	1.9%
McLaren Health Plan	7.5%	18.2%	16.2%	24.9%	32.7%	0.6%
Meridian Health Plan of Michigan	7.6%	23.8%	15.9%	16.1%	33.1%	3.6%
Molina Healthcare of Michigan	8.0%	17.0%	14.5%	22.3%	31.5%	6.7%
Priority Health Choice, Inc.	8.1%	18.4%	12.8%	20.6%	34.0%	6.0%
Total Health Care, Inc.	8.3%	14.8%	17.4%	23.9%	33.5%	2.1%
UnitedHealthcare Community Plan	10.0%	15.4%	20.4%	25.1%	25.1%	4.0%
Upper Peninsula Health Plan	9.3%	13.1%	16.1%	21.5%	39.5%	0.5%
Please note, percentages may not total 100% due to rounding.						

Table 3-3 depicts the gender of members who completed a CAHPS survey.

Table 3-3—Adult Member Demographics: Gender

Plan Name	Male	Female
MDHHS Medicaid Program	**41.8%**	**58.2%**
Fee-for-Service	30.9%	69.1%
MDHHS Medicaid Managed Care Program	**42.7%**	**57.3%**
Aetna Better Health of Michigan	44.9%	55.1%
Blue Cross Complete of Michigan	44.8%	55.2%
HAP Midwest Health Plan	35.1%	64.9%
Harbor Health Plan	65.9%	34.1%
McLaren Health Plan	39.9%	60.1%
Meridian Health Plan of Michigan	41.2%	58.8%
Molina Healthcare of Michigan	41.4%	58.6%
Priority Health Choice, Inc.	37.7%	62.3%
Total Health Care, Inc.	43.9%	56.1%
UnitedHealthcare Community Plan	38.2%	61.8%
Upper Peninsula Health Plan	45.8%	54.2%
Please note, percentages may not total 100% due to rounding.		

Table 3-4 depicts the race and ethnicity of members who completed a CAHPS survey.

Table 3-4—Adult Member Demographics: Race/Ethnicity

Plan Name	White	Hispanic	Black	Asian	Other	Multi-Racial
MDHHS Medicaid Program	**56.2%**	**3.9%**	**27.7%**	**1.8%**	**3.3%**	**7.1%**
Fee-for-Service	64.3%	6.2%	17.7%	3.2%	4.3%	4.3%
MDHHS Medicaid Managed Care Program	**55.5%**	**3.8%**	**28.5%**	**1.7%**	**3.3%**	**7.3%**
Aetna Better Health of Michigan	29.0%	4.0%	55.1%	0.7%	4.4%	6.6%
Blue Cross Complete of Michigan	53.0%	3.0%	29.5%	2.4%	4.3%	7.8%
HAP Midwest Health Plan	37.9%	3.1%	46.0%	2.6%	5.2%	5.2%
Harbor Health Plan	16.7%	3.5%	68.1%	0.8%	3.5%	7.4%
McLaren Health Plan	75.3%	3.5%	9.9%	0.6%	1.5%	9.3%
Meridian Health Plan of Michigan	69.2%	3.2%	17.7%	1.1%	2.3%	6.5%
Molina Healthcare of Michigan	45.6%	5.9%	34.2%	1.3%	3.2%	9.8%
Priority Health Choice, Inc.	72.0%	6.7%	10.2%	3.0%	2.2%	5.9%
Total Health Care, Inc.	32.5%	3.2%	50.0%	1.9%	2.8%	9.5%
UnitedHealthcare Community Plan	54.7%	4.0%	26.2%	4.3%	4.8%	6.0%
Upper Peninsula Health Plan	89.7%	1.1%	0.6%	0.2%	2.7%	5.7%
Please note, percentages may not total 100% due to rounding.						

Table 3-5 depicts the level of education of members who completed a CAHPS survey.

Table 3-5—Adult Member Demographics: Education

Plan Name	8th Grade or Less	Some High School	High School Graduate	Some College	College Graduate
MDHHS Medicaid Program	**4.8%**	**14.6%**	**40.2%**	**30.9%**	**9.5%**
Fee-for-Service	11.5%	12.3%	36.9%	32.5%	6.8%
MDHHS Medicaid Managed Care Program	**4.3%**	**14.8%**	**40.4%**	**30.8%**	**9.7%**
Aetna Better Health of Michigan	2.2%	15.0%	41.4%	30.8%	10.6%
Blue Cross Complete of Michigan	1.9%	16.6%	32.6%	32.1%	16.8%
HAP Midwest Health Plan	10.5%	15.3%	41.1%	26.7%	6.3%
Harbor Health Plan	3.4%	24.1%	40.2%	26.1%	6.1%
McLaren Health Plan	3.5%	12.9%	44.3%	33.1%	6.2%
Meridian Health Plan of Michigan	4.6%	13.5%	38.9%	33.6%	9.4%
Molina Healthcare of Michigan	5.0%	17.0%	39.2%	29.7%	9.1%
Priority Health Choice, Inc.	3.5%	13.2%	40.0%	34.1%	9.2%
Total Health Care, Inc.	3.5%	16.3%	43.9%	27.6%	8.7%
UnitedHealthcare Community Plan	6.0%	15.1%	40.5%	26.9%	11.6%
Upper Peninsula Health Plan	1.8%	9.3%	42.2%	35.0%	11.7%
Please note, percentages may not total 100% due to rounding.					

Table 3-6 depicts the general health status of members who completed a CAHPS survey.

Table 3-6—Adult Member Demographics: General Health Status

Plan Name	Excellent	Very Good	Good	Fair	Poor
MDHHS Medicaid Program	**8.3%**	**21.1%**	**36.0%**	**26.5%**	**8.1%**
Fee-for-Service	9.1%	17.4%	37.0%	26.8%	9.7%
MDHHS Medicaid Managed Care Program	**8.2%**	**21.4%**	**35.9%**	**26.5%**	**8.0%**
Aetna Better Health of Michigan	6.9%	19.9%	37.2%	28.5%	7.6%
Blue Cross Complete of Michigan	10.4%	23.4%	36.4%	23.7%	6.1%
HAP Midwest Health Plan	5.9%	12.7%	37.8%	34.5%	9.2%
Harbor Health Plan	10.4%	20.8%	32.0%	28.6%	8.1%
McLaren Health Plan	9.2%	19.9%	37.8%	26.5%	6.6%
Meridian Health Plan of Michigan	8.5%	24.4%	34.5%	23.7%	8.9%
Molina Healthcare of Michigan	8.6%	17.9%	36.3%	28.6%	8.6%
Priority Health Choice, Inc.	9.0%	23.3%	34.0%	26.1%	7.7%
Total Health Care, Inc.	7.7%	23.0%	31.5%	29.8%	8.1%
UnitedHealthcare Community Plan	7.7%	21.4%	41.8%	21.1%	8.0%
Upper Peninsula Health Plan	7.3%	26.9%	35.8%	21.9%	8.2%
Please note, percentages may not total 100% due to rounding.					

National Comparisons

In order to assess the overall performance of the MDHHS Medicaid Program, HSAG scored each CAHPS measure on a three-point scale using an NCQA-approved scoring methodology. HSAG compared the plans' and programs' three-point mean scores to NCQA HEDIS Benchmarks and Thresholds for Accreditation.[3-1]

Based on this comparison, ratings of one (★) to five (★★★★★) stars were determined for each CAHPS measure, where one is the lowest possible rating (i.e., Poor) and five is the highest possible rating (i.e., Excellent), as shown in Table 3-7.

Table 3-7—Star Ratings

Stars	Percentiles
★★★★★ Excellent	At or above the 90th percentile
★★★★ Very Good	At or between the 75th and 89th percentiles
★★★ Good	At or between the 50th and 74th percentiles
★★ Fair	At or between the 25th and 49th percentiles
★ Poor	Below the 25th percentile

The results presented in the following two tables represent the three-point mean scores for each measure, while the stars represent overall member satisfaction ratings with the three-point means when compared to NCQA HEDIS Benchmarks and Thresholds for Accreditation.

[3-1] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

Table 3-8 shows the overall member satisfaction ratings on each of the four global ratings.

Table 3-8—National Comparisons: Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
MDHHS Medicaid Program	★★★ **2.47**	★★ **2.38**	★★★ **2.51**	★★★ **2.55**
Fee-for-Service	★ 2.35	★★★ 2.40	★★★★ 2.56	★★★★ 2.58
MDHHS Medicaid Managed Care Program	★★★ **2.48**	★★ **2.38**	★★★ **2.51**	★★★ **2.54**
Aetna Better Health of Michigan	★ 2.34	★ 2.32	★★★★ 2.56	★★★★ 2.58
Blue Cross Complete of Michigan	★★★★ 2.51	★★★ 2.43	★★★★ 2.53	★★★ 2.51
HAP Midwest Health Plan	★★★★★ 2.56	★★★ 2.39	★★★★★ 2.59	★★★★★ 2.64
Harbor Health Plan	★ 2.38	★ 2.29	★★ 2.45	★+ 2.42
McLaren Health Plan	★★★★★ 2.55	★★★★ 2.45	★★★ 2.50	★★★★★ 2.65
Meridian Health Plan of Michigan	★★★ 2.50	★★★ 2.40	★★★ 2.50	★★★ 2.55
Molina Healthcare of Michigan	★★ 2.39	★ 2.31	★★ 2.49	★★★ 2.53
Priority Health Choice, Inc.	★★★★ 2.52	★★★ 2.41	★★★ 2.51	★★★★ 2.56
Total Health Care, Inc.	★★★ 2.46	★ 2.32	★★ 2.44	★ 2.45
UnitedHealthcare Community Plan	★★★ 2.47	★★★ 2.42	★★★ 2.50	★★★ 2.54
Upper Peninsula Health Plan	★★★★★ 2.55	★★★ 2.41	★★★★ 2.54	★★★ 2.52

+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

The MDHHS Medicaid Program and the MDHHS Medicaid Managed Care Program scored at or between the 50th and 74th percentiles for three global ratings: Rating of Health Plan, Rating of Personal Doctor, and Rating of Specialist Seen Most Often. The MDHHS Medicaid Program and the MDHHS Medicaid Managed Care Program scored at or between the 25th and 49th percentiles for the Rating of All Health Care global rating.

Table 3-9 shows the overall member satisfaction ratings on four of the composite measures and one individual item measure.[3-2]

Table 3-9—National Comparisons: Composite and Individual Item Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Coordination of Care
MDHHS Medicaid Program	★★★ **2.42**	★★★★ **2.47**	★★★★★ **2.66**	★★★★ **2.60**	★★ **2.39**
Fee-for-Service	★★★ 2.41	★★★★ 2.48	★★★★ 2.63	★+ 2.42	★★★ 2.44
MDHHS Medicaid Managed Care Program	★★★★ **2.43**	★★★★ **2.47**	★★★★★ **2.66**	★★★★★ **2.61**	★★ **2.38**
Aetna Better Health of Michigan	★★★★★ 2.52	★★★★ 2.48	★★★★★ 2.73	★★★+ 2.54	★★★ 2.43
Blue Cross Complete of Michigan	★★★ 2.39	★★★ 2.46	★★★★★ 2.68	★★★★ 2.60	★★★ 2.44
HAP Midwest Health Plan	★★★★★ 2.47	★★★★★ 2.59	★★★★★ 2.70	★★★★★ 2.64	★★★ 2.46
Harbor Health Plan	★★ 2.37	★ 2.35	★★★★★ 2.65	★★★★★ 2.64	★+ 2.32
McLaren Health Plan	★★★★★ 2.54	★★★ 2.46	★★★★★ 2.66	★★★★★+ 2.73	★★ 2.41
Meridian Health Plan of Michigan	★★ 2.38	★★★ 2.46	★★★★★ 2.65	★★★★ 2.58	★ 2.34
Molina Healthcare of Michigan	★★ 2.35	★★ 2.41	★★★★ 2.62	★★★ 2.57	★ 2.30
Priority Health Choice, Inc.	★★★★ 2.44	★★★★ 2.49	★★★★★ 2.65	★★★★★ 2.64	★★★ 2.44
Total Health Care, Inc.	★★★ 2.42	★★ 2.39	★★★★ 2.60	★★★★★ 2.61	★ 2.26
UnitedHealthcare Community Plan	★★★ 2.41	★★★ 2.43	★★★★★ 2.66	★★★★ 2.58	★★ 2.42
Upper Peninsula Health Plan	★★★★ 2.45	★★★★★ 2.55	★★★★★ 2.67	★★★★★ 2.63	★★ 2.42

+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

The MDHHS Medicaid Program and the MDHHS Medicaid Managed Care Program scored at or above the 90th percentile for the How Well Doctors Communicate composite measure. The MDHHS Medicaid Managed Care Program scored at or above the 90th percentile for the Customer Service composite measure. The MDHHS Medicaid Program and the MDHHS Medicaid Managed Care Program scored at or between the 75th and 89th percentiles for the Getting Care Quickly composite measure. The MDHHS Medicaid Program scored at or between the 75th and 89th percentiles for the Customer Service

[3-2] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure, and the Health Promotion and Education individual item measure; therefore, these CAHPS measures were excluded from the National Comparisons analysis.

composite measure. The MDHHS Medicaid Managed Care Program scored at or between the 75th and 89th percentiles for the Getting Needed Care composite measure. The MDHHS Medicaid Program scored at or between the 50th and 74th percentiles for the Getting Needed Care composite measure. The MDHHS Medicaid Program and the MDHHS Medicaid Managed Care Program scored at or between the 25th and 49th percentiles for the Coordination of Care individual item measure.

Statewide Comparisons

For purposes of the Statewide Comparisons analysis, HSAG calculated top-box rates (i.e., rates of satisfaction) for each global rating, composite measure, and individual item measure. A "top-box" response was defined as follows:

- "9" or "10" for the global ratings;
- "Usually" or "Always" for the Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, and Customer Service composites, and the Coordination of Care individual item;
- "Yes" for the Shared Decision Making composite and the Health Promotion and Education individual item.

HSAG also calculated overall rates for the Effectiveness of Care Medical Assistance with Smoking and Tobacco Use Cessation measures. Refer to the Reader's Guide section for more detailed information regarding the calculation of these measures.

The MDHHS Medicaid Program and MDHHS Medicaid Managed Care Program results were weighted based on the eligible population for each adult population (i.e., FFS and/or MHPs). HSAG compared the MHP results to the MDHHS Medicaid Managed Care Program average to determine if the MHP results were statistically significantly different than the MDHHS Medicaid Managed Care Program average. Additionally, HSAG compared the FFS results to the MDHHS Medicaid Managed Care Program results to determine if the FFS results were statistically significantly different than the MDHHS Medicaid Managed Care Program results. The NCQA adult Medicaid national averages also are presented for comparison.[3-3] Colors in the figures note statistically significant differences. Green indicates a top-box rate that was statistically significantly higher than the MDHHS Medicaid Managed Care Program average. Conversely, red indicates a top-box rate that was statistically significantly lower than the MDHHS Medicaid Managed Care Program average. Blue represents top-box rates that were not statistically significantly different from the MDHHS Medicaid Managed Care Program average. Health plan/program rates with fewer than 100 respondents are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

In some instances, the top-box rates presented for two plans were similar, but one was statistically different from the MDHHS Medicaid Managed Care Program average and the other was not. In these instances, it was the difference in the number of respondents between the two plans that explains the different statistical results. It is more likely that a significant result will be found in a plan with a larger number of respondents.

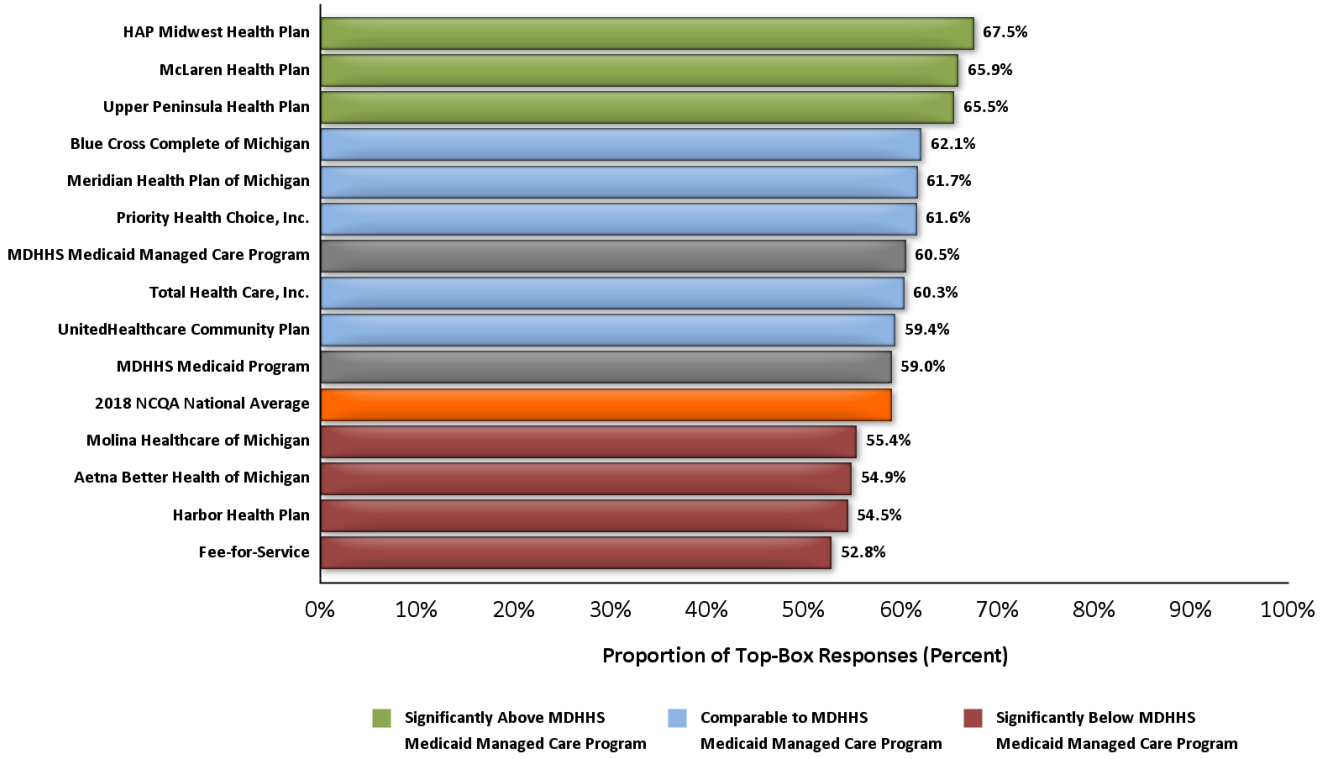
[3-3] The source for the national data contained in this publication is Quality Compass® 2017 and is used with the permission of the National Committee for Quality Assurance (NCQA). Quality Compass 2017 includes certain CAHPS data. Any data display, analysis, interpretation, or conclusion based on these data is solely that of the authors, and NCQA specifically disclaims responsibility for any such display, analysis, interpretation, or conclusion. Quality Compass is a registered trademark of NCQA. CAHPS® is a registered trademark of AHRQ.

Global Ratings

Rating of Health Plan

Adult members were asked to rate their health plan on a scale of 0 to 10, with 0 being the "worst health plan possible" and 10 being the "best health plan possible." Figure 3-1 shows the Rating of Health Plan top-box rates.

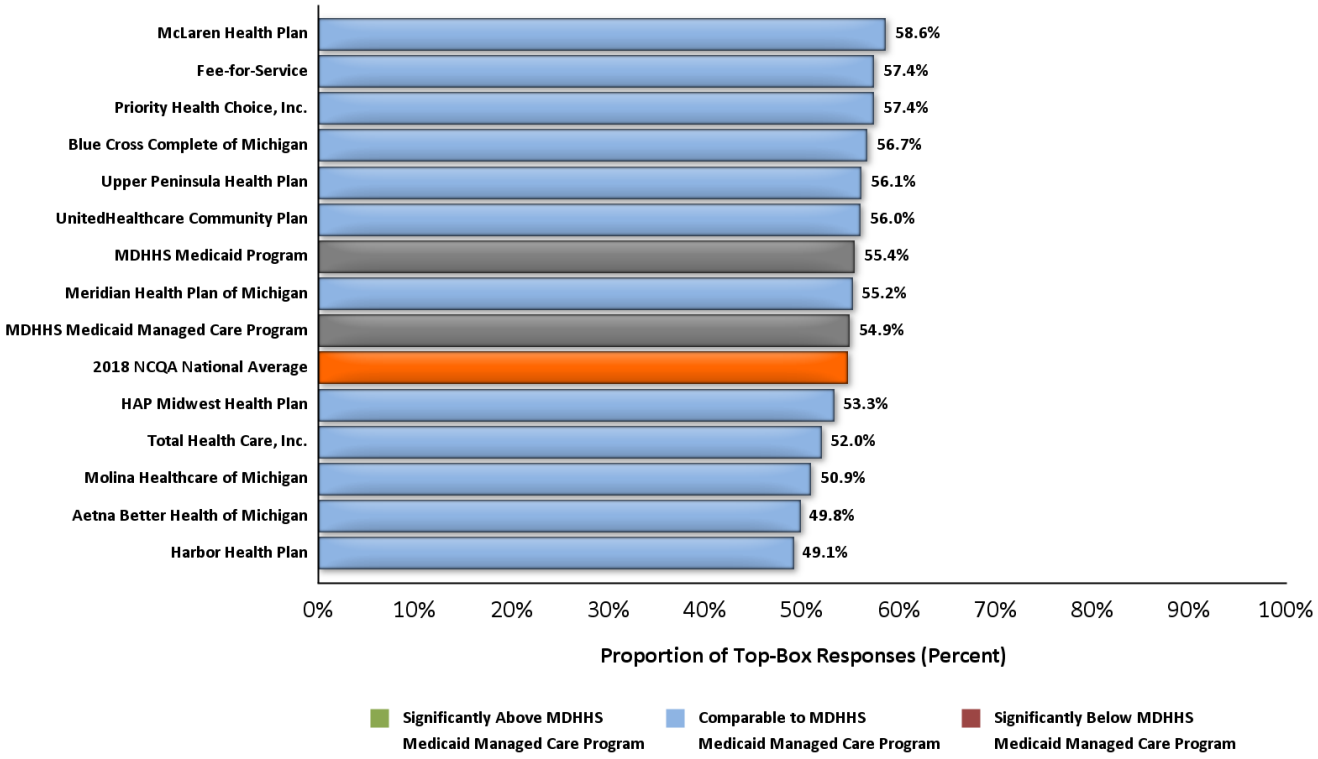
Figure 3-1—Rating of Health Plan Top-Box Rates



Rating of All Health Care

Adult members were asked to rate all their health care on a scale of 0 to 10, with 0 being the "worst health care possible" and 10 being the "best health care possible." Figure 3-2 shows the Rating of All Health Care top-box rates.

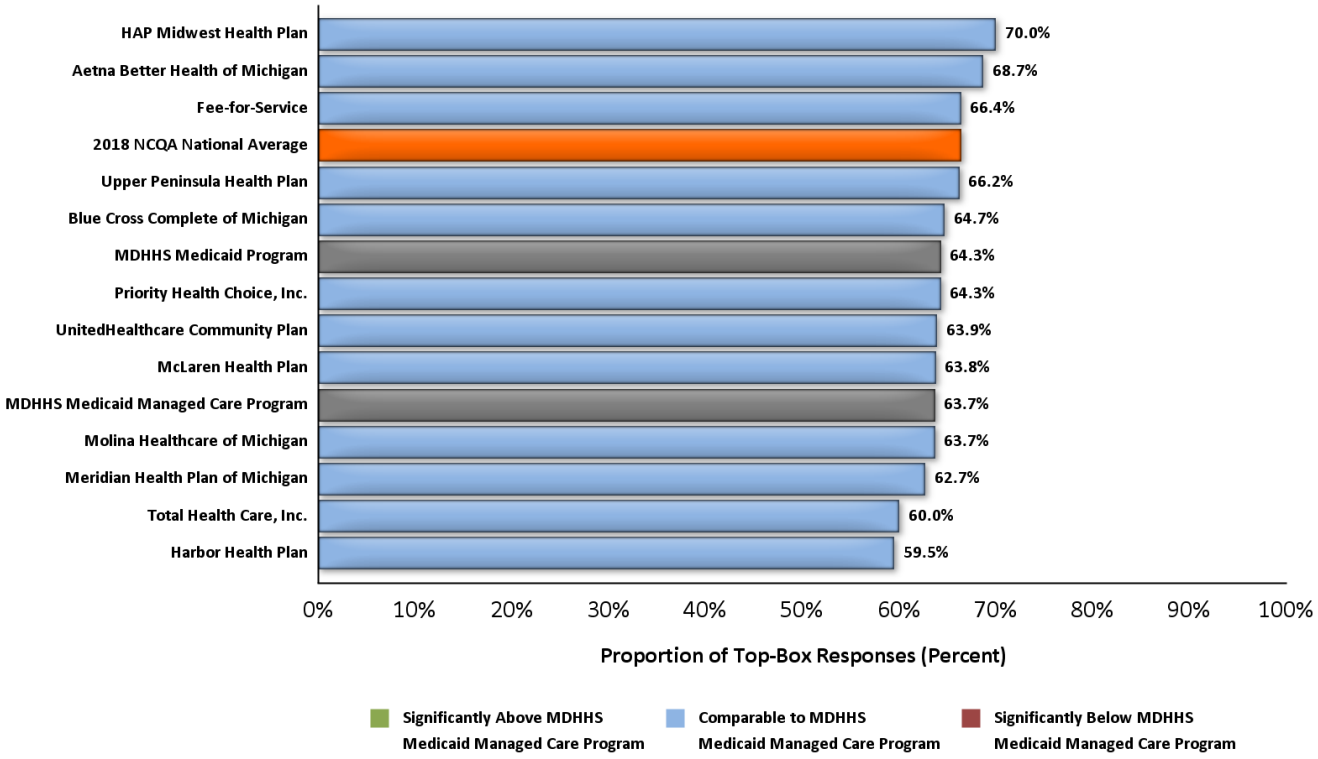
Figure 3-2—Rating of All Health Care Top-Box Rates



Rating of Personal Doctor

Adult members were asked to rate their personal doctor on a scale of 0 to 10, with 0 being the "worst personal doctor possible" and 10 being the "best personal doctor possible." Figure 3-3 shows the Rating of Personal Doctor top-box rates.

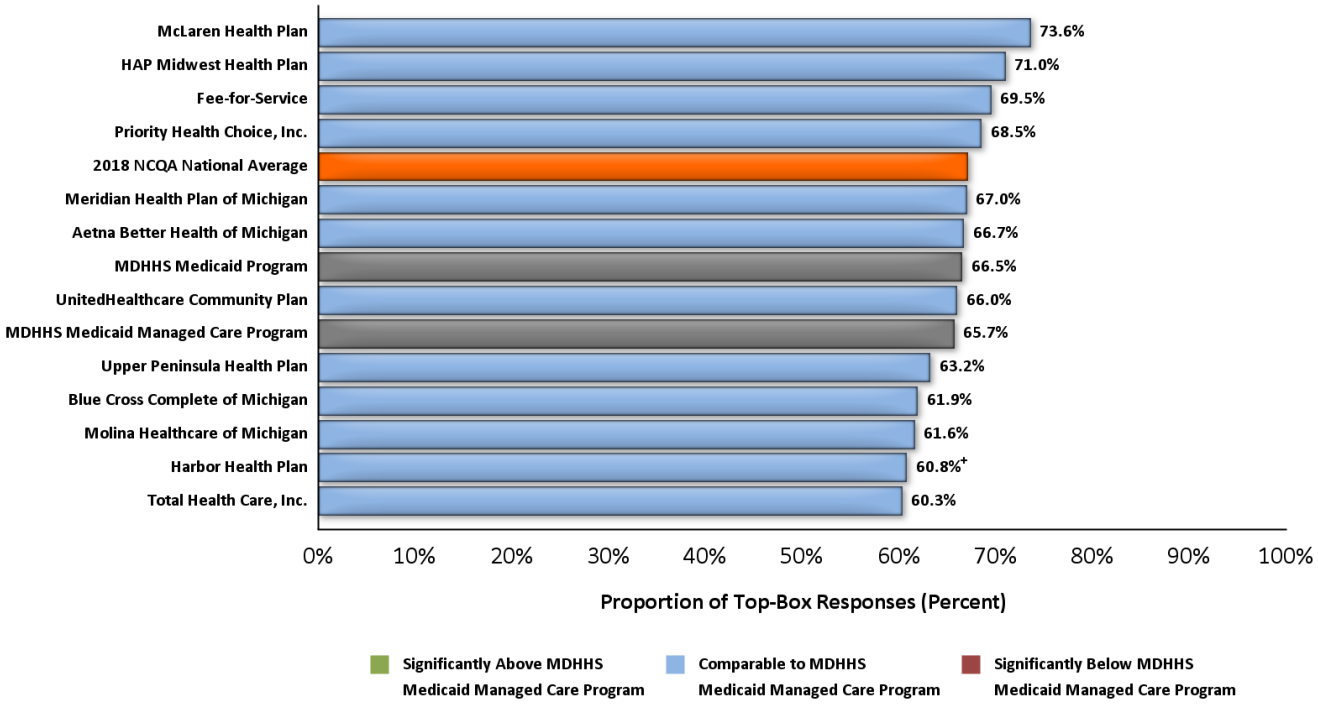
Figure 3-3—Rating of Personal Doctor Top-Box Rates



Rating of Specialist Seen Most Often

Adult members were asked to rate their specialist on a scale of 0 to 10, with 0 being the "worst specialist possible" and 10 being the "best specialist possible." Figure 3-4 shows the Rating of Specialist Seen Most Often top-box rates.

Figure 3-4—Rating of Specialist Seen Most Often Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Composite Measures

Getting Needed Care

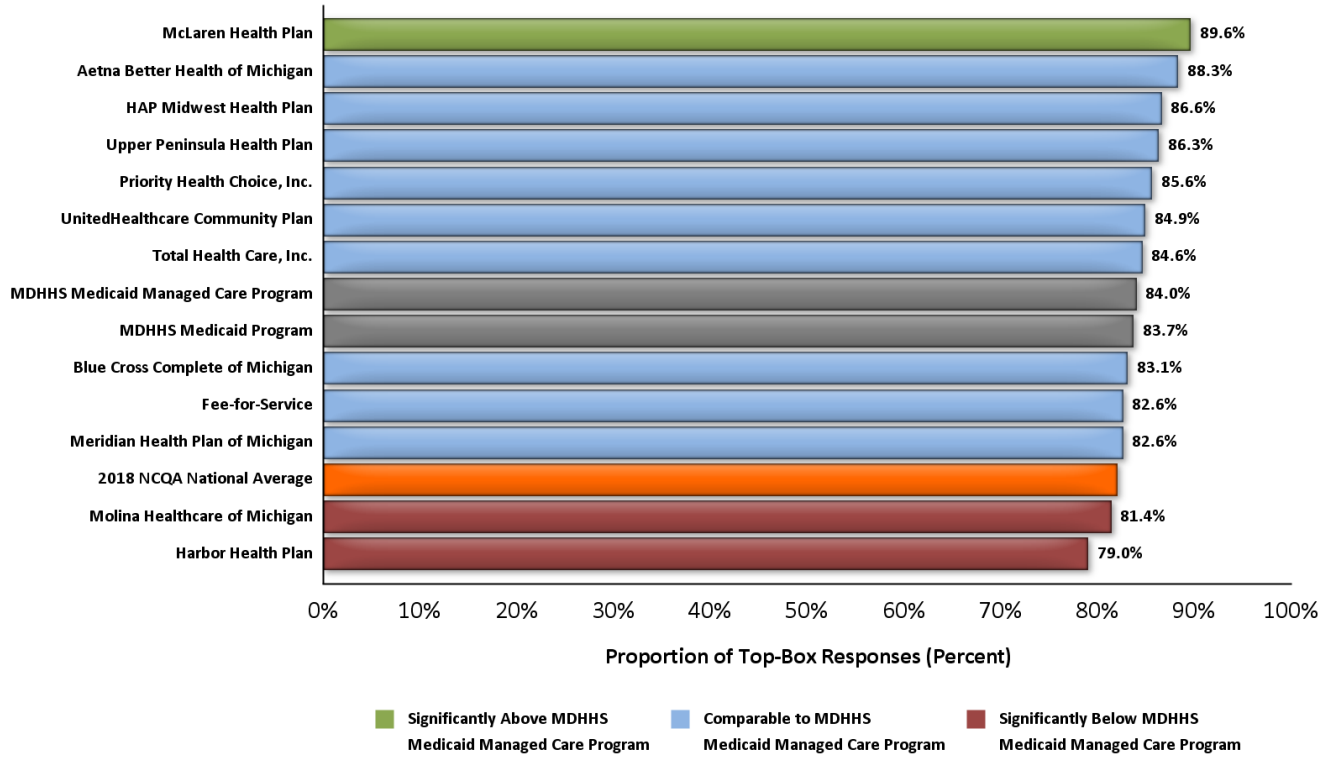
Two questions (Questions 14 and 25) were asked to assess how often it was easy to get needed care:

- **Question 14**. In the last 6 months, how often was it easy to get the care, tests, or treatment you needed?
    - Never
    - Sometimes
    - Usually
    - Always
- **Question 25.** In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?
    - Never
    - Sometimes
    - Usually
    - Always

For purposes of the analysis, HSAG calculated top-box rates for the Getting Needed Care composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-5 shows the Getting Needed Care top-box rates.

Figure 3-5—Getting Needed Care Top-Box Rates



Getting Care Quickly

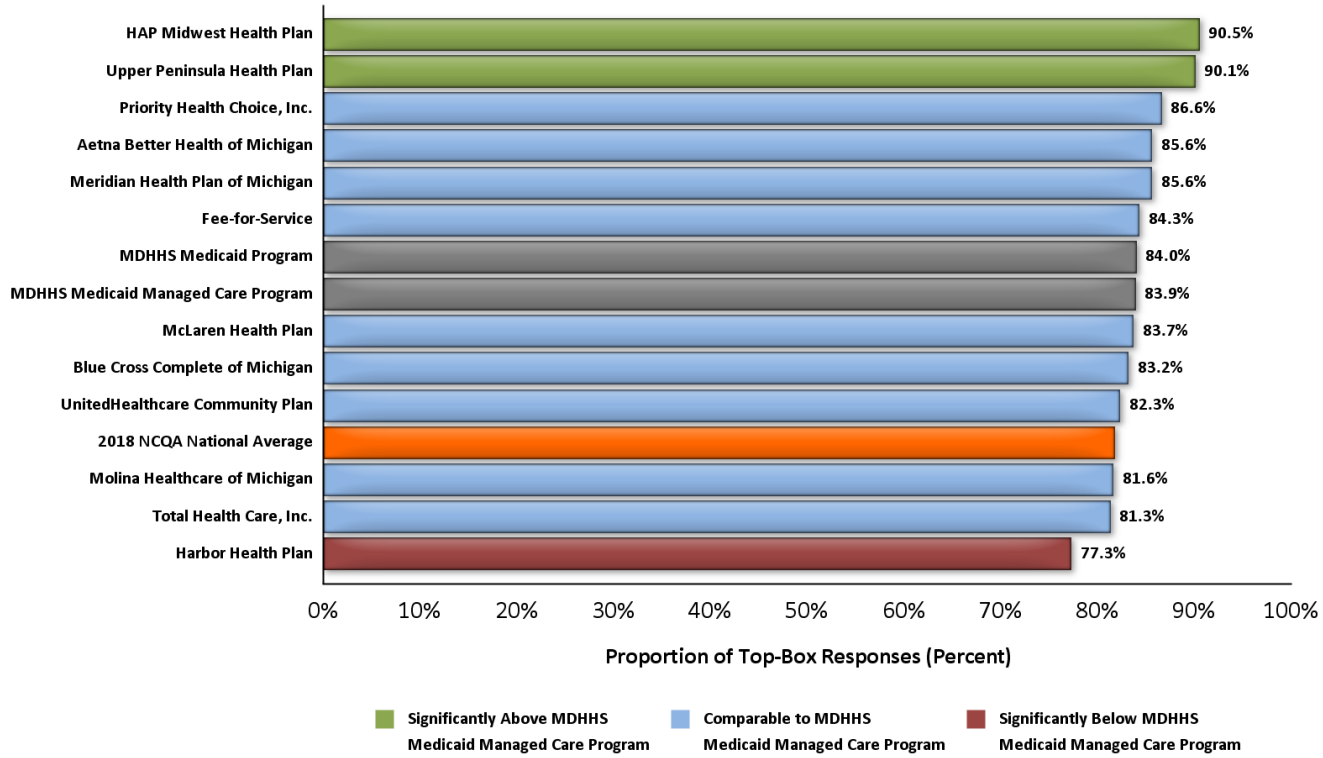
Two questions (Questions 4 and 6) were asked to assess how often adult members received care quickly:

- **Question 4**. In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 6**. In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the Getting Care Quickly composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-6 shows the Getting Care Quickly top-box rates.

Figure 3-6—Getting Care Quickly Top-Box Rates



How Well Doctors Communicate

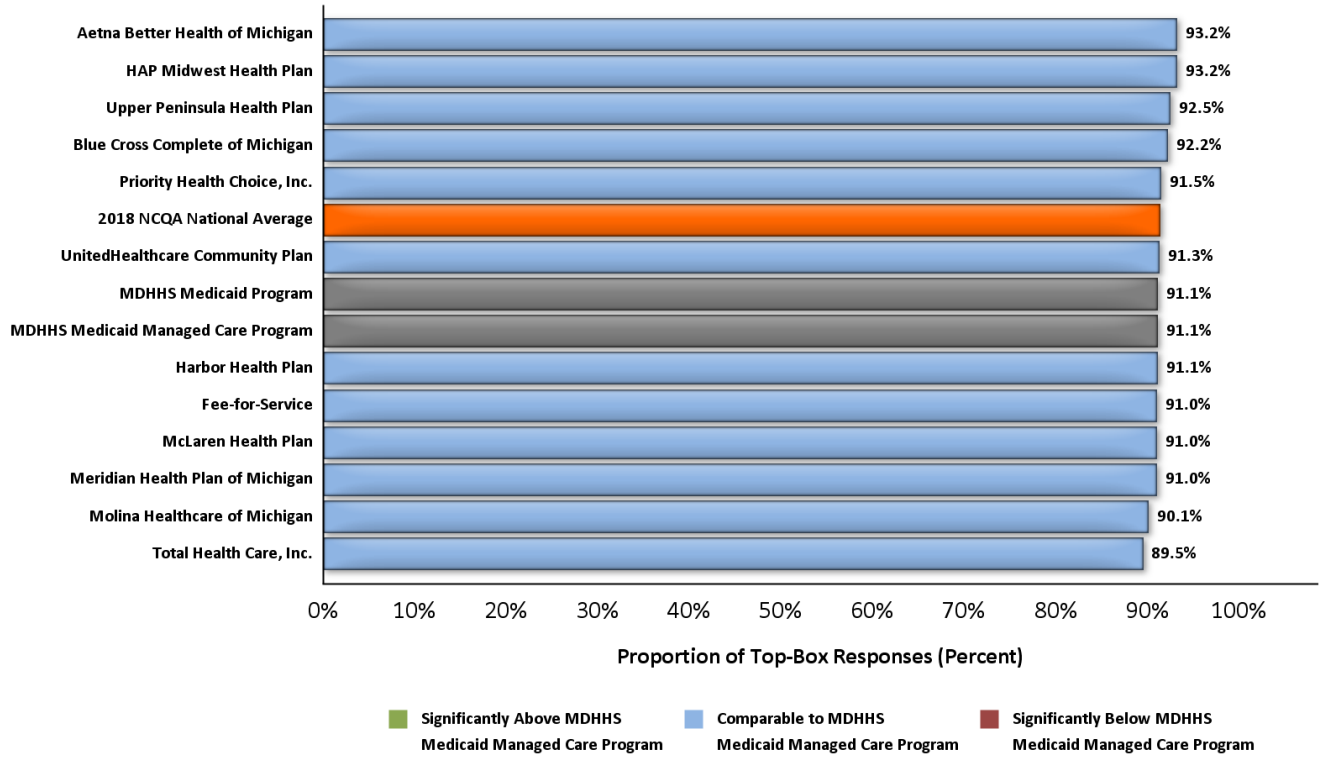
A series of four questions (Questions 17, 18, 19, and 20) was asked to assess how often doctors communicated well:

- **Question 17**. In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 18**. In the last 6 months, how often did your personal doctor listen carefully to you?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 19**. In the last 6 months, how often did your personal doctor show respect for what you had to say?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 20**. In the last 6 months, how often did your personal doctor spend enough time with you?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the How Well Doctors Communicate composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-7 shows the How Well Doctors Communicate top-box rates.

Figure 3-7—How Well Doctors Communicate Top-Box Rates



Customer Service

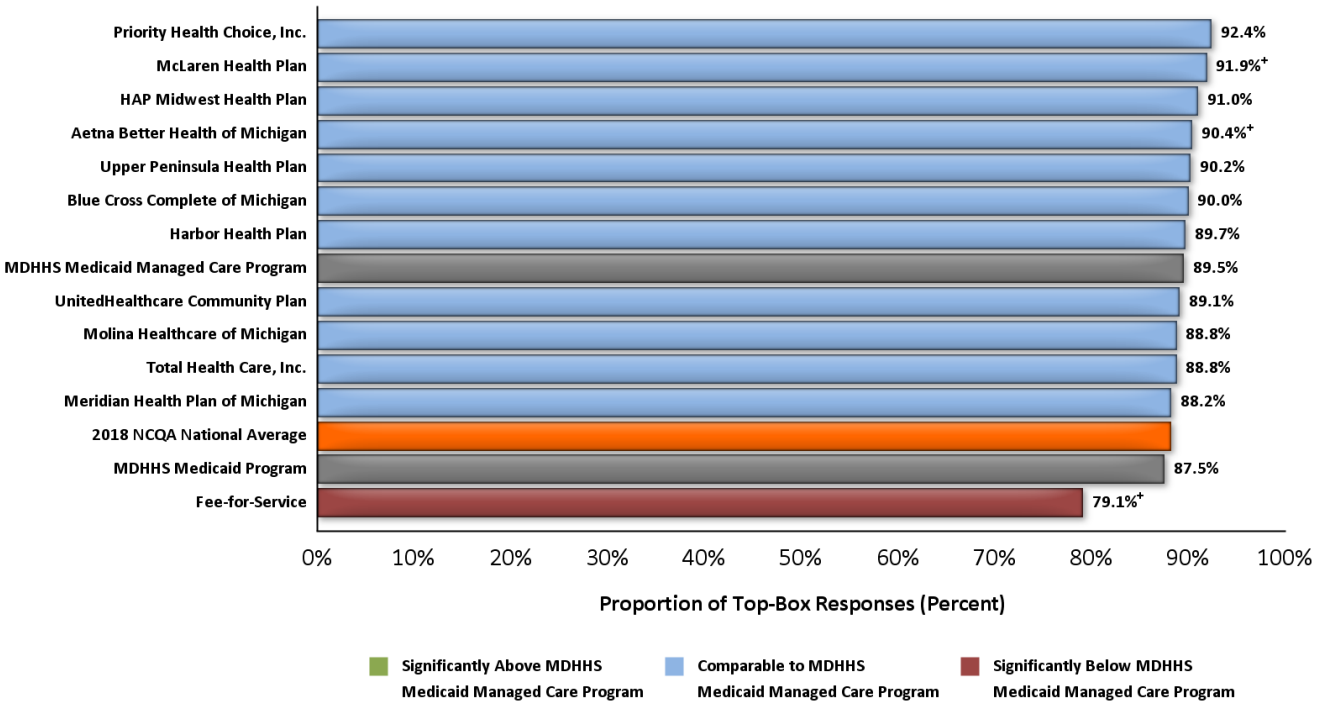
Two questions (Questions 31 and 32) were asked to assess how often adult members were satisfied with customer service:

- **Question 31**. In the last 6 months, how often did your health plan's customer service give you the information or help you needed?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 32**. In the last 6 months, how often did your health plan's customer service staff treat you with courtesy and respect?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the Customer Service composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-8 shows the Customer Service top-box rates.

Figure 3-8—Customer Service Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Shared Decision Making

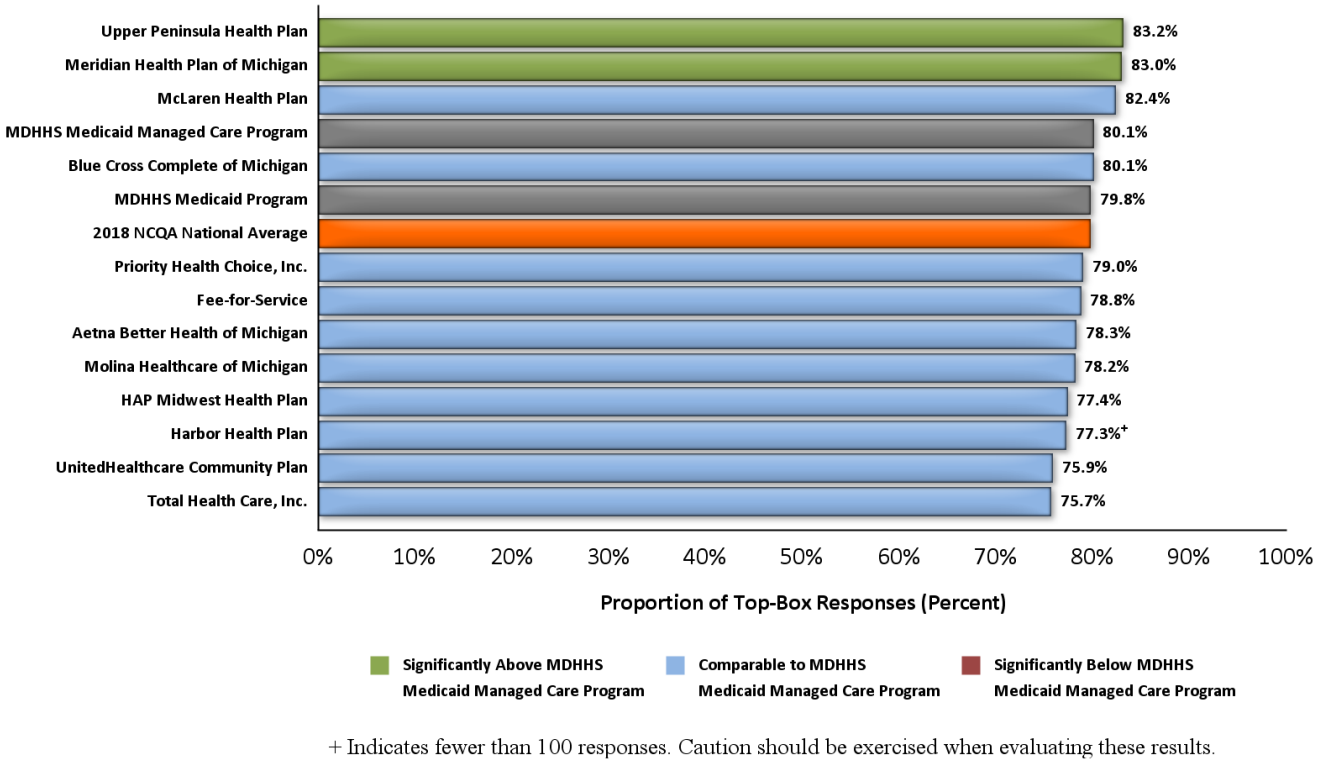
Three questions (Questions 10, 11, and 12) were asked regarding the involvement of adult members in decision making when starting or stopping a prescription medicine:

- **Question 10**. Did you and a doctor or other health provider talk about the reasons you might want to take a medicine?
  - Yes
  - No
- **Question 11**. Did you and a doctor or other health provider talk about the reasons you might not want to take a medicine?
  - Yes
  - No
- **Question 12**. When you talked about starting or stopping a prescription medicine, did a doctor or other health provider ask you what you thought was best for you?
  - Yes
  - No

For purposes of the analysis, HSAG calculated top-box rates for the Shared Decision Making composite measure, which was defined as a response of "Yes."

Figure 3-9 shows the Shared Decision Making top-box rates.

Figure 3-9—Shared Decision Making Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Individual Item Measures

Coordination of Care

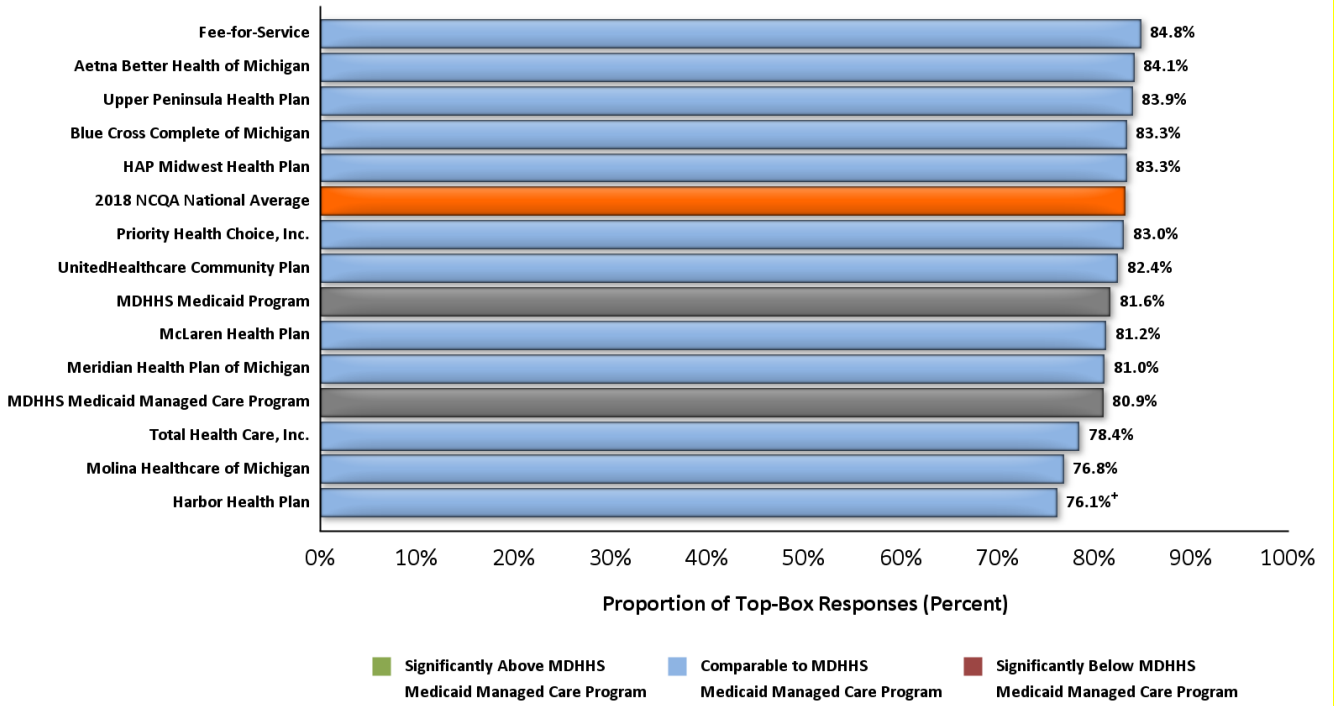
Adult members were asked one question (Question 22) to assess how often their personal doctor seemed informed and up-to-date about care they received from another doctor:

- **Question 22**. In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
    - Never
    - Sometimes
    - Usually
    - Always

For purposes of the analysis, HSAG calculated top-box rates for the Coordination of Care individual item measure, which was defined as a response of "Usually" or "Always."

Figure 3-10 shows the Coordination of Care top-box rates.

Figure 3-10—Coordination of Care Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Health Promotion and Education

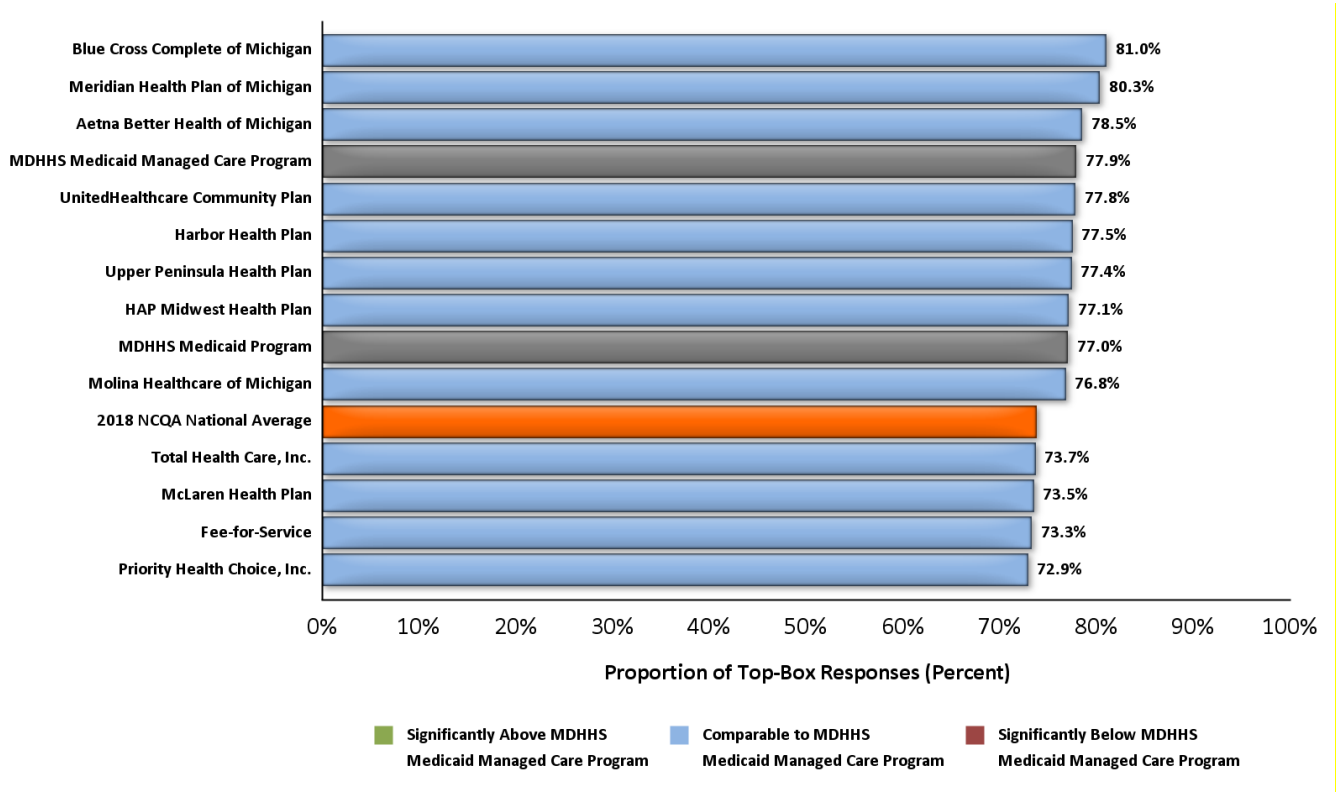
Adult members were asked one question (Question 8) to assess if their doctor talked with them about specific things they could do to prevent illness:

- **Question 8**. In the last 6 months, did you and a doctor or other health provider talk about specific things you could do to prevent illness?
    - Yes
    - No

For purposes of the analysis, HSAG calculated top-box rates for the Health Promotion and Education individual item measure, which was defined as a response of "Yes."

Figure 3-11 shows the Health Promotion and Education top-box rates.

Figure 3-11—Health Promotion and Education Top-Box Rates



Effectiveness of Care Measures

Medical Assistance with Smoking and Tobacco Use Cessation

Advising Smokers and Tobacco Users to Quit

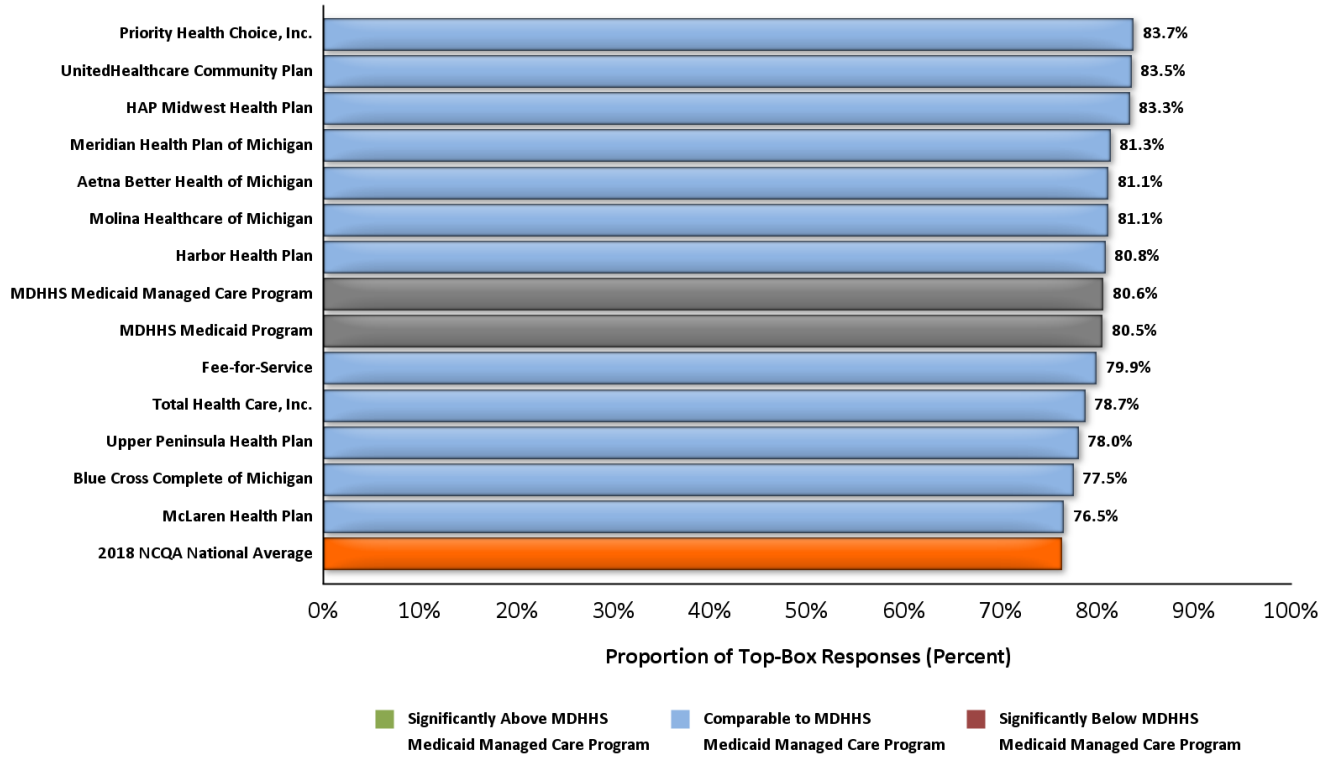
Adult members were asked how often they were advised to quit smoking or using tobacco by a doctor or other health provider (Question 40):

- **Question 40**. In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?
    - Never
    - Sometimes
    - Usually
    - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. The rates presented follow NCQA's methodology of calculating a rolling average using the current and prior years' results.

Figure 3-12 shows the Advising Smokers and Tobacco Users to Quit rates.

Figure 3-12—Advising Smokers and Tobacco Users to Quit Rates



Discussing Cessation Medications

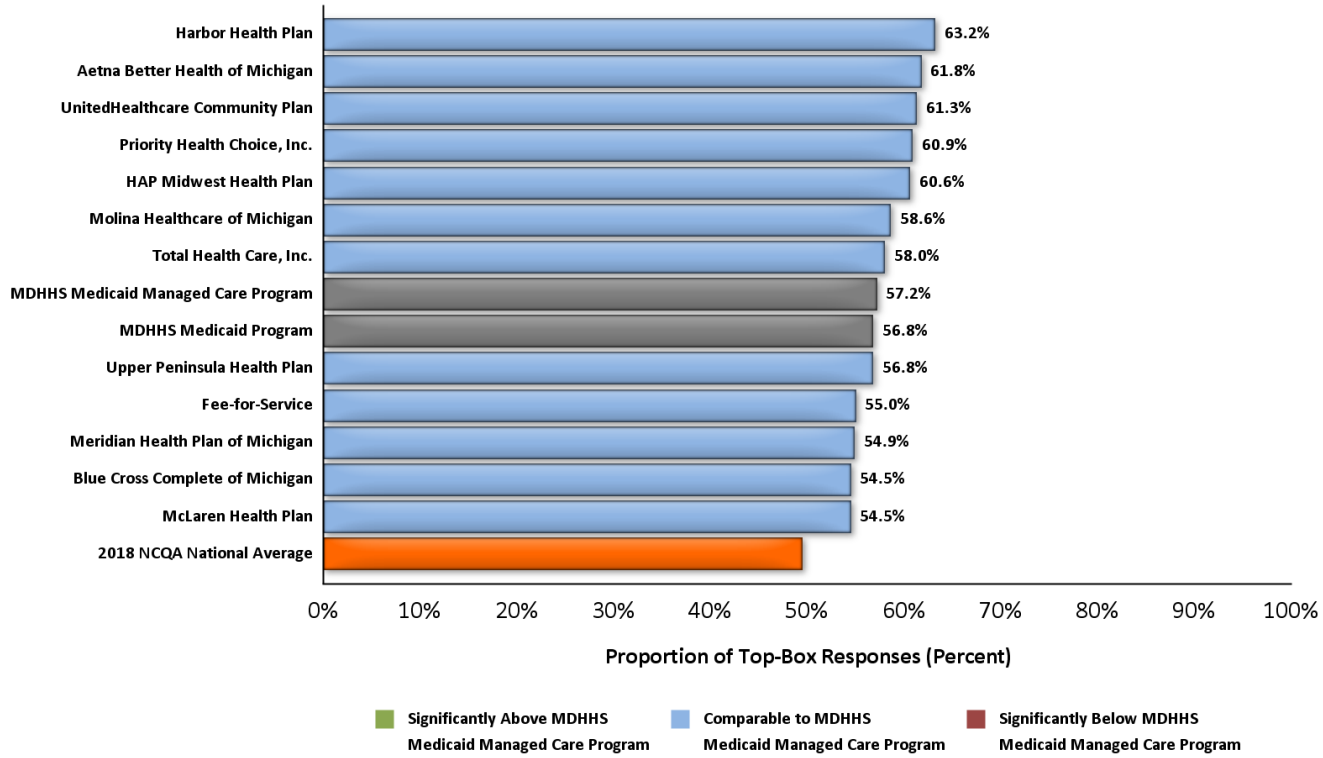
Adult members were asked how often medication was recommended or discussed by a doctor or other health provider to assist them with quitting smoking or using tobacco (Question 41):

- **Question 41**. In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.
    - Never
    - Sometimes
    - Usually
    - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. The rates presented follow NCQA's methodology of calculating a rolling average using the current and prior years' results.

Figure 3-13 shows the Discussing Cessation Medications rates.

Figure 3-13—Discussing Cessation Medications Rates



Discussing Cessation Strategies

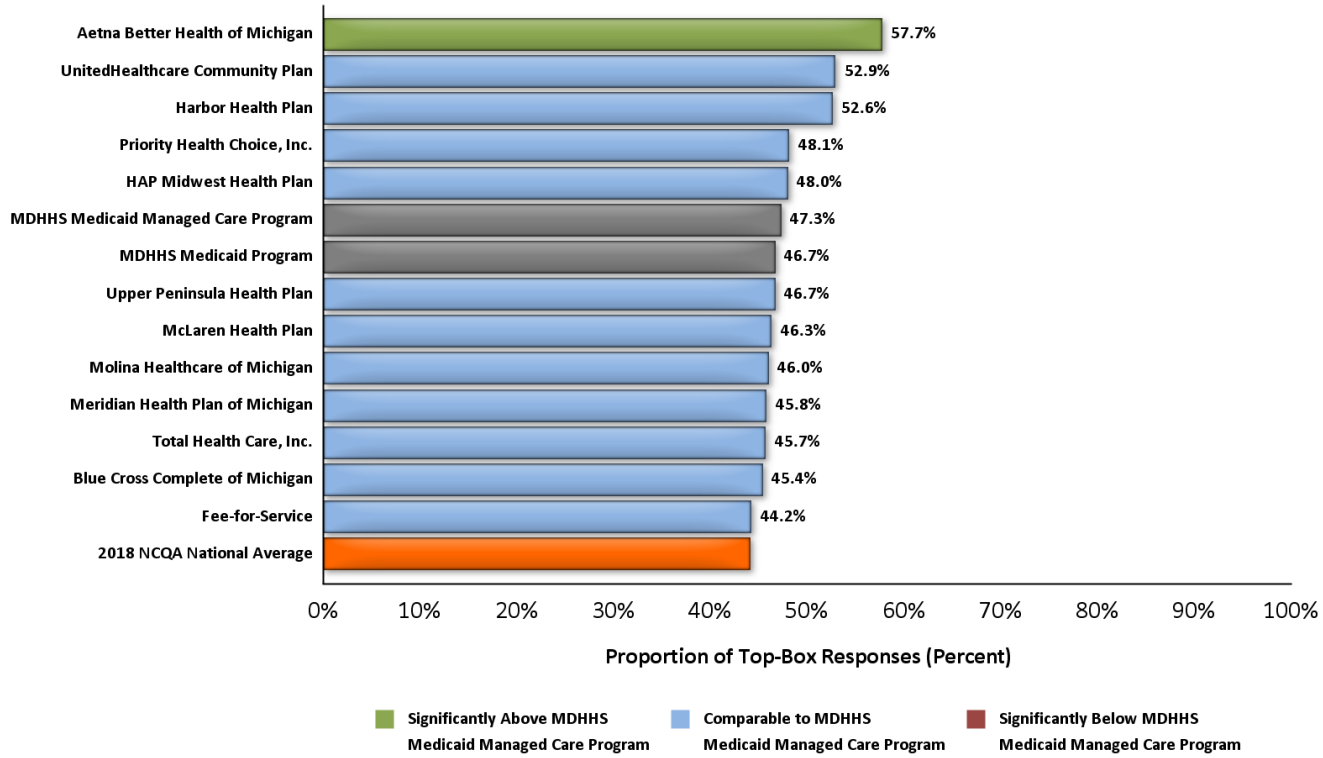
Adult members were asked how often their doctor or health provider discussed or provided methods and strategies other than medication to assist them with quitting smoking or using tobacco (Question 42):

- **Question 42**. In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.
    - Never
    - Sometimes
    - Usually
    - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. The rates presented follow NCQA's methodology of calculating a rolling average using the current and prior years' results.

Figure 3-14 shows the Discussing Cessation Strategies rates.

Figure 3-14—Discussing Cessation Strategies Rates



Summary of Results

Table 3-10 provides a summary of the Statewide Comparisons results for the global ratings.

Table 3-10—Statewide Comparisons: Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
Fee-for-Service	↓	—	—	—
Aetna Better Health of Michigan	↓	—	—	—
Blue Cross Complete of Michigan	—	—	—	—
HAP Midwest Health Plan	↑	—	—	—
Harbor Health Plan	↓	—	—	—+
McLaren Health Plan	↑	—	—	—
Meridian Health Plan of Michigan	—	—	—	—
Molina Healthcare of Michigan	↓	—	—	—
Priority Health Choice, Inc.	—	—	—	—
Total Health Care, Inc.	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—
Upper Peninsula Health Plan	↑	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below than the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

Table 3-11 provides a summary of the Statewide Comparisons for the composite measures.

Table 3-11—Statewide Comparisons: Composite Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Shared Decision Making
Fee-for-Service	—	—	—	↓+	—
Aetna Better Health of Michigan	—	—	—	—+	—
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—	↑	—	—	—
Harbor Health Plan	↓	↓	—	—	—+
McLaren Health Plan	↑	—	—	—+	—
Meridian Health Plan of Michigan	—	—	—	—	↑
Molina Healthcare of Michigan	↓	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	↑	—	—	↑

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below than the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

Table 3-12 provides a summary of the Statewide Comparisons for the individual item and Effectiveness of Care measures.

Table 3-12—Statewide Comparisons: Individual Item and Effectiveness of Care Measures

Plan Name	Coordination of Care	Health Promotion and Education	Advising Smokers and Tobacco Users to Quit	Discussing Cessation Medications	Discussing Cessation Strategies
Fee-for-Service	—	—	—	—	—
Aetna Better Health of Michigan	—	—	—	—	↑
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—	—	—	—	—
Harbor Health Plan	—+	—	—	—	—
McLaren Health Plan	—	—	—	—	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS Medicaid Managed Care Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS Medicaid Managed Care Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS Medicaid Managed Care Program average.*

Trend Analysis

The completed surveys from the 2018 and 2017 CAHPS results were used to perform the trend analysis presented in this section. The 2018 CAHPS top-box scores were compared to the 2017 CAHPS top-box scores to determine whether there were statistically significant differences. Statistically significant differences between 2018 scores and 2017 scores are noted with triangles. Scores that were statistically significantly higher in 2018 than in 2017 are noted with upward triangles (▲). Scores that were statistically significantly lower in 2018 than in 2017 are noted with downward triangles (▼). Scores in 2018 that were not statistically significantly different from scores in 2017 are noted with a dash (–). Measures that did not meet the minimum number of 100 responses required by NCQA are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

Global Ratings

Rating of Health Plan

Adult members were asked to rate their health plan on a scale of 0 to 10, with 0 being the "worst health plan possible" and 10 being the "best health plan possible." Table 4-1 shows the 2017 and 2018 top-box responses and the trend results for Rating of Health Plan.

Table 4-1—Rating of Health Plan Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**59.0%**	**59.0%**	**—**
Fee-for-Service	55.4%	52.8%	—
MDHHS Medicaid Managed Care Program	**60.4%**	**60.5%**	**—**
Aetna Better Health of Michigan	53.3%	54.9%	—
Blue Cross Complete of Michigan	60.0%	62.1%	—
HAP Midwest Health Plan	63.5%	67.5%	—
Harbor Health Plan	53.8%	54.5%	—
McLaren Health Plan	55.0%	65.9%	▲
Meridian Health Plan of Michigan	61.3%	61.7%	—
Molina Healthcare of Michigan	60.8%	55.4%	▼
Priority Health Choice, Inc.	63.9%	61.6%	—
Total Health Care, Inc.	61.8%	60.3%	—
UnitedHealthcare Community Plan	62.5%	59.4%	—
Upper Peninsula Health Plan	59.3%	65.5%	▲

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were three statistically significant differences between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- McLaren Health Plan
- Upper Peninsula Health Plan

The following scored statistically significantly *lower* in 2018 than in 2017:

- Molina Healthcare of Michigan

Rating of All Health Care

Adult members were asked to rate all their health care on a scale of 0 to 10, with 0 being the "worst health care possible" and 10 being the "best health care possible." Table 4-2 shows the 2017 and 2018 top-box responses and the trend results for Rating of All Health Care.

Table 4-2—Rating of All Health Care Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**52.3%**	**55.4%**	▲
Fee-for-Service	51.7%	57.4%	—
MDHHS Medicaid Managed Care Program	**52.6%**	**54.9%**	—
Aetna Better Health of Michigan	47.3%	49.8%	—
Blue Cross Complete of Michigan	49.8%	56.7%	—
HAP Midwest Health Plan	55.9%	53.3%	—
Harbor Health Plan	51.0%	49.1%	—
McLaren Health Plan	50.0%	58.6%	▲
Meridian Health Plan of Michigan	53.2%	55.2%	—
Molina Healthcare of Michigan	55.4%	50.9%	—
Priority Health Choice, Inc.	55.4%	57.4%	—
Total Health Care, Inc.	57.7%	52.0%	—
UnitedHealthcare Community Plan	49.3%	56.0%	—
Upper Peninsula Health Plan	54.2%	56.1%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were two statistically significant differences between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- MDHHS Medicaid Program
- McLaren Health Plan

Rating of Personal Doctor

Adult members were asked to rate their personal doctor on a scale of 0 to 10, with 0 being the "worst personal doctor possible" and 10 being the "best personal doctor possible." Table 4-3 shows the 2017 and 2018 top-box responses and the trend results for Rating of Personal Doctor.

Table 4-3—Rating of Personal Doctor Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**63.5%**	**64.3%**	**—**
Fee-for-Service	65.0%	66.4%	—
MDHHS Medicaid Managed Care Program	**62.9%**	**63.7%**	**—**
Aetna Better Health of Michigan	61.7%	68.7%	—
Blue Cross Complete of Michigan	59.3%	64.7%	—
HAP Midwest Health Plan	68.2%	70.0%	—
Harbor Health Plan	64.8%	59.5%	—
McLaren Health Plan	58.3%	63.8%	—
Meridian Health Plan of Michigan	62.8%	62.7%	—
Molina Healthcare of Michigan	65.8%	63.7%	—
Priority Health Choice, Inc.	63.1%	64.3%	—
Total Health Care, Inc.	67.2%	60.0%	▼
UnitedHealthcare Community Plan	62.3%	63.9%	—
Upper Peninsula Health Plan	67.1%	66.2%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *lower* in 2018 than in 2017:

- Total Health Care, Inc.

Rating of Specialist Seen Most Often

Adult members were asked to rate their specialist on a scale of 0 to 10, with 0 being the "worst specialist possible" and 10 being the "best specialist possible." Table 4-4 shows the 2017 and 2018 top-box responses and the trend results for Rating of Specialist Seen Most Often.

Table 4-4—Rating of Specialist Seen Most Often Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**64.8%**	**66.5%**	**—**
Fee-for-Service	64.4%	69.5%	—
MDHHS Medicaid Managed Care Program	**64.9%**	**65.7%**	**—**
Aetna Better Health of Michigan	63.3%	66.7%	—
Blue Cross Complete of Michigan	60.8%	61.9%	—
HAP Midwest Health Plan	67.0%	71.0%	—
Harbor Health Plan	67.4%+	60.8%+	—
McLaren Health Plan	64.0%	73.6%	—
Meridian Health Plan of Michigan	67.8%	67.0%	—
Molina Healthcare of Michigan	62.3%	61.6%	—
Priority Health Choice, Inc.	69.1%	68.5%	—
Total Health Care, Inc.	61.4%	60.3%	—
UnitedHealthcare Community Plan	66.3%	66.0%	—
Upper Peninsula Health Plan	64.7%	63.2%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Composite Measures

Getting Needed Care

Two questions (Questions 14 and 25) were asked to assess how often it was easy to get needed care. Table 4-5 shows the 2017 and 2018 top-box responses and trend results for the Getting Needed Care composite measure.

Table 4-5—Getting Needed Care Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**84.1%**	**83.7%**	**—**
Fee-for-Service	84.3%	82.6%	—
MDHHS Medicaid Managed Care Program	**84.1%**	**84.0%**	**—**
Aetna Better Health of Michigan	77.1%	88.3%	▲
Blue Cross Complete of Michigan	85.0%	83.1%	—
HAP Midwest Health Plan	86.0%	86.6%	—
Harbor Health Plan	75.9%	79.0%	—
McLaren Health Plan	88.1%	89.6%	—
Meridian Health Plan of Michigan	83.9%	82.6%	—
Molina Healthcare of Michigan	83.4%	81.4%	—
Priority Health Choice, Inc.	85.4%	85.6%	—
Total Health Care, Inc.	84.9%	84.6%	—
UnitedHealthcare Community Plan	82.9%	84.9%	—
Upper Peninsula Health Plan	83.7%	86.3%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Aetna Better Health of Michigan

Getting Care Quickly

Two questions (Questions 4 and 6) were asked to assess how often adult members received care quickly. Table 4-6 shows the 2017 and 2018 top-box responses and trend results for the Getting Care Quickly composite measure.

Table 4-6—Getting Care Quickly Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**83.3%**	**84.0%**	**—**
Fee-for-Service	84.9%	84.3%	—
MDHHS Medicaid Managed Care Program	**82.7%**	**83.9%**	**—**
Aetna Better Health of Michigan	77.8%	85.6%	▲
Blue Cross Complete of Michigan	83.7%	83.2%	—
HAP Midwest Health Plan	84.6%	90.5%	▲
Harbor Health Plan	77.8%	77.3%	—
McLaren Health Plan	83.7%	83.7%	—
Meridian Health Plan of Michigan	82.8%	85.6%	—
Molina Healthcare of Michigan	82.4%	81.6%	—
Priority Health Choice, Inc.	84.1%	86.6%	—
Total Health Care, Inc.	83.7%	81.3%	—
UnitedHealthcare Community Plan	81.4%	82.3%	—
Upper Peninsula Health Plan	84.8%	90.1%	▲

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were three statistically significant differences between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Aetna Better Health of Michigan
- HAP Midwest Health Plan
- Upper Peninsula Health Plan

How Well Doctors Communicate

A series of four questions (Questions 17, 18, 19, and 20) was asked to assess how often doctors communicated well. Table 4-7 shows the 2017 and 2018 top-box responses and trend results for the How Well Doctors Communicate composite measure.

Table 4-7—How Well Doctors Communicate Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**90.2%**	**91.1%**	**—**
Fee-for-Service	91.1%	91.0%	—
MDHHS Medicaid Managed Care Program	**89.8%**	**91.1%**	**—**
Aetna Better Health of Michigan	90.0%	93.2%	—
Blue Cross Complete of Michigan	90.5%	92.2%	—
HAP Midwest Health Plan	92.9%	93.2%	—
Harbor Health Plan	87.5%	91.1%	—
McLaren Health Plan	87.9%	91.0%	—
Meridian Health Plan of Michigan	88.8%	91.0%	—
Molina Healthcare of Michigan	90.2%	90.1%	—
Priority Health Choice, Inc.	92.6%	91.5%	—
Total Health Care, Inc.	91.9%	89.5%	—
UnitedHealthcare Community Plan	90.3%	91.3%	—
Upper Peninsula Health Plan	94.5%	92.5%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Customer Service

Two questions (Questions 31 and 32) were asked to assess how often adult members were satisfied with customer service. Table 4-8 shows the 2017 and 2018 top-box responses and trend results for the Customer Service composite measure.

Table 4-8—Customer Service Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**88.7%**	**87.5%**	**—**
Fee-for-Service	85.5%+	79.1%+	—
MDHHS Medicaid Managed Care Program	**89.9%**	**89.5%**	**—**
Aetna Better Health of Michigan	85.7%	90.4%+	—
Blue Cross Complete of Michigan	90.0%	90.0%	—
HAP Midwest Health Plan	88.4%	91.0%	—
Harbor Health Plan	91.6%+	89.7%	—
McLaren Health Plan	86.6%	91.9%+	—
Meridian Health Plan of Michigan	90.5%	88.2%	—
Molina Healthcare of Michigan	89.6%	88.8%	—
Priority Health Choice, Inc.	92.1%	92.4%	—
Total Health Care, Inc.	90.9%	88.8%	—
UnitedHealthcare Community Plan	91.6%	89.1%	—
Upper Peninsula Health Plan	89.7%	90.2%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Shared Decision Making

Three questions (Questions 10, 11, and 12) were asked regarding the involvement of adult members in decision making when starting or stopping a prescription medicine. Table 4-9 shows the 2017 and 2018 top-box responses and trend results for the Shared Decision composite measure.

Table 4-9—Shared Decision Making Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**79.6%**	**79.8%**	**—**
Fee-for-Service	78.5%	78.8%	—
MDHHS Medicaid Managed Care Program	**80.0%**	**80.1%**	**—**
Aetna Better Health of Michigan	78.2%	78.3%	—
Blue Cross Complete of Michigan	80.0%	80.1%	—
HAP Midwest Health Plan	76.9%	77.4%	—
Harbor Health Plan	78.5%+	77.3%+	—
McLaren Health Plan	80.2%	82.4%	—
Meridian Health Plan of Michigan	79.5%	83.0%	—
Molina Healthcare of Michigan	78.9%	78.2%	—
Priority Health Choice, Inc.	84.2%	79.0%	▼
Total Health Care, Inc.	80.7%	75.7%	—
UnitedHealthcare Community Plan	81.2%	75.9%	—
Upper Peninsula Health Plan	84.4%	83.2%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *lower* in 2018 than in 2017:

- Priority Health Choice, Inc.

Individual Item Measures

Coordination of Care

One question (Question 22) asked adult members to assess how often their personal doctor seemed informed and up-to-date about care they had received from another doctor. Table 4-10 shows the 2017 and 2018 top-box responses and trend results for the Coordination of Care individual item measure.

Table 4-10—Coordination of Care Individual Item Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**80.9%**	**81.6%**	**—**
Fee-for-Service	83.3%	84.8%	—
MDHHS Medicaid Managed Care Program	**80.0%**	**80.9%**	**—**
Aetna Better Health of Michigan	81.1%	84.1%	—
Blue Cross Complete of Michigan	81.0%	83.3%	—
HAP Midwest Health Plan	80.6%	83.3%	—
Harbor Health Plan	79.8%+	76.1%+	—
McLaren Health Plan	79.3%	81.2%	—
Meridian Health Plan of Michigan	77.4%	81.0%	—
Molina Healthcare of Michigan	82.0%	76.8%	—
Priority Health Choice, Inc.	87.5%	83.0%	—
Total Health Care, Inc.	86.4%	78.4%	▼
UnitedHealthcare Community Plan	77.8%	82.4%	—
Upper Peninsula Health Plan	85.2%	83.9%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *lower* in 2018 than in 2017:

- Total Health Care, Inc.

Health Promotion and Education

One question (Question 8) asked adult members to assess if their doctor talked with them about specific things they could do to prevent illness. Table 4-11 shows the 2017 and 2018 top-box responses and trend results for the Health Promotion and Education individual item measure.

Table 4-11—Health Promotion and Education Individual Item Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**75.9%**	**77.0%**	**—**
Fee-for-Service	73.2%	73.3%	—
MDHHS Medicaid Managed Care Program	**76.9%**	**77.9%**	**—**
Aetna Better Health of Michigan	79.6%	78.5%	—
Blue Cross Complete of Michigan	80.7%	81.0%	—
HAP Midwest Health Plan	74.9%	77.1%	—
Harbor Health Plan	75.1%	77.5%	—
McLaren Health Plan	77.4%	73.5%	—
Meridian Health Plan of Michigan	74.9%	80.3%	—
Molina Healthcare of Michigan	78.5%	76.8%	—
Priority Health Choice, Inc.	71.4%	72.9%	—
Total Health Care, Inc.	84.6%	73.7%	▼
UnitedHealthcare Community Plan	73.9%	77.8%	—
Upper Peninsula Health Plan	78.5%	77.4%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *lower* in 2018 than in 2017:

- Total Health Care, Inc.

Effectiveness of Care Measures

Medical Assistance with Smoking and Tobacco Use Cessation

Advising Smokers and Tobacco Users to Quit

One question (Question 40) was asked to determine how often adult members were advised to quit smoking or using tobacco by a doctor or other health provider. Table 4-12 shows the 2017 and 2018 rates and trend results for the Advising Smokers and Tobacco Users to Quit measure.

Table 4-12—Advising Smokers and Tobacco Users to Quit Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**80.4%**	**80.5%**	**—**
Fee-for-Service	81.0%	79.9%	—
MDHHS Medicaid Managed Care Program	**80.1%**	**80.6%**	**—**
Aetna Better Health of Michigan	80.6%	81.1%	—
Blue Cross Complete of Michigan	75.3%	77.5%	—
HAP Midwest Health Plan	82.1%	83.3%	—
Harbor Health Plan	79.1%	80.8%	—
McLaren Health Plan	76.8%	76.5%	—
Meridian Health Plan of Michigan	81.2%	81.3%	—
Molina Healthcare of Michigan	80.9%	81.1%	—
Priority Health Choice, Inc.	81.5%	83.7%	—
Total Health Care, Inc.	80.0%	78.7%	—
UnitedHealthcare Community Plan	82.2%	83.5%	—
Upper Peninsula Health Plan	79.2%	78.0%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Discussing Cessation Medications

One question (Question 41) was asked to ascertain how often medication was recommended or discussed by a doctor or health provider to assist adult members with quitting smoking or using tobacco. Table 4-13 shows the 2017 and 2018 rates and trend results for the Discussing Cessation Medications measure.

Table 4-13—Discussing Cessation Medications Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**55.5%**	**56.8%**	**—**
Fee-for-Service	54.5%	55.0%	—
MDHHS Medicaid Managed Care Program	**55.9%**	**57.2%**	**—**
Aetna Better Health of Michigan	58.1%	61.8%	—
Blue Cross Complete of Michigan	50.1%	54.5%	—
HAP Midwest Health Plan	58.3%	60.6%	—
Harbor Health Plan	59.0%	63.2%	—
McLaren Health Plan	54.9%	54.5%	—
Meridian Health Plan of Michigan	54.3%	54.9%	—
Molina Healthcare of Michigan	57.6%	58.6%	—
Priority Health Choice, Inc.	56.0%	60.9%	—
Total Health Care, Inc.	55.2%	58.0%	—
UnitedHealthcare Community Plan	60.8%	61.3%	—
Upper Peninsula Health Plan	56.9%	56.8%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Discussing Cessation Strategies

One question (Question 42) was asked to ascertain how often methods or strategies other than medication were discussed or provided by a doctor or health provider to assist adult members with quitting smoking or using tobacco. Table 4-14 shows the 2017 and 2018 rates and trend results for the Discussing Cessation Strategies measure.

Table 4-14—Discussing Cessation Strategies Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS Medicaid Program	**45.1%**	**46.7%**	**—**
Fee-for-Service	43.8%	44.2%	—
MDHHS Medicaid Managed Care Program	**45.7%**	**47.3%**	**—**
Aetna Better Health of Michigan	51.6%	57.7%	—
Blue Cross Complete of Michigan	41.7%	45.4%	—
HAP Midwest Health Plan	44.4%	48.0%	—
Harbor Health Plan	50.0%	52.6%	—
McLaren Health Plan	47.7%	46.3%	—
Meridian Health Plan of Michigan	44.7%	45.8%	—
Molina Healthcare of Michigan	43.6%	46.0%	—
Priority Health Choice, Inc.	46.6%	48.1%	—
Total Health Care, Inc.	47.1%	45.7%	—
UnitedHealthcare Community Plan	50.6%	52.9%	—
Upper Peninsula Health Plan	45.6%	46.7%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Key Drivers of Satisfaction

HSAG performed an analysis of key drivers for three measures: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. The analysis provides information on (1) how ***well*** the MDHHS Medicaid Program is performing on the survey item (i.e., question), and (2) how ***important*** the item is to overall satisfaction.

Key drivers of satisfaction are defined as those items that (1) have a problem score that is greater than or equal to the program's median problem score for all items examined, and (2) have a correlation that is greater than or equal to the program's median correlation for all items examined. For additional information on the assignment of problem scores, please refer to the Reader's Guide section. Table 5-1 depicts those items identified for each of the three measures as being key drivers of satisfaction for the MDHHS Medicaid Program.

Table 5-1—MDHHS Medicaid Program Key Drivers of Satisfaction

Rating of Health Plan
Respondents reported that their health plan's customer service did not always give them the information or help they needed.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that forms from their health plan were often not easy to fill out.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of All Health Care
Respondents reported that when they talked about starting or stopping a prescription medicine, a doctor or other health provider did not ask what they thought was best for them.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of Personal Doctor
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

The following key driver was identified for all three global ratings:

- Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

Additionally, the following key driver was identified for the Rating of Health Plan and Rating of All Health Care global ratings:

- Respondents reported that it was often not easy to obtain appointments with specialists.

Survey Instrument

The survey instrument selected was the CAHPS 5.0 Adult Medicaid Survey with the HEDIS supplemental item set. HSAG administered the CAHPS Survey to the FFS population. The 11 MHPs contracted with various survey vendors to administer the CAHPS survey. This section provides a copy of the survey instrument administered by HSAG.

MDHHS
Michigan Department of Health & Human Services
RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

DataStat

Your privacy is protected. The research staff will not share your personal information with anyone without your OK. Personally identifiable information will not be made public and will only be released in accordance with federal laws and regulations.

You may choose to answer this survey or not. If you choose not to, this will not affect the benefits you get. You may notice a number on the cover of this survey. This number is ONLY used to let us know if you returned your survey so we don't have to send you reminders.

If you want to know more about this study, please call 1-888-506-5134.

SURVEY INSTRUCTIONS

- **Please be sure to fill the response circle <u>completely</u>. Use only <u>black or blue ink</u> or <u>dark pencil</u> to complete the survey.**

Correct Mark ● **Incorrect Marks** 

- **You are sometimes told to skip over some questions in the survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:**

● **Yes** ➔ ***Go to Question 1***
○ **No**

START HERE

1. **Our records show that you are now in Michigan Medicaid Fee-For-Service. Is that right?**

○ Yes ➔ ***Go to Question 3***
○ No

2. **What is the name of your health plan? (Please print)**

_____

YOUR HEALTH CARE IN THE LAST 6 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

3. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

- ○ Yes
- ○ No ➔ ***Go to Question 5***

4. In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

5. In the last 6 months, did you make any appointments for a check-up or routine care at a doctor's office or clinic?

- ○ Yes
- ○ No ➔ ***Go to Question 7***

6. In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

7. In the last 6 months, not counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?

- ○ None ➔ ***Go to Question 15***
- ○ 1 time
- ○ 2
- ○ 3
- ○ 4
- ○ 5 to 9
- ○ 10 or more times

8. In the last 6 months, did you and a doctor or other health provider talk about specific things you could do to prevent illness?

- ○ Yes
- ○ No

9. In the last 6 months, did you and a doctor or other health provider talk about starting or stopping a prescription medicine?

- ○ Yes
- ○ No ➔ ***Go to Question 13***

10. Did you and a doctor or other health provider talk about the reasons you might want to take a medicine?

- ○ Yes
- ○ No

11. Did you and a doctor or other health provider talk about the reasons you might not want to take a medicine?

- ○ Yes
- ○ No

12. When you talked about starting or stopping a prescription medicine, did a doctor or other health provider ask you what you thought was best for you?

- ○ Yes
- ○ No

13. Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10
Worst Health Care Possible										Best Health Care Possible

14. In the last 6 months, how often was it easy to get the care, tests, or treatment you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

YOUR PERSONAL DOCTOR

15. A personal doctor is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

- ○ Yes
- ○ No ➔ ***Go to Question 24***

16. In the last 6 months, how many times did you visit your personal doctor to get care for yourself?

- ○ None ➔ ***Go to Question 23***
- ○ 1 time
- ○ 2
- ○ 3
- ○ 4
- ○ 5 to 9
- ○ 10 or more times

17. In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

18. In the last 6 months, how often did your personal doctor listen carefully to you?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

19. In the last 6 months, how often did your personal doctor show respect for what you had to say?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

20. In the last 6 months, how often did your personal doctor spend enough time with you?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

21. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?

- ○ Yes
- ○ No ➔ ***Go to Question 23***

22. In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

23. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10
Worst Personal Doctor Possible										Best Personal Doctor Possible

GETTING HEALTH CARE FROM SPECIALISTS

When you answer the next questions, do <u>not</u> include dental visits or care you got when you stayed overnight in a hospital.

24. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care.

In the last 6 months, did you make any appointments to see a specialist?

- ○ Yes
- ○ No ➔ ***Go to Question 28***

25. In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

26. How many specialists have you seen in the last 6 months?

- ○ None ➔ ***Go to Question 28***
- ○ 1 specialist
- ○ 2
- ○ 3
- ○ 4
- ○ 5 or more specialists

27. We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate that specialist?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10
Worst Specialist Possible										Best Specialist Possible

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan.

28. In the last 6 months, did you look for any information in written materials or on the Internet about how your health plan works?

- ○ Yes
- ○ No ➔ ***Go to Question 30***

29. In the last 6 months, how often did the written materials or the Internet provide the information you needed about how your health plan works?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

30. In the last 6 months, did you get information or help from your health plan's customer service?

- ○ Yes
- ○ No ➔ ***Go to Question 33***

31. In the last 6 months, how often did your health plan's customer service give you the information or help you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

32. In the last 6 months, how often did your health plan's customer service staff treat you with courtesy and respect?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

33. In the last 6 months, did your health plan give you any forms to fill out?

- ○ Yes
- ○ No ➔ ***Go to Question 35***

34. In the last 6 months, how often were the forms from your health plan easy to fill out?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

35. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10

Worst Health Plan Possible — Best Health Plan Possible

ABOUT YOU

36. In general, how would you rate your overall health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

37. In general, how would you rate your overall <u>mental or emotional</u> health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

38. Have you had either a flu shot or flu spray in the nose since July 1, 2017?

- ○ Yes
- ○ No
- ○ Don't know

39. Do you now smoke cigarettes or use tobacco every day, some days, or not at all?

- ○ Every day
- ○ Some days
- ○ Not at all ➔ ***Go to Question 43***
- ○ Don't know ➔ ***Go to Question 43***

40. In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

41. In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

42. In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

43. In the last 6 months, did you get health care 3 or more times for the same condition or problem?

- ○ Yes
- ○ No ➔ ***Go to Question 45***

44. Is this a condition or problem that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

- ○ Yes
- ○ No

45. Do you now need or take medicine prescribed by a doctor? Do <u>not</u> include birth control.

- ○ Yes
- ○ No ➔ ***Go to Question 47***

46. Is this medicine to treat a condition that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

- ○ Yes
- ○ No

47. What is your age?

- ○ 18 to 24
- ○ 25 to 34
- ○ 35 to 44
- ○ 45 to 54
- ○ 55 to 64
- ○ 65 to 74
- ○ 75 or older

48. Are you male or female?

- ○ Male
- ○ Female

49. What is the highest grade or level of school that you have completed?

- ○ 8th grade or less
- ○ Some high school, but did not graduate
- ○ High school graduate or GED
- ○ Some college or 2-year degree
- ○ 4-year college graduate
- ○ More than 4-year college degree

50. Are you of Hispanic or Latino origin or descent?

- ○ Yes, Hispanic or Latino
- ○ No, Not Hispanic or Latino

51. What is your race? Mark one or more.

- ○ White
- ○ Black or African-American
- ○ Asian
- ○ Native Hawaiian or other Pacific Islander
- ○ American Indian or Alaska Native
- ○ Other

52. Did someone help you complete this survey?

- ○ Yes
- ○ No ➔ ***Go to Question 54***

53. How did that person help you? Mark one or more.

- ○ Read the questions to me
- ○ Wrote down the answers I gave
- ○ Answered the questions for me
- ○ Translated the questions into my language
- ○ Helped in some other way

54. Some health plans help with transportation to doctors' offices or clinics. This help can be a shuttle bus, tokens or vouchers for a bus or taxi, or payments for mileage. In the last 6 months, did you phone your health plan to get help with transportation?

- ○ Yes ➔ ***Go to Question 55***
- ○ No ➔ ***Thank you. Please return the completed survey in the postage-paid envelope.***

55. In the last 6 months, when you phoned to get help with transportation from your health plan, how often did you get it?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

56. In the last 6 months, how often did the help with transportation meet your needs?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

Thanks again for taking the time to complete this survey! Your answers are greatly appreciated.

When you are done, please use the enclosed prepaid envelope to mail the survey to:

DataStat, 3975 Research Park Drive, Ann Arbor, MI 48108

2018 Michigan Department of Health and Human Services

Healthy Michigan Plan CAHPS® Report

October 2018

HSAG HEALTH SERVICES ADVISORY GROUP

HSAG HEALTH SERVICES ADVISORY GROUP

Table of Contents

1. Executive Summary

Introduction

The Michigan Department of Health and Human Services (MDHHS) assesses the perceptions and experiences of members enrolled in the MDHHS Healthy Michigan Plan (HMP) health plans as part of its process for evaluating the quality of health care services provided to eligible adult members in the HMP Program. MDHHS contracted with Health Services Advisory Group, Inc. (HSAG) to administer and report the results of the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Health Plan Survey for the HMP Program.[1-1] The goal of the CAHPS Health Plan Survey is to provide performance feedback that is actionable and that will aid in improving overall member satisfaction.

This report presents the 2018 CAHPS results of adult members enrolled in an HMP health plan. The survey instrument selected was the CAHPS 5.0 Adult Medicaid Health Plan Survey with the Healthcare Effectiveness Data and Information Set (HEDIS®) supplemental item set.[1-2] MDHHS elected to include five supplemental questions in the survey. The surveys were completed by adult members from May to August 2018.

Report Overview

Results presented in this report include:

- Four global ratings: Rating of Health Plan, Rating of All Health Care, Rating of Personal Doctor, and Rating of Specialist Seen Most Often.
- Five composite measures: Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, Customer Service, and Shared Decision Making.
- Two individual item measures: Coordination of Care and Health Promotion and Education.
- Three Effectiveness of Care measures: Advising Smokers and Tobacco Users to Quit, Discussing Cessation Medications, and Discussing Cessation Strategies.

HSAG presents plan-level results and aggregate statewide results (i.e., the MDHHS HMP Program) and compares them to national Medicaid data. Additionally, overall rates for the supplemental items are reported.

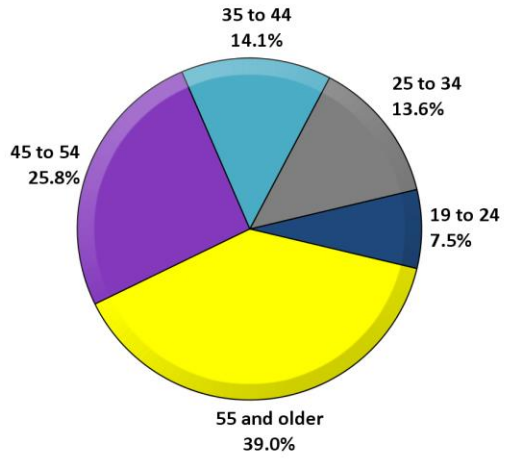
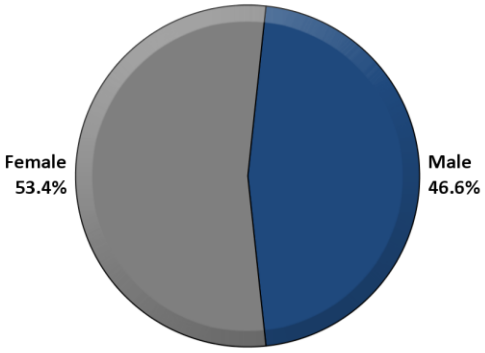
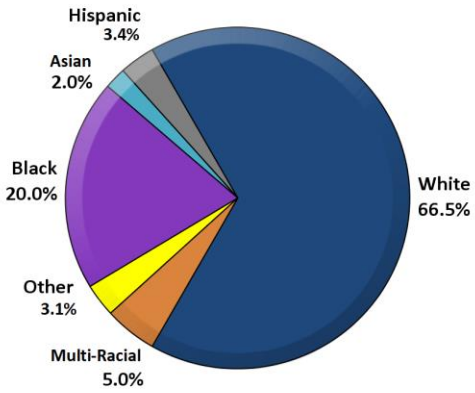
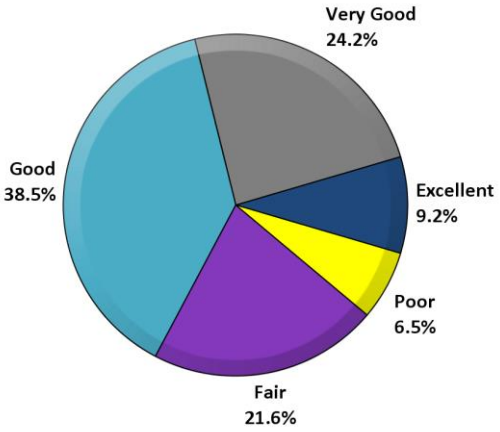
[1-1] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[1-2] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

Key Findings

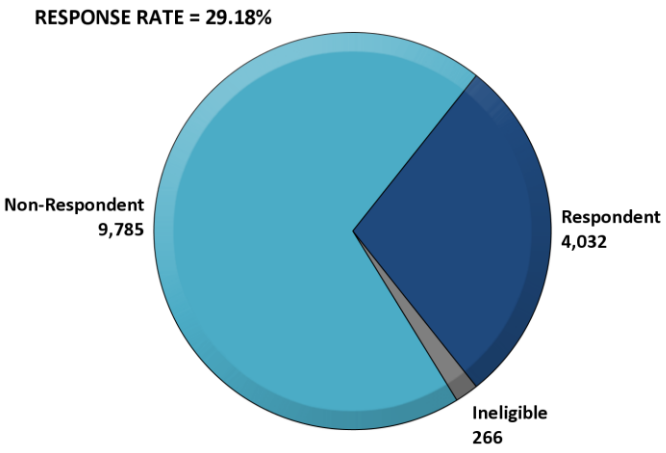
Survey Demographics and Dispositions

Table 1-1 provides an overview of the adult member demographics and survey dispositions for the MDHHS HMP Program. Please note, some percentages displayed in the table below may not total 100 percent due to rounding.

Table 1-1—Member Demographics and Survey Dispositions

Age	Gender
	
Race/Ethnicity	**General Health Status**
	

Survey Dispositions



National Comparisons and Trend Analysis

A three-point mean score was determined for the four CAHPS global ratings, four of the CAHPS composite measures, and one CAHPS individual item measure. The resulting three-point means scores were compared to the National Committee for Quality Assurance's (NCQA's) 2018 HEDIS Benchmarks and Thresholds for Accreditation to derive the overall member satisfaction ratings (i.e., star ratings) for each CAHPS measure.[1-3,1-4] In addition, a trend analysis was performed that compared the 2018 CAHPS results to their corresponding 2017 CAHPS results. Table 1-2 provides highlights of the National Comparisons and Trend Analysis findings for the MDHHS HMP Program. The numbers presented in the table represent the three-point mean score for each measure, while the stars represent overall member satisfaction ratings when the three-point means were compared to NCQA HEDIS Benchmarks and Thresholds for Accreditation.[1-5]

[1-3] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

[1-4] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure, and the Health Promotion and Education individual item measure; therefore, these CAHPS measures were excluded from the National Comparisons analysis.

[1-5] Given the potential differences in demographic make-up of the HMP population and services received from the HMP health plans compared to the adult Medicaid population, caution should be exercised when interpreting the comparisons to Adult Medicaid NCQA HEDIS Benchmarks and Thresholds for Accreditation.

Table 1-2—National Comparisons and Trend Analysis MDHHS HMP Program

Measure	National Comparisons	Trend Analysis
Global Rating		
Rating of Health Plan	★★★ 2.47	—
Rating of All Health Care	★★ 2.37	—
Rating of Personal Doctor	★★★ 2.50	—
Rating of Specialist Seen Most Often	★★★★ 2.57	▲
Composite Measure		
Getting Needed Care	★★★ 2.39	—
Getting Care Quickly	★★★ 2.46	—
How Well Doctors Communicate	★★★★★ 2.68	—
Customer Service	★★★★ 2.59	—
Individual Item Measure		
Coordination of Care	★★ 2.42	—

Star Assignments Based on Percentiles
★★★★★ 90th or Above ★★★★ 75th-89th ★★★ 50th-74th ★★ 25th-49th ★ Below 25th

▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Indicates the 2018 score is not statistically significantly different than the 2017 score.*

The following are highlights of this comparison:

- The MDHHS HMP Program scored at or above the 90th percentile on one measure, How Well Doctors Communicate.
- The MDHHS HMP Program scored at or between the 75th and 89th percentiles on two measures: Rating of Specialist Seen Most Often and Customer Service.
- The MDHHS HMP Program scored at or between the 50th and 74th percentiles on four measures: Rating of Health Plan, Rating of Personal Doctor, Getting Needed Care, and Getting Care Quickly.
- The MDHHS HMP Program scored at or between the 25th and 49th percentiles on two measures: Rating of All Health Care and Coordination of Care.

Results from the trend analysis showed that the MDHHS HMP Program scored statistically significantly *higher* in 2018 than in 2017 on one measure:

- Rating of Specialist Seen Most Often

Statewide Comparisons

HSAG calculated top-box rates (i.e., rates of satisfaction) for each global rating, composite measure, individual item measure, and overall rates for the Effectiveness of Care measures. HSAG compared the HMP health plan results to the MDHHS HMP Program average to determine if plan results were statistically significantly different from the MDHHS HMP Program average. Table 1-3 through Table 1-5 show the results of this analysis for the global ratings, composite measures, individual item measures, and Effectiveness of Care measures.

Table 1-3—Statewide Comparisons: Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
Aetna Better Health of Michigan	—	—	—	—+
Blue Cross Complete of Michigan	—	—	—	—
HAP Midwest Health Plan	—	—+	—+	—+
Harbor Health Plan	↓	—	—	—+
McLaren Health Plan	—	—	—	—
Meridian Health Plan of Michigan	↓	—	—	—
Molina Healthcare of Michigan	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—
Total Health Care, Inc.	↑	—	—	—
UnitedHealthcare Community Plan	—	—	—	—
Upper Peninsula Health Plan	↑	↑	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

Table 1-4—Statewide Comparisons: Composite Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Shared Decision Making
Aetna Better Health of Michigan	—	—	—	—+	—+
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—+	—+	—+	—+	—+
Harbor Health Plan	—	—	—	—	—+
McLaren Health Plan	—	—	—	—+	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—+	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—+	—+
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

Table 1-5—Statewide Comparisons: Individual Item and Effectiveness of Care Measures

Plan Name	Coordination of Care	Health Promotion and Education	Advising Smokers and Tobacco Users to Quit	Discussing Cessation Medications	Discussing Cessation Strategies
Aetna Better Health of Michigan	—+	—	—	—	—
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—+	—+	—+	—+	—+
Harbor Health Plan	—+	—	—	—	—
McLaren Health Plan	—	—	—	—	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

The results from the Statewide Comparisons presented in Table 1-3 and Table 1-5 revealed that the following plan had two measures that were statistically significantly *higher* than the MDHHS HMP Program average:

- Upper Peninsula Health Plan

The following plan had one measure that was statistically significantly *higher* than the MDHHS HMP Program average:

- Total Health Care, Inc.

Conversely, the following plans had one measure that was statistically significantly *lower* than the MDHHS HMP Program average:

- Harbor Health Plan
- Meridian Health Plan of Michigan

Key Drivers of Satisfaction

HSAG focused the key drivers of satisfaction analysis on the following three global ratings: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. HSAG evaluated these global ratings to determine if particular CAHPS items (i.e., questions) are strongly correlated with one or more of these measures. These individual CAHPS items, which HSAG refers to as "key drivers," are driving levels of satisfaction with each of the three measures. Table 1-6 provides a summary of the key drivers identified for the MDHHS HMP Program.

Table 1-6—MDHHS HMP Program Key Drivers of Satisfaction

Rating of Health Plan
Respondents reported that their health plan's customer service did not always give them the information or help they needed.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that forms from their health plan were often not easy to fill out.
Rating of All Health Care
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of Personal Doctor
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

2. Reader's Guide

2018 CAHPS Performance Measures

The CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set includes 53 core questions that yield 14 measures. These measures include four global rating questions, five composite measures, two individual item measures, and three Effectiveness of Care measures. The global measures (also referred to as global ratings) reflect overall satisfaction with the health plan, health care, personal doctors, and specialists. The composite measures are sets of questions grouped together to address different aspects of care (e.g., "Getting Needed Care" or "Getting Care Quickly"). The individual item measures are individual questions that look at a specific area of care (e.g., "Coordination of Care" and "Health Promotion and Education"). The Effectiveness of Care measures assess the various aspects of providing medical assistance with smoking and tobacco use cessation.

Table 2-1 lists the measures included in the CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set.

Table 2-1—CAHPS Measures

Global Ratings	Composite Measures	Individual Item Measures	Effectiveness of Care Measures
Rating of Health Plan	Getting Needed Care	Coordination of Care	Advising Smokers and Tobacco Users to Quit
Rating of All Health Care	Getting Care Quickly	Health Promotion and Education	Discussing Cessation Medications
Rating of Personal Doctor	How Well Doctors Communicate		Discussing Cessation Strategies
Rating of Specialist Seen Most Often	Customer Service		
	Shared Decision Making		

How CAHPS Results Were Collected

HSAG's survey methodology ensured the collection of CAHPS data is consistent throughout all plans to allow for comparisons. The sampling procedures and survey protocol that were adhered to are described below.

Sampling Procedures

MDHHS provided HSAG with a list of all eligible adult members in the HMP Program for the sampling frame. HSAG inspected a sample of the file records to check for any apparent problems with the files, such as missing address elements. HSAG sampled adult members who met the following criteria:

- Were 19 years of age or older as of February 28, 2018.
- Were currently enrolled in an HMP health plan.
- Had been continuously enrolled in the plan for at least five out of six months (September 1, 2017 to February 28, 2018).

Next, a sample of members was selected for inclusion in the survey. For each HMP health plan, no more than one member per household was selected as part of the survey samples. A sample of 1,350 adult members was selected from each HMP health plan. HAP Midwest Health Plan had fewer than 1,350 adult members who were eligible for inclusion in the survey; therefore, each member from HAP Midwest Health Plan's eligible population was included in the sample. Table 3-1 in the Results section provides an overview of the sample sizes for each plan. HSAG tried to obtain new addresses for members selected for the sample by processing sampled members' addresses through the United States Postal Service's National Change of Address (NCOA) system.

Survey Protocol

The survey administration protocol employed was a mixed-mode methodology, which allowed for two methods by which members could complete a survey. The first, or mail phase, consisted of sampled members receiving a survey via mail. All sampled members received an English version of the survey, with the option of completing the survey in Spanish. Non-respondents received a reminder postcard, followed by a second survey mailing and postcard reminder.

The second phase, or telephone phase, consisted of Computer Assisted Telephone Interviewing (CATI) of members who did not mail in a completed survey. At least three CATI calls to each non-respondent were attempted. It has been shown that the addition of the telephone phase aids in the reduction of non-

response bias by increasing the number of respondents who are more demographically representative of a plan's population.[2-1]

Table 2-2 shows the standard mixed-mode (i.e., mail followed by telephone follow-up) CAHPS timeline used in the administration of the HMP CAHPS survey.

Table 2-2—CAHPS Mixed-Mode Methodology Survey Timeline

Task	Timeline
Send first questionnaire with cover letter to the adult member.	0 days
Send a postcard reminder to non-respondents 4-10 days after mailing the first questionnaire.	4-10 days
Send a second questionnaire (and letter) to non-respondents approximately 35 days after mailing the first questionnaire.	35 days
Send a second postcard reminder to non-respondents 4-10 days after mailing the second questionnaire.	39-45 days
Initiate CATI interviews for non-respondents approximately 21 days after mailing the second questionnaire.	56 days
Initiate systematic contact for all non-respondents such that at least three telephone calls are attempted at different times of the day, on different days of the week, and in different weeks.	56 – 70 days
Telephone follow-up sequence completed (i.e., completed interviews obtained or maximum calls reached for all non-respondents) approximately 14 days after initiation.	70 days

[2-1] Fowler FJ Jr., Gallagher PM, Stringfellow VL, et al. "Using Telephone Interviews to Reduce Nonresponse Bias to Mail Surveys of Health Plan Members." *Medical Care*. 2002; 40(3): 190-200.

How CAHPS Results Were Calculated and Displayed

HSAG used the CAHPS scoring approach recommended by NCQA in Volume 3 of HEDIS Specifications for Survey Measures. Based on NCQA's recommendations and HSAG's extensive experience evaluating CAHPS data, HSAG performed a number of analyses to comprehensively assess member satisfaction. In addition to individual plan results, HSAG calculated an MDHHS HMP Program average. HSAG combined results from the HMP health plans to calculate the HMP Program average. This section provides an overview of each analysis.

Who Responded to the Survey

The response rate was defined as the total number of completed surveys divided by all eligible members of the sample. HSAG considered a survey completed if members answered at least three of the following five questions: 3, 15, 24, 28, and 35. Eligible members included the entire sample minus ineligible members. Ineligible members met at least one of the following criteria: they were deceased, were invalid (did not meet the eligibility criteria), were mentally or physically incapacitated, or had a language barrier.

$$\textit{Response Rate} = \frac{\textit{Number of Completed Surveys}}{\textit{Sample - Ineligibles}}$$

Demographics of Adult Members

The demographics analysis evaluated the following demographic information of adult members. The demographic characteristics included age, gender, race/ethnicity, level of education, and general health status. MDHHS should exercise caution when extrapolating the survey results to the entire population if the respondent population differs significantly from the actual population of the plan.

National Comparisons

HSAG conducted an analysis of the CAHPS survey results using NCQA HEDIS Specifications for Survey Measures. In order to perform the National Comparisons, a three-point mean score was determined for each CAHPS measure.[2-2] HSAG compared the resulting three-point mean scores to published NCQA HEDIS Benchmarks and Thresholds for Accreditation to derive the overall member satisfaction ratings for each CAHPS measure. Table 2-3 shows the percentiles that were used to determine star ratings for each CAHPS measure.

Table 2-3—Star Ratings

Stars	Percentiles
★★★★★ Excellent	At or above the 90th percentile
★★★★ Very Good	At or between the 75th and 89th percentiles
★★★ Good	At or between the 50th and 74th percentiles
★★ Fair	At or between the 25th and 49th percentiles
★ Poor	Below the 25th percentile

Table 2-4, on the following page, shows the NCQA HEDIS Benchmarks and Thresholds for Accreditation used to derive the overall member satisfaction ratings on each CAHPS measure.[2-3] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure, and the Health Promotion and Education individual item measure; therefore, star ratings could not be assigned for these measures. In addition, there are no national benchmarks available for this population; therefore, national adult Medicaid data were used for comparative purposes.[2-4] Although NCQA requires a minimum of 100 responses on each item in order to report the item as a reportable CAHPS Survey result, HSAG presented results with fewer than 100 responses, which are denoted with a cross (+). Caution should be exercised when evaluating measures' results with fewer than 100 responses.

[2-2] For detailed information on the derivation of three-point mean scores, please refer to *HEDIS® 2018, Volume 3: Specifications for Survey Measures.*

[2-3] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

[2-4] Given the potential differences in demographic make-up of the HMP population and services received from the HMP health plans compared to the adult Medicaid population, caution should be exercised when interpreting the comparisons to Adult Medicaid NCQA HEDIS Benchmarks and Thresholds for Accreditation.

Table 2-4—Overall Member Satisfaction Ratings Crosswalk

Measure	90th Percentile	75th Percentile	50th Percentile	25th Percentile
Rating of Health Plan	2.55	2.51	2.46	2.39
Rating of All Health Care	2.48	2.44	2.39	2.35
Rating of Personal Doctor	2.57	2.53	2.50	2.43
Rating of Specialist Seen Most Often	2.59	2.56	2.51	2.48
Getting Needed Care	2.47	2.43	2.39	2.33
Getting Care Quickly	2.52	2.47	2.43	2.37
How Well Doctors Communicate	2.64	2.58	2.54	2.48
Customer Service	2.61	2.58	2.54	2.48
Coordination of Care	2.53	2.48	2.43	2.36

Statewide Comparisons

Global Ratings, Composite Measures, and Individual Item Measures

For purposes of the Statewide Comparisons analysis, HSAG calculated question summary rates for each global rating and individual item, and global proportions for each composite measure, following NCQA HEDIS Specifications for Survey Measures.[2-5] The scoring of the global ratings, composite measures, and individual item measures involved assigning top-box responses a score of one, with all other responses receiving a score of zero. A "top-box" response was defined as follows:

- "9" or "10" for the global ratings;
- "Usually" or "Always" for the Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, and Customer Service composites, and the Coordination of Care individual item;
- "Yes" for the Shared Decision Making composite and the Health Promotion and Education individual item.

Effectiveness of Care Measures: Medical Assistance with Smoking and Tobacco Use Cessation

HSAG calculated three rates that assess different facets of providing medical assistance with smoking and tobacco use cessation:

- Advising Smokers and Tobacco Users to Quit
- Discussing Cessation Medications
- Discussing Cessation Strategies

[2-5] National Committee for Quality Assurance. *HEDIS® 2018, Volume 3: Specifications for Survey Measures.* Washington, DC: NCQA; 2017.

These rates assess the percentage of smokers or tobacco users who were advised to quit, were recommended cessation medications, and were provided cessation methods or strategies, respectively. Responses of "Sometimes," "Usually," and "Always" were used to determine if the member qualified for inclusion in the numerator. The 2018 rates presented follow NCQA's methodology of calculating a rolling average using the current and prior year's results. Please exercise caution when reviewing the trend analysis results for the medical assistance with smoking and tobacco use cessation measures, as the 2018 results contain members who responded to the survey and indicated that they were current smokers or tobacco users in 2017 or 2018.

Weighting

A weighted MDHHS HMP Program average was calculated. Results were weighted based on the total eligible population for each plan's adult HMP population.

HMP Health Plan Comparisons

The results of the HMP health plans were compared to the MDHHS HMP Program average. Two types of hypothesis tests were applied to these results. First, a global *F* test was calculated, which determined whether the difference between HMP health plans' means was significant. If the *F* test demonstrated plan-level differences (i.e., p value < 0.05), then a *t* test was performed for each HMP health plan. The *t* test determined whether each HMP health plan's mean was statistically significantly different from the MDHHS HMP Program average. This analytic approach follows the Agency for Healthcare Research and Quality's (AHRQ's) recommended methodology for identifying significant plan-level performance differences.

Trend Analysis

A trend analysis was performed that compared the 2018 CAHPS scores to the corresponding 2017 CAHPS scores to determine whether there were statistically significant differences. A *t* test was performed to determine whether results in 2018 were statistically significantly different from results in 2017. A difference was considered statistically significant if the two-sided p value of the *t* test was less than 0.05. The two-sided p value of the *t* test is the probability of observing a test statistic as extreme as or more extreme than the one actually observed by chance. Measures with fewer than 100 responses are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

Key Drivers of Satisfaction Analysis

HSAG performed an analysis of key drivers of satisfaction for the following measures: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. The purpose of the key drivers of satisfaction analysis is to help decision makers identify specific aspects of care that will most benefit from quality improvement (QI) activities. The analysis provides information on: 1) how ***well*** the MDHHS HMP Program is performing on the survey item and 2) how ***important*** that item is to overall satisfaction.

Table 2-5 provides a list of the survey items considered for the key drivers analysis for the Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor global ratings.

Table 2-5—Correlation Matrix

	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor
Q4. Received Care as Soon as Wanted	✓	✓	✓
Q7. Received Appointment as Soon as Wanted	✓	✓	✓
Q13. Doctor Talked About Specific Things to Prevent Illness	✓	✓	✓
Q15. Doctor Talked About Reasons to Take a Medicine	✓	✓	✓
Q16. Doctor Talked About Reasons Not to Take a Medicine	✓	✓	✓
Q17. Doctor Asked About Best Medicine Choice for You	✓	✓	✓
Q19. Getting Care Believed Necessary	✓	✓	✓
Q22. Doctor Explained Things in Way They Could Understand	✓	✓	✓
Q23. Doctor Listened Carefully	✓	✓	✓
Q24. Doctor Showed Respect.	✓	✓	✓
Q25. Doctor Spent Enough Time with Patient	✓	✓	✓
Q27. Doctor Seemed Informed and Up-to-Date About Care from Other Doctors or Health Providers	✓	✓	✓
Q30. Seeing a Specialist	✓	✓	
Q34. Information in Written Materials or on the Internet About Health Plan Provided Information Needed	✓	✓	
Q36. Obtaining Help Needed from Customer Service	✓	✓	
Q37. Health Plan Customer Service Treated with Courtesy and Respect	✓	✓	
Q39. Forms from Health Plan Easy to Fill Out	✓	✓	

The performance on a survey item was measured by calculating a problem score, in which a negative experience with care was defined as a problem and assigned a "1," and a positive experience with care (i.e., non-negative) was assigned a "0." The higher the problem score, the lower the member satisfaction with the aspect of service measured by that question. The problem score could range from 0 to 1.

For each item evaluated, the relationship between the item's problem score and performance on each of the three measures was calculated using a Pearson product moment correlation, which is defined as the covariance of the two scores divided by the product of their standard deviations. Items were then prioritized based on their overall problem score and their correlation to each measure. Key drivers of satisfaction were defined as those items that:

- Had a problem score that was greater than or equal to the median problem score for all items examined.
- Had a correlation that was greater than or equal to the median correlation for all items examined.

Limitations and Cautions

The findings presented in this CAHPS report are subject to some limitations in the survey design, analysis, and interpretation. MDHHS should consider these limitations when interpreting or generalizing the findings.

Case-Mix Adjustment

The demographics of a response group may impact member satisfaction. Therefore, differences in the demographics of the response group may impact CAHPS results. NCQA does not recommend case-mix adjusting Medicaid CAHPS results to account for these differences; therefore, no case-mix adjusting was performed on these CAHPS results.[2-6]

Non-Response Bias

The experiences of the survey respondent population may be different than that of non-respondents with respect to their health care services and may vary by plan or program. Therefore, MDHHS should consider the potential for non-response bias when interpreting CAHPS results.

Causal Inferences

Although this report examines whether respondents report differences in satisfaction with various aspects of their health care experiences, these differences may not be completely attributable to the plan. These analyses identify whether respondents give different ratings of satisfaction with their plan. The survey by itself does not necessarily reveal the exact cause of these differences.

[2-6] Agency for Healthcare Research and Quality. *CAHPS Health Plan Survey and Reporting Kit 2008*. Rockville, MD: US Department of Health and Human Services; 2008.

Missing Phone Numbers

The volume of missing telephone numbers may impact the response rates and the validity of the survey results. For instance, a certain segment of the population may be more likely to have missing phone information than other segments.

National Data for Comparisons

While comparisons to national data were performed for the survey measures, it is important to note that the survey instrument utilized for the 2018 survey administration was the standard CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set; however, the population being surveyed was not a standard adult Medicaid population. There are currently no available benchmarks for this population; therefore, caution should be exercised when interpreting the comparisons to NCQA national data.

3. Results

Who Responded to the Survey

A total of 14,083 surveys were distributed to adult members. A total of 4,032 surveys were completed. A survey was considered complete if members answered at least three of the following five questions on the survey: 3, 15, 24, 28, and 35. Eligible members included the entire sample minus ineligible members. Ineligible members met at least one of the following criteria: they were deceased, were invalid (did not meet the eligible criteria), were mentally or physically incapacitated, or had a language barrier.

Table 3-1 shows the total number of members sampled, the number of surveys completed, the number of ineligible members, and the response rates.

Table 3-1—Total Number of Respondents and Response Rates

Plan Name	Sample Size	Completes	Ineligibles	Response Rates
MDHHS HMP Program	**14,083**	**4,032**	**266**	**29.18%**
Aetna Better Health of Michigan	1,350	262	24	19.76%
Blue Cross Complete of Michigan	1,350	387	22	29.14%
HAP Midwest Health Plan	583	110	10	19.20%
Harbor Health Plan	1,350	272	30	20.61%
McLaren Health Plan	1,350	492	28	37.22%
Meridian Health Plan of Michigan	1,350	416	20	31.28%
Molina Healthcare of Michigan	1,350	379	21	28.52%
Priority Health Choice, Inc.	1,350	443	16	33.21%
Total Health Care, Inc.	1,350	385	27	29.10%
UnitedHealthcare Community Plan	1,350	348	44	26.65%
Upper Peninsula Health Plan	1,350	538	24	40.57%

Demographics of Adult Members

Table 3-2 depicts the ages of members who completed a CAHPS survey.

Table 3-2—Adult Member Demographics: Age

Plan Name	19 to 24	25 to 34	35 to 44	45 to 54	55 and older
MDHHS HMP Program	**7.5%**	**13.6%**	**14.1%**	**25.8%**	**39.0%**
Aetna Better Health of Michigan	5.8%	16.3%	13.2%	29.5%	35.3%
Blue Cross Complete of Michigan	7.1%	16.8%	15.5%	25.5%	35.0%
HAP Midwest Health Plan	5.5%	15.6%	15.6%	18.3%	45.0%
Harbor Health Plan	2.7%	9.1%	13.3%	31.4%	43.6%
McLaren Health Plan	8.5%	15.1%	11.8%	26.5%	38.1%
Meridian Health Plan of Michigan	9.5%	15.8%	12.7%	26.5%	35.5%
Molina Healthcare of Michigan	7.6%	13.2%	15.9%	24.9%	38.4%
Priority Health Choice, Inc.	6.2%	12.9%	12.9%	25.7%	42.3%
Total Health Care, Inc.	7.1%	12.2%	15.3%	22.8%	42.6%
UnitedHealthcare Community Plan	12.5%	11.1%	16.0%	26.2%	34.1%
Upper Peninsula Health Plan	6.7%	12.0%	14.8%	24.3%	42.2%
Please note, percentages may not total 100.0% due to rounding.					

Table 3-3 depicts the gender of members who completed a CAHPS survey.

Table 3-3—Adult Member Demographics: Gender

Plan Name	Male	Female
MDHHS HMP Program	**46.6%**	**53.4%**
Aetna Better Health of Michigan	48.2%	51.8%
Blue Cross Complete of Michigan	48.6%	51.4%
HAP Midwest Health Plan	60.9%	39.1%
Harbor Health Plan	60.2%	39.8%
McLaren Health Plan	46.0%	54.0%
Meridian Health Plan of Michigan	44.4%	55.6%
Molina Healthcare of Michigan	38.8%	61.2%
Priority Health Choice, Inc.	44.9%	55.1%
Total Health Care, Inc.	47.9%	52.1%
UnitedHealthcare Community Plan	44.8%	55.2%
Upper Peninsula Health Plan	44.2%	55.8%
Please note, percentages may not total 100.0% due to rounding.		

Table 3-4 depicts the race and ethnicity of members who completed a CAHPS survey.

Table 3-4—Adult Member Demographics: Race/Ethnicity

Plan Name	White	Hispanic	Black	Asian	Other	Multi-Racial
MDHHS HMP Program	**66.5%**	**3.4%**	**20.0%**	**2.0%**	**3.1%**	**5.0%**
Aetna Better Health of Michigan	49.8%	3.5%	37.1%	2.3%	1.2%	6.2%
Blue Cross Complete of Michigan	56.3%	2.4%	29.8%	1.9%	3.5%	6.2%
HAP Midwest Health Plan	71.0%	2.8%	13.1%	1.9%	1.9%	9.3%
Harbor Health Plan	17.1%	3.5%	68.5%	1.2%	3.9%	5.8%
McLaren Health Plan	81.6%	3.4%	5.7%	1.9%	2.1%	5.3%
Meridian Health Plan of Michigan	74.1%	4.2%	10.6%	2.7%	2.0%	6.4%
Molina Healthcare of Michigan	54.8%	4.0%	29.6%	4.3%	4.0%	3.2%
Priority Health Choice, Inc.	84.4%	5.7%	4.8%	0.5%	1.1%	3.4%
Total Health Care, Inc.	48.4%	2.7%	37.6%	2.4%	3.5%	5.4%
UnitedHealthcare Community Plan	68.7%	2.9%	13.5%	4.1%	7.0%	3.8%
Upper Peninsula Health Plan	89.9%	1.9%	0.4%	0.2%	3.6%	4.1%
Please note, percentages may not total 100.0% due to rounding.						

Table 3-5 depicts the level of education of members who completed a CAHPS survey.

Table 3-5—Adult Member Demographics: Education

Plan Name	8th Grade or Less	Some High School	High School Graduate	Some College	College Graduate
MDHHS HMP Program	**2.6%**	**12.3%**	**40.6%**	**32.6%**	**11.9%**
Aetna Better Health of Michigan	2.0%	13.3%	45.3%	27.3%	12.1%
Blue Cross Complete of Michigan	2.4%	10.8%	31.8%	37.3%	17.8%
HAP Midwest Health Plan	0.0%	13.8%	41.3%	35.8%	9.2%
Harbor Health Plan	3.8%	14.4%	44.1%	30.8%	6.8%
McLaren Health Plan	1.3%	14.0%	43.1%	30.8%	10.8%
Meridian Health Plan of Michigan	2.2%	11.8%	45.3%	26.7%	14.0%
Molina Healthcare of Michigan	6.8%	15.3%	34.3%	34.1%	9.5%
Priority Health Choice, Inc.	2.1%	10.1%	40.4%	35.1%	12.4%
Total Health Care, Inc.	2.4%	16.5%	39.9%	30.9%	10.4%
UnitedHealthcare Community Plan	4.7%	13.7%	37.0%	29.7%	14.9%
Upper Peninsula Health Plan	0.7%	6.6%	43.8%	38.2%	10.7%
Please note, percentages may not total 100.0% due to rounding.					

Table 3-6 depicts the general health status of members who completed a CAHPS survey.

Table 3-6—Adult Member Demographics: General Health Status

Plan Name	Excellent	Very Good	Good	Fair	Poor
MDHHS HMP Program	**9.2%**	**24.2%**	**38.5%**	**21.6%**	**6.5%**
Aetna Better Health of Michigan	9.8%	24.2%	35.2%	22.3%	8.6%
Blue Cross Complete of Michigan	12.7%	26.7%	36.1%	20.8%	3.8%
HAP Midwest Health Plan	4.6%	20.4%	38.9%	27.8%	8.3%
Harbor Health Plan	11.5%	16.5%	37.3%	27.7%	6.9%
McLaren Health Plan	7.4%	25.4%	40.0%	21.6%	5.6%
Meridian Health Plan of Michigan	7.4%	25.5%	42.6%	18.4%	6.1%
Molina Healthcare of Michigan	10.7%	21.7%	37.0%	23.1%	7.5%
Priority Health Choice, Inc.	6.4%	26.8%	41.5%	17.2%	8.0%
Total Health Care, Inc.	8.9%	23.1%	33.3%	27.3%	7.3%
UnitedHealthcare Community Plan	9.8%	24.9%	36.4%	21.7%	7.2%
Upper Peninsula Health Plan	10.1%	25.0%	41.3%	18.4%	5.3%
Please note, percentages may not total 100.0% due to rounding.					

National Comparisons

In order to assess the overall performance of the MDHHS Healthy Michigan Program, HSAG scored each CAHPS measure on a three-point scale using an NCQA-approved scoring methodology. HSAG compared the plans' and program's three-point mean scores to NCQA HEDIS Benchmarks and Thresholds for Accreditation.[3-1]

Based on this comparison, ratings of one (★) to five (★★★★★) stars were determined for each CAHPS measure, where one is the lowest possible rating (i.e., Poor) and five is the highest possible rating (i.e., Excellent), as shown in Table 3-7.

Table 3-7—Star Ratings

Stars	Percentiles
★★★★★ Excellent	At or above the 90th percentile
★★★★ Very Good	At or between the 75th and 89th percentiles
★★★ Good	At or between the 50th and 74th percentiles
★★ Fair	At or between the 25th and 49th percentiles
★ Poor	Below the 25th percentile

The results presented in the following two tables represent the three-point mean scores for each measure, while the stars represent the overall member satisfaction ratings when the three-point means were compared to NCQA HEDIS Benchmarks and Thresholds for Accreditation.[3-2]

[3-1] National Committee for Quality Assurance. *HEDIS® Benchmarks and Thresholds for Accreditation 2018*. Washington, DC: NCQA; February 5, 2018.

[3-2] Given the potential differences in demographic make-up of the HMP population and services received from the HMP health plans compared to the adult Medicaid population, caution should be exercised when interpreting the comparisons to Adult Medicaid NCQA HEDIS Benchmarks and Thresholds for Accreditation.

Table 3-8 shows the overall member satisfaction ratings on each of the four global ratings.

Table 3-8—National Comparisons – Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
MDHHS HMP Program	★★★ **2.47**	★★ **2.37**	★★★ **2.50**	★★★★ **2.57**
Aetna Better Health of Michigan	★★ 2.45	★ 2.32	★★ 2.46	★★★★+ 2.57
Blue Cross Complete of Michigan	★★★ 2.50	★★★ 2.39	★★ 2.46	★★★★★ 2.60
HAP Midwest Health Plan	★ 2.38	★+ 2.34	★+ 2.36	★+ 2.41
Harbor Health Plan	★ 2.30	★ 2.22	★ 2.31	★★★+ 2.54
McLaren Health Plan	★★ 2.44	★★ 2.35	★★★ 2.50	★★★ 2.55
Meridian Health Plan of Michigan	★★ 2.41	★ 2.32	★★ 2.46	★★★ 2.55
Molina Healthcare of Michigan	★★★ 2.49	★ 2.29	★★ 2.49	★★★ 2.52
Priority Health Choice, Inc.	★★★ 2.50	★★★★ 2.46	★★★ 2.52	★★★ 2.55
Total Health Care, Inc.	★★★★ 2.52	★★★★ 2.44	★★★★★ 2.59	★★★★★ 2.62
UnitedHealthcare Community Plan	★★ 2.42	★ 2.34	★★★ 2.50	★★★★★ 2.65
Upper Peninsula Health Plan	★★★★★ 2.58	★★★★★ 2.48	★★★★★ 2.58	★★★★ 2.58

+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

The MDHHS HMP Program scored at or between the 75th and 89th percentiles for the Rating of Specialist Seen Most Often global rating. The MDHHS HMP Program scored at or between the 50th and 74th percentiles for two global ratings: Rating of Health Plan and Rating of Personal Doctor. The MDHHS HMP Program scored at or between the 25th and 49th percentiles for the Rating of All Health Care global rating.

Table 3-9 shows the overall member satisfaction ratings on four of the composite measures and one individual item measure.[3-3]

Table 3-9—National Comparisons – Composite and Individual Item Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Coordination of Care
MDHHS HMP Program	★★★ **2.39**	★★★ **2.46**	★★★★★ **2.68**	★★★★ **2.59**	★★ **2.42**
Aetna Better Health of Michigan	★★ 2.36	★★★ 2.45	★★★★ 2.62	★★★★+ 2.60	★★★+ 2.45
Blue Cross Complete of Michigan	★★★ 2.42	★★★★ 2.50	★★★★★ 2.68	★★★★ 2.59	★ 2.31
HAP Midwest Health Plan	★★+ 2.38	★★+ 2.40	★★★★+ 2.60	★★★★★+ 2.61	★+ 2.22
Harbor Health Plan	★★ 2.37	★ 2.34	★★★★ 2.60	★★★★ 2.59	★★★★★+ 2.55
McLaren Health Plan	★★ 2.34	★★★ 2.45	★★★★★ 2.64	★★★★+ 2.59	★ 2.33
Meridian Health Plan of Michigan	★★★ 2.40	★★ 2.42	★★★★★ 2.68	★★★ 2.55	★★ 2.36
Molina Healthcare of Michigan	★★ 2.37	★★★ 2.44	★★★★★ 2.68	★★★+ 2.55	★★★ 2.46
Priority Health Choice, Inc.	★★ 2.37	★★★★ 2.47	★★★★★ 2.68	★★★★★ 2.66	★★★ 2.47
Total Health Care, Inc.	★★★★ 2.45	★★★★★ 2.52	★★★★★ 2.71	★★★★ 2.58	★★ 2.40
UnitedHealthcare Community Plan	★ 2.32	★★ 2.39	★★★★★ 2.74	★★★+ 2.55	★★★★★ 2.59
Upper Peninsula Health Plan	★★★★★ 2.47	★★★★★ 2.52	★★★★★ 2.73	★★★★★ 2.64	★★★ 2.44

+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

The MDHHS HMP Program scored at or above the 90th percentile for the How Well Doctors Communicate composite measure. The MDHHS HMP Program scored at or between the 75th and 89th percentiles for the Customer Service composite measure. The MDHHS HMP Program scored at or between the 50th and 74th percentiles for two composite measures: Getting Needed Care and Getting Care Quickly. The MDHHS HMP Program scored at or between the 25th and 49th percentiles for the Coordination of Care individual item measure.

[3-3] NCQA does not publish national benchmarks and thresholds for the Shared Decision Making composite measure, and the Health Promotion and Education individual item measure; therefore, these CAHPS measures were excluded from the National Comparisons analysis.

Statewide Comparisons

For purposes of the Statewide Comparisons analysis, HSAG calculated top-box rates (i.e., rates of satisfaction) for each global rating, composite measure, and individual item measure. A "top-box" response was defined as follows:

- "9" or "10" for the global ratings;
- "Usually" or "Always" for the Getting Needed Care, Getting Care Quickly, How Well Doctors Communicate, and Customer Service composites, and the Coordination of Care individual item;
- "Yes" for the Shared Decision Making composite and the Health Promotion and Education individual item.

HSAG also calculated overall rates for the Effectiveness of Care Medical Assistance with Smoking and Tobacco Use Cessation measures. Refer to the Reader's Guide section for more detailed information regarding the calculation of these measures.

The MDHHS HMP Program results were weighted based on the eligible population for each adult population (i.e., HMP health plans). HSAG compared the HMP health plan results to the MDHHS HMP Program average to determine if the HMP health plan results were statistically significantly different than the MDHHS HMP Program average. The NCQA adult Medicaid national averages also are presented for comparison.[3-4,3-5] Colors in the figures note statistically significant differences. Green indicates a top-box rate that was statistically significantly higher than the MDHHS HMP Program average. Conversely, red indicates a top-box rate that was statistically significantly lower than the MDHHS HMP Program average. Blue represents top-box rates that were not statistically significantly different from the MDHHS HMP Program average. Health plan rates with fewer than 100 respondents are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

In some instances, the top-box rates presented for two plans may be similar, but one was statistically significantly different from the MDHHS HMP Program average, and the other was not. In these instances, it was the difference in the number of respondents between the two plans that explains the different statistical results. It is more likely that a significant result will be found in a plan with a larger number of respondents.

[3-4] Given the potential differences in demographic make-up of the HMP population and services received from the HMP health plans compared to the adult Medicaid population, caution should be exercised when interpreting the comparisons to Adult Medicaid national averages.

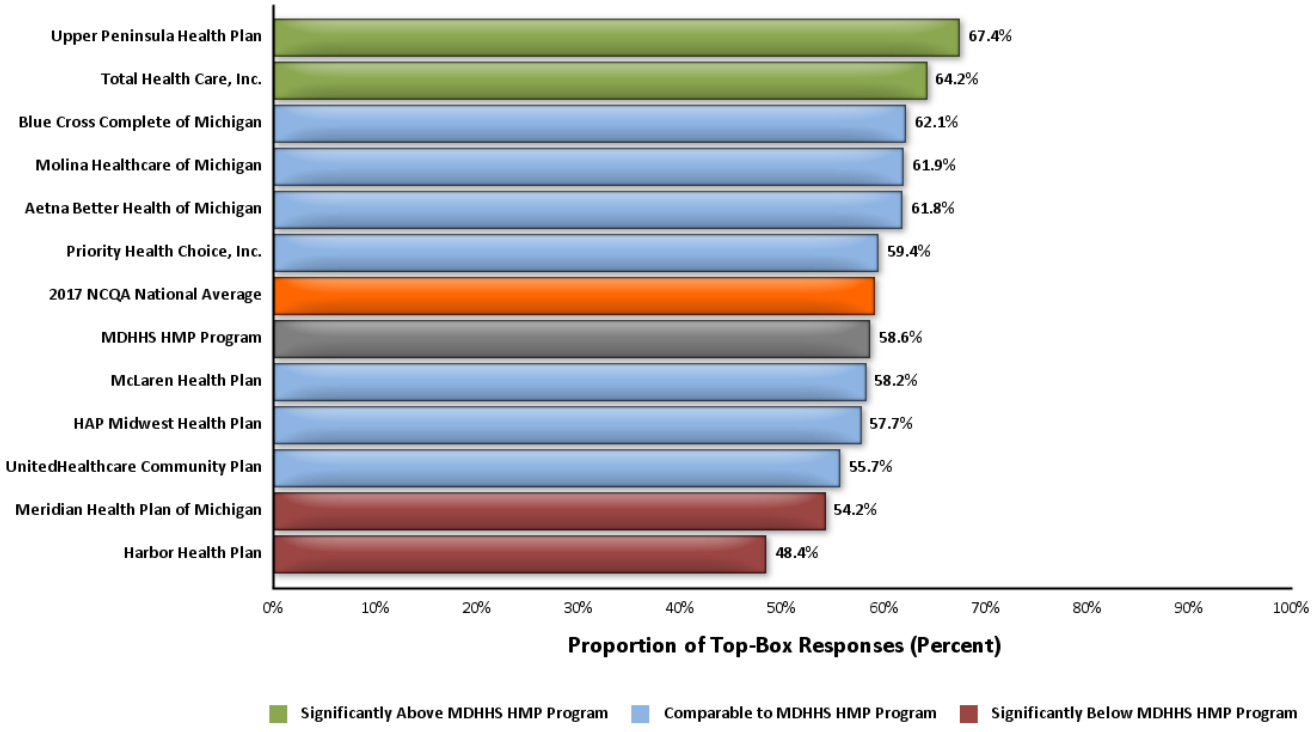
[3-5] The source for the national data contained in this publication is Quality Compass® 2017 and is used with the permission of the National Committee for Quality Assurance (NCQA). Quality Compass 2017 includes certain CAHPS data. Any data display, analysis, interpretation, or conclusion based on these data is solely that of the authors, and NCQA specifically disclaims responsibility for any such display, analysis, interpretation, or conclusion. Quality Compass is a registered trademark of NCQA. CAHPS® is a registered trademark of AHRQ.

Global Ratings

Rating of Health Plan

Adult members were asked to rate their health plan on a scale of 0 to 10, with 0 being the "worst health plan possible" and 10 being the "best health plan possible." Figure 3-1 shows the Rating of Health Plan top-box rates.

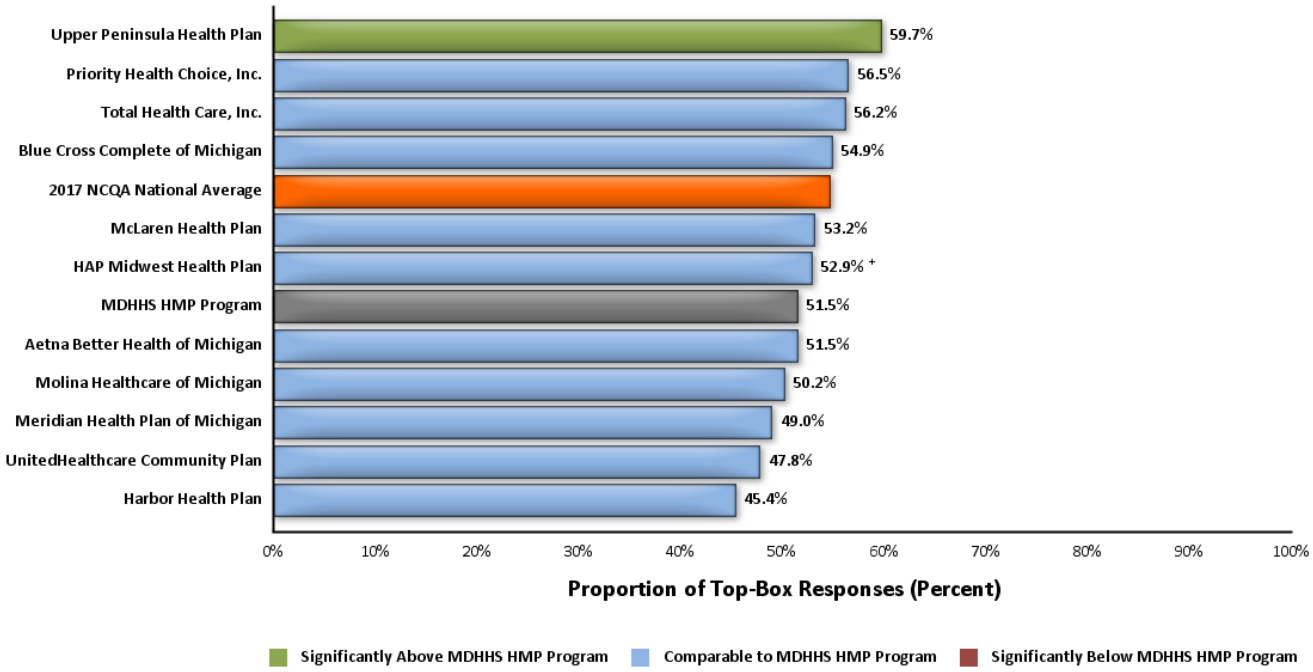
Figure 3-1—Rating of Health Plan Top-Box Rates



Rating of All Health Care

Adult members were asked to rate all their health care on a scale of 0 to 10, with 0 being the "worst health care possible" and 10 being the "best health care possible." Figure 3-2 shows the Rating of All Health Care top-box rates.

Figure 3-2—Rating of All Health Care Top-Box Rates

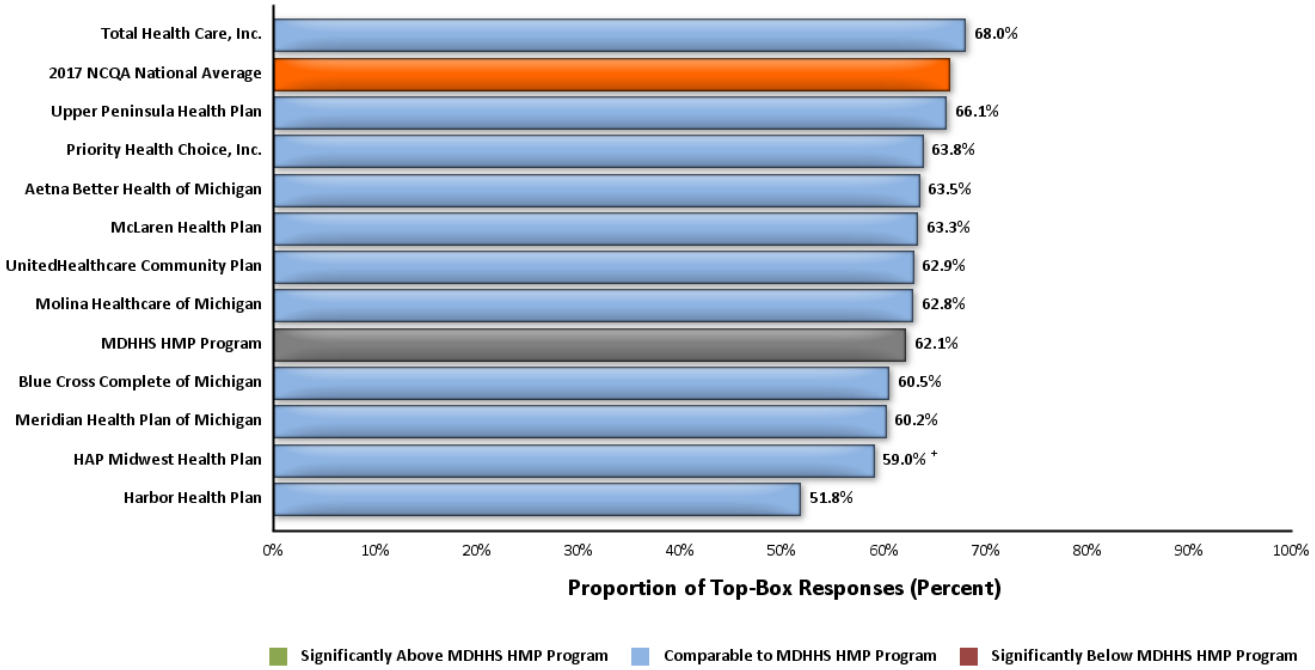


+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Rating of Personal Doctor

Adult members were asked to rate their personal doctor on a scale of 0 to 10, with 0 being the "worst personal doctor possible" and 10 being the "best personal doctor possible." Figure 3-3 shows the Rating of Personal Doctor top-box rates.

Figure 3-3—Rating of Personal Doctor Top-Box Rates

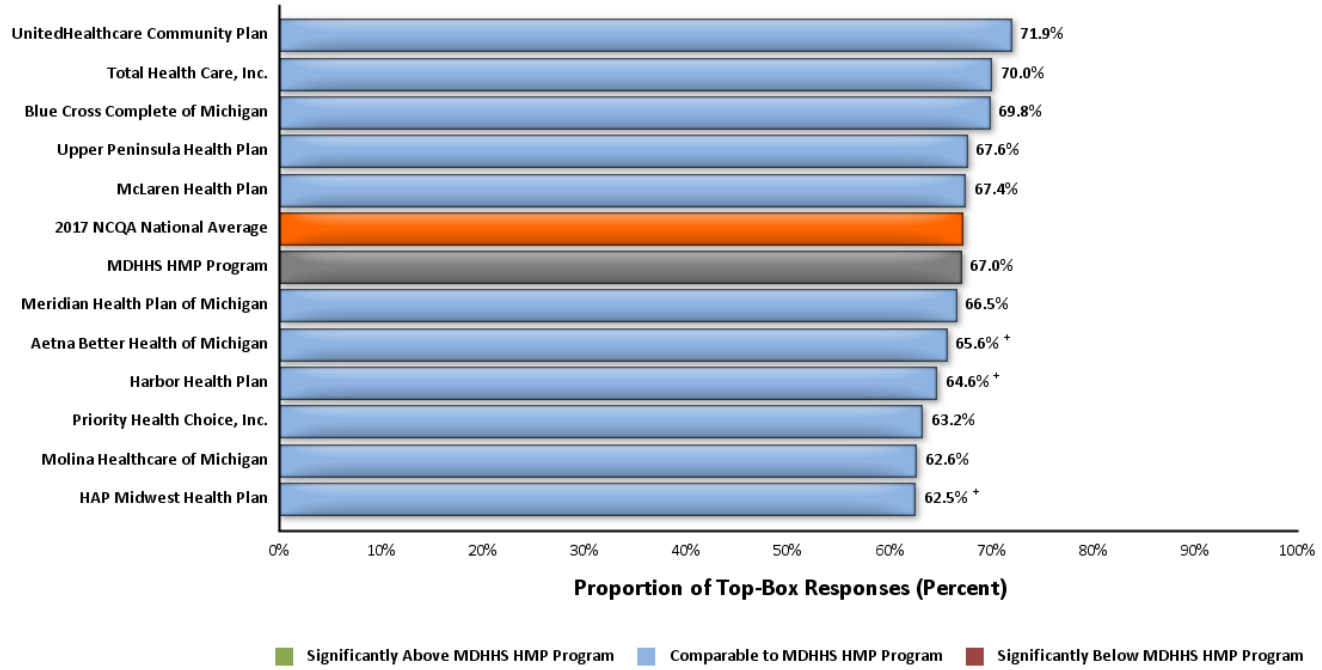


+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Rating of Specialist Seen Most Often

Adult members were asked to rate their specialist on a scale of 0 to 10, with 0 being the "worst specialist possible" and 10 being the "best specialist possible." Figure 3-4 shows the Rating of Specialist Seen Most Often top-box rates.

Figure 3-4—Rating of Specialist Seen Most Often Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Composite Measures

Getting Needed Care

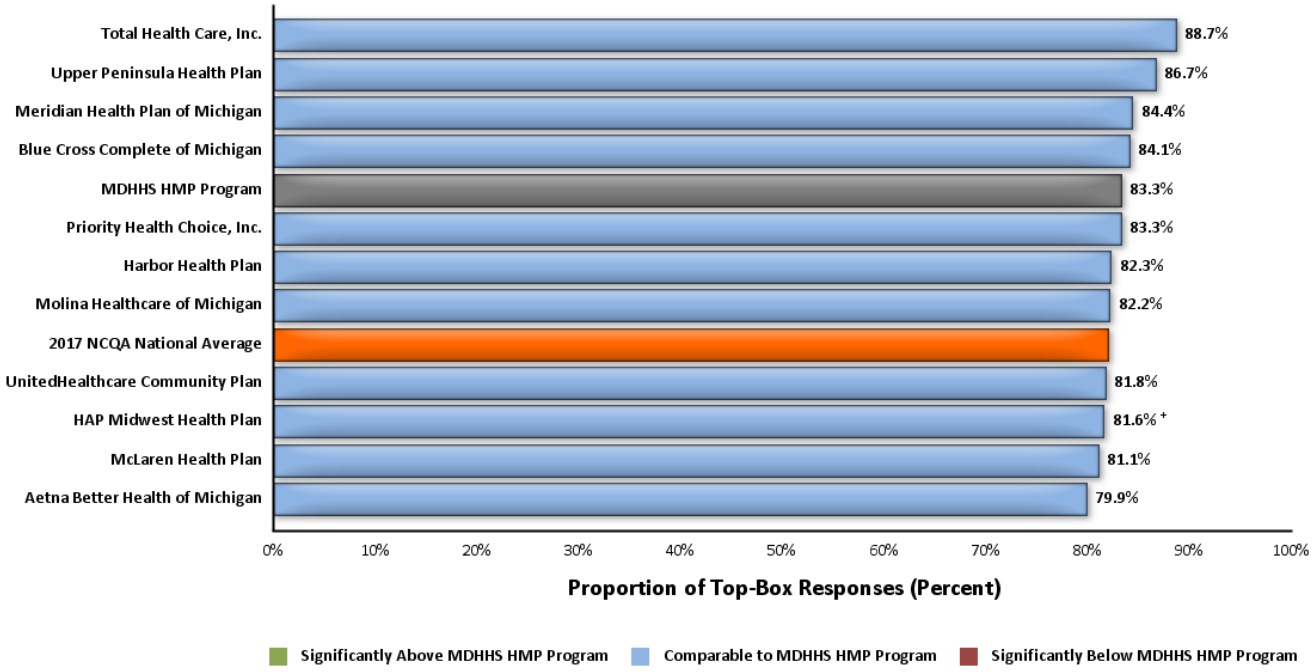
Two questions (Questions 19 and 30) were asked to assess how often it was easy to get needed care:

- **Question 19**. In the last 6 months, how often was it easy to get the care, tests, or treatment you needed?
    - Never
    - Sometimes
    - Usually
    - Always
- **Question 30**. In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?
    - Never
    - Sometimes
    - Usually
    - Always

For purposes of the analysis, HSAG calculated top-box rates for the Getting Needed Care composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-5 shows the Getting Needed Care top-box rates.

Figure 3-5—Getting Needed Care Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Getting Care Quickly

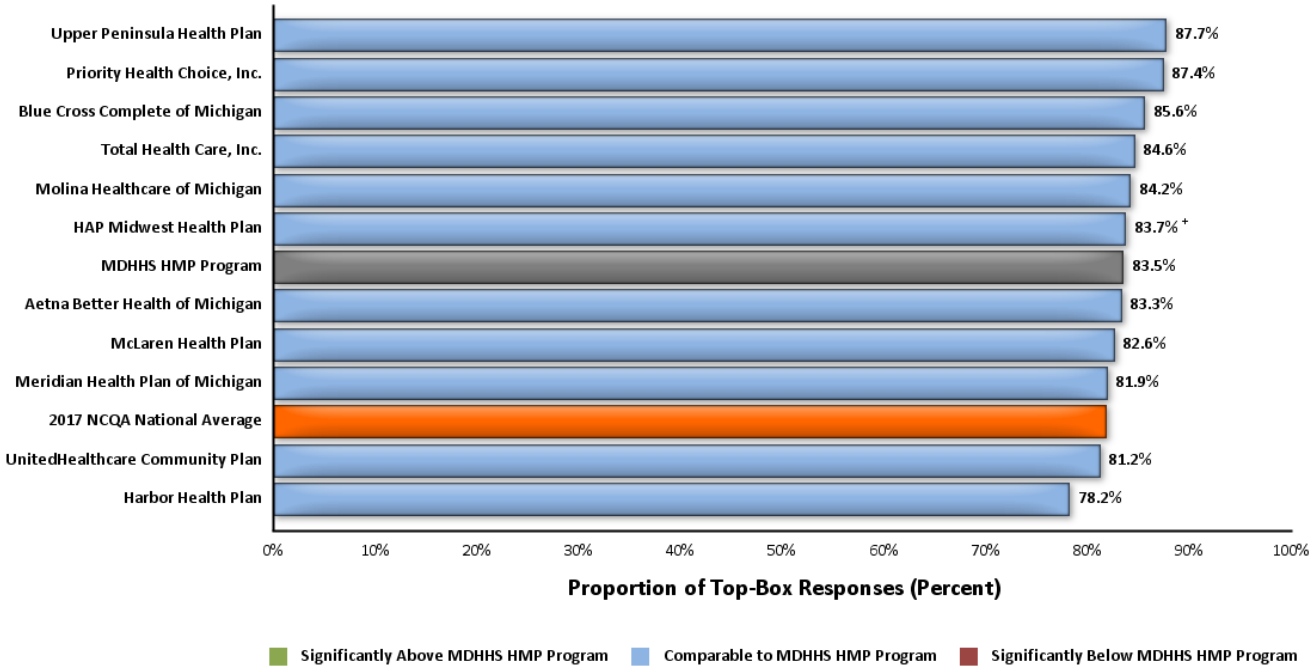
Two questions (Questions 4 and 7) were asked to assess how often adult members received care quickly:

- **Question 4**. In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 7**. In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the Getting Care Quickly composite measure, which was defined as a response of "Usually" or "Always.

Figure 3-6 shows the Getting Care Quickly top-box rates.

Figure 3-6—Getting Care Quickly Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

How Well Doctors Communicate

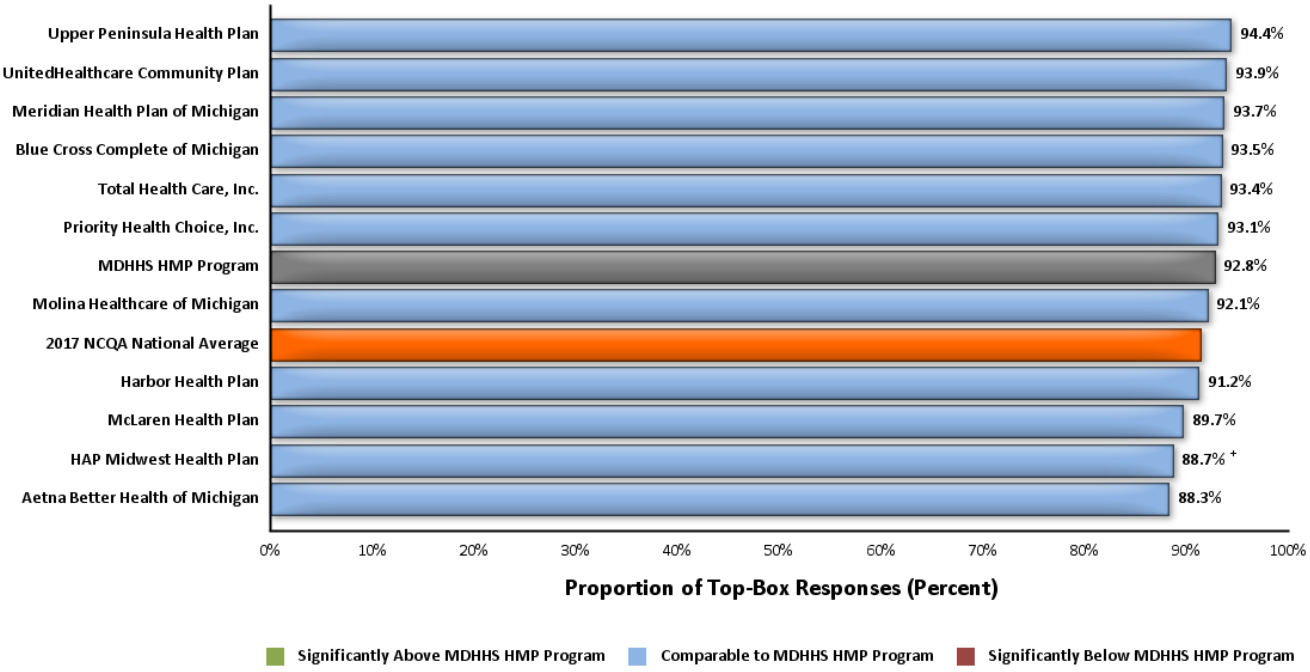
A series of four questions (Questions 22, 23, 24, and 25) was asked to assess how often doctors communicated well:

- **Question 22**. In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 23**. In the last 6 months, how often did your personal doctor listen carefully to you?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 24**. In the last 6 months, how often did your personal doctor show respect for what you had to say?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 25**. In the last 6 months, how often did your personal doctor spend enough time with you?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the How Well Doctors Communicate composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-7 shows the How Well Doctors Communicate top-box rates.

Figure 3-7—How Well Doctors Communicate Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Customer Service

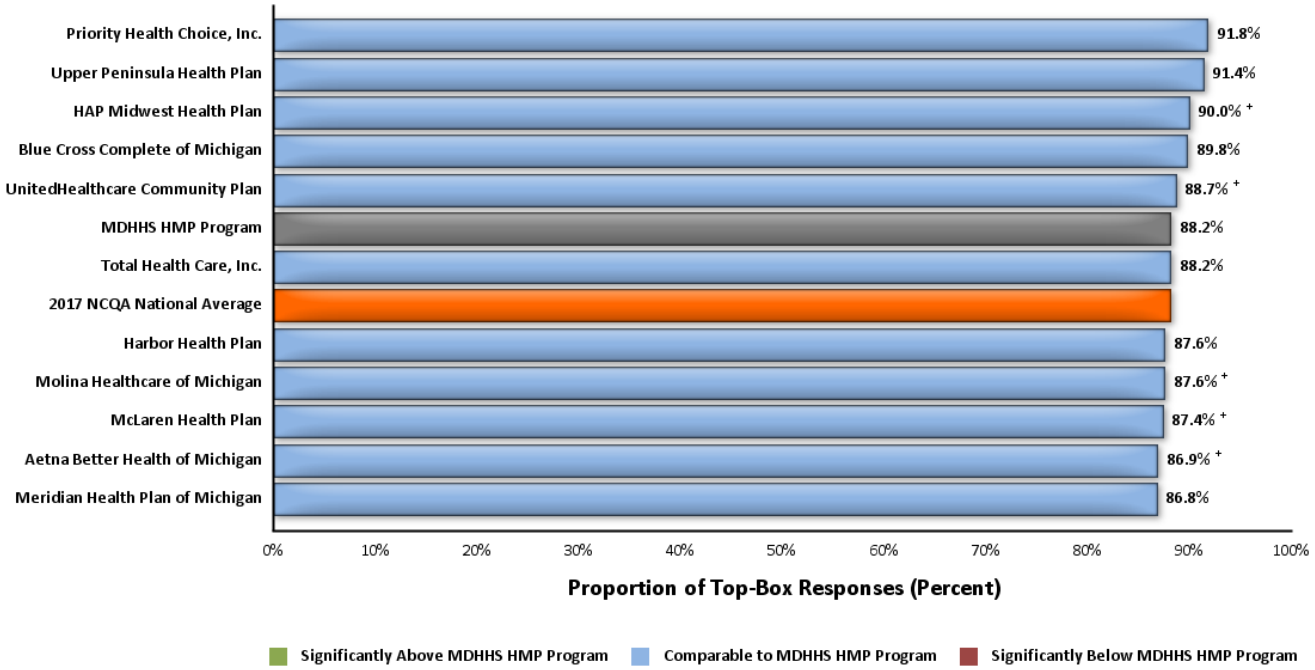
Two questions (Questions 36 and 37) were asked to assess how often adult members were satisfied with customer service:

- **Question 36**. In the last 6 months, how often did your health plan's customer service give you the information or help you needed?
  - Never
  - Sometimes
  - Usually
  - Always
- **Question 37**. In the last 6 months, how often did your health plan's customer service staff treat you with courtesy and respect?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the Customer Service composite measure, which was defined as a response of "Usually" or "Always."

Figure 3-8 shows the Customer Service top-box rates.

Figure 3-8—Customer Service Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Shared Decision Making

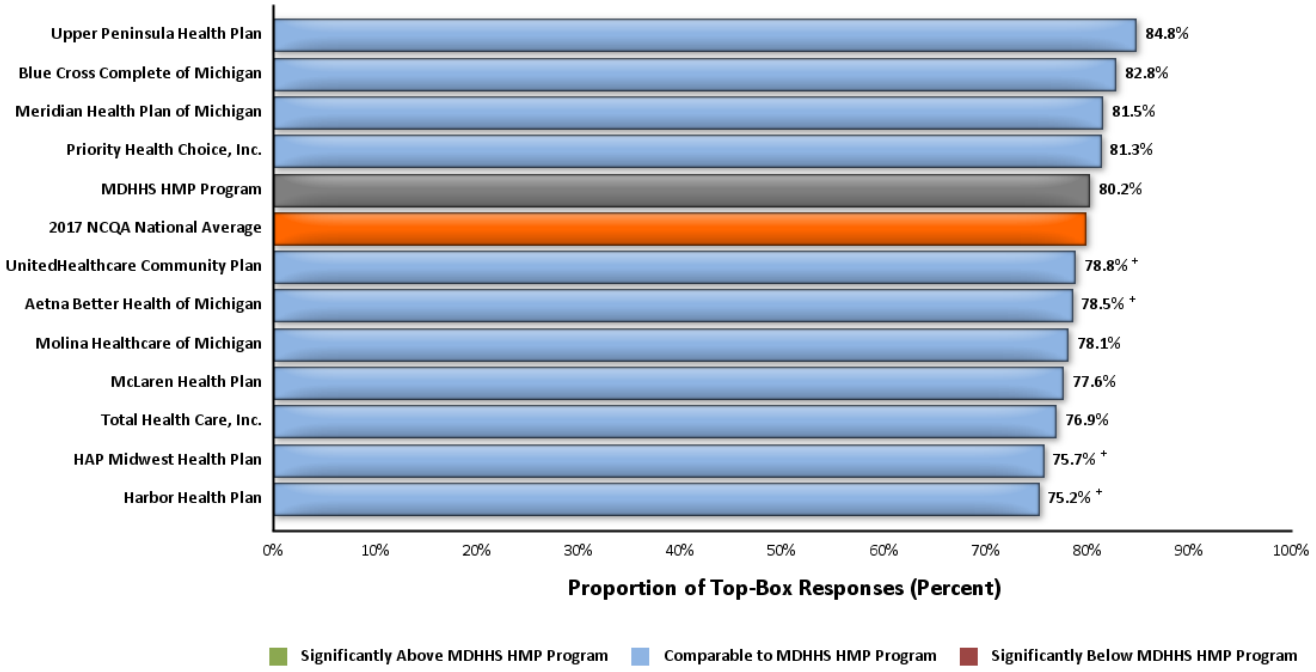
Three questions (Questions 15, 16, and 17) were asked regarding the involvement of adult members in decision making when starting or stopping a prescription medicine:

- **Question 15**. Did you and a doctor or other health provider talk about the reasons you might want to take a medicine?
  - Yes
  - No
- **Question 16**. Did you and a doctor or other health provider talk about the reasons you might not want to take a medicine?
  - Yes
  - No
- **Question 17**. When you talked about starting or stopping a prescription medicine, did a doctor or other health provider ask you what you thought was best for you?
  - Yes
  - No

For purposes of the analysis, HSAG calculated top-box rates for the Shared Decision Making composite measure, which was defined as a response of "Yes."

Figure 3-9 shows the Shared Decision Making top-box rates.

Figure 3-9—Shared Decision Making Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Individual Item Measures

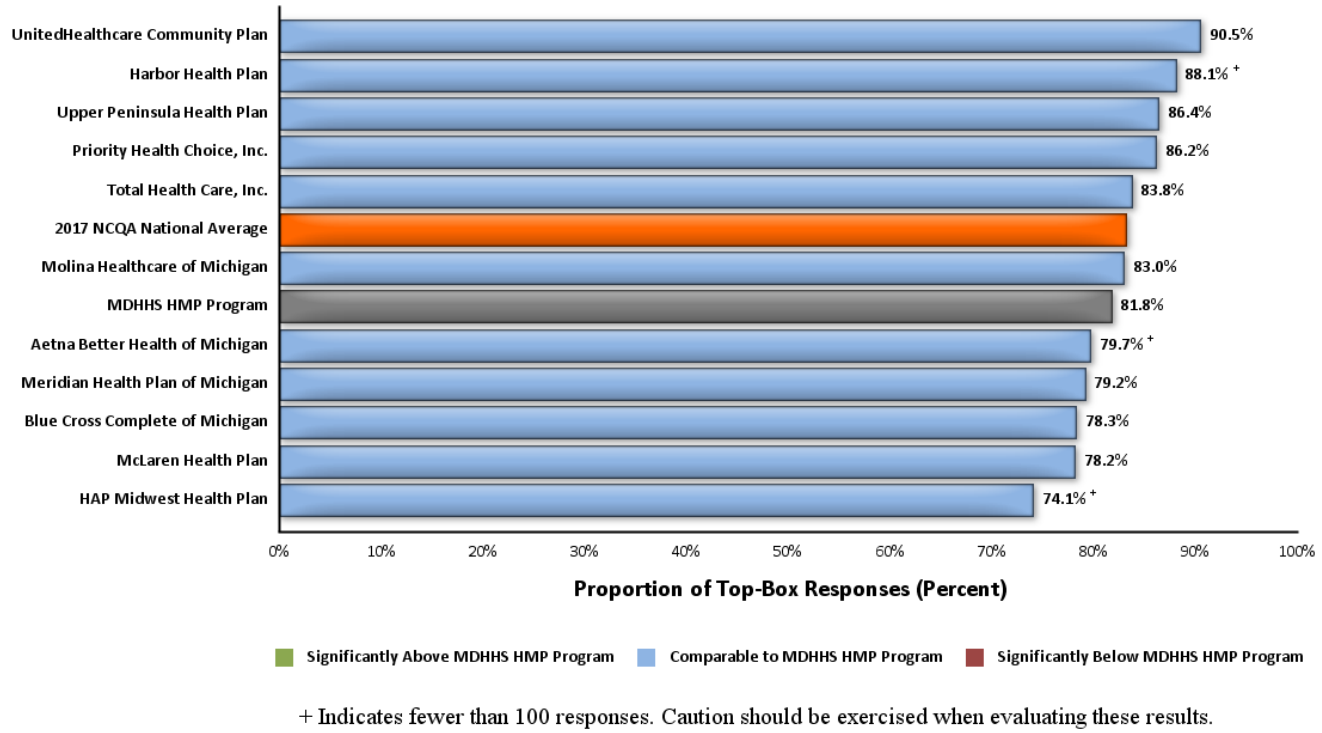
Coordination of Care

Adult members were asked one question (Question 27) to assess how often their personal doctor seemed informed and up-to-date about care they received from another doctor:

- **Question 27**. In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
  - Never
  - Sometimes
  - Usually
  - Always

For purposes of the analysis, HSAG calculated top-box rates for the Coordination of Care individual item measure, which was defined as a response of "Usually" or "Always." Figure 3-10 shows the Coordination of Care top-box rates.

Figure 3-10—Coordination of Care Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

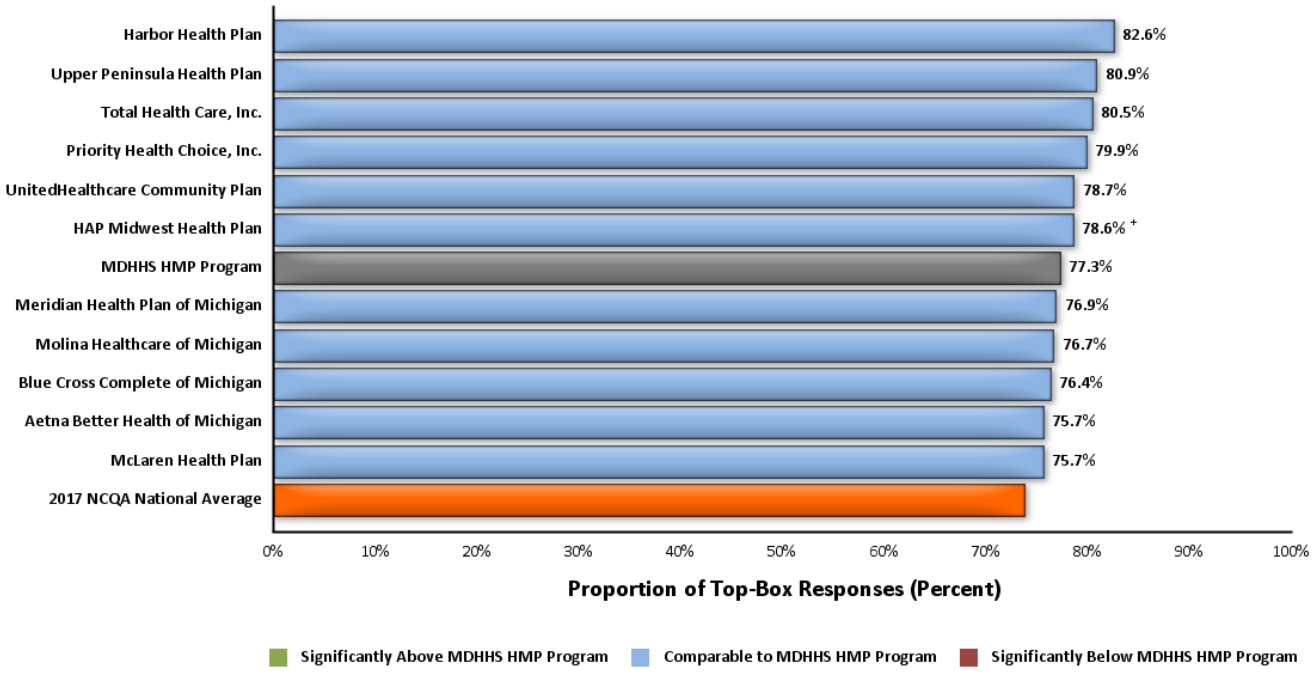
Health Promotion and Education

Adult members were asked one question (Question 13) to assess if their doctor talked with them about specific things they could do to prevent illness:

- **Question 13**. In the last 6 months, did you and a doctor or other health provider talk about specific things you could do to prevent illness?
  - Yes
  - No

For purposes of the analysis, HSAG calculated top-box rates for the Health Promotion and Education individual item measure, which was defined as a response of "Yes." Figure 3-11 shows the Health Promotion and Education top-box rates.

Figure 3-11—Health Promotion and Education Top-Box Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Effectiveness of Care Measures

Medical Assistance with Smoking and Tobacco Use Cessation

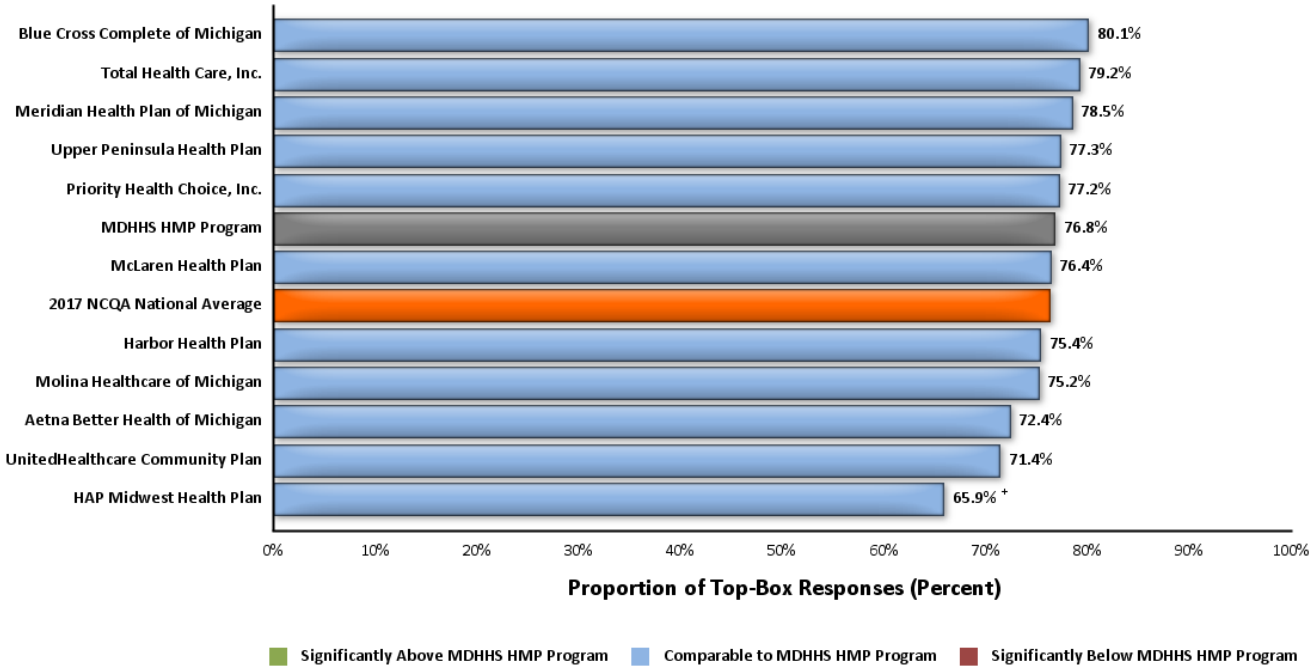
Advising Smokers and Tobacco Users to Quit

Adult members were asked how often they were advised to quit smoking or using tobacco by a doctor or other health provider (Question 46):

- **Question 46**. In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?
  - Never
  - Sometimes
  - Usually
  - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. Figure 3-12 shows the Advising Smokers and Tobacco Users to Quit rates.

Figure 3-12—Advising Smokers and Tobacco Users to Quit Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

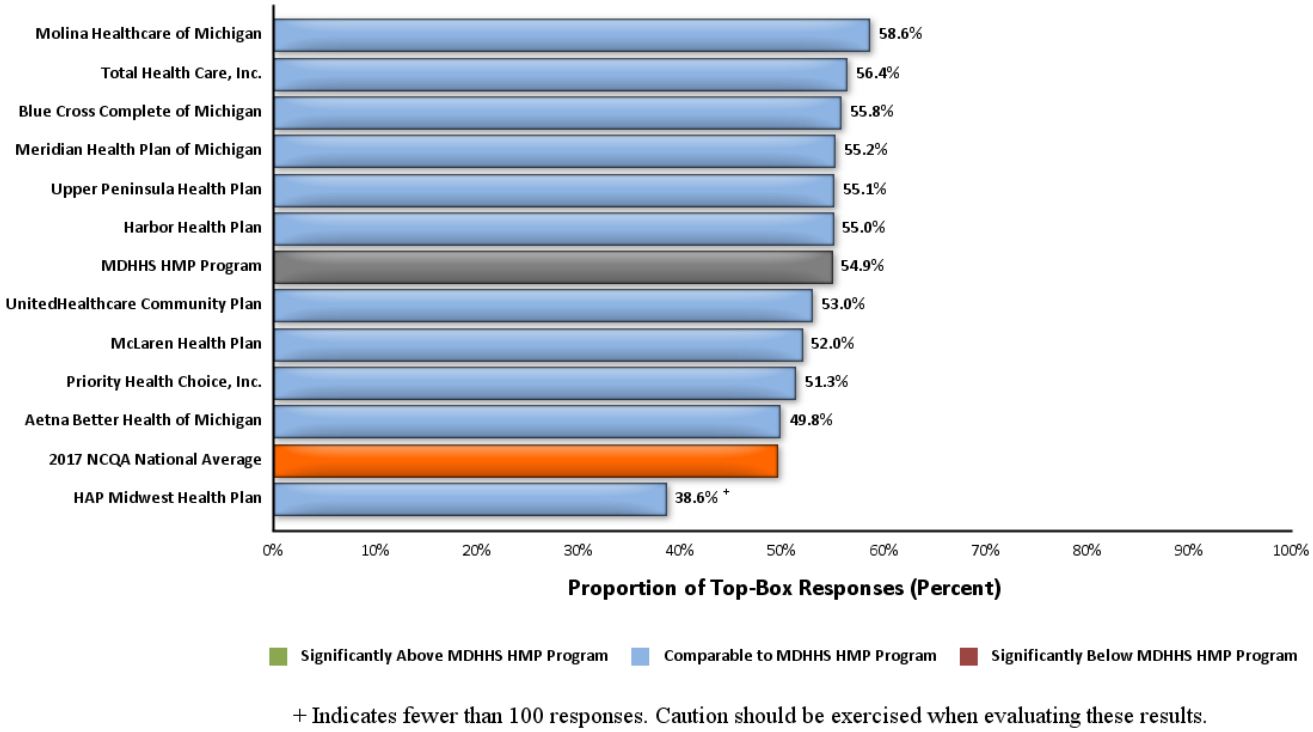
Discussing Cessation Medications

Adult members were asked how often medication was recommended or discussed by a doctor or other health provider to assist them with quitting smoking or using tobacco (Question 47):

- **Question 47**. In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.
    - Never
    - Sometimes
    - Usually
    - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. Figure 3-13 shows the Discussing Cessation Medications rates.

Figure 3-13—Discussing Cessation Medications Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

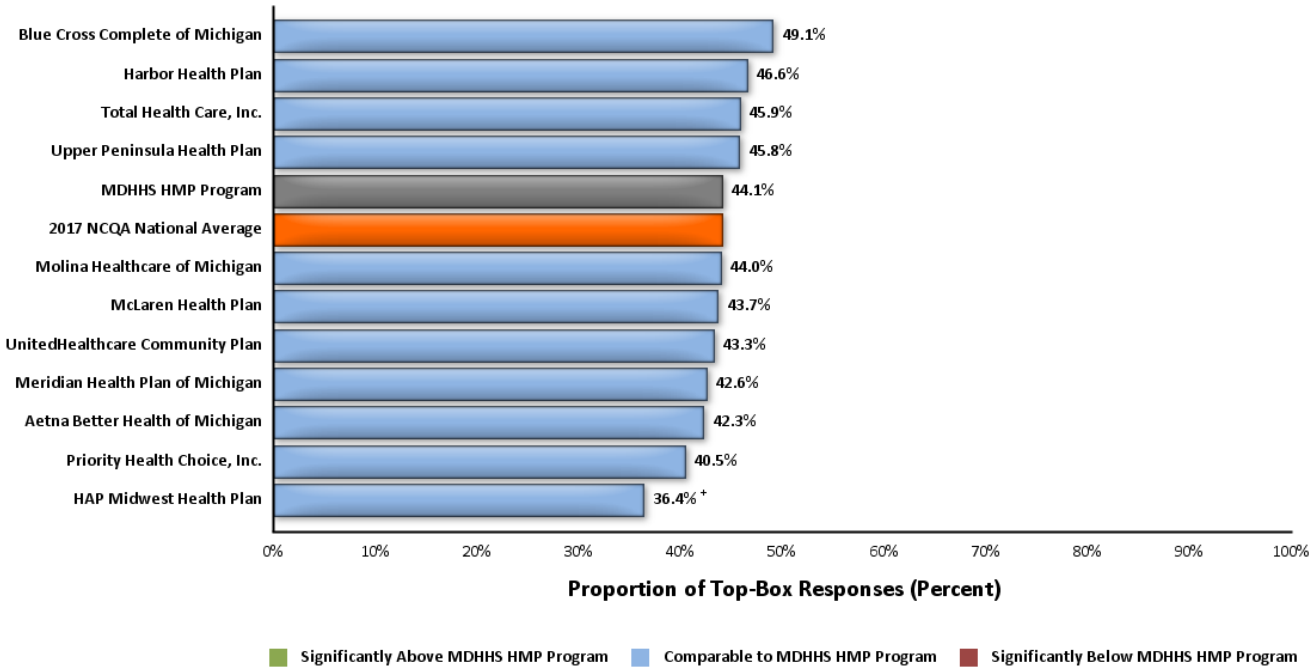
Discussing Cessation Strategies

Adult members were asked how often their doctor or health provider discussed or provided methods and strategies other than medication to assist them with quitting smoking or using tobacco (Question 48):

- **Question 48**. In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.
    - Never
    - Sometimes
    - Usually
    - Always

The results of this measure represent the percentage of smokers/tobacco users who answered "Sometimes," "Usually," or "Always" to this question. Figure 3-14 shows the Discussing Cessation Strategies rates.

Figure 3-14—Discussing Cessation Strategies Rates



+ Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.

Summary of Results

Table 3-10 provides a summary of the Statewide Comparisons results for the global ratings.

Table 3-10—Statewide Comparisons: Global Ratings

Plan Name	Rating of Health Plan	Rating of All Health Care	Rating of Personal Doctor	Rating of Specialist Seen Most Often
Aetna Better Health of Michigan	—	—	—	—+
Blue Cross Complete of Michigan	—	—	—	—
HAP Midwest Health Plan	—	—+	—+	—+
Harbor Health Plan	↓	—	—	—+
McLaren Health Plan	—	—	—	—
Meridian Health Plan of Michigan	↓	—	—	—
Molina Healthcare of Michigan	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—
Total Health Care, Inc.	↑	—	—	—
UnitedHealthcare Community Plan	—	—	—	—
Upper Peninsula Health Plan	↑	↑	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

Table 3-11 provides a summary of the Statewide Comparisons for the composite measures.

Table 3-11—Statewide Comparisons: Composite Measures

Plan Name	Getting Needed Care	Getting Care Quickly	How Well Doctors Communicate	Customer Service	Shared Decision Making
Aetna Better Health of Michigan	—	—	—	—+	—+
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—+	—+	—+	—+	—+
Harbor Health Plan	—	—	—	—	—+
McLaren Health Plan	—	—	—	—+	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—+	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—+	—+
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

Table 3-12 provides a summary of the Statewide Comparisons for the individual item and Effectiveness of Care measures.

Table 3-12—Statewide Comparisons: Individual Item and Effectiveness of Care Measures

Plan Name	Coordination of Care	Health Promotion and Education	Advising Smokers and Tobacco Users to Quit	Discussing Cessation Medications	Discussing Cessation Strategies
Aetna Better Health of Michigan	—+	—	—	—	—
Blue Cross Complete of Michigan	—	—	—	—	—
HAP Midwest Health Plan	—+	—+	—+	—+	—+
Harbor Health Plan	—+	—	—	—	—
McLaren Health Plan	—	—	—	—	—
Meridian Health Plan of Michigan	—	—	—	—	—
Molina Healthcare of Michigan	—	—	—	—	—
Priority Health Choice, Inc.	—	—	—	—	—
Total Health Care, Inc.	—	—	—	—	—
UnitedHealthcare Community Plan	—	—	—	—	—
Upper Peninsula Health Plan	—	—	—	—	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
↑ *Indicates the plan's score is statistically significantly above the MDHHS HMP Program average.*
↓ *Indicates the plan's score is statistically significantly below the MDHHS HMP Program average.*
— *Indicates the plan's score is not statistically significantly different than the MDHHS HMP Program average.*

Trend Analysis

The completed surveys from the 2018 and 2017 CAHPS results were used to perform the trend analysis presented in this section. The 2018 CAHPS scores were compared to the 2017 CAHPS scores to determine whether there were statistically significant differences. Statistically significant differences between 2018 scores and 2017 scores are noted with triangles. Scores that were statistically significantly higher in 2018 than in 2017 are noted with upward triangles (▲). Scores that were statistically significantly lower in 2018 than in 2017 are noted with downward triangles (▼). Scores in 2018 that were not statistically significantly different from scores in 2017 are noted with a dash (–). Measures that did not meet the minimum number of 100 responses required by NCQA are denoted with a cross (+). Caution should be used when evaluating rates derived from fewer than 100 respondents.

Global Ratings

Rating of Health Plan

Adult members were asked to rate their health plan on a scale of 0 to 10, with 0 being the "worst health plan possible" and 10 being the "best health plan possible." Table 4-1 shows the 2017 and 2018 top-box responses and the trend results for Rating of Health Plan.

Table 4-1—Rating of Health Plan Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**58.5%**	**58.6%**	**—**
Aetna Better Health of Michigan	51.2%	61.8%	▲
Blue Cross Complete of Michigan	55.7%	62.1%	—
HAP Midwest Health Plan	45.7%+	57.7%	—
Harbor Health Plan	54.5%	48.4%	—
McLaren Health Plan	62.9%	58.2%	—
Meridian Health Plan of Michigan	58.2%	54.2%	—
Molina Healthcare of Michigan	56.7%	61.9%	—
Priority Health Choice, Inc.	63.5%	59.4%	—
Total Health Care, Inc.	56.9%	64.2%	▲
UnitedHealthcare Community Plan	59.6%	55.7%	—
Upper Peninsula Health Plan	62.6%	67.4%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were two statistically significant differences between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Aetna Better Health of Michigan
- Total Health Care, Inc.

Rating of All Health Care

Adult members were asked to rate all their health care on a scale of 0 to 10, with 0 being the "worst health care possible" and 10 being the "best health care possible." Table 4-2 shows the 2017 and 2018 top-box responses and the trend results for Rating of All Health Care.

Table 4-2—Rating of All Health Care Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**50.5%**	**51.5%**	**—**
Aetna Better Health of Michigan	43.2%	51.5%	—
Blue Cross Complete of Michigan	50.4%	54.9%	—
HAP Midwest Health Plan	41.9%+	52.9%+	—
Harbor Health Plan	41.1%	45.4%	—
McLaren Health Plan	57.3%	53.2%	—
Meridian Health Plan of Michigan	48.4%	49.0%	—
Molina Healthcare of Michigan	50.9%	50.2%	—
Priority Health Choice, Inc.	55.6%	56.5%	—
Total Health Care, Inc.	54.5%	56.2%	—
UnitedHealthcare Community Plan	46.8%	47.8%	—
Upper Peninsula Health Plan	50.0%	59.7%	▲

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Upper Peninsula Health Plan

Rating of Personal Doctor

Adult members were asked to rate their personal doctor on a scale of 0 to 10, with 0 being the "worst personal doctor possible" and 10 being the "best personal doctor possible." Table 4-3 shows the 2017 and 2018 top-box responses and the trend results for Rating of Personal Doctor.

Table 4-3—Rating of Personal Doctor Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**61.0%**	**62.1%**	**—**
Aetna Better Health of Michigan	61.1%	63.5%	—
Blue Cross Complete of Michigan	56.0%	60.5%	—
HAP Midwest Health Plan	47.1%+	59.0%+	—
Harbor Health Plan	60.7%	51.8%	—
McLaren Health Plan	61.6%	63.3%	—
Meridian Health Plan of Michigan	60.9%	60.2%	—
Molina Healthcare of Michigan	63.3%	62.8%	—
Priority Health Choice, Inc.	64.0%	63.8%	—
Total Health Care, Inc.	64.4%	68.0%	—
UnitedHealthcare Community Plan	60.6%	62.9%	—
Upper Peninsula Health Plan	60.4%	66.1%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Rating of Specialist Seen Most Often

Adult members were asked to rate their specialist on a scale of 0 to 10, with 0 being the "worst specialist possible" and 10 being the "best specialist possible." Table 4-4 shows the 2017 and 2018 top-box responses and the trend results for Rating of Specialist Seen Most Often.

Table 4-4—Rating of Specialist Seen Most Often Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**62.4%**	**67.0%**	▲
Aetna Better Health of Michigan	63.6%	65.6%+	—
Blue Cross Complete of Michigan	57.7%	69.8%	▲
HAP Midwest Health Plan	52.6%+	62.5%+	—
Harbor Health Plan	57.3%	64.6%+	—
McLaren Health Plan	64.2%	67.4%	—
Meridian Health Plan of Michigan	65.9%	66.5%	—
Molina Healthcare of Michigan	55.3%	62.6%	—
Priority Health Choice, Inc.	61.2%	63.2%	—
Total Health Care, Inc.	63.4%	70.0%	—
UnitedHealthcare Community Plan	69.6%	71.9%	—
Upper Peninsula Health Plan	58.1%	67.6%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were two statistically significant differences between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- MDHHS HMP Program
- Blue Cross Complete of Michigan

Composite Measures

Getting Needed Care

Two questions (Questions 19 and 30) were asked to assess how often it was easy to get needed care. Table 4-5 shows the 2017 and 2018 top-box responses and trend results for the Getting Needed Care composite measure.

Table 4-5—Getting Needed Care Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**81.2%**	**83.3%**	**—**
Aetna Better Health of Michigan	76.3%	79.9%	—
Blue Cross Complete of Michigan	85.8%	84.1%	—
HAP Midwest Health Plan	78.8%+	81.6%+	—
Harbor Health Plan	79.4%	82.3%	—
McLaren Health Plan	85.9%	81.1%	—
Meridian Health Plan of Michigan	79.8%	84.4%	—
Molina Healthcare of Michigan	78.3%	82.2%	—
Priority Health Choice, Inc.	81.2%	83.3%	—
Total Health Care, Inc.	82.3%	88.7%	▲
UnitedHealthcare Community Plan	80.3%	81.8%	—
Upper Peninsula Health Plan	81.7%	86.7%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Total Health Care, Inc.

Getting Care Quickly

Two questions (Questions 4 and 7) were asked to assess how often adult members received care quickly. Table 4-6 shows the 2017 and 2018 top-box responses and trend results for the Getting Care Quickly composite measure.

Table 4-6—Getting Care Quickly Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**82.2%**	**83.5%**	**—**
Aetna Better Health of Michigan	77.4%	83.3%	—
Blue Cross Complete of Michigan	82.9%	85.6%	—
HAP Midwest Health Plan	80.3%+	83.7%+	—
Harbor Health Plan	82.8%	78.2%	—
McLaren Health Plan	83.1%	82.6%	—
Meridian Health Plan of Michigan	82.4%	81.9%	—
Molina Healthcare of Michigan	82.8%	84.2%	—
Priority Health Choice, Inc.	82.7%	87.4%	—
Total Health Care, Inc.	78.1%	84.6%	▲
UnitedHealthcare Community Plan	79.8%	81.2%	—
Upper Peninsula Health Plan	85.7%	87.7%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Total Health Care, Inc.

How Well Doctors Communicate

A series of four questions (Questions 22, 23, 24, and 25) was asked to assess how often doctors communicated well. Table 4-7 shows the 2017 and 2018 top-box responses and trend results for the How Well Doctors Communicate composite measure.

Table 4-7—How Well Doctors Communicate Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**91.3%**	**92.8%**	**—**
Aetna Better Health of Michigan	92.2%	88.3%	—
Blue Cross Complete of Michigan	90.7%	93.5%	—
HAP Midwest Health Plan	86.6%+	88.7%+	—
Harbor Health Plan	92.3%	91.2%	—
McLaren Health Plan	91.2%	89.7%	—
Meridian Health Plan of Michigan	91.5%	93.7%	—
Molina Healthcare of Michigan	90.5%	92.1%	—
Priority Health Choice, Inc.	92.6%	93.1%	—
Total Health Care, Inc.	91.6%	93.4%	—
UnitedHealthcare Community Plan	91.1%	93.9%	—
Upper Peninsula Health Plan	92.5%	94.4%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Customer Service

Two questions (Questions 36 and 37) were asked to assess how often adult members were satisfied with customer service. Table 4-8 shows the 2017 and 2018 top-box responses and trend results for the Customer Service composite measure.

Table 4-8—Customer Service Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**86.6%**	**88.2%**	**—**
Aetna Better Health of Michigan	90.4%+	86.9%+	—
Blue Cross Complete of Michigan	84.6%	89.8%	—
HAP Midwest Health Plan	81.9%+	90.0%+	—
Harbor Health Plan	86.0%	87.6%	—
McLaren Health Plan	81.8%	87.4%+	—
Meridian Health Plan of Michigan	89.4%	86.8%	—
Molina Healthcare of Michigan	86.2%	87.6%+	—
Priority Health Choice, Inc.	89.6%	91.8%	—
Total Health Care, Inc.	89.8%	88.2%	—
UnitedHealthcare Community Plan	83.6%+	88.7%+	—
Upper Peninsula Health Plan	87.4%	91.4%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Shared Decision Making

Three questions (Questions 15, 16, and 17) were asked regarding the involvement of adult members in decision making when starting or stopping a prescription medicine. Table 4-9 shows the 2017 and 2018 top-box responses and trend results for the Shared Decision composite measure.

Table 4-9—Shared Decision Making Composite Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**79.0%**	**80.2%**	**—**
Aetna Better Health of Michigan	77.6%+	78.5%+	—
Blue Cross Complete of Michigan	74.8%	82.8%	▲
HAP Midwest Health Plan	86.7%+	75.7%+	—
Harbor Health Plan	79.8%+	75.2%+	—
McLaren Health Plan	79.9%	77.6%	—
Meridian Health Plan of Michigan	79.1%	81.5%	—
Molina Healthcare of Michigan	80.4%	78.1%	—
Priority Health Choice, Inc.	80.5%	81.3%	—
Total Health Care, Inc.	80.2%	76.9%	—
UnitedHealthcare Community Plan	78.4%	78.8%+	—
Upper Peninsula Health Plan	82.8%	84.8%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Blue Cross Complete of Michigan

Individual Item Measures

Coordination of Care

One question (Question 27) asked adult members to assess how often their personal doctor seemed informed and up-to-date about care they had received from another doctor. Table 4-10 shows the 2017 and 2018 top-box responses and trend results for the Coordination of Care individual item measure.

Table 4-10—Coordination of Care Individual Item Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**78.4%**	**81.8%**	**—**
Aetna Better Health of Michigan	82.4%+	79.7%+	—
Blue Cross Complete of Michigan	81.5%	78.3%	—
HAP Midwest Health Plan	60.0%+	74.1%+	—
Harbor Health Plan	82.1%+	88.1%+	—
McLaren Health Plan	79.1%	78.2%	—
Meridian Health Plan of Michigan	74.8%	79.2%	—
Molina Healthcare of Michigan	79.9%	83.0%	—
Priority Health Choice, Inc.	80.2%	86.2%	—
Total Health Care, Inc.	81.5%	83.8%	—
UnitedHealthcare Community Plan	77.3%	90.5%	▲
Upper Peninsula Health Plan	84.3%	86.4%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- UnitedHealthcare Community Plan

Health Promotion and Education

One question (Question 13) asked adult members to assess if their doctor talked with them about specific things they could do to prevent illness. Table 4-11 shows the 2017 and 2018 top-box responses and trend results for the Health Promotion and Education individual item measure.

Table 4-11—Health Promotion and Education Individual Item Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program	**76.0%**	**77.3%**	**—**
Aetna Better Health of Michigan	79.3%	75.7%	—
Blue Cross Complete of Michigan	78.8%	76.4%	—
HAP Midwest Health Plan	69.8%+	78.6%+	—
Harbor Health Plan	83.7%	82.6%	—
McLaren Health Plan	74.9%	75.7%	—
Meridian Health Plan of Michigan	73.5%	76.9%	—
Molina Healthcare of Michigan	79.3%	76.7%	—
Priority Health Choice, Inc.	77.0%	79.9%	—
Total Health Care, Inc.	75.5%	80.5%	—
UnitedHealthcare Community Plan	75.0%	78.7%	—
Upper Peninsula Health Plan	71.3%	80.9%	▲

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There was one statistically significant difference between scores in 2018 and scores in 2017 for this measure.

The following scored statistically significantly *higher* in 2018 than in 2017:

- Upper Peninsula Health Plan

Effectiveness of Care Measures

Medical Assistance with Smoking and Tobacco Use Cessation

Advising Smokers and Tobacco Users to Quit

One question (Question 46) was asked to determine how often adult members were advised to quit smoking or using tobacco by a doctor or other health provider. Table 4-12 shows the 2017 and 2018 rates and trend results for the Advising Smokers and Tobacco Users to Quit measure.

Table 4-12—Advising Smokers and Tobacco Users to Quit Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program			
Aetna Better Health of Michigan	68.9%	72.4%	—
Blue Cross Complete of Michigan	77.8%	80.1%	—
HAP Midwest Health Plan	57.9%+	65.9%+	—
Harbor Health Plan	76.9%	75.4%	—
McLaren Health Plan	77.1%	76.4%	—
Meridian Health Plan of Michigan	77.3%	78.5%	—
Molina Healthcare of Michigan	75.2%	75.2%	—
Priority Health Choice, Inc.	79.5%	77.2%	—
Total Health Care, Inc.	76.1%	79.2%	—
UnitedHealthcare Community Plan	69.0%	71.4%	—
Upper Peninsula Health Plan	74.2%	77.3%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Discussing Cessation Medications

One question (Question 47) was asked to ascertain how often medication was recommended or discussed by a doctor or health provider to assist adult members with quitting smoking or using tobacco. Table 4-13 shows the 2017 and 2018 rates and trend results for the Discussing Cessation Medications measure.

Table 4-13—Discussing Cessation Medications Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program			
Aetna Better Health of Michigan	47.3%	49.8%	—
Blue Cross Complete of Michigan	50.3%	55.8%	—
HAP Midwest Health Plan	28.1%+	38.6%+	—
Harbor Health Plan	53.4%	55.0%	—
McLaren Health Plan	52.1%	52.0%	—
Meridian Health Plan of Michigan	55.9%	55.2%	—
Molina Healthcare of Michigan	52.6%	58.6%	—
Priority Health Choice, Inc.	53.0%	51.3%	—
Total Health Care, Inc.	52.1%	56.4%	—
UnitedHealthcare Community Plan	51.1%	53.0%	—
Upper Peninsula Health Plan	49.8%	55.1%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Discussing Cessation Strategies

One question (Question 48) was asked to ascertain how often methods or strategies other than medication were discussed or provided by their doctor or health provider to assist adult members with quitting smoking or using tobacco. Table 4-14 shows the 2017 and 2018 rates and trend results for the Discussing Cessation Strategies measure.

Table 4-14—Discussing Cessation Strategies Trend Analysis

Plan Name	2017	2018	Trend Results
MDHHS HMP Program			
Aetna Better Health of Michigan	43.3%	42.3%	—
Blue Cross Complete of Michigan	44.4%	49.1%	—
HAP Midwest Health Plan	26.8%+	36.4%+	—
Harbor Health Plan	48.4%	46.6%	—
McLaren Health Plan	45.6%	43.7%	—
Meridian Health Plan of Michigan	45.4%	42.6%	—
Molina Healthcare of Michigan	40.2%	44.0%	—
Priority Health Choice, Inc.	42.9%	40.5%	—
Total Health Care, Inc.	41.7%	45.9%	—
UnitedHealthcare Community Plan	42.2%	43.3%	—
Upper Peninsula Health Plan	42.4%	45.8%	—

\+ *Indicates fewer than 100 responses. Caution should be exercised when evaluating these results.*
▲ *Statistically significantly higher in 2018 than in 2017.*
▼ *Statistically significantly lower in 2018 than in 2017.*
— *Not statistically significantly different in 2018 than in 2017.*

There were no statistically significant differences between scores in 2018 and scores in 2017 for this measure.

Key Drivers of Satisfaction

HSAG performed an analysis of key drivers for three measures: Rating of Health Plan, Rating of All Health Care, and Rating of Personal Doctor. The analysis provides information on: (1) how ***well*** the MDHHS HMP Program is performing on the survey item (i.e., question), and (2) how ***important*** the item is to overall satisfaction.

Key drivers of satisfaction are defined as those items that (1) have a problem score that is greater than or equal to the program's median problem score for all items examined, and (2) have a correlation that is greater than or equal to the program's median correlation for all items examined. For additional information on the assignment of problem scores, please refer to the Reader's Guide section. Table 5-1 depicts those items identified for each of the three measures as being key drivers of satisfaction for the MDHHS HMP Program.

Table 5-1—MDHHS HMP Program Key Drivers of Satisfaction

Rating of Health Plan
Respondents reported that their health plan's customer service did not always give them the information or help they needed.
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that forms from their health plan were often not easy to fill out.
Rating of All Health Care
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.
Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.
Respondents reported that it was often not easy to obtain appointments with specialists.
Rating of Personal Doctor
Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

The following key driver was identified for all three global ratings:

- Respondents reported that their personal doctor did not always seem informed and up-to-date about the care they received from other doctors or health providers.

Additionally, the following key driver was identified for the Rating of Health Plan and Rating of All Health Care global ratings:

- Respondents reported that information in written materials or on the Internet about how the health plan works did not always provide the information they needed.

Supplemental Items Results

MDHHS elected to add five supplemental questions to the HMP CAHPS Survey. These five questions focused on the number of times members had gone to an emergency room, the number of days members waited between making an appointment and seeing a health provider, access to after-hours care, and transportation.

Emergency Room Care

Members were asked how many times they had gone to an emergency room to receive care for themselves in the last 6 months (Question 5). Table 6-1 displays the responses for this question.

Table 6-1—How Many Times Visited Emergency Room

	None		1 time		2		3		4		5 to 9		10 or more times	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MDHHS HMP Program	**545**	**41.1%**	**459**	**34.6%**	**200**	**15.1%**	**63**	**4.7%**	**28**	**2.1%**	**28**	**2.1%**	**4**	**0.3%**
Aetna Better Health of Michigan	33	36.3%	31	34.1%	14	15.4%	9	9.9%	2	2.2%	2	2.2%	0	0.0%
Blue Cross Complete of Michigan	66	50.8%	39	30.0%	19	14.6%	5	3.8%	1	0.8%	0	0.0%	0	0.0%
HAP Midwest Health Plan	19	47.5%	12	30.0%	7	17.5%	1	2.5%	0	0.0%	1	2.5%	0	0.0%
Harbor Health Plan	23	24.7%	40	43.0%	18	19.4%	6	6.5%	4	4.3%	2	2.2%	0	0.0%
McLaren Health Plan	85	45.2%	57	30.3%	26	13.8%	8	4.3%	5	2.7%	5	2.7%	2	1.1%
Meridian Health Plan of Michigan	63	42.9%	49	33.3%	21	14.3%	6	4.1%	5	3.4%	2	1.4%	1	0.7%
Molina Healthcare of Michigan	40	35.7%	40	35.7%	21	18.8%	7	6.3%	2	1.8%	1	0.9%	1	0.9%
Priority Health Choice, Inc.	55	45.5%	39	32.2%	18	14.9%	4	3.3%	2	1.7%	3	2.5%	0	0.0%
Total Health Care, Inc.	39	30.5%	57	44.5%	19	14.8%	5	3.9%	3	2.3%	5	3.9%	0	0.0%
UnitedHealthcare Community Plan	51	41.8%	44	36.1%	15	12.3%	7	5.7%	1	0.8%	4	3.3%	0	0.0%
Upper Peninsula Health Plan	71	45.8%	51	32.9%	22	14.2%	5	3.2%	3	1.9%	3	1.9%	0	0.0%

Please note: Results presented in this table are based on respondents that answered "Yes" to Question 3.

Number of Days to See a Health Provider

Members were asked how many days they waited between making an appointment and seeing a health provider in the last 6 months (Question 8). Table 6-2 displays the responses for this question.

Table 6-2—Number of Days to See a Health Provider

	Same day		1 day		2 to 3 days		4 to 7 days		8 to 14 days		15 to 30 days		31 to 60 days		61 to 90 days		91 days or longer	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MDHHS HMP Program	**283**	**11.1%**	**210**	**8.3%**	**641**	**25.2%**	**566**	**22.2%**	**344**	**13.5%**	**291**	**11.4%**	**105**	**4.1%**	**62**	**2.4%**	**43**	**1.7%**
Aetna Better Health of Michigan	18	11.5%	14	8.9%	36	22.9%	30	19.1%	28	17.8%	24	15.3%	1	0.6%	5	3.2%	1	0.6%
Blue Cross Complete of Michigan	35	13.8%	24	9.5%	60	23.7%	47	18.6%	37	14.6%	28	11.1%	13	5.1%	4	1.6%	5	2.0%
HAP Midwest Health Plan	6	10.3%	2	3.4%	16	27.6%	18	31.0%	7	12.1%	6	10.3%	1	1.7%	0	0.0%	2	3.4%
Harbor Health Plan	10	6.4%	10	6.4%	35	22.3%	38	24.2%	28	17.8%	21	13.4%	8	5.1%	4	2.5%	3	1.9%
McLaren Health Plan	33	10.4%	28	8.8%	77	24.2%	79	24.8%	44	13.8%	31	9.7%	17	5.3%	5	1.6%	4	1.3%
Meridian Health Plan of Michigan	28	10.6%	22	8.3%	76	28.8%	55	20.8%	35	13.3%	31	11.7%	5	1.9%	6	2.3%	6	2.3%
Molina Healthcare of Michigan	31	12.6%	27	10.9%	45	18.2%	56	22.7%	30	12.1%	38	15.4%	9	3.6%	7	2.8%	4	1.6%
Priority Health Choice, Inc.	27	9.9%	27	9.9%	72	26.3%	57	20.8%	28	10.2%	32	11.7%	17	6.2%	7	2.6%	7	2.6%
Total Health Care, Inc.	40	15.3%	17	6.5%	65	24.9%	60	23.0%	28	10.7%	30	11.5%	11	4.2%	9	3.4%	1	0.4%
UnitedHealthcare Community Plan	35	16.4%	20	9.3%	56	26.2%	48	22.4%	24	11.2%	14	6.5%	10	4.7%	3	1.4%	4	1.9%
Upper Peninsula Health Plan	20	5.8%	19	5.6%	103	30.1%	78	22.8%	55	16.1%	36	10.5%	13	3.8%	12	3.5%	6	1.8%

Please note: Results presented in this table are based on respondents that answered "Yes" to Question 6.

After Hours Care

Members were asked how often it was easy to receive the after hours care they thought they needed in the last 6 months (Question 10). Table 6-3 displays the responses for this question.

Table 6-3—How Often Received After Hours Care

	Never		Sometimes		Usually		Always	
	N	%	N	%	N	%	N	%
MDHHS HMP Program	**31**	**8.3%**	**46**	**12.3%**	**72**	**19.3%**	**224**	**60.1%**
Aetna Better Health of Michigan	3	12.5%	3	12.5%	7	29.2%	11	45.8%
Blue Cross Complete of Michigan	2	5.1%	6	15.4%	6	15.4%	25	64.1%
HAP Midwest Health Plan	2	13.3%	2	13.3%	2	13.3%	9	60.0%
Harbor Health Plan	6	27.3%	2	9.1%	4	18.2%	10	45.5%
McLaren Health Plan	8	11.9%	11	16.4%	6	9.0%	42	62.7%
Meridian Health Plan of Michigan	3	7.3%	3	7.3%	11	26.8%	24	58.5%
Molina Healthcare of Michigan	1	3.0%	4	12.1%	6	18.2%	22	66.7%
Priority Health Choice, Inc.	1	4.3%	3	13.0%	1	4.3%	18	78.3%
Total Health Care, Inc.	2	5.1%	4	10.3%	5	12.8%	28	71.8%
UnitedHealthcare Community Plan	3	12.5%	4	16.7%	8	33.3%	9	37.5%
Upper Peninsula Health Plan	0	0.0%	4	8.7%	16	34.8%	26	56.5%

Please note: Results presented in this table are based on respondents that answered "Yes" to Question 9.

Members were asked what reasons limited their ability to receive after hours care (Question 11). Table 6-4 displays the responses for this question.

Table 6-4—Reason Not Easy to Receive After Hours Care

	Unsure where to go for after hours care		Unsure where to find a list of doctor's offices or clinics open for after hours care		Doctor's office or clinic with after hours care was too far away		Office or clinic hours for after hours care did not meet your needs		Some other reason	
	N	%	N	%	N	%	N	%	N	%
MDHHS HMP Program	**29**	**22.7%**	**36**	**28.1%**	**19**	**14.8%**	**32**	**25.0%**	**58**	**45.3%**
Aetna Better Health of Michigan	3	30.0%	4	40.0%	3	30.0%	2	20.0%	6	60.0%
Blue Cross Complete of Michigan	1	7.1%	4	28.6%	1	7.1%	4	28.6%	6	42.9%
HAP Midwest Health Plan	3	60.0%	2	40.0%	1	20.0%	4	80.0%	0	0.0%
Harbor Health Plan	3	25.0%	5	41.7%	5	41.7%	1	8.3%	2	16.7%
McLaren Health Plan	5	25.0%	6	30.0%	2	10.0%	5	25.0%	10	50.0%
Meridian Health Plan of Michigan	3	21.4%	3	21.4%	2	14.3%	5	35.7%	6	42.9%
Molina Healthcare of Michigan	1	9.1%	3	27.3%	1	9.1%	2	18.2%	7	63.6%
Priority Health Choice, Inc.	0	0.0%	1	33.3%	1	33.3%	0	0.0%	1	33.3%
Total Health Care, Inc.	4	44.4%	2	22.2%	2	22.2%	0	0.0%	6	66.7%
UnitedHealthcare Community Plan	3	25.0%	1	8.3%	0	0.0%	4	33.3%	7	58.3%
Upper Peninsula Health Plan	3	16.7%	5	27.8%	1	5.6%	5	27.8%	7	38.9%

Please note: Results presented in this table are based on respondents that answered "Yes" to Question 9 and did not answer "Always" to Question 10.

**Respondents can choose more than one response for this question. Therefore, percentages will not total 100%.*

Transportation

Members were asked if their health plan had helped them with transportation to get to doctors' offices or clinics (Question 40). Table 6-5 displays the responses for this question.

Table 6-5—Helped with Transportation to Doctors' Offices or Clinics

	Yes		No	
	N	%	N	%
MDHHS HMP Program	**361**	**9.2%**	**3578**	**90.8%**
Aetna Better Health of Michigan	33	12.9%	223	87.1%
Blue Cross Complete of Michigan	46	12.0%	336	88.0%
HAP Midwest Health Plan	8	7.6%	97	92.4%
Harbor Health Plan	72	27.8%	187	72.2%
McLaren Health Plan	33	6.8%	449	93.2%
Meridian Health Plan of Michigan	24	5.9%	384	94.1%
Molina Healthcare of Michigan	38	10.2%	333	89.8%
Priority Health Choice, Inc.	27	6.2%	407	93.8%
Total Health Care, Inc.	40	10.6%	339	89.4%
UnitedHealthcare Community Plan	19	5.6%	320	94.4%
Upper Peninsula Health Plan	21	4.0%	503	96.0%

Survey Instrument

The survey instrument selected was the CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set. This section provides a copy of the survey instrument.

Michigan Department of Health & Human Services
RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

DataStat

Your privacy is protected. The research staff will not share your personal information with anyone without your OK. Personally identifiable information will not be made public and will only be released in accordance with federal laws and regulations.

You may choose to answer this survey or not. If you choose not to, this will not affect the benefits you get. You may notice a number on the cover of this survey. This number is ONLY used to let us know if you returned your survey so we don't have to send you reminders.

If you want to know more about this study, please call 1-800-839-3455.

SURVEY INSTRUCTIONS

- **Please be sure to fill the response circle <u>completely</u>. Use only <u>black or blue ink</u> or <u>dark pencil</u> to complete the survey.**

  Correct Mark ● **Incorrect Marks** 

- **You are sometimes told to skip over some questions in the survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:**

  ● **Yes** ➔ ***Go to Question 1***
  ○ **No**

START HERE

1. **Our records show that you are now in [HEALTH PLAN NAME]. Is that right?**

   ○ Yes ➔ ***Go to Question 3***
   ○ No

2. **What is the name of your health plan? (Please print)**

   _____

YOUR HEALTH CARE IN THE LAST 6 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

3. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

- ○ Yes
- ○ No ➔ ***Go to Question 6***

4. In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

5. In the last 6 months, how many times did you go to an emergency room to get care for yourself?

- ○ None
- ○ 1 time
- ○ 2
- ○ 3
- ○ 4
- ○ 5 to 9
- ○ 10 or more times

6. In the last 6 months, did you make any appointments for a check-up or routine care at a doctor's office or clinic?

- ○ Yes
- ○ No ➔ ***Go to Question 9***

7. In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

8. In the last 6 months, not counting the times you needed health care right away, how many days did you usually have to wait between making an appointment and actually seeing a health provider?

- ○ Same day
- ○ 1 day
- ○ 2 to 3 days
- ○ 4 to 7 days
- ○ 8 to 14 days
- ○ 15 to 30 days
- ○ 31 to 60 days
- ○ 61 to 90 days
- ○ 91 days or longer

9. After hours care is health care when your usual doctor's office or clinic is closed.

In the last 6 months, did you need to visit a doctor's office or clinic for after hours care?

- ○ Yes
- ○ No ➔ ***Go to Question 12***

10. In the last 6 months, how often was it easy to get the after hours care you thought you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always ➔ ***Go to Question 12***

11. Were any of the following a reason it was not easy to get the after hours care you thought you needed? Mark one or more.

- ○ You did not know where to go for after hours care
- ○ You weren't sure where to find a list of doctor's offices or clinics in your health plan or network that are open for after hours care
- ○ The doctor's office or clinic that had after hours care was too far away
- ○ Office or clinic hours for after hours care did not meet your needs
- ○ Some other reason

12. In the last 6 months, <u>not</u> counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?

- ○ None ➔ ***Go to Question 20***
- ○ 1 time
- ○ 2
- ○ 3
- ○ 4
- ○ 5 to 9
- ○ 10 or more times

13. In the last 6 months, did you and a doctor or other health provider talk about specific things you could do to prevent illness?

- ○ Yes
- ○ No

14. In the last 6 months, did you and a doctor or other health provider talk about starting or stopping a prescription medicine?

- ○ Yes
- ○ No ➔ ***Go to Question 18***

15. Did you and a doctor or other health provider talk about the reasons you might want to take a medicine?

- ○ Yes
- ○ No

16. Did you and a doctor or other health provider talk about the reasons you might <u>not</u> want to take a medicine?

- ○ Yes
- ○ No

17. When you talked about starting or stopping a prescription medicine, did a doctor or other health provider ask you what you thought was best for you?

- ○ Yes
- ○ No

18. Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10

Worst Health Care Possible — Best Health Care Possible

19. In the last 6 months, how often was it easy to get the care, tests, or treatment you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

YOUR PERSONAL DOCTOR

20. A personal doctor is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

- ○ Yes
- ○ No ➔ ***Go to Question 29***

21. In the last 6 months, how many times did you visit your personal doctor to get care for yourself?

- ○ None ➔ ***Go to Question 28***
- ○ 1 time
- ○ 2
- ○ 3
- ○ 4
- ○ 5 to 9
- ○ 10 or more times

22. In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

23. In the last 6 months, how often did your personal doctor listen carefully to you?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

24. In the last 6 months, how often did your personal doctor show respect for what you had to say?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

25. In the last 6 months, how often did your personal doctor spend enough time with you?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

26. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?

- ○ Yes
- ○ No ➔ ***Go to Question 28***

27. In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

28. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10

Worst Personal Doctor Possible — Best Personal Doctor Possible

GETTING HEALTH CARE FROM SPECIALISTS

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

29. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care.

In the last 6 months, did you make any appointments to see a specialist?

- ○ Yes
- ○ No ➔ ***Go to Question 33***

30. In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

31. How many specialists have you seen in the last 6 months?

- ○ None ➔ ***Go to Question 33***
- ○ 1 specialist
- ○ 2
- ○ 3
- ○ 4
- ○ 5 or more specialists

32. We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate that specialist?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10
Worst Specialist Possible										Best Specialist Possible

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan.

33. In the last 6 months, did you look for any information in written materials or on the Internet about how your health plan works?

- ○ Yes
- ○ No ➔ ***Go to Question 35***

34. In the last 6 months, how often did the written materials or the Internet provide the information you needed about how your health plan works?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

35. In the last 6 months, did you get information or help from your health plan's customer service?

- ○ Yes
- ○ No ➔ ***Go to Question 38***

36. In the last 6 months, how often did your health plan's customer service give you the information or help you needed?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

37. In the last 6 months, how often did your health plan's customer service staff treat you with courtesy and respect?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

38. In the last 6 months, did your health plan give you any forms to fill out?

- ○ Yes
- ○ No ➔ ***Go to Question 40***

39. In the last 6 months, how often were the forms from your health plan easy to fill out?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

40. Some health plans help with transportation to doctors' offices or clinics. This help can be a shuttle bus, tokens or vouchers for a bus or taxi, or payments for mileage. In the last 6 months, did you phone your health plan to get help with transportation?

- ○ Yes
- ○ No

41. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

○	○	○	○	○	○	○	○	○	○	○
0	1	2	3	4	5	6	7	8	9	10

Worst Health Plan Possible — Best Health Plan Possible

ABOUT YOU

42. In general, how would you rate your overall health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

43. In general, how would you rate your overall <u>mental or emotional</u> health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

44. Have you had either a flu shot or flu spray in the nose since July 1, 2017?

- ○ Yes
- ○ No
- ○ Don't know

45. Do you now smoke cigarettes or use tobacco every day, some days, or not at all?

- ○ Every day
- ○ Some days
- ○ Not at all ➔ ***Go to Question 49***
- ○ Don't know ➔ ***Go to Question 49***

46. In the last 6 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

47. In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

48. In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.

- ○ Never
- ○ Sometimes
- ○ Usually
- ○ Always

49. In the last 6 months, did you get health care 3 or more times for the same condition or problem?

- ○ Yes
- ○ No ➔ ***Go to Question 51***

50. Is this a condition or problem that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

- ○ Yes
- ○ No

51. Do you now need or take medicine prescribed by a doctor? Do <u>not</u> include birth control.

- ○ Yes
- ○ No ➔ ***Go to Question 53***

52. Is this medicine to treat a condition that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

- ○ Yes
- ○ No

53. What is your age?

- ○ 18 to 24
- ○ 25 to 34
- ○ 35 to 44
- ○ 45 to 54
- ○ 55 to 64
- ○ 65 to 74
- ○ 75 or older

54. Are you male or female?

- ○ Male
- ○ Female

55. What is the highest grade or level of school that you have completed?

- ○ 8th grade or less
- ○ Some high school, but did not graduate
- ○ High school graduate or GED
- ○ Some college or 2-year degree
- ○ 4-year college graduate
- ○ More than 4-year college degree

56. Are you of Hispanic or Latino origin or descent?

- ○ Yes, Hispanic or Latino
- ○ No, Not Hispanic or Latino

57. What is your race? Mark one or more.

- ○ White
- ○ Black or African-American
- ○ Asian
- ○ Native Hawaiian or other Pacific Islander
- ○ American Indian or Alaska Native
- ○ Other

58. Did someone help you complete this survey?

- ○ Yes ➔ ***Go to Question 59***
- ○ No ➔ ***Thank you. Please return the completed survey in the postage-paid envelope.***

59. How did that person help you? Mark one or more.

- ○ Read the questions to me
- ○ Wrote down the answers I gave
- ○ Answered the questions for me
- ○ Translated the questions into my language
- ○ Helped in some other way

Thanks again for taking the time to complete this survey! Your answers are greatly appreciated.

When you are done, please use the enclosed prepaid envelope to mail the survey to:

DataStat, 3975 Research Park Drive, Ann Arbor, MI 48108

Healthy Michigan Plan Evaluation
Domain I – Hospital Uncompensated Care

January 18, 2019

University of Michigan Institute for Healthcare Policy & Innovation

Report Authors:
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EXECUTIVE SUMMARY

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings for Domain I on Hospital Uncompensated Care. The focus of this domain is to estimate the effect of HMP on the amount of uncompensated care provided by Michigan hospitals. This analysis documents trends in uncompensated care over time and compares changes in Michigan to changes in states that did not expand their Medicaid programs (non-expansion states) and other states that, like Michigan, expanded Medicaid eligibility under the Affordable Care Act (ACA) (expansion states). The main analysis is based on data from Medicare cost reports filed by general acute care hospitals and critical access hospitals located in the 50 states and the District of Columbia. Supplementary analysis is conducted using data from Medicaid cost reports submitted by hospitals to MDHHS and national data submitted by tax-exempt hospitals to the Internal Revenue Service (IRS).

Between 2013, the final year prior to any exposure to the Healthy Michigan Plan, and 2015, the first year in which all Michigan hospital cost reports were exposed to a full year of the program, the average costs of uncompensated care provided by Michigan hospitals declined by $3.4 million, a decline of over 40%. Reductions in uncompensated care were greatest among Michigan hospitals that provided baseline levels of uncompensated care at or above the average for the state; these hospitals exhibit a 57% decline in uncompensated care between 2011-2013 and 2015-2017.

Uncompensated care declined significantly more in Michigan than in states that did not expand their Medicaid programs. The reduction in uncompensated hospital care observed in Michigan was comparable to the reductions observed in other expansion states.

TABLE OF CONTENTS

INTRODUCTION

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings for Domain I on Hospital Uncompensated Care.

As outlined in the Special Terms and Conditions of Michigan's Section 1115 Demonstration Waiver, the focus of Domain I is to examine the impact of reducing the number of uninsured individuals on uncompensated care costs to hospitals in Michigan through the expansion of subsidized insurance. The main hypothesis is that uncompensated care in Michigan decreased significantly following Medicaid expansion through HMP. The analysis considers five sub-hypotheses:

- Hypothesis I.1A: Uncompensated care in Michigan will decrease significantly r*elative to the existing trend in Michigan*.

- Hypothesis I.1B: Uncompensated care will decrease more by percentage *for Michigan hospitals with baseline levels of uncompensated care that are above the average for the state than for hospitals with levels that are below the average for the state.*

- Hypothesis I.1C: Uncompensated care will decrease more by percentage *for Michigan hospitals in areas with above average baseline rates of uninsurance in the state than for hospitals with below state average levels.*

- Hypothesis I.1D: Uncompensated care in Michigan will decrease significantly *relative to states that did not expand their Medicaid programs.*

- Hypothesis I.1E: Trends in uncompensated care in Michigan will not differ significantly *relative to other states that did expand their Medicaid programs*.

DATA

The primary source of data for this analysis is publicly available hospital cost report data from CMS. All hospitals that receive payments from the Medicare program are required by CMS to submit cost report data annually. The study sample includes cost report data from fiscal years 2010-2016 and consists of general acute care hospitals and critical access hospitals located in the 50 states and the District of Columbia.

Hospitals are required to submit cost report data in the form of standardized worksheets. The data required for this analysis is reported in worksheet S10, which contains information on the costs of uncompensated care provided by each hospital. Uncompensated care is defined as the

sum of charity care and bad debt. The amounts of charity care and bad debt that hospitals report to CMS represent the *charges* corresponding to the care provided. The *cost* of this care can be calculated by applying the hospital's cost-to-charges ratio, which is another measure that hospitals provide on their cost reports.

Although the Medicare cost reports are the best source of data on hospital uncompensated care, they have several limitations for the purpose of our analysis. First, not all hospitals provide complete and accurate submissions. Second, fiscal year reporting periods vary both across hospitals and within hospitals over time. For example, while some hospitals report data for a January through December fiscal year, others report data for an October through September fiscal year. Furthermore, hospitals occasionally submit multiple cost reports within the same fiscal year. For example, a hospital that generally reports for an October through September fiscal year may include two disaggregated submissions, with one submission spanning October through December and the second submission spanning January through September.

We conducted several data cleaning steps to address these issues. We identified and removed infeasible entries associated with key outcome fields. We flagged observations that were six or more standard deviations from the mean of each outcome field. We then checked for consistency within hospital submissions by inspecting all entries that corresponded with flagged hospitals. A hospital that reported multiple high values for the costs of uncompensated care is less of a concern than a hospital that reported only one extremely high value associated with the costs of uncompensated care. We dropped observations that corresponded to these outlier values.

In instances where hospitals submitted multiple cost reports that spanned shortened time-periods, we aggregated these partial year reports to construct measures spanning a 12-month period. We identified observations that sum to an annual time-length when combined, (for example, October through December and January through September), and aggregated outcome fields across these observations. We dropped observations that represented a period of less than 335 days or a period of more than 370 days, such that each observation corresponded to a roughly annual time-period. We converted all outcomes into 2015 dollars using the Consumer Price Index.[1]

Table 1 contains information on observation counts across hospital reporting years by state Medicaid expansion status. Note that the observation counts differ across years. While hospital closures occur during this period of analysis, these discrepancies also stem from observations that are dropped after applying the data cleaning procedures.

[1] The Consumer Price Index for All Urban Consumers (CPI-U) is used to convert outcomes. CPI-U figures are obtained from: https://www.minneapolisfed.org/community/financial-and-economic-education/cpi-calculator-information/consumer-price-index-and-inflation-rates-1913

Table 1: Sample Counts of Hospitals by Reporting Period and Expansion State Status

	Michigan		Other Expansion States		Non-Expansion States	
End Year	N	Average Months Exposed to HMP	N	Average Months Exposed to Medicaid Expansion	N	Average Months After Jan 1, 2014
2011	119	0	2,234	0	1,822	0
2012	128	0	2,370	0	1,964	0
2013	130	0	2,345	0	1,956	0
2014	126	5.3	2,359	7.2	1,950	8.6
2015	130	12	2,395	10.6	1,943	12
2016	127	12	2,338	11.5	1,946	12
2017	65	12	1,045	12	778	12

Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.

Table 1 also summarizes the average number of months of actual or potential exposure to Medicaid expansion across reporting periods. This field captures the timing of both expansion and fiscal year reporting periods. For all states, this variable takes a value of zero for the period from 2011 to 2013. In Michigan, exposure to HMP is measured by comparing the timing of the hospital's fiscal year to the HMP start date of April 1, 2014. For all hospitals in the state, the average number of months exposed to HMP in 2014 was 5.3. In fiscal year 2015, all Michigan hospitals were exposed to HMP for a full 12 months. We take a similar approach for other expansion states. For most of these states, the Medicaid expansion went into effect on January 1, 2014, though in some cases the start date was later. For non-expansion states, we measure potential exposure relative to January 1, 2014.

ANALYSIS

Trends over Time in Michigan

<u>Hypothesis I.1A</u>: Uncompensated care in Michigan will decrease significantly *relative to the existing trend.*

To test this hypothesis, we analyzed trends in two measures of uncompensated care provided by Michigan hospitals: (1) the average cost of uncompensated care and (2) uncompensated care costs as a percent of total hospital expenditures. Results for both measures are presented by year in Table 2. Figure 1 presents uncompensated care as a percentage of total expenditures in graphical form.

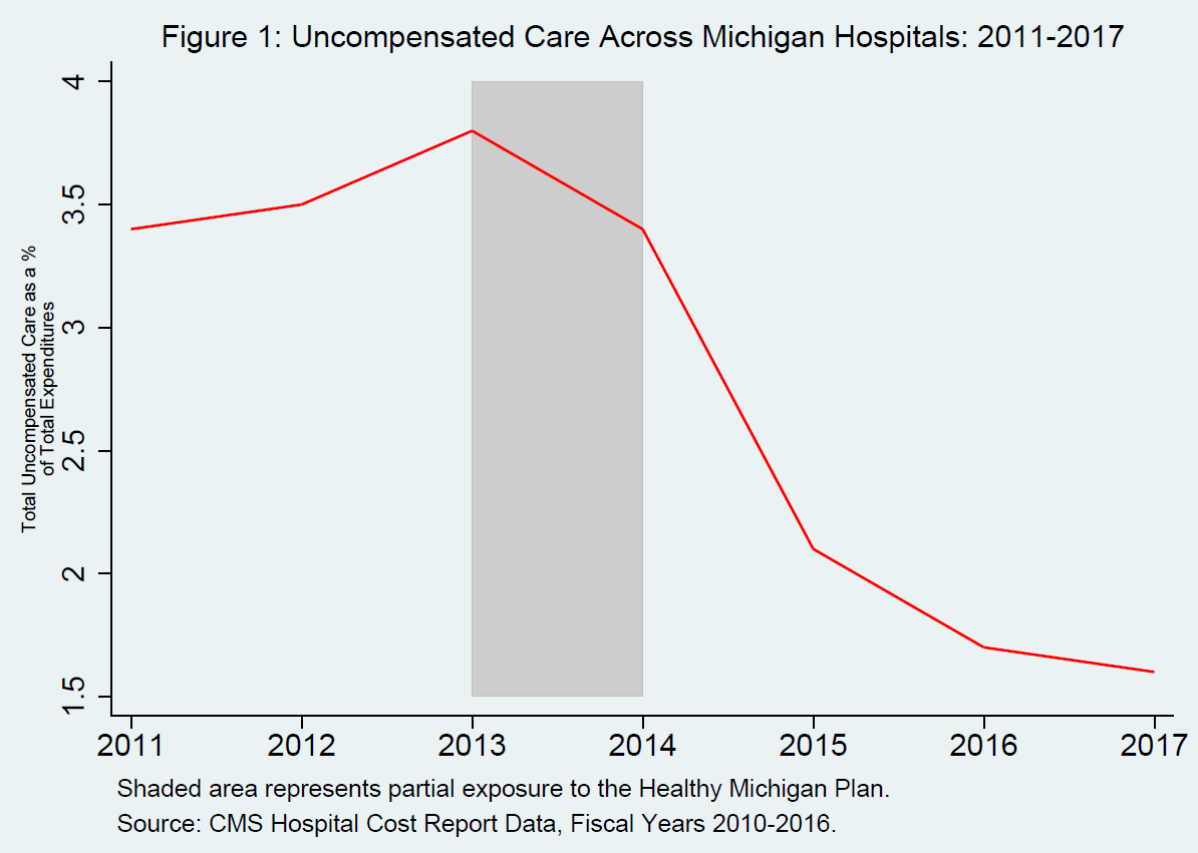
In 2011, the average hospital in Michigan provided roughly $7.4 million of uncompensated care. In 2013, the last full year before HMP went into effect, the mean was $7.8 million. That year, uncompensated care represented 3.8% of total expenditures for Michigan hospitals.

Table 2: Trends in Uncompensated Care in Michigan Hospitals, 2011-2017

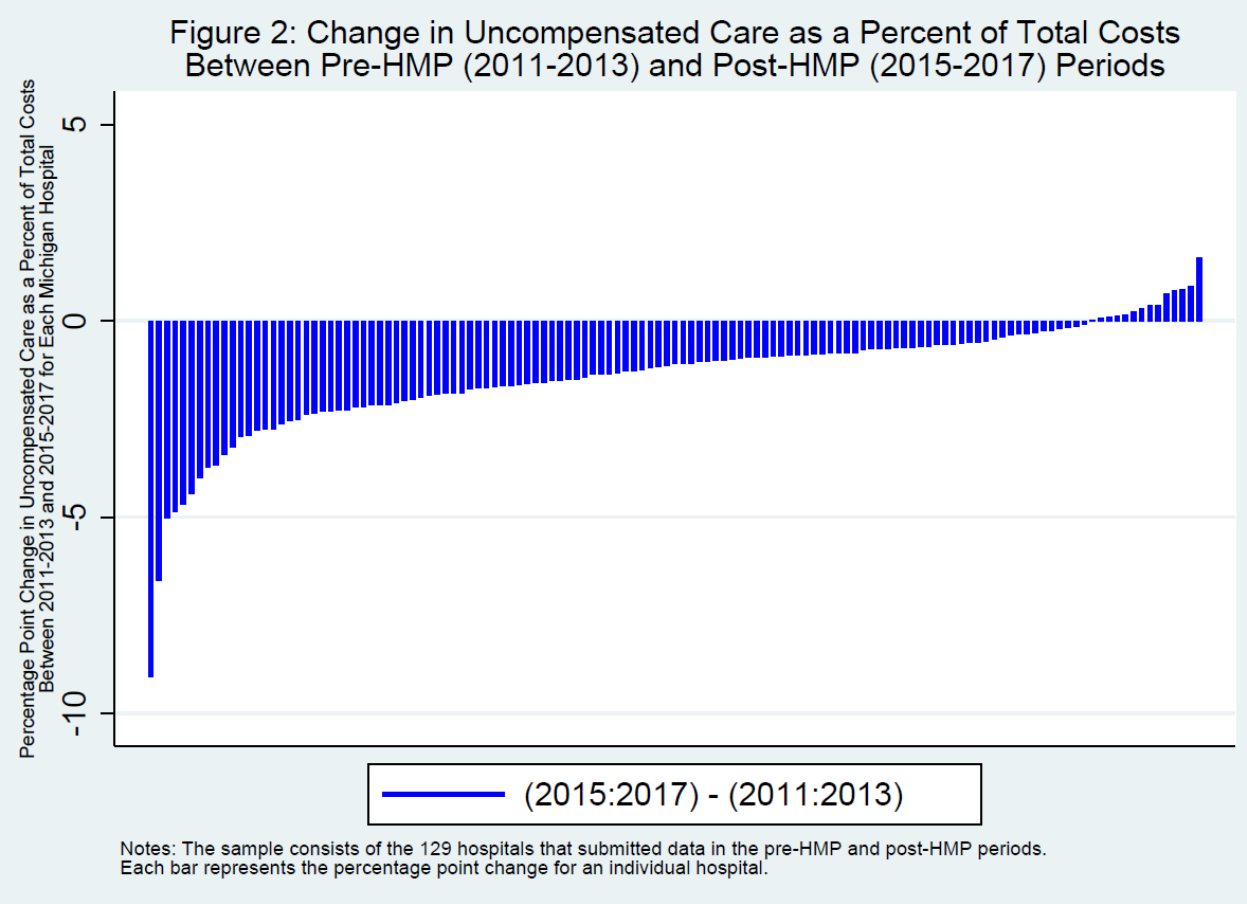
End Year	N	Average Months Exposed to HMP	Mean UC per Hospital ($Millions)	UC as a % of Total Expenditures
2011	119	0	7.4	3.4%
2012	128	0	7.2	3.5%
2013	130	0	7.8	3.8%
2014	126	5.3	7.2	3.4%
2015	130	12	4.4	2.1%
2016	127	12	3.8	1.7%
2017	65	12	4.0	1.6%

Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.

Because the data for 2014 represents a mix of pre- and post-HMP data, a comparison of 2013 and 2015 is more informative as to the effect of the program. The average amount of uncompensated care provided by Michigan hospitals fell by 44% between these years, from $7.8 million to $4.4 million. The amount in 2015 represents 2.1% of total hospital expenditures. Uncompensated care declined again in 2016, though the change was smaller.



It is possible that these state-level figures mask important differences among hospitals. Therefore, in Figure 2 we present the change in uncompensated care measured as a percentage of total expenditures for all Michigan hospitals. (Using this relative measure rather than dollar amounts effectively adjusts for hospital size.) For this calculation, we define the pre-HMP period as the years 2011-13 and the post-HMP period as 2015-17. We exclude data from fiscal year 2014 because it is a transition year that reflects a mix of pre- and post-HMP experience.



The figure sorts hospitals according to the change in uncompensated care between these two periods. Hospitals with the largest declines are on the far left; the small number of hospitals experiencing an increase in uncompensated care expenditures are on the far right. Two main results emerge. First, for the vast majority of Michigan hospitals—115 out of 129, or 89%—uncompensated care declined after the introduction of HMP. Second, among hospitals that experienced a decrease in uncompensated care, there is substantial heterogeneity in the magnitude of that change. Hypotheses 1B and 1C explore this heterogeneity in more detail.

<u>Hypothesis I.1B</u>: Uncompensated care will decrease more by percentage *for Michigan hospitals with baseline levels of uncompensated care that are above the average for the state than for hospitals with levels that are below the average for the state.*

The expectation is that the increase in insurance coverage will matter most for hospitals that faced the greatest burden of caring for uninsured patients prior to the establishment of HMP. To test this hypothesis, we begin by comparing changes for hospitals above and below the median level of uncompensated care (as a percentage of total expenditures) in the pre-HMP period. The results from this comparison are presented in Table 3.

Table 3: Changes in Uncompensated Care in Michigan Hospitals Between 2011-13 and 2015-17 by Pre-HMP Levels of Uncompensated Care

	Pre-HMP (2011-2013)	Post-HMP (2015-2017)	Change
Below-Median Uncompensated Care (67 Hospitals)			
Mean UC per Hospital ($ Millions)	6.2	4.4	-1.9*
	(0.72)	(0.61)	(0.97)
Total UC as a % of Total Expenditures	2.46%	1.77%	-0.69***
	(0.07)	(0.07)	(0.09)
Above-Median Uncompensated Care (67 Hospitals)			
Mean UC per Hospital ($ Millions)	8.6	3.9	-4.7***
	(0.98)	(0.39)	(1.14)
Total UC as a % of Total Expenditures	4.89%	2.83%	-2.06***
	(0.12)	(0.13)	(0.18)

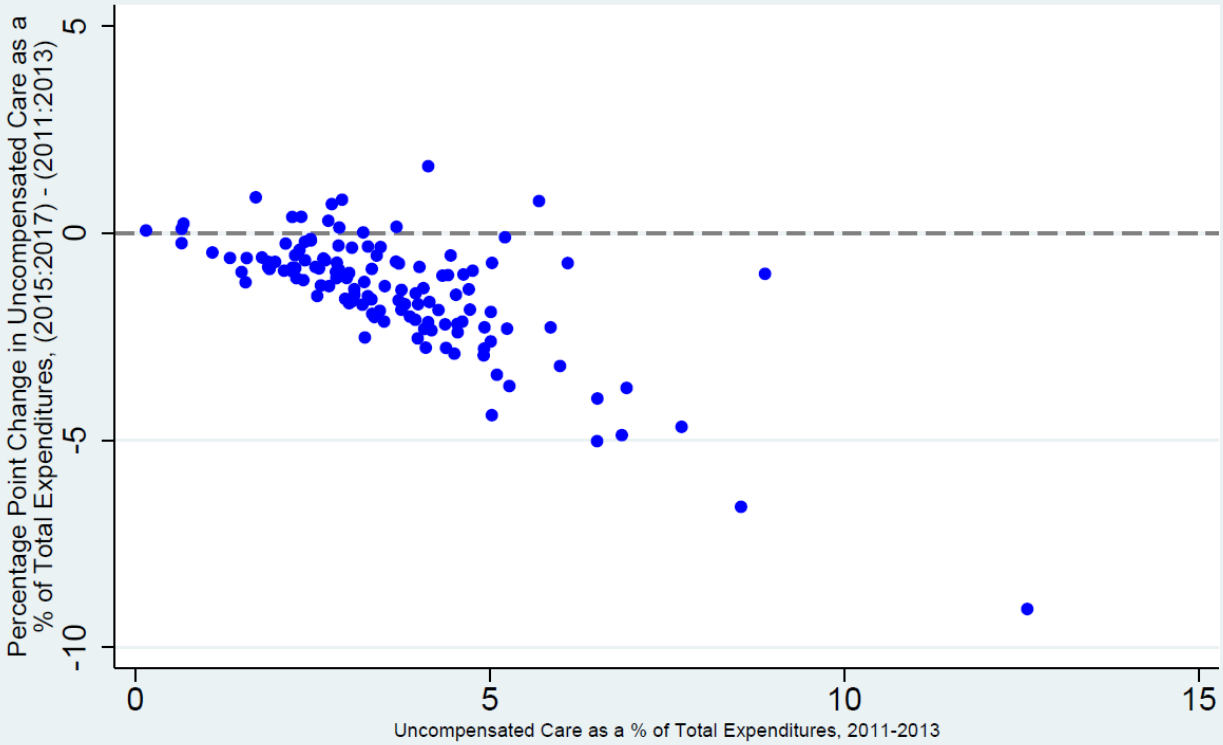
Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.
Notes:
The average level of uncompensated care as a % of total expenditures across Michigan hospitals for the period 2011-2013 is 3.66%.
Standard errors appear in parentheses.
***Statistically significant at the 1% level; **Statistically significant at the 5% level; *Statistically significant at the 10% level.

Consistent with our hypothesis, uncompensated care fell more for hospitals that were providing more uncompensated care prior to HMP. Among hospitals in the above-median group, uncompensated care fell by $4.7 million or by 2.1% of total expenditures. For hospitals below the median, the corresponding figures were $1.9 million and 0.7%, respectively.

Figure 3 presents a scatterplot providing more detailed information on the relationship between baseline uncompensated care and changes over time. The horizontal axis measures baseline uncompensated care as a percentage of total expenditures. The vertical axis measures the percentage point change between 2011-13 and 2015-17. There is a strong, essentially linear relationship between the two variables. The few hospitals where uncompensated care expenditures increased over time are primarily ones that were providing very little uncompensated care in the pre-HMP period. For these hospitals, the increase in uncompensated care most likely reflects statistical noise in the data rather than a meaningful increase. Not surprisingly, the hospitals that experienced the largest declines were ones that

were providing very large amounts of uncompensated care prior to the implementation of HMP.

Figure 3: Changes in Uncompensated Care Across Michigan Hospitals by Baseline Levels of Uncompensated Care



Notes: The sample consists of the 129 hospitals that submitted data in the pre-HMP and post-HMP periods. Each dot represents an individual hospital.

<u>Hypothesis I.1C</u>: Uncompensated care will decrease more by percentage *for Michigan hospitals in areas with above average baseline rates of uninsurance in the state than for hospitals with below state average levels.*

The amount of uncompensated care that hospitals provide will be a function of the insurance coverage of their patients: more uninsured patients translates to a greater uncompensated care burden. This relationship leads to hypothesis 1C. We perform a simple test of this hypothesis by stratifying hospitals into two groups based on uninsured rate in their county as of 2013 and comparing changes in uncompensated care between the pre- and post-HMP periods. The results, which are presented in Table 4, are consistent with the hypothesis, though the contrast is less pronounced than when we stratify by baseline uncompensated care. For hospitals located in counties where the uninsured rate was above the median for the state, uncompensated care as a percentage of total hospital expenditures fell by 1.4 percentage points, which represents a 35% decline relative to the baseline value. In counties where the uninsured rate was below the median, uncompensated care as a percentage of total expenditures fell by 1.3 percentage points, a 40% decline relative to the baseline. In dollar

terms, uncompensated care expenditures fell by $3.5 million (a 58% decline) in counties with higher uninsured rates and by $3.2 million (a 37% decline) in below-median counties.

Table 4: Changes in Uncompensated Care in Michigan Hospitals Between 2011-13 and 2015-17 by Pre-HMP County-Level Uninsured Rates

Below-Median County Uninsured Rate (70 Hospitals)	**Pre-HMP (2011-2013)**	**Post-HMP (2015-2017)**	**Change**
Mean UC per Hospital ($ Millions)	8.7	5.6	-3.2***
	(0.76)	(0.62)	(1.004)
Total UC as a % of Total Expenditures	3.37%	2.05%	-1.33***
	(0.104)	(0.095)	(0.14)
Above-Median County Uninsured Rate (64 Hospitals)			
Mean UC per Hospital ($ Millions)	6.0	2.5	-3.5***
	(0.95)	(0.305)	(1.09)
Total UC as a % of Total Expenditures	3.96%	2.56%	-1.39***
	(0.15)	(0.12)	(0.202)

Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016. Census SAHIE, 2013.
Notes:
The average uninsured rate across Michigan counties in 2013 is 14.1%.
Standard errors appear in parentheses.
***Statistically significant at the 1% level; **Statistically significant at the 5% level; *Statistically significant at the 10% level.

Comparisons with Other States

It is clear that the amount of uncompensated care provided by hospitals fell in Michigan after HMP was established. It is important to compare this change to trends in other states. Comparing Michigan to states that chose not to implement the ACA Medicaid expansion provides an estimate of the effect of HMP that controls for the effect of the other elements of the ACA, most importantly the expansion of subsidized private health insurance through the newly established marketplaces. Comparing Michigan to other states that did implement the ACA Medicaid expansion provides a sense of whether Michigan's experience was consistent with other expansion states.

Hypothesis I.1D: Uncompensated care in Michigan will decrease significantly *relative to states that did not expand their Medicaid programs.*

Table 5 reports changes for hospitals in Michigan and in 19 states that had not expanded by 2016.[2] As in previous tables, the pre-HMP period is defined as 2011-13 and the post-HMP period is 2015-17. The outcome analyzed is hospital uncompensated care as a percentage of total hospital expenditures.

The data show that at baseline, the average Michigan hospital provided less uncompensated care than the average hospital in non-expansion states, both in dollar terms and as a percentage of total expenditures. As shown in previous tables, uncompensated care fell significantly in Michigan: by an average of $3.3 million, or 1.36% of total expenditures. In contrast, uncompensated care increased between 2011-13 and 2015-2017 in non-expansion states.

To the extent that non-expansion states as a group can be considered as a "control group" for Michigan, the results in Table 5 can be used to construct "difference-in-differences" (DD) estimates of the effect of HMP:

$$DD = D_{Michigan} - D_{Non\text{-}expansion}$$

Where $D_{Michigan}$ and $D_{Nonexpansion}$ represent the change in uncompensated care between 2011-13 and 2015-17 in Michigan and non-expansion states, respectively. Because uncompensated care was trending upward in non-expansion states, the DD estimate of the effect of HMP is even larger than the effect implied by the simple difference using only Michigan data. Specifically, the DD estimates imply that HMP had the effect of reducing uncompensated care provided by the average hospital in Michigan by $5.6 million, or 68% larger than the effect estimated using data from Michigan alone. Using the relative measure of uncompensated care, the DD estimate is that HMP reduced uncompensated as a percentage of total hospital expenditures by 1.9 percentage points.

[2] Non-expansion states in our analysis are Alabama, Florida, Georgia, Idaho, Kansas, Maine, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and Wyoming. Five of these states – Maine, Virginia, Utah, Idaho, and Nebraska – have subsequently enacted Medicaid expansions. Information on state expansion timing is available at https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/.

Table 5: Changes in Uncompensated Care in Michigan and Non-expansion States, 2011-2013 & 2015-2017

	Pre-ACA (2011-2013)	Post-ACA (2015-2017)	Change
Mean UC Expenditures per Hospital ($Millions)			
Michigan	7.41	4.11	-3.30***
(136 Hospitals)	(0.61)	(0.36)	(0.74)
Non-Expansion States	8.21	10.49	2.27***
(2,121 Hospitals)	(0.31)	(0.43)	(0.51)
			DD = -5.57* **
			(1.98)
Total UC as a % of Total Expenditures			
Michigan	3.66%	2.29%	-1.36***
(136 Hospitals)	(0.093)	(0.076)	(0.12)
Non-Expansion States	6.37%	6.904%	0.53***
(2,121 Hospitals)	(0.071)	(0.09)	(0.11)
			DD = -1.89* **
			(0.43)

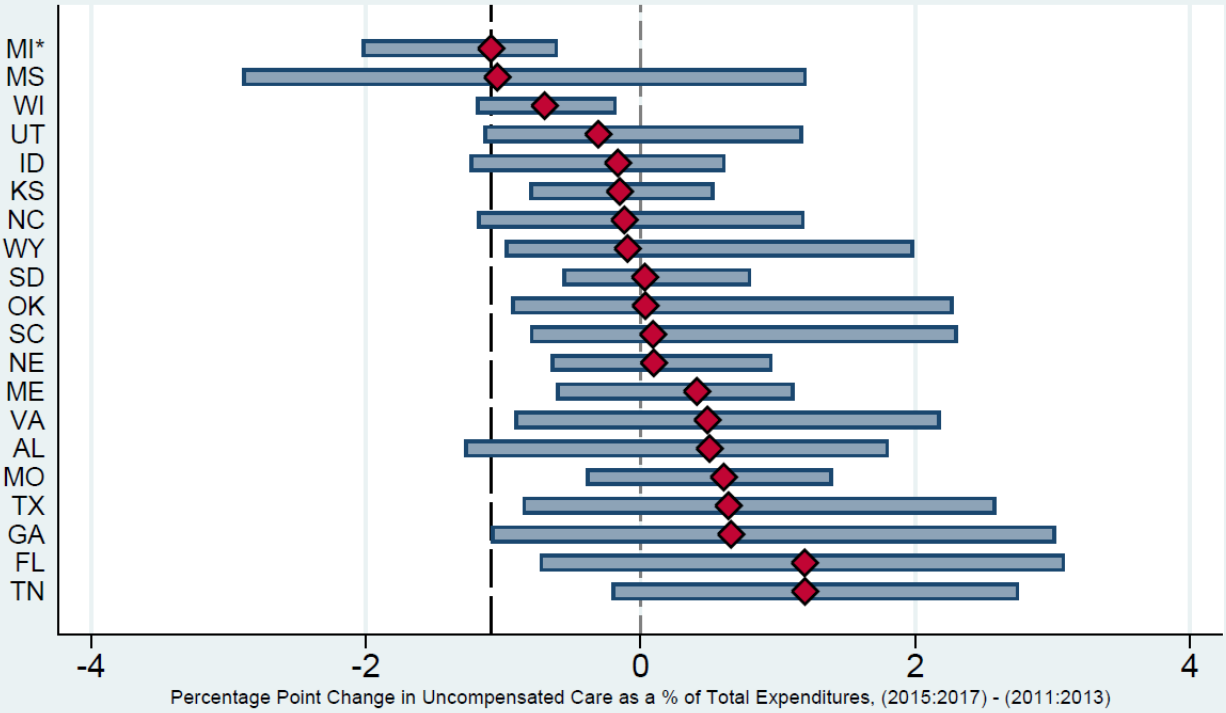
Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.
Notes:
Standard errors appear in parentheses.
***Statistically significant at the 1% level; **Statistically significant at the 5% level; *Statistically significant at the 10% level.

These mean results obscure heterogeneity among the 19 non-expansion states as well as within each state. Figure 4 provides a sense of this heterogeneity. The horizontal axis denotes the change in uncompensated care between the pre- and post-HMP periods. Results for each state are presented as a horizontal plot, where the red diamond represents the median change for hospitals in the state, and the grey box spans the 25th and 75th percentile of the change variable.

The most important takeaway from the figure is that the median decline in uncompensated care as a percentage of total expenditures in Michigan was larger than the decline in any single non-expansion state. Taken together, the results in Table 5 and Figure 4 provide strong

evidence that after the implementation of HMP, hospital uncompensated care fell significantly in Michigan relative to the trend in states that did not implement the ACA Medicaid expansion.

Figure 4: Changes in Uncompensated Care Across Michigan Hospitals and Hospitals in Non-Expansion States



Sample includes 2076 hospitals that submitted data in the pre-HMP and post-HMP periods.
*Denotes states that expanded their Medicaid programs after January 2014.
The median percentage point change across Michigan hospitals is -1.09 percentage points.
Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.

Hypothesis I.1E: Trends in uncompensated care in Michigan will not differ significantly *relative to other states that did expand their Medicaid programs.*

Although the state of Michigan received a Section 1115 waiver which allowed the state to expand Medicaid through HMP with certain features, including greater cost-sharing and financial incentives to promote healthy behaviors, that differed from the way that the ACA Medicaid expansion was implemented in most other states, those features do not have obvious implications for the effect of the program on hospital uncompensated care. Therefore, our hypothesis is that the experience of Michigan hospitals as it relates to uncompensated care was similar to the experience of hospitals in other expansion states.

In making comparisons among expansion states, it is also important to take into account when the Medicaid expansion went into effect. Thirty-two states (including the District of Columbia) expanded their Medicaid programs during the period of our analysis. Twenty-five implemented the expansion immediately in January 2014. Another seven states implemented expansion

either later in 2014 (Michigan and New Hampshire) in 2015 (Alaska, Indiana, and Pennsylvania), or in 2016 (Montana, Louisiana).

Table 6: Changes in Uncompensated Care in Michigan and Other Expansion States, 2011-2013 & 2015-2017

	Pre-ACA (2011-2013)	Post-ACA (2015-2017)	Change
Mean UC Expenditures per Hospital ($Millions)			
Michigan	7.41	4.11	-3.30***
(136 Hospitals)	(0.61)	(0.36)	(0.74)
Other Expansion States			
January 2014 Expansion States	9.46	6.75	-2.71***
(2,024 Hospitals)	(0.39)	(0.24)	(0.48)
Later Expansion States	6.28	6.14	-0.14
(522 Hospitals)	(0.37)	(0.35)	(0.51)
Total UC as a % of Total Expenditures			
Michigan	3.66%	2.29%	-1.36***
(136 Hospitals)	(0.093)	(0.076)	(0.12)
Other Expansion States			
January 2014 Expansion States	4.87%	3.14%	-1.72***
(2,024 Hospitals)	(0.059)	(0.044)	(0.077)
Later Expansion States	5.26%	4.58%	-0.67***
(522 Hospitals)	(0.17)	(0.18)	(0.25)

Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.

Notes:

Standard errors appear in parentheses.

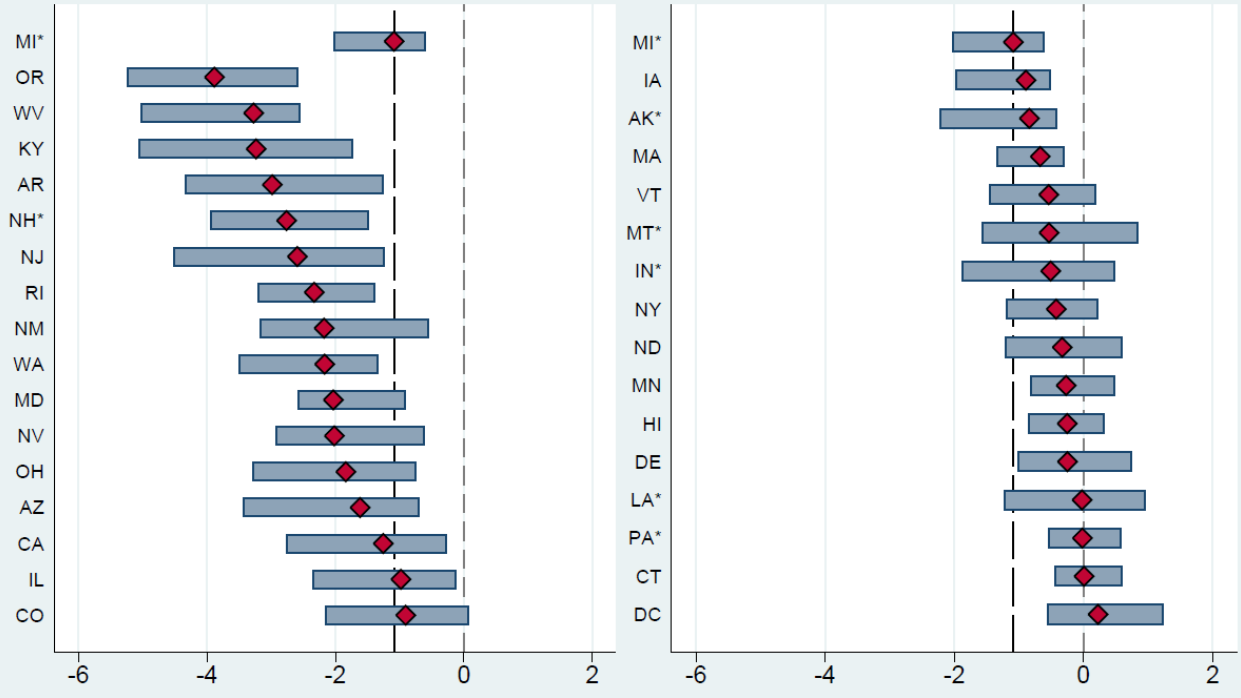
***Statistically significant at the 1% level; **Statistically significant at the 5% level; *Statistically significant at the 10% level.

In the pre-ACA period, Michigan hospitals provided less uncompensated care than in hospitals in states that expanded in January 2014, as shown in Table 6. Despite this pre-ACA pattern, after the law went into effect the hospital-level mean fell more in Michigan (a decline of $3.3 million) than in these other expansion states (a decline of 2.7 million). However, the difference between these estimates is not statistically significant. The change between 2011-13 and 2015-

17 was substantially smaller in states that were later to expand, which is not surprising. For many hospitals in this group, much of the data from 2015-17 still represent pre-ACA data.

Figure 5 provides state-by-state estimates of the change in uncompensated care, in a format that is similar to Figure 4. Because there are more expansion states, the data are presented in two panels, with the results for Michigan presented at the top of each. The other states are sorted by the median change in uncompensated care between the pre- and post-HMP periods. Late expanders are denoted with an asterisk. Here, there are two main takeaways. First, the median amount of uncompensated care (as a percentage of total expenditures) fell in nearly every state that implemented the Medicaid expansion. The two states with the smallest changes, Connecticut and the District of Columbia, are ones that took advantage of a provision of the ACA that allowed states to begin the expansion process before 2014. In earlier research, we found that Connecticut's early expansion led to a reduction in uncompensated care prior to 2014 (Nikpay et al 2015). The second is that Michigan falls roughly in the middle of expansion states in terms of the change in hospital uncompensated care as a percentage of total hospital expenditures: the median decline was larger in 17 states and smaller in 14 states.

Figure 5: Changes in Uncompensated Care Across Michigan Hospitals and Hospitals in Other Expansion States



Sample includes 2484 hospitals that submitted data in the pre-HMP and post-HMP periods.
*Denotes states that expanded their Medicaid programs after January 2014.
The median percentage point change across Michigan hospitals is -1.09 percentage points.
Source: CMS Hospital Cost Report Data, Fiscal Years 2010-2016.

Evidence from Other Data Sources

Although the Medicare cost reports are the best data for assessing the change in uncompensated care in Michigan and other states, we also conducted parallel analyses with two other data sources. The first alternative data source is Medicaid cost reports that Michigan hospitals file with the state. Although these reports are similar to the Medicare reports, they are not identical. In any year, the number of hospitals filing reports does not match exactly. Nonetheless, the two sets of cost reports tell a similar story. Table 7 reports hospital-level means for the years 2013 and 2016.[3] The data show that the mean level of uncompensated care fell by 53% (from $8.1 million to $3.8 million), which is similar to the 51% change between those two years seen in the Medicare data (see Table 2). The Medicaid data indicate that for the average Michigan hospital uncompensated care as a percentage of total expenditures fell by 2.8 percentage points, or a 58% decline relative to 2013. In the Medicare data we see a decline of 2.1 percentage points, which translates to a 55% effect.

Table 7: Changes in Uncompensated Care in Michigan Hospitals, 2013 to 2016

	2013	2016	Change
Number of Hospitals	141	138	
Uncompensated Care Costs			
Mean ($ millions)	8.1	3.8	-4.3
As a % of Total Costs	4.8%	2.0%	-2.8%

Source: Medicaid Cost Reports provided by the Michigan Department of Health and Human Services.

The second alternative source of data comes from filings that non-profit hospitals are required to make with the IRS. On Form 990, Schedule H, hospitals are required to report the amount of charity care and bad debt they provide. As in the cost report data, uncompensated care represents the sum of these two measures. However, there are important differences between the Form 990 data and the cost report data presented above. The most obvious is that only tax-exempt hospitals are required to file Form 990. Second, whereas the cost report data is collected at the facility level, the Form 990 data is collected at the level of the system. For the sake of comparability, for our analysis of the Form 990 data we limit the sample to independent hospitals that were not part of a system. A third difference with the cost reports is that uncompensated care costs reported in the Form 990 include amounts accrued at off-campus facilities that are not part of the main hospital campus. Therefore, uncompensated care amounts estimated using the Form 990 are higher than the amounts estimated using the Medicare or Medicaid cost reports. Additionally, because the Form 990 does not include measures of total operating expenses, to calculate uncompensated care costs as a share of total expenditures, we must use data from the cost reports in the denominator. Because this

[3] For more information on these data and additional results, see Buchmueller et al (2018).

expense measure applies only to the hospital facility, the percentage of uncompensated care as a share of total costs will also be over-estimated relative to the cost reports.

Table 8 reports statistics on uncompensated care as a share of total hospital expenditures from the Form 990 data. Despite the differences in measurement (which lead to higher mean values in these data) the general pattern is consistent with the results from the Medicare cost reports. Uncompensated care declined in Michigan between 2013 and 2015. In non-expansion states, there was essentially no change.

Table 8: Changes in Uncompensated Care Provided by Independent, Tax-Exempt Hospitals in Michigan and Non-expansion States, 2013 & 2015

	2013	2015	Change
Total UC as a % of Total Expenditures			
Michigan	9.7%	6.8%	-2.9%
(44 Hospitals)	(0.011)	(0.008)	(0.013)
Non-Expansion States	14.3%	13.8%	-0.5%
(396 Hospitals)	(0.004)	(0.005)	(0.063)
			DD = -2.4%
			(0.020)

Source: IRS form 990, Schedule H.
Notes: Uncompensated care is defined as the tax unit-level. Therefore, the sample is limited to hospitals that are not members of a multi-hospital system. Standard errors are reported in parentheses.

SUMMARY AND CONCLUSIONS

This report examines five hypotheses related to the effect of the Healthy Michigan Plan on hospital uncompensated care. The results indicate that after the program went into effect:

- Uncompensated care fell in Michigan relative to the pre-existing trend;
- The change was larger for hospitals that had provided a greater amount of uncompensated care at baseline;
- The change was larger for hospitals located in areas where a higher percentage of the population was uninsured at baseline;
- Uncompensated care fell in Michigan relative to the trend in states that did not expand Medicaid through the Affordable Care Act;
- The trend in uncompensated care provided by Michigan hospitals was comparable to the trend for hospitals in other states that expanded their Medicaid programs.

REFERENCES

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Nikpay, S., T. Buchmueller and H. Levy. "Early Medicaid Expansion in Connecticut Stemmed the Growth in Hospital Uncompensated Care," *Health Affairs*, 34(7): 1170-1179. (July 2015)

Healthy Michigan Plan Evaluation

Domain II – Reduction in the Number of Uninsured

February 5, 2019

University of Michigan Institute for Healthcare Policy & Innovation

Report Authors:

Helen Levy and Thomas Buchmueller

The Impact of the Healthy Michigan Plan on Insurance Coverage in Michigan

Key findings

- Between 2013 and 2017, Medicaid coverage among non-elderly adults in Michigan increased by 5 percentage points, from 14 percent to 19 percent, and uninsurance was cut in half, dropping from 16 percent to 7 percent.
- Gains in coverage were largest among lower-income Michiganders. Among non-elderly adults in families with incomes below 138 percent of the federal poverty level, uninsurance fell by 17 percentage points, dropping from 31 percent to 13 percent.
- Coverage increased in every one of the state's 10 prosperity regions, with the largest overall gains in coverage occurring in the regions that had the lowest levels of coverage at the outset: the Upper Peninsula (Region 1) and the Northeast Region (Region 3).
- Not all of these gains in coverage are directly attributable to the Healthy Michigan Plan; other ACA programs and the improving economy likely contributed as well. In order to isolate the effect of the Healthy Michigan Plan, we compare Michigan to states that did not expand their Medicaid programs.
- Based on this comparison, we conclude that the Healthy Michigan Plan increased Medicaid coverage among all non-elderly adults in Michigan by 5 percentage points (a statistically significant increase) and reduced uninsurance by 1 percentage point in 2017 (a statistically insignificant change).
- Among non-elderly adults with family incomes below 138 percent of the federal poverty level in 2017, the Healthy Michigan Plan increased Medicaid coverage by 12 percentage points and reduced uninsurance by 7 percentage points (both statistically significant changes).
- We also compare Michigan to other states that did expand their Medicaid programs. Based on this comparison, we conclude that the Healthy Michigan Plan achieved coverage gains that were about the same as those observed in other expansion states.

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INTRODUCTION

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings for Domain II on Reduction in the Number of Uninsured.

As outlined in the Special Terms and Conditions of Michigan's Section 1115 Demonstration Waiver, the focus of Domain II is to test the hypothesis that, when affordable health insurance is made available and the application for insurance is simplified (through both an exchange and the state's Medicaid eligibility process), the uninsured population will decrease significantly. The analysis considers the following specific hypotheses:

Hypothesis II.1: The uninsured population in Michigan will decrease significantly.

- Hypothesis II.1A: The uninsured population in Michigan will decrease significantly *relative to the existing trend within Michigan.*
- Hypothesis II.1B: The uninsured population in Michigan will decrease *more for subgroups with higher than average baseline rates of uninsurance than for subgroups with lower than average baseline rates.*
- Hypothesis II.1C: The uninsured population in Michigan will decrease significantly *relative to states that did not expand their Medicaid programs.*
- Hypothesis II.1D: The uninsured population in Michigan will decrease to a similar degree *relative to states that did expand their Medicaid programs.*

Hypothesis II.2: Medicaid coverage in Michigan will increase significantly.

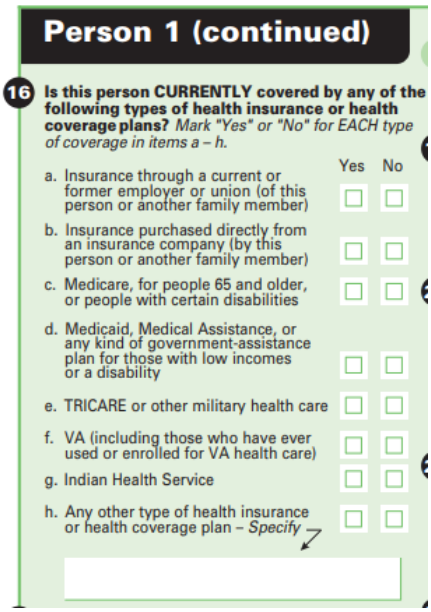
- Hypothesis II.2A: The Medicaid population in Michigan will increase significantly *relative to the existing trend in Michigan.*
- Hypothesis II.2B: The Medicaid population in Michigan will increase significantly *more for subgroups with higher than average baseline rates of uninsurance than for subgroups with lower than average baseline rates.*
- Hypothesis II.2C: The Medicaid population in Michigan will increase significantly *relative to states that did not expand their Medicaid programs.*
- Hypothesis II.2D: The Medicaid population in Michigan will increase to a similar degree *relative to states that did expand their Medicaid programs*.

This report also analyzes two other outcomes, employer-sponsored and private non-group coverage, which help explain why increases in Medicaid do not translate one-for-one into reductions in uninsurance.

DATA

The data for our analysis come from the American Community Survey (ACS), a nationally representative survey conducted annually by the Census Bureau.[1] The sample size in the ACS public release is approximately 3 million individuals in each year. Our analysis is limited to adults ages 19 through 64 since this is the group potentially eligible for the Healthy Michigan Plan. Separate Medicaid eligibility rules apply for children ages 18 and younger and for adults ages 65 and older. Dropping observations for individuals younger than 19 or older than 64 yields approximately 1.8 million observations in each year. Of these, approximately 58,000 in each year are in Michigan, while about 1.1 million observations are in other states that have expanded their Medicaid programs and about 690,000 are in states that have not expanded Medicaid. We drop approximately 4 percent of all observations because they are missing data on family income.[2]

Exhibit 1: How is health insurance coverage measured in the Text of the health insurance question from the American Community Survey



Source: https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2016/quest16.pdf

Since 2008, the ACS has included a question about health insurance that asks respondents to indicate sources of current health insurance for every household member (see Exhibit 1 at left). Respondents may mark more than one option. We use these data to create binary indicators of four different insurance outcomes: Medicaid or related public coverage, private non-group coverage, employer-sponsored coverage (including TRICARE), and uninsured. Note that with the exception of uninsured, these outcomes are not mutually exclusive; someone might have, for example, both private non-group coverage and Medicaid. However, this is relatively unusual. Note also that there are additional sources of coverage – primarily Medicare

[1] Technical documentation for the ACS is available here: https://www.census.gov/programs-surveys/acs/technical-documentation.html

[2] Appendix Table A1 contains unweighted sample sizes for our analytic sample.

for individuals under age 65 who are disabled or have end-stage renal disease – that we do not discuss in this report. Our analysis of Medicare showed very few changes over time.

Additional ACS variables in some of our analyses include family income relative to poverty, race/ethnicity (white non-Hispanic, black non-Hispanic, other non-Hispanic, Asian non-Hispanic, and Hispanic [any race]), education, and employment status (currently working for pay or not working). We also merge unemployment rate data from the Bureau of Labor Statistics to ACS observations at the state-year level.[3]

ANALYSIS

A. CHANGES OVER TIME IN MICHIGAN FOR ALL ADULTS AGES 19 THROUGH 64

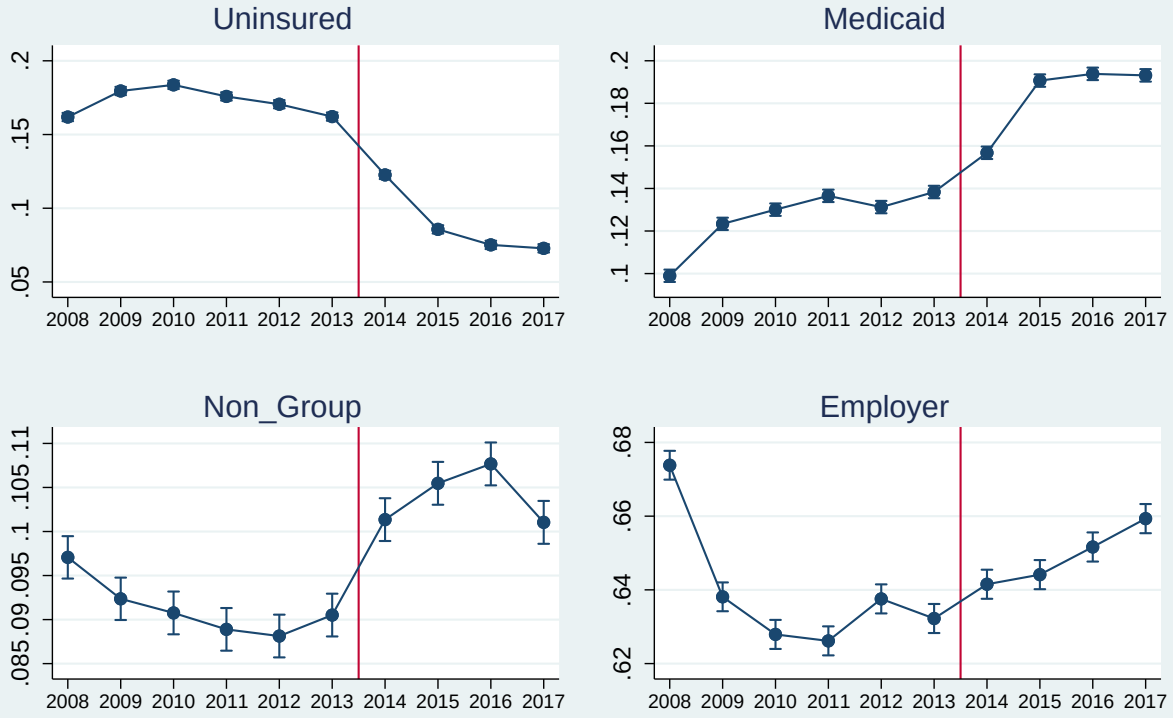
Hypothesis II.1A	The uninsured population in Michigan will decrease significantly *relative to the existing trend in Michigan.*
Hypothesis II.2A	The Medicaid population in Michigan will increase significantly *relative to the existing trend in Michigan.*

Figure 1 presents trends over time in the fraction of all Michigan adults ages 19 through 64 with four types of insurance coverage: no coverage, Medicaid, private non-group coverage, and employer coverage.[4] A vertical red line between 2013 and 2014 represents the start of the Healthy Michigan Plan and the implementation of other ACA coverage reforms, such as health insurance marketplaces, which took effect in 2014. The vertical bars on each data point indicate a 95% confidence interval for the estimate.

[3] Specifically, we use series LNS14000000 from the Bureau of Labor Statistics, available here: https://data.bls.gov/timeseries/lns14000000

[4] Table A2 in the Appendix contains the data that are presented graphically in Figure 1.

Figure 1: Insurance coverage in Michigan, 2008 - 2017
Adults ages 19-64



Source: American Community Survey

Figure 1 shows that uninsurance among non-elderly adults in Michigan was cut in half between 2013 and 2017, declining from 16.2 percent to 7.3 percent over that period. This represented a significant departure from the trend prior to 2014. Uninsurance had been declining very slowly from its 2010 peak of 18.4 percent, but the declines in 2011, 2012, and 2013 were less than one percentage point each, far smaller than the declines of almost four percentage points occurring each year in 2014 and 2015. Smaller declines in uninsurance occurred in 2016 and 2017, suggesting that the effect of the new insurance options had levelled off.

Figure 1 also shows that Medicaid coverage increased significantly among non-elderly adults in Michigan over the same period, from 13.8 percent in 2013 to nearly 19.3 percent in 2017, an increase of 40 percent. This represented a significant departure from the prior trend. After increasing by 2.4 percentage points between 2008 and 2009 – likely as a result of the economic downturn – Medicaid coverage had been relatively stable in 2010 through 2013, fluctuating less than a percentage point from year to year. Medicaid coverage jumped 1.9 percentage points in 2014 and 3.4 percentage points in 2015, then did not change significantly in 2016 or 2017.

Figure 1 also shows that private non-group coverage and employer-sponsored coverage also increased by 1 to 2 percentage points each over this period. These changes, too, represented significant departures from the existing trends. Non-group coverage had hovered around 9 percent between 2008 and 2013 before jumping a full percentage point in 2014. Employer-sponsored coverage had dropped significantly between 2008 and 2009 – again, likely as a result of the economic recession – and remained stable around 64 percent before increasing significantly in 2014, 2015, 2016, and 2017.

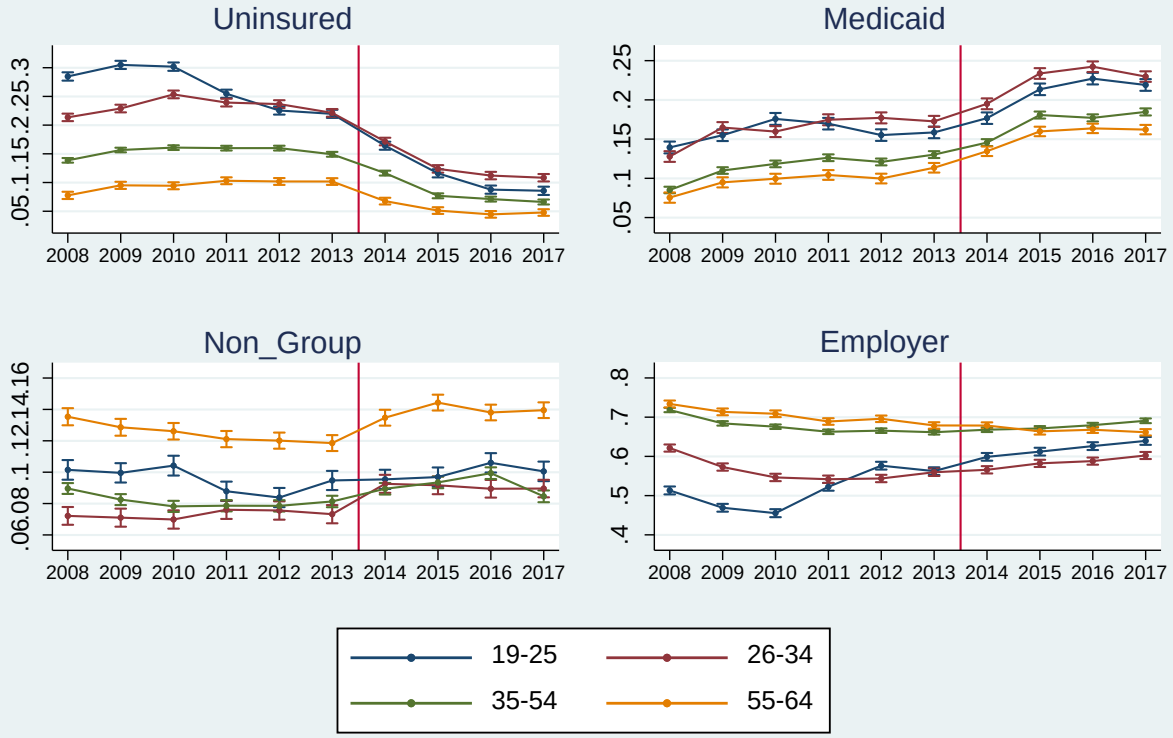
B. CHANGES OVER TIME IN MICHIGAN FOR ADULTS AGES 19 THROUGH 64 IN SUBGROUPS DEFINED BY AGE, INCOME, RACE/ETHNICITY, AND GEOGRAPHIC REGION

Hypothesis II.1B	The uninsured population in Michigan will decrease *more for subgroups with higher than average baseline rates of uninsurance than for subgroups with lower than average baseline rates.*
Hypothesis II.2B	The Medicaid population in Michigan will increase *more for subgroups with higher than average baseline rates of uninsurance than for subgroups with lower than average baseline rates.*

Figures 2 through 4 are constructed similarly to Figure 1 but focus on changes in coverage over time for different subgroups of Michigan adults ages 19 through 64. These subgroup results show that reductions in uninsurance and gains in Medicaid were generally the largest for the subgroups with the lowest initial rates of coverage, consistent with Hypotheses II.1B and II.2B.

Figure 2 presents trends for subgroups of Michigan residents defined by age: 19-25, 26-34, 35-54, and 55-64. Prior to 2014, younger adults were more likely to be uninsured than older adults. The youngest adults – those ages 19 to 25 – had very high rates of uninsurance: approximately 30 percent in 2009 and 2010. In 2011, the fraction uninsured for individuals ages 19 through 25 dropped by five percentage points, thanks to a large increase in employer-sponsored coverage. This change was very likely due to the Affordable Care Act provision that allowed young adults to remain on their parents' employer-sponsored plans through age 25.

Figure 2: Insurance coverage in Michigan by age, 2008 - 2017
Adults ages 19-64



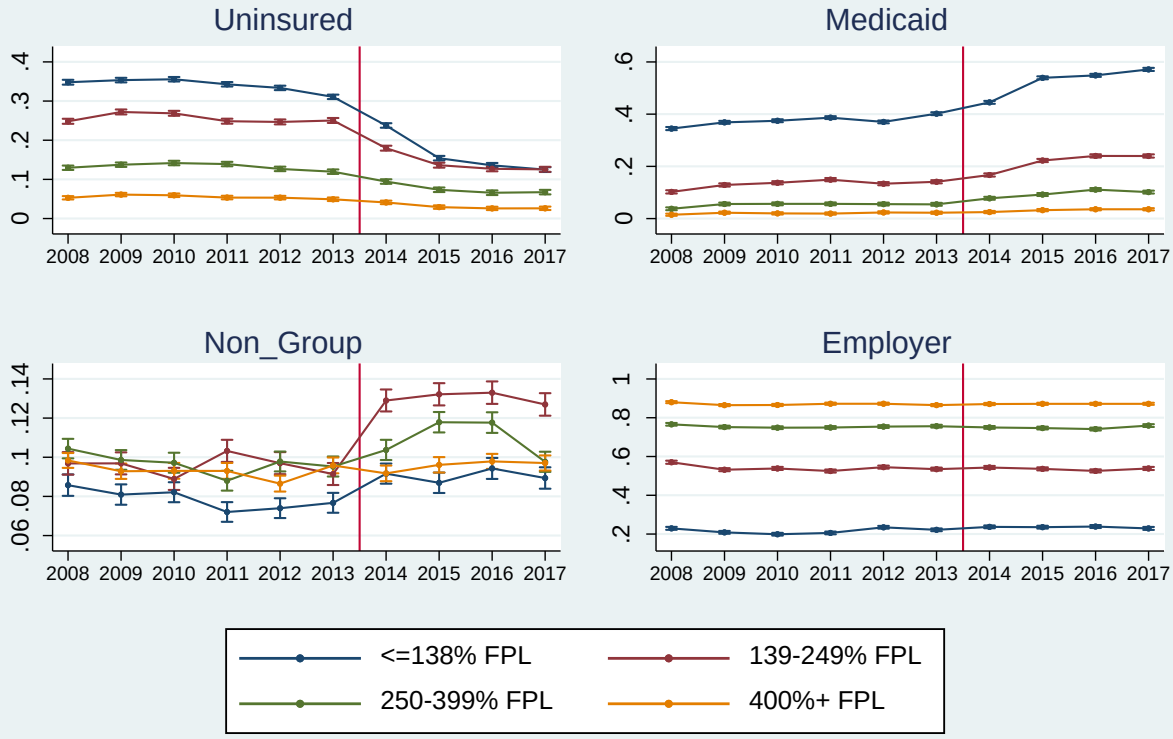
Source: American Community Survey

As a result of this convergence, in 2011, 2012, and 2013, the youngest adults (ages 19 to 25) had rates of coverage similar to those ages 26 to 34, while both groups of older adults had even lower rates of uninsurance. In 2014, both Medicaid and non-group coverage increased for all age groups; increases were very slightly larger, in percentage point terms, for younger adults than for older ones. Younger adults also experienced continued gains in Medicaid in 2016 while older adults did not. Because of all these changes, the age gradient in coverage dropped substantially between 2013 and 2017. In 2013, the uninsured rate for the youngest adults (ages 19 through 25) was 22.6 percent: more than 12 percentage points higher than the rate for the oldest adults in our sample (ages 55 through 64) of 10.2 percent. By 2017, while younger adults still had a higher rate of uninsurance than older adults, the difference had dropped to less than four percentage points (8.6 percent versus 4.8 percent), as shown in Figure 2.

Figure 3 presents results for groups defined by income. Here, too, we see a convergence in the fraction uninsured as the groups with the highest rates of uninsurance at the outset experience the greatest increases in coverage. Among adults below 138 percent of the Federal Poverty Level (reflecting the Healthy Michigan Plan income eligibility threshold of 133 percent plus a 5% income disregard) – about the lowest one-fifth of the income distribution – Medicaid coverage

increased from 40.2 percent to 57.2 percent between 2013 and 2017. Between 2013 and 2014, non-group insurance increased primarily for the two middle-income groups (with incomes between 139 and 399 percent of poverty) who were newly eligible for subsidized private insurance through the federal-state insurance exchange in Michigan.

Figure 3: Insurance coverage in Michigan by family income, 2008 - 2017
Adults ages 19-64

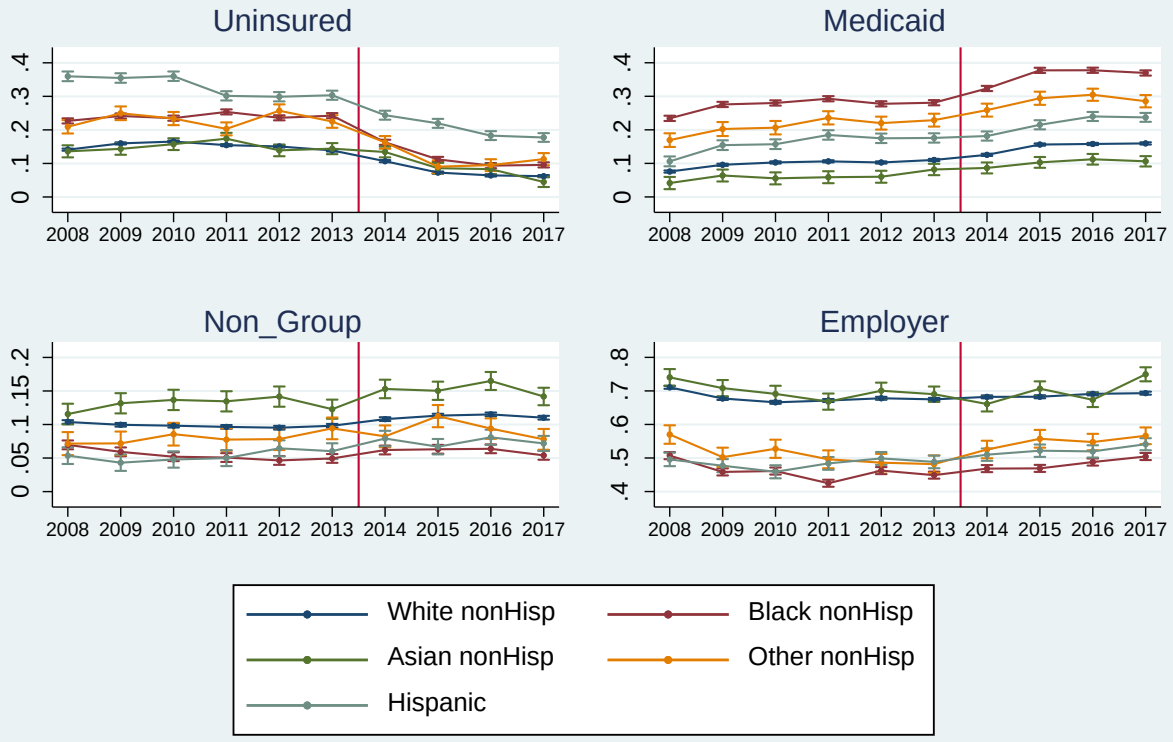


Source: American Community Survey

As a result of both increases in Medicaid and private non-group coverage, Michigan adults at all income levels experienced declines in uninsurance in 2014 and later. The most sizeable drops, however, occurred for those with lower incomes, who had the highest rates of uninsurance to begin with. Uninsurance among the poorest Michigan adults was cut by half or more between 2013 and 2017: from 31.1 percent to 12.3 percent for those with incomes less than or equal to 138 percent of poverty and from 25.0 percent to 12.6 percent for those with incomes between 139 and 249 percent of poverty. The striking and persistent income disparity in coverage that was evident in 2008 through 2013 has been substantially compressed by 2017; indeed, in 2017, rates of uninsurance for the lowest income group (≤138% FPL) were indistinguishable from the rate for those with incomes between 139 and 249 percent of poverty.

Figure 4 shows trends in coverage for subgroups of Michigan adults defined by race/ethnicity: four groups of non-Hispanics – white, black, Asian, and other – and Hispanics, who may be any race. While there are clear differences in coverage between racial/ethnic groups at any point in time – for example, blacks consistently have the highest rates of Medicaid coverage, and Hispanics consistently have the highest rates of uninsurance – all groups experienced significant increases in Medicaid and declines in uninsurance in 2014 and later. As a result, existing racial and ethnic disparities in uninsurance were somewhat smaller in 2017 than in the years before 2014, but were not erased.

Figure 4: Insurance coverage in Michigan by race/ethnicity, 2008 - 2017
Adults ages 19-64



Source: American Community Survey

Results by geographic region are presented in Table 1 and Figures 5 and 6. Table 1 ranks the state's prosperity regions by the fraction uninsured in 2013 and reports the fractions uninsured and with Medicaid in 2013 and 2017.[5]

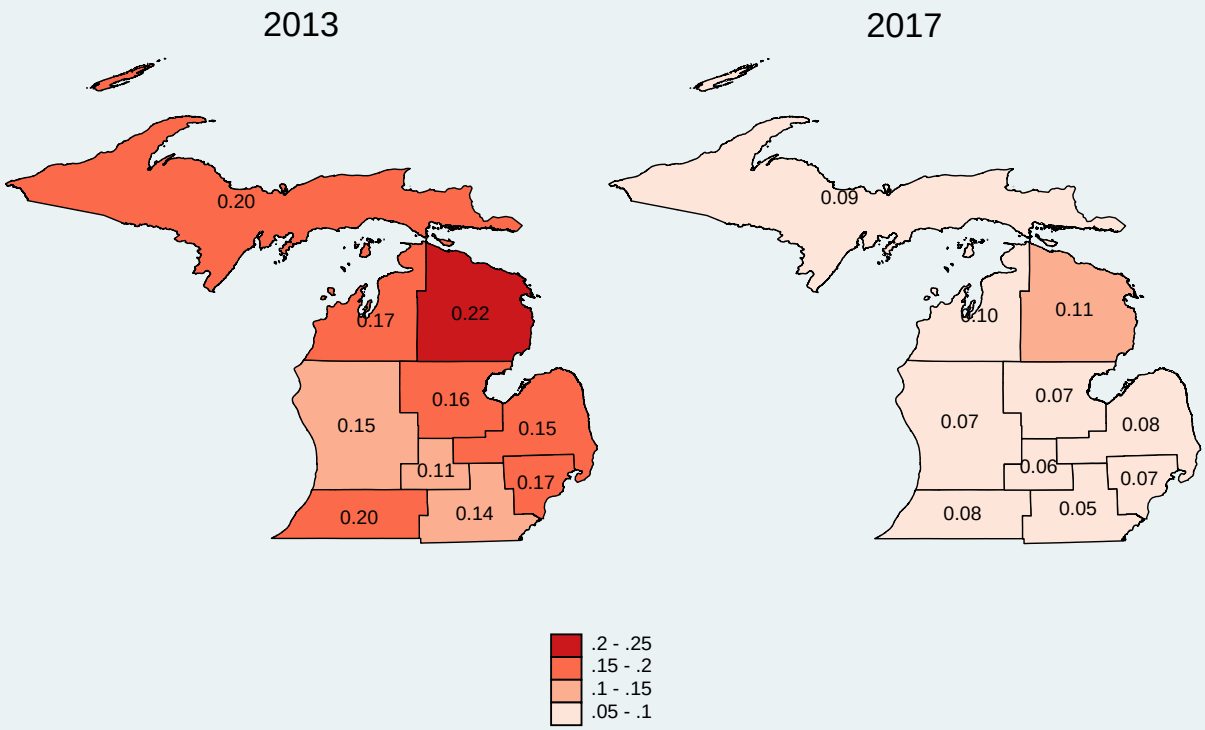
[5] Additional information on prosperity regions, including a listing of the counties included in each region, can be found here: https://www.michigan.gov/dtmb/0,5552,7-358-82547_56345_66155---,00.html

Table 1
Changes in fraction uninsured and with Medicaid, 2013-2017, by Michigan prosperity region

	Uninsured			Medicaid		
	2013	2017	Change, 2017-2013	2013	2017	Change, 2017-2013
1. Northeast	0.223	0.106	-0.117	0.181	0.270	0.089
2. Upper Peninsula	0.198	0.086	-0.112	0.127	0.218	0.091
3. Southwest	0.197	0.083	-0.115	0.132	0.180	0.048
4. Northwest	0.174	0.099	-0.075	0.125	0.209	0.084
5. Detroit Metro	0.169	0.071	-0.098	0.142	0.202	0.060
6. East Central	0.160	0.075	-0.085	0.157	0.224	0.067
7. East	0.154	0.080	-0.074	0.183	0.251	0.068
8. West	0.149	0.073	-0.076	0.123	0.162	0.038
9. Southeast	0.136	0.052	-0.084	0.098	0.142	0.044
10. South Central	0.115	0.059	-0.056	0.148	0.162	0.014

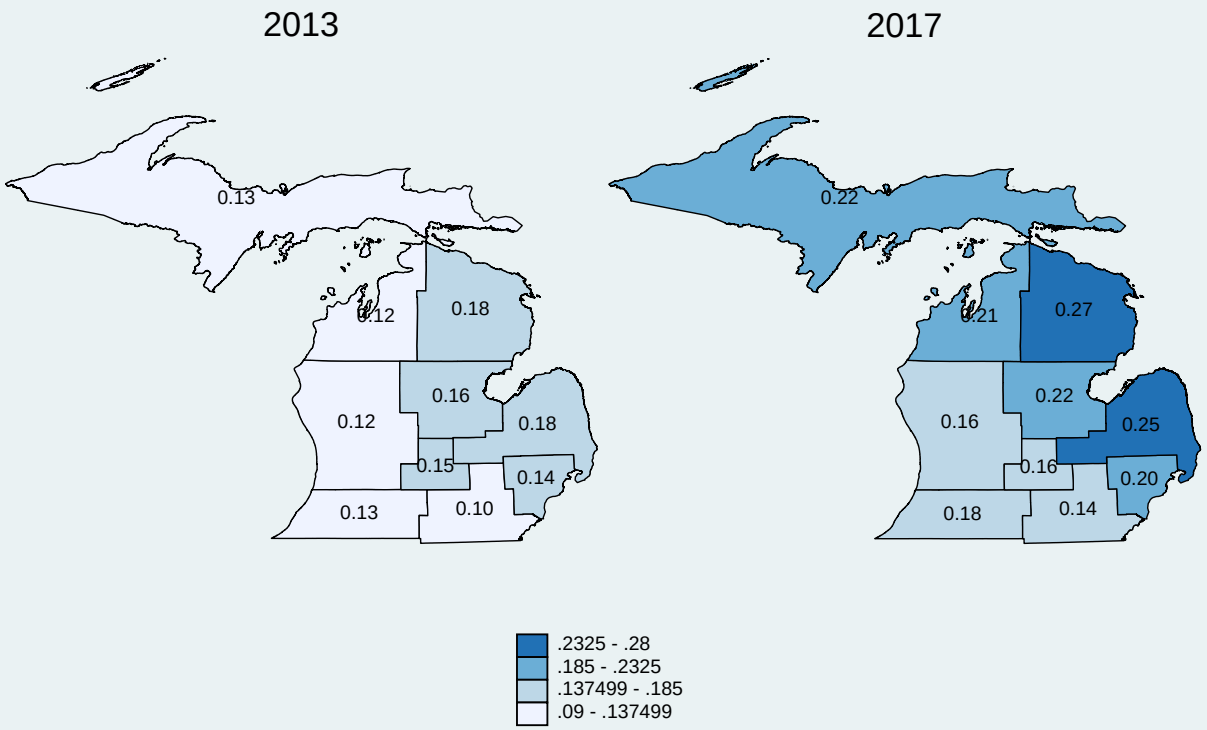
The data indicate that all regions of the state experienced reductions in uninsurance and significant increases in Medicaid between 2013 and 2017. The largest declines in uninsurance occurred in the regions with the highest rates of uninsurance at the outset: the Northeast (Region 3), where uninsurance dropped from 22.3 percent in 2013 to 10.6 percent in 2017; the Upper Peninsula (Region 1), where uninsurance dropped from 19.8 to 8.6 percent; and the Southwest (Region 8), where uninsurance dropped from 19.7 percent to 8.3 percent. Even the region with the lowest rate of uninsurance prior to expansion – the South Central region (Region 7), with 11.5 percent uninsured in 2013 – saw this rate cut approximately in half by 2017.

Figure 5: Fraction Uninsured in Michigan by Prosperity Region
All adults ages 19 - 64



Increases in Medicaid over this period ranged from a one percentage point increase in the South Central region, where Medicaid coverage increased from 15 to 16 percent of the adult population, to 9 percentage point gains in both the Upper Peninsula and the Northeast region.

Figure 6: Fraction with Medicaid in Michigan by Prosperity Region
All adults ages 19 - 64



C. CHANGES OVER TIME AMONG MICHIGAN ADULTS AGES 19 THROUGH 64 COMPARED TO STATES THAT DID NOT EXPAND THEIR MEDICAID PROGRAMS

Hypothesis II.1C	The uninsured population in Michigan will decrease significantly *relative to states that did not expand their Medicaid programs.*
Hypothesis II.2C	The Medicaid population in Michigan will increase significantly *relative to states that did not expand their Medicaid programs.*

The results presented in the previous section document significant gains in coverage in Michigan in 2014 and 2015 that were maintained in 2016 and 2017. How much of the substantial gain in coverage can be attributed to the Healthy Michigan Plan as opposed to the impact of the ACA's private coverage reforms or other factors such as the ongoing economic recovery following the Great Recession and the increasing strength of the labor market in 2017? In order to address this question, we compare trends in Michigan with trends in states

that had not expanded their Medicaid programs as of 2017. Table 2 summarizes which states are considered non-expansion or expansion for purposes of our analysis.

Table 2. State Medicaid Expansion summary

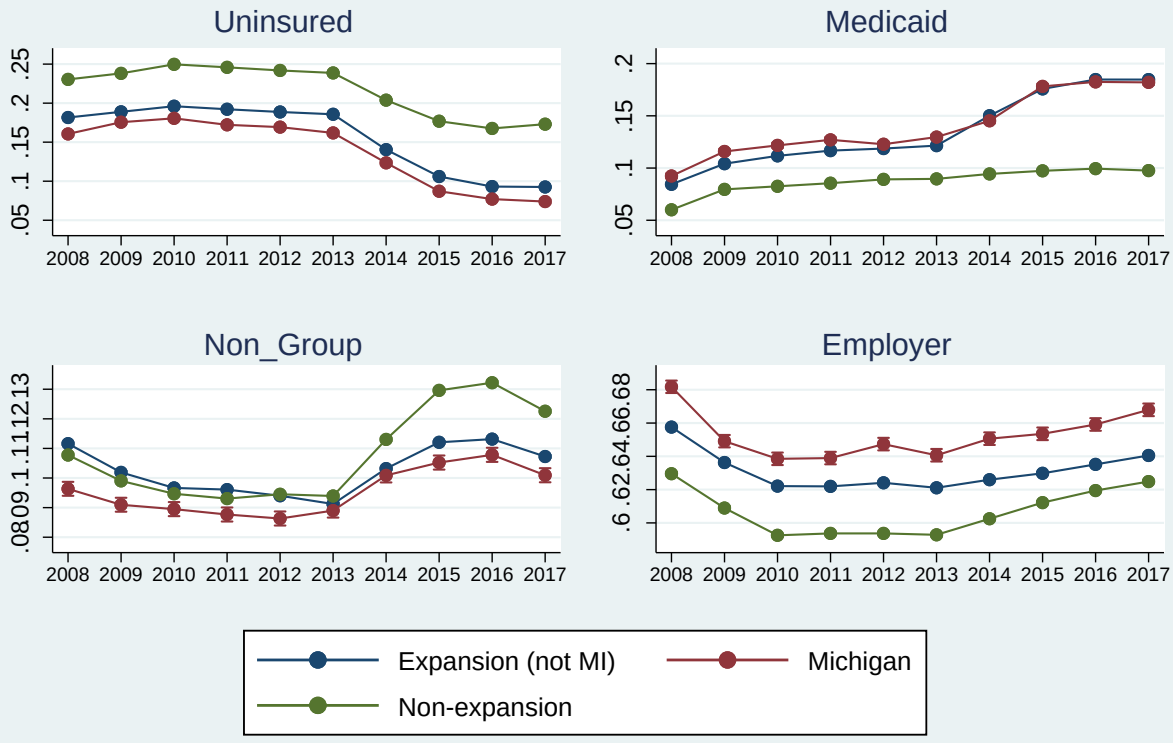
Expansion states (n=31 states + DC)	
Implemented in 2014 (n=27)	AR AZ CA CO CT DC DE HI IA IL KY MA MD MI MN ND NH NJ NM NV NY OH OR RI VT WA WV
Implemented in 2015 (n=3)	PA IN AK
Implemented in 2016 (n=2)	MT LA
Non-expansion states (n=19 as of 10/2018)	AL FL GA ID KS ME MO MS NC NE OK SC SD TN TX UT VA WI WY

Notes: Data are summarized from https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/. Note that Maine, Virginia, Utah, North Dakota, and Idaho approved Medicaid expansion in 2017 or 2018 but those programs have not yet been implemented so they are treated as non-expansion states for purposes of our analysis, which uses data through 2017.

Figure 7 presents trends in coverage from 2008 through 2016 for three groups of adults: Michigan residents, residents of the 31 other expansion states, and residents of the 19 states that had not implemented Medicaid expansion as of December 2017. Prior to 2014, Michigan had lower rates of uninsurance than either other expansion states or non-expansion states; however, the patterns over time for the three groups of states were similar, with trends moving in parallel. Beginning in 2014, uninsurance dropped sharply in all three groups of states, with slightly larger declines in Michigan and other expansion states. These declines in uninsurance were driven by a sharp increase in Medicaid in Michigan and other expansion states. All states also experienced increases in non-group coverage; non-expansion states experienced significantly larger increases in non-group coverage than did Michigan and other expansion states, somewhat offsetting the Medicaid gains. All states also experienced increases in employer-sponsored coverage in 2014 and later. These trends – specifically, the fact that non-expansion states also saw large gains in insurance coverage – underscore the importance of having a comparison group to help determine what would have happened in Michigan in the absence of the Healthy Michigan Plan, in order to estimate the impact of this program.

Figure 7: Insurance coverage by state Medicaid status

Adults ages 19-64



Source: American Community Survey

In order to use non-expansion states as a comparison for estimating the *additional* effect of the Healthy Michigan Plan, we use multivariable regression analyses. These regression analyses allow us to measure whether the gap between the Michigan line and the line for the non-expansion states in Figure 7 is bigger in 2014, 2015, 2016, and 2017 than in the years before 2014. At the same time, the regression analyses allow us to control for other factors that may influence trends in coverage over time, such as individual levels of education or the state-level unemployment rate. We implement these regression analyses by retaining only observations for Michigan and non-expansion states and estimate a set of regression models of the following form:

$$(1)\ Y_{ist} = \alpha_0 + \sum_{2009}^{2017} \alpha_{1t} YEAR_t + \sum_{2009}^{2017} \alpha_{2t} YEAR_t \cdot MICHIGAN + \alpha_3 \cdot STATE + \alpha_4 X_{ist} + \alpha_5 UNEMPLOYMENT\ RATE_{st} + e_{ist}$$

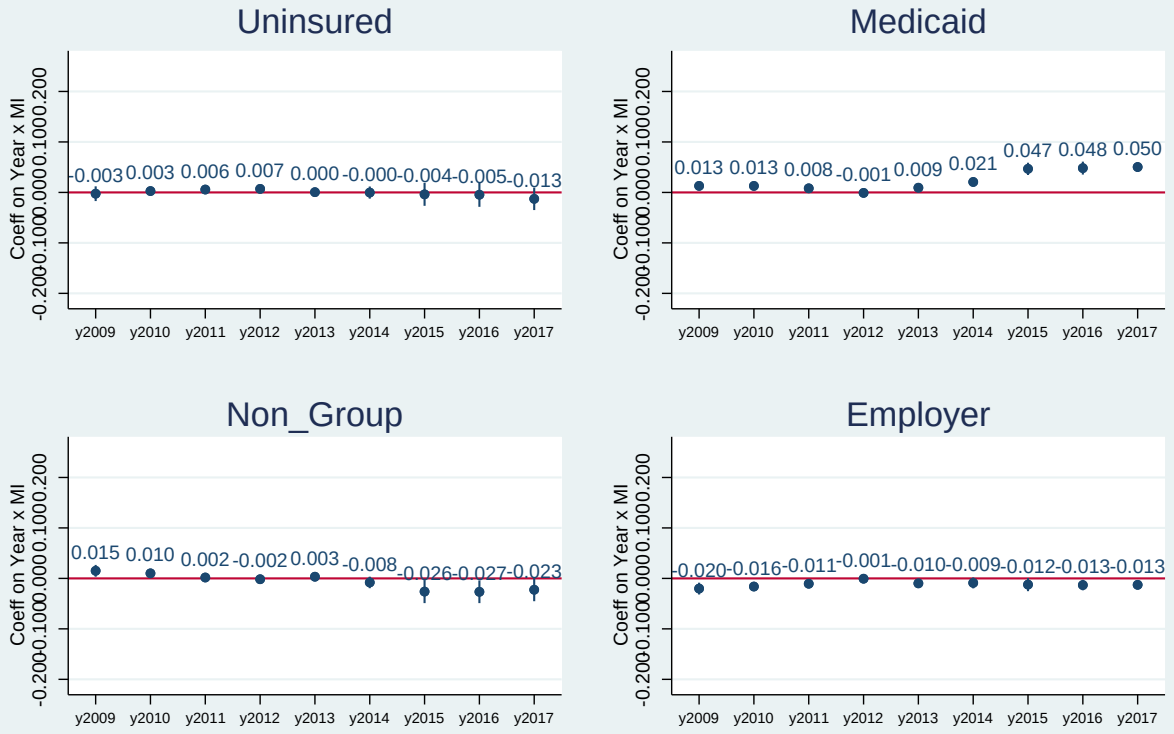
We estimate four regression models, corresponding to the four different insurance outcomes presented in Figure 7. That is, in the first model, the outcome variable *Y* for each observation is equal to 1 if the individual is uninsured and is equal to zero otherwise; the other models are structured similarly for the outcomes Medicaid, private non-group coverage, and employer coverage. Explanatory variables in the model include a vector of year dummies; a vector of state dummies; a vector of individual-level controls X_{ist} that includes age, education, race/ethnicity, gender, marital status, the interaction of gender and marital status, and an indicator for employment. The regressions also control for the state-level unemployment rate in each year. These models are estimated using linear probability models and are weighted using sampling weights provided on the ACS public use file.

The key explanatory variables in the model are the interactions between the indicator variable for Michigan residents and the indicator variables for each year. These interaction terms measure how much the gap between Michigan and the non-expansion states changed over time, relative to the gap in 2008. In Figure 8, we plot the coefficients on the $YEAR_t$ *x MICHIGAN* dummies from each of the four models, with vertical lines showing 95% confidence intervals. Full results from these models (that is, the complete set of coefficients and standard errors, including all explanatory variables) are reported in Table A3 in the Appendix.

Figure 8 shows that the percentage point difference in the percentage of non-elderly adults who were uninsured between Michigan and non-expansion states has remained essentially constant over time, at about 7 percentage points. The estimated coefficient on the interaction term for 2017 implies that between 2008 and 2017, the uninsured rate fell by 1.3 percentage points more in Michigan than in non-expansion states. However, this estimate is not significantly different from zero.

Figure 8: Michigan vs. Non-Expansion States

Adults ages 19-64, covariate-adjusted



Source: American Community Survey

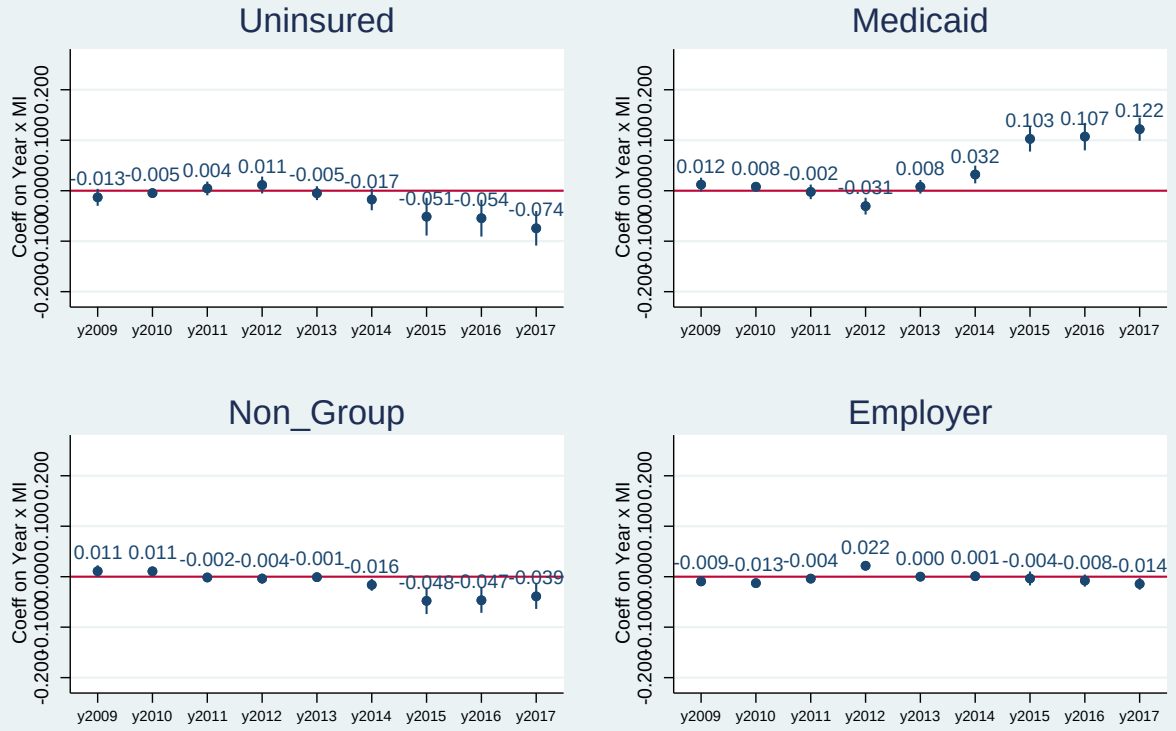
Figure 8 also shows that rates of Medicaid coverage increased more in Michigan than in non-expansion states following the implementation of the Healthy Michigan Plan. By 2017, the difference in Medicaid enrollment between Michigan and non-expansion states had grown by five percentage points. This implies that the Healthy Michigan Plan increased Medicaid coverage among non-elderly adults in the state by five percentage points relative to non-expansion states. These gains, however, were mostly offset by slightly larger gains of one to two percentage points in private non-group coverage and employer coverage in non-expansion states compared to Michigan, leading to the insignificant effect of the Healthy Michigan Plan on uninsurance noted in the previous paragraph.

We also ran a set of models restricting the sample to adults ages 19 to 64 with incomes less than or equal to 138 percent of the Federal Poverty Level (FPL). Key coefficients on the $YEAR_t$ *x MICHIGAN* dummies from each of the four models are plotted in Figure 9. This figure shows significant declines in uninsurance and significant gains in Medicaid for the low-income population as a result of the Healthy Michigan Plan. In 2017, a 12-percentage-point gain in Medicaid coverage among low-income adults as a result of the Healthy Michigan Plan

translated into a 7.4 percentage point reduction in the rate of uninsurance for that group. Therefore, while the Healthy Michigan Plan may not have translated into a significant reduction in the fraction uninsured when measured among all adults ages 19 to 64 in Michigan, it did so for those with family with incomes below 138 percent of the FPL.

Figure 9: Michigan vs. Non-Expansion States

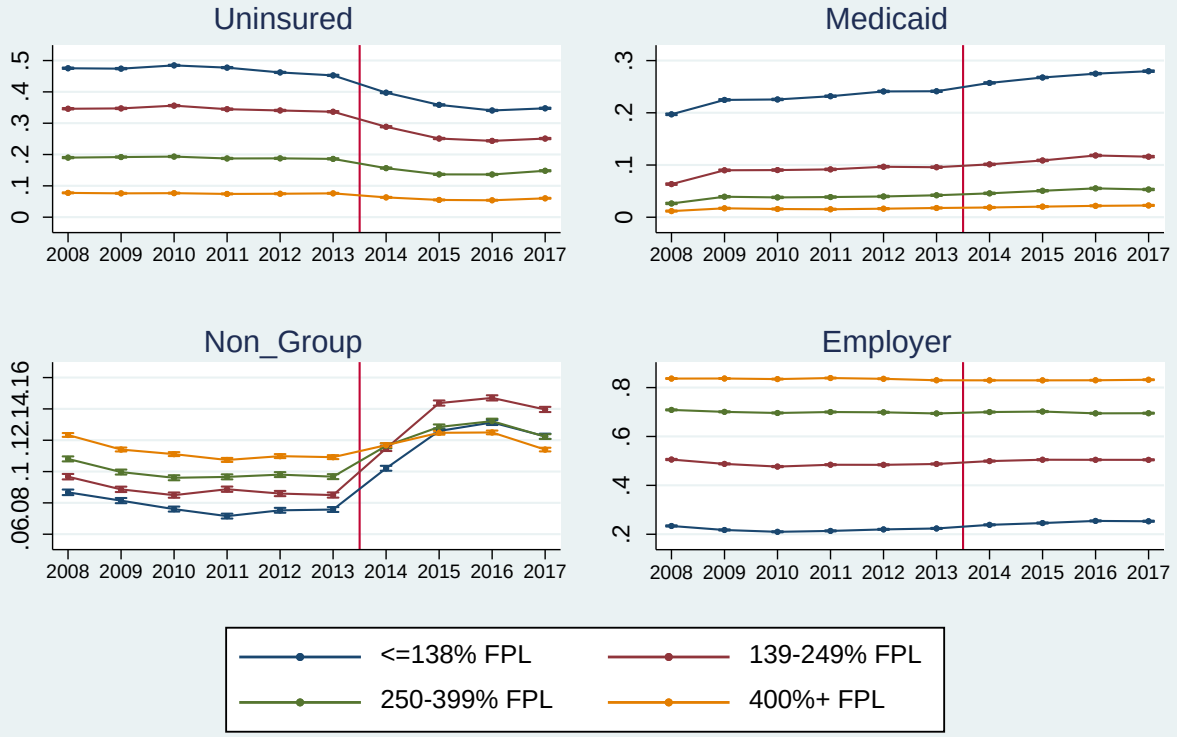
Adults ages 19-64 below 138% FPL, covariate-adjusted



Source: American Community Survey

Consistent with the significant gains in coverage for the low-income population as a result of the Healthy Michigan Plan, we note that non-expansion states experienced a much smaller reduction in coverage gradients with respect to income than were evident for Michigan in Figure 3 above. Figure 10 shows changes in coverage in non-expansion states for subgroups defined by income (that is, it is the same as Figure 3, but for non-expansion states instead of just for Michigan). Comparing Figure 10 with Figure 3 shows that Michigan achieved far greater reductions in inequality of health insurance coverage across income groups than non-expansion states did, suggesting this finding is a direct result of the Healthy Michigan Plan.

Figure 10: Insurance coverage in non-expansion states by family income
Adults ages 19-64



Source: American Community Survey

D. CHANGES OVER TIME AMONG MICHIGAN ADULTS AGES 19 THROUGH 64 COMPARED TO OTHER STATES THAT EXPANDED THEIR MEDICAID PROGRAMS

Hypothesis II.1D	The uninsured population in Michigan will decrease to a similar degree *relative to states that did expand their Medicaid programs.*
Hypothesis II.2D	The Medicaid population in Michigan will increase to a similar degree *relative to states that did expand their Medicaid programs.*

Finally, we compare Michigan to other expansion states. In order to do this, we retain only observations for Michigan and other expansion states and estimate a set of regression models based on equation (1) above. In this case, the coefficients on the $YEAR_t$ *x MICHIGAN* dummies measure how the gap between Michigan and other expansion states changed between 2008 and later years. These coefficients are plotted in Figure 11. The results are consistently insignificant, as might have been expected from Figure 7, which shows very similar trends in

Michigan and other non-expansion states. Thus, we conclude that trends in uninsurance and Medicaid coverage in Michigan were very similar to those observed in other expansion states.

Figure 11: Michigan vs. Other Expansion States

Adults ages 19-64, covariate-adjusted

Source: American Community Survey

Repeating the same exercise using only low-income individuals also shows that trends in Michigan for this population are not significantly different from those in other expansion states (Figure 12).

Figure 12: Michigan vs. Expansion States

Adults ages 19-64 below 138% FPL, covariate-adjusted

Source: American Community Survey

CONCLUSION

Our analysis shows that Medicaid coverage among non-elderly adults in Michigan increased by 5 percentage points between 2013 and 2017, from 14 percent to 19 percent. Uninsurance was cut in half over the same period, dropping from 16 percent to 7 percent. Gains in coverage were largest among lower-income Michiganders. Among non-elderly adults in families with incomes below 138 percent of the federal poverty level, uninsurance fell by 17 percentage points, dropping from 31 percent to 13 percent. Coverage increased in every one of the state's 10 prosperity regions, with the largest overall gains in coverage occurring in the regions that had the lowest levels of coverage at the outset: the Upper Peninsula (Region 1) and the Northeast Region (Region 3).

Not all of these gains in coverage are directly attributable to the Healthy Michigan Plan; other ACA programs and the improving economy likely contributed as well. In order to isolate the effect of the Healthy Michigan Plan, we compared Michigan to states that did not expand their Medicaid programs. Based on this comparison, we conclude that the Healthy Michigan Plan increased Medicaid coverage among all non-elderly adults in Michigan by 5 percentage points

(a statistically significant increase) and reduced uninsurance by 1 percentage point in 2017 (a statistically insignificant change). Among non-elderly adults with family incomes below 138 percent of the federal poverty level in 2017, the Healthy Michigan Plan increased Medicaid coverage by 12 percentage points and reduced uninsurance by 7 percentage points (both statistically significant changes). We also compared Michigan to other states that did expand their Medicaid programs. Based on this comparison, we conclude that the Healthy Michigan Plan achieved coverage gains that were about the same as those observed in other expansion states.

Appendix tables

Table A1: Unweighted sample sizes in ACS data
Adults ages 19-64 with non-missing income

	State Medicaid expansion status			
	Expansion (other than MI)	Michigan	Non-expansion	Total
2008	1,034,348	58,191	657,903	1,750,442
2009	1,044,889	57,915	665,247	1,768,051
2010	1,059,613	57,690	672,927	1,790,230
2011	1,057,481	57,235	663,586	1,778,302
2012	1,057,418	56,730	664,458	1,778,606
2013	1,064,028	57,138	670,406	1,791,572
2014	1,058,468	56,156	668,358	1,782,982
2015	1,058,741	55,700	670,600	1,785,041
2016	1,054,648	55,836	670,119	1,780,603
2017	1,061,785	55,894	679,951	1,797,630
Total	10,551,419	568,485	6,683,555	17,803,459

Note: See Table 1 for a listing of which states are considered expansion versus non-expansion.

Table A2: Trends in Insurance Coverage, 2008 – 2017
Adults ages 19 through 64 with non-missing income
American Community Survey
(Data underlying Figure 1 and Figure 7)

	Expansion states other than MI	Michigan	Non-expansion states
Uninsured			
2008	0.181	0.162	0.230
2009	0.189	0.180	0.238
2010	0.196	0.184	0.250
2011	0.192	0.176	0.246
2012	0.189	0.171	0.242
2013	0.186	0.162	0.239
2014	0.140	0.123	0.204
2015	0.106	0.086	0.177
2016	0.093	0.075	0.168
2017	0.093	0.073	0.173
Medicaid			
2008	0.084	0.099	0.060
2009	0.104	0.123	0.080
2010	0.111	0.130	0.083
2011	0.116	0.137	0.086
2012	0.118	0.131	0.089
2013	0.121	0.138	0.090
2014	0.150	0.157	0.094
2015	0.175	0.191	0.097
2016	0.184	0.194	0.099
2017	0.184	0.193	0.098
Private Non-Group			
2008	0.111	0.097	0.108
2009	0.102	0.092	0.099
2010	0.097	0.091	0.095
2011	0.096	0.089	0.093
2012	0.094	0.088	0.095
2013	0.091	0.091	0.094
2014	0.103	0.101	0.113
2015	0.112	0.105	0.130
2016	0.113	0.108	0.132
2017	0.107	0.101	0.123

Table continues on next page

Table A2 (continued): Trends in Insurance Coverage, 2008 – 2017
Adults ages 19 through 64 with non-missing income
American Community Survey
(Data underlying Figure 1 and Figure 7)

	Expansion states other than MI	Michigan	Non-expansion states
Employer-Sponsored Coverage			
2008	0.658	0.674	0.630
2009	0.637	0.638	0.609
2010	0.623	0.628	0.593
2011	0.623	0.626	0.594
2012	0.625	0.638	0.594
2013	0.622	0.632	0.593
2014	0.627	0.642	0.603
2015	0.630	0.644	0.612
2016	0.636	0.652	0.619
2017	0.641	0.659	0.625

Table A3: Full results of regression models, MI vs. all non-expansion states
Results are presented as coefficient with standard error below in parentheses

	All adults ages 19-64				Low-income adults ages 19-64			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Uninsured	Medicaid	Non_Group	Employer	Uninsured	Medicaid	Non_Group	Employer
MI x y2009	-0.00257	0.0130***	0.0150*	-0.0202**	-0.0127	0.0103	0.0110	-0.00813*
	(0.00698)	(0.00257)	(0.00557)	(0.00558)	(0.00773)	(0.00641)	(0.00550)	(0.00349)
MI x y2010	0.00267	0.0128***	0.00999***	-.0161***	-0.00399	0.00637	0.0103***	-.0119***
	(0.00293)	(0.00156)	(0.00160)	(0.00336)	(0.00294)	(0.00351)	(0.00240)	(0.00188)
MI x y2011	0.00568*	0.00814*	0.00175	-0.0106**	0.00489	-0.00399	-0.00211	-0.00218
	(0.00265)	(0.00296)	(0.00307)	(0.00318)	(0.00656)	(0.00694)	(0.00308)	(0.00392)
MI x y2012	0.00697	-0.000936	-0.00164	-0.000661	0.0123	-0.0313***	-0.00452	0.0219***
	(0.00351)	(0.00355)	(0.00330)	(0.00352)	(0.00802)	(0.00804)	(0.00450)	(0.00396)
MI x y2013	0.000475	0.00934**	0.00333	-0.00979*	-0.00392	0.00648	-0.00111	-0.000134
	(0.00224)	(0.00279)	(0.00181)	(0.00367)	(0.00663)	(0.00650)	(0.00260)	(0.00248)
MI x y2014	-0.000343	0.0207***	-0.00803	-0.00890	-0.0184	0.0325**	-0.0168**	0.00221
	(0.00573)	(0.00407)	(0.00545)	(0.00518)	(0.0102)	(0.00847)	(0.00558)	(0.00408)
MI x y2015	-0.00384	0.0467***	-0.0262*	-0.0123	-0.0505*	0.103***	-0.0496***	-0.00295
	(0.0108)	(0.00580)	(0.0109)	(0.00622)	(0.0179)	(0.0123)	(0.0124)	(0.00671)
MI x y2016	-0.00461	0.0482***	-0.0266*	-0.0132*	-0.0530**	0.107***	-0.0477***	-0.00763
	(0.0114)	(0.00612)	(0.0107)	(0.00495)	(0.0175)	(0.0131)	(0.0119)	(0.00577)

MI x y2017	-0.0127	0.0503***	-0.0225	-0.0127**	-0.0738***	0.121***	-0.0397**	-0.0141*
	(0.0106)	(0.00469)	(0.0109)	(0.00406)	(0.0163)	(0.0110)	(0.0118)	(0.00560)
year2009	-0.0164	0.0311***	0.00935	-0.0232*	-0.0380*	0.0574***	0.0113	-0.0225**
	(0.0120)	(0.00511)	(0.0101)	(0.00819)	(0.0164)	(0.0111)	(0.0114)	(0.00742)
year2010	-0.00950	0.0330***	0.00620	-0.0341**	-0.0307	0.0605***	0.00619	-0.0274**
	(0.0128)	(0.00609)	(0.0113)	(0.00884)	(0.0181)	(0.0136)	(0.0119)	(0.00831)
year2011	-0.00943	0.0332***	0.000681	-.0303***	-0.0304	0.0610***	-0.00164	-0.0220**
	(0.0102)	(0.00550)	(0.00942)	(0.00755)	(0.0155)	(0.0125)	(0.00996)	(0.00753)
year2012	-0.00653	0.0328***	-0.00397	-.0277***	-0.0318*	0.0620***	-0.00455	-0.0158*
	(0.00688)	(0.00473)	(0.00619)	(0.00517)	(0.0121)	(0.0105)	(0.00745)	(0.00564)
year2013	-0.00555	0.0308***	-0.00850*	-.0267***	-0.0319**	0.0568***	-0.00868	-0.0116**
	(0.00344)	(0.00362)	(0.00349)	(0.00413)	(0.00907)	(0.00814)	(0.00428)	(0.00353)
year2014	-0.0343***	0.0319***	0.00507	-0.0146*	-0.0758***	0.0640***	0.0122**	0.00538
	(0.00417)	(0.00327)	(0.00328)	(0.00532)	(0.00727)	(0.00669)	(0.00344)	(0.00333)
year2015	-0.0566***	0.0328***	0.0174***	-0.00382	-0.108***	0.0700***	0.0317***	0.0151**
	(0.00535)	(0.00357)	(0.00383)	(0.00743)	(0.00801)	(0.00829)	(0.00511)	(0.00527)
year2016	-0.0630***	0.0348***	0.0181***	0.00228	-0.122***	0.0736***	0.0349***	0.0261***
	(0.00525)	(0.00344)	(0.00268)	(0.00630)	(0.00638)	(0.00876)	(0.00362)	(0.00325)
year2017	-0.0530***	0.0319***	0.00500*	0.00712	-0.107***	0.0732***	0.0223***	0.0252***
	(0.00514)	(0.00198)	(0.00225)	(0.00705)	(0.00417)	(0.00549)	(0.00309)	(0.00374)

Single male		Omitted (base category)					Omitted (base category)	
Male X married	-0.116*** (0.00656)	-0.00736** (0.00257)	-0.00444* (0.00185)	0.152*** (0.00770)	-0.0906*** (0.0108)	0.0453*** (0.00968)	0.00141 (0.00238)	0.0676*** (0.00496)
Female X single	-0.0517*** (0.00482)	0.0730*** (0.00725)	-.00457*** (0.00106)	0.000516 (0.00391)	-0.0953*** (0.00795)	0.119*** (0.0118)	-0.00634** (0.00197)	0.0104** (0.00313)
Female X married	-0.128*** (0.00600)	-0.0301*** (0.00328)	-0.00275 (0.00231)	0.198*** (0.00505)	-0.0729*** (0.0140)	0.0138 (0.0127)	0.00782* (0.00324)	0.0998*** (0.00503)
White non-Hispanic		Omitted (base category)					Omitted (base category)	
Black non-Hispanic	0.0238*** (0.00303)	0.0543*** (0.00540)	-0.0323*** (0.00247)	-.0366*** (0.00400)	-0.00757 (0.00484)	0.0737*** (0.00552)	-0.0392*** (0.00282)	-0.0176** (0.00464)
Asian non-Hispanic	0.0518*** (0.00488)	-0.0153** (0.00486)	0.0417*** (0.00439)	-.0696*** (0.00799)	0.0420*** (0.00790)	-0.0763*** (0.0114)	0.0801*** (0.00759)	-0.0257* (0.00930)
Other non-Hispanic	0.0610*** (0.0128)	0.0322*** (0.00605)	-0.0228*** (0.00419)	-0.0673*** (0.00912)	0.0507** (0.0162)	0.0411*** (0.00867)	-0.0381*** (0.00460)	-0.0538*** (0.00842)
Hispanic (any race)	0.187*** (0.0152)	-0.0204* (0.00911)	-0.0286*** (0.00403)	-0.141*** (0.00519)	0.208*** (0.0209)	-0.0796** (0.0219)	-0.0420*** (0.00241)	-0.0863*** (0.00416)
Age 19-25		Omitted (base category)					Omitted (base category)	

Age 26-34	0.0352***	0.0417***	-0.0226***	-.0747***	0.0779***	0.0860***	-0.0424***	-0.142***
	(0.00366)	(0.00500)	(0.00212)	(0.00628)	(0.00535)	(0.0136)	(0.00325)	(0.0105)
Age 35-54	-0.0164*	0.0264***	-.00798***	-.0278***	0.0490***	0.0745***	-0.0281***	-0.135***
	(0.00636)	(0.00253)	(0.00204)	(0.00592)	(0.00784)	(0.00890)	(0.00295)	(0.0107)
Age 55-64	-0.0815***	0.00334	0.0316***	0.00539	-0.0607***	0.0646***	0.0182***	-0.113***
	(0.00959)	(0.00599)	(0.00144)	(0.00574)	(0.0145)	(0.0110)	(0.00264)	(0.0101)
Non-worker		Omitted (base category)				Omitted (base category)		
Worker	-0.0726***	-0.166***	-0.0217***	0.297***	0.0426***	-0.182***	0.00812***	0.170***
	(0.00428)	(0.00798)	(0.00126)	(0.00585)	(0.00395)	(0.00669)	(0.00206)	(0.00677)
Education < high school		Omitted (base category)				Omitted (base category)		
Education = High school	-0.117***	-0.0698***	0.0243***	0.164***	-0.0348***	-0.0526***	0.0196***	0.0624***
	(0.0127)	(0.0110)	(0.00243)	(0.00732)	(0.00729)	(0.0107)	(0.00303)	(0.00198)
Education = Some coll.	-0.198***	-0.107***	0.0449***	0.264***	-0.121***	-0.102***	0.0604***	0.158***
	(0.0175)	(0.0120)	(0.00234)	(0.00971)	(0.0106)	(0.0115)	(0.00393)	(0.00447)
Education = College	-0.265***	-0.139***	0.0648***	0.349***	-0.166***	-0.183***	0.151***	0.205***
	(0.0215)	(0.0148)	(0.00332)	(0.0122)	(0.0125)	(0.0168)	(0.00512)	(0.00676)
Education > College	-0.281***	-0.139***	0.0581***	0.379***	-0.190***	-0.206***	0.180***	0.239***
	(0.0218)	(0.0148)	(0.00397)	(0.0106)	(0.0145)	(0.0188)	(0.00819)	(0.0110)

Unemploy-	0.00584	-.00500***	-0.00547	0.00420	0.0103*	-.00940***	-0.00468	0.00312
ment rate	(0.00340)	(0.00114)	(0.00278)	(0.00232)	(0.00415)	(0.00242)	(0.00298)	(0.00177)
Constant	0.405***	0.299***	0.146***	0.147***	0.327***	0.343***	0.142***	0.188***
	(0.0293)	(0.0139)	(0.0168)	(0.0154)	(0.0233)	(0.0137)	(0.0176)	(0.0152)
N	7252040	7252040	7252040	7252040	1413797	1413797	1413797	1413797
adj. R-sq	0.154	0.140	0.017	0.228	0.110	0.134	0.053	0.116

Standard errors in parentheses

* p<0.05 ** p<0.01 *** p<0.001

Note: Regressions also include a full set of state dummies not reported in this table.

Table A4: Full results of regression models, MI vs. other expansion states

Results are presented as coefficient with standard error below in parentheses

	All adults ages 19-64				Low-income adults ages 19-64			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Uninsured	Medicaid	Non_Group	Employer	Uninsured	Medicaid	Non_Group	Employer
MI x y2009	-0.0158	0.0183*	0.00866***	-0.00229	-0.0220	0.0164	0.00443	0.00334
	(0.0102)	(0.00839)	(0.00117)	(0.00310)	(0.0123)	(0.0143)	(0.00339)	(0.00375)
MI x y2010	0.00129	0.00916***	0.00925***	-.00922***	-0.000696	0.000539	0.00904***	-.00833***
	(0.00295)	(0.00243)	(0.00104)	(0.00129)	(0.00526)	(0.00522)	(0.00168)	(0.00218)
MI x y2011	0.0141**	-0.00193	0.00527***	-0.0144***	0.0190*	-0.0179*	0.000325	-0.00587*
	(0.00504)	(0.00459)	(0.00129)	(0.00213)	(0.00751)	(0.00750)	(0.00203)	(0.00274)
MI x y2012	0.0192**	-0.0126*	0.00539**	-0.00820**	0.0275**	-.0477***	0.00490*	0.0163***
	(0.00652)	(0.00597)	(0.00156)	(0.00262)	(0.00835)	(0.0101)	(0.00236)	(0.00264)
MI x y2013	0.0102*	-0.00273	0.0113***	-0.0129***	0.0103	-0.0123	0.00787**	0.000104
	(0.00445)	(0.00425)	(0.00159)	(0.00207)	(0.00757)	(0.00818)	(0.00244)	(0.00259)
MI x y2014	0.0189*	-0.0146	0.00960***	-0.00959**	0.0266*	-0.0418**	0.00724**	0.00956**
	(0.00893)	(0.00749)	(0.00196)	(0.00299)	(0.0115)	(0.0117)	(0.00232)	(0.00346)
MI x y2015	0.0263	-0.0124	0.00333	-0.0143***	0.0247	-0.0284	-0.00445	0.00820*
	(0.0156)	(0.0134)	(0.00236)	(0.00377)	(0.0173)	(0.0186)	(0.00326)	(0.00315)
MI x y2016	0.0285	-0.0171	0.00485*	-0.0138**	0.0288	-0.0413*	-0.000875	0.0112**

	(0.0154)	(0.0131)	(0.00189)	(0.00416)	(0.0160)	(0.0168)	(0.00320)	(0.00340)
MI x y2017	0.0260	-0.0168	0.00420	-0.0116*	0.0238	-0.0328*	0.00122	0.00458
	(0.0145)	(0.0118)	(0.00214)	(0.00444)	(0.0149)	(0.0160)	(0.00366)	(0.00397)
year2009	-0.0316*	0.0393**	-0.00450	-0.00195	-0.0533**	0.0706***	-0.00225	-0.0107*
	(0.0146)	(0.0121)	(0.00270)	(0.00425)	(0.0178)	(0.0184)	(0.00370)	(0.00474)
year2010	-0.0317	0.0476**	-0.00945**	-0.00886	-0.0550*	0.0823***	-0.00874*	-0.0121*
	(0.0179)	(0.0147)	(0.00261)	(0.00538)	(0.0213)	(0.0225)	(0.00406)	(0.00583)
year2011	-0.0295	0.0480***	-0.0114***	-0.00965*	-0.0560**	0.0837***	-0.0126***	-0.00851
	(0.0152)	(0.0128)	(0.00218)	(0.00467)	(0.0189)	(0.0202)	(0.00342)	(0.00487)
year2012	-0.0243*	0.0464***	-0.0150***	-0.0121**	-.0530***	0.0830***	-0.0178***	-0.00577
	(0.0110)	(0.00962)	(0.00189)	(0.00370)	(0.0135)	(0.0156)	(0.00297)	(0.00365)
year2013	-0.0195*	0.0444***	-0.0190***	-0.0178***	-.0524***	0.0796***	-0.0199***	-0.00819*
	(0.00730)	(0.00656)	(0.00180)	(0.00266)	(0.0106)	(0.0114)	(0.00275)	(0.00316)
year2014	-0.0498***	0.0649***	-.00951***	-0.0191***	-0.121***	0.138***	-.00880***	-0.00481
	(0.00590)	(0.00523)	(0.00180)	(0.00235)	(0.00980)	(0.00932)	(0.00184)	(0.00382)
year2015	-0.0736***	0.0848***	-0.00242	-0.0196***	-0.174***	0.193***	-0.00354	-0.00652
	(0.00658)	(0.00594)	(0.00190)	(0.00270)	(0.0125)	(0.0122)	(0.00271)	(0.00406)
year2016	-0.0811***	0.0924***	-0.00216	-0.0180***	-0.193***	0.213***	-0.000361	-0.00521
	(0.00633)	(0.00521)	(0.00153)	(0.00330)	(0.0125)	(0.0118)	(0.00268)	(0.00354)
year2017	-0.0755***	0.0910***	-0.00898***	-0.0173***	-0.192***	0.217***	-0.00581	-0.00762

	(0.00663)	(0.00536)	(0.00172)	(0.00391)	(0.0137)	(0.0139)	(0.00402)	(0.00549)
Single male	Omitted (base category)				Omitted (base category)			
Male	-0.102***	-0.0197***	-.00932***	0.155***	-.0786***	0.0517***	-0.00528**	0.0611***
X married	(0.00392)	(0.00318)	(0.00137)	(0.00465)	(0.00696)	(0.00672)	(0.00150)	(0.00471)
Female	-0.0618***	0.0883***	-.00527***	-0.00701*	-0.108***	0.135***	-.00659***	0.00378
X single	(0.00211)	(0.00418)	(0.000999)	(0.00333)	(0.00390)	(0.00721)	(0.00181)	(0.00273)
Female	-0.115***	-0.0406***	-.00795***	0.195***	-.0863***	0.0450***	-0.00228	0.0875***
	(0.00391)	(0.00351)	(0.00160)	(0.00350)	(0.00730)	(0.00823)	(0.00192)	(0.00406)
White non-Hispanic	Omitted (base category)				Omitted (base category)			
Black non-Hispanic	0.0255***	0.0829***	-0.0351***	-0.0639***	-0.000388	0.0939***	-0.0456***	-0.0420***
	(0.00445)	(0.00469)	(0.00413)	(0.00798)	(0.00469)	(0.00590)	(0.00500)	(0.00401)
Asian non-Hispanic	0.0426***	0.0163	0.0241***	-0.0759***	0.0475***	-0.0455**	0.0629***	-0.0545***
	(0.00623)	(0.0121)	(0.00481)	(0.0178)	(0.00629)	(0.0156)	(0.00926)	(0.0108)
Other non-Hispanic	0.0537***	0.0519***	-0.0243***	-0.0755***	0.0475***	0.0516***	-0.0383***	-0.0540***
	(0.0109)	(0.00680)	(0.00397)	(0.0142)	(0.0100)	(0.00669)	(0.00481)	(0.00674)
Hispanic	0.137***	0.0195	-0.0421***	-0.118***	0.163***	-0.0553**	-0.0466***	-0.0647***
	(0.00750)	(0.0100)	(0.00711)	(0.0144)	(0.0120)	(0.0157)	(0.00642)	(0.00595)
Age 19-25	Omitted (base category)				Omitted (base category)			

Age 26-34	0.0291***	0.0537***	-0.0240***	-0.0770***	0.0567***	0.116***	-0.0469***	-0.145***
	(0.00244)	(0.00418)	(0.00117)	(0.00588)	(0.00386)	(0.0108)	(0.00226)	(0.0118)
Age 35-54	-0.0132***	0.0346***	-0.0107***	-0.0325***	0.0302***	0.115***	-0.0422***	-0.138***
	(0.00176)	(0.00300)	(0.00128)	(0.00375)	(0.00542)	(0.00967)	(0.00293)	(0.0115)
Age 55-64	-0.0553***	-0.00157	0.0261***	-0.00492	-.0377***	0.0824***	-0.00516	-0.120***
	(0.00292)	(0.00427)	(0.00220)	(0.00434)	(0.00610)	(0.00929)	(0.00625)	(0.00932)
Non-worker		Omitted (base category)				Omitted (base category)		
Worker	-0.0491***	-0.195***	-0.0270***	0.296***	0.0509***	-0.168***	-0.000931	0.151***
Non-worker	(0.00467)	(0.00613)	(0.00171)	(0.00442)	(0.00454)	(0.00676)	(0.00127)	(0.00550)
Education < high school		Omitted (base category)				Omitted (base category)		
Education =	-0.0963***	-0.0947***	0.0221***	0.170***	-.0249***	-.0501***	0.0172***	0.0542***
High school	(0.00714)	(0.00777)	(0.00139)	(0.00307)	(0.00602)	(0.00990)	(0.00152)	(0.00291)
Education =	-0.155***	-0.142***	0.0398***	0.261***	-.0869***	-0.103***	0.0551***	0.137***
Some coll.	(0.00927)	(0.00768)	(0.00200)	(0.00453)	(0.00702)	(0.0104)	(0.00263)	(0.00533)
Education =	-0.194***	-0.200***	0.0593***	0.339***	-.0917***	-0.239***	0.147***	0.194***
College	(0.0103)	(0.00925)	(0.00348)	(0.00427)	(0.00881)	(0.0109)	(0.00598)	(0.00928)
Education >	-0.208***	-0.208***	0.0506***	0.371***	-0.108***	-0.292***	0.185***	0.235***

College	(0.0114)	(0.0110)	(0.00358)	(0.00614)	(0.00904)	(0.0142)	(0.00818)	(0.0119)
Unemploy-	0.0112*	-0.00771*	-.00189***	-0.00283*	0.0148**	-0.0128*	-0.00112	-0.00116
ment rate	(0.00444)	(0.00365)	(0.000490)	(0.00131)	(0.00528)	(0.00581)	(0.000978)	(0.00137)
Constant	0.342***	0.421***	0.0865***	0.165***	0.251***	0.524***	0.0659***	0.174***
	(0.0172)	(0.0186)	(0.00363)	(0.00722)	(0.0192)	(0.0267)	(0.00550)	(0.0101)
N	11119904	11119904	11119904	11119904	1941773	1941773	1941773	1941773
adj. R-sq	0.123	0.167	0.016	0.229	0.108	0.137	0.056	0.104

Standard errors in parentheses

* p<0.05 ** p<0.01 *** p<0.001

Note: Regressions also include a full set of state dummies not reported in this table.

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Healthy Michigan Plan Evaluation Domain III

December 5, 2018

University of Michigan

Institute for Healthcare Policy & Innovation

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Acknowledgements: The authors gratefully acknowledge K. Derek Van and Shurooq Hasan for assistance with data management, and Erin Beathard and Erica Solway for critical review of this report.

INSTITUTE FOR HEALTHCARE POLICY & INNOVATION
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EXECUTIVE SUMMARY

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings for Domain III, Evaluation of Health Behaviors, Utilization and Health Outcomes, focused on individuals who initially enrolled in the first year of the Healthy Michigan Plan and maintained continuous HMP-Managed Care coverage over two years.

As outlined in the Special Terms and Conditions of Michigan's Section 1115 Demonstration Waiver, the focus of Domain III is to understand the impact of HMP coverage on emergency department (ED), healthy behavior, and inpatient hospitalization rates; and to explore the association of these measures with enrollees' demographic characteristics and with HMP programmatic elements, such as regular primary care visits, completion of a Health Risk Assessment (HRA), and agreement to make a healthy behavior change.

The Domain III evaluation plan specifies four chronic conditions of interest — asthma, cardiovascular disease, chronic obstructive pulmonary disease (COPD), and diabetes — which have both an increased risk of needing emergency department and inpatient care as well as the potential for reducing these types of utilization through regular primary care and adoption of healthy behaviors.

METHODS

Data

This report uses administrative claims to analyze enrollees' initial 24 months of Healthy Michigan Plan-Managed Care (HMP-MC) enrollment. Data were drawn from the MDHHS Data Warehouse, including Medicaid claims across service types (e.g., medical, pharmacy), program enrollment data, demographic characteristics, and completion of health risk assessments. Additional data on vaccines were extracted from the Michigan Care Improvement Registry (MCIR), the statewide immunization information system.

Study Population

The study population included individuals whose initial month of HMP-MC enrollment occurred between April 2014 and March 2015, and who maintained HMP-MC enrollment for at least 11 of 12 months for each of the next two years from the initial HMP-MC month; enrollees also had to be 19-64 years on the last day of that period. Enrollees with fewer than 11 months of HMP-MC coverage in either year were excluded.

Variables

Demographic and enrollment files from the MDHHS Data Warehouse were used to identify demographic characteristics (age, gender, income level, prosperity region, health plan). Tables containing data on Health Risk Assessments (HRAs) were used to identify enrollees who had completed an HRA, and those who had agreed to a healthy behavior change.

The four chronic conditions of interest were identified by applying specifications for standard quality measures (e.g., Healthcare Effectiveness Data and Information Set, or HEDIS®, measures) to each enrollee's Year 1 utilization. Primary care visit patterns were categorized as regular primary care (≥1 visit in Year 1 and Year 2), no primary care (no visit either year), or primary care in one year only.

Outcome measures related to emergency department (ED) utilization were based on HEDIS® specifications. ED visit rates were generated to reflect the number of ED visits per 1,000 member-months. Enrollees were identified as high ED utilizers if they had ≥5 ED visits in the year. Multivariate regression models were used to understand the impact of primary care patterns and HRA completion on ED rates.

Healthy behaviors reflected preventive services included in the HMP Healthy Behavior Incentive Protocol, including preventive care visits, flu vaccine, other adult vaccines, breast cancer screening, cervical cancer screening, colon cancer screening, other types of screening, medical assistance with smoking and tobacco use cessation, and preventive dental care. A summary variable for "any preventive service" reflects receipt of any of the aforementioned services.

Outcome measures related to inpatient utilization were based on HEDIS® specifications. Inpatient utilization rates reflected the number of inpatient stays per 1,000 member-months. Multivariable regression models were used to assess the association of medical-surgical inpatient rates with primary care visits and HRA completion. Additional inpatient measures reflected the number of discharges for asthma, COPD, heart failure, and diabetes per 1,000 enrollees.

RESULTS

Demographic Characteristics

The population of 145,978 enrollees who met study criteria were:

- 54.2% women
- Evenly divided between age groups (19-34, 35-49, 50-64)
- Most likely to have an income at 0-35% of the Federal Poverty Level (FPL) (61.8%)
- Predominantly white (64.1%)

Nearly one quarter were identified as having one of the four chronic conditions of interest, including asthma (5.0%), cardiovascular disease (4.0%), COPD (8.8%), and diabetes (9.9%).

Health Risk Assessment

About one quarter of the study population (26.6%) completed the HRA process. Among enrollees who completed the HRA, nearly ninety percent selected a healthy behavior to change.

Primary Care Utilization
Most of the study population (71.7%) made regular primary care visits, defined as at least one primary care visit in both Year 1 and Year 2. Eleven percent of enrollees made no primary care visits in either year.

Among enrollees with one of the four chronic conditions of interest, over 90% had regular primary care visits, compared with only two-thirds of enrollees who had none of the four conditions.

Emergency Department Utilization
The rate of ED visits per 1,000 member-months decreased significantly from 71.03 in Year 1 to 69.50 in Year 2 for the overall study population. However, enrollees with one of the chronic conditions of interest demonstrated significant decreases in ED rates from Year 1 to Year 2. In contrast, enrollees who did not have a chronic condition demonstrated an increase in ED visit rates from Year 1 to Year 2.

Overall, 3.5% of enrollees were high ED utilizers (≥5 ED visits) in Year 1, as were 3.4% in Year 2. High ED utilizers were more likely to be women, younger than 50 years, black, or with one of the four chronic conditions of interest.

Enrollees who had regular primary care visits had higher adjusted ED visit rates in Year 2 compared to enrollees who had no primary care visits. This pattern was consistent for both enrollees with one of the chronic conditions of interest, as well as those without a chronic condition.

Enrollees who agreed to address at least one behavior change had lower adjusted ED visit rates in Year 2 compared to enrollees who did not complete an HRA. This pattern was consistent for enrollees with one of the chronic conditions of interest, and those without chronic conditions.

Healthy Behaviors
Overall, 83.7% of the study population received at least one preventive service over the two-year study period. Receipt of preventive services was more common among women, enrollees 50-64 years, white enrollees, and enrollees with one of the four chronic conditions of interest.

The proportion of enrollees who received at least one preventive service decreased from 71.5% in Year 1 to 68.5% in Year 2. However, two preventive services – flu vaccine and preventive dental care – saw an increase from Year 1 to Year 2.

Among enrollees who made regular primary care visits, 93.4% received at least one preventive service, compared to only 30.1% of enrollees who did not make primary care visits. This pattern was consistent across all preventive services studied.

Nearly all enrollees who completed an HRA (96.1%) received at least one preventive service, compared to only 79.2% of enrollees who did not complete an HRA. This pattern was consistent across all preventive services studied.

Enrollees who were eligible for HMP's healthy behavior incentive had higher rates of preventive services compared to enrollees who did not complete an HRA (and thus were not eligible for the incentive).

Among the subset of enrollees who reported their health status in both Year 1 and Year 2, 19.5% reported an improvement in health status. There was no difference in the proportion reporting improved health status between those who agreed to address at least one behavior change and those who did not complete an HRA.

Inpatient Utilization

For the overall study population, unadjusted medical, surgical and maternity inpatient rates increased from Year 1 to Year 2, with the largest increase observed in the maternity rate.

Higher medical-surgical inpatient rates were observed for women, enrollees older than 50, enrollees with an income 0-35% FPL, black enrollees, and enrollees with one of the four chronic conditions of interest.

Trends in inpatient utilization from Year 1 to Year 2 differed by chronic condition status. Among enrollees with one of the four chronic conditions of interest, the adjusted medical-surgical inpatient rate decreased from 13.83 per 1,000 member-months in Year 1 to 11.73 in Year 2. In contrast, among enrollees with no chronic condition, the adjusted medical-surgical inpatient rate increased from 3.14 in Year 1 to 3.80 in Year 2.

The rate of discharges related to asthma and diabetes decreased significantly from Year 1 to Year 2. In contrast, heart failure discharge rates increased significantly from Year 1 to Year 2. The rate of discharges related to COPD did not change significantly.

Enrollees who had regular primary care visits had higher adjusted medical-surgical inpatient rates in Year 2.

Among enrollees with one of the four chronic conditions of interest, those who agreed to address at least one behavior change had a lower adjusted Year 2 medical-surgical inpatient rate than their counterparts who did not complete an HRA. This pattern was reversed for enrollees without a chronic condition.

CONCLUSIONS

This report analyzing utilization patterns of HMP enrollees with continuous HMP-MC enrollment over two years demonstrates that ED visit rates decreased modestly from Year 1 to Year 2, with more substantial decreases observed for enrollees with one of the four chronic conditions of interest. Lower ED visit rates were observed for enrollees who agreed to address

at least one healthy behavior change, compared to those who did not complete a health risk assessment. Enrollees with regular primary care had higher rates of preventive service use than those with no primary care; similarly, enrollees who agreed to address at least one behavior change had higher rates of preventive service use than those who did not complete a health risk assessment. Among enrollees with one of the four chronic conditions of interest, inpatient utilization decreased from Year 1 to Year 2, and was lower for the subset who agreed to address at least one behavior change. These findings demonstrate that HMP features to promote regular primary care and health risk assessments are associated with lower rates of ED and inpatient utilization for HMP enrollees, particularly those with chronic conditions.

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INTRODUCTION

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings for Domain III, Evaluation of Health Behaviors, Utilization and Health Outcomes, focused on individuals with initial enrollment in the first year of the Healthy Michigan Plan and who maintained continuous HMP-Managed Care coverage over two years.

As outlined in the Special Terms and Conditions of Michigan's Section 1115 Demonstration Waiver, the focus of Domain III is to understand the impact of HMP coverage on emergency department (ED), healthy behavior, and inpatient hospitalization rates; and to explore the association of these measures with enrollees' demographic characteristics and with HMP programmatic elements, such as regular primary care visits, completion of a Health Risk Assessment (HRA), and agreement to make a healthy behavior change.

The Domain III evaluation plan specifies four chronic conditions of interest (asthma, cardiovascular disease, chronic obstructive pulmonary disease, and diabetes) which have both an increased risk of needing emergency department and inpatient care as well as the potential for reducing these types of utilization through regular primary care and adoption of healthy behaviors. The report presents key outcome measures for the overall study population, and for enrollees with the chronic conditions of interest.

DOMAIN III HYPOTHESES

The Domain III hypotheses as outlined in the CMS Special Terms and Conditions are as follows:

Hypothesis III.1: Emergency Department Utilization

- Hypothesis 1a: Emergency department utilization among HMP enrollees will decrease from the Year 1 baseline.
- Hypothesis 1b: HMP enrollees who make regular primary care visits (at least once per year) will have lower adjusted rates of emergency department utilization compared to enrollees who do not have primary care visits.
- Hypothesis 1c: HMP enrollees who agree to address at least one behavior change will have lower adjusted rates of emergency department utilization compared to beneficiaries who do not agree to address behavior change.

Hypothesis III.2: Healthy Behaviors

- Hypothesis 2a: Receipt of preventive health services among the HMP population will increase from the Year 1 baseline.
- Hypothesis 2b: HMP enrollees who make regular primary care visits (at least once per year) will have higher rates of general preventive services compared to enrollees who do not have primary care visits.
- Hypothesis 2c: HMP enrollees who complete an annual health risk assessment will have higher rates of preventive services compared to enrollees who do not complete a health risk assessment.

Hypothesis 2d: HMP enrollees who agree to address at least one behavior change will demonstrate improvement in self-reported health status compared to enrollees who do not agree to address behavior change.
Hypothesis 2e: HMP enrollees who receive incentives for healthy behaviors will have higher rates of preventive services compared to enrollees who do not receive such incentives.

Hypothesis III.3: Hospital Admissions
Hypothesis 3a: Adjusted hospital admission rates for HMP enrollees will decrease from the Year 1 baseline.
Hypothesis 3b: HMP enrollees who make regular primary care visits (at least once per year) will have lower adjusted rates of hospital admissions compared to enrollees who do not have primary care visits.
Hypothesis 3c: HMP enrollees who agree to address at least one behavior change will have lower adjusted rates of hospital admission compared to enrollees who do not agree to address behavior change.

METHODS

Study Design and Time Period. This report reflects a secondary analysis of administrative claims and enrollment data for Healthy Michigan Plan enrollees. The report focuses on the enrollees' initial 24 months of Healthy Michigan Plan-Managed Care (HMP-MC) enrollment, to facilitate the analysis of trends over time.

Data Source. Data were drawn from the MDHHS Data Warehouse, including Medicaid claims across service types (e.g., medical, pharmacy), program enrollment data, demographic characteristics, and health risk assessment completion. Additional data on vaccines was extracted from the Michigan Care Improvement Registry (MCIR), the statewide immunization information system.

Data extraction was performed via a secure Virtual Private Network (VPN) connection by a data analyst with specific approval from MDHHS for this purpose, using existing protocols that require two layers of password protection. Data extraction is allowed under a Business Associate Agreement between the University of Michigan and the MDHHS. Data processing, encryption and storage were done in accordance with a data security protocol approved by the MDHHS Compliance Office.

Study Population. The study population included enrollees with two years of HMP-MC enrollment, and with administrative claims data available for two full years of utilization, allowing at least nine months of lag time for claims processing and adjudication.

Inclusion criteria were first applied for enrollees' initial year of coverage, as follows:
Initial HMP-MC enrollment timeframe: April 2014-March 2015
Minimum enrollment: enrolled in HMP-MC for at least 11 months of the 12-month period from their initial HMP-MC month
Age criteria: 19-64 years, as of the last day of the 12-month period

Enrollees who met inclusion criteria in Year 1 were assessed for eligibility in Year 2 (i.e., 13-24 months from initial enrollment); those with fewer than 11 months of HMP-Managed Care coverage and those older than 64 years at the end of Year 2 were excluded.

The flow chart below describes the process to identify the study population.

Table 1. Flow Chart for Identification of the Study Population

546,475	Enrollees with first HMP between April 2014 and March 2015
	Exclude 290,465 enrollees with less than 11 months HMP-MC in first 12-month period following initial HMP-MC
256,010	
	Exclude 206 enrollees younger than 19 years or older than 64 years at end of first 12-month period
255,804	Eligible in Year 1
	Exclude 109,826 enrollees with less than 11 months HMP-MC in second 12-month period (months 13-24) following initial HMP-MC, and/or older than 64 at end of second 12-month period
145,978	Study Population (Eligible Year 1 and Year 2)

Appendix Table A-1 shows the demographic characteristics of the study population compared to enrollees who met criteria in Year 1 but not Year 2.

Demographic and Programmatic Characteristics. Demographic characteristics were drawn from the MDHHS data warehouse. Gender was a fixed variable. Age was categorized as 19-34, 35-49, and 50-64 years based on age on the first day of the enrollee's HMP-MC coverage. Income level was based on the data field reflecting the determination of the enrollee's income as a percent of the Federal Poverty Level (FPL) in the first month of HMP-MC coverage. Race/ethnicity data from Medicaid demographic files were categorized as Hispanic, non-Hispanic white, non-Hispanic black, other or unknown; due to small cell sizes, the other and unknown groups were not included in race/ethnicity analyses. Residence in one of the 10 MDHHS prosperity regions (Appendix Figure A-1) was based on the enrollee's address in the first month of HMP-MC coverage. Health plan was based on the enrollee's Medicaid Health Plan in the first month of HMP-MC coverage. Prior enrollment in the Adult Benefit Waiver (ABW) program (a pre-HMP, limited-enrollment Medicaid program for childless adults) was identified if the enrollee had ≥1 month of ABW enrollment between April 2013 and March 2014 (the year prior to the start of HMP).

Health Risk Assessment Measures. Data were extracted from the Health Risk Assessment (HRA) table in the data warehouse for the combined Year 1 and Year 2 period, along with any information obtained prior to initial HMP-MC coverage. Individuals could have multiple HRA records. HRA records were used to categorize each enrollee's HRA status:

- HRA attestation – at least one HRA record includes physician attestation date, signaling completion of the HRA process
- Enrollee questions only – responses to some/all enrollee questions on one or more HRA record, but no record with a physician attestation date
- No HRA record – lack of data for any HRA-related activity

The enrollee-completed questions of the HRA include smoking or tobacco use in the past 30 days. Identification of individuals eligible for assistance with smoking or tobacco cessation was based on reported smoking or tobacco use in the past 30 days on any HRA record.

The enrollee-completed questions of the HRA also include a measure of the beneficiary's self-reported health status, defined as excellent, very good, good, fair or poor. Responses were calculated as the proportion who rated their health status as Excellent or Very Good vs. Good vs. Fair or Poor.

Enrollees who had completed an HRA were categorized based on the healthy behavior fields:

- Selected a healthy behavior
- No healthy behaviors to address
- Not ready for change
- Serious condition / healthy behavior not required

Enrollees with more than one HRA record were categorized as "selected a healthy behavior" if any records had documentation of healthy behavior selection.

Utilization-Based Measures. Utilization measures were based on established quality measurement initiatives, as detailed below. The most common source was the Healthcare Effectiveness Data and Information Set (HEDIS®),[1] a set of standardized performance measures developed by the National Committee for Quality Assurance (NCQA). HEDIS® 2016 specifications were used for this report.

Chronic Condition Status: Identification of the four chronic conditions of interest – asthma, cardiovascular disease, COPD, diabetes – was based on HEDIS® 2016 Relative Resource Use (RRU) specifications, with two modifications. HEDIS® measures typically require one year for identification of members who meet the chronic condition definition (i.e., the denominator), followed by a measurement year to assess utilization (i.e., the numerator). However, most HMP enrollees did not have Medicaid coverage prior to their HMP enrollment, which limited the availability of a pre-HMP identification period. Thus, HEDIS® criteria were modified to allow Year 1 data to both identify chronic condition status and assess baseline utilization rates. In addition, the HEDIS® COPD requirement of age ≥42 years or older was waived to allow results to reflect all enrollees with COPD.

A secondary chronic condition variable was generated based on the Chronic Condition Indicator from the Healthcare Cost and Utilization Project (HCUP),[2] sponsored by the Agency for Healthcare Research and Quality (AHRQ). The HCUP Chronic Condition Indicator categorizes diagnosis codes as chronic or not chronic; enrollees were identified for the HCUP Chronic Condition Indicator if they had any service that included a diagnosis code designated by HCUP as chronic.

Primary Care Utilization: Identification of primary care visits was based on Michigan Medicaid policy for primary care reimbursement. Classification of an outpatient visit as a primary care visit required two elements:

1. A procedure code included in the Physician Primary Care Rate Increase Initiative list;[3] and

[1] Further information about HEDIS® measures and technical resources can be found at https://www.ncqa.org/hedis/measures/

[2] Chronic Condition Indicator (CCI) for ICD-9-CM. Technical information available at https://www.hcup-us.ahrq.gov/toolssoftware/chronic/chronic.jsp

[3] MDHHS Physician Primary Care Rate Increase Initiative Database. January 2016. Available at https://www.michigan.gov/documents/mdhhs/Primary_Care_Incentive_Rates-012016_513682_7.pdf

2. A billing or rendering provider who was a Primary Care Provider of record for ≥1 Medicaid enrollee in the MDHHS data warehouse PCP table; or who had participated in Michigan's Primary Care Transformation (MiPCT) project and thus had been verified as a primary care provider; or who had a primary care specialty classification (e.g., family medicine, internal medicine) in both the Michigan Medicaid provider specialty table and the NPPES taxonomy table. NPIs known to be inaccurate from prior analyses were excluded.

Primary care visits identified through this method were used to calculate the proportion of enrollees with primary care visits during the year. A summary measure of primary care continuity reflected each enrollee's receipt of a primary care visit across the two study years, with four categories:

- Regular Primary Care: ≥1 primary care visit in Year 1 and Year 2
- No Primary Care: no primary care visit in either Year 1 or 2
- Year 1 Only: ≥1 primary care visit in Year 1 but not Year 2
- Year 2 Only: ≥1 primary care visit in Year 2 but not Year 1

Emergency Department (ED) Utilization: Identification of ED visits was based on the HEDIS® 2016 Emergency Department Utilization (EDU) measure. Consistent with HEDIS® specifications, ED visits that resulted in an inpatient admission were not counted, and non-institutional/non-surgical ED visits that occurred a day prior to or after an institutional ED/Observation/Inpatient visit were removed. Also consistent with HEDIS® specifications, ED visits for mental health or substance abuse were not included. After initial data review identified areas of undercounting, three observation visit codes (G0378, G0379, revenue code 0762) were added to the HEDIS® observation value set, along with codes G0380-G0384 for Hospital Type B emergency visits.

ED visits identified through this method were used to calculate two outcome measures:

ED Visit Rate – the number of ED visits per 1,000 member-months (the HEDIS® EDU measure)

High ED Utilization – the proportion of enrollees with ≥5 ED visits in the year

Healthy Behaviors: Receipt of preventive services was based on the MDHHS Healthy Behavior Incentive Protocol Code List.[4]

The healthy behaviors included the following:

Preventive Visit – the proportion of enrollees who received a preventive visit. *Note: This measure is based on CPT visit codes and could occur with any provide type, including specialists.*

Flu Vaccine – the proportion of enrollees who received a flu vaccine.

Other Adult Vaccine – the proportion who received a pneumococcal polysaccharide vaccine, pneumococcal conjugate vaccine, or hepatitis B vaccine.

Breast Cancer Screening *(NQF 0031[5])* – the proportion of women 40-64 years of age who had a mammogram to screen for breast cancer. *Note: This measure reflects evidence of screening; denominator exclusions were not applied. Also, the NQF standard age range is 40-69 years.*

[4] Healthy Michigan Plan §1115 Demonstration Waiver Extension Request Amendment. Attachment B – Revised Healthy Behaviors Incentive Protocol. Submitted for CMS Review on September 10, 2018. Available at https://www.michigan.gov/documents/mdhhs/Attachment_B_-_Revised_Healthy_Behaviors_Incentive_Protocol-Clean_632146_7.pdf

[5] NQF #0031 Breast Cancer Screening Measure Submission and Evaluation Worksheet. Available at www.qualityforum.org/Measure_Evaluation_Form/Cancer_Project/0031.aspx

Cervical Cancer Screening *(NQF 0032; included in Adult Core Measure Set[6])* – the proportion of women 21-64 years of age who received a Pap test to screen for cervical cancer. *Note: This measure reflects evidence of screening; denominator exclusions were not applied. Also, the NQF measure requires 3 years of enrollment.*

Colon Cancer Screening *(NQF 0034[7])* – the proportion of enrollees 50-64 years of age who received colon cancer screening by high-sensitivity fecal occult blood test, sigmoidoscopy with FOBT, or colonoscopy. *Note: This measure reflects evidence of screening; denominator exclusions were not applied.*

Other Screening – the proportion of enrollees who received screening for cancer, hepatitis C, HIV, osteoporosis, sexually transmitted infections, or tuberculosis.

Smoking and Tobacco Use Cessation, Medical Assistance (NQF 0027[8]) – among enrollees who reported smoking or tobacco use in the past 30 days on a Health Risk Assessment (HRA) record, the proportion who received tobacco cessation counseling or assistance from a medical professional. *Note: Consistent with NQF specifications, this measure reflects provider counseling, not medication.*

Preventive Dental Care – the proportion of enrollees who had at least one visit to a dental provider that included a preventive dental service.

Any Healthy Behavior – the proportion of enrollees who received at least one service from the Healthy Behavior Incentive Protocol.

As outlined in the CMS Special Terms and Conditions, two additional measures were generated to assess healthy behaviors for enrollees with diabetes:

Hemoglobin A1c Testing *(NQF 0057; included in Adult Core Measure Set)* – the proportion of enrollees with type 1 or type 2 diabetes who had hemoglobin A1c testing at least once. *Note: This measure reflects evidence of testing; denominator exclusions were not applied.*

Low-density Lipoprotein – Cholesterol (LDL-C) Screening *(NQF 0063)* – the proportion of enrollees with type 1 or type 2 diabetes who had an LDL-C screening performed at least once. *Note: This measure reflects evidence of screening; denominator exclusions were not applied.*

Inpatient (IP) Utilization: The primary measure of inpatient utilization was based on the 2016 HEDIS® Inpatient Utilization (IPU) measure. Consistent with HEDIS®, nursing home stays were removed, transfers were removed (with the source hospitalization remaining), and consecutive discharge dates were collapsed.

This method was used to calculate the following outcome measure:

Inpatient Rate – the number of medical, surgical, and maternity inpatient stays per 1,000 member-months (the HEDIS® EDU measure)

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[6] Centers for Medicare & Medicaid Services. Core Set of Adult Health Care Quality Measures for Medicaid (Adult Core Set). Technical Specifications and Resource Manual. Available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf

[7] Centers for Medicare and Medicaid eCQI Resource Center. Colorectal Cancer Screening. Available at https://ecqi.healthit.gov/ecqm/measures/cms130v4

[8] NQF 0027 Medical Assistance with Smoking and Tobacco Use Cessation. Quality Positioning System (QPS) Measure Description Display Information. Available at http://www.qualityforum.org/QPS/MeasureDetails.aspx?standardID=390&print=0&entityTypeID=1

Secondary inpatient utilization measures were generated for condition-specific discharges, based on measures included in the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.[9] For these measures, chronic condition is linked to the discharge diagnosis (i.e., not based on utilization-based identification of chronic conditions). The condition-specific discharge measures included the following:

> ***Asthma in Younger Adults Admission Rate*** *(NQF 0283/PQI 15)* – the number of discharges for asthma short-term complications per 1,000 enrollees 19-39 years of age
>
> ***Chronic Obstructive Pulmonary Disease (COPD) in Older Adults Admission Rate*** *(NQF 0275/PQI 5)* – the number of discharges for chronic obstructive pulmonary disease (including asthma and bronchitis) per 1,000 enrollees 40-64 years of age
>
> ***Heart Failure Admission Rate*** *(NQF 0277/PQI 8)* – the number of discharges for congestive heart failure per 1,000 enrollees
>
> ***Diabetes Short-Term Complications*** *(NQF 0272/PQI 1)* – the number of discharges for diabetes short-term complications per 1,000 enrollees

Analysis Plan for Testing Hypotheses: The CMS Special Terms and Conditions called for calculating outcome measures for the overall HMP population, and for conducting bivariate analyses for key enrollee characteristics (gender, age, income level, race/ethnicity, prosperity region, health plan) and chronic condition subgroups (asthma, cardiovascular disease, COPD, diabetes). Chi-square tests were performed to assess within-year differences between subgroups. Paired t-tests were performed to assess differences between Year 1 and Year 2 results. Two-tailed P values <0.05 were considered to be statistically significant.

For hypotheses related to primary care:
Primary care-focused hypotheses were tested by comparing of enrollees who made regular primary care visits vs. enrollees with no primary care; definitions for those groups are described above. Enrollees who made visits in only one year were not included in hypothesis testing; however, detailed data about those groups can be found in the Appendix tables.

For hypotheses related to receipt of preventive services:
The array of preventive services outlined in the Special Terms and Conditions includes services recommended annually (e.g., flu vaccine) and services recommended once over a longer timeframe (e.g., cancer screening). The hypothesis testing the change in receipt of preventive services from Year 1 to Year 2 incorporated four services (receipt of any healthy behavior, a preventive care visit, flu vaccine, preventive dental care) recommended annually. In contrast, hypotheses evaluating receipt of preventive services relative to regular primary care and HRA completion incorporated the entire array of preventive services, but allowed for receipt of that service in either Year 1 or Year 2.

For hypotheses related to Health Risk Assessments:
The CMS Special Terms and Conditions outlined several hypotheses comparing enrollees who agreed to address at least one behavior change (defined above) vs. enrollees who did not agree to address a behavior change. To test these hypotheses, the latter group included enrollees who did not have a

[9] Agency for Healthcare Research and Quality. Prevention Quality Indicators Technical Specifications Updates. Available at https://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec_ICD10_v2018.aspx

completed HRA. The very small number of enrollees who completed an HRA but were "not ready for change" precluded their use as a comparison group for these hypotheses.

For comparison of enrollees who did vs. did not receive an incentive for healthy behavior, the former group included those with a completed HRA who selected a healthy behavior, had no behavior to address, or had a serious condition such that the healthy behavior requirement did not apply; the comparison group was those who did not complete an HRA.

The hypothesis related to change in health status was evaluated for the subset of enrollees with HRA records in both Year 1 and Year 2 that included self-reported health status. Change in health status was calculated as follows:

	Change Based on Year 2 Health Status		
Year 1 Health Status	**Improved**	**Stayed the Same**	**Got Worse**
Excellent/Very Good	--	Excellent, Very Good	Good, Fair, Poor
Good	Excellent, Very Good	Good	Fair, Poor
Fair/Poor	Excellent, Very Good, Good	Fair, Poor	--

For hypotheses related to emergency department utilization:
Analysis for the initial hypothesis related to ED utilization involved comparison of unadjusted Year 1 vs. Year 2 rates (ED visits per 1,000 member-months) and the proportion of enrollees who were high ED utilizers. Paired t-tests were performed to assess differences between Year 1 and Year 2 results.

Logistic regression models were run to identify enrollee characteristics associated with being a high ED utilizer in Year 1, Year 2, and both years. The regression models included gender, age, income level, race/ethnicity, prosperity region, health plan, and chronic conditions.

To understand the influence of key HMP elements (regular primary care, HRA completion) on ED utilization, multivariate negative binomial regression models were run to produce adjusted Year 2 ED rates, controlling for gender, age (categorical), income level at the start of Year 1 (categorical), race/ethnicity, prosperity region at the start of Year 1, and health plan at the start of Year 1. Due to the significant differences observed in bivariate analyses, separate multivariate models were run for enrollees with a chronic condition identified in Year 1 and those with no chronic condition in Year 1.

For hypotheses related to inpatient utilization:
Inpatient rates (inpatient stays per 1,000 member-months) were generated for Year 1 and for Year 2 for surgical, medical and maternity inpatient stays. To explore the initial hypothesis related to trends in inpatient utilization, multivariate negative binomial regression models were run to generate adjusted Year 1 and Year 2 medical-surgical inpatient rates, controlling for gender, age (categorical), income level at the start of Year 1 (categorical), race/ethnicity, prosperity region at the start of Year 1, and health plan at the start of Year 1. Due to the significant differences observed in bivariate analyses, separate multivariate models were run for enrollees with a chronic condition identified in Year 1 and those with no chronic condition in Year 1. These models used generalized estimating equations (GEE) to account for the repeated measures for each enrollee.

To understand the influence of key HMP features (regular primary care, HRA completion) on medical-surgical inpatient utilization, multivariate negative binomial regression models were run to produce adjusted Year 2 medical-surgical inpatient rates, controlling for gender, age, income level, race/ethnicity, prosperity region, and health plan. Due to the significant differences observed in bivariate analyses, separate multivariate models were run for enrollees with a chronic condition identified in Year 1 and those with no chronic condition in Year 1.

RESULTS

Study Population. Demographic characteristics of the study population of 145,978 enrollees with two years of continuous coverage in HMP-MC are reported in Appendix Table A-1. The study population included a higher proportion of women than men. The three age groups had roughly equal proportions. The predominant income category at the start of HMP-MC enrollment was 0-35% FPL. Nearly two-thirds were non-Hispanic white, with about one quarter non-Hispanic black. Over forty percent resided in the Detroit Metro region. Enrollment in each of 13 Medicaid health plans at the start of their HMP-MC enrollment ranged from 0.7% to 24.7%. Seventeen percent had prior Medicaid coverage through the Adult Benefit Waiver.

Chronic Conditions. Overall, 23.2% of the study population was identified as having one or more of the four chronic conditions of interest based on their Year 1 utilization (Appendix Table A-2). This includes 5.0% with asthma, 4.0% with cardiovascular disease, 8.8% with COPD, and 9.9% with diabetes. Four percent had more than one condition, while 76.8% had none of the four conditions.

The vast majority of enrollees (89.2%) had at least one service for a condition included in the HCUP Chronic Condition Indicator.

Health Risk Assessment. About one quarter of the study population (26.6%) completed the HRA process (see Table 2). Among enrollees who completed the HRA, nearly ninety percent selected a healthy behavior to change; less than 1% were categorized as not ready for behavior change, or having a serious health condition that precluded the healthy behavior requirement.

Table 2. HRA Completion

	N	%
At least one HRA completed with attestation	38,835	**26.6%**
Selected behavior to change	*34,427*	*23.6%*
No behavior to address	*4,061*	*2.8%*
Not ready for change	*202*	*0.1%*
Serious condition/healthy behavior not required	*145*	*0.1%*
No HRA completion	107,143	**73.4%**
Enrollee questions only	*36,354*	*24.9%*
No HRA record	*70,789*	*48.5%*

About three quarters of enrollees had no documentation of completing the full HRA process by their end of their first two years of HMP-MC enrollment. The proportion with no HRA completion varied substantially by health plan, ranging from 32.0% to 81.8% (Appendix Table A-3).

Primary Care Utilization. Most of the study population (71.7%) made regular primary care visits (at least one primary care visit in both Year 1 and Year 2). Among enrollees identified in Year 1 as having one of the four chronic conditions of interest, over 90% had regular primary care, compared with only two-thirds of enrollees who had none of the four conditions. Eleven percent of enrollees made no primary care visits in either year, while 17.4% had a primary care visit in one year only (Table 3).

Table 3. Primary Care Visit Patterns across Year 1 and Year 2

	Regular Primary Care	Year 1 only	Year 2 only	No Primary Care
Overall	71.7%	10.3%	7.1%	11.0%
Chronic Condition Identified in Year 1				
Asthma	90.2%	5.3%	2.4%	2.1%
Cardiovascular disease	92.3%	5.4%	1.1%	1.1%
Chronic obstructive pulmonary disease (COPD)	91.8%	6.0%	1.3%	1.0%
Diabetes	95.2%	3.1%	1.1%	0.5%
More than one condition	96.2%	2.8%	0.6%	0.4%
None of the four conditions	65.5%	11.8%	8.7%	14.0%

Row percentages may not add to 100.0% due to rounding.

Regular primary care was less common among men, enrollees 19-34 years, and non-Hispanic Black enrollees (Appendix Table A-4). The proportion with regular primary care visits ranged across prosperity regions from 68.1% to 79.4%, and across health plans from 56.1% to 78.0%.

Outcome Focus Area 1: Emergency Department Utilization

The ED visit rate per 1,000 member-months for the overall study population was 71.03 for Year 1 and 69.50 in Year 2. In bivariate analyses, significantly higher rates were observed in both study years for women, enrollees 19-34 years, enrollees with an income 0-35% FPL, black enrollees, and enrollees identified in Year 1 as having one of the four chronic conditions of interest (Appendix Table A-5). Rates varied substantially across prosperity regions and health plans.

For the overall study population, 3.5% were high ED utilizers (≥5 ED visits) in Year 1, and 3.4% were high ED utilizers in Year 2 (Appendix Table A-6). Among enrollees who were high ED utilizers in Year 1, 41.0% were also high ED utilizers in Year 2, which represents 1.45% of the overall study population. In bivariate analyses, a higher proportion of high ED utilization was observed among women, enrollees 19-34 or 35-49 years, enrollees in the lowest income group, Black enrollees, and enrollees identified in Year 1 as having one of the four chronic conditions of interest (Appendix Table A-7).

Multivariate analyses (Appendix Table A-8) identified characteristics of enrollees with increased odds of high ED utilization in Year 1, in Year 2, and in both years: women (vs. men), enrollees 19-34 or 35-49 years (vs. 50-64 years), and black (vs. white) enrollees. Enrollees identified in Year 1 as having any of the four chronic conditions (vs. no chronic condition) had increased odds of high ED utilization; those with more than one condition had the highest odds.

Hypothesis 1a: Emergency department utilization among the HMP enrollees will decrease from the Year 1 baseline.

ED Rate. The ED visit rate decreased significantly from 71.03 in Year 1 to 69.50 in Year 2 for the overall study population (Table 4). Enrollees with each of the chronic conditions also demonstrated significantly decreased ED visit rates in Year 2. In contrast, enrollees who were not identified in Year 1 as having one of the four chronic conditions had an increase in ED visit rate from Year 1 to Year 2.

Table 4. Emergency Department Visit Rate (Visits per 1,000 Member-Month), Year 1 vs. Year 2

	N	Year 1	Year 2	*P*-value
Overall Population	**145,978**	**71.03**	**69.50**	≤0.001
Chronic Condition Identified in Year 1				
Asthma	7,354	127.60	115.33	≤0.001
Cardiovascular disease	6,074	110.78	101.37	≤0.001
Chronic obstructive pulmonary disease (COPD)	12,776	116.08	105.33	≤0.001
Diabetes	14,411	94.19	89.06	≤0.001
More than one condition	5,834	*132.58*	*122.50*	≤0.001
None of the four conditions	112,067	60.88	61.45	0.140

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rate

ED High Utilizers. For the study population overall, the proportion of enrollees who were high ED utilizers did not change significantly from Year 1 to Year 2 (Table 5). Among enrollees with chronic conditions identified in Year 1, the proportion who were high ED utilizers decreased from Year 1 to Year 2 in each group, but the magnitude of change did not reach statistical significance. Among enrollees with no chronic condition identified in Year 1, the proportion who were high ED utilizers did not change significantly from Year 1 to Year 2.

Table 5. Proportion of Enrollees with High ED Utilization, Year 1 vs. Year 2

	Year 1	Year 2	*P*-value
Proportion of High ED Utilizers	**3.5%**	**3.4%**	0.10
Chronic Condition Identified in Year 1			
Asthma	8.5%	7.7%	0.06
Cardiovascular disease	6.4%	5.8%	0.14
Chronic obstructive pulmonary disease (COPD)	7.1%	6.6%	0.11
Diabetes	5.6%	5.1%	0.12
None of the four conditions	2.7%	2.8%	0.88

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rate

Hypothesis 1b: HMP enrollees who make regular primary care visits will have lower adjusted rates of ED utilization compared to HMP enrollees who do not have primary care visits.

In multivariate analysis, having regular primary care was associated with higher Year 2 ED visit rates (Table 6). Among enrollees identified in Year 1 as having one of the four chronic conditions of interest, those who had regular primary care had an adjusted Year 2 ED visit rate that was higher than

their counterparts who had no primary care. The same pattern was observed for enrollees who were not identified as having one of the chronic conditions – but with a larger magnitude of difference between those with regular primary care and those with no primary care.

Table 6. Influence of Primary Care Visit Pattern on ED Visit Rate in Year 2

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			≤0.001
Regular primary care	**93.68**	[86.34, 101.60]	
No primary care	**87.06**	[72.42, 104.40]	
No Chronic Condition Identified in Year 1			
Regular primary care	**59.39**	[57.16, 61.70]	≤0.001
No primary care	**25.68**	[24.44, 26.98]	

Multivariate negative binomial regression model, controlling for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan. *P*-value reflects paired t-test comparison of Year 1 vs. Year 2 adjusted rate.

Hypothesis 1c: HMP enrollees who agree to address at least one behavior change will have lower adjusted ED rates compared to HMP enrollees who do not agree to address behavior change.

In multivariate analysis, agreeing to a behavior change was associated with lower Year 2 ED visit rates (Table 7). Among enrollees identified in Year 1 as having one of the four chronic conditions of interest, those who selected at least one behavior to change had an adjusted Year 2 ED visit rate that was substantially lower than their counterparts who did not complete an HRA. A similar pattern was observed for enrollees who were not identified as having one of the chronic conditions, but with a smaller decrease for those who selected at least one behavior to change.

Table 7. Influence of Agreeing to Behavior Change on ED Visit Rate in Year 2

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			≤0.001
Selected behavior to change	**81.25**	[54.13, 122.00]	
No HRA completion	**96.96**	[64.65, 145.40]	
No Chronic Condition Identified in Year 1			
Selected behavior to change	**51.17**	[39.28, 66.66]	0.02
No HRA completion	**52.99**	[40.72, 68.97]	

Adjusted for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan.
P-value reflects paired t-test comparison of Year 1 vs. Year 2 rate

Outcome Focus Area 2: Healthy Behaviors

Overall, 83.7% of the study population received at least one preventive service over the two-year study period. For individual preventive services, the proportion ranged from 8.4% for vaccines other than flu vaccine to 62.4% for breast cancer screening (Appendix Table A-13). Higher proportions of

preventive

services were observed among women, enrollees 50-64 years, white enrollees and those identified in Year 1 as having one of the four chronic conditions of interest (Appendix Table A-14).

Hypothesis 2a: Receipt of preventive health services among the Healthy Michigan Plan population will increase from the Year 1 baseline.

The proportion of enrollees who received at least one preventive service decreased from 71.5% in Year 1 to 68.5% in Year 2 (Table 8). However, the proportion of enrollees who received two specific preventive services – flu vaccine and preventive dental care, which are recommended annually – demonstrated an increase from Year 1 to Year 2.

Table 8. Proportion of Enrollees Receiving Preventive Services, Year 1 vs. Year 2

	N	Year 1	Year 2	*P*-value
Any Healthy Behavior	*145,978*	***71.5%***	***68.5%***	≤0.001
Preventive Care Visit	145,978	39.8 %	32.9 %	≤0.001
Flu Vaccine	145,978	21.1%	21.3%	0.10
Preventive Dental Care	145,978	24.5%	26.7%	≤0.001

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rate.

Hypothesis 2b: HMP enrollees who make regular primary care visits will have higher rates of general preventive services compared to enrollees who do not have primary care visits.

Overall, 93.4% of enrollees with regular primary care, compared to only 30.1% of enrollees with no primary care, received one of the preventive services included in the Healthy Behavior Incentive Protocol at least once during the study period. Enrollees with regular primary care visits had substantially higher rates of preventive services compared to enrollees who did not have primary care visits (Table 9). This pattern was observed across all preventive services.

Table 9. Proportion of Enrollees Receiving Preventive Services by Primary Care Visit Pattern

	Regular Primary Care	No Primary Care	*P*-value
Any Healthy Behavior	93.4%	30.1%	≤0.001
Preventive Care Visit	64.3%	3.1%	≤0.001
Flu Vaccine	37.4%	5.2%	≤0.001
Other Vaccine	10.6%	1.2%	≤0.001
Breast Cancer Screening	68.8%	5.0%	≤0.001
Cervical Cancer Screening	55.3%	9.7%	≤0.001
Colon Cancer Screening	42.3%	1.9%	≤0.001
Other Screening	52.1%	9.7%	≤0.001
Smoking/Tobacco Use Cessation Assistance	31.9%	2.7%	≤0.001
Preventive Dental Care	40.4%	16.6%	≤0.001

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rate.

In addition, enrollees who had at least one primary care visits in Year 1 or Year 2 (but not both) had lower rates of preventive services compared to enrollees with regular primary care, but higher rates than enrollees with no primary care (Appendix Table A-15).

Hypothesis 2c: HMP enrollees who complete an annual health risk assessment will have higher rates of preventive services compared to enrollees who do not complete a health risk assessment.

Across all measures, enrollees who completed at least one HRA had higher rates of preventive services compared to enrollees who did not complete an HRA (Table 10).

Table 10. Receipt of Any Preventive Service (either year) by HRA Completion

	Completed ≥1 HRA	**No HRA Completion**	*P*-value
Any Healthy Behavior	96.1%	79.2%	≤0.001
Preventive Care Visit	73.8%	47.3%	≤0.001
Flu Vaccine	41.1%	26.3%	≤0.001
Other Vaccine	11.0%	7.5%	≤0.001
Breast Cancer Screening	74.8%	56.1%	≤0.001
Cervical Cancer Screening	57.1%	47.4%	≤0.001
Colon Cancer Screening	46.1%	31.8%	≤0.001
Other Screening	52.7%	41.6%	≤0.001
Smoking/Tobacco Use Cessation Assistance	30.1%	26.4%	≤0.001
Preventive Dental Care	43.8%	32.9%	≤0.001

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rates.

Hypothesis 2d: HMP enrollees who agree to address at least one behavior change will demonstrate improvement in self-reported health status compared to enrollees who do not agree to address behavior change.

Among enrollees who reported their health status in both Year 1 and Year 2 (Appendix Table A-17), there was no difference in improvement in health status between those who agreed to address at least one behavior and those who did not complete an HRA (Table 11).

Table 11. HRA Healthy Behavior Status by Self-Reported Improvement in Health Status

		Health Status Year 1 to Year 2		
HRA Healthy Behavior Status	**N**	**Improved**	**Stayed same**	**Got worse**
Selected behavior to change	9,063	19.5%	60.6%	19.9%
No HRA completion	556	19.6%	58.6%	21.8%

P=0.27 for chi-square comparison between groups.

Hypothesis 2e: HMP enrollees who receive incentives for healthy behaviors will have higher rates of preventive services compared to enrollees who do not receive such incentives.

Enrollees who were eligible for the healthy behavior incentive (completed an HRA and selected a healthy behavior to change, had no behavior that needed to be addressed, or had a serious health condition that precluded the behavior change requirement) had higher rates of preventive services compared to enrollees who did not complete an HRA (Table 13). This pattern was consistent across all preventive services.

Table 12. Receipt of Any Preventive Service (either year) by Healthy Behavior Incentive

	Received Incentive	No HRA Completion	*P*-value
Any Healthy Behavior	96.1%	79.2%	≤0.001
Preventive Care Visit	73.9%	47.3%	≤0.001
Flu Vaccine	41.1%	26.3%	≤0.001
Other Vaccine	11.0%	7.5%	≤0.001
Breast Cancer Screening	74.9%	56.1%	≤0.001
Cervical Cancer Screening	57.1%	47.4%	≤0.001
Colon Cancer Screening	46.1%	31.8%	≤0.001
Other Screening	52.8%	41.6%	≤0.001
Smoking/Tobacco Use Cessation Assistance	30.6%	26.4%	≤0.001
Preventive Dental Care	43.9%	32.9%	≤0.001

P-value reflects chi-square comparison of the Incentive vs. No HRA groups.

Detailed data on receipt of preventive services for each HRA group (selected behavior to change, no behavior to address, not ready for change, and serious condition) are reported in Table A-16.

Additional preventive care measures were calculated for enrollees identified in Year 1 as having diabetes (Appendix Table A-18). Nearly all enrollees with diabetes received hemoglobin A1C testing (96.0%) and LDL-C screening (92.0%) at least once during the study period. Enrollees with regular primary care had higher rates of these diabetes-specific services, compared to enrollees with no primary care. In addition, enrollees who completed an HRA and selected a behavior change had higher rates of these diabetes-specific services compared to enrollees who did not complete an HRA.

Outcome Focus Area 3: Inpatient Utilization

For the overall study population, unadjusted medical and surgical inpatient rates were stable in Year 1 to Year 2, whereas maternity inpatient rates increased from Year 1 to Year 2 (Table 13).

Table 13. Inpatient Rates (per 1,000 Member Months) - Unadjusted

	Year 1	Year 2
Medical	4.77	4.82
Surgical	2.82	2.84
Maternity	0.53	0.66

Higher medical-surgical inpatient rates were observed for women, enrollees older than 35, enrollees with an income 0-35% FPL, and non-Hispanic black enrollees (Appendix Table A-19). Enrollees identified in Year 1 as having one of the four chronic conditions of interest had substantially higher inpatient rates than their counterparts with no chronic condition. Medical-surgical inpatient rates varied by prosperity region, ranging from 5.68 to 9.17 in Year 1 and from 6.09 to 8.89 in Year 2.

Hypothesis 3a: Adjusted hospital admission rates for HMP enrollees will decrease from the Year 1 baseline.

Multivariate analyses revealed that the overall adjusted admission rate for the study population increased form Year 1 to Year 2; however, the pattern differed by chronic condition status (Table 14). Among enrollees identified in Year 1 as having one of the four chronic conditions of interest, the adjusted medical-surgical inpatient rate decreased from 13.83 in Year 1 to 11.73 in Year 2. In contrast, among enrollees with no chronic condition, the medical-surgical inpatient rate increased from 3.14 in Year 1 to 3.80 in Year 2.

Table 14. Medical-Surgical Inpatient Rates (per 1,000 Member Months) - Adjusted

	Year 1 Rate	95% CI	**Year 2 Rate**	95% CI
Overall Population*	**9.16**	[8.63, 9.73]	**9.69**	[9.13, 10.29]
Chronic Condition Identified in Year 1*	**13.83**	[12.68, 15.07]	**11.73**	[10.75, 12.80]
No Chronic Condition in Year 1*	**3.14**	[2.92, 3.38]	**3.80**	[3.54, 4.09]

Multivariate negative binomial regression model, controlling for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan. *$P \leq 0.001$ for difference from Year 1 to Year 2

As outlined in the CMS Special Terms and Conditions, four condition-specific inpatient rates were generated (Table 15). For asthma and diabetes, discharges rates decreased significantly from Year 1 to Year 2. In contrast, heart failure discharge rates increased significantly from Year 1 to Year 2. The rate for COPD discharges did not change significantly.

Table 15. Condition-Specific Inpatient Rate (Discharges per 100,000 Members)

		Discharges per 100,000 Members		
	N	**Year 1**	**Year 2**	*P*-value
Asthma in Younger Adults Admission Rate	59,650	140.8	77.1	0.002
COPD in Older Adults Admission Rate	81,172	452.1	501.4	0.19
Heart Failure Admission Rate	145,978	99.3	154.1	≤0.001
Diabetes Short-Term Complications Admission Rate	145,978	241.1	192.5	0.01

P-value reflects paired t-test comparison of Year 1 vs. Year 2 rates.

Hypothesis 3b: HMP enrollees who make regular primary care visits will have lower adjusted rates of hospital admissions compared to enrollees who do not have primary care visits.

In multivariate analysis, having regular primary care was associated with lower adjusted inpatient visit rates in Year 2 (Table 16). This pattern was observed for enrollees identified in Year 1 as having one of the four chronic conditions of interest, as well as for enrollees who were not identified as having one of the chronic conditions.

Table 16. Influence of Regular Primary Care on Adjusted Medical-Surgical Inpatient Rates in Year 2

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			≤0.001
Regular primary care	**11.88**	[10.45, 13.49]	
No primary care	**8.09**	[5.67, 11.55]	
No Chronic Condition Identified in Year 1			
Regular primary care	**4.49**	[4.00, 5.03]	≤0.001
No primary care	**1.14**	[0.97, 1.34]	

Multivariate negative binomial regression model, controlling for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan. *P*-value reflects difference in inpatient rate from Year 1 to Year 2.

Bivariate analyses demonstrating medical-surgical inpatient rates by primary care visit pattern are reported in Appendix Table A-20.

Hypothesis 3c: HMP enrollees who agree to address at least one behavior change will have lower adjusted admission rates compared to enrollees who do not agree to address behavior change.

The association of agreeing to a behavior change and Year 2 inpatient rates was mixed. Among enrollees identified in Year 1 as having one of the four chronic conditions of interest, those who selected at least one behavior to change had an adjusted Year 2 medical-surgical inpatient rate that was substantially lower than their counterparts who did not complete an HRA (Table 17). In contrast, among enrollees with no chronic condition, the adjusted Year 2 medical-surgical inpatient rate was higher for those who agreed to a behavior change, compared to those who did not complete an HRA.

Table 17. Influence of Healthy Behavior on Adjusted Medical-Surgical Inpatient Rates in Year 2

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			p≤0.001
Selected behavior to change	**10.47**	[9.11, 12.04]	
No HRA completion	**12.12**	[10.65, 13.79]	
No Chronic Condition in Year 1			
Selected behavior to change	**3.91**	[3.45, 4.44]	p≤0.01
No HRA completion	**3.52**	[3.14, 3.95]	

Multivariate negative binomial regression model, controlling for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan. *P*-value reflects difference in inpatient rate from Year 1 to Year 2

LIMITATIONS

There are a number of limitations that should be considered when interpreting this report.

First, the study cohort included individuals with 2 years of continuous HMP-MC enrollment, using HEDIS®-based requirements for ≥11 months of enrollment per year. Focusing on a continuously enrolled population allows for examination of the impact of key HMP features over time, such as the emphasis on primary care utilization and the HRA and healthy behavior incentives. However, these results do not reflect the overall HMP population, many of whom ended their HMP enrollment prior to 2 years, or had discontinuous enrollment. As shown in Appendix Table A-1, enrollees who met inclusion criteria in their first year of enrollment but not their second year were more likely to be 19-34 years old, and less likely to have had prior Adult Benefit Waiver coverage.

Second, the analyses for this report utilized specifications from established quality measures (e.g., HEDIS®, PQI, NQF). However, claims-based measures were impacted by the October 2015 change in the diagnosis coding system used for billing and reimbursement, from International Classification of Diseases, Ninth Revision (ICD-9) to International Classification of Diseases, Tenth Revision (ICD-10). Inconsistencies between ICD-9 and ICD-10 have been noted[10] and may have affected the results.

Third, the CMS Special Terms and Conditions specified four chronic conditions of interest. Consistent with HEDIS® methodology, these conditions were identified based on enrollees' utilization of services in Year 1. However, this methodology would not identify enrollees who were newly diagnosed with a condition in Year 2. The consistency of the HEDIS®-based chronic condition methodology is reported in Table A-22. The vast majority of the study population would have the same classification if the HEDIS criteria were applied in Year 1 and in Year 2 (95.3% for asthma, 96.1% for cardiovascular disease, 92.8% for COPD, and 97.0% for diabetes). Nonetheless, over 10,000 enrollees had evidence of one of these chronic conditions in Year 2 but were not identified in Year 1; this group may have different utilization patterns and may warrant further examination.

In addition to the four chronic conditions outlined in the CMS Special Terms and Conditions, enrollees could have a variety of other conditions that require higher-than-average utilization of health services (e.g., liver disease, HIV infection, mental health conditions). Thus, the chronic condition groups in this report represent only a subset of the population of HMP enrollees with chronic illness. However, the HCUP Chronic Condition Indicator, which yielded 89.2% of enrollees with a chronic condition, was determined to be too broad to accurately identify enrollees with chronic conditions that would impact expected utilization of health services.

Fourth, demographic characteristics were based on enrollees' first year of enrollment; enrollees who had a change in income, residence, or health plan could be misclassified for their second year. Table A-21 reports the consistency of these characteristics. Income group was stable, with 96.5% of enrollees in the same category in both Year 1 and 2. Prosperity region also was stable, with 98.6% of enrollees residing in the same region in both years. Health plan enrollment demonstrated less consistency, with 90.7% of enrollees in the same health plan both years; this may reflect January 2016 changes in authorization of health plans for different regions resulting from the periodic rebidding of Medicaid managed care contracts.

[10] Chronic Condition Data Warehouse. CCW White Paper: Impact of Conversion from ICD-9-CM to ICD-10-CM. September 2017. Available at ccw-condition-categories-impact-of-icd9-to-icd10-conversion.pdf

Fifth, the Domain III evaluation plan was designed to emphasize the Health Risk Assessment and healthy behavior selection as a key feature to affect utilization rates. However, only one quarter of enrollees had a completed HRA, with far fewer completing an HRA in both Year 1 and Year 2. Anecdotal evidence suggests that implementation of the HRA process was uneven. As noted in other evaluation reports by our team based on surveys of enrollees and primary care providers, uncertainty about the HRA process was noted by both groups, as well as logistical challenges with submission and verification of completed HRAs at the health plan level. Therefore, results related to HRA completion and healthy behavior selection are not as robust as originally expected.

Finally, the two-year study period provides some insights into utilization patterns, but may not be long enough to appreciate the full impact of HMP features that are designed to increase the use of primary care, encourage greater engagement of enrollees with their health, and promote healthy behavior change.

CONCLUSIONS

This report from Domain III of the Healthy Michigan Plan evaluation demonstrated several notable findings. Among HMP enrollees with continuous HMP-MC enrollment over two years, overall ED visit rates decreased modestly from Year 1 to Year 2, with more substantial decreases observed for enrollees with asthma, cardiovascular disease, COPD and/or diabetes. Lower ED visit rates were observed for enrollees who agreed to address at least one healthy behavior change, compared to those who did not complete a health risk assessment. Enrollees with regular primary care had higher rates of preventive service use than those with no primary care; similarly, enrollees who agreed to address at least one behavior change had higher rates of preventive service use than those who did not complete a health risk assessment. Among enrollees with asthma, cardiovascular disease, COPD and/or diabetes, inpatient rates decreased from Year 1 to Year 2, and were lower for the subset who agreed to address at least one behavior change. In contrast, inpatient rates increased from Year 1 to Year 2 among enrollees with none of the four chronic conditions. These findings demonstrate that HMP features to promote regular primary care and health risk assessments are associated with lower rates of ED and inpatient utilization for HMP enrollees, particularly those with chronic conditions.

Report on Health Behaviors, Utilization, and Health Outcomes in the Healthy Michigan Plan

Healthy Michigan Plan Evaluation Domain III

APPENDIX – Additional Data Tables

October 31, 2018

University of Michigan

Institute for Healthcare Policy & Innovation

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Table A-1. Characteristics of HMP-Managed Care Enrollees by Study Eligibility

	Study Population N=145,978	**Not Eligible in Year 2** N=109,826
Gender *		
Women	**54.2%**	53.5%
Men	**45.8%**	46.5%
Age at Start of Year 1*		
19-34 Years	**35.4%**	49.6%
35-49 Years	**33.0%**	28.8%
50-64 Years	**31.6%**	21.7%
Income (% FPL) at Start of Year 1*		
0 to 35%	**61.8%**	59.6%
>35% to 75%	**12.7%**	12.9%
>75% to <100%	**10.6%**	10.7%
≥100%	**14.8%**	16.7%
Race/Ethnicity*		
Hispanic	**2.8%**	3.7%
Non-Hispanic Black	**24.4%**	26.0%
Non-Hispanic White	**64.1%**	58.8%
Other/Unknown	**8.6%**	11.6%
Prosperity Region at Start of Year 1*		
1: Upper Peninsula	**3.7%**	3.2%
2: Northwest	**2.6%**	2.8%
3: Northeast	**3.2%**	2.7%
4: West	**11.6%**	12.5%
5: East Central	**6.6%**	6.2%
6: East	**11.4%**	11.7%
7: South Central	**4.0%**	4.4%
8: Southwest	**6.8%**	7.5%
9: Southeast	**6.8%**	7.6%
10: Detroit Metro	**43.4%**	41.4%

*p<.0001 #p<.001 for chi-square comparison between groups

Table A-1. Characteristics of HMP-Managed Care Enrollees by Study Eligibility (Continued)

	Study Population N=145,978	**Not Eligible in Year 2** N=109,826
Health Plan at Start of Year 1*		
Plan A	**1.8%**	2.1%
Plan B	**8.1%**	7.8%
Plan C	**6.1%**	6.0%
Plan D	**0.7%**	0.8%
Plan E	**6.3%**	6.1%
Plan F	**12.3%**	11.7%
Plan G	**24.7%**	25.7%
Plan H	**11.7%**	11.5%
Plan I	**1.0%**	1.1%
Plan J	**6.8%**	7.2%
Plan K	**3.5%**	3.9%
Plan L	**13.4%**	13.0%
Plan M	**3.7%**	3.3%
Prior Adult Benefit Waiver Coverage*		
Yes	**16.6%**	9.9%

*≤0.001 for chi-square comparison between groups
Column percentages may not add to 100.0% due to rounding.

Figure A-1. MDHHS Prosperity Regions

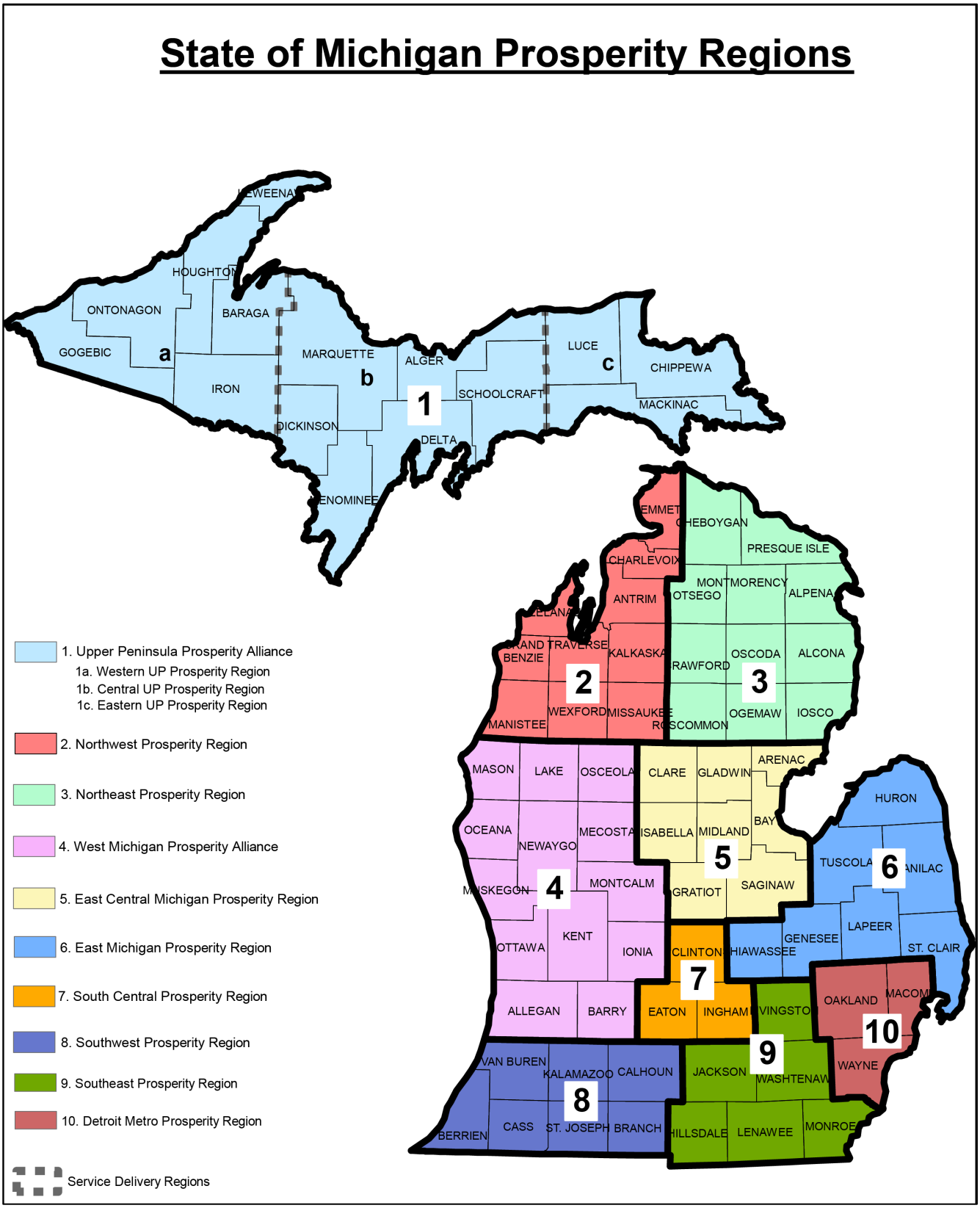

Table A-2. Chronic Condition Status

Chronic Condition Identified in Year 1	**N**	**%**
Asthma	7,354	**5.0%**
Cardiovascular disease	6,074	**4.0%**
Chronic obstructive pulmonary disease (COPD)	12,776	**8.8%**
Diabetes	14,411	**9.9%**
More than one condition	*5,834*	*4.0%*
No condition identified in Year 1	112,067	**76.8%**
HCUP Chronic Condition Indicator		
Any chronic condition	130,257	**89.2%**

Table A-3. HRA Completion by Health Plan at Start of Year 1 (N=145,978)

	Selected behavior to change	No behavior to address	Not ready for change	Serious Condition	No HRA Completion
Overall	**23.6%**	**2.8%**	**0.1%**	**0.1%**	**73.4%**
Plan A	16.2%	2.1%	0.2%	0.2%	81.4%
Plan B	19.2%	2.3%	<0.1%	<0.1%	78.4%
Plan C	23.4%	2.8%	<0.1%	<0.1%	73.7%
Plan D	17.0%	1.1%	<0.1%	<0.1%	81.8%
Plan E	62.1%	5.4%	0.3%	0.2%	32.0%
Plan F	30.1%	4.0%	0.2%	0.1%	65.5%
Plan G	19.7%	2.1%	0.1%	0.1%	78.0%
Plan H	18.8%	2.1%	0.1%	<0.1%	78.9%
Plan I	16.9%	1.5%	0.1%	<0.1%	81.4%
Plan J	26.6%	3.3%	0.2%	0.2%	69.7%
Plan K	19.1%	3.2%	<0.1%	0.1%	77.6%
Plan L	16.4%	2.4%	<0.1%	<0.1%	81.1%
Plan M	19.0%	2.8%	0.4%	0.1%	77.7%

$p \leq 0.001$ for chi-square comparison between plans in the proportion with no HRA completion.
Row percentages may not add to 100.0% due to rounding.

Table A-4. Primary Care Visit Pattern across Year 1 and Year 2

	Proportion of Enrollees with			
	Regular Primary Care	**Year 1 only**	**Year 2 only**	**No Primary Care**
Overall Population	71.7%	10.3%	7.1%	11.0%
Gender*				
Women	79.4%	8.0%	6.0%	6.7%
Men	62.6%	13.0%	8.4%	16.1%
Age at Start of Year 1*				
19-34 Years	61.1%	13.5%	9.6%	15.8%
35-49 Years	75.1%	9.1%	6.5%	9.3%
50-64 Years	79.9%	7.8%	4.9%	7.4%
Income (% FPL) at Start of Year 1*				
0 to 35%	70.3%	10.5%	7.2%	12.0%
>35% to 75%	74.8%	9.8%	6.4%	9.0%
>75% to <100%	72.8%	10.0%	7.2%	9.9%
≥100%	73.6%	10.1%	7.0%	9.3%
Race/Ethnicity*				
Hispanic	70.2%	10.8%	7.8%	11.2%
Non-Hispanic Black	63.2%	11.5%	9.0%	16.3%
Non-Hispanic White	75.2%	9.6%	6.3%	8.9%
Prosperity Region at Start of Year 1*				
1: Upper Peninsula	73.8%	10.5%	5.7%	10.0%
2: Northwest	79.4%	7.8%	5.7%	7.1%
3: Northeast	78.9%	8.6%	5.6%	6.9%
4: West	74.9%	9.8%	6.1%	9.2%
5: East Central	73.6%	9.9%	6.5%	9.9%
6: East	75.7%	9.7%	5.9%	8.8%
7: South Central	70.4%	10.5%	7.7%	11.3%
8: Southwest	72.6%	9.4%	7.5%	10.5%
9: Southeast	72.5%	10.5%	6.8%	10.2%
10: Detroit Metro	68.1%	10.9%	7.9%	13.0%

*$p \leq 0.001$ for chi-square comparison between subgroups.
Row percentages may not add to 100.0% due to rounding.

Table A-4. Primary Care Visit Pattern across Year 1 and Year 2 (Continued)

	Proportion of Enrollees with			
	Regular Primary Care	**Year 1 only**	**Year 2 only**	**No Primary Care**
Health Plan at Start of Year 1*				
Plan A	58.1%	12.0%	9.1%	20.8%
Plan B	65.8%	12.8%	8.3%	13.1%
Plan C	67.9%	10.6%	8.3%	13.1%
Plan D	56.1%	10.4%	11.3%	22.3%
Plan E	78.0%	9.6%	5.1%	7.3%
Plan F	74.4%	11.0%	5.7%	8.9%
Plan G	73.5%	9.1%	7.2%	10.2%
Plan H	69.1%	10.3%	8.1%	12.5%
Plan I	67.6%	9.5%	10.4%	12.5%
Plan J	76.7%	9.9%	5.4%	8.0%
Plan K	67.4%	10.8%	7.9%	13.8%
Plan L	71.1%	10.1%	7.1%	11.7%
Plan M	73.8%	10.5%	5.7%	10.0%
Chronic Condition Identified in Year 1*				
Asthma	90.2%	5.3%	2.4%	2.1%
Cardiovascular disease	92.3%	5.4%	1.1%	1.1%
Chronic obstructive pulmonary disease (COPD)	91.8%	6.0%	1.3%	1.0%
Diabetes	95.2%	3.1%	1.1%	0.5%
More than one condition	*96.2%*	*2.8%*	*0.6%*	*0.4%*
No condition identified in Year 1	65.5%	11.8%	8.7%	14.0%
HRA Healthy Behavior Status				
Selected behavior to change	89.8%	6.8%	2.9%	0.4%
No behavior to address	84.3%	11.2%	3.6%	0.8%
Not ready for change	86.6%	7.4%	5.9%	--
Serious condition	89.7%	7.6%	2.8%	--
No HRA completion	65.3%	11.3%	8.5%	14.8%

*$P \leq 0.001$ for chi-square comparison between groups.
Row percentages may not add to 100.0% due to rounding.

Table A-5. Emergency Department Visit Rate per 1,000 Member Months

	N	Year 1	Year 2
Overall Population	**145,978**	**71.03**	**69.50**
Gender		*	*
Women	79,112	76.00	74.97
Men	66,866	65.15	63.03
Age at Start of Year 1		*	*
19-34 Years	51,713	84.40	81.80
35-49 Years	48,210	78.99	76.91
50-64 Years	46,055	47.70	47.96
Income (% FPL) at Start of Year 1		*	*
0 to 35%	90,231	79.16	77.49
>35% to 75%	18,601	59.89	58.78
>75% to <100%	15,452	57.82	57.02
≥100%	21,654	56.03	54.29
Race/Ethnicity		*	*
Hispanic	4,103	73.39	71.26
Non-Hispanic Black	35,663	88.24	88.32
Non-Hispanic White	93,586	65.88	63.73
Prosperity Region at Start of Year 1		*	*
1: Upper Peninsula	5,387	59.15	57.47
2: Northwest	3,794	57.52	56.90
3: Northeast	4,608	50.51	49.47
4: West	16,971	91.65	85.51
5: East Central	9650	69.83	70.24
6: East	16,571	58.34	58.61
7: South Central	5,876	68.52	64.76
8: Southwest	9,875	88.30	83.43
9: Southeast	9,907	76.80	72.74
10: Detroit Metro	63,334	68.96	68.95

*$P \leq 0.001$ for chi-square comparison of ED rates within subgroup for that study year.

Table A-5. Emergency Department Visit Rate per 1,000 Member Months (Continued)

	N	Year 1	Year 2
Health Plan at Start of Year 1		*	*
Plan A	2,636	81.24	80.50
Plan B	11,820	68.22	66.14
Plan C	8,948	68.07	70.76
Plan D	1,074	78.17	77.50
Plan E	9,166	53.66	52.00
Plan F	17,904	62.14	61.63
Plan G	36,018	78.00	74.77
Plan H	17,109	76.49	74.57
Plan I	1,396	64.12	63.65
Plan J	9,858	80.85	74.60
Plan K	5,144	74.27	76.46
Plan L	19,514	70.59	69.63
Plan M	5,391	59.23	57.48
Chronic Condition Identified in Year 1		*	*
Asthma	7,354	127.60	115.33
Cardiovascular disease	6,074	110.78	101.37
Chronic obstructive pulmonary disease (COPD)	12,776	116.08	105.33
Diabetes	14,411	94.19	89.06
More than one condition	*5,834*	*132.58*	*122.50*
None of the four conditions	112,067	60.88	61.45

* $P \leq 0.001$ for chi-square comparison of ED rates within subgroup for that study year.

Table A-6. High Emergency Department Utilization

a. Number of ED Visits per Year (N=145,978)

Number of ED Visits	**Year 1**	**Year 2**
0	62.7%	62.8%
1-2	27.6%	27.7%
3-4	6.2%	6.0%
≥5 (High ED Utilization)	**3.5%**	**3.4%**
5-9	*2.8%*	*2.8%*
≥10-19	*0.7%*	*0.6%*

Column totals may not add to 100.0% due to rounding.

b. High ED Utilization Across Years

		Year 2	
Year 1	N	High ED Utilizer	Not High Utilizer
High ED Utilizer	5,188	41.0%	59.0%
Not High Utilizer	140,790	2.1%	97.9%

Table A-7. High ED Utilization in Year 1 and Year 2 by Enrollee Characteristics

		Proportion with ≥5 ED Visits in	
	N	**Year 1**	**Year 2**
Overall Population	**145,978**	**3.55%**	**3.44%**
Gender			
Women	79,112	4.0%	3.9%
Men	66,866	3.1%	2.8%
Age at Start of Year 1			
19-34 Years	51,713	4.7%	4.5%
35-49 Years	48,210	4.0%	3.9%
50-64 Years	46,055	1.8%	1.8%
Income (% FPL) at Start of Year 1			
0 to 35%	90,231	4.2%	4.1%
>35% to 75%	18,601	2.7%	2.6%
>75% to <100%	15,452	2.5%	2.4%
≥100%	21,654	2.4%	2.2%
Race/Ethnicity			
Hispanic	4,103	3.5%	3.4%
Non-Hispanic Black	35,663	4.4%	4.5%
Non-Hispanic White	93,586	3.4%	3.2%
Prosperity Region at Start of Year			
1: Upper Peninsula	5,387	3.0%	3.2%
2: Northwest	3,794	2.7%	2.3%
3: Northeast	4,608	2.1%	2.3%
4: West	16,971	5.6%	5.0%
5: East Central	9650	3.6%	3.6%
6: East	16,571	2.9%	2.7%
7: South Central	5,876	3.7%	3.3%
8: Southwest	9,875	5.0%	4.6%
9: Southeast	9,907	4.1%	3.8%
10: Detroit Metro	63,334	3.1%	3.1%

Table A-7. High ED Utilization in Year 1 and Year 2 by Enrollee Characteristics (Continued)

		Proportion with ≥5 ED Visits in	
	N	**Year 1**	**Year 2**
Health Plan at Start of Year 1			
Plan A	2,636	4.2%	4.0%
Plan B	11,820	2.9%	2.9%
Plan C	8,948	2.9%	3.2%
Plan D	1,074	2.4%	2.6%
Plan E	9,166	2.6%	2.3%
Plan F	17,904	3.1%	2.9%
Plan G	36,018	4.0%	3.9%
Plan H	17,109	3.9%	3.9%
Plan I	1,396	3.2%	3.5%
Plan J	9,858	4.6%	4.1%
Plan K	5,144	3.7%	3.5%
Plan L	19,514	3.5%	3.3%
Plan M	5,391	3.0%	3.2%
Chronic Condition Identified in Year 1			
Asthma	7,354	8.5%	7.7%
Cardiovascular disease	6,074	6.4%	5.8%
Chronic obstructive pulmonary disease (COPD)	12,776	7.1%	6.6%
Diabetes	14,411	5.6%	5.1%
More than one condition	*5,834*	*8.6%*	*8.0%*
None of the four conditions	112,067	2.7%	2.8%

Table A-8. Predictors of High ED Utilization (≥5 ED Visits in the Year)

	Year 1		Year 2		Both	
	aOR	**CI**	**aOR**	**CI**	**aOR**	**CI**
Gender						
Women	**1.39***	**[1.31, 1.47]**	**1.52***	**[1.43, 1.62]**	1.59*	[1.46, 1.75]
Men	Ref.		Ref.		Ref.	
Age						
19-34 Years	**4.38***	**[4.01, 4.79]**	**3.76***	**[3.44, 4.11]**	**5.40***	**[4.69, 6.22]**
35-49 Years	**2.69***	**[2.47, 2.92]**	**2.45***	**[2.25, 2.66]**	**3.28***	**[2.86, 3.76]**
50-64 Years	Ref.		Ref.		Ref.	
Income (% FPL)						
0 to 35%	**1.85***	**[1.68, 2.04]**	**1.98***	**[1.79, 2.18]**	**2.30***	**[1.96, 2.69]**
>35% to 75%	**1.18****	**[1.04, 1.33]**	**1.20****	**[1.05, 1.36]**	**1.31****	**[1.06, 1.60]**
>75% to <100%	1.04	[0.91, 1.19]	1.10	[0.96, 1.27]	1.15	[0.92, 1.44]
≥100%	Ref.		Ref.		Ref.	
Race/Ethnicity						
Hispanic	0.96	[0.81, 1.15]	1.02	[0.85, 1.21]	0.79	[0.59, 1.06]
Non-Hispanic Black	**1.47***	**[1.37, 1.58]**	**1.59***	**[1.48, 1.70]**	**1.43***	**[1.28, 1.59]**
Non-Hispanic White	Ref.		Ref.		Ref.	
Prosperity Region						
1: Upper Peninsula	Ref.		Ref.		Ref.	
2: Northwest	0.57	[0.30, 1.08]	1.78	[0.34, 9.34]	0.47	[0.01, 18.25]
3: Northeast	**0.41****	**[0.22, 0.78]**	1.67	[0.32, 8.67]	0.36	[0.01, 13.73]
4: West	1.17	[0.63, 2.15]	3.75	[0.72, 19.49]	1.21	[0.03, 45.98]
5: East Central	0.68	[0.37, 1.27]	2.46	[0.47, 12.75]	0.69	[0.02, 26.20]
6: East	0.54	[0.29, 1.00]	1.82	[0.35, 9.45]	0.50	[0.01, 18.92]
7: South Central	0.72	[0.38, 1.35]	2.11	[0.40, 11.04]	0.60	[0.02, 23.10]
8: Southwest	0.90	[0.49, 1.66]	2.89	[0.56, 15.00]	0.83	[0.02, 31.54]
9: Southeast	0.79	[0.43, 1.46]	2.58	[0.50, 13.42]	0.76	[0.02, 29.03]
10: Detroit Metro	**0.46****	**[0.25, 0.85]**	1.68	[0.32, 8.72]	0.40	[0.01, 15.16]
Health Plan						
Plan A	1.72	[0.91, 3.26]	0.42	[0.08, 2.17]	2.11	[0.06, 80.84]
Plan B	1.35	[0.73, 2.50]	0.35	[0.07, 1.79]	1.29	[0.03, 49.27]
Plan C	1.38	[0.74, 2.57]	0.39	[0.08, 2.03]	1.29	[0.03, 49.06]
Plan D	1.12	[0.54, 2.31]	0.30	[0.06, 1.61]	0.75	[0.02, 30.64]
Plan E	1.14	[0.61, 2.13]	0.28	[0.05, 1.45]	1.05	[0.03, 39.97]
Plan F	1.39	[0.76, 2.57]	0.37	[0.07, 1.92]	1.27	[0.03, 48.17]
Plan G	1.56	[0.85, 2.87]	0.42	[0.08, 2.14]	1.43	[0.04, 54.30]
Plan H	1.58	[0.86, 2.92]	0.42	[0.08, 2.17]	1.54	[0.04, 58.29]
Plan I	1.21	[0.60, 2.44]	0.42	[0.08, 2.22]	1.43	[0.04, 56.00]
Plan J	1.28	[0.69, 2.37]	0.32	[0.06, 1.67]	1.08	[0.03, 40.94]
Plan K	1.84	[0.98, 3.44]	0.43	[0.08,2.26]	1.73	[0.05, 66.14]
Plan L	1.58	[0.86, 2.92]	0.39	[0.08, 2.01]	1.51	[0.04, 57.42]
Plan M	Ref.		Ref.		Ref.	

Separate logistic regression models run for Year 1, Year 2 and both Year 1 and 2, each controlling for the covariates shown.
Adjusted odds ratios, 95% confidence intervals in brackets. *$P \leq 0.001$ ** $P \leq 0.01$

Table A-8. Predictors of High ED Utilization (Continued)

	Year 1		Year 2		Both	
	aOR	**CI**	**aOR**	**CI**	**aOR**	**CI**
Chronic Condition Status						
Asthma	**3.00***	**[2.71, 3.32]**	**2.71***	**[2.45, 3.01]**	**3.56***	**[3.08, 4.12]**
Cardiovascular disease	**3.62***	**[3.29, 4.00]**	**3.06***	**[2.76, 3.39]**	**3.93***	**[3.39, 4.55]**
COPD	**2.41***	**[1.96, 2.98]**	**1.84***	**[1.46, 2.31]**	**2.20***	**[1.55, 3.14]**
Diabetes	**2.16***	**[1.94, 2.41]**	**1.92***	**[1.72, 2.15]**	**2.44***	**[2.08, 2.87]**
More than one condition	**5.40***	**[4.85, 6.01]**	**4.66***	**[4.18, 5.19]**	**7.10***	**[6.12, 8.24]**
None of the four conditions	Ref.		Ref.		Ref.	

Separate logistic regression models run for Year 1, Year 2 and both Year 1 and 2, each controlling for the covariates shown.
Adjusted odds ratios, 95% confidence intervals in brackets. *$P \leq 0.001$ ** $P \leq 0.01$

Table A-9. ED Utilization by Primary Care Pattern – Unadjusted Bivariate Results

	ED Rate (per 1,000 member-months)		High ED Utilization (% with ≥5 ED Visits in Year)	
Primary Care Visit Pattern	**Year 1**	**Year 2**	**Year 1**	**Year 2**
Overall Population				
Regular primary care	79.84	78.09	4.2%	4.1%
Year 1 only	57.90	42.06	2.4%	1.5%
Year 2 only	52.94	72.51	2.2%	3.1%
No primary care	37.53	37.12	1.2%	1.1%
Chronic Condition Identified in Year 1				
Asthma				
Regular primary care	127.97	116.71	8.5%	7.8%
Year 1 only	117.61	89.32	9.2%	5.1%
Year 2 only	127.55	132.42	8.0%	9.7%
No primary care	137.57	102.38	7.9%	6.6%
Cardiovascular disease				
Regular primary care	111.41	102.80	6.5%	5.9%
Year 1 only	106.95	81.84	5.4%	3.6%
Year 2 only	121.21	126.42	8.6%	8.6%
No primary care	66.67	52.63	4.1%	5.5%
COPD				
Regular primary care	116.50	106.29	7.2%	6.7%
Year 1 only	92.61	70.03	4.2%	2.7%
Year 2 only	161.64	174.78	10.4%	12.3%
No primary care	161.51	141.03	8.1%	10.5%
Diabetes				
Regular primary care	93.64	89.24	5.5%	5.2%
Year 1 only	88.51	57.05	6.6%	2.7%
Year 2 only	137.17	155.63	8.4%	9.7%
No primary care	138.19	110.17	7.6%	7.6%

Table A-10. Influence of Primary Care Visit Pattern on Year 2 ED Visit Rate (Adjusted)

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			≤0.001
Regular primary care	**93.68**	[86.34, 101.60]	
Year 1 only	**61.21**	[54.48, 68.77]	
Year 2 only	**127.80**	[109.10, 149.80]	
No primary care	**87.06**	[72.42, 104.40]	
No Chronic Condition Identified in Year 1			
Regular primary care	**59.39**	[57.16, 61.70]	≤0.001
Year 1 only	**29.53**	[28.07, 31.06]	
Year 2 only	**52.41**	[49.80, 55.15]	
No primary care	**25.68**	[24.44, 26.98]	

Adjusted for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan

Table A-11. ED Utilization by Healthy Behavior Status – Unadjusted Bivariate Results

	ED Rate (per 1,000 member-months)		High ED Utilization (% with ≥5 ED Visits in Year)	
HRA Healthy Behavior Status	**Year 1**	**Year 2**	**Year 1**	**Year 2**
Overall Population				
Selected behavior to change	63.14	62.86	3.0%	3.0%
No behavior to address	42.69	44.59	1.7%	1.6%
Not ready for change	68.10	73.49	3.0%	5.4%
Serious condition/healthy behavior not required	154.02	122.56	9.0%	9.0%
No HRA completion	74.53	72.50	3.8%	3.7%

Table A-12. Influence of HRA Completion on Year 2 ED Visit Rate (Adjusted)

	Year 2 Adjusted Rate	95% CI	*P*-value
Chronic Condition Identified in Year 1			≤0.001
Selected behavior to change	**81.25**	[54.13, 122.00]	
No behavior to address	**69.86**	[45.43, 107.40]	
Not ready for change	**106.80**	[59.89, 190.50]	
Serious condition/healthy behavior not required	**165.40**	[93.55, 292.50]	
No HRA completion	**96.96**	[64.65, 145.40]	
No Chronic Condition Identified in Year 1			
Selected behavior to change	**51.17**	[39.28, 66.66]	0.02
No behavior to address	**37.03**	[28.20, 48.63]	
Not ready for change	**59.91**	[39.63, 90.56]	
Serious condition/healthy behavior not required	**85.90**	[54.36135.70]	
No HRA completion	**52.99**	[40.72, 68.97]	

Adjusted for Year 1 characteristics: gender, age, FPL, race/ethnicity, prosperity region, health plan

Table A-13. Receipt of Preventive Services

	Eligible Population	Year 1	Year 2	Either Year 1 or 2
Preventive Care Visit	145,978	39.8 %	32.9 %	**54.3%**
Flu Vaccine	145,978	21.1%	21.3%	**30.2%**
Other Vaccine	145,978	4.7%	4.4%	**8.4%**
Breast Cancer Screening	44,612	45.6%	41.2%	**62.4%**
Cervical Cancer Screening	73,721	33.6%	26.0%	**50.3%**
Colon Cancer Screening	46,044	23.9%	16.8%	**36.8%**
Other Screening	145,978	30.4%	27.9%	**44.6%**
Smoking/Tobacco Use Cessation Assistance	36,158	18.6%	18.4%	**28.5%**
Preventive Dental Care	145,978	24.5%	26.7%	**35.8%**
Any Healthy Behavior	*145,978*	***71.5%***	***68.5%***	***83.7%***

Table A-14. Receipt of Any Healthy Behavior (Either Year) by Enrollee Characteristics

	N	% Receiving Any Healthy Behavior	*P*-value
Overall Population	**145,978**	**83.7%**	
Gender			
Women	79,112	90.4%	≤0.001
Men	66,866	75.8%	
Age at Start of Year 1			
19-34 Years	51,713	79.5%	≤0.001
35-49 Years	48,210	83.9%	
50-64 Years	46,055	88.2%	
Income (% FPL) at Start of Year 1			
0 to 35%	90,231	82.4%	≤0.001
>35% to 75%	18,601	86.0%	
>75% to <100%	15,452	85.6%	
≥100%	21,654	85.9%	
Race/Ethnicity			
Hispanic	4,103	82.9%	≤0.001
Non-Hispanic Black	35,663	81.6%	
Non-Hispanic White	93,586	84.4%	
Prosperity Region at Start of Year			
1: Upper Peninsula	5,387	79.1%	≤0.001
2: Northwest	3,794	86.9%	
3: Northeast	4,608	83.4%	
4: West	16,971	84.5%	
5: East Central	9650	82.2%	
6: East	16,571	85.0%	
7: South Central	5,876	83.2%	
8: Southwest	9,875	81.7%	
9: Southeast	9,907	82.5%	
10: Detroit Metro	63,334	84.1%	

Table A-14. Receipt of Any Healthy Behavior (Either Year) by Enrollee Characteristics (Continued)

	N	% Receiving Any Healthy Behavior	*P*-value
Health Plan at Start of Year 1			
Plan A	2,636	75.9%	≤0.001
Plan B	11,820	83.2%	
Plan C	8,948	84.1%	
Plan D	1,074	75.7%	
Plan E	9,166	86.9%	
Plan F	17,904	84.8%	
Plan G	36,018	83.9%	
Plan H	17,109	83.2%	
Plan I	1,396	82.7%	
Plan J	9,858	86.1%	
Plan K	5,144	80.7%	
Plan L	19,514	83.7%	
Plan M	5,391	79.1%	
Chronic Condition Identified in Year 1			≤0.001*
Asthma	7,354	92.3%	
Cardiovascular disease	6,074	92.9%	
Chronic obstructive pulmonary disease (COPD)	12,776	94.4%	
Diabetes	14,411	93.4%	
More than one condition	*5,834*	95.3%	
None of the four conditions	112,067	80.9%	

P-value reflects chi-square comparison of subgroups.

**P*-value reflects chi-square comparison between enrollees with any vs. none of the four conditions.

Table A-15. Receipt of Any Healthy Behavior (Either Year) by Primary Care Pattern

	% Receiving Service among Enrollees with			
	Regular Primary Care	**Year 1 only**	**Year 2 only**	**No Primary Care**
Preventive Care Visit	64.3%	46.6%	44.1%	3.1%
Flu Vaccine	37.4%	16.2%	16.7%	5.2%
Other Vaccine	10.6%	3.8%	4.5%	1.2%
Breast Cancer Screening	68.8%	39.0%	39.3%	5.0%
Cervical Cancer Screening	55.3%	38.1%	40.8%	9.7%
Colon Cancer Screening	42.3%	23.1%	21.0%	1.9%
Other Screening	52.1%	33.5%	38.8%	9.7%
Smoking/Tobacco Use Cessation Assistance	31.9%	16.5%	21.7%	2.7%
Preventive Dental Care	40.4%	30.0%	28.1%	16.6%
Any Healthy Behavior	93.4%	77.6%	77.3%	30.1%

Table A-16. Receipt of Any Preventive Service (Either Year) by HRA Completion

	Selected behavior to change	No behavior to address	Not ready for change	Serious Condition	No HRA Completion
Preventive Care Visit	73.2%	79.8%	66.3%	65.5%	47.3%
Flu Vaccine	41.5%	38.1%	33.7%	40.7%	26.3%
Other Vaccine	11.5%	6.6%	10.4%	15.2%	7.5%
Breast Cancer Screening	74.8%	75.6%	62.3%	74.2%	56.1%
Cervical Cancer Screening	56.8%	59.7%	55.6%	59.5%	47.4%
Colon Cancer Screening	46.4%	43.5%	35.6%	50.8%	31.8%
Other Screening	52.8%	52.8%	44.1%	50.3%	41.6%
Smoking/Tobacco Use Cessation Assistance	31.4%	17.6%	33.9%	39.0%	26.4%
Preventive Dental Care	42.8%	52.5%	36.6%	44.1%	32.9%
Any Healthy Behavior	96.1%	96.4%	95.1%	95.2%	79.2%

Table A-17. Change in Self-Reported Health Status

Reported Health Status (N=10,272)

	Health Status Year 1		Health Status Year 1 to Year 2		
	N	%	Improved	Stayed same	Got worse
Excellent/Very good	2,969	28.9%	--	59.8%	40.2%
Good	3,901	38.0%	20.1%	58.3%	21.6%
Fair/Poor	3,402	33.1%	36.0%	64.0%	--

		Health Status Year 1 to Year 2		
HRA Healthy Behavior Status	N	Improved	Stayed same	Got worse
Selected behavior to change	9,063	19.5%	60.6%	19.9%
No behavior to address	621	19.5%	63.1%	17.4%
Not ready for change	14	*	*	*
Serious condition	18	*	*	*
No HRA completion	556	19.6%	58.6%	21.8%

*data not shown; includes cell sizes <5

.

Table A-18. Receipt of Diabetes-Specific Preventive Services

		% Receiving (Either Year)	
	N	**Hemoglobin A1c Testing**	**LDL-C Screening**
Overall Population with Diabetes	14,411	**96.0%**	**92.0%**
Primary Care Visit Pattern			
Regular primary care	13,725	97.0%	93.2%
Year 1 only	452	83.2%	73.2%
Year 2 only	155	76.1%	71.6%
No primary care	79	36.7%	34.2%
HRA Healthy Behavior Status			
Selected behavior to change	4,570	98.0%	95.5%
No behavior to address	177	97.5%	98.5%
Not ready for change	23	100.0%	92.0%
Serious condition	34	100.0%	94.3%
No HRA completion	8,123	94.8%	90.1%

Table A-19. Medical-Surgical Inpatient Rates per 1,000 Member Months (Unadjusted) by Enrollee Characteristics

	N	Year 1	Year 2
Overall Inpatient Rate	**145,978**	**8.12**	**8.32**
Gender			
Women	79,112	8.28	8.46
Men	66,866	7.93	8.16
Age at Start of Year 1			
19-34 Years	51,713	5.24	5.53
35-49 Years	48,210	9.47	9.29
50-64 Years	46,055	9.94	10.43
Income (% FPL) at Start of Year 1			
0 to 35%	90,231	9.13	9.58
>35% to 75%	18,601	6.21	6.63
>75% to <100%	15,452	6.54	5.95
≥100%	21,654	6.65	6.23
Race/Ethnicity			
Hispanic	4,103	7.62	7.53
Non-Hispanic Black	35,663	8.92	9.38
Non-Hispanic White	93,586	7.90	8.07
Prosperity Region at Start of Year 1			
1: Upper Peninsula	5,387	5.68	6.64
2: Northwest	3,794	6.88	6.85
3: Northeast	4,608	6.19	6.09
4: West	16,971	7.46	8.20
5: East Central	9650	7.07	8.05
6: East	16,571	7.95	8.05
7: South Central	5,876	7.92	7.99
8: Southwest	9,875	7.95	7.87
9: Southeast	9,907	9.17	8.76
10: Detroit Metro	63,334	8.80	8.89

Table A-19. Medical-Surgical Inpatient Rates per 1,000 Member Months (Unadjusted) by Enrollee Characteristics (Continued)

	N	Year 1	Year 2
Health Plan at Start of Year 1			
Plan A	2,636	8.38	8.37
Plan B	11,820	9.11	8.34
Plan C	8,948	8.92	9.17
Plan D	1,074	9.08	10.66
Plan E	9,166	6.99	7.55
Plan F	17,904	8.48	8.43
Plan G	36,018	8.04	8.34
Plan H	17,109	7.98	8.13
Plan I	1,396	8.36	6.34
Plan J	9,858	8.14	8.61
Plan K	5,144	9.98	11.84
Plan L	19,514	7.68	7.72
Plan M	5,391	5.71	6.67
Chronic Condition Identified in Year 1			
Asthma	7,354	9.28	10.36
Cardiovascular disease	6,074	36.83	24.23
Chronic obstructive pulmonary disease (COPD)	12,776	25.00	20.11
Diabetes	14,411	20.80	18.95
More than one condition	*5,834*	37.00	28.84
None of the four conditions	112,067	4.82	5.93

Table A-20. Medical-Surgical Inpatient Rates (Unadjusted) by Primary Care Visit Pattern

	Medical-Surgical Inpatient Stays per 1,000 member-months	
Primary Care Visit Pattern	**Year 1**	**Year 2**
Overall Population		
Regular primary care	9.82	9.96
Year 1 only	5.31	3.23
Year 2 only	4.15	8.33
No primary care	2.24	2.35
Chronic Condition Identified in Year 1		
Asthma		
Regular primary care	9.64	10.70
Year 1 only	7.44	4.92
Year 2 only	3.32	12.81
No primary care	5.53	6.64
Cardiovascular disease		
Regular primary care	37.19	25.21
Year 1 only	27.52	7.11
Year 2 only	45.46	41.72
No primary care	43.59	8.99
Chronic obstructive pulmonary disease (COPD)		
Regular primary care	24.96	20.34
Year 1 only	18.52	9.07
Year 2 only	42.97	53.82
No primary care	45.09	22.27
Diabetes		
Regular primary care	20.44	18.98
Year 1 only	23.79	12.60
Year 2 only	39.81	31.77
No primary care	30.59	24.36

Table A-21. Consistency of Enrollee Demographic Characteristics, Year 1 to Year 2

	N Year 1	% in same group Year 2
Income (% FPL)		
0 to 35%	90,231	**97.5%**
>35% to 75%	18,601	**95.3%**
>75% to <100%	15,452	**94.5%**
≥100%	21,654	**94.9%**
Prosperity Region		
1: Upper Peninsula	5,387	**99.1%**
2: Northwest	3,794	**96.5%**
3: Northeast	4,608	**96.8%**
4: West	16,971	**98.5%**
5: East Central	9650	**97.9%**
6: East	16,571	**98.2%**
7: South Central	5,876	**97.3%**
8: Southwest	9,875	**98.3%**
9: Southeast	9,907	**97.4%**
10: Detroit Metro	63,334	**99.3%**
Health Plan		
Plan A	2,636	**84.1%**
Plan B	11,820	**94.0%**
Plan C	8,948	**74.6%**
Plan D	1,074	**82.6%**
Plan E	9,166	**61.2%**
Plan F	17,904	**95.6%**
Plan G	36,018	**96.0%**
Plan H	17,109	**93.1%**
Plan I	1,396	**73.6%**
Plan J	9,858	**93.6%**
Plan K	5,144	**90.7%**
Plan L	19,514	**92.6 %**
Plan M	5,391	**99.0%**

Table A-22. Consistency of HEDIS-Based Chronic Condition Identification, Year 1 to Year 2

Chronic Condition	Year 1 Identification*		Year 2 Identification #		% in same category in Year 2
Asthma					*95.3% overall*
	Yes	7,354	Yes	4,417	60.1%
			No	2,937	39.9%
	No	138,624	Yes	3,886	2.8%
			No	134,738	97.2%
Cardiovascular disease					*96.1% overall*
	Yes	6,074	Yes	3,500	57.6%
			No	2,574	42.4%
	No	139,904	Yes	3,407	2.2%
			No	136,857	97.8%
COPD					*92.8% overall*
	Yes	12,776	Yes	7,968	62.4%
			No	4,808	37.6%
	No	133,202	Yes	5,713	4.3%
			No	127,489	95.7%
Diabetes					*97.0% overall*
	Yes	14,411	Yes	12,828	89.0%
			No	1,583	11.0%
	No	131,567	Yes	2,746	2.1%
			No	128,821	97.9%

Report on the Impact of Cost Sharing in the Healthy Michigan Plan

Healthy Michigan Plan Evaluation Domains V/VI

July 30, 2018

University of Michigan
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Acknowledgements: The authors are grateful for valuable assistance with data management from Corey Bryant and Matthias Kirch.

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Executive Summary

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). The focus of Domains V and VI is to evaluate the role of cost-sharing in the program with a focus on:

1) whether the cost-sharing structure, specifically the assessment of co-payments for certain medical services and monthly contributions, affects how much enrollees spend (Hypothesis 1)
2) whether the cost-sharing structure affects the services enrollees use (Hypothesis 2)
3) whether the cost-sharing structure affects enrollees' likelihood of disenrolling from the program (Hypothesis 3)
4) whether healthy behavior rewards are associated with more use of preventive care (Hypothesis 4).

Methods

Data

To find out how cost-sharing affected behavior, we focused on those enrollees who had experience with the cost-sharing features of the Healthy Michigan Plan (HMP). Cost-sharing begins after six months of continuous enrollment in an HMP managed care plan. We used enrollment data from the Michigan Department of Health and Human Services Data Warehouse to determine our study population and included enrollees who met the following criteria:

- First month of HMP managed care (MC) between April 2014 and March 2015 (1st year of HMP)
- HMP MC enrollment for at least 18 consecutive months
- Between 22 and 62 years old in 2014
- Not enrolled in a special program (e.g. nursing home care, hospice care)

We analyzed data from a 30-month period (April 2014-September 2016). Enrollees in other Medicaid programs for a portion of this 30 months were included if they met the criteria above. For some analyses, we used survey data as described in the body of the report.

Analysis

For all hypotheses, we completed statistical analyses of multivariate relationships between our outcomes (e.g. total spending, service use, disenrollment) and our key explanatory variables of interest, cost-sharing and income as a percent of the federal poverty level (FPL). We used linear and non-linear regression techniques that have been validated to provide accurate associations between variables and tested our results with alternative models. For hypotheses 1 and 2, we compared spending and use of preventive care and other services for three different income groups: 0-35% FPL, 36-99% FPL, 100+% FPL. Since many in the 0-35% group had no reported income, they were effectively exempt from cost-sharing. Those in the 36-99% category faced co-payments for services used but not monthly contributions, and those in the 100+% category faced both co-payments and monthly contributions. For hypothesis 3, we compared

disenrollment for those who had cost-sharing against those who did not, and especially focused on those close to 100% FPL. For hypothesis 4, we examined whether enrollees with a completed health risk assessment were more likely to use a preventive service.

Results

Demographic Characteristics

The population of 158,369 enrollees who met the selection criteria were:

- 55% female
- 64% white
- Likely to live in the Detroit Metro area (42%)
- Likely to have an income at 0-35% FPL (58%)

Cost-Sharing Characteristics

- Slightly more than half of the population (51%) had a cost-sharing obligation (either a co-pay or contribution that generated a non-zero statement)
- The average quarterly statement for those with an obligation was $16.85 ($11.11 for those below 100% FPL and $30.93 for those at or above 100% FPL)
- Overall, about one quarter (23%) of all enrollees who owed anything paid in full, about half (48%) of those who owed money made no payments
- People above 100% of FPL were more likely to pay some or all of their statement than people below despite their higher average obligations
- After the first potential 6-month period of cost-sharing (months 7-12 of enrollment), rates of payment dropped. For those who paid at least once, an estimated 65% paid in full for months 7-12 and 56% paid in full for months 13-18.

Medical and Pharmaceutical Spending (Hypothesis 1)

Spending here is defined not just as the cost-sharing amount the enrollee is obligated to pay for the service, but as the total amount spent by both the health plan and the enrollee.

- Average monthly amount spent (April 2014-Sept 2016): $360
- Median monthly spending: $136
- Those with incomes 0-35% FPL spent more per month ($391) than those with incomes 36-99% FPL ($313) or 100+% FPL ($327)
- Pharmaceutical spending increased for the entire HMP population with 18 months of continuous enrollment. That result is consistent with, and probably driven by, the initiation and maintenance of medications for chronic disease.
- Medical spending remained flat or declined for those with higher levels of cost-sharing, either from co-payments or monthly contributions. Though we cannot definitively attribute this change to cost-sharing attributes of HMP, these general patterns may indicate that those with monthly contributions may have become more efficient users of the healthcare system over time.

Service Use (Hypothesis 2)

- We use services exempt from co-payments (vs. services where co-payments are likely) as an indicator of which services the state deems high (vs. low) value. During the study period, 81% of enrollees received a co-pay exempt preventive service (exemption often based on care for a chronic condition per program rules). 56% received a service likely to have a co-payment and incurred a co-payment for it (vision exam, chiropractic treatment, new patient visit, office consultation). All income groups had similar rates of co-pay exempt and co-pay likely service use.
- Co-pay exempt preventive service use and co-pay likely service use declined over time.
- Use of the emergency department declined over time.

Disenrollment (Hypothesis 3)

- People with co-pay exempt chronic conditions are less likely to disenroll than those without. Among those with co-payments, those with the highest co-payments are less likely to disenroll.
- Enrollees just above 100% FPL have a higher rate of disenrollment than those just below it, which may be caused by monthly contributions. However, those with evidence of higher medical needs do not have higher disenrollment above 100% FPL, suggesting the plan retains clinically vulnerable populations regardless of cost sharing obligations.
- Among previously enrolled individuals, those with cost-sharing obligations and those who pay their obligations are more likely than those without obligations to gain insurance after disenrolling from HMP, underscoring that disenrollment does not always lead to uninsurance.
- In a survey of those no longer enrolled in Healthy Michigan, most enrollees said the amount they had to pay was fair and affordable. Among those with any cost obligations, 89% said they felt the amount they had to pay was fair and 95% said the amount they had to pay was affordable.

Healthy Behaviors (Hypothesis 4)

- People who have a recorded attestation for a completed Heath Risk Assessment are much more likely than those who do not have an attestation to have a preventive visit (84% vs 50%), have a preventive screening (93% vs 71%), and use a co-pay exempt medication to control a chronic disease (66% vs 48%).

Conclusion

Overall, we found that cost-sharing requirements may reduce the amount spent by plans and enrollees on medical services, though we could not rule out other causes of the decline. Cost-sharing does not appear to affect the mix of high- and low-value services used in this population. Monthly contribution amounts may cause increased disenrollment from the plan among those with low medical spending and no chronic conditions but not among those with higher medical needs. While people who complete Health Risk Assessments are more likely to also complete healthy preventive behaviors, we could not determine if the health risk assessments themselves increased these behaviors or if they were both the result of a physician visit.

Introduction

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting an evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings from Domains V and VI of the evaluation, which assesses the impact of monthly contribution requirements and the impact of cost-sharing implemented through the MI Health Account framework. As outlined in the CMS Special Terms and Conditions, the focus of Domains V and VI is to 1) assess whether the contribution requirements for certain enrollees affect propensity to retain insurance or use health care services and 2) evaluate whether features of the MI Health Accounts deter enrollees from receiving certain health care services and/or encourage enrollees to be more cost conscious.

Background on Cost Sharing in the Healthy Michigan Plan

One of the key market-based features of the Healthy Michigan Plan is the MI Health Account, which facilitates cost-sharing for HMP enrollees. Cost-sharing obligations are tracked and paid through the MI Health Accounts and enrollees receive a new statement, with a payment schedule as applicable, each quarter. While Medicaid programs have historically placed little emphasis on patient-directed financial incentives, MI Health Accounts aim to encourage enrollees to take more responsibility when it comes to their healthcare costs, and perhaps modify their behaviors to reduce costs.

Some co-payments are waived for State-defined services to treat and manage chronic conditions (e.g., diabetes) and for preventive care. Additionally, certain populations are exempt from all co-payments including those who are pregnant, enrollees under age 21, enrollees receiving nursing home or hospice care, Native Americans and Alaskan Natives eligible to receive services furnished by an Indian health care provider or through referral under contract health care services, and individuals who are enrolled in Children's Special Health Care Services (CSHCS). Enrollees with incomes above 100% of the federal poverty level (FPL) also pay monthly contributions into their accounts, up to 2% of their annual income. All enrollees have an opportunity to reduce their co-payments and monthly contributions through completion of a health risk assessment and attesting to a healthy behavior.

During the first six months of enrollment, no co-payments or monthly contributions are due. All cost-sharing obligations begin in the 7th month or later of enrollment in a managed care plan and are based on service use and income. MI Health Account statements are sent quarterly to enrollees with cost-sharing obligations and include a monthly contribution based on income (for those above 100% FPL) and co-payments based on utilization of services. Enrollees generally are expected to pay monthly (1/3 of the quarterly statement) though can pay all at once. Not all health services or medications include co-payments, so enrollees are not always responsible for utilization-based cost sharing each quarter even if they do use services. Additionally, cost-sharing amounts can be reduced by completing a health risk assessment, and these reductions are shown on the MI Health Account statement.

If an enrollee fails to pay his or her required co-payments and/or monthly contributions, after a six-month grace period, state law directs MDHHS to pursue certain penalties or avenues for collection (e.g. offsets of state tax refunds or state lottery winnings), though enrollees cannot be disenrolled from the program due to failure to comply with payment requirements.

These novel benefit designs represent some of the first efforts to implement financial incentives among Medicaid enrollees. On one hand, these incentives have the potential to yield more engaged enrollees who make more informed choices about their use of health care services and their health behaviors. On the other hand, higher cost-sharing among these low-income individuals may delay receipt of necessary care which could lead to adverse health consequences.

Domain V/VI Hypotheses

The hypotheses as outlined in the CMS Special Terms and Conditions:

Hypothesis V/VI.1:

Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more efficient use of health care services, as measured by total costs of care over time relative to their initial year of enrollment, and relative to trends in the Healthy Michigan Plan's population below 100% of the Federal Poverty Level that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care.

Hypothesis V/VI.2:

Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more effective use of health care services relative to their initial year of enrollment, as indicated by a change in the mix of services from low-value (e.g., non-urgent emergency department visits, low priority office visits subject to co-payments) to higher-value categories (e.g., emergency-only emergency department visits, high priority office visits not subject to co-payments), and relative to trends in the Healthy Michigan Plan's population below 100% of the Federal Poverty Level that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care. Several questions on the Healthy Michigan Voices Survey also address this hypothesis.

Hypothesis V/VI.3:

Cost-sharing and contributions implemented through the MI Health Account framework will not be associated with beneficiaries dropping their coverage through the Healthy Michigan Plan. Beneficiaries above 100% of FPL who have few health care needs may consider dropping coverage due to the required contributions. However, those contributions do not begin until 6 months after enrollment and can be reduced by 50% based on healthy behaviors. Therefore, we expect most beneficiaries will have little incentive to let their enrollment lapse, despite continued eligibility. To determine the prevalence of coverage drops due to cost-sharing, we will monitor compliance with contribution requirements and use the Healthy Michigan Voices survey to assess reasons for failure to re-enroll.

Hypothesis V/VI.4:

A. Exemptions from cost-sharing for specified services for chronic illnesses and rewards implemented through the MI Health Account framework for completing a health risk assessment with a primary care provider and agreeing to behavior changes will be associated with beneficiaries increasing their healthy behaviors and their engagement with healthcare decision-making relative to their initial year of enrollment. Several questions on the Healthy Michigan Voices Survey also address this hypothesis.

B. This increase in healthy behaviors and engagement will be associated with an improvement in enrollees' health status over time, as measured by changes in elements of their health risk assessments and changes in receipt of recommended preventive care (e.g., flu shots, cancer screening) and adherence to prescribed medications for chronic disease (e.g., asthma controller medications).

Methods

Below, we provide an overview of the methods and data sources that apply to testing the four specified hypotheses. Hypothesis-specific methods will be described later in the sub-sections devoted to each hypothesis.

Eligible Population

This report reflects a secondary analysis of administrative claims, cost sharing and enrollment data for Healthy Michigan Plan enrollees. The study population for hypotheses 1, 2, and 4 includes Medicaid enrollees ages 22-62 in 2014 who enrolled in a Healthy Michigan managed care plan between April 2014 and March 2015 and who were continuously enrolled for at least 18 months. We followed enrollees for up to 30 months if they remained continuously enrolled. We only measured periods during the 18 months or more of continuous enrollment, such that gaps in HMP enrollment were not allowed. Our study period included claims and cost-sharing information through September 2016. The 18-month eligibility requirement was selected to allow for an initial observation period of 6 months to serve as a baseline for health service utilization and spending prior to the receipt of the first MI Health Account statement, and a follow-up period of at least one year to allow measurement of utilization or spending changes. Enrollee eligibility months that include fee-for-service Medicaid, incarceration, and emergency services only are excluded (and thus do not count toward the 18-month eligibility criteria). To ensure that enrollees had not become Medicare eligible on the basis of age during our follow up period, we excluded enrollees younger than 22 in 2014, older than 64 in 2016 (62 in 2014), those in Children's Special Health Care Services, those in nursing homes, and those who ever received hospice services. Application of these criteria yielded an analytic population of 158,369 eligible enrollees; some analyses have slightly fewer enrollees due to missing variables. For portions of hypothesis 3, we relaxed the enrollment criteria, requiring at least 6 months of continuous enrollment rather than 18 as looking at changing behavior within the program was less relevant to the hypothesis. That population size is 469,465.

For additional analyses in hypotheses 3 and 4 we used samples who responded to two Healthy Michigan Voices surveys administered under Domain IV of the Healthy Michigan Plan evaluation. For hypothesis 3, which pertains to dropping coverage, we included respondents from the 2016-17 Healthy Michigan Voices survey of individuals no longer enrolled in the Healthy Michigan Plan who initially enrolled before March 2015 in order to match with our existing data. That sample includes 1,060 people. Analyses for hypothesis 4 include information from the 2016 Healthy Michigan Voices survey of current enrollees, which had a total of 4,090 respondents. We did not require continuous enrollment for these samples beyond that required to participate in the surveys.

Data Source

Administrative data were drawn from the MDHHS Data Warehouse. Data included Medicaid claims across service types (e.g., medical, pharmacy), program enrollment data, demographic

characteristics, health risk assessment completion and cost-share data. Claims related to substance abuse disorder were excluded from the dataset, consistent with MDHHS protocols, though enrollees with these claims were included, as was their non-substance abuse health care use. Data extraction was performed via a secure Virtual Private Network (VPN) connection by a data analyst with specific approval from MDHHS for this purpose, using existing protocols that require two layers of password protection. Data extraction is allowed under the authority of a Business Associates' Agreement between the University of Michigan and the MDHHS. Data processing, encryption and storage are done in accordance with a data security protocol approved by the MDHHS Compliance Office. Additionally, we used data from the 2016-17 Healthy Michigan Voices survey of individuals no longer enrolled in HMP and the 2016 Healthy Michigan Voices survey of current enrollees administered under Domain IV of the evaluation, as described above and in the methods section for each hypothesis.

Definitions

Demographic and Programmatic Characteristics: Demographic characteristics included age, gender, race, income level as a percent of FPL and MDHHS prosperity region. Age was evaluated in categories (under 30; 30 to 39; 40 to 49; over 50) based on birth year and held constant to reflect age in 2014. FPL was also evaluated in categories (0-35%; 36-99%; 100+ %) and allowed to change based on changes in FPL levels noted in enrollment data. Third-party liability (TPL) through concurrent public or private health insurance coverage was identified for each month of enrollment.

Spending: Spending measures are based on the total amount paid to health care providers for a service. Spending includes all medical care adjudicated through the claims process including outpatient visits, inpatient claims, emergency department visits, and pharmacy claims. It includes both the amount paid by the health plan, the state Medicaid program and, where applicable, the co-payment assessed to the enrollee. For most measures, medical spending for each enrollee was averaged at the monthly level.

Utilization-Based Measures: We used claims-based Current Procedural Terminology (CPT) codes to classify and define medical services and therapeutic class codes to define pharmaceuticals. We defined specific co-payment exempt services using state categories and specific lists of CPT codes defined by MDHHS. We defined co-pay likely services through claims-based analysis that allowed us to link CPT codes to co-payments. Specifically, we took a sample of claims from three non-contiguous months and measured which CPT codes were more often associated with co-payments. We then grouped these into service areas (e.g. vision exams, chiropractic services) and defined these groups as co-pay likely services. Co-pay likely medical services were those associated with a co-payment at least 50% of the time and the sample included at least 25 claims; co-pay likely medications were associated with a co-payment at least 40% of the time, with more than 3 claims.

Cost-sharing: Cost-sharing information comes from quarterly reports of enrollees' invoices and payments. The invoice amounts reflect the amount due and any reductions. We examined cost-sharing from the beginning of the program through the third quarter of 2016, combining monthly contribution and co-payment amounts to reflect the total amount that enrollees owe for each quarter, and applying the payment from that quarter to the amount due. For analysis over time, we calculated the fraction as the amount applied to each quarterly statement, divided by the total amount due.

For cross-sectional analyses, we calculated the total amounts owed and paid through the third quarter of 2016 and the fraction paid overall. We defined any fraction of 0.95 or above as full collection. Our calculated numbers represent the amount applied to an enrollees' account, which could differ from the amount paid in the case of overpayment. We coded any overpayments to reflect the full amount of the invoice owed and no more.

Co-payments: We identified co-payments through medical and pharmaceutical claims. The data do not reflect co-payments when they are waived for condition-based reasons, such as those waived for chronic diseases. However, the data may include co-payment amounts that are later waived or reduced for other reasons, including enrollees meeting their cost sharing limits or receiving reductions for Healthy Behavior rewards. Our analysis does not incorporate these later reductions.

Overall Analytic Plan for Testing Hypotheses

Domains V and VI use the implementation of cost sharing as a key independent variable to predict a number of outcomes. To provide context, we report descriptive statistics for the study population's demographic characteristics, as well as a characterization of the cost-sharing patterns (obligations and subsequent payments).

For hypotheses 1, 2 and 4, HMP enrollees' first 6 months in a health plan are compared against their later experiences, under the assumption that cost sharing implemented after the first 6 months of health plan enrollment may change behavior. We compare enrollees whose incomes are at 0-35 % of FPL and 36-99% of FPL, who are exempt from monthly contributions, to those above 100% of FPL, whose income and household size make them subject to monthly contributions. For hypothesis 3, we measured cost-sharing obligations and continued enrollment for those who are in an HMP managed care plan for at least 6 months continuously, excluding special populations mentioned above. We compared the obligations of those who disenroll from those who maintain enrollment for at least 6 to 12 more months.

Our statistical approach to all hypotheses uses multivariate regression models, either linear for continuous outcomes or discrete choice for binary outcomes. We use both fixed effects and repeated cross-sectional analysis to help evaluate the underlying dynamics of enrollee decisions. For outcomes in which data are skewed (i.e. spending outcomes), we use models that have been found less biased, including generalized linear models and transformations of the dependent variable. For a portion of the analysis for hypothesis 3, we use a regression discontinuity approach to measure disenrollment differences between those just above and just below the federal poverty line.

Results

Demographic Characteristics of Population

Sample characteristics are reported in Table 1, comparing the study population of enrollees continuously eligible for Healthy Michigan for at least 18 months (n=158,369) to shorter-term enrollees or those otherwise ineligible for inclusion in the analyses (n=411,169). Demographically, eligible enrollees were more likely to be older, female, and white compared to the ineligible population. The distribution of incomes and regions were quite similar across the two groups.

Table 1. Demographic Characteristics of Continuously Enrolled 18-30 Months in HMP Managed Care Plan vs. HMP Population Continuously Enrolled < 18 Months		
	Continuously Enrolled in HMP Managed Care 18+ months (n=158,369)	HMP Population Enrolled in Managed Care for < 18 months (n=411,169)
Age		
Under 35	30.0%	46.2%
35-44	21.8%	22.3%
45-54	29.9%	20.2%
55-62	18.3%	11.3%
Female	54.5%	50.5%
Race		
White	64.0%	58.2%
Black	24.2%	24.4%
American Indian/Alaskan Native	0.5%	0.8%
Hispanic	2.8%	3.7%
Asian/Pacific Islander	0.5%	0.6%
Other	7.9 %	12.3%
FPL		
0%	51.1%	47.6%
1-35%	7.2%	8.4%
36-99%	25.7%	27.7%
100+%	15.9%	16.3%
Region		
Upper Peninsula	3.6%	2.7%
Northwest	2.6%	2.8%
Northeast	3.2%	2.4%
West	12.0%	13.2%
East Central	6.7%	5.9%
East	11.5%	10.3%
Southeast	6.8%	7.7%
South Central	4.1%	4.3%
Southwest	7.1%	8.1%
Detroit Metro	42.3%	42.3%
Notes: Enrollees under 22 or over 62 in 2014 were excluded from both groups. Special exclusion populations (CSHCS), nursing home residence, hospice care) dropped from both groups compared here.		

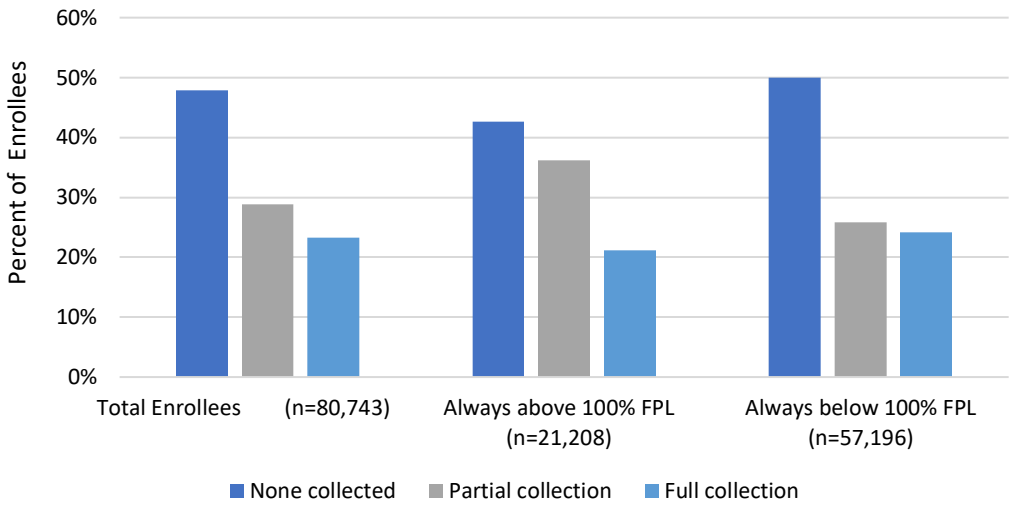
Cost-Sharing: Average Invoice Amounts and Payment Behavior

Average quarterly invoice amounts and payment status by FPL category are reported in Appendix Table 1.1. Slightly over half of those continuously enrolled for at least 18 months faced cost-sharing obligations. These obligations averaged $8.59 per quarter in the entire analysis sample, and $16.85 per quarter among those who actually faced obligations. Among those with obligations, payments

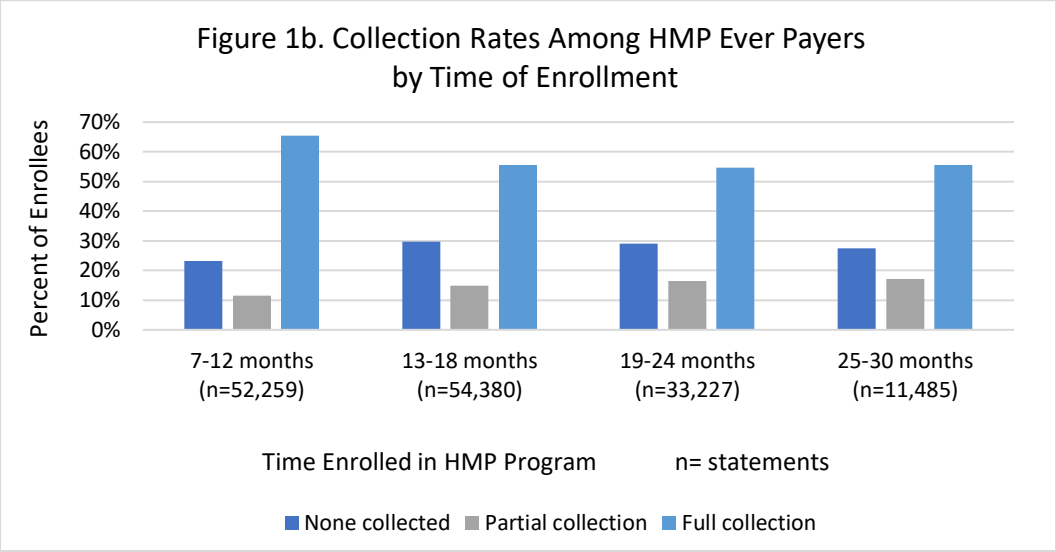
were collected from almost half of enrollees (Appendix Table 1.1a), with full payments being collected for about one fifth of enrollees. Enrollees with cost obligations who had an income above 100% FPL for the entire study period had a higher average quarterly invoice ($30.93) than those with an income below 100% FPL with cost obligations ($11.11).

Slightly less than half of enrollees with cost sharing obligations made no payments towards their obligation during the study period (Figure 1a). For those above 100% FPL, with substantially higher cost sharing obligations, rates of full payment were lower, though rates of partial payment were higher. Those with an income below 100% FPL were more likely to pay none of their obligation than those with higher incomes, despite having lower overall cost-sharing obligations. Results from an ordered logit model, adjusted for demographic characteristics (Table 1.2 in Appendix) confirmed these results, showing that those with higher incomes were more likely to pay some or all of their cost-sharing obligation.

Figure 1a. Collection Rates of HMP Enrollees with Cost-Sharing Obligations, by FPL



Among enrollees who made at least one payment (n=42,098), collection rates by 6-month time period are illustrated in Figure 1b. When split out by period, most enrollees who made at least one payment, paid in full within the period. Full payment was most likely in the period of 7-12 months of enrollment (that is, the first two quarters when obligations could be assessed). After that, full collections decreased after the first year of enrollment and remained at about 55%. Likewise, partial and non-payment remained roughly steady at about 16% and 30%, respectively, after the first period. Appendix Table 1.4 reports the predicted percentage of payment type per time frame from the two regression models; one is unadjusted and the other controls for age, gender, FPL and region. After adjusting for these characteristics, the overall patterns remain similar to the unadjusted observations in Figure 1b. In particular, Appendix Table 1.5 shows the probability of paying in full, controlling for an individual's initial payment behavior. Compared with the first period, an individual has lower likelihood of paying in full in later periods.



We examined the associations between cost-sharing amounts and perceived affordability or access barriers by linking cost-sharing data with 2016 HMV telephone survey data for 1,669 enrollees who had been enrolled in HMP for at least 18 months. We limited the cost-sharing data to the billed and collected premium contributions and co-payments in the 12 months prior to survey completion (sample characteristics in Appendix Table 1.8). We estimated the associations between cost-sharing amounts and perceived affordability and fairness of health care payments and delayed or foregone care in the previous 12 months. All models incorporated weights to adjust for probabilities of survey sampling and controlled for billed co-payments, age, gender, race/ethnicity, income, marital status, health status, and chronic conditions.

Compared to having no billed monthly contributions, we could not find associations between having moderate or high billed monthly contributions and enrollees being less likely to report health care payments as being affordable, less likely to report health care payments as being fair, or more likely to report delayed or foregone care due to cost (Appendix Table 1.9). Enrollees with higher cost-sharing obligations were more likely to pay at least some of what they were billed.

Hypothesis 1: Cost-Sharing and Total Cost of Care

> *Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more efficient use of health care services, as measured by total costs of care over time relative to their initial year of enrollment, and relative to trends in the Healthy Michigan Plan's population below 100% of the Federal Poverty Level that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care.*

One objective of the cost-sharing implemented through the MI Health Account framework is to enhance the efficiency of the use of health care services by making enrollees partially responsible for the cost of care (cost-sharing for services actually received) and, for those over 100% of FPL, for part of the cost of participating in the program through income-related monthly contributions. As a proxy for efficiency of health care use, we track how the total monthly cost of care changes over time for 22-62 year olds continuously enrolled for at least 18 months and compare that across enrollees at different income (and hence monthly contribution) levels. Because cost-sharing is capped at a certain percentage of income, the expected amount of cost-sharing increases with increasing income. The

lowest income enrollees (0-35% of FPL) will face little cost sharing in absolute terms, both because they are exempt from monthly contributions and because total cost-sharing is capped as a percentage of income. Higher income enrollees (36%-99% of FPL) are at risk for greater cost-sharing, but still face no monthly contributions. Finally, the highest income group of enrollees (100% or more of FPL) will face both co-payments and monthly contributions.

An ideal evaluation design would compare spending before and after HMP enrollment among HMP enrollees and an otherwise similar set of Medicaid enrollees not subject to cost-sharing. Because pre-HMP health care costs are unavailable and groups categorically exempt from cost-sharing are quite different than HMP Medicaid expansion enrollees who are subject to cost sharing, we cannot directly make such comparisons. Therefore, we track spending among enrollees over their enrollment period to determine how their costs change and whether that change varies across income groups. One might expect the first year of costs to differ from subsequent years for several reasons. First, there might be pent up demand among those newly gaining coverage. That is, it is possible that first year spending is higher simply because people who were previously uninsured had been delaying care due to cost. Second, the delivery of information on cost as well as cost obligations through the MI Health Account framework could encourage individuals to make more efficient use of the healthcare system, again lowering costs of care. Since such learning could take time and enrollees do not receive their first MI Health Account statement until after six months of enrollment in a health plan, such effects may not be visible until the second year of enrollment. Lastly, since it may take time for enrollees to make and complete appointments, initial costs might be low for some period of time as new enrollees establish provider relationships.

Methods

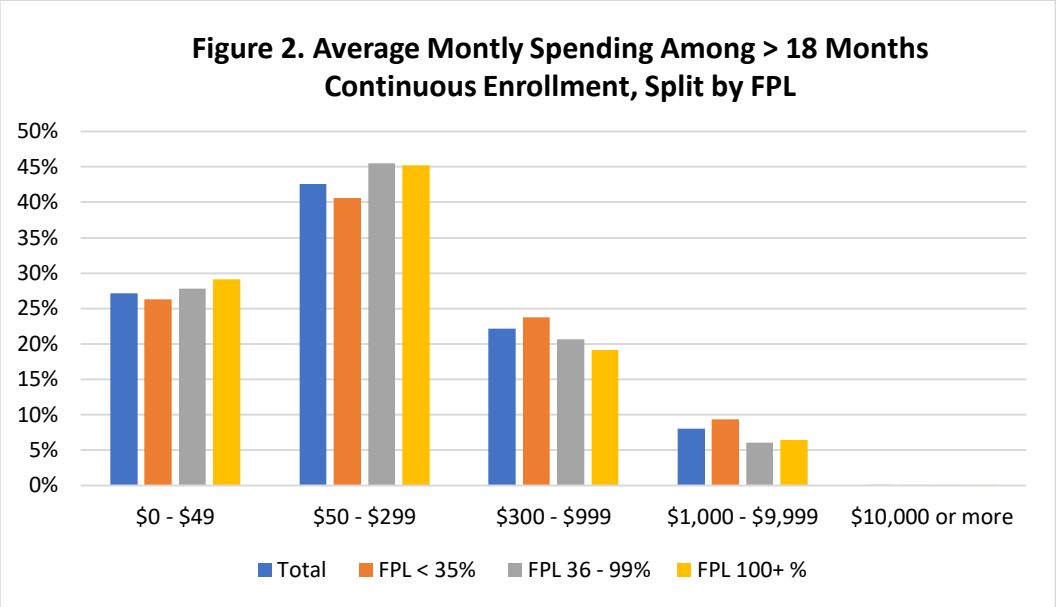
As described above, we captured all claims spending, including spending by managed care plans, and enrollee obligations. When comparing across income categories and time periods in regression analyses, we controlled for age, gender, region and the presence of other health insurance to reduce confounding by these demographic characteristics. As with most analyses of healthcare expenditures, the distribution of spending is highly right-skewed with a large number of enrollees spending a small amount, and a minority spending very large amounts during each period. Ordinary least squares regression, while the easiest to interpret, is known to produce biased results in these situations. Thus, we used a generalized linear model (GLM) to estimate and predict total spending for each time period and income category. These models produce more consistent and unbiased results with highly skewed outcome data.

All eligible enrollees are included in these analyses, regardless of whether they received a MI Health Account statement, as the objective was to test the effects of this design on the total spending of the eligible population.

Results

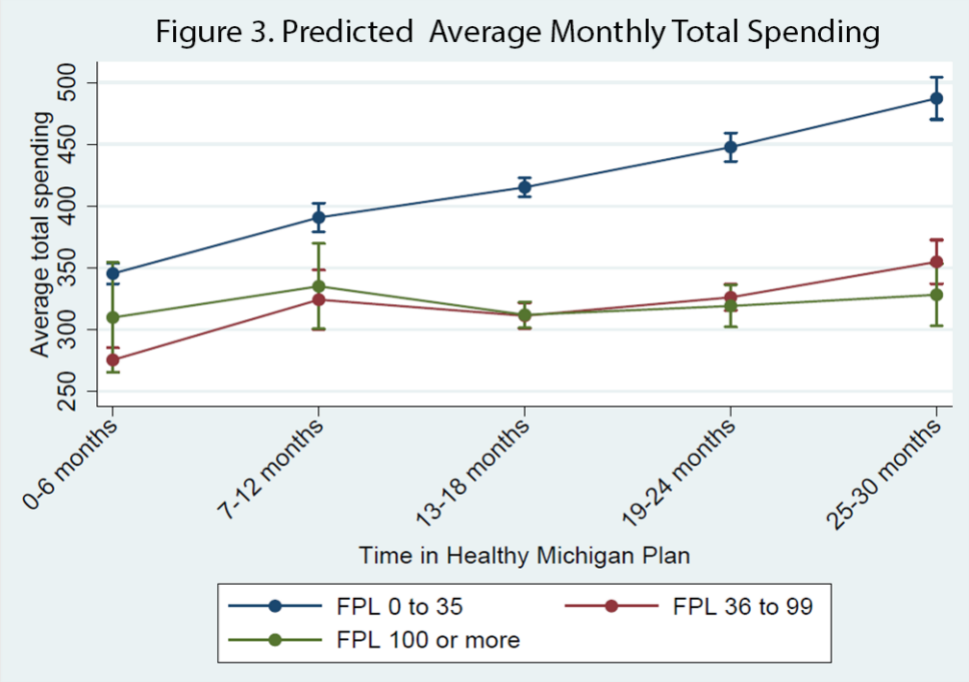
The distribution of average monthly spending by three income groupings (0-35% FPL, 36-99% FPL, and 100% or more of FPL) is shown in Figure 2. In each income category, the plurality of the population was in the $50-$299 monthly spending range. While the spending distribution did not

vary greatly across income groups, there was some trend towards lower income groups being slightly more likely to appear in the highest spending categories compared with the other income categories.

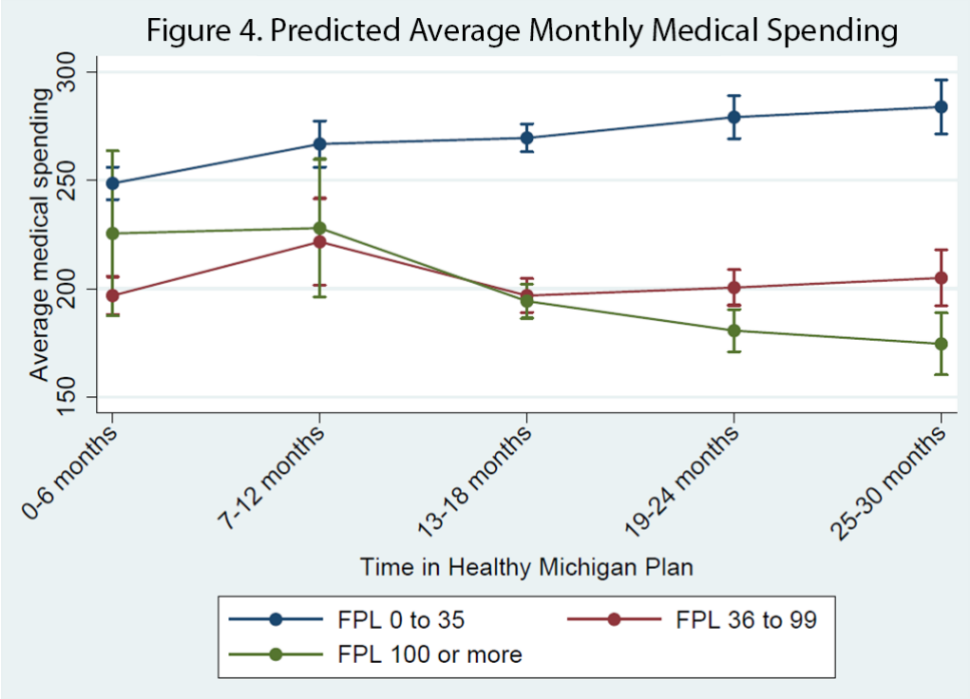


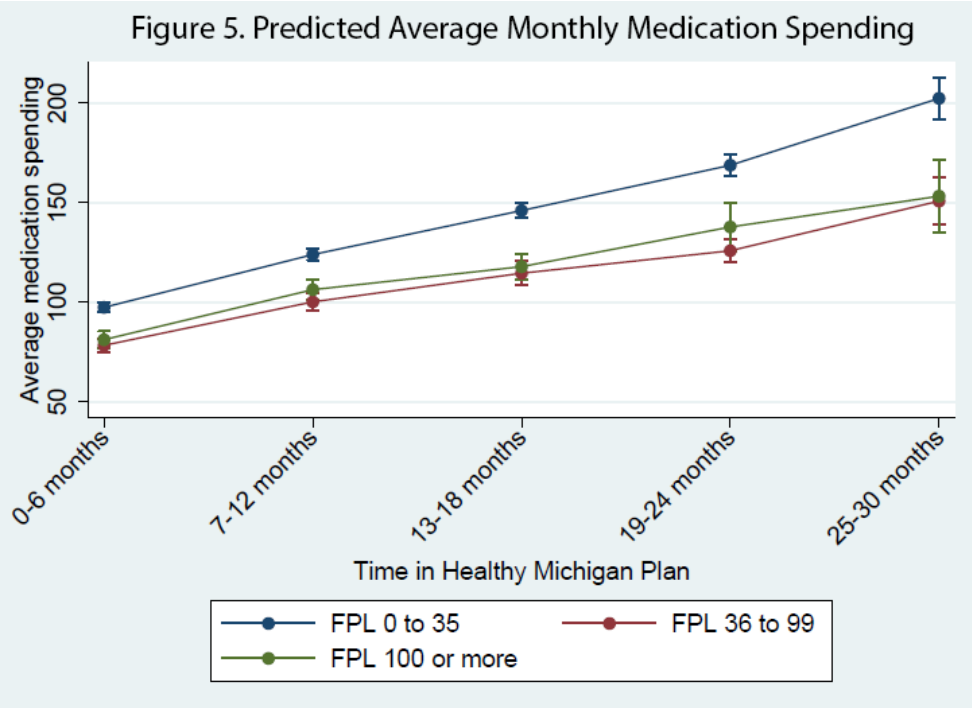
Overall, the average monthly amount spent was $360.04 (Appendix Table 2.1). Broken into categories, $238.44 was spent per month on medical services (including both inpatient and outpatient services) and $121.60 was spent on medications in the 18-month continuously eligible population. Spending amounts varied slightly by income; amounts are shown in Appendix Table 2.1. The amount of spending per month changed over time, as shown in the following figures.

Figure 3 shows the predicted total monthly spending by period of enrollment and by income group, adjusting for demographic differences through the GLM regression model. These values represent the average predicted spending for persons in each income category in each six-month time period, controlling for all other characteristics in the model (age, race, gender, region, other insurance). The bars illustrate the 95% confidence intervals for each estimated average value. Overall, spending was highest in each time period for the 0-35% FPL group. Spending in the two higher income groups was very similar. In all three income groups, spending rose in the 7-12 month period relative to the 0-6 month period. After the 7-12 month period, spending continued to rise for the 0-35% of FPL group, but stabilized in the higher income groups.



Figures 4 and 5 break spending trends into medical services and pharmaceuticals. For medical spending, the highest income group generally shows declining monthly spending after the first two periods. The lowest income group shows increasing spending and the group of enrollees with incomes of 36-99% FPL shows statistically flat spending through the study period. For pharmaceutical spending, all income groups show increasing trends with the length of enrollment.





Overall, the results show fairly stable spending in the middle and higher income groups, and spending growth in the lowest income group. All income groups show spending growth in pharmaceutical spending. Medical spending, on the other hand, remains stable or declines in groups with higher cost-sharing requirements. We did not examine the reason for the growth in pharmaceutical spending, though it is consistent with the idea of adherence to medications once a prescription is initiated. While the interpretation of medical spending results remains speculative, it is consistent with the possibility that cost-sharing deters medical spending.

Due to the limitations regarding lack of a comparison group of similar new Medicaid enrollees who did not face cost-sharing and/or monthly contributions, these findings should be interpreted with caution. However, the general patterns, particularly for medical spending, may indicate that those with monthly contributions may have become more efficient users of the healthcare system over time.

Hypothesis 2: Cost-Sharing and Effectiveness of Services

Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more effective use of health care services relative to their initial year of enrollment, as indicated by a change in the mix of services from low-value (e.g., non-urgent emergency department visits, low priority office visits) to higher-value categories (e.g., emergency-only emergency department visits, high priority office visits), and relative to trends in the Healthy Michigan Plan's population below 100% of the Federal Poverty Level that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care. Several questions on the Healthy Michigan Voices Survey also address this hypothesis.

Among medical professionals and health policy scholars, recognition is growing that health care services offer a spectrum of clinical benefits that are dependent on the patient, the provider, and the service itself. This recognition has led to research that defines differences between high- and low-value medical services, and measures the cost, benefit, and prevalence of these services. Low-value care includes a range of potential waste in the system, including medical errors, variations in price unrelated to quality, services that are more likely to cause harm than benefit, and services that are used more often or in a wider population of patients than they should be. High-value care includes many preventive screenings and tests, medications, and services that attenuate the progression of chronic disease, and care delivery settings appropriate to the urgency and severity of the medical condition (See Table 2 for specific services). Through insurance benefit design and other measures, policymakers and payers have begun to encourage delivery of services that provide high clinical value, while discouraging medical services that provide little to no value.

The Healthy Michigan Plan was crafted in this policy environment. When state policymakers designed the provisions of the Healthy Michigan Program, they sought a federal waiver in part to include more cost sharing than in other state Medicaid plans or, historically, in Michigan's own Medicaid program. The waiver allowed for cost sharing for the overall cost of the plan (similar to premiums in the commercial market) as well as common medical services, including physician office visits, dental visits, medications, and outpatient hospital clinic visits. Policymakers also sought to encourage enrollees to engage in healthy behaviors. Thus, many services considered beneficial to long-term health, such as high-value primary preventive screenings and services or medications related to specific chronic diseases, were exempted from co-payments. It was expected that these exemptions would signal to enrollees that these services were valuable and encourage their use.

In practice, the structure of the program means that cost-sharing is not consistently applied to all services across the population. There are some enrollees who are exempted from all co-payments as a class some enrollees who may be exempted for a certain portion of time, (e.g. those exempted for the rest of the year once they have paid 5% of their income). Additionally, certain services such as preventive care, radiologic imaging and laboratory tests are nearly always exempted from co-payments. That means that some services researchers typically use as a signal of low-value or wasteful care—unnecessary imaging for low-back pain or headache, for example —are not applicable in this context. It also means that there are rarely services for which a co-payment would always be assessed. Once those groups that are never subject to cost sharing are excluded, there may still be exemptions for reasons such as maximum out-of-pocket limits or because a visit was related to a chronic condition. However, there are certain services that are more likely to incur co-payments such as chiropractic care, vision services and hospital-associated urgent care (type B) visits.

There are also certain high-value services that are nearly always co-payment exempt, such as preventive services and medications for specific chronic diseases. These are services that designers of the Healthy Michigan Plan singled out as worthy of encouragement. Our hypothesis is that use of these services will rise relative to those that are more likely to incur a co-payment, and relative to the initial year of enrollment, as enrollees learn about the value of the service through financial incentives.

Methods

Co-payment exempt services selected for this analysis include a subset of those exempted from co-payments through HMP. We chose to examine preventive screenings and care, which applied to a large number of enrollees in our population. As described above, we defined co-pay likely services as those associated with co-payments at least 50% of the time for medical services and 40% or more for medications. Table 2 includes a full list of each service or medication. For the co-pay likely measure, we flagged any six-month period in which an enrollee had used at least one of these services and incurred at least one co-payment for that service. Similarly, for emergency department (ED) visits, we flagged ED claims and measured the proportion of the population with an ED visit in each time period.

It is important to note that most services used do not fall into either of these categories, and thus analysis of service use along these categories should not be taken as an indication of total service use.

Table 2. Co-Pay Exempt and Co-Pay Likely Services Analyzed

Service Type	Co-Pay Exempt	Co-Pay Likely
Visits	Well physical exam, preventive office visit, health risk assessment administration, preventive counseling, smoking/tobacco cessation counseling	Vision exams, contact lens visit, chiropractic treatment, new patient visit, office consultation
Screenings	Depression, BRCA testing, mammography, cervical cancer screen, sexually transmitted infections, cholesterol, colorectal cancer, diabetes, Hepatitis B/C, HIV, lung cancer, tuberculosis	
Medication Classes	Cardiovascular, COPD, diabetes, HIV, obesity, smoking	Metabolic deficiency, Hepatitis C, narcolepsy, hypnotics, cortisol, atypical antipsychotics, antineoplastic enzyme inhibitors, ADHD, ARV Comb-NRTIS and integrase inhibitor (infectious disease agent), Parkinson's disease, ammonia inhibitors, Mek 1 and Mek 2 inhibitors, Gaucher's disease,
Emergency Services	Emergency services	Non-urgent ED use

Notes: Co-pay exempt services were selected based on MDHHS definitions of co-pay exempt services which is available on the MDHHS website. Co-pay likely services were selected by looking at a sample of claims and measuring which services/medications were more likely to incur co-payments. Co-pay exempt and co-pay likely services were defined using claims prior to 2017; these classes may not be valid for later data periods, when the number of co-pay exempt services and medications list was expanded.

We compared use from year to year with the model specified below:

$$\Pr(Y_{it} = 1) = f(\beta_1 TimePeriod + \beta_2 FPL + \beta_3 Female + \beta_4 Age + \beta_5 GeographicRegion + \beta_6 Race + \beta_7 PaymentObligation + (\beta_8 \%OOPPaid) + \alpha_i + \varepsilon_{it})$$

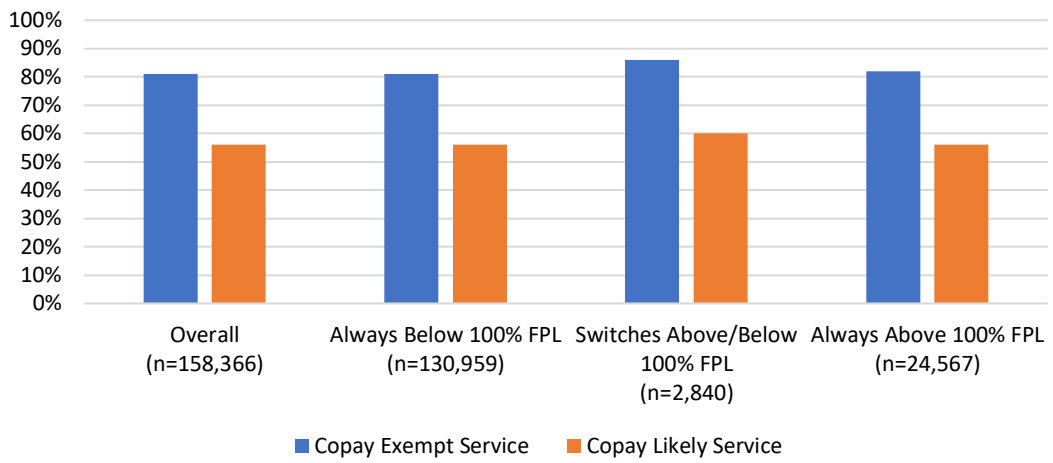
In this model, the dependent variable Y_{it} is an indicator for whether a person has received a co-pay exempt/co-pay likely service. Percent out-of-pocket (OOP) paid is only available for the subset with a cost sharing obligation, approximately 50% of the sample. We include other specifications as well,

such as FPL interacted with year. Our primary specification is a probit regression, though we also use a fixed-effects linear regression to measure individual change over time.

Results

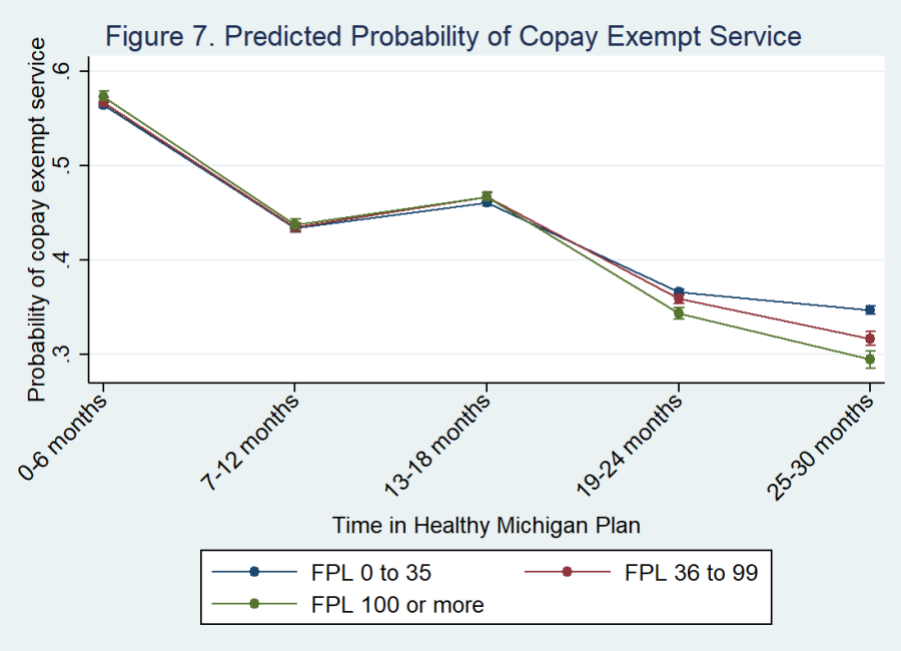
The analyses focus on three types of services: a variety of general medical services with and without co-payments, pharmaceuticals, and ED use. Figure 6 shows the percent of enrollees who ever received a co-pay exempt or co-pay likely medical service by FPL. Overall, 81% received one or more co-pay exempt medical services while 56% received at least one of the specified co-pay likely services. These percentages did not vary substantially across the three income groups.

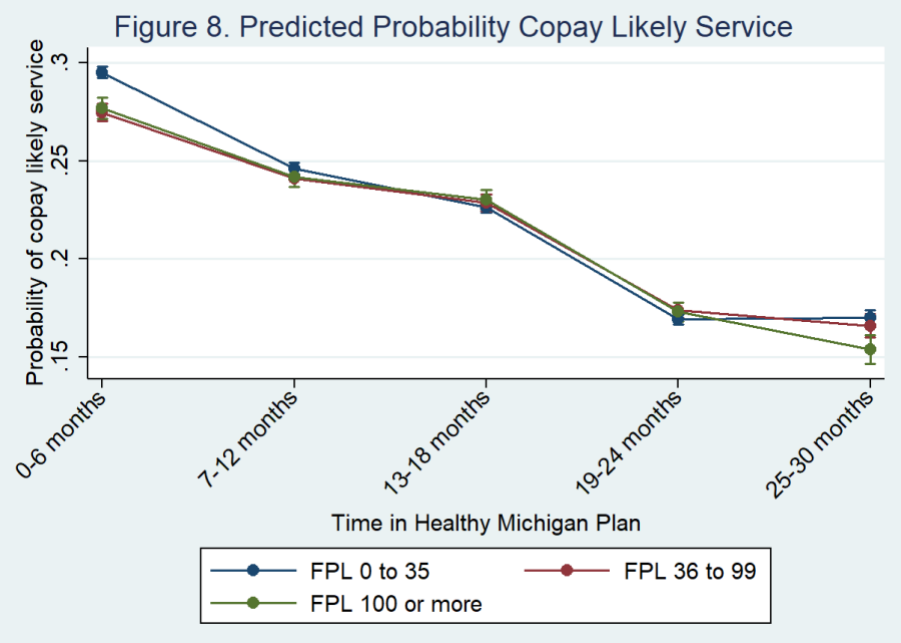
Figure 6. Percent of Population Ever Receiving Each Type of Service During Study Period



Predicted use of co-pay exempt and co-pay likely medical services by enrollee characteristics is reported in Appendix Table 3.1.1 Males and younger enrollees had fewer HMP claims for co-pay exempt and co-pay likely services. There were no consistent patterns in use of co-pay exempt services by income category, though those in the lower income group had a slightly higher usage of co-pay likely services than those in the 36-99% FPL and 100+% FPL groups.

Looking at use of services over time, Figures 7 and 8 illustrate predicted use of co-pay exempt and co-pay likely medical services, respectively, for the eligible population at each time enrolled in HMP by income category, adjusting for all other characteristics in the model. These figures show both types of use declined in a similar fashion as enrollees had been in the program for a longer period of time.

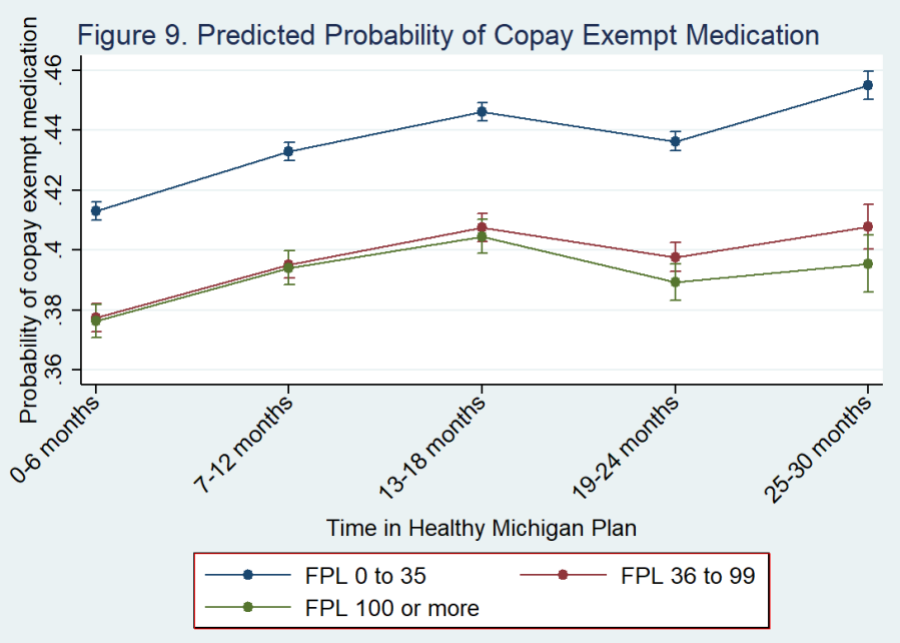




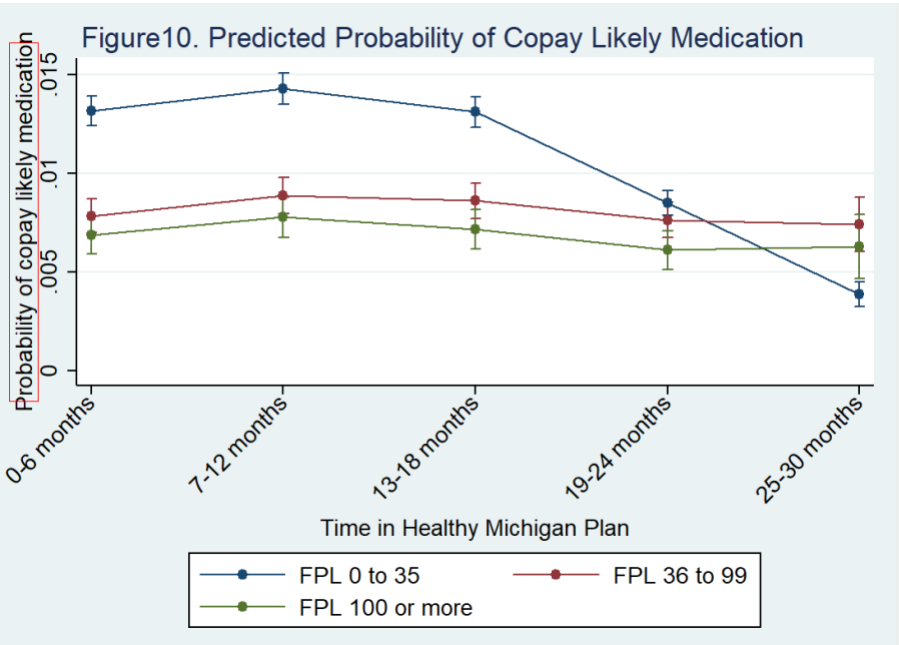
Similar analyses of co-pay exempt and co-pay likely prescription drugs show about half of enrollees received at least one co-pay exempt medication while only a small percent received a co-pay likely medication (reflecting the relatively small number of medications identified in that category). The likelihood of receiving a co-pay exempt medication varied only modestly with most enrollee characteristics (Appendix Table 3.2.1). Most notably, the percentage declined somewhat with income and rose substantially with age. Percent receiving a co-pay likely medication also varied only modestly with enrollee characteristics.

Looking over time, the use of co-pay exempt medications rose steadily with time enrolled in the program, starting at 40% in the first six months and ending at 43% in months 25-30 of eligibility as shown in Appendix Table 3.2.2. A slight decline was observed in the use of co-pay likely medications. Examining the trends separately by income level over enrollment time demonstrates that the use of

co-pay exempt medications was highest in the 0-35% FPL group and the increases in use with time enrolled were relatively consistent across all income groups (Figure 9).



Only a small percentage of the population used a pharmaceutical for which a co-payment was regularly assessed (<3.0% in all income groups combined across all time periods; Appendix Table 3.2.1). For drugs that were identified as co-pay likely use was also highest in the 0-35% FPL group initially, but that group's use declined beyond 18 months of enrollment (Figure 10).

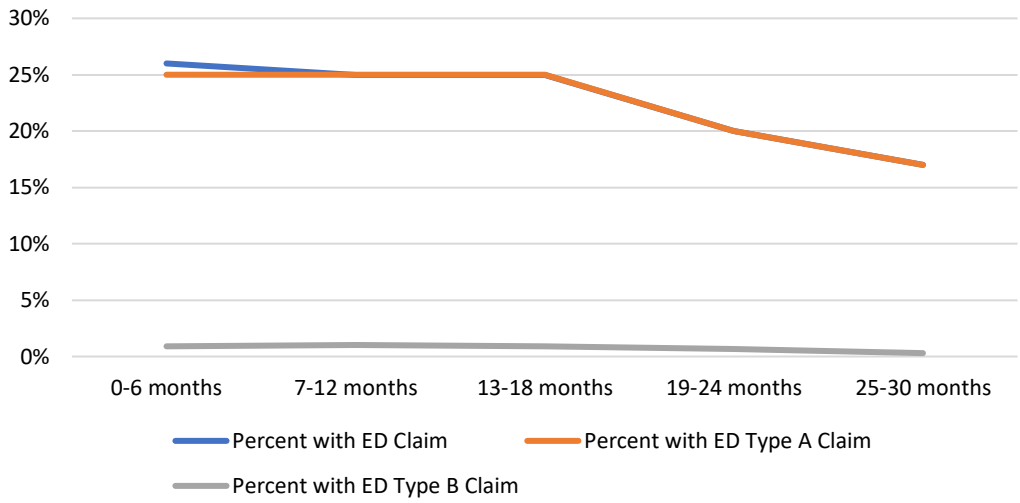


Finally, we consider co-payments for ED visits. The type of ED used can be examined using CPT codes, which are different depending on location of care. Visits associated with a hospital-based urgent care facility are often assessed a co-payment (23% of visits). By contrast, visits associated with a traditional emergency room are almost never assessed a co-payment (0.05% of visits) (Appendix Table 3.3.1). The fraction with a co-payment also decreased with increased visit severity (Appendix Table 3.3.1),

though hospital-based urgent care facility visits incurred co-payments more often for each level of severity.

Figure 11 shows a reduction in the percentage of the population using the ED from initial months of continuous enrollment over subsequent months. That reduction is confirmed in the regression model adjusting for other enrollee characteristics (Appendix Table 3.3.3). This overall trend was driven primarily by the Type A visits, which rarely assessed co-payments, but was also evident in the Type B visits that were more likely to result in a co-payment. Adjusting for all other characteristics in the model, average severity of ED visits rose substantially after 18 months of enrollment (Appendix Figure 3.3.2), which could imply that less severe illnesses were being seen in other settings.

Figure 11. Percentage of Enrollees with ED Claims by ED Type



Overall, the findings provide some evidence that the mix of pharmaceuticals used improved in terms of value the longer that individuals had been enrolled in HMP. For pharmaceuticals, use of co-pay exempt medications rose over time in all income groups, while the use of co-pay likely medications either remained stable or declined. The picture is less clear for co-pay exempt and co-pay likely medical services, where use declined by comparable amounts for both types of services, keeping the mix approximately constant. Finally, ED use of all types declined with time enrolled.

While the value mix of services, at least in terms of pharmaceuticals, improved as enrollees had longer tenure in the program, it is uncertain how much out-of-pocket cost contributed to these changes. Notably, the trends in the use of co-pay exempt medications were quite similar across income groups facing different exposure to monthly contributions. Similarly, most of the decline in ED use occurred in type A visits where co-payments were rarely assessed; however, we did not assess to what extent enrollees were aware of the lack of co-payments for type A visits.

There are other reasons that these findings should only be interpreted as suggestive. In addition to the concern about lack of a comparison group, the process of classifying services should be kept in mind. We measured a subset of co-pay exempt services defined by the program. Co-pay likely services were a group of services for which enrollees often incurred a co-payment; we measured the likelihood of using and incurring a co-payment for at least one of this group of services per period.

The findings could change if we had measured different bundles of services or operationalized our definitions of co-pay likely in a different way. Additionally, the results for co-pay likely pharmaceuticals should be interpreted with caution, as the number of these medications was very low.

Hypothesis 3: Disenrollment Associated with Cost-Sharing

> *Cost-sharing and contributions implemented through the MI Health Account framework will not be associated with beneficiaries dropping their coverage through the Healthy Michigan Plan. Beneficiaries above 100% of FPL who have few health care needs may consider dropping coverage due to the required contributions. However, those contributions do not begin until 6 months after enrollment and can be reduced by 50% based on healthy behaviors. Therefore, we expect most beneficiaries will have little incentive to let their enrollment lapse, despite continued eligibility. To determine the prevalence of coverage drops due to cost-sharing, we will monitor compliance with contribution requirements and use the Healthy Michigan Voices survey to assess reasons for failure to re-enroll.*

Enrollees below 100% FPL only face cost-sharing for services actually received and therefore are expected to have little reason to let coverage lapse due to cost. However, enrollees above 100% FPL who have few health care needs may consider dropping coverage due to the required monthly contributions. Because those monthly contributions do not begin until 6 months after enrollment in a health plan and can be reduced by 50% by completing an HRA and choosing to engage in a healthy behavior, we expect most enrollees who remain eligible will have little incentive to let their enrollment lapse. To test these hypotheses, we assess the extent to which total cost-sharing obligations (co-payments for services and monthly contributions) are related to disenrollment from HMP in two ways. First, we examine enrollees' perceptions of the fairness and affordability of cost-sharing under HMP and by insurance status after disenrollment from HMP. If cost-sharing strongly influences disenrollment, we would expect to see a substantial of disenrollees becoming uninsured after leaving the HMP program. The assumption is that those who gain insurance left because of improved circumstances (e.g., accepting a job that offers insurance), while those who left HMP but did not obtain other coverage are more likely to have disenrolled for other reasons including dissatisfaction. Second, we examine disenrollment from the program in the population enrolled for at least 6 months. Here, we can assess likelihood of disenrollment by cost-sharing obligations but cannot observe whether enrollees left and gained other insurance or left for other reasons.

Methods

First, to determine the role of cost-sharing in disenrollment, we use the No Longer Enrolled (NLE) survey to assess reasons for failure to re-enroll. The NLE survey sample is drawn from enrollees who had at least 10 months of HMP enrollment followed by a period of at least 6 months (range 6-20 months) during which they were not enrolled in HMP or another Medicaid program. Survey questions explored enrollees' experiences during the period after their HMP coverage ended, including health insurance coverage, access to health services, and unmet health care needs. Surveys were conducted with 1,123 individuals who were no longer enrolled in HMP; our sample of 1,060 includes those enrolled before March 2015 who we could therefore link to our cost sharing data. We link the NLE data on reported insurance type since HMP ended to information on respondents' average cost-sharing levels and other characteristics while they were enrolled and to respondents' report of all health insurance during the 6-20 months from the time their HMP coverage ended to the time of the

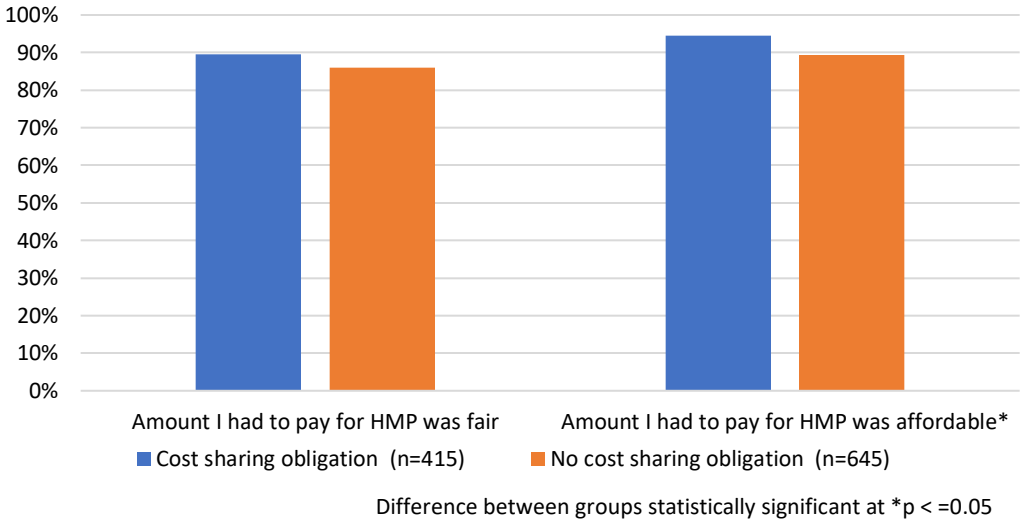
NLE survey. Specifically, we compare respondents who reported no insurance coverage post-HMP (on the assumption they found no insurance preferable to HMP) to those who reported other health insurance (employer-sponsored, individual and/or government-sponsored) at some point after their HMP coverage ended.

Additionally, we supplemented this analysis with two analyses of the full population of HMP enrollees to determine if cost sharing obligations were associated with a greater likelihood of disenrollment. Here, we used the population enrolled in an HMP managed care plan for at least 6 months continuously, who were not part of a special population (e.g. nursing home, hospice care, etc.; N=448,372 enrollees). We measured disenrollment as a drop from any Michigan Medicaid program, without reenrollment within 6 months. We merged enrollment data with quarterly cost sharing tables to measure contribution and co-payment amounts on the MI Health Account statement. We used statement date and amount owed on the MI Health Account statements, and examined whether the contribution, co-payment and total amounts predicted disenrollment within the next 11-month period. Second, to account for higher churn at the upper end of the eligible income spectrum, we measured disenrollment within 13 months of initial managed care enrollment for those just above and just below 100% FPL. We used enrollees in a managed care plan for more than 6 months continuously with an average income of 85% to 115% FPL (n=56,578 for this subpopulation; full population characteristics in Appendix Table 4.6 and Appendix Table 4.7). The assumption is that those individuals are relatively similar aside from the small difference in income, so if there is a jump in disenrollment near 100% FPL, it is more likely related to the contribution requirement triggered by exceeding that threshold. We analyzed these enrollees overall, and by subgroup based on medical spending and chronic disease claims.

Results

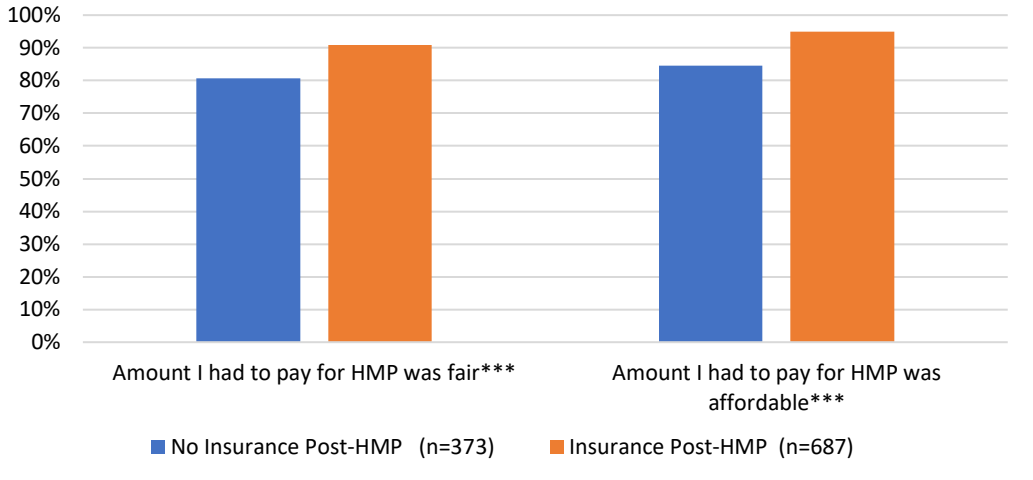
Figure 12 shows the percentages of NLE survey respondents who agreed that HMP's cost-sharing obligations were fair and affordable. Agreement was quite high, with 89% of those who faced obligations agreeing that they were fair and 95% agreeing that they were affordable.

Figure 12. Percent of NLE Respondents Who Agree with Statement Based on Cost-Sharing Obligation



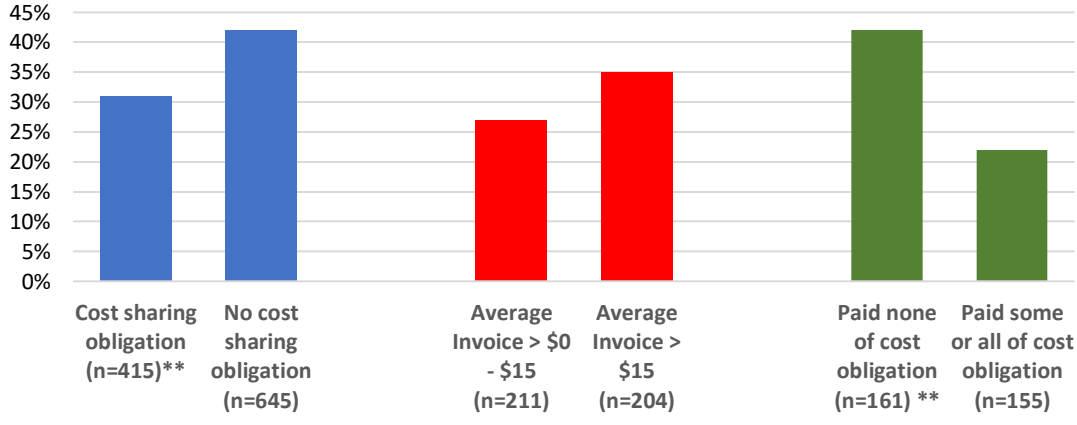
Agreement, while still high, was slightly lower among NLE survey respondents who didn't actually face an obligation. We did not test an explanation for this somewhat paradoxical result, though a possible reason could be payment for services not covered through HMP, such as for over-the-counter medications. Figure 13 splits the same two questions by whether or not the respondent had insurance post-HMP.

Figure 13. Percent of NLE Respondents Who Agree with Statement Based on Post-HMP Insurance Status



While agreement with both statements was high for both groups, those who did not have insurance post-HMP were less likely to agree that HMP's cost-sharing obligations were fair and affordable. Figure 14 shows that NLE survey respondents without cost-sharing obligations under HMP and those who did not pay their cost sharing obligation were more likely to report having no insurance post-HMP than those with such obligations. Those with invoices between $0 and $15 may be more likely

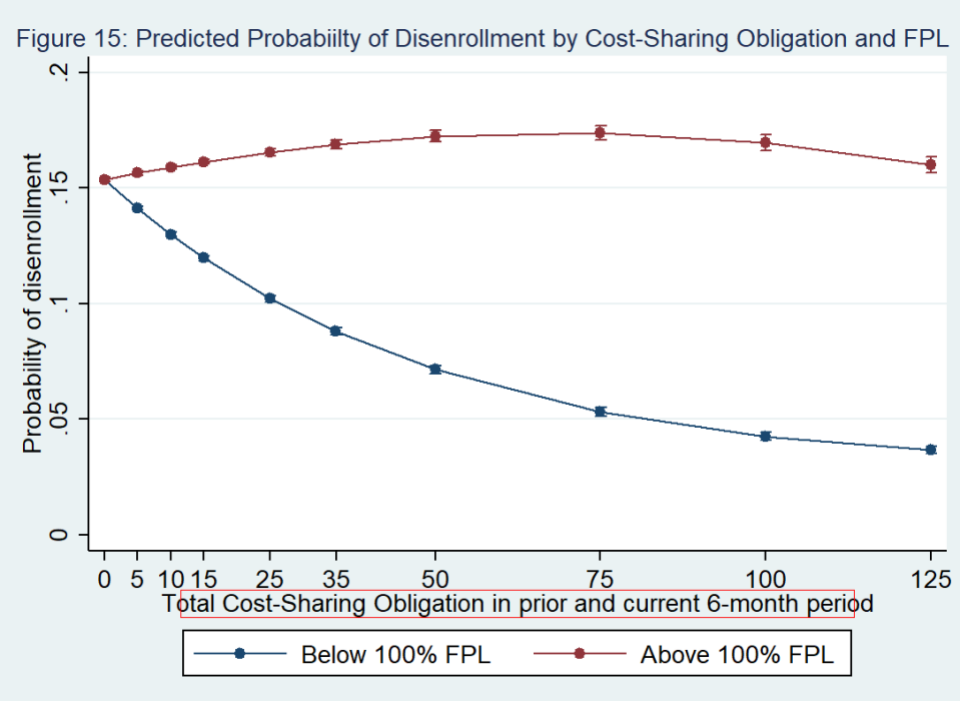
Figure 14. Percent of NLE Respondents in Each Category Who Reported No Insurance Post-HMP



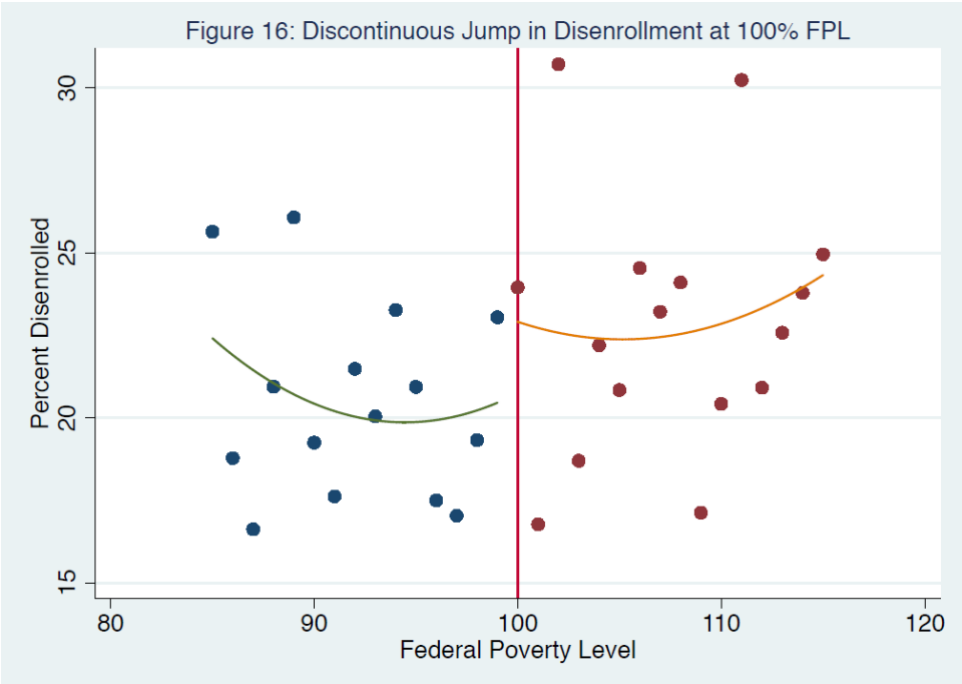
*1: Notes: Cost-sharing obligation applicable to whole population. Invoice applicable to population with cost-sharing obligation. Paid some/none applicable to population with cost-sharing obligation and at least one quarter of observation past invoice. **Difference between groups is statistically significant at p<0.01*

to transition to uninsurance, however that difference was not statistically significant, thus the differences could be attributed to statistical noise in the data given the relatively small sample. Finally, the relationship of cost obligation and payment compliance with not having insurance post-HMP is reported in Appendix Table 4.2 and was analyzed using regression models that control for observed enrollee characteristics. Because income (and hence contribution status) could vary over time, cost obligations and collections are averaged over the enrollee's time enrolled in HMP. In the first model, cost obligations are categorized as zero, positive up to $15.00, and over $15.00. As reported in the first section and shown in Appendix Table 1.1a, the overall average quarterly invoice in HMP for persons who face obligations but were below 100% FPL were $4.85 whereas obligations for those above 100% FPL (and hence were potentially subject to monthly contributions) were $26.71. Therefore, the higher category is likely dominated by persons who were typically over 100% FPL. That model finds that prior HMP enrollees in the $0.01-$15.00 category were more likely than those with no obligations to have insurance after they left HMP, though there was no significant difference between those without cost sharing obligations and those with > $15.00 average quarterly invoice. No other characteristics significantly differentiated prior HMP enrollees' subsequent insurance status. Collapsing the three obligation categories into two (zero vs. positive obligations) in the second model yielded similar results, with prior HMP enrollees facing cost-sharing being more likely to have subsequent insurance coverage. The third model is restricted to those who had obligations and shows that subsequent insurance was more likely among prior HMP enrollees for whom collections data indicated higher levels of compliance in paying their obligations.

Results from the analysis of the full population show that people with any cost-sharing obligation are less likely to disenroll than those without such obligations (Appendix Table 4.3). However, the effects are different by income. Figure 15 shows the probability of disenrollment in a period by the amount owed on MI health account statements. For those below 100% FPL, who are subject to co-payments only, higher cost-sharing amounts are associated with a lower likelihood of disenrollment.
For those above 100% FPL, who are subject to both monthly contributions and co-payments, higher cost-sharing obligations increase the probability of disenrollment up to about $75, after which probability of disenrollment decreases with increasing cost. Looking at co-payments only by income level, higher co-payments are associated with less likelihood of disenrollment regardless of FPL (Appendix Figure 4.2d). We also found that having at least one claim in a prior period decreases likelihood of disenrollment (18.1% for those with no prior claims; 5.3% for those with at least one prior claim; Appendix Table 4.5). These results are consistent with the idea that those with higher medical needs are less likely to drop HMP coverage.

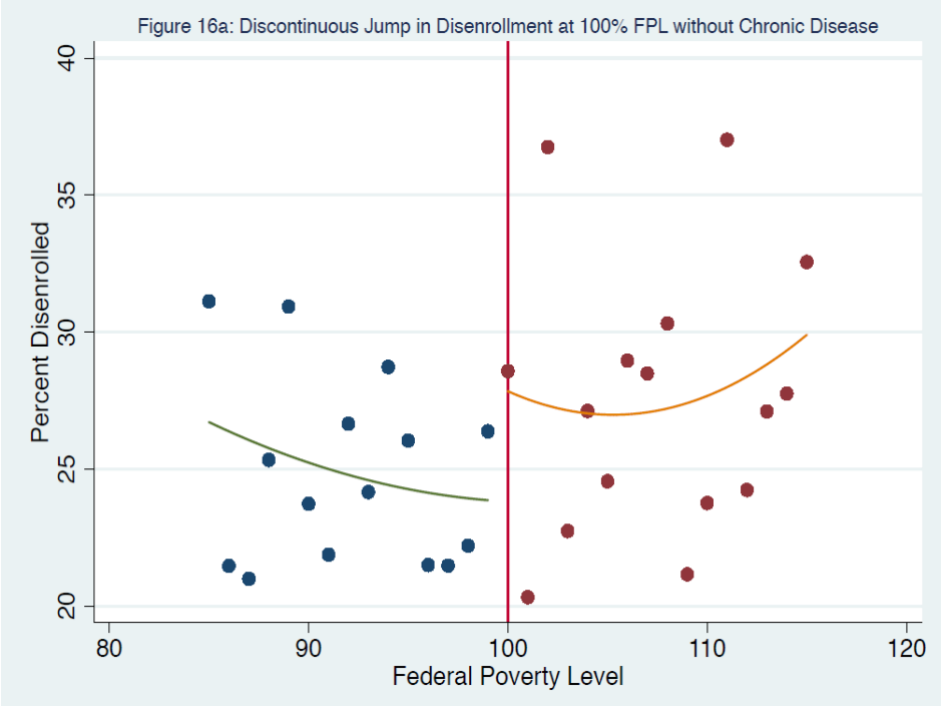


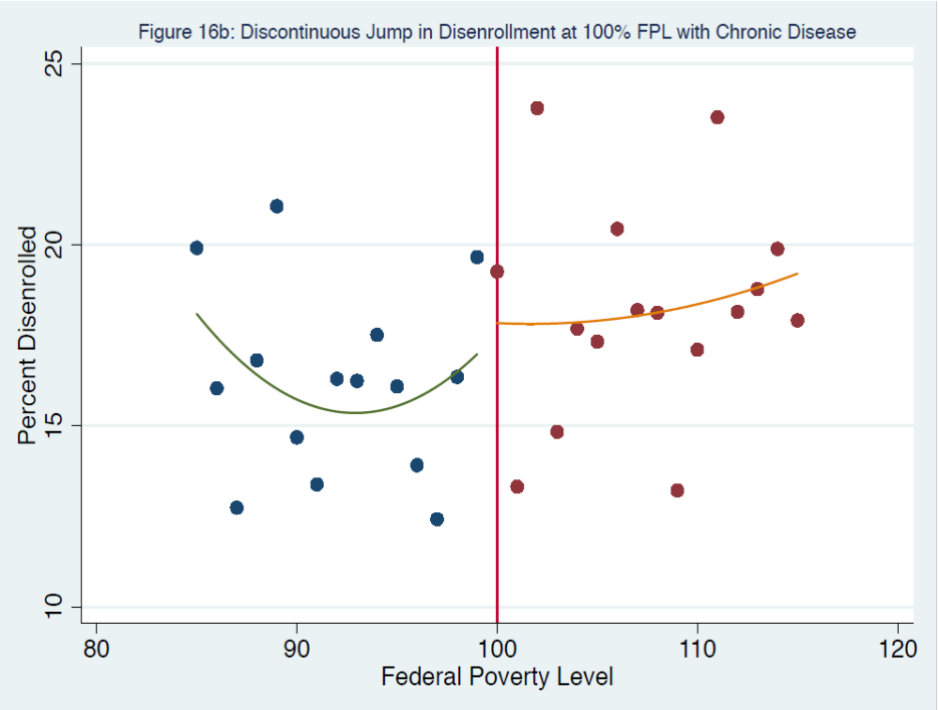
Looking specifically at the effect of monthly contributions on disenrollment, we found that at 100% FPL there is about a 2.6 percentage point jump in the probability of disenrollment. Restricting the analysis to those with monthly contributions, the jump at 100% FPL may be slightly higher, about 10 to 12 percentage points, though this result is sensitive to how we construct our model (Appendix Table 4.15).



Additionally, we split the population between those with no chronic disease claims and those with at least one chronic disease claim in their first 7 months of HMP-MC enrollment. As Figures 16a and 16b show, the jump in disenrollment at 100% FPL is higher for those without chronic disease claims. When we model this jump, controlling for demographic factors and measuring the magnitude of the

jump, we find a statistically significant relationship only in the group without chronic disease claims (Appendix Table 4.9). Combined with our analysis showing lower disenrollment for those with co-payments, this result suggests that those who have medical needs remain in the program despite cost-sharing obligations. Populations with lower medical needs may leave the program, a result that is consistent with previous studies showing low willingness to pay for insurance among lower income individuals, especially those without high health needs.





We limited our analysis to those who do not switch to other Medicaid programs (in Michigan) and who do not return to a Michigan Medicaid program for at least 6 months after disenrollment. However, we do not know whether those who disenrolled gained health insurance coverage in some other way, such as through the commercial insurance market.

Overall, the vast majority of people surveyed after they had disenrolled from HMP said their payments were fair and affordable. These results also show that prior HMP enrollees who went uninsured after leaving HMP were less likely to report they felt cost-sharing was affordable or fair. Using the full population of HMP enrollees, we found evidence that contributions, but not co-payments, may induce a slight increase in disenrollment from HMP managed care plans. The jump in disenrollment is higher for those without chronic conditions in HMP suggesting that vulnerable populations maintain coverage despite higher cost-sharing obligations. Higher co-payments, likely the result of increased service use and an indication of higher medical need, are associated with less likelihood of disenrollment. This could indicate that enrollees who need health care are receiving it and are motivated to stay enrolled in the program. Additionally, our survey results found that those with cost-sharing obligations are also more likely to report gaining insurance after disenrollment from HMP, suggesting disenrollment among those with cost-sharing obligations may not always lead to uninsurance.

Hypothesis 4: Healthy Behavior Rewards and Healthy Behaviors

A. Exemptions from cost-sharing for chronic illnesses and rewards implemented through the MI Health Account framework for completing a health risk assessment with a primary care provider and agreeing to behavior changes will be associated with beneficiaries increasing their healthy behaviors and their engagement with healthcare decision-making relative to their initial year of enrollment.

B. This increase in healthy behaviors and engagement will be associated with an improvement in enrollees' health status over time, as measured by changes in elements of their health risk assessments and changes in receipt of recommended preventive care (e.g., flu shots, cancer screening) and adherence to prescribed medications for chronic disease (e.g., asthma controller medications).

Methods

This hypothesis was analyzed using two different data sources. The first part of the hypothesis took advantage of several questions in the 2016 Healthy Michigan Voices (HMV) current enrollee survey:

- Compared to 12 months ago, how would you describe your weight? Have you lost weight; gained weight; or stayed about the same
- [*Asked of those who reported smoking or using tobacco in the past 30 days]* Are you working on cutting back or quitting right now?
- Since July 1, 2015, have you had a flu vaccine?

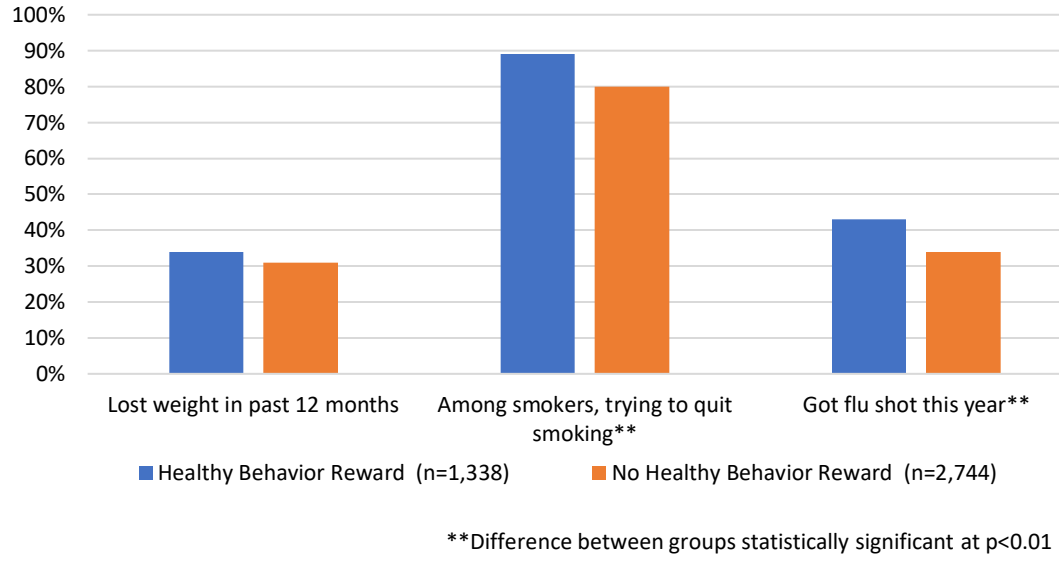
We linked answers on the HMV current enrollee survey to data from MDHHS relating to attestation of health risk assessment and agreement to a Healthy Behavior. We correlated affirmation of a healthy behavior with answers to questions about changes in healthy behaviors.

The second part of this hypothesis was tested using the same framework and population used in hypothesis 1 and 2, 22-64 year olds continuously enrolled for at least 18 months. We correlated affirmation of agreement to a healthy behavior with utilization of preventive services, preventive screenings and high-value medications. To measure service use, we used a subset of the services used for the analysis of hypothesis 2, with the same type of identification using flags to indicate receipt of service in a time period.

Results

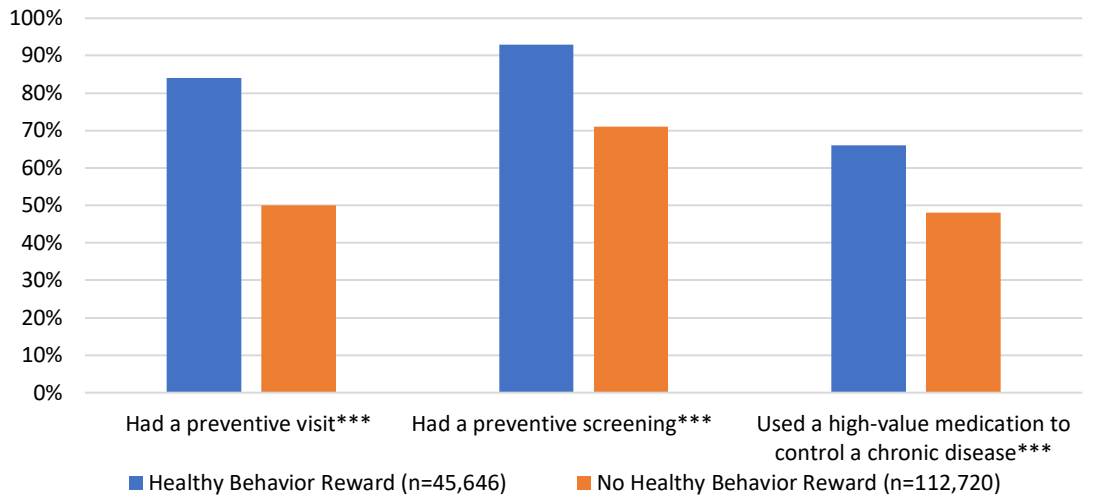
Figure 17 shows the percent of current enrollees who reported engaging in health behaviors based on whether or not they received a healthy behavior reward. Those who received a healthy behavior reward were significantly more likely to say they were trying to quit smoking, and to report they had a flu shot. However, there was no statistically significant difference in the percentage of respondents who reported that they had lost weight in the past year. In a probit regression model that controlled for demographic characteristics (including FPL), respondents who lost weight were statistically less likely to have received a healthy behavior reward, though the magnitude of the difference is relatively small (30.5% vs. 31.9%). Other results from the probit regression confirmed the unadjusted analyses in Figure 17 (Appendix Table 5.1).

Figure 17. Associations Between Healthy Behavior Rewards and Healthy Behaviors



Further evidence was developed using the set of enrollees aged 22-62 who were continuously enrolled for at least 18 months. Individuals who earned a health behavior reward were more likely to have a preventive visit, a preventive screening, or to have used a co-pay exempt drug for a chronic condition (Figure 18), but it should be noted that these are correlations and do not prove that receipt of a reward caused these differences.

Figure 18. Associations Between Healthy Behavior Rewards and Healthy Behaviors, Full Sample



***Difference between groups is statistically significant at p<0.01

Appendix Figures 5.1, 5.2 and 5.3 track these outcomes over time. For preventive visits and screenings, use declined with time in the program for both reward recipients and non-recipients, but the higher use among recipients persisted. For use of co-pay exempt medications, rates for both groups rose over time, and use was again consistently higher among reward recipients. Results for the full regression models for these three measures are reported in Appendix Table 5.2. All use measures were higher for older and female enrollees and varied modestly by income, race and region.

Finally, Appendix Table 5.3 reports a "difference-in-differences" model for each measure. This can be interpreted as reflecting changes over time for enrollees. Those who received a reward at any point had lower use of preventive visits and screening, but higher use of co-pay exempt drugs in their second year of the program compared with those who never received a healthy behavior reward. Preventive visits and preventive screening declined over time for both those who did and did not receive a reward but declined more quickly for those who did. This result may reflect that many of these services are not needed every year, such that those who received a healthy behavior reward were more likely to get the screenings in their initial enrollment periods. The use of high-value medications, typically for controlling chronic disease, rose for both groups and rose more quickly for those who received a reward.

Limitations

This study has several limitations. First, the results should be interpreted cautiously due to the lack of a control group of similar enrollees not subject to co-payments and monthly contributions. Second, the classification into co-pay exempt and co-pay likely as a proxy for high- and low-value services is not straightforward and relied on the likelihood of cost-sharing rather than a direct assessment of value and encompassed only a fraction of all services. Because cost-sharing was imposed infrequently for many services, the set of commonly used services with a high likelihood of co-payments was

limited. Third, the relationship between preventive service use and reward receipt may reflect correlations due to the same people pursuing both rewards and preventive services rather than reward receipt causing subsequent preventive care use. Fourth, the NLE survey does not allow direct comparison to those who continued enrollment.

Conclusions

Cost-sharing implemented through MI Health Accounts, consisting of co-payment for some services and monthly contributions for higher-income enrollees, was intended to raise enrollees' awareness of the cost of care and encourage efficient and effective use of care. In the primary analysis cohort of non-elderly adult enrollees with at least 18 months of continuous enrollment, there was some indication that enrollees facing higher cost-sharing made more efficient use of medical services over time relative to those facing lower cost sharing. However, trends in the use of co-pay exempt and co-pay likely services were similar across income groups that faced different exposures to cost-sharing. Receipt of a healthy behavior reward was associated with attempts to quit smoking, receipt of a flu shot, and higher use of other preventive services, but not with weight loss. Finally, there was evidence of a relationship between cost-sharing and disenrollment, though with different effects. Enrollees with co-payments were more likely to stay in the program. Enrollees with contributions were more likely to disenroll but only when they did not have evidence of higher medical needs, supporting the idea that the HMP retains clinically vulnerable populations despite cost-sharing. Results from our survey of those who had disenrolled from the program found that those with cost-sharing obligations and those who paid on their obligations were more likely than those without to gain insurance post-HMP enrollment, suggesting disenrollment does not always lead to uninsurance.

Report on the Impact of Cost Sharing in the Healthy Michigan Plan

Appendix A

Table and Figure of Contents

HMP Cost Share

Table 1.1 Average Invoice and Collection Amounts, Cross-Sectional

Average invoice, quarterly	$8.59
Median invoice, quarterly	$0.25
Average invoice (>$0), quarterly	$16.85
Median invoice (> $0), quarterly	$7.80
Average invoice, always < 100% FPL	$4.85
Median invoice, always < 100% FPL	$ 0.00
Average invoice, always > 100% FPL	$26.71
Median invoice, always > 100% FPL	$21.86
Fraction collected, overall*	0.39
Fraction collected, always < 100% FPL	0.38
Fraction collected, always > 100% FPL	0.41

*Fraction collected is conditional on having some cost-sharing obligation

Table 1.1a Invoice Amounts by Population and Collection Rates

	Average invoice ($)	Number of enrollees
Total population	8.59	158,322
Subset of total population with cost obligation	16.85	80,743
Collection category (Total population)		
None collected	15.21	38,645
Partial collection	23.31	23,302
Full collection	12.20	18,796
Always below 100% FPL	4.85	130,926
Subset of always below 100% FPL with cost obligation	11.11	57,196
Collection category (Always below 100% FPL)		
None collected	10.25	28,605
Partial collection	16.15	14,749
Full collection	7.52	13,842
Switches between 100 % FPL during study period	24.40	2,839
Subset of switches between 100% FPL during study period with cost obligation	29.62	2,339
Collection category (Switches between 100 % FPL during study period)		
None collected	29.23	995
Partial collection	35.17	875
Full collection	20.10	469
Always above 100% FPL	26.71	24,557
Subset of always below 100% FPL with cost obligation	30.93	21,208
Collection category (Always above 100% FPL)		
None collected	29.40	9,045
Partial collection	35.72	7,678
Full collection	25.80	4,485

Table 1.2 Regression Analysis of Predictors of Payment (Cross-sectional); Marginal Effects from Multivariable Ordered Logit Model

	No payment	Partial payment	Full payment	*p-value on regression coefficient*
Age				
Under 30	ref	ref	ref	
30 to 39	0.008	-0.003	-0.004	0.135
40 to 49	-0.059	0.022	0.038	< 0.001
Over 50	-0.206	0.047	0.158	< 0.001
Female	-0.004	0.001	0.003	0.233
Race				
White	ref	ref	ref	
Black	0.310	-0.129	-0.181	< 0.001
American Indian	0.200	-0.070	-0.130	< 0.001
Hispanic	0.142	-0.044	-0.098	< 0.001
Asian/Pacific Islander	-0.086	0.008	0.079	< 0.001
Unknown	0.031	-0.007	-0.024	< 0.001
FPL				
0-35 %	ref	ref	ref	
36-99 %	-0.024	0.007	0.017	< 0.001
100+ %	-0.044	0.011	0.033	< 0.001
Region				
Upper Peninsula	ref	ref	ref	
Northwest	0.003	-0.001	-0.002	0.780
Northeast	0.020	-0.004	-0.015	0.048
West	0.024	-0.006	-0.019	0.002
East Central	0.036	-0.009	-0.027	< 0.001
East	0.032	-0.008	-0.024	< 0.001
South Central	0.038	-0.009	-0.029	< 0.001
Southwest	0.060	-0.016	-0.045	< 0.001
Southeast	0.025	-0.006	-0.019	0.005
Detroit Metro	0.025	-0.006	-0.019	0.001
Total number of enrollees in model	80,743			

Enrollees in model if they have received a non-zero invoice and have no missing covariate values

Table 1.3 Subset of Enrollees who Ever Paid on Cost Sharing Obligation: Average Fraction Collected Over Time; Mean Collection Rates, with Frequency, by Period

6-month period of enrollment	Fraction collected	Number of non-missing observations in each period
7-12 months	0.71	52,259
13-18 months	0.63	54,380
19-24 months	0.64	33,227
25-30 months	0.66	11,485
Total n(obvs) = 42,098 **Total n(obvs/periods)=151,351**		

Table 1.3a Subset of Enrollees who Ever Paid on Cost Sharing Obligation: Average Fraction Collected Over Time; Mean Collection Rates, with Frequency, by Period

	Mean collection rates conditional on some collection, FPL <100		Mean collection rates conditional on some collection, FPL >=100	
	Fraction collected	**Number of non-missing observations**	**Fraction collected**	**Number of non-missing observations**
6-month period of enrollment				
7-12 months	0.72	34,972	0.70	17,287
13-18 months	0.64	35,333	0.63	19,047
19-24 months	0.64	21,590	0.64	11,637
25-30 months	0.66	7,813	0.65	3,672

Table 1.4 Predicted Percentage of Enrollees in Each Category of Collection Rate Category Among HMP Ever Payers, Ordered Logit Model, Bivariate and Multivariate Results

	Predicted percentage in each category per 6-month period of enrollment from ordered logit (Collection category on period; n= 151,351)				**Predicted percentage in each category per 6-month period of enrollment from ordered logit with demographic controls (Collection category on period; n= 148,784)***			
	No payment	**Partial payment**	**Full payment**	***p-value on regression coefficient***	**No payment**	**Partial payment**	**Full payment**	***p-value on regression coefficient***
Time period								
7-12 months	22.2%	13.0%	64.8%		22.2%	13.0%	64.8%	
13-18 months	29.7%	14.8%	55.5%	< 0.001	29.8%	14.8%	55.4%	< 0.001
19-24 months	29.8%	14.9%	55.3%	< 0.001	30.0%	14.9%	55.1%	< 0.001
25-30 months	29.0%	14.7%	56.4%	< 0.001	29.8%	14.8%	55.4%	< 0.001

*Controls for age (in categories), FPL (in categories), race, gender and region

Table 1.5 Fixed Effects Models of Fraction Paid and Propensity to Pay All or None of Obligations

	Log odds of ever-paying individual paying in full, by period		**Log odds of an ever-payer individual paying nothing, by period**		**Change in fraction collected by period among HMP ever payers, OLS with FE**	
	Paid in full	***p-value on regression coefficient***	**Paid nothing**	***p-value on regression coefficient***	**Marginal change in fraction paid, compared to reference**	***p-value on regression coefficient***
Time period						
7-12 months	ref		ref		ref	
13-18 months	-0.68	< 0.001	0.58	< 0.001	-0.09	< 0.001
19-24 months	-0.67	< 0.001	0.44	< 0.001	-0.07	< 0.001
25-30 months	-0.50	< 0.001	0.22	< 0.001	-0.04	< 0.001
Total observations (People/periods)	85,500		73,593		151,351	

Notes: The interpretation of the logit fixed effects models (for paid all or paid nothing) are in log odds of payment. For example, moving from the reference group of 7-12 months to 13-18 months in the paid in full panel changes the log odds of paying in full by -0.60.
OLS with FE = Ordinary least squares regression with fixed effects. The interpretation on these predictions is as the marginal change in the fraction of the total obligation paid, compared with the baseline period of 7-12 months after first enrolling. In a fixed effects mode, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Table 1.6 Demographic Characteristics of Select Subgroup: Ever-Payer HMP Enrollees with 25+ months of continuous eligibility and 3+ MI Health Account statements

	Continuously enrolled in HMP-MC 18+ months; non-exclusion population	HMP ever-payer population with 25 months or more of eligibility 3 MI Health Account statements (subset of population represented in left column)
Age		
22-34	30.0%	19.4%
35-44	21.8%	16.9%
45-54	29.9%	31.9%
55-64	18.3%	31.9%
Female	54.5%	65.3%
Race		
White	64.0%	80.1%
Black	24.2%	10.4%
American Indian/Alaskan Native	0.5%	0.3%
Hispanic	2.8%	2.1%
Asian/Pacific Islander	0.5%	0.6%
Other race	7.9%	6.5%
FPL		
0 %	51.1%	19.7%
1-35 %	7.2%	12.5%
36-99 %	25.7%	40.9%
100+ %	15.9%	26.9%
Region		
Upper Peninsula	3.6%	6.4%
Northwest	2.6%	4.1%
Northeast	3.2%	5.5%
West	12.0%	13.3%
East Central	6.7%	8.6%
East	11.5%	12.9%
Southeast	6.8%	7.9%
South Central	4.1%	4.5%
Southwest	7.1%	7.2%
Detroit Metro	42.3%	29.7%
Total enrollees	158,369	15,736

Exclusion from HMP if not enrolled for 18 months continuously or part of an exclusion population (hospice care, nursing home care, children's special health care services)
Unable currently to exclude pregnant women. There is a reduction reason for pregnancy so these enrollees should not show up in cost-sharing tables with positive invoices.

Table 1.7 Fixed Effects Models of Fraction Paid and Propensity to Pay All or None of Obligations, Subset of Long Enrolled and Frequent MI Health Account Statement

	Log odds of each category in Chamberlin fixed effects model		**Log odds of each category in Chamberlin fixed effects model**		**Fraction collected by period, ordinary least squares regression with fixed effects**	
	Full payment	***p-value on regression coefficient***	**No payment**	***p-value on regression coefficient***	**Marginal change in fraction paid, compared to reference**	***p-value on regression coefficient***
Time period						
7-12 months	0		0		0	
13-18 months	-0.583	< 0.001	0.823	< 0.001	-0.098	< 0.001
19-24 months	-0.816	< 0.001	0.742	< 0.001	-0.103	< 0.001
25-30 months	-0.525	< 0.001	0.418	< 0.001	-0.054	< 0.001
Total observations (People/periods)	39,954		33,489		67,478	

Notes: The interpretation of the logit fixed effects models (for paid all or paid nothing) are in log odds of payment. For example, in the 'paid in full' panel, moving from the reference group of 7-12 months to 13-18 months changes the log odds of paying in full by -0.44.
OLS with FE = Ordinary least squares regression with fixed effects. The interpretation on these predictions is as the marginal change in the fraction of the total obligation paid, compared with the baseline period of 7-12 months after first enrolling. In a fixed effects mode, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Table 1.8 Sample Characteristics of Eligible HMV Respondents (n=1,669)

Characteristic	n	%
Average billed quarterly premium contributions		
$0	1284	81.6
> $0 to $21	140	6.7
> $21	245	11.4
Average billed quarterly copayments		
$0	852	59.4
> $0 to $2	318	15.8
> $2	499	24.8
Payment of billed contributions and copayments in past 12 months (n=884)		
0%	345	43.1
1% to 95%	236	26.3
> 95%	303	30.6
FPL category		
0% to 35%	700	53.3
36% to 99%	584	28.5
≥ 100%	385	18.2
Female, %	998	53.2
Age, %		
18 to 34	441	34.1
35 to 50	515	33.6
51 to 64	713	32.3
Race, %		
White	1155	61.3
Black	328	27.0
Other	113	8.1
More than one	53	3.5
Married or partnered	396	19.7
Good, very good, or excellent health status	1101	67.0
Chronic condition	544	30.9

Table 1.9 Associations between billed premium contributions and survey measures of health care affordability

Characteristic	Outcomes[1]					
	Payments affordable[2] (n = 1,641)		**Payments fair[3] (n = 1,641)**		**Foregone care due to cost[4] (n = 1,641)**	
	Coefficient (95% CI)	*P*-value	Coefficient (95% CI)	*P*-value	Coefficient (95% CI)	*P*-value
Average billed quarterly premium contributions						
$0 (reference)						
> $0 to $21	.05	.11	.02	.55	.002	.94
> $21	-.02	.54	-.03	.55	-.02	.46
Average billed quarterly copayments						
$0 (reference)						
> $0 to $2	.02	.49	.02	.44	-.003	.88
> $2	.01	.74	.01	.57	.02	.28
FPL category						
0 to 35% (reference)						
36 to 99%	.005	.82	.01	.60	-.01	.50
≥ 100%	-0.56	.10	-.04	.29	-.01	.67
Female	-.02	.25	-.01	.57	.04	.02
Age						
18 to 34 (reference)						
35 to 50	.03	.26	.07	.02	-.02	.43
51 to 64	.05	.04	.06	.04	-.04	.06
Race						
White (reference)						
Black	-.05	.06	-.06	.04	-.02	.42
Other	-.08	.05	-.04	.39	.01	.69
More than one	-.04	.47	.01	.86s	.004	.93
Married or partnered	.04	.03	.02	.47	-.001	.95
G/VG/E health status	.05	.02	.04	.08	-.03	.15
Chronic condition	.01	.47	-.01	.74	.004	.84

CI = confidence interval; G = good; VG = very good; E = excellent

[1]Each column represents a different multivariable linear probability model. [2]Strongly agree or agree that payments affordable. [3]Strongly agree or agree that payments fair. [4]Went without health care in the past 12 months because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Table 1.10 Associations between billed premium contributions and payments of bills for contributions and co-pays (n=867)

Characteristic	Coefficient (95%CI)[1]	*P*-value
Average billed quarterly premium contributions		
$0 (ref)		
> $0 to $21	.42	.07
> $21	.44	.03
Average billed quarterly copayments		
$0 (ref)		
> $0 to $2	.30	.32
> $2	.76	.007
FPL category		
0 to 35% (ref)		
36 to 99%	.28	.26
≥ 100%	-.13	.63
Female	.04	.80
Age		
18 to 34 (ref)		
35 to 50	-.03	.90
51 to 64	.76	< .001
Race		
White (ref)		
Black	-1.52	< .001
Other	-.38	.22
More than one	-.33	.61
Married or partnered	-.25	.16
Good, very good, or excellent health status	1.05	< .001
Chronic condition	-.05	.75

CI = confidence interval

[1]Coefficients represent the log-odds of being in a higher payment category relative to lower payment categories.

Table 1.11 Marginal Effects from Logit Regression of Demographics on Garnishment

	Coefficient	*p-value on regression coefficient*
Age		
Under 30	ref	
30 to 39	0.002	0.050
40 to 49	-0.001	0.380
Over 50	-0.004	< 0.001
Female	0.007	< 0.001
Race		
White	0.011	< 0.001
Black	-0.008	0.080
American Indian	0.003	0.101
Hispanic	-0.014	0.006
Asian/Pacific Islander	-0.001	0.499
Unknown	0.011	< 0.001
FPL		
0-35 %	ref	
36-99 %	0.008	< 0.001
100+ %	0.040	< 0.001
Region		
Upper Peninsula	ref	
Northwest	0.000	0.888
Northeast	0.000	0.940
West	-0.002	0.449
East Central	0.001	0.732
East	0.002	0.370
South Central	0.003	0.290
Southwest	0.000	0.886
Southeast	-0.001	0.573
Detroit Metro	-0.006	0.002
Total people	158,322	

Table 1.12 Number of Enrollees with Garnishments in 2016, by Collection Category

	No payment	Partial payment	Full payment	Totals
No garnishment	36,684	22,433	18,745	77,862
Garnishment	1,961	869	51	2,881

Figure 1.1 Mean Federal Poverty Level, Cross-Sectional. Average FPL per enrollee from enrollment data, with 0 FPL included

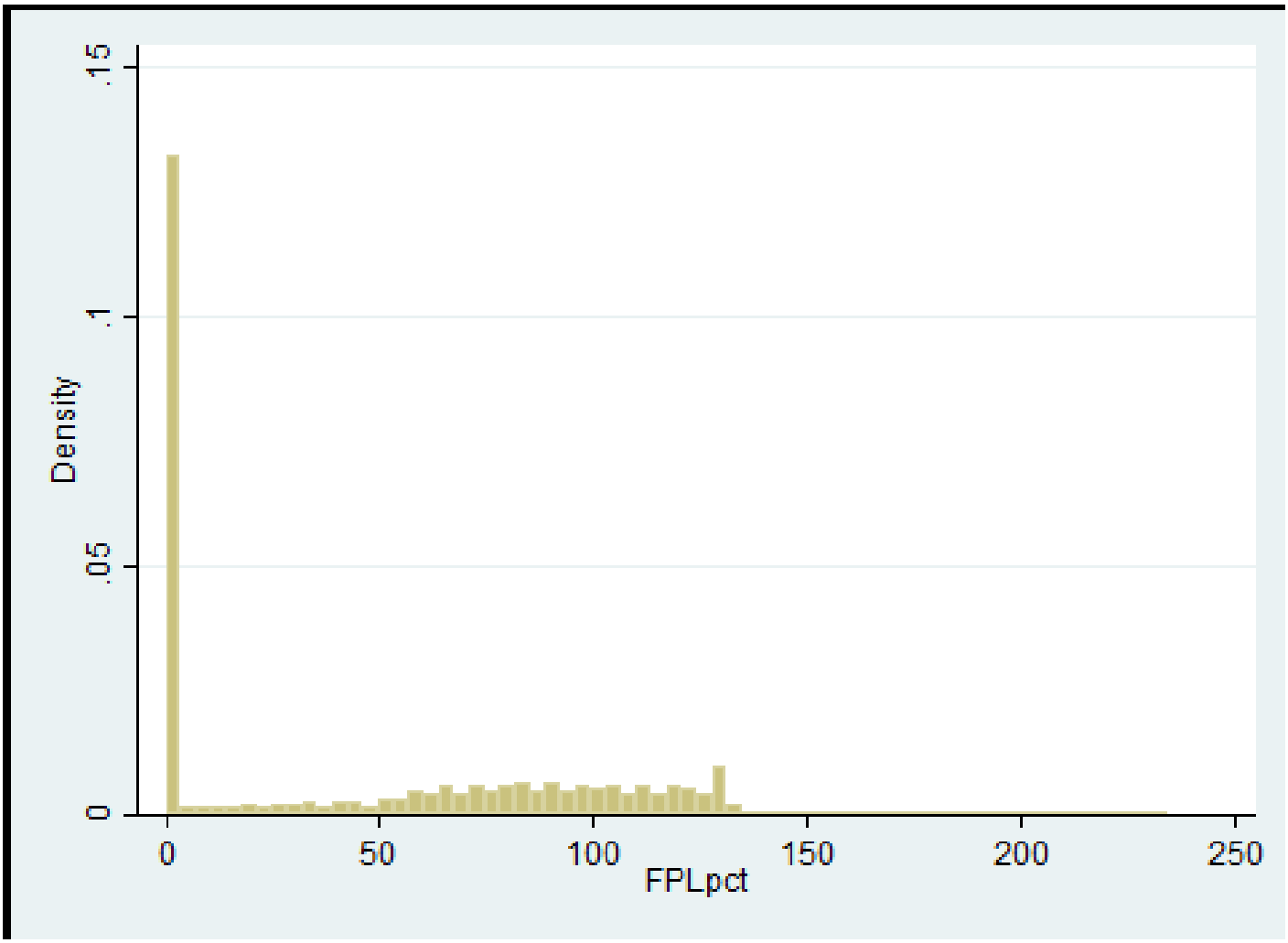


Figure 1.1a Mean Federal Poverty Level, Cross-Sectional. Average FPL per enrollee from enrollment data, without 0 FPL included

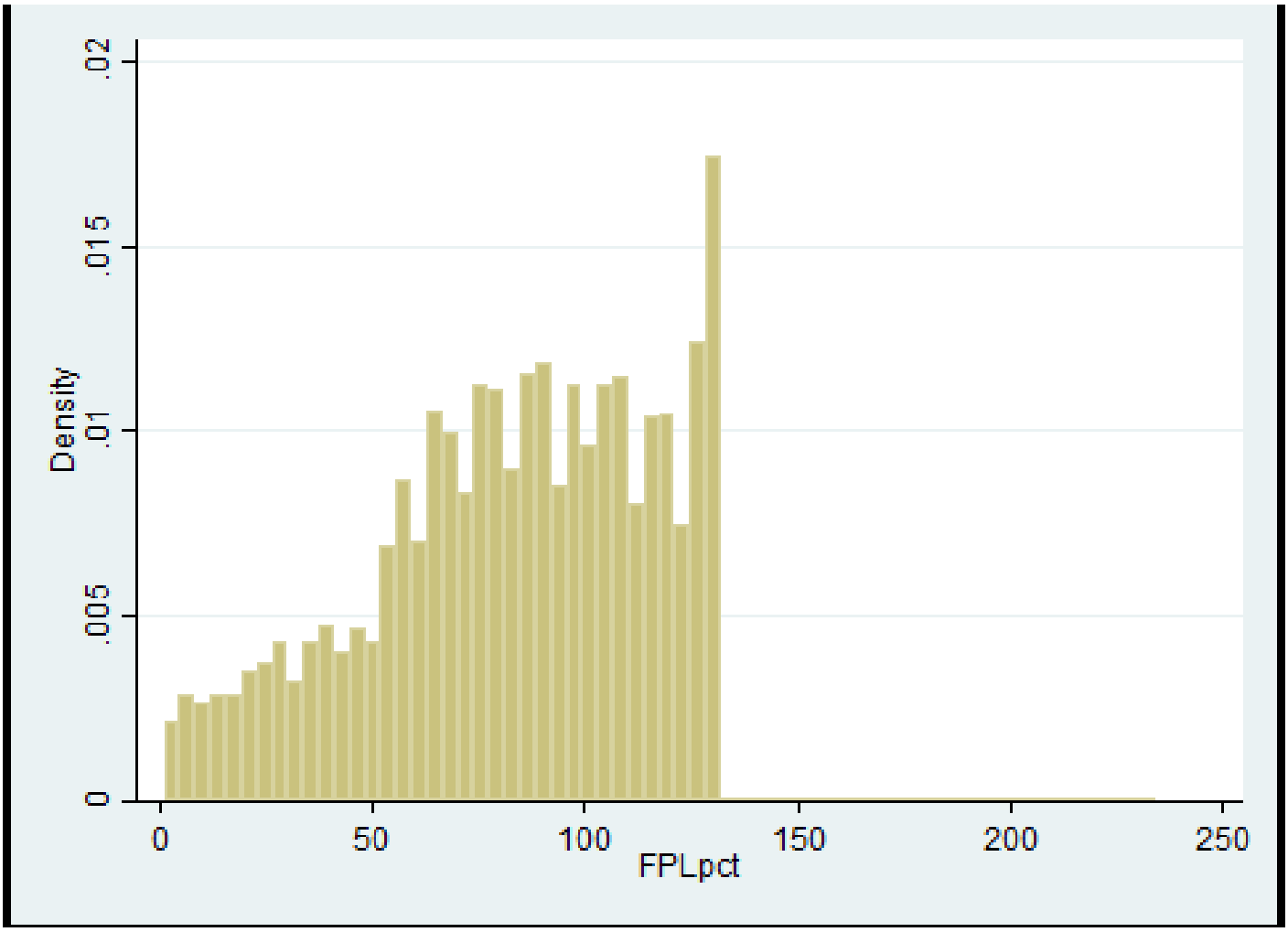


Figure 1.2 Percent Paid Over Time in 25+ Month Subset

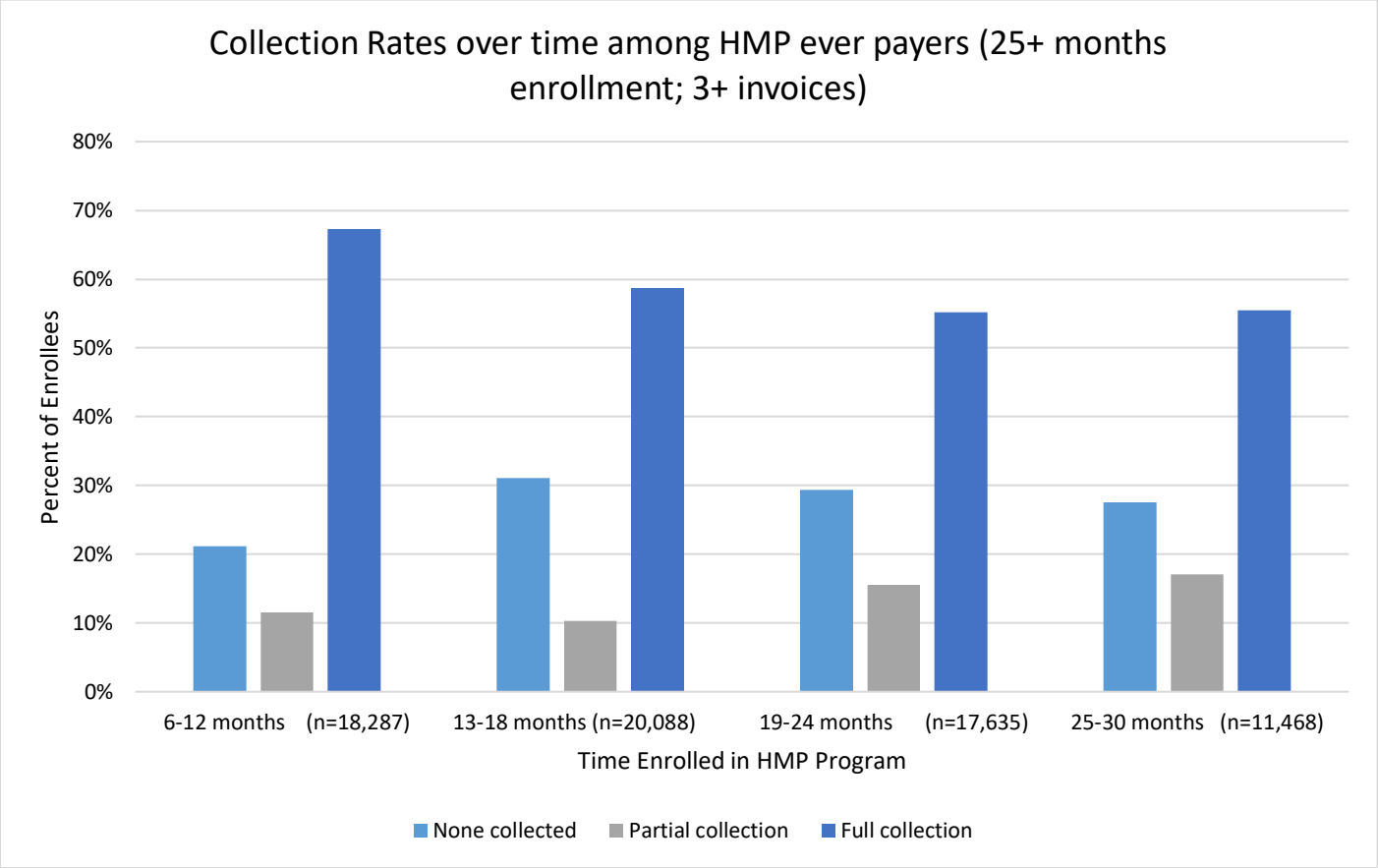
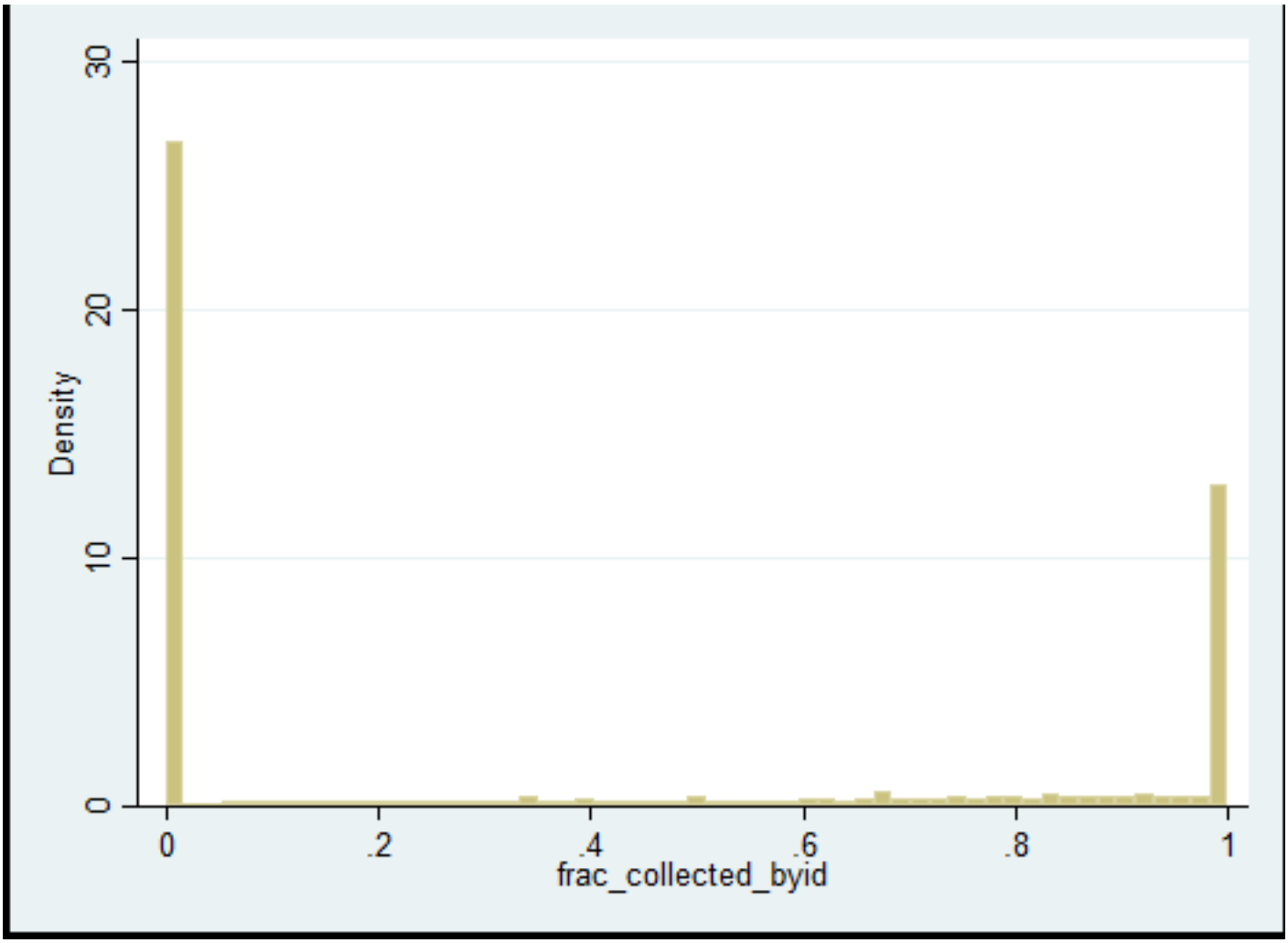


Figure 1.3 Payment Fraction Collected, Cross-Sectional Analysis



Note: In this graph the x-axis label, frac_collected_byid is the fraction of the invoice collected for each individual. This graph shows the density of collected fraction of invoices for HMP-MC individuals. The highest density (most individuals) have 0% of invoices collected, followed by 100% of invoice amounts collected. True fractions (between 0% and 100%) are more rare.

Hypothesis 1: Total Medical and Pharmaceutical Spending

Table 2.1 Cross-Sectional Descriptive Spending Results (April 2014 to Sept 2016)

	Overall	Mean FPL: 0-35 %	Mean FPL: 36-99 %	Mean FPL: 100+ %
Average monthly total spend	$ 360.04	$ 390.55	$ 313.32	$ 326.97
Average monthly medical spend	$ 238.44	$ 257.54	$ 209.66	$ 217.05
Average monthly Rx spend	$ 121.60	$ 133.01	$ 103.66	$ 109.92
Median monthly total spend	$ 135.63	$ 151.60	$ 122.07	$ 114.09
Median monthly medical spending	$ 90.61	$ 98.58	$ 83.53	$ 79.11
Median monthly Rx spending	$ 18.27	$ 21.72	$ 15.24	$ 14.42
Total enrollees	158,366	90,965	39,994	27,404

Table 2.2 Cross-Sectional Regression Analysis of Spending on Demographic Variables; Predicted Spending from GLM Regression

	Monthly total spending	*p-value on regression coefficient*	Monthly medical spending	*p-value on regression coefficient*	Monthly pharmaceutical spending	*p-value on regression coefficient*
Age						
Under 30	223.57		155.16		67.73	
30 to 39	295.32	< 0.01	191.45	< 0.01	103.06	< 0.01
40 to 49	408.62	< 0.01	262.88	< 0.01	145.99	< 0.01
Over 50	438.01	< 0.01	295.15	< 0.01	144.06	< 0.01
Gender						
Male	322.95		203.48		119.72	
Female	392.36	< 0.01	269.34	< 0.01	123.21	0.12
Race						
White	380.05		253.47		126.90	
Black	327.23	< 0.01	211.85	< 0.01	115.01	< 0.01
American Indian	560.96	0.11	417.77	0.11	141.91	0.20
Hispanic	342.06	0.01	219.04	< 0.01	122.37	0.67
Asian/Pacific Islander	247.71	< 0.01	159.12	< 0.01	89.17	0.02
Unknown	304.22	< 0.01	205.59	< 0.01	100.10	< 0.01
FPL						
0-35 %	396.05		263.67		133.18	
36-99 %	311.97	< 0.01	206.93	< 0.01	104.65	< 0.01
100+ %	314.44	< 0.01	206.24	< 0.01	107.48	< 0.01
Region						
Upper Peninsula	308.72	< 0.01	191.53	< 0.01	118.33	0.47
Northwest	322.63	< 0.01	206.43	< 0.01	116.93	0.38
Northeast	301.28	< 0.01	196.44	< 0.01	106.01	0.01
West	374.36	0.02	239.58	0.68	134.80	< 0.01
East Central	326.16	< 0.01	210.76	< 0.01	117.06	0.23
East	339.99	< 0.01	231.15	0.11	109.33	< 0.01
South Central	310.95	< 0.01	198.10	< 0.01	113.56	0.11
Southwest	356.18	0.53	236.96	0.87	120.44	0.60
Southeast	504.38	< 0.01	369.24	< 0.01	135.03	0.02
Detroit Metro	360.77		237.85		122.55	
Other health insurance						
No	353.50		234.52		119.38	
Yes	466.99	< 0.01	307.65	< 0.01	157.04	< 0.01
Total people	158,366					

Table 2.2a Coefficients from Other Regression Specifications of Spending

	Spending outcomes using ordinary least squares regression model (n=158,366)					Spending outcomes using generalized linear model -coefficients (n=158,366)					Marginal effects from generalized linear model- marginal effects (n=158,366)				
	Monthly spending	*p-value on regression coefficient*	Monthly medical spending	*p-value on regression coefficient*	Monthly pharmaceutical spending	*p-value on regression coefficient*	Monthly spending	*p-value on regression coefficient*	Monthly medical spending	*p-value on regression coefficient*	Monthly pharmaceutical spending	*p-value on regression coefficient*	Monthly spending	Monthly medical spending	Monthly pharmaceutical spending
Age															
Under 30	ref		ref		ref		ref		ref		ref		ref	ref	ref
30 to 39	74.69	< 0.01	38.55	< 0.01	36.15	< 0.01	0.28	< 0.01	0.21	< 0.01	0.42	< 0.01	71.75	36.29	35.34
40 to 49	186.84	< 0.01	106.98	< 0.01	79.86	< 0.01	0.60	< 0.01	0.53	< 0.01	0.77	< 0.01	185.06	107.72	78.27
Over 50	209.72	< 0.01	134.05	< 0.01	75.66	< 0.01	0.67	< 0.01	0.64	< 0.01	0.75	< 0.01	214.44	139.99	76.33
Gender															
Male	ref		ref		ref		ref		ref		ref		ref	ref	ref
Female	66.13	< 0.01	58.69	< 0.01	7.43	< 0.01	0.19	< 0.01	0.28	< 0.01	0.03	0.12	70.14	67.00	3.49
Race															
White	ref		ref		ref		ref		ref		ref		ref	ref	ref
Black	-56.53	< 0.01	-44.39	< 0.01	-12.14	< 0.01	-0.15	< 0.01	-0.18	< 0.01	-0.10	< 0.01	-52.82	-41.62	-11.88
American Indian	194.66	0.22	178.05	0.26	16.62	0.15	0.39	0.11	0.50	0.11	0.11	0.20	180.91	164.30	15.01
Hispanic	-45.70	< 0.01	-39.26	< 0.01	-6.43	0.44	-0.11	0.01	-0.15	< 0.01	-0.04	0.67	-37.99	-34.43	-4.52
Asian/Pacific Islander	-136.95	< 0.01	-101.52	< 0.01	-35.43	0.01	-0.43	< 0.01	-0.47	< 0.01	-0.35	0.02	-132.34	-94.35	-37.73
Unknown	-78.00	< 0.01	-51.96	< 0.01	-26.03	< 0.01	-0.22	< 0.01	-0.21	< 0.01	-0.24	< 0.01	-75.83	-47.88	-26.79
FPL															
0-35 %	ref		ref		ref		ref		ref		ref		ref	ref	ref
36-99 %	-84.46	< 0.01	-55.78	< 0.01	-28.68	< 0.01	-0.24	< 0.01	-0.24	< 0.01	-0.24	< 0.01	-84.08	-56.75	-28.54
100+ %	-75.01	< 0.01	-51.25	< 0.01	-23.76	< 0.01	-0.23	< 0.01	-0.25	< 0.01	-0.21	< 0.01	-81.61	-57.43	-25.70
Region															
Upper Peninsula	-59.65	< 0.01	-54.31	< 0.01	-5.34	0.34	-0.16	< 0.01	-0.22	< 0.01	-0.04	0.47	-52.05	-46.32	-4.22
Northwest	-42.57	< 0.01	-36.80	< 0.01	-5.77	0.37	-0.11	< 0.01	-0.14	< 0.01	-0.05	0.38	-38.14	-31.42	-5.63
Northeast	-60.02	< 0.01	-45.43	< 0.01	-14.59	0.01	-0.18	< 0.01	-0.19	< 0.01	-0.15	0.01	-59.49	-41.41	-16.54
West	16.22	0.01	0.98	0.82	15.24	< 0.01	0.04	0.02	0.01	0.68	0.10	< 0.01	13.59	1.73	12.25
East Central	-34.51	< 0.01	-28.41	< 0.01	-6.10	0.14	-0.10	< 0.01	-0.12	< 0.01	-0.05	0.23	-34.60	-27.09	-5.49
East	-21.56	< 0.01	-9.39	0.03	-12.17	< 0.01	-0.06	< 0.01	-0.03	0.11	-0.11	< 0.01	-20.78	-6.70	-13.23
South Central	-46.82	< 0.01	-40.92	< 0.01	-5.90	0.27	-0.15	< 0.01	-0.18	< 0.01	-0.08	0.11	-49.81	-39.76	-8.99
Southwest	-2.75	0.70	-1.93	0.73	-0.82	0.83	-0.01	0.53	< 0.01	0.87	-0.02	0.60	-4.59	-0.89	-2.12
Southeast	143.36	< 0.01	134.48	< 0.01	8.88	0.05	0.34	< 0.01	0.44	< 0.01	0.10	0.02	143.61	131.39	12.48
Detroit Metro	ref		ref		ref		ref		ref		ref		ref	ref	
Other health insurance															
No	ref		ref		ref		ref		ref		ref		ref	ref	ref
Yes	126.62	< 0.01	84.35	< 0.01	42.27	< 0.01	0.28	< 0.01	0.27	< 0.01	0.27	< 0.01	100.31	64.84	33.34

Table 2.3 Descriptive Spending by Year, with Poverty Level Splits

	Average per month total spending	Average per month medical spending	Average per month pharmaceutical spending	Enrollee/months
Overall				
Year 1	340.72	240.21	100.52	1,900,428
Year 2	377.87	235.12	142.75	1,597,191
Year 3	447.70	254.63	193.07	239,782
FPL 0-35 %				
Year 1	365.72	255.81	109.91	1,110,806
Year 2	423.89	264.39	159.50	949,918
Year 3	496.01	282.64	213.37	155,770
FPL 33-99 %				
Year 1	292.36	207.47	84.88	473,081
Year 2	311.12	195.38	115.73	392,257
Year 3	367.83	211.90	155.93	53,652
FPL 100+ %				
Year 1	325.31	234.40	90.91	316,505
Year 2	309.16	187.19	121.97	254,980
Year 3	341.12	186.49	154.63	30,342

Table 2.3a Descriptive Spending by 6-month Period

	Mean spending	Mean medical spending	Mean Pharmaceutical spending	Enrollee/months
Time period of enrollment				
All enrollees				
0-6 months	317.76	229.67	88.09	950,214
7-12 months	363.69	250.74	112.95	950,214
13-18 months	365.05	233.00	132.04	950,214
19-24 months	396.71	238.23	158.48	646,977
25-30 months	447.70	254.63	193.07	239,782
Enrollees with FPL 0-35 %				
0-6 months	340.99	244.61	96.38	554,530
7-12 months	390.37	266.96	123.40	556,276
13-18 months	409.03	262.19	146.83	560,021
19-24 months	445.23	267.55	177.68	389,897
25-30 months	496.01	282.64	213.37	155,770
Enrollees with FPL 36-99 %				
0-6 months	269.90	195.05	74.85	237,068
7-12 months	314.91	219.95	94.96	236,013
13-18 months	299.92	190.85	109.07	234,732
19-24 months	327.80	202.14	125.66	157,525
25-30 months	367.83	211.90	155.93	53,652
Enrollees with FPL 100+ %				
1-6 months	308.06	229.19	78.87	158,598
7-12 months	342.63	239.63	103.00	157,907
13-18 months	304.96	191.48	113.47	155,443
19-24 months	315.73	180.49	135.24	99,537
25-30 months	341.12	186.49	154.63	30,342

Table 2.4 Spending, including by Time Enrolled in Program, Predicted Effects from GLM Regression

	Predicted average monthly spending	*p-value on regression coefficient*	Predicted average monthly medical spending	*p-value on regression coefficient*	Predicted average monthly pharmaceutical spending	*p-value on regression coefficient*
Time period						
Months 0 -6	320.82		231.44		89.49	
Months 7-12	363.48	< 0.01	248.50	0.011	114.54	< 0.01
Months 13-18	368.30	< 0.01	236.60	0.248	132.23	< 0.01
Months 19-24	391.33	< 0.01	240.44	0.067	151.07	< 0.01
Months 25-30	422.98	< 0.01	243.24	0.028	179.46	< 0.01
FPL						
0-35 %	404.26		266.10		139.11	
36-99 %	309.40	0.922	202.32	0.220	106.69	< 0.01
100+ %	317.37	0.853	202.92	0.226	112.07	< 0.01
Age						
Under 30	229.18		156.85		71.67	
30 to 39	301.72	< 0.01	192.40	< 0.01	108.74	< 0.01
40 to 49	412.10	< 0.01	260.85	< 0.01	151.60	< 0.01
Over 50	440.08	< 0.01	293.48	< 0.01	147.05	< 0.01
Gender						
Male	329.41		204.24		125.09	
Female	398.24	< 0.01	270.09	< 0.01	128.37	0.020
Race						
White	385.81		253.10		132.48	
Black	331.91	< 0.01	213.45	< 0.01	119.12	< 0.01
American Indian	607.33	0.116	457.21	0.110	146.75	0.033
Hispanic	348.16	< 0.01	219.44	< 0.01	127.42	0.464
Asian/Pacific Islander	250.29	< 0.01	158.31	< 0.01	90.65	< 0.01
Unknown	312.98	< 0.01	208.55	< 0.01	105.74	< 0.01
Region						
Upper Peninsula	312.51	< 0.01	191.02	< 0.01	121.45	0.077
Northwest	331.41	< 0.01	208.94	< 0.01	122.57	0.159
Northeast	309.87	< 0.01	199.40	< 0.01	111.05	< 0.01
West	381.81	< 0.01	242.19	0.216	140.84	< 0.01
East Central	333.21	< 0.01	213.23	< 0.01	121.09	0.016
East	347.13	< 0.01	233.59	0.156	112.90	< 0.01
South Central	317.60	< 0.01	200.83	< 0.01	118.72	0.016
Southwest	362.11	0.510	239.00	0.864	124.78	0.119
Southeast	512.25	< 0.01	362.87	< 0.01	141.29	< 0.01
Detroit Metro	366.02		238.06		128.54	
Other health insurance						
No	365.08		238.88		126.28	
Yes	407.47	0.016	262.46	0.045	144.32	< 0.01
Total observations (Enrollee/periods)	681,712		681,712		681,712	

Table 2.4a Predicted Spending with FPL/Time Interactions and Demographics, Predicted Effects from GLM Regressions

	Total monthly spending	*p-value on regression coefficient*	Medical monthly spending	*p-value on regression coefficient*	Monthly pharmaceutical spending	*p-value on regression coefficient*
Time period and Federal poverty level						
0-6 Months: Below 35%	343.38		247.03		97.15	
0-6 Months: 36-99% FPL	271.79	< 0.01	194.88	< 0.01	76.79	< 0.01
0-6 Months: Above 100% FPL	305.12	0.114	222.59	0.233	79.68	< 0.01
7-12 Months: Below 35% FPL	388.46	< 0.01	264.99	0.013	123.75	< 0.01
7-12 Months: 36-99% FPL	320.22	0.358	219.75	0.360	98.22	0.909
7-12 Months: Above 100% FPL	329.18	0.613	224.76	0.603	103.71	0.586
13-18 Months: Below 35% FPL	413.06	< 0.01	268.29	< 0.01	145.55	< 0.01
13-18 Months: 36-99% FPL	307.08	0.022	195.35	0.014	111.69	0.447
13-18 Months: Above 100% FPL	306.32	0.020	191.42	0.010	114.88	0.346
19-24 Months: Below 35% FPL	445.17	< 0.01	277.76	< 0.01	168.04	< 0.01
19-24 Months: 36-99% FPL	321.46	0.011	199.08	0.018	122.41	0.033
19-24 Months: Above 100% FPL	314.41	< 0.015	179.01	< 0.01	134.41	0.648
25- 30 Months: Below 35% FPL	483.89	< 0.01	281.84	< 0.01	201.49	< 0.01
25- 30 Months: 36-99% FPL	348.52	0.010	201.87	0.031	147.28	0.141
25- 30 Months: Above 100% FPL	321.69	< 0.011	171.87	< 0.01	148.99	0.144
Age						
Under 30	228.85		156.48		71.70	
30 to 39	301.95	< 0.01	192.64	< 0.01	108.77	< 0.01
40 to 49	412.24	< 0.01	260.85	< 0.01	151.65	< 0.01
Over 50	440.07	< 0.01	293.29	< 0.01	147.13	< 0.01
Gender						
Male	329.50		204.11		125.14	
Female	398.30	< 0.01	270.08	< 0.01	128.43	0.019
Race						
White	253.07	< 0.01			132.53	0.011
Black	213.39	< 0.01		< 0.01	119.22	< 0.01
American Indian	451.02	0.113		0.107	146.87	0.033
Hispanic	219.39	< 0.01		< 0.01	127.42	0.457

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Asian/Pacific Islander	158.57	< 0.01		< 0.01	90.64	< 0.01
Unknown	208.65	< 0.01		< 0.01	105.77	< 0.01
Region						
Upper Peninsula	313.28	< 0.01	191.31	< 0.01	121.54	0.077
Northwest	331.42	< 0.01	209.31	< 0.01	122.52	0.148
Northeast	310.89	< 0.01	199.81	< 0.01	111.36	< 0.01
West	381.84	< 0.01	242.18	0.243	140.89	< 0.01
East Central	333.65	< 0.01	213.44	< 0.01	121.23	0.017
East	347.15	< 0.01	233.77	0.149	112.89	< 0.01
South Central	317.82	< 0.01	200.86	< 0.01	118.84	0.016
Southwest	362.21	0.483	238.81	0.924	124.87	0.122
Southeast	509.60	< 0.01	359.71	< 0.01	141.28	< 0.01
Detroit Metro	366.33	< 0.01	238.30		128.59	< 0.01
Other health insurance						
No	365.21		238.86		126.35	
Yes	405.21	0.018	260.90	0.057	143.96	< 0.01
Total observations (Enrollee/months)	681,697		681,697		681,697	

Table 2.4b Subset of HMP Enrollees with Cost Sharing Obligations: Predicted Spending with FPL and Time Interactions, Demographics and Collection Rates

	Total monthly spending	*p-value on regression coefficient*	Monthly medical spending	*p-value on regression coefficient*	Monthly pharmaceutical spending	*p-value on regression coefficient*
Collection category						
None collected	349.67		236.54		112.97	
Partial collection	364.43	0.027	231.56	0.328	134.88	< 0.01
Full collection	331.41	0.049	216.47	0.018	113.59	0.805
Time period						
Months 0-6	312.51		228.37		84.24	
Months 7-12	348.10	0.013	239.63	0.283	108.45	< 0.01
Months 13-18	351.82	< 0.01	227.85	0.941	124.46	< 0.01
Months 19-24	366.72	< 0.01	224.46	0.577	142.20	< 0.01
Months 25-30	396.78	< 0.01	226.71	0.823	169.65	< 0.01
FPL						
0-35 %	397.67		264.57		135.18	
36-99 %	325.68	< 0.01	214.60	< 0.01	111.36	< 0.01
100+ %	320.55	< 0.01	206.88	< 0.01	110.99	< 0.01
Age						
Under 30	228.21		158.74		66.59	
30 to 39	269.51	< 0.01	174.28	0.035	95.75	< 0.01
40 to 49	370.39	< 0.01	232.90	< 0.01	138.58	< 0.01
Over 50	444.03	< 0.01	298.45	< 0.01	146.12	< 0.01
Gender						
Male	322.01		196.65		125.64	
Female	364.36	< 0.01	248.11	< 0.01	116.31	< 0.01
Race						
White	360.75		239.80		120.74	
Black	329.72	< 0.01	208.47	< 0.01	122.29	0.576
American Indian	388.03	0.244	244.67	0.780	151.39	0.013
Hispanic	328.66	0.034	204.43	< 0.01	120.43	0.976
Asian/Pacific Islander	263.67	< 0.01	158.77	< 0.01	103.24	0.214
Unknown	303.29	< 0.01	205.07	< 0.01	101.53	< 0.01
Region						
Upper Peninsula	319.69	0.011	195.44	< 0.01	124.51	0.440
Northwest	321.87	0.019	208.36	0.014	113.23	0.184
Northeast	287.57	< 0.01	184.79	< 0.01	102.34	< 0.01
West	366.28	0.011	236.42	0.029	131.96	< 0.01
East Central	320.80	< 0.01	206.22	< 0.01	117.21	0.349
East	325.18	< 0.01	223.73	0.429	101.40	< 0.01
South Central	299.84	< 0.01	191.76	< 0.01	110.33	0.010
Southwest	350.17	0.649	228.70	0.748	123.09	0.440
Southeast	497.87	0.011	350.79	0.011	137.49	< 0.01
Detroit Metro	347.16		226.96		120.54	
Other health insurance						
No	348.84		229.74		119.12	
Yes	362.66	0.107	233.05	0.643	131.40	0.013
Total observations (Enrollee/periods)	340,254		340,254		340,254	

Table 2.5 Marginal Effects from a Fixed Effect Regression Model of Spending and Log of Spending

	Marginal difference in total monthly spending, compared to constant	***p-value on regression coefficient***	**Marginal effects of log of total monthly spending**	***p-value on regression coefficient***
Time period				
0-6 Months	ref		ref	
7-12 Months	45.91	< 0.01	-0.06	< 0.01
13-18 Months	48.47	< 0.01	-0.01	0.315
19-24 Months	74.11	< 0.01	-0.22	< 0.01
25-30 Months	110.09	< 0.01	-0.28	< 0.01
FPL				
0-35 %	ref		ref	
36-99 %	97.97	0.256	-0.02	0.566
100+ %	96.38	0.545	-0.04	0.194
Other health insurance				
No	ref		ref	
Yes	-71.26	0.479	-0.38	< 0.01
Constant	280.46		4.26	
Number enrollees	158,366		158,366	

Notes: The log of healthcare expenditures are often used in research rather than the actual dollar amounts because many people spend very little each month and a few people spend quite a bit. That spread of spending, particularly when a few numbers are much higher than most, has been shown difficult to model mathematically. Instead, using the log of the number, results in more accurate predictions. In this case, the log spending was taken by adding $1 to each spending outcome because the log of $0 is undefined.

Hypothesis 2: Medicaid Service Value – Medical Services

Table 3.1.1 Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Cross-Section of Enrollees; Predictions Signal Percent that ever used service during study period

	Copay exempt predicted use	*p-value on regression coefficient*	Copay likely predicted use	*p-value on regression coefficient*
FPL				
0-35 %	81.2%	ref	56.8%	ref
36-99 %	81.9%	0.01	55.8%	< 0.01
100+ %	81.7%	0.07	55.5%	< 0.01
Age				
Under 30	73.4%	ref	46.4%	ref
30 to 39	76.4%	< 0.01	52.4%	< 0.01
40 to 49	83.7%	< 0.01	59.8%	< 0.01
Over 50	87.3%	< 0.01	61.7%	< 0.01
Gender				
Male	73.3%	ref	50.7%	ref
Female	88.4%	< 0.01	61.1%	< 0.01
Race				
White	82.1%	ref	58.8%	ref
Black	79.8%	< 0.01	51.0%	< 0.01
American Indian	85.0%	0.02	37.1%	< 0.01
Hispanic	81.2%	0.10	55.9%	< 0.01
Asian/Pacific Islander	83.6%	0.25	55.4%	0.05
Unknown	81.1%	0.01	53.9%	< 0.01
Region				
Upper Peninsula	73.9%	< 0.01	54.5%	
Northwest	81.0%	< 0.01	52.7%	0.08
Northeast	79.7%	< 0.01	54.2%	0.79
West	80.8%	< 0.01	57.8%	< 0.01
East Central	81.0%	< 0.01	52.4%	0.01
East	83.1%	0.64	55.4%	0.20
South Central	78.2%	< 0.01	55.4%	0.32
Southwest	78.3%	< 0.01	49.3%	< 0.01
Southeast	79.2%	< 0.01	57.5%	< 0.01
Detroit Metro	83.2%	ref	58.4%	ref
Other health insurance				
No	81.5%	ref	56.5%	ref
Yes	81.4%	0.79	53.8%	< 0.01
Total enrollees	158,322		158,322	

Table 3.1.2 Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Repeated Cross-Sections of Enrollees; Predictions Signal Percent that ever used service in a time period since enrollment

	Copay exempt service use	*p-value on regression coefficient*	Copay likely service use	*p-value on regression coefficient*
Time period				
Months 0-6	56.6%		28.7%	
Months 7-12	43.5%	< 0.01	24.4%	< 0.01
Months 13-18	46.3%	< 0.01	22.8%	< 0.01
Months 19-24	36.0%	< 0.01	17.1%	< 0.01
Months 25-30	33.2%	< 0.01	16.7%	< 0.01
FPL				
0-35 %	44.8%		23.0%	
36-99 %	44.6%	0.11	22.5%	< 0.01
100+ %	44.3%	< 0.01	22.5%	< 0.01
Age				
Under 30	34.8%		17.3%	
30 to 39	37.5%	< 0.01	20.5%	< 0.01
40 to 49	46.8%	< 0.01	24.7%	< 0.01
Over 50	52.5%	< 0.01	25.5%	< 0.01
Gender				
Male	47.9%		19.4%	
Female	64.2%	< 0.01	25.6%	< 0.01
Race				
White	44.9%		24.1%	
Black	43.9%	< 0.01	20.0%	< 0.01
American Indian	46.9%	0.01	12.8%	< 0.01
Hispanic	45.6%	0.04	22.3%	< 0.01
Asian/Pacific Islander	46.7%	0.02	21.0%	< 0.01
Unknown	44.3%	< 0.01	21.1%	< 0.01
Region				
Upper Peninsula	37.6%	< 0.01	20.9%	< 0.01
Northwest	43.3%	< 0.01	22.0%	< 0.01
Northeast	42.1%	< 0.01	21.7%	< 0.01
West	44.1%	< 0.01	25.1%	< 0.01
East Central	44.1%	< 0.01	19.4%	< 0.01
East	46.4%	0.29	21.2%	< 0.01
South Central	41.1%	< 0.01	21.6%	< 0.01
Southwest	41.6%	< 0.01	18.9%	< 0.01
Southeast	42.3%	< 0.01	23.6%	< 0.01
Detroit Metro	46.6%		24.0%	< 0.01
Other health insurance				0.07
No	44.8%		22.9%	
Yes	39.9%	< 0.01	16.9%	< 0.01
Total observations (Enrollee/periods)	681,530		681,530	

Table 3.1.2a Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Repeated Cross-Sections of Enrollees; With Interactions for Time Period and Above/Below 100% FPL

	Copay exempt service use	*p-value on regression coefficient*	Copay likely service use	*p-value on regression coefficient*
Time period and Federal poverty level				
Months 0-6: Below 100% FPL	56.5%		28.9%	
Months 0-6: Above 100% FPL	57.0%	0.152	27.1%	< 0.01
Months 7-12: Below 100% FPL	43.4%	< 0.01	24.4%	< 0.01
Months 7-12: Above 100% FPL	43.2%	0.145	23.8%	0.026
Months 13-18: Below 100% FPL	46.2%	< 0.01	22.7%	< 0.01
Months 13-18: Above 100% FPL	46.3%	0.493	22.8%	< 0.01
Months 19-24: Below 100% FPL	36.3%	< 0.01	17.1%	< 0.01
Months 19-24: Above 100% FPL	33.9%	< 0.01	17.1%	< 0.01
Months 25-30: Below 100% FPL	33.9%	< 0.01	16.9%	< 0.01
Months 25-30: Above 100% FPL	29.3%	< 0.01	15.3%	0.516
Age				
Under 30	34.8%		17.3%	
30 to 39	37.5%	< 0.01	20.5%	< 0.01
40 to 49	46.7%	< 0.01	24.7%	< 0.01
Over 50	52.4%	< 0.01	25.4%	< 0.01
Gender				
Male	36.4%		19.4%	
Female	51.4%	< 0.01	25.5%	< 0.01
Race				
White	44.8%		24.1%	
Black	43.9%	< 0.01	19.9%	< 0.01
American Indian	46.7%	0.017	12.9%	< 0.01
Hispanic	45.5%	0.076	22.1%	< 0.01
Asian/Pacific Islander	46.7%	0.022	21.3%	< 0.01
Unknown	44.3%	0.017	21.1%	< 0.01
Region				
Upper Peninsula	37.5%	< 0.01	20.9%	< 0.01
Northwest	43.3%	< 0.01	21.9%	< 0.01
Northeast	42.0%	< 0.01	21.6%	< 0.01
West	44.0%	< 0.01	25.1%	< 0.01
East Central	44.0%	< 0.01	19.4%	< 0.01
East	46.3%	0.334	21.2%	< 0.01
South Central	41.0%	< 0.01	21.5%	< 0.01
Southwest	41.4%	< 0.01	18.8%	< 0.01
Southeast	42.3%	< 0.01	23.6%	0.072
Detroit Metro	46.5%		24.0%	

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Other health insurance				
No	44.7%		22.9%	
Yes	39.9%	< 0.01	16.9%	< 0.01
Total observations (Enrollee/periods)	669,398		669,398	

Note: The N here is slightly less than above because this regression excludes those who switch between < 100% FPL and > 100% FPL.

Table 3.1.2b Predicted Average Monthly Spending on Copay Exempt/ Copay Likely Services from Generalized Linear Model Regression

	Copay exempt medications	*p-value on regression coefficient*	Copay likely service spending	*p-value on regression coefficient*
Time period				
Months 0-6	30.54		10.03	
Months 7-12	22.85	*< 0.01*	9.03	*< 0.01*
Months 13-18	24.82	*< 0.01*	8.47	*< 0.01*
Months 19-24	22.75	*< 0.01*	6.66	*< 0.01*
Months 25-30	23.06	*< 0.01*	7.55	*< 0.01*
FPL				
0-35 %	25.87	*< 0.01*	8.92	*< 0.01*
36-99 %	23.96	*< 0.01*	7.98	*< 0.01*
100+ %	23.99	*< 0.01*	7.80	*< 0.01*
Age				
Under 30	17.15		5.47	
30 to 39	18.51	*< 0.01*	6.85	*< 0.01*
40 to 49	26.16	*< 0.01*	9.56	*< 0.01*
Over 50	32.31	*< 0.01*	10.25	*< 0.01*
Gender				
Male	17.74	*0.168*	7.17	*< 0.01*
Female	31.32	*< 0.01*	9.61	*< 0.01*
Race				
White	24.44	*0.121*	9.27	*< 0.01*
Black	26.67	*< 0.01*	7.02	*< 0.01*
American Indian	25.45	*0.458*	3.73	*< 0.01*
Hispanic	28.36	*< 0.01*	7.44	*< 0.01*
Asian/Pacific Islander	23.69	*0.548*	11.36	*0.576*
Unknown	23.90	*0.146*	7.53	*< 0.01*
Region				
Upper Peninsula	15.45	*< 0.01*	6.47	
Northwest	21.64	*< 0.01*	7.78	*0.040*
Northeast	21.31	*< 0.01*	6.47	*0.990*
West	23.47	*< 0.01*	10.10	*< 0.01*
East Central	19.85	*< 0.01*	5.63	*0.054*
East	24.89	*< 0.01*	7.50	*0.047*
South Central	21.89	*< 0.01*	8.79	*0.141*
Southwest	22.53	*< 0.01*	7.58	*0.062*
Southeast	22.57	*< 0.01*	9.90	*< 0.01*
Detroit Metro	28.86		9.12	*0.234*
Other health insurance				
No	25.17		8.57	
Yes	22.37	*< 0.01*	6.09	*< 0.01*
Total Enrollee/periods	681,530		681,530	

Table 3.1.2c Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Repeated Cross-Sections of Enrollees; With Interactions for Time Period and FPL Category

	Copay exempt service use	*p-value on regression coefficient*	Copay likely service use	*p-value on regression coefficient*
Time Period and Federal poverty level				
Months 0-6: Below 35% FPL	56.4%		29.5%	
Months 0-6: 36-99% FPL	56.7%	0.394	27.5%	< 0.01
Months 0-6: Above 100% FPL	57.3%	0.012	27.7%	< 0.01
Months 7-12: Below 35% FPL	43.4%	< 0.01	24.6%	< 0.01
Months 7-12: 36-99% FPL	43.4%	0.616	24.1%	< 0.01
Months 7-12: Above 100% FPL	43.7%	0.264	24.2%	< 0.01
Months 13-18: Below 35% FPL	46.0%	< 0.01	22.6%	< 0.01
Months 13-18: Above 36-99% FPL	46.6%	0.393	22.9%	< 0.01
Months 13-18: Above 100% FPL	46.6%	0.579	23.0%	< 0.01
Months 19-24: Below 35% FPL	36.6%	< 0.01	16.9%	< 0.01
Months 19-24: 36-99% FPL	35.9%	0.026	17.4%	< 0.01
Months 19-24: Above 100% FPL	34.4%	< 0.01	17.3%	< 0.01
Months 25-30: Below 35% FPL	34.7%	< 0.01	17.0%	< 0.01
Months 25-30: 36-99% FPL	31.7%	< 0.01	16.6%	< 0.01
Months 25-30: Above 100% FPL	29.4%	< 0.01	15.4%	0.510
Age				
Under 30	34.8%		17.3%	
30 to 39	37.5%	< 0.01	20.5%	< 0.01
40 to 49	46.8%	< 0.01	24.7%	< 0.01
Over 50	52.5%	< 0.01	25.5%	< 0.01
Gender				
Male	36.5%		19.4%	
Female	51.5%	< 0.01	25.6%	< 0.01
Race				
White	44.9%		24.1%	
Black	43.9%	< 0.01	20.0%	< 0.01
American Indian	46.9%	0.013	12.8%	< 0.01
Hispanic	45.6%	0.039	22.3%	< 0.01
Asian/Pacific Islander	46.7%	0.022	21.0%	< 0.01
Unknown	44.3%	0.016	21.1%	< 0.01
Region				
Upper Peninsula	37.6%	< 0.01	20.9%	< 0.01
Northwest	43.3%	< 0.01	22.0%	< 0.01
Northeast	42.1%	< 0.01	21.7%	< 0.01
West	44.1%	< 0.01	25.1%	< 0.01
East Central	44.1%	< 0.01	19.4%	< 0.01
East	46.4%	0.303	21.2%	< 0.01
South Central	41.1%	< 0.01	21.6%	< 0.01

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Southwest	41.6%	< 0.01	18.9%	< 0.01
Southeast	42.3%	< 0.01	23.6%	0.070
Detroit Metro	46.6%		24.0%	
Other health insurance				
No	44.8%		22.9%	
Yes	39.9%	< 0.01	16.9%	< 0.01
Total observations (Enrollee/periods)	681,530		681,530	

Table 3.1.3 Subset with Cost-Sharing Obligation: Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Repeated Cross-Sections of Enrollees

	Copay exempt service use	*p-value on regression coefficient*	Copay likely service use	*p-value on regression coefficient*
Collection category*				
None collected	43.8%		22.2%	
Partial collection	50.2%	< 0.001	27.1%	< 0.001
Full collection	52.2%	< 0.001	26.3%	< 0.001
Time period				
Months 0-6	60.5%		30.7%	
Months 7-12	46.5%	< 0.001	26.7%	< 0.001
Months 13-18	50.1%	< 0.001	25.0%	< 0.001
Months 19-24	38.2%	< 0.001	18.4%	< 0.001
Months 25-30	33.3%	< 0.001	17.1%	< 0.001
FPL				
0-35 %	49.2%		25.4%	
36-99 %	47.9%	< 0.001	25.1%	0.071
100+ %	45.5%	< 0.001	23.0%	< 0.001
Age				
Under 30	39.3%		20.1%	
30 to 39	40.4%	< 0.001	22.5%	< 0.001
40 to 49	49.3%	< 0.001	26.2%	< 0.001
Over 50	55.7%	< 0.001	27.3%	< 0.001
Gender				
Male	39.1%		21.3%	
Female	52.2%	< 0.001	26.4%	< 0.001
Race				
White	46.7%		25.4%	
Black	50.7%	< 0.001	22.6%	< 0.001
American Indian	51.7%	< 0.001	16.1%	< 0.001
Hispanic	48.8%	< 0.001	23.6%	< 0.001
Asian/Pacific Islander	50.7%	< 0.001	22.7%	0.004
Unknown	47.7%	0.001	22.9%	< 0.001
Region				
Upper Peninsula	40.1%	< 0.001	22.8%	< 0.001
Northwest	45.7%	< 0.001	24.5%	0.001
Northeast	44.3%	< 0.001	22.7%	< 0.001
West	46.7%	< 0.001	27.6%	< 0.001
East Central	46.8%	< 0.001	21.4%	< 0.001
East	48.8%	< 0.001	22.6%	< 0.001
South Central	44.6%	< 0.001	23.6%	< 0.001
Southwest	45.3%	< 0.001	21.2%	< 0.001

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Southeast	45.2%	< 0.001	25.7%	0.460
Detroit Metro	50.6%		25.9%	
Other health insurance				
No	47.9%		24.9%	
Yes	41.7%	< 0.001	18.1%	< 0.001
Total observations (Enrollee/periods)	347,172		347,172	

*Collection category based on aggregate collection over life in program through Q3 2016. Full collection = > 95% of invoice collected

Table 3.1.3a Subset with Cost-Sharing Obligation: Predicted Copay Exempt and Copay Likely Service Use from Probit Regression Model on Repeated Cross-Sections of Enrollees with Interaction of Above/Below 100% FPL and Time Period

	Copay exempt service use	*p-value on regression coefficient*	Copay likely service use	*p-value on regression coefficient*
Collection category				
None collected	43.7%		22.2%	
Partial collection	50.1%	*< 0.001*	27.1%	*< 0.001*
Full collection	52.2%	*< 0.001*	26.3%	*< 0.001*
Time period and Federal poverty level				
Months 0-6: Below 100% FPL	61.2%		31.6%	
Months 0-6: Above 100% FPL	58.5%	*< 0.001*	28.0%	*< 0.001*
Months 7-12: Below 100% FPL	47.2%	*< 0.001*	27.4%	*< 0.001*
Months 7-12: Above 100% FPL	44.2%	*0.757*	24.5%	*0.425*
Months 13-18: Below 100% FPL	50.8%	*< 0.001*	25.7%	*< 0.001*
Months 13-18: Above 100% FPL	47.7%	*0.500*	23.3%	*0.055*
Months 19-24: Below 100% FPL	39.3%	*< 0.001*	18.8%	*< 0.001*
Months 19-24: Above 100% FPL	35.1%	*0.004*	17.5%	*0.001*
Months 25-30: Below 100% FPL	34.6%	*< 0.001*	17.7%	*< 0.001*
Months 25-30: Above 100% FPL	29.8%	*0.001*	15.5%	*0.580*
Age				
Under 30	39.4%	*< 0.001*	20.1%	*< 0.001*
30 to 39	40.4%	*< 0.001*	22.5%	*< 0.001*
40 to 49	49.3%	*< 0.001*	26.2%	*< 0.001*
Over 50	55.6%	*< 0.001*	27.2%	*< 0.001*
Gender				
Male	39.0%		21.3%	
Female	52.2%	*< 0.001*	26.4%	*< 0.001*
Race				
White	46.6%	*0.004*	25.4%	*< 0.001*
Black	50.7%	*< 0.001*	22.5%	*< 0.001*
American Indian	51.6%	*< 0.001*	16.4%	*< 0.001*
Hispanic	48.6%	*< 0.001*	23.5%	*< 0.001*
Asian/Pacific Islander	50.9%	*< 0.001*	23.2%	*0.022*
Unknown	47.8%	*< 0.001*	22.9%	*< 0.001*
Region				
Upper Peninsula	40.0%	*< 0.001*	22.7%	*< 0.001*
Northwest	45.6%	*< 0.001*	24.6%	*0.002*
Northeast	44.1%	*< 0.001*	22.6%	*< 0.001*
West	46.7%	*< 0.001*	27.6%	*< 0.001*
East Central	46.7%	*< 0.001*	21.4%	*< 0.001*
East	48.8%	*< 0.001*	22.6%	*< 0.001*
South Central	44.6%	*< 0.001*	23.5%	*< 0.001*
Southwest	45.2%	*< 0.001*	21.1%	*< 0.001*
Southeast	45.2%	*< 0.001*	25.7%	*0.470*
Detroit Metro	50.5%	*< 0.001*	25.9%	*< 0.001*

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Other health insurance				
No	47.8%		24.8%	
Yes	41.8%	*< 0.001*	18.3%	*< 0.001*
Total observations (Enrollee/periods)	337,131		337,131	

*Collection category based on aggregate collection over life in program through Q3 2016. Full collection = > 95% of invoice collected

Table 3.1.4 Marginal Effects from Fixed Effects Regression of Service Use

	Copay exempt service use	***p-value on regression coefficient***	**Copay likely service use**	***p-value on regression coefficient***
Time period				
Months 0-6				
Months 7-12	-13.2%	< 0.001	-4.9%	< 0.001
Months 13-18	-10.3%	< 0.001	-7.0%	< 0.001
Months 19-24	-20.8%	< 0.001	-13.2%	< 0.001
Months 25-30	-27.1%	< 0.001	-16.8%	< 0.001
FPL				
0-35 %				
36-99 %	2.0%	0.029	3.7%	< 0.001
100+ %	2.8%	0.004	7.1%	< 0.001
Other health insurance				
No	-7.0%		-8.5%	
Yes	-1.5%	< 0.001	-6.2%	< 0.001
Total enrollees	681,789		681,789	

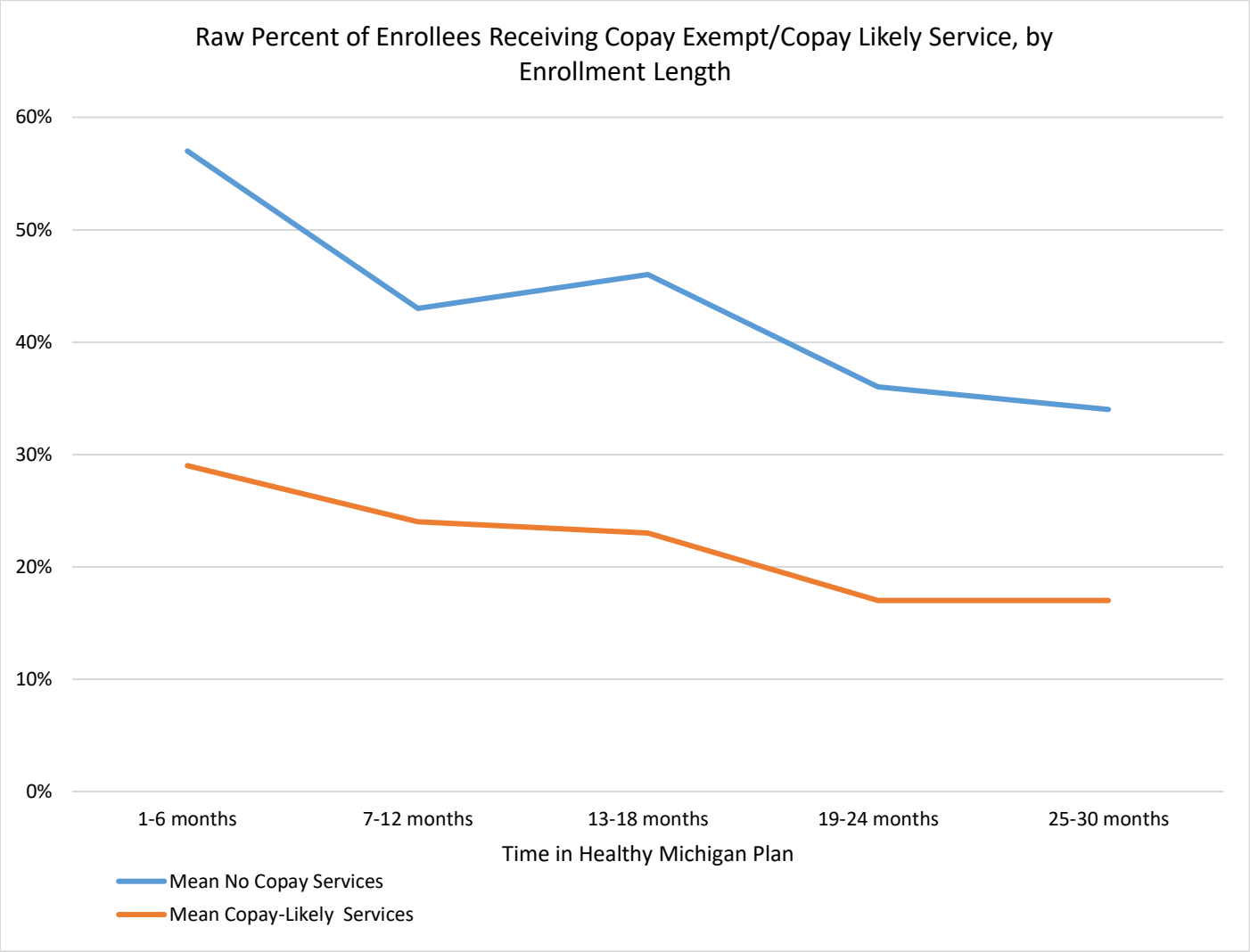
Note: The interpretation on these predictions is as the change in an individual's likelihood of service use compared with the baseline at Months 1-6, 0 to 35% of poverty and with no other health insurance. In this model, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Table 3.1.4a Marginal Effects from Fixed Effects Regression on Log Spending

	Log spending on no copay	***p-value on regression coefficient***	**Log spending on services with copay**	***p-value on regression coefficient***
Time period				
Months 0-6				
Months 7-12	-0.48	< 0.01	-0.14	< 0.01
Months 13-18	-0.34	< 0.01	-0.19	< 0.01
Months 19-24	-0.63	< 0.01	-0.36	< 0.01
Months 25-30	-0.78	< 0.01	-0.44	< 0.01
FPL				
0-35 %		0.72		
36-99 %	0.06	0.07	0.13	< 0.01
100+ %	0.10	0.01	0.23	< 0.01
Other health insurance				
No				
Yes	-0.57	< 0.01	-0.16	< 0.01
Total enrollees	681,789		681,789	

Notes: 1) The log of healthcare expenditures are often used in research rather than the actual dollar amounts because many people spend very little each month and a few people spend quite a bit. That spread of spending, particularly when a few numbers are much higher than most, has been shown difficult to model mathematically. Instead, using the log of the number, results in more accurate predictions. In this case, the log spending was taken by adding $1 to each spending outcome because the log of $0 is undefined.
2) The interpretation on these predictions is as the change in an individual's likelihood of service use compared with the baseline at Months 1-6, 0 to 35% of poverty and with no other health insurance. In this model, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Figure 3.1.1 Average Percent of Enrollees Using No Copay/Copay-Likely Services Over Time



Hypothesis 2: Medicaid Service Value – Pharmaceuticals

Table 3.2.1 Predicted Use of Copay-Exempt and Copay-Likely Medications from a Cross-Sectional Probit Regression with Demographic Characteristics

	Predicted percent using copay exempt medications	***p-value on regression coefficient***	**Predicted percent using copay likely medications**	***p-value on regression coefficient***
FPL				
0-35 %	55.5%		2.4%	
36-99 %	50.9%	< 0.001	1.6%	< 0.001
100+ %	49.7%	< 0.001	1.4%	< 0.001
Age				
Under 30	26.4%		2.5%	
30 to 39	41.3%	< 0.001	2.5%	0.571
40 to 49	60.4%	< 0.001	2.1%	< 0.001
Over 50	70.4%	< 0.001	1.4%	< 0.001
Gender				
Male	51.1%		2.1%	
Female	55.3%	< 0.001	1.9%	0.017
Race				
White	53.4%		2.3%	
Black	54.1%	0.022	1.4%	< 0.001
American Indian	60.2%	< 0.001	0.8%	0.002
Hispanic	52.1%	0.074	1.7%	0.003
Asian/Pacific Islander	48.3%	0.002	2.1%	0.601
Unknown	50.7%	< 0.001	1.6%	< 0.001
Region				
Upper Peninsula	49.5%	< 0.001	2.8%	ref
Northwest	51.1%	0.004	2.3%	0.091
Northeast	52.7%	0.341	1.8%	< 0.001
West	53.9%	0.217	2.3%	0.035
East Central	55.3%	< 0.001	1.9%	< 0.001
East	54.4%	0.011	1.9%	< 0.001
South Central	50.0%	< 0.001	1.7%	< 0.001
Southwest	54.5%	0.027	2.2%	0.012
Southeast	52.7%	0.160	2.1%	0.006
Detroit Metro	53.4%	ref	1.9%	<0.001
Other health insurance				
No	53.2%		2.0%	
Yes	55.1%	< 0.001	2.9%	< 0.001
Total enrollees	158,322		158,322	

Table 3.2.2 Predicted Use of Copay Exempt and Copay-Likely Medications By Time Period from Probit Regression

	Copay exempt medication use	*p-value on regression coefficient*	Copay likely medication use	*p-value on regression coefficient*
Time period				
Months 0-6	39.8%		1.1%	
Months 7-12	41.7%	< 0.01	1.2%	< 0.01
Months 13-18	43.0%	< 0.01	1.1%	0.51
Months 19-24	41.9%	< 0.01	0.8%	< 0.01
Months 25-30	43.4%	< 0.01	0.5%	< 0.01
FPL				
0-35 %	43.4%		1.2%	
36-99 %	39.6%	< 0.01	0.8%	< 0.01
100+ %	39.2%	< 0.01	0.7%	< 0.01
Age				
Under 30	16.3%		1.2%	
30 to 39	27.7%	< 0.01	1.2%	0.70
40 to 49	46.7%	< 0.01	1.0%	< 0.01
Over 50	58.2%	< 0.01	0.7%	< 0.01
Gender				
Male	39.9%		1.0%	
Female	43.3%	< 0.01	0.9%	< 0.01
Race				
White	41.7%		1.1%	
Black	42.5%	< 0.01	0.7%	< 0.01
American Indian	46.9%	< 0.01	0.4%	< 0.01
Hispanic	41.0%	0.05	0.9%	< 0.01
Asian/Pacific Islander	39.6%	0.01	0.9%	0.24
Unknown	40.0%	< 0.01	0.7%	< 0.01
Region				
Upper Peninsula	38.5%	< 0.01	1.6%	< 0.01
Northwest	40.5%	0.02	1.3%	< 0.01
Northeast	41.2%	0.73	0.8%	0.48
West	43.3%	< 0.01	1.2%	< 0.01
East Central	44.2%	< 0.01	0.9%	0.48
East	42.5%	< 0.01	0.9%	0.68
South Central	38.8%	< 0.01	0.7%	0.09
Southwest	42.7%	< 0.01	1.1%	0.95
Southeast	41.4%	0.78	1.1%	0.02
Detroit Metro	41.4%		0.9%	
Other health insurance				
No	41.8%		1.0%	
Yes	42.0%	0.47	1.3%	< 0.01
Total observations (Enrollee/months)	666,582		666,582	

Table 3.2.2a Copay Exempt and Copay-Likely Medication Use, with Time and Above/Below 100% FPL Interaction, Predicted Effects from Probit Regression

	Copay exempt medication use	*p-value on regression coefficient*	Copay likely medication use	*p-value on regression coefficient*
Time period and Federal poverty level				
Months 0-6: Below 100% FPL	40.2%		1.1%	
Months 0-6: Above 100% FPL	36.8%	< 0.001	0.7%	< 0.001
Months 7-12: Below 100% FPL	42.1%	< 0.001	1.3%	0.007
Months 7-12: Above 100% FPL	38.6%	0.705	0.7%	0.788
Months 13-18: Below 100% FPL	43.4%	< 0.001	1.2%	0.595
Months 13-18: Above 100% FPL	39.9%	0.844	0.7%	0.544
Months 19-24: Below 100% FPL	42.4%	< 0.001	0.8%	< 0.001
Months 19-24: Above 100% FPL	38.6%	0.410	0.6%	0.039
Months 25-30: Below 100% FPL	44.1%	< 0.001	0.5%	< 0.001
Months 25-30: Above 100% FPL	39.4%	0.031	0.7%	< 0.001
Age				
Under 30	16.3%		1.2%	
30 to 39	27.6%	< 0.001	1.2%	0.825
40 to 49	46.8%	< 0.001	1.0%	< 0.001
Over 50	58.0%	< 0.001	0.7%	< 0.001
Gender				
Male	40.0%		1.1%	
Female	43.1%	< 0.001	0.9%	< 0.001
Race				
White	41.5%		1.1%	
Black	42.6%	< 0.001	0.7%	< 0.001
American Indian	46.8%	< 0.001	0.4%	< 0.001
Hispanic	40.5%	0.004	0.9%	0.001
Asian/Pacific Islander	38.9%	0.001	0.9%	0.142
Unknown	39.9%	< 0.001	0.7%	< 0.001
Region				
Upper Peninsula	38.1%	< 0.001	1.5%	< 0.001
Northwest	40.2%	0.003	1.2%	< 0.001
Northeast	40.8%	0.195	0.8%	0.394
West	43.2%	< 0.001	1.2%	< 0.001
East Central	44.0%	< 0.001	0.9%	0.472
East	42.3%	< 0.001	0.9%	0.855
South Central	38.6%	< 0.001	0.8%	0.046
Southwest	42.7%	< 0.001	1.1%	< 0.001
Southeast	41.3%	0.996	1.1%	< 0.001
Detroit Metro	41.3%		0.9%	
Other health insurance				
No	41.7%		1.0%	
Yes	41.5%	0.690	1.3%	< 0.001
Total observations (Enrollee/periods)	654,689		654,689	

Table 3.2.2b Predicted Spending on Copay Exempt Medications by Period, Predicted Monthly Spending from GLM Regression

	Copay exempt medications	*p-value on regression coefficient*
Time period		
Months 0-6	29.73	
Months 7-12	36.63	< 0.001
Months 13-18	41.41	< 0.001
Months 19-24	46.75	< 0.001
Months 25-30	54.52	< 0.001
FPL		
0-35 %	41.47	
36-99 %	36.97	< 0.001
100+ %	38.47	< 0.001
Age		
Under 30	19.27	
30 to 39	29.35	< 0.001
40 to 49	46.60	< 0.001
Over 50	50.92	< 0.001
Gender		
Male	48.94	
Female	32.40	< 0.001
Race		
White	36.34	
Black	51.00	< 0.001
American Indian	48.88	0.001
Hispanic	45.93	< 0.001
Asian/Pacific Islander	23.75	< 0.001
Unknown	32.95	< 0.001
Region		
Upper Peninsula	38.62	0.014
Northwest	37.92	0.018
Northeast	33.40	< 0.001
West	47.82	< 0.001
East Central	35.52	< 0.001
East	27.74	< 0.001
South Central	37.67	0.005
Southwest	42.40	0.530
Southeast	44.21	0.051
Detroit Metro	41.71	
Other health insurance		
No	39.98	
Yes	41.35	0.405
Total observations (Enrollee/periods)	666,582	

Notes: Copay-likely medications not included as regression specification was not possible due to computational traction (likely related to overall utilization and spending)

Table 3.2.3 Subset with Cost-Sharing Obligation: Average Medication Use by Time Period, Predictions from Probit Regression

	Copay exempt medication use	*p-value on regression coefficient*	Copay likely medication use	*p-value on regression coefficient*
Collection category*				
None collected	41.0%		0.9%	
Partial collection	43.1%	< 0.001	1.0%	0.003
Full collection	40.7%	0.160	0.8%	0.354
Time period				
Months 0-6	39.6%		0.9%	
Months 7-12	41.5%	< 0.001	0.9%	0.106
Months 13-18	42.8%	< 0.001	1.0%	0.019
Months 19-24	41.8%	< 0.001	0.9%	0.723
Months 25-30	42.5%	< 0.001	0.9%	0.892
FPL				
0-35 %	44.1%		1.2%	
36-99 %	41.1%	< 0.001	0.8%	< 0.001
100+ %	38.9%	< 0.001	0.7%	< 0.001
Age				
Under 30	15.9%		1.2%	
30 to 39	26.3%	< 0.001	1.1%	0.418
40 to 49	45.9%	< 0.001	0.9%	< 0.001
Over 50	60.7%	< 0.001	0.7%	< 0.001
Gender				
Male	41.6%		1.0%	
Female	41.5%	0.391	0.8%	< 0.001
Race				
White	40.7%		1.0%	
Black	45.4%	< 0.001	0.7%	< 0.001
American Indian	46.4%	< 0.001	0.6%	0.085
Hispanic	41.0%	0.569	0.8%	0.147
Asian/Pacific Islander	41.4%	0.496	0.9%	0.821
Unknown	39.9%	0.010	0.7%	< 0.001
Region				
Upper Peninsula	38.7%	< 0.001	1.6%	< 0.001
Northwest	39.6%	< 0.001	1.5%	< 0.001
Northeast	40.4%	0.006	0.7%	0.892
West	42.6%	< 0.001	1.1%	< 0.001
East Central	43.2%	< 0.001	0.9%	0.006
East	41.8%	0.321	0.8%	0.922
South Central	39.1%	< 0.001	0.7%	0.521
Southwest	43.2%	< 0.001	1.0%	< 0.001

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Southeast	40.7%	0.007	0.9%	0.002
Detroit Metro	41.6%		0.7%	
Other health insurance				
No	41.6%		0.9%	
Yes	40.8%	0.041	1.2%	0.001
Total observations (Enrollee/period)	340,254		340,254	

*Collection category based on aggregate collection over life in program through Q3 2016. Full collection = > 95% of invoice collected

Table 3.2.3a Subset with Cost-Sharing Obligation: Average Medication Use, Predictions from Probit Regression with Interaction between Above/Below 100% FPL and Time Period

	Copay exempt medication use	*p-value on regression coefficient*	Copay likely medication use	*p-value on regression coefficient*
Collection category*				
None collected	40.8%		0.9%	
Partial collection	42.9%	< 0.001	1.0%	0.003
Full collection	40.5%	0.225	0.8%	0.389
Time period and Federal poverty level				
Months 0-6: Below 100% FPL	40.3%		0.9%	
Months 0-6: Above 100% FPL	36.6%	< 0.001	0.7%	< 0.001
Months 7-12: Below 100% FPL	42.4%	< 0.001	1.0%	0.100
Months 7-12: Above 100% FPL	38.2%	0.586	0.7%	0.784
Months 13-18: Below 100% FPL	43.7%	< 0.001	1.1%	0.017
Months 13-18: Above 100% FPL	39.5%	0.558	0.7%	0.682
Months 19-24: Below 100% FPL	42.7%	< 0.001	0.9%	0.864
Months 19-24: Above 100% FPL	38.5%	0.502	0.6%	0.493
Months 25-30: Below 100% FPL	43.6%	< 0.001	0.9%	0.917
Months 25-30: Above 100% FPL	39.0%	0.309	0.7%	0.636
Age				
Under 30	15.9%		1.2%	
30 to 39	26.3%	< 0.001	1.1%	0.188
40 to 49	45.9%	< 0.001	0.9%	< 0.001
Over 50	60.4%	< 0.001	0.7%	< 0.001
Gender				
Male	41.4%		1.0%	
Female	41.3%	0.592	0.8%	< 0.001
Race				
White	40.4%		1.0%	
Black	45.4%	< 0.001	0.7%	< 0.001
American Indian	46.4%	< 0.001	0.6%	0.116
Hispanic	40.3%	0.739	0.8%	0.062
Asian/Pacific Islander	40.7%	0.804	0.8%	0.555
Unknown	39.7%	0.026	0.7%	< 0.001
Region				
Upper Peninsula	38.5%	< 0.001	1.6%	< 0.001
Northwest	39.4%	< 0.001	1.4%	< 0.001
Northeast	40.0%	0.002	0.7%	0.978
West	42.5%	< 0.001	1.1%	< 0.001
East Central	42.8%	< 0.001	0.9%	0.002
East	41.5%	0.412	0.8%	0.750
South Central	38.8%	< 0.001	0.7%	0.893

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Southwest	43.1%	< 0.001	1.0%	< 0.001
Southeast	40.4%	0.007	1.0%	< 0.001
Detroit Metro	41.3%		0.7%	
Other health insurance				
No	41.3%		0.9%	
Yes	40.3%	0.021	1.2%	< 0.001
Total observations (Enrollee/periods)	330,382		330,382	

Notes: Collection category based on aggregate collection over life in program through Q3 2016. Full collection = > 95% of invoice collected

Table 3.2.3b Predicted Use of Copay Exempt and Copay Likely Medications from Probit Regression with Interactions on Time Period and FPL

	Copay exempt medication use	*p-value on regression coefficient*	Copay likely medication use	*p-value on regression coefficient*
Time period and Federal poverty level				
Months 0-6: Below 35% FPL	41.3%		1.3%	
Months 0-6: 36-99% FPL	37.7%	< 0.001	0.8%	< 0.001
Months 0-6: Above 100% FPL	37.6%	< 0.001	0.7%	< 0.001
Months 7-12: Below 35% FPL	43.3%	< 0.001	1.4%	0.038
Months 7-12: 36-99% FPL	39.5%	0.674	0.9%	0.690
Months 7-12: Above 100% FPL	39.4%	0.707	0.8%	0.762
Months 13-18: Below 35% FPL	44.6%	< 0.001	1.3%	0.926
Months 13-18: Above 36-99% FPL	40.7%	0.528	0.9%	0.275
Months 13-18: Above 100% FPL	40.5%	0.356	0.7%	0.660
Months 19-24: Below 35% FPL	43.6%	< 0.001	0.9%	< 0.001
Months 19-24: 36-99% FPL	39.8%	0.543	0.8%	< 0.001
Months 19-24: Above 100% FPL	38.9%	0.038	0.6%	0.004
Months 25-30: Below 35% FPL	45.5%	< 0.001	0.4%	< 0.001
Months 25-30: 36-99% FPL	40.8%	0.041	0.7%	< 0.001
Months 25-30: Above 100% FPL	39.5%	0.001	0.6%	< 0.001
Age				
Under 30	16.3%	< 0.001	1.2%	0.141
30 to 39	27.7%	< 0.001	1.2%	0.699
40 to 49	46.7%	< 0.001	1.0%	< 0.001
Over 50	58.2%	< 0.001	0.7%	
Gender				
Male	39.9%		1.0%	
Female	43.3%	< 0.001	0.9%	< 0.001
Race				
White	41.7%		1.1%	
Black	42.5%	< 0.001	0.7%	< 0.001
American Indian	46.9%	< 0.001	0.4%	< 0.001
Hispanic	41.0%	0.048	0.9%	0.004
Asian/Pacific Islander	39.6%	0.006	0.9%	0.247
Unknown	40.0%	< 0.001	0.7%	< 0.001
Region				
Upper Peninsula	38.5%	< 0.001	1.6%	< 0.001
Northwest	40.5%	0.017	1.3%	< 0.001
Northeast	41.2%	0.738	0.8%	0.466
West	43.3%	< 0.001	1.2%	< 0.001
East Central	44.2%	< 0.001	0.9%	0.487
East	42.5%	< 0.001	0.9%	0.963
South Central	38.8%	< 0.001	0.7%	0.022
Southwest	42.7%	< 0.001	1.1%	< 0.001
Southeast	41.4%	0.774	1.0%	< 0.001
Detroit Metro	41.4%		0.9%	

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Other health insurance				
No	41.8%		1.0%	
Yes	42.0%	0.508	1.4%	< 0.001
Total observations (Enrollee/periods)	666,582		666,582	

Table 3.2.4a Marginal Effects of Time and FPL from Fixed Effects Regression of Medication Use

	Copay exempt medications	***p-value on regression coefficient***	**Copay likely medications**	***p-value on regression coefficient***
Time period				
Months 0-6				
Months 7-12	1.9%	< 0.001	0.08%	< 0.001
Months 13-18	3.2%	< 0.001	-0.02%	0.474
Months 19-24	1.9%	< 0.001	-0.36%	< 0.001
Months 25-30	1.3%	< 0.001	-0.82%	< 0.001
FPL				
0-35 %				
36-99 %	0.5%	0.438	-0.15%	0.413
100+ %	0.7%	0.267	-0.47%	0.004
Other health insurance				
No				
Yes	-2.8%	< 0.001	-0.12%	0.254
Total enrollees	158,366		158,366	

Notes: The interpretation on these predictions is as the change in an individual's likelihood of service use compared with the baseline at Months 1-6, 0 to 35% of poverty and with no other health insurance. In this model, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Table 3.2.4b Fixed Effects Regression of Spending

	Change in log spending on copay exempt medications	***p-value on regression coefficient***	**Change in log spending on copay likely medications**	***p-value on regression coefficient***
Time period				
Months 0-6				
Months 7-12	0.10	< 0.01	0.07	< 0.01
Months 13-18	0.17	< 0.01	0.13	< 0.01
Months 19-24	0.18	< 0.01	0.13	< 0.01
Months 25-30	0.20	< 0.01	0.13	< 0.01
FPL				
0-35 %				
36-99 %	0.02	0.48	0.00	0.96
100+ %	-0.02	0.38	-0.02	0.38
Other health insurance				
No				
Yes	-0.10	< 0.01	-0.04	< 0.01
Total enrollees	158,366		158,366	

Notes: 1) The log of healthcare expenditures are often used in research rather than the actual dollar amounts because many people spend very little each month and a few people spend quite a bit. That spread of spending, particularly when a few numbers are much higher than most, has been shown difficult to model mathematically. Instead, using the log of the number, results in more accurate predictions. In this case, the log spending was taken by adding $1 to each spending outcome because the log of $0 is undefined.
2) The interpretation on these predictions is as the change in an individual's likelihood of service use compared with the baseline at Months 1-6, 0 to 35% of poverty and with no other health insurance. In this model, any unchanging characteristics of enrollees (gender or region, for example) are held constant.

Figure 3.2.1 Percent of the Population Receiving a High- or Copay- likely Medication

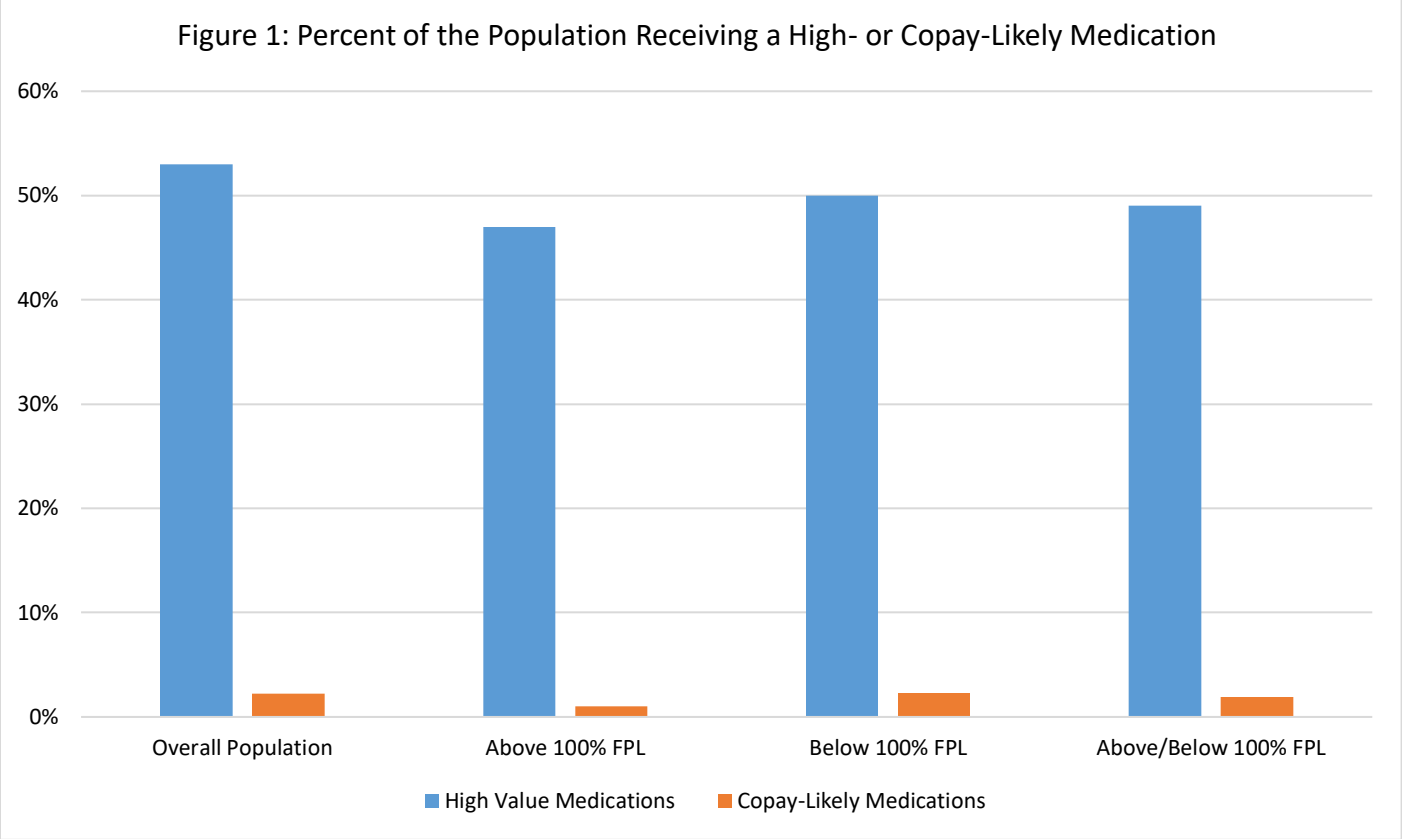
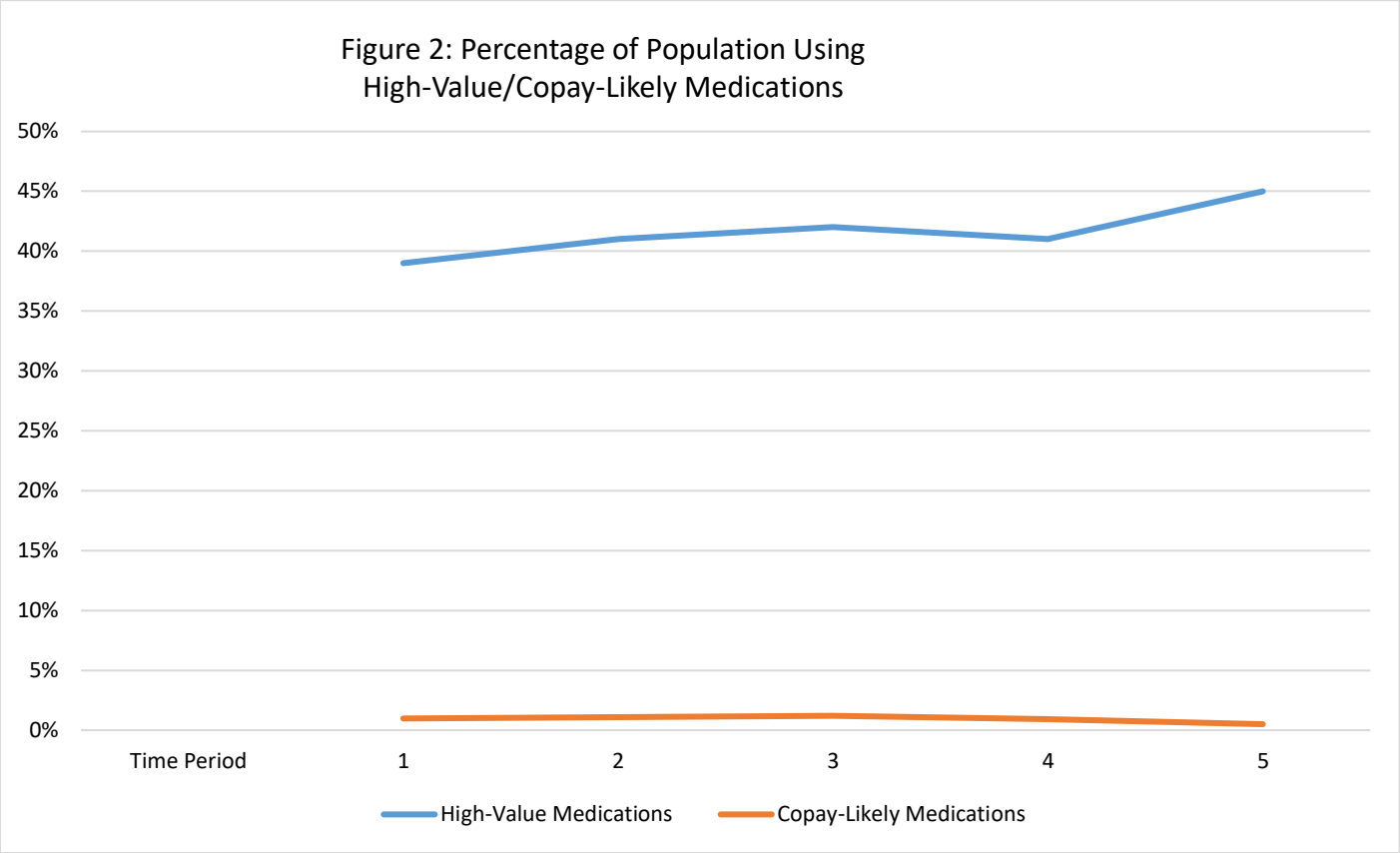


Figure 3.2.2 Percentage of Population Using High-Value/Copay-Likely Medications



Hypothesis 2: Medicaid Service Value – Emergency Department (ED) Use

Table 3.3.1 Number of ED Visits and Likelihood of Copay

	ED type A		ED type B	
	Percent of visits with copay	**Total visits**	**Percent of visits with copay**	**Total visits**
Visit severity				
High	0.01%	209,528	9.76%	1,486
Medium	0.06%	124,082	14.65%	3,645
Low	0.33%	32,264	52.19%	1,667
Total	0.05%	365,874	22.8%	6,798

Table 3.3.2 Predicted Likelihood of Copayment by ED Type and Severity from Probit Regression of Enrollee Month that Includes ED Claim

	No time period effects		Time period effects	
	Copay flag	***p-value on regression coefficient***	**Copay flag**	***p-value on regression coefficient***
Visit severity				
Low	7.8%	< 0.001	7.8%	< 0.001
Medium	0.5%	0.877	0.5%	0.905
High	0.5%		0.5%	
Emergency room type				
24/7 Hospital affiliated (type A)	0.1%		0.1%	
Urgent Care associated with hospital (type B)	22.2%	< 0.001	22.2%	< 0.001
Time period				
Months 0-6			0.8%	
Months 7-12			0.7%	0.328
Months 13-18			0.7%	0.902
Months 19-24			0.7%	0.046
Months 25-30			0.8%	0.584
Total enrollee months with ED claims	229,246		229,246	

Regression level is enrollee/months and this regression is limited to months in which there is an ED claim. So, interpretation is tricky but close to visit level, i.e. 6.2% low severity visits incur a copay, controlling for other things.

Table 3.3.3 Predicted Emergency Department Use over Time from Probit Regression on whether Enrollee had at least one claim in a month

	Predicted total ED use	*p-value on regression coefficient*	Type A visits	*p-value on regression coefficient*	Type B visits	*p-value on regression coefficient*
Time period						
Months 0-6	25.5%		25.2%		1.0%	
Months 7-12	25.0%	0.001	24.7%	0.001	0.9%	0.563
Months 13-18	25.0%	< 0.001	24.6%	< 0.001	0.8%	< 0.001
Months 19-24	19.9%	< 0.001	19.7%	< 0.001	0.5%	< 0.001
Months 25-30	17.3%	< 0.001	17.0%	< 0.001	0.3%	< 0.001
Age						
Under 30	26.8%		26.3%		1.1%	
30 to 39	25.9%	< 0.001	25.4%	< 0.001	0.9%	< 0.001
40 to 49	25.0%	< 0.001	24.6%	< 0.001	0.8%	< 0.001
Over 50	18.9%	< 0.001	18.7%	< 0.001	0.5%	< 0.001
Gender						
Male	21.1%		20.9%		0.6%	
Female	25.2%	< 0.001	24.8%	< 0.001	0.9%	< 0.001
Race						
White	21.6%		21.2%		0.7%	
Black	28.9%	< 0.001	28.7%	< 0.001	1.1%	< 0.001
American Indian	25.6%	< 0.001	25.2%	< 0.001	0.8%	0.267
Hispanic	24.0%	< 0.001	23.6%	< 0.001	0.6%	0.741
Asian/Pacific Islander	12.6%	< 0.001	12.4%	< 0.001	0.3%	0.003
Unknown	20.3%	< 0.001	20.1%	< 0.001	0.6%	0.047
FPL						
0-35 %	25.6%		25.3%		0.8%	
36-99 %	20.6%	< 0.001	20.2%	< 0.001	0.7%	< 0.001
100+ %	19.5%	< 0.001	19.1%	< 0.001	0.8%	0.026
Region						
Upper Peninsula	22.9%	0.224	22.9%	0.013	0.0%	< 0.001
Northwest	22.1%	0.170	20.1%	< 0.001	3.1%	< 0.001
Northeast	20.8%	< 0.001	20.8%	< 0.001	0.1%	< 0.001
West	27.4%	< 0.001	26.1%	< 0.001	2.2%	< 0.001
East Central	24.2%	< 0.001	24.2%	< 0.001	0.0%	< 0.001
East	20.4%	< 0.001	20.2%	< 0.001	0.3%	< 0.001
South Central	21.5%	< 0.001	21.5%	0.007	0.0%	< 0.001
Southwest	27.0%	< 0.001	27.0%	< 0.001	0.0%	< 0.001
Southeast	25.2%	< 0.001	25.3%	< 0.001	0.0%	< 0.001
Detroit Metro	22.5%		22.2%		0.9%	

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Other health insurance						
No	0.8%		23.1%		25.2%	
Yes	0.7%	< 0.001	20.6%	< 0.001	16.8%	0.115
Total observations (Person/period)	681,697		681,697		681,697	

Table 3.3.3a Predicted Average Monthly Spending on Emergency Department Visits, over time using GLM Regression Models

	Spending on all ED visits	*p-value on regression coefficient*	Spending on ED type A visits	*p-value on regression coefficient*	Spending on ED type B visits	*p-value on regression coefficient*
Time period						
Months 0-6	21.93		21.74		0.20	
Months 7-12	22.84	0.002	22.64	0.002	0.20	0.573
Months 13-18	22.95	< 0.001	22.77	< 0.001	0.17	0.072
Months 19-24	21.29	0.041	21.17	0.073	0.12	< 0.001
Months 25-30	20.72	0.003	20.63	0.007	0.10	< 0.001
Age						
Under 30	24.04		23.79		0.25	
30 to 39	24.58	0.090	24.39	0.061	0.19	< 0.001
40 to 49	24.78	0.026	24.60	0.014	0.17	< 0.001
Over 50	17.76	< 0.001	17.65	< 0.001	0.11	< 0.001
Gender						
Male	18.62		18.49		0.12	
Female	25.07	< 0.001	24.86	< 0.001	0.21	< 0.001
Race						
White	21.41		21.26		0.15	
Black	25.00	< 0.001	24.77	< 0.001	0.24	< 0.001
American Indian	26.94	0.001	26.77	0.001	0.17	0.584
Hispanic	22.61	0.048	22.46	0.048	0.15	0.887
Asian/Pacific Islander	10.80	< 0.001	10.75	< 0.001	0.05	< 0.001
Unknown	19.34	< 0.001	19.22	< 0.001	0.13	0.103
FPL						
0-35 %	25.38		25.20		0.18	
36-99 %	18.07	< 0.001	17.93	< 0.001	0.14	< 0.001
100+ %	16.61	< 0.001	16.43	< 0.001	0.18	0.981
Region						
Upper Peninsula	18.22	< 0.001	18.19	< 0.001	0.03	< 0.001
Northwest	20.92	0.343	20.20	0.065	0.72	< 0.001
Northeast	17.95	< 0.001	17.88	< 0.001	0.07	< 0.001
West	25.28	< 0.001	24.82	< 0.001	0.46	< 0.001
East Central	22.47	0.017	22.46	0.005	0.02	< 0.001
East	20.33	0.001	20.26	0.004	0.07	< 0.001
South Central	21.20	0.553	21.19	0.811	0.01	< 0.001
Southwest	25.89	< 0.001	25.88	< 0.001	0.01	< 0.001
Southeast	24.49	< 0.001	24.47	< 0.001	0.01	< 0.001
Detroit Metro	21.50		21.31		0.19	
Other health insurance						
No	22.17		22.00		0.17	
Yes	20.98	0.201	20.81		0.17	0.821
Total observations (Person/period)	681,697		681,697		681,697	

Table 3.3.3b Average Severity of Visit; Marginal Effects from Linear Regression and Probit Model

	Linear regression	*p-value on regression coefficient*	Probit (Prob medium or high severity visit)	*p-value on regression coefficient*
Time period				
Months 0-6	ref		ref	
Months 7-12	-0.002	0.403	-0.002	0.35
Months 13-18	0.004	0.068	0.003	0.07
Months 19-24	0.108	< 0.01	0.081	< 0.01
Months 25-30	0.184	< 0.01	0.137	< 0.01
Age				
Under 30	ref		ref	
30 to 39	0.004	0.055	0.003	0.01
40 to 49	-0.012	< 0.01	-0.009	< 0.01
Over 50	-0.036	< 0.01	-0.029	< 0.01
Gender				
Male	ref		ref	
Female	0.024	< 0.01	0.019	< 0.01
Race				
White	ref		ref	
Black	-0.007	0.001	-0.004	0.02
American Indian	0.009	0.424	0.011	0.25
Hispanic	-0.002	0.666	-0.002	0.70
Asian/Pacific Islander	-0.029		-0.036	
Unknown	0.003	0.380	0.001	0.65
FPL				
0-35 %	ref		ref	
36-99 %	-0.034	< 0.01	-0.028	< 0.01
100+ %	-0.041	< 0.01	-0.033	< 0.01
Region				
Upper Peninsula	-0.016	0.001	-0.013	< 0.01
Northwest	-0.004	0.455	-0.002	0.72
Northeast	-0.022	< 0.01	-0.016	< 0.01
West	0.010	< 0.01	0.012	< 0.01
East Central	0.012	0.001	0.013	< 0.01
East	0.007	0.035	0.005	0.04
South Central	0.022	< 0.01	0.018	< 0.01
Southwest	0.012	0.001	0.010	< 0.01
Southeast	0.015	< 0.01	0.014	< 0.01
Detroit Metro	ref		ref	
Other health insurance				
No	ref		ref	
Yes	0.008	0.160	0.005	0.19
ED type B visit				
No	ref		ref	
Yes	0.002	0.739	0.002	0.55

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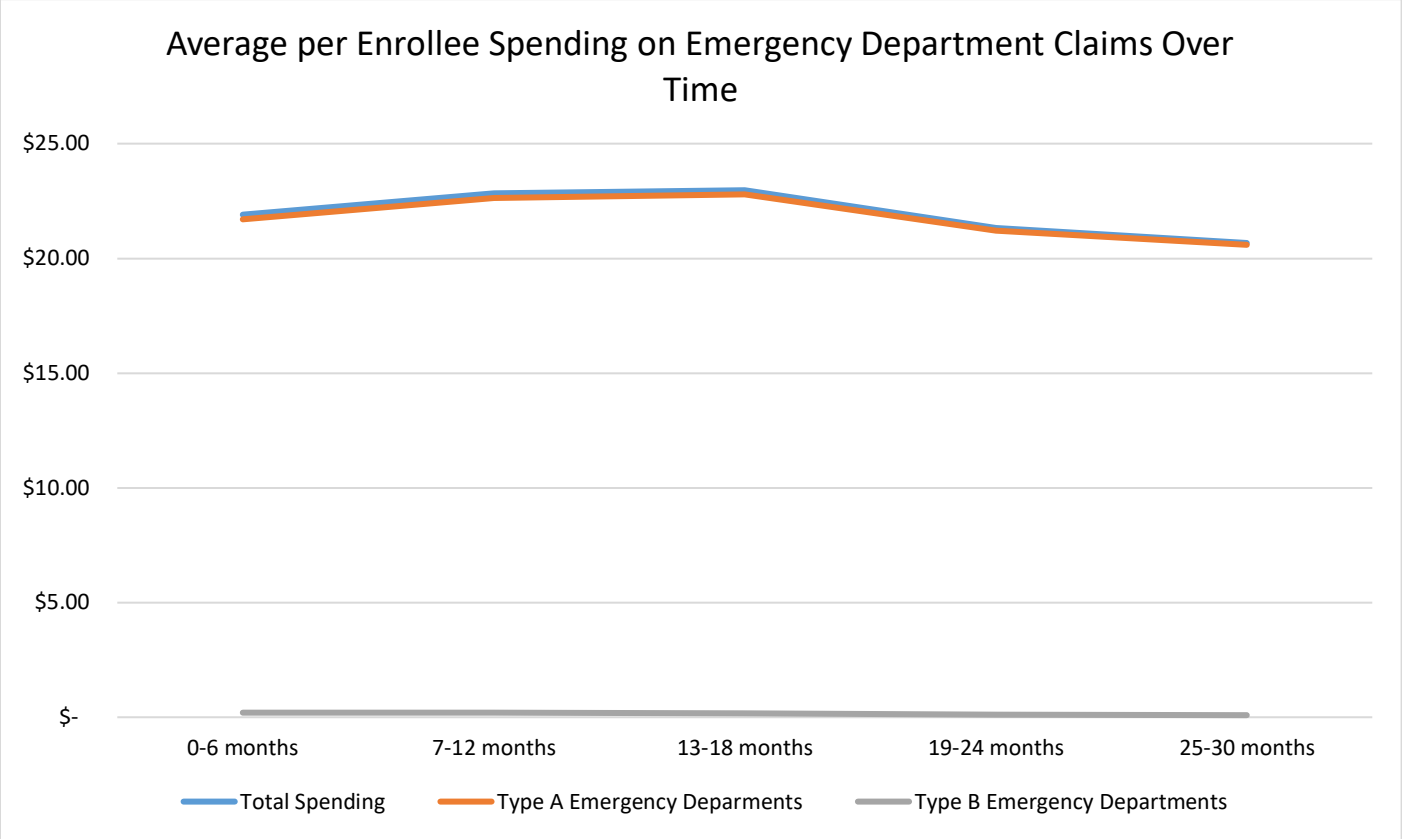
Constant	1.080			
Total observations (Person/period)	159,170		159,170	

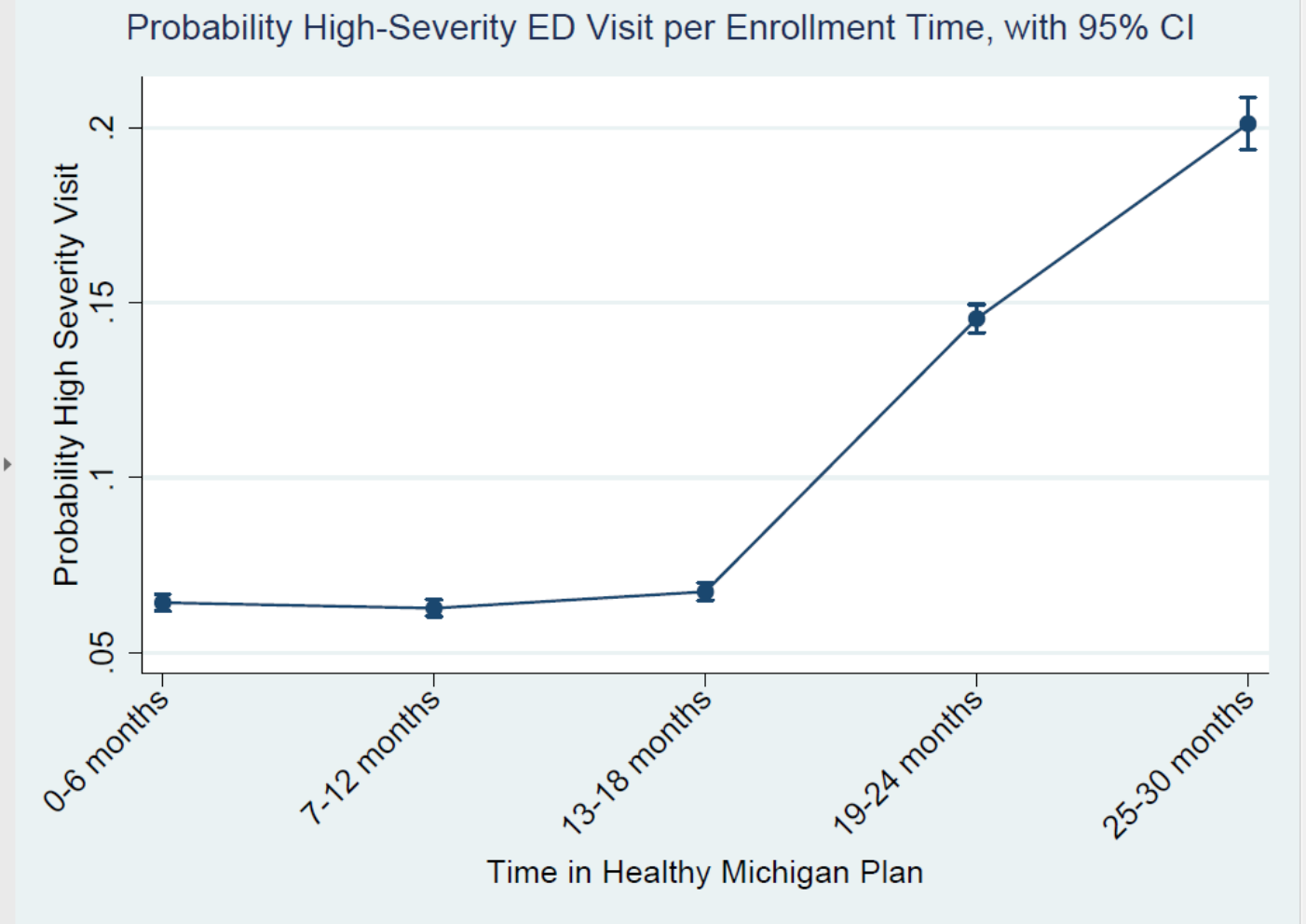
Ordinal logit was tried but no specification was tractable, likely due to low number of high/medium visits compared to low severity. Low severity > 90% of visits

Figure 3.3.1 Average per Enrollee Spending on Emergency Department Claims Over Time



	0-6 months	7-12 months	13-18 months	19-24 months	25-30 months
Total spending	$ 21.90	$ 22.83	$ 22.97	$ 21.33	$ 20.67
Type A emergency departments	$ 21.71	$ 22.62	$ 22.79	$ 21.21	$ 20.59
Type B emergency departments	$ 0.20	$ 0.20	$ 0.18	$ 0.12	$ 0.09

Figure 3.3.2 Probability of Medium/High Severity Visit



Note: Margins from a probit regression of probability of medium or high severity visit on time period, type of ED visit and same set of demographic characteristics as above. All periods are significantly different from baseline except for period 2 (7-12 months).

The hypothesis being tested is whether ED severity goes up over time, a possible indication that lower severity issues are being dealt with in other settings. This graph shows predictive margins from a probit regression of the probability of a visit coded as medium or high severity, conditional on an ED visit.

Hypothesis 3: Disenrollment Analyses

Table 4.1 Demographics of those Without Insurance Compared with Those with Insurance, Post HMP-enrollment, Unadjusted analysis

	Uninsured since HMP	**Insured since HMP**	***p-value on regression coefficient from adjusted Wald test of difference in proportions***
Age			
Under 30	41.2%	44.6%	0.416
30 to 39	19.7%	17.2%	0.443
40 to 49	19.4%	19.2%	0.952
Over 50	19.7%	19.0%	0.817
Gender			
Male			
Female	34.2%	44.2%	< 0.019
Race			
White	55.2%	58.5%	0.429
Black	21.6%	23.2%	0.672
American Indian	0.9%	0.6%	0.586
Hispanic	4.2%	3.0%	
Asian/Pacific Islander	0.7%	0.8%	0.872
Unknown	17.3%	13.9%	0.278
FPL			
0-35 %	63.6%	60.1%	0.326
36-99 %	23.2%	23.2%	0.996
100+ %	13.2%	16.7%	0.101
Region			
Upper Peninsula	3.1%	3.0%	0.923
Northwest	3.3%	3.3%	0.969
Northeast	1.7%	2.3%	0.294
West	8.3%	12.3%	0.079
East Central	5.0%	7.5%	0.137
East	11.5%	9.7%	0.458
South Central	3.7%	4.5%	0.629
Southwest	7.9%	7.3%	0.773
Southeast	10.9%	7.9%	0.224
Detroit Metro	44.8%	42.2%	0.534
Total enrollees	373	687	

Table 4.2 Predicted Percentage of Insurance Post-HMP from No Longer Enrolled Survey from Probit Regression

	Predicted percent with insurance including average quarterly invoice	*p-value on regression coefficient*	Predicted percent with insurance including flag for cost obligation	*p-value on regression coefficient*	Subset with cost obligation: predicted percent with insurance including compliance with obligation	*p-value on regression coefficient*
Age						
Under 30	64.1%		63.8%		73.2%	
30 to 39	58.7%	0.323	58.8%	0.355	70.1%	0.726
40 to 49	61.5%	0.621	61.8%	0.689	68.4%	0.562
Over 50	57.9%	0.209	58.1%	0.249	57.0%	0.026
Gender						
Male	57.8%		57.9%		67.4%	
Female	66.9%	0.018	66.8%	0.020	68.8%	0.814
Race						
White	62.4%		62.3%		65.1%	
Black	63.9%	0.786	64.0%	0.760	70.9%	0.492
American Indian	48.6%	0.505	48.0%	0.492		
Hispanic	50.1%	0.247	50.6%	0.272	91.1%	0.061
Asian/Pacific Islander	60.5%	0.923	57.9%	0.809	84.7%	0.417
Unknown	57.6%	0.395	57.5%	0.394	73.1%	0.306
FPL						
0-35 %	62.1%		62.6%		77.7%	
36-99 %	57.2%	0.247	58.9%	0.377	64.2%	0.135
100+ %	65.0%	0.598	60.6%	0.683	63.6%	0.106
Region						
Upper Peninsula	61.3%	0.890	59.8%	0.961	62.8%	0.534
Northwest	61.4%	0.870	61.6%	0.844	73.4%	0.815
Northeast	67.7%	0.376	68.3%	0.331	82.9%	0.305
West	71.3%	0.081	71.6%	0.074	80.7%	0.347
East Central	70.3%	0.185	0.705	0.173	63.0%	0.587
East	55.9%	0.503	56.2%	0.539	67.7%	0.755
South Central	66.5%	0.547	65.8%	0.602	62.8%	0.702
Southwest	57.6%	0.746	57.3%	0.721	58.4%	0.356
Southeast	55.2%	0.500	55.3%	0.511	62.4%	0.486
Detroit Metro	60.2%		60.1%		70.7%	

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Category of Average Invoice						
$0	58.5%					
$0.01 - $15	75.2%	< 0.01				
$15.01 +	62.0%	0.569				
Cost Obligation						
No			58.1%			
Yes			69.9%	< 0.014		
Collection category						
None collected					57.5%	
Partial collection					73.0%	0.062
Full collection					84.3%	< 0.01
Total enrollees	1,060		1,060		314	

Adjusted by survey weights and stratum. Results are predicted prevalence of each category, controlling for other covariates in the model

Table 4.3 Predicted Likelihood of Disenrollment in Period

	Cost obligation in prior period	*p-value on regression coefficient*	Invoice amount in prior period	*p-value on regression coefficient*	Invoice amount in prior period (quadratic specification for invoice)	*p-value on regression coefficient*	Invoice amount in prior period (quadratic specification with interactions on above/below 100% FPL)	*p-value on regression coefficient*
FPL								
0-35 %	14.3%		14.5%		14.4%			
36-99 %	12.7%	0.000	11.8%	0.000	11.9%	0.000		
100+ %	16.0%	0.000	16.9%	0.000	17.2%	0.000		
Age								
Under 30	20.3%		20.6%		20.6%		20.4%	
30 to 39	14.6%	0.000	14.7%	0.000	14.7%	0.000	14.6%	0.000
40 to 49	12.1%	0.000	12.1%	0.000	12.1%	0.000	12.1%	0.000
Over 50	10.8%	0.000	10.7%	0.000	10.7%	0.000	10.8%	0.000
Gender								
Male	17.0%		17.2%		17.1%		17.1%	
Female	11.5%	0.000	11.4%	0.000	11.4%	0.000	11.4%	0.000
Race								
White	13.2%		13.1%		13.2%		13.1%	
Black	13.3%	0.281	13.4%	0.009	13.4%	0.027	13.4%	0.002
American Indian	15.3%	0.000	15.8%	0.000	15.8%	0.000	15.7%	0.000
Hispanic	15.0%	0.000	15.0%	0.000	15.0%	0.000	15.0%	0.000
Asian/Pacific Islander	17.1%	0.000	17.1%	0.000	17.1%	0.000	16.8%	0.000
Unknown	22.2%	0.000	22.4%	0.000	22.4%	0.000	22.2%	0.000
Region								
Upper Peninsula	13.1%	0.000	12.9%	0.000	13.0%	0.000	12.9%	0.000
Northwest	15.2%	0.001	15.1%	0.000	15.1%	0.000	15.1%	0.000
Northeast	12.5%	0.000	12.4%	0.000	12.4%	0.000	12.5%	0.000
West	14.7%	0.000	14.7%	0.000	14.7%	0.000	14.7%	0.000
East Central	13.0%	0.000	12.9%	0.000	12.9%	0.000	12.9%	0.000
East	**13.6%**	**0.000**	**13.5%**	**0.000**	**13.5%**	**0.000**	**13.6%**	**0.000**
South Central	15.8%	0.049	15.8%	0.004	15.8%	0.005	15.8%	0.021

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Southwest	**15.9%**	**0.000**	**16.0%**	**0.000**	**16.0%**	**0.000**	**16.0%**	**0.000**
Southeast	15.6%	0.000	15.7%	0.000	15.7%	0.000	15.7%	0.000
Detroit Metro	13.8%	0.000	13.9%	0.000	13.9%	0.000	13.9%	0.000
Cost obligation in prior period								
No	15.8%							
Yes	7.3%	0.000						
Invoice amount in prior period								
$0			15.2%	0.000	15.4%	0.000		0.000
$5			14.9%		14.9%			
$10			14.6%		14.5%			
$15			14.4%		14.1%			
$25			13.8%		13.3%			
$35			13.3%		12.7%			
$50			12.5%		11.7%			
$65			11.8%		10.9%			
$75			11.4%		10.4%			
$85			10.9%		10.0%			
$100			10.3%		9.4%			
$150			8.4%		7.9%			
$200			6.8%		7.0%			
$300			4.4%		6.7%			
Interaction (Always 100 X invoice prior)								
Always Below 100: $0							15.4%	0.000
Always Above 100: $0							15.4%	
Always Below 100: $5							14.1%	
Always Above 100: $5							15.6%	
Always Below 100: $10							13.0%	
Always Above 100: $10							15.9%	
Always Below 100: $15							12.0%	
Always Above 100: $15							16.1%	
Always Below 100: $25							10.2%	
Always Above 100: $25							16.6%	
Always Below 100: $35							8.8%	
Always Above 100: $35							**16.9%**	
Always Below 100: $50							7.1%	

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Always Above 100: $50							**17.2%**	
Always Below 100: $65							5.9%	
Always Above 100: $65							17.4%	
Always Below 100: $75							5.3%	
Always Above 100: $75							17.4%	
Always Below 100: $85							4.8%	
Always Above 100: $85							17.3%	
Always Below 100: $100							4.3%	
Always Above 100: $100							16.9%	
Always Below 100: $150							3.4%	
Always Above 100: $150							14.6%	
Always Below 100: $200							3.7%	
Always Above 100: $200							10.9%	
Always Below 100: $300							10.8%	
Always Above 100: $300							3.7%	
Total observations	879,228		879,228		879,228		879,228	

Notes: 1) Prior period invoice is operationalized as a continuous variable and thus has only 1 p-value indicating the statistical significance of the relationship. In the quadratic specification, both prior invoice and (prior invoice)^2 have $p < 0.001$

2) This is the result of 4 separate regressions run with dependent variable of disenrollment in t+1 (next time period):

a) using cost obligation in t to predict disenrollment (t+1) in first 3 periods

b) using invoice amount (as a continuous variable) to predict disenrollment in (t+1) categories reported were generated using predictive margins

Table 4.3a Predicted Likelihood of Disenrollment in Period--Using Contribution

	Contribution Obligation in Prior Period	p-value	Contribution Amount in Prior Period	p-value	Quadratic in Contribution Amount in Prior Period	p-value	Quadratic in Contribution Amount in Prior Period and Interacting Above/Below 100 FPL	p-value
Federal Poverty Level Category			14.6%		14.7%			
0-35%	10.1%	0.000	11.8%	0.000	11.8%	0.000		
36-99%	8.1%	0.000	16.3%	0.000	16.1%	0.000		
100% +	8.7%							
Age			20.7%		20.7%		20.7%	
Under 30	13.0%	0.000	14.7%	0.000	14.7%	0.000	14.6%	0.000
30 to 39	9.5%	0.000	12.1%	0.000	12.1%	0.000	12.1%	0.000
40 to 49	8.2%	0.000	10.6%	0.000	10.6%	0.000	10.7%	0.000
Over 50	7.3%							
Gender			17.3%		17.3%		17.4%	
Male	11.4%	0.000	11.3%	0.000	11.3%	0.000	11.3%	0.000
Female	7.5%							
Race			13.1%		13.1%		13.1%	
White	8.7%	0.000	13.4%	0.001	13.4%	0.000	13.6%	0.000
Black	9.0%	0.000	16.0%	0.000	16.0%	0.000	16.1%	0.000
American Indian	10.5%	0.000	15.0%	0.000	15.0%	0.000	15.0%	0.000
Hispanic	9.7%	0.000	17.1%	0.000	17.1%	0.000	16.8%	0.000
Asian/Pacific Islander	11.1%	0.000	22.5%	0.000	22.5%	0.000	22.4%	0.000
Unknown	14.2%							
Region			12.9%		12.9%		12.8%	
Upper Penninsula	8.6%	0.000	15.1%	0.000	15.1%	0.000	15.0%	0.000
Northwest	9.7%	0.003	12.3%	0.000	12.3%	0.000	12.3%	0.000
Northeast	8.2%	0.000	14.7%	0.000	14.7%	0.000	14.8%	0.000
West	9.7%	0.000	12.9%	0.000	12.9%	0.000	12.9%	0.000
East Central	8.6%	0.000	13.5%	0.000	13.5%	0.000	13.5%	0.000
East Central	9.0%	0.017	15.8%	0.003	15.8%	0.002	15.8%	0.007

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South Central	10.4%	0.000	16.0%	0.000	16.0%	0.000	16.1%	0.000
Southwest	10.5%	0.000	15.7%	0.000	15.7%	0.000	15.7%	0.000
Southeast	10.2%	0.000	13.9%	0.000	13.9%	0.000	13.9%	2.82E-33
Detroit Metro	9.2%							
Contribution Obligation in Prior Period								
No	9.0%							
Yes	13.2%	0.000						
Invoice Amount in Prior Period			14.8%	0.000	14.7%	0.000		
$0			14.6%		14.6%			
$5			14.4%		14.5%			
$10			14.2%		14.4%			
$15			13.8%		14.2%			
$25			13.4%		13.9%			
$35			12.9%		13.5%			
$50			12.3%		13.0%			
$65			12.0%		12.7%			
$75			11.6%		12.3%			
$85			11.1%		11.8%			
$100			9.6%		9.9%			
$150			8.3%		8.0%			
$200			6.1%		4.4%			0.000
$300								
Interaction Always100 # Invoice Prior								
Always Below 100: $0							14.6%	0.000
Always Above 100: $0							14.6%	
Always Below 100: $5							13.8%	
Always Above 100: $5							15.0%	
Always Below 100: $10							13.1%	
Always Above 100: $10							15.4%	

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Always Below 100: $15							12.5%	
Always Above 100: $15							15.8%	
Always Below 100: $25							11.3%	
Always Above 100: $25							16.5%	
Always Below 100: $35							10.3%	
Always Above 100: $35							17.1%	
Always Below 100: $50							9.0%	
Always Above 100: $50							17.8%	
Always Below 100: $65							8.0%	
Always Above 100: $65							18.2%	
Always Below 100: $75							7.5%	
Always Above 100: $75							18.3%	
Always Below 100: $85							7.0%	
Always Above 100: $85							18.3%	
Always Below 100: $100							6.5%	
Always Above 100: $100							18.0%	
Always Below 100: $150							5.5%	
Always Above 100: $150							15.2%	
Always Below 100: $200							5.6%	
Always Above 100: $200							10.6%	
Always Below 100: $300							9.6%	
Always Above 100: $300							2.5%	
Total Observations			879,228		879,228		879,228	
	1,327,596							

Table 4.3b Predicted Likelihood of Disenrollment in the Period--Using Copay

	Copay Obligation in Prior Period	p-value	Copay Amount in Prior Period	p-value	Quadratic in Copay Amount in Prior Period	p-value	Quadratic in Copay Amount in Prior Period and Interacting Above/Below 100 FPL	p-value
Federal Poverty Level Category								
0-35%	9.9%		14.3%		14.2%			
36-99%	8.0%	0.000	12.9%	0.000	13.0%	0.000		
100% +	9.7%	0.015	15.8%	0.000	15.9%	0.000		
Age								
Under 30	12.9%		20.0%		20.0%		20.0%	
30 to 39	9.5%	0.000	14.5%	0.000	14.5%	0.000	14.5%	0.000
40 to 49	8.2%	0.000	12.2%	0.000	12.2%	0.000	12.2%	0.000
Over 50	7.4%	0.000	10.9%	0.000	10.9%	0.000	11.0%	0.000
Gender								
Male	11.3%		16.8%		16.8%		16.8%	
Female	7.6%	0.000	11.6%	0.000	11.7%	0.000	11.7%	0.000
Race								
White	8.8%		13.2%		13.3%		13.3%	
Black	8.9%	0.015	13.2%	0.817	13.2%	0.610	13.2%	0.000
American Indian	10.3%	0.000	15.3%	0.000	15.2%	0.000	15.2%	0.000
Hispanic	9.7%	0.000	14.9%	0.000	14.9%	0.000	14.9%	0.000
Asian/Pacific Islander	11.1%	0.000	17.0%	0.000	17.0%	0.000	17.0%	0.000
Unknown	14.1%	0.000	22.2%	0.000	22.2%	0.000	22.2%	0.000
Region								
Upper Penninsula	8.7%		12.9%		12.9%		13.0%	
Northwest	9.8%	0.002	15.1%	0.000	15.1%	0.000	15.1%	0.000
Northeast	8.3%	0.000	12.5%	0.000	12.6%	0.000	12.6%	0.000
West	9.7%	0.000	14.5%	0.000	14.5%	0.000	14.6%	0.000
East Central	8.6%	0.000	13.0%	0.000	13.0%	0.000	13.0%	0.000
East	9.0%	0.000	13.6%	0.000	13.6%	0.000	13.6%	0.000

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South Central	10.4%	0.067	15.9%	0.021	15.9%	0.026	15.9%	0.007
Southwest	10.5%	0.000	15.9%	0.000	15.9%	0.000	15.9%	0.000
Southeast	10.2%	0.000	15.6%	0.000	15.6%	0.000	15.6%	0.000
Detroit Metro	9.2%	0.000	13.9%	0.000	13.9%	0.000	13.9%	
Cost Obligation in Prior Period								
No	9.5%							
Yes	9.0%	0.000		0.000				
Invoice Amount in Prior Period								
$0			15.9%		16.1%	0.000		
$5			12.8%		12.3%			
$10			10.2%		9.4%			
$15			8.0%		7.3%			
$25			4.9%		4.6%			
$35			3.0%		3.1%			
$50			1.4%		2.0%			
$65			0.6%		1.5%			
$75			0.4%		1.4%			
$85			0.2%		1.4%			
$100			0.1%		1.7%			
$150			0.0%		11.3%			
$200			0.0%		87.8%			
$300								
Interaction Always100 # Invoice Prior								
Always Below 100: $0							16.1%	0.000
Always Above 100: $0							16.1%	
Always Below 100: $5							12.0%	
Always Above 100: $5							12.9%	
Always Below 100: $10							9.1%	
Always Above 100: $10							10.4%	
Always Below 100: $15							6.9%	
Always Above 100: $15							8.4%	

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Always Below 100: $25							4.2%	
Always Above 100: $25							5.6%	
Always Below 100: $35							2.8%	
Always Above 100: $35							3.9%	
Always Below 100: $50							1.8%	
Always Above 100: $50							2.5%	
Always Below 100: $65							1.4%	
Always Above 100: $65							1.7%	
Always Below 100: $75							1.3%	
Always Above 100: $75							1.5%	
Always Below 100: $85							1.4%	
Always Above 100: $85							1.3%	
Always Below 100: $100							1.7%	
Always Above 100: $100							1.2%	
Always Below 100: $150							15.7%	
Always Above 100: $150							2.3%	
Always Below 100: $200							95.0%	
Always Above 100: $200							14.9%	
Always Below 100: $300							n/a	
Always Above 100: $300							n/a	
Total Observations	1,327,596		879,228		879,228		879,228	

Table 4.4 Detailed Statistical Summary of Average Quarterly Invoice

	Values at Each Percentile of Distribution
1%	0
5%	0
10%	0
25%	0
50%	0
75%	0
90%	26
95%	72
99%	145

Measure	Values
Observations	1,328,015
Mean	9.08
Std. Dev.	27.58
Variance	760.58
Smallest 4 values	0, 0, 0, 0
Largest 4 values	294, 317, 318, 336

Table 4.4a Marginal Effects from a Logit Disenrollment Model that Includes Invoice and Number of Chronic Disease Claims

Marginal Effects from a Logit Disenrollment Model that Includes Invoice and Number of Chronic Disease Claims		
	Marginal Effects	p-value on coefficient
Prior Period Invioce Amount (in dollars)	-0.08%	0.000
Total Chronic Disease Claims (# of claims): 0	ref	
Total Chronic Disease Claims (# of claims): 1-3	-5.00%	0.000
Total Chronic Disease Claims (# of claims): 4-10	-7.92%	0.000
Total Chronic Disease Claims (# of claims): 11+	-10.50%	0.000
Age		
Under 30	ref	
30 to 39	-4.81%	0.000
40 to 49	-6.40%	0.000
Over 50	-7.40%	
Federal Poverty Level Category		
0-35%	ref	0.000
36-99%	-2.98%	0.000
100% +	2.16%	0.000
Gender		
Male	ref	
Female	-5.20%	0.000
Race		
White	ref	
Black	0.02%	0.793
American Indian	3.06%	0.000
Hispanic	1.66%	0.000
Asian/Pacific Islander	3.14%	0.000
Unknown	8.71%	0.000
Region		
Upper Penninsula	-1.32%	0.000
Northwest	1.30%	0.000
Northeast	-1.44%	0.000
West	0.90%	0.000
East Central	-0.70%	0.000
East Central	-0.21%	0.099
South Central	1.68%	0.000
Southwest	2.17%	0.000
Southeast	1.59%	0.000
Detroit Metro	ref	
Total Observations	879,228	

Table 4.5 Predicted Disenrollment by Chronic Disease Claims and Total Spending (Plan and Cost Sharing)

	Any Claim in Prior Period	p-value	Conditional on Chronic Disease Claim: Amount of Claims	p-value	Any Spending in Prior Period	p-value	Amount of Spending	p-value on regression coefficient
Federal Poverty Level Category								
0-35%	10.1%		10.5%		9.9%		15.1%	
36-99%	7.8%	0.000	8.7%	0.000	8.0%	0.000	11.8%	0.000
100% +	9.4%	0.000	11.3%	0.000	9.6%	0.000	14.4%	0.000
Age								
Under 30	11.6%		15.1%		12.3%		19.1%	
30 to 39	9.1%	0.000	10.9%	0.000	9.3%	0.000	14.2%	0.000
40 to 49	8.6%	0.000	9.1%	0.000	8.4%	0.000	12.6%	0.000
Over 50	8.2%	0.000	8.5%	0.000	7.7%	0.000	11.4%	0.000
Gender								
Male	11.0%		12.1%		10.6%		16.3%	
Female	7.8%	0.000	8.7%	0.000	8.1%	0.000	12.1%	0.000
Race								
White	8.8%		9.6%		8.9%		13.4%	
Black	8.8%	0.868	9.2%	0.001	8.6%	0.000	13.0%	0.000
American Indian	11.1%	0.000	11.7%	0.000	11.0%	0.000	17.2%	0.000
Hispanic	9.7%	0.000	10.7%	0.000	9.7%	0.000	14.8%	0.000
Asian/Pacific Islander	10.5%	0.000	12.3%	0.000	10.7%	0.000	16.2%	0.000
Unknown	14.0%	0.000	16.8%	0.000	14.0%	0.000	21.8%	0.000
Region								
Upper Penninsula	8.2%	0.000	9.1%	0.000	8.6%	0.000	12.5%	
Northwest	10.0%	0.000	10.8%	0.001	9.9%	0.000	15.0%	0.000
Northeast	8.4%	0.000	9.2%	0.001	8.4%	0.000	12.3%	0.000
West	9.8%	0.000	10.6%	0.005	9.9%	0.000	15.0%	0.000
East Central	8.9%	0.000	9.3%	0.000	8.7%	0.000	12.9%	0.000
East Central	9.2%	0.008	9.9%	0.000	9.2%	0.000	13.6%	0.000

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South Central	10.2%	0.672	11.2%	0.676	10.3%	0.809	15.4%	0.002
Southwest	10.6%	0.000	11.6%	0.000	10.4%	0.000	15.9%	0.000
Southeast	10.0%	0.000	10.9%	0.000	10.2%	0.000	15.5%	0.000
Detroit Metro	9.2%	0.000	10.0%	0.000	9.2%	0.000	13.9%	0.000
Claim in Prior Period								
No	18.1%							
Yes	5.3%	0.000						
Conditional on Claim: Number of Claims								
1			11.5%	0.000				
5			10.1%					
15			7.2%					
25			5.1%					
35			3.6%					
50			2.1%					
65			1.2%					
75			0.8%					
100			0.3%					
Any Spending in Prior Period								
No					24.3%			
Yes					7.5%	0.000		
Total Spending in Prior								
No Spending							23.6%	
$1 - $19							16.9%	0.000
$20-$40							15.5%	0.000
$50 - $99							13.5%	0.000
$100 - $349							11.0%	0.000
$350 +							8.1%	0.000
Total Observations	1327596		463634		1327596		879226	

Table 4.6 Descriptive Table of Population Used in Regression Discontinuity Regressions (up to 13 Months Follow-up)

Descriptive Statistics -- 13 Months Follow-up			
	Disenroller	Continuously Enrolled	P-value from two-sample ttest
Female (%)	51.1	63.1	<0.001
Age (mean)	37.6	40.4	<0.001
First enrollment month	Nov-14	Oct-14	<0.001
FPL percent	85	76.4	<0.001
Region			
Northern Michigan	9.9	10.4	0.003
Central Michigan	30.9	31.1	0.451
Southern Michigan	22.9	19.4	<0.001
Detroit	36.3	39.1	<0.001
Race			
White	61.8	66.6	<0.001
Black	17.7	19.8	<0.001
Other	20.5	13.5	<0.001
Monthly medical spending (mean $)	165.67	296.51	<0.001
Monthly number of chronic disease claims (mean)	0.24	0.42	<0.001
Received contribution statement (%)	24.5	20.1	<0.001
Received copay statement (%)	27.4	40.4	<0.001
Contribution Invoice (mean $)	3.17	2.09	<0.001
Copay Invoice (mean $)	0.35	0.54	<0.001
Total Number	39,289	156,206	
Notes:			
Inclusion Criteria: 1) Not part of special population 2) Between 22 and 62 years of age 3) Enrolled in HMP-MC before Sept 2015, so that we have at least 13 months of potential observation 4) At least 7 months of continuous HMP-MC enrollment 5) Income between 1% and 133% FPL			
Disenroller: Drops HMP-MC after a spell of at least 7 months in the program up to 13 months in program. Disenrollers must not come back to any Michigan Medicaid program for at least 6 months. Must have dropped from HMP-MC, i.e. not switched into another program and then dropped.			

Table 4.7 Basic Statistics for RD Population

13-month total follow-up		
	Percent	Total Number in Group
Percent with Contribution with FPL rounded to nearest 1…..		
99 to 100	22.8	1766
100 to 101	41.2	1791
Contribution Amount	Mean	
Overall	2.31	195,495
90 to 100	1.56	18,411
100 to 110	4.49	20,970
95 to 100	1.81	9,067
100 to 105	4.36	11,810
Percent Disenroller	Percent	
Overall	20.1	195,495
< 100 % FPL	17.9	131,120
>= 100% FPL	24.6	64,375
100 to < 115 FPL	22.8	28,121
85 to < 100 FPL	20.6	28,457
100 to < 105	22.7	9,977
95 to < 100	19.5	9,067
Subgroup with Lower than Median Medical Spending (1st 7 Months)		
Overall	25.9	98,203
< 100 % FPL	23.5	64,582
>= 100% FPL	30.6	33,621
100 to < 115 FPL	28.4	14,788
85 to < 100 FPL	25.5	14,858
100 to < 110	27.8	10,159
90 to < 100	24.3	9,623
Subgroup with Higher than Median Medical Spending (1st 7 Months)		
Overall	14.2	97292
< 100 % FPL	12.4	66538
>= 100% FPL	18.1	30754
100 to < 115 FPL	16.5	13333
85 to < 100 FPL	15.2	13599
100 to < 110	16.1	9038
90 to < 100	15.1	8788
Subgroup with No Chronic Disease Claims (1st 7 Months)		
Overall	25.1	92359
< 100 % FPL	22.8	61181
>= 100% FPL	29.8	31178
100 to < 115 FPL	27.5	13799

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85 to < 100 FPL	**25.0**	**14161**
100 to < 110	27.1	9505
90 to < 100	24.3	9177
Subgroup with at least 1 Chronic Disease Claim (1st 7 Months)		
Overall	15.6	103,136
< 100 % FPL	13.6	69,939
>= 100% FPL	19.8	33,197
100 to < 115 FPL	18.2	14,322
85 to < 100 FPL	16.2	14,296
100 to < 110	17.6	9,692
90 to < 100	15.6	9,234

Table 4.8 Regression Discontinuity Estimates, 13 Month

Population followed 13 Months						
Total sample N=195495; Income sample (85 – 115%: 56,578						
Bandwidth selector: linear sharp: MSERD (12.4) CER (6.7); quadratic, sharp: MSERD: 11.1, CER: 5.5)						
Bandwidth selector: linear fuzzy: MSERD (8.3) CER (4.5); quadratic fuzzy: MSERD: (16.3) CER: (8.1)						
RUNNING VARIABLE: AVERAGE FPL PERCENT						
Specification	Bandwidth (equal on both sides)	Covariates?	Estimate (in percentage points)	p-value	First stage coefficient (ppts)	p-value
SHARP: rdrobust, linear	6.749 (CER optimal, triangular kernel	Y	0.8	>0.1		
SHARP: rdrobust, linear	6.5 (CER optimal, uniform kernel)	Y	2.9	<0.01		
SHARP: rdrobust, linear	7	Y	1.02	0.378		
SHARP: rdrobust, linear	10	Y	2.3	0.015		
SHARP: rdrobust, linear	12	Y	2.6	0.002		
SHARP: rdrobust, linear	15	Y	2.5	0.001		
SHARP: rdrobust, linear	12.4	Y	2.7	<=0.01		
SHARP: rdrobust, quadratic	6	Y	-7.6	0.001		
SHARP: rdrobust, quadratic	10	Y	-0.87	0.558		
SHARP: rdrobust, quadratic	12	Y	0.36	0.786		
SHARP: rdrobust, quadratic	15	Y	2.02	0.079		
SHARP: regress, linear	10	Y	4.6	<0.001	p-value on coefficient plus100	
SHARP: regress, linear	15	Y	4.4	0.228	p-value on coefficient plus100	
FUZZY: rdrobust, linear	4.5 (CER optimal, triangular kernel)	Y	-17.6	<=0.1	16	<0.01
FUZZY: rdrobust, linear	4.5 (CER optimal, uniform kernel)	Y	-6.7	>0.1	19	<0.01
FUZZY: rdrobust, linear	5	Y	-14.7	0.086	17	<0.001
FUZZY: rdrobust, linear	8.3	Y	9.4	<=0.1	19.1	<0.001
FUZZY: rdrobust, linear	10	Y	11.6	0.016	19	<0.001
FUZZY: rdrobust, linear	12	Y	13.2	0.002	20	<0.001
FUZZY: rdrobust, linear	15	Y	12.4	0.001	20.3	<0.001
FUZZY: rdrobust, quadratic	8	Y	-25.3	0.02	16	<0.001
FUZZY: rdrobust, quadratic	10	Y	-5.1	0.556	17	<0.001

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FUZZY: rdrobust, quadratic	**12**	**Y**	**2**	**0.787**	**18**	**<0.001**
FUZZY: rdrobust, quadratic	15		11	0.084	18	<0.001
FUZZY: rdrobust, quadratic	16	y	11	0.068	18	<0.001
FUZZY: 2sls, linear	none	Y	4.3	<0.001		
RUNNING VARIABLE: MINIMUM REPORTED FPL						
Bandwidth selector: linear sharp: MSERD (9) CER (5); quadratic, sharp: MSERD: (9), CER: (4)						
Bandwidth selector: linear fuzzy: MSERD (7) CER (4); quadratic fuzzy: MSERD: (12) CER: (6)						
SHARP: rdrobust, linear	5	Y	-3.7	0.021		
SHARP: rdrobust, linear	9	Y	1.6	0.134		
SHARP: rdrobust, linear	10	Y	2	0.54		
SHARP: rdrobust, linear	12	Y	2.5	0.007		
SHARP: rdrobust, quadratic	10	Y	-1.8	0.29		
SHARP: rdrobust, quadratic	12	Y	-0.39	0.79		
FUZZY: rdrobust, linear	5	Y	-18.8	0.02	20	<0.001
FUZZY: rdrobust, linear	7	Y	2.6	0.649	22	<0.001
FUZZY: rdrobust, linear	10	Y	8.5	0.056	23	<0.001
FUZZY: rdrobust, linear	12	Y	10.6	0.008	23	<0.001
FUZZY: rdrobust, quadratic	10	Y	-8.8	0.286	20	<0.001
FUZZY: rdrobust, quadratic	12	Y	-1.8	0.79	21	<0.001
FUZZY: rdrobust, quadratic	15	Y	10.2	0.003	24	<0.001
FUZZY: 2sls, linear	none	N	-9.3	<0.001		

Table 4.9 Subgroup Analyses on RD Estimates, Medical Claims

	Specification	Bandwidth (equal on both sides)	Covariates?	Estimate (in percentage points)	p-value	First stage coefficient	p-value
Chronic Disease Claims							
No Chronic Disease Claims (n=92,359)							
	Sharp: rdrobust linear	10	Y	3.4 (0.014)	0.013		
	Sharp: rdrobust linear	10.73 (mse chosen)	Y	3.5 (0.013)	0.008		
	Fuzzy: rdrobust linear	10	Y	14.6 (0.060)	0.015	0.23 (0.014)	<0.001
	Fuzzy: rdrobust linear	12	Y	15.0(0.053)	0.005	0.24 (0.013)	<0.001
	Fuzzy: rdrobust linear	8.4 (mse; chosen)	Y	14.1 (0.068)	0.038	.23 (0.016)	<0.001
Chronic Disease Claims (n=103,136)							
	Sharp: rdrobust linear	5.66 (mse chosen)	Y	-2.4 (0.017)	0.169		
	Sharp: rdrobust linear	6	Y	-2.21 (0.017)	0.221		
	Sharp: rdrobust linear	10	Y	0.72 (0.012)	0.555		
	Fuzzy: rdrobust linear	6	Y	-14.3 (0.12)	0.219	0.15 (0.020)	<0.001
	Fuzzy: rdrobust linear	10	Y	4.8 (0.081)	0.56	0.15 (0.014)	<0.001
	Fuzzy: rdrobust linear	12	Y	8.1 (0.073)	0.267	0.15 (0.013)	<0.001
	Fuzzy: rdrobust linear	8.5mse; chosen	Y	1.1 (0.090)	.902	0.15 (0.015)	<0.001
Using Contribution Amount							
No Chronic Disease Claims	Contribution Amount (FPL at 100)	8.93 (mse chosen)	Y	1.23 (0.0055)	.027	2.71 (0.0177)	<0.001
	Contribution Amount (FPL at 100)	10	Y	1.24 (.0051)	0.015	2.75 (0.17)	<0.001
Chronic Disease Claims	Contribution Amount (FPL at 100)	8.65 (mse chosen)	Y	0.14 (0.0078)	.863	1.70 (0.18)	<0.001
	Contribution Amount (FPL at 100)	10	Y	0.42 (0.0072)	.588	1.71 (0.164)	<0.001

Table 4.10 Estimates Using Monthly Contribution Statement Amounts

Estimates Using Monthly Contribution Statement Amount (not just indicator)								
Specification	Outcome	Independent variable (Instrument)	Estimate (ppts)	Covariates	p-value	Bandwidth (Imputed?)	First Stage Estimate	P-value
Sharp: rdrobust	contribution amount	FPL	2.22	N	<0.001	7.7 (N)		
Sharp: rdrobust	contribution amount	FPL	2.03	N	<0.001	5 (Y)		
Sharp: rdrobust	contribution amount	FPL	2.25	N	<0.001	10 (Y)		
Sharp: rdrobust	contribution amount	FPL	2.02	Y	<0.001	5 (Y)		
Sharp: rdrobust	contribution amount	FPL	2.25	Y	<0.001	10 (Y)		
Fuzzy: rdrobust	disenroller	Contribution Amount (FPL at 100)	0.97	N	0.03	9.162 (N)	2.23	<0.001
Fuzzy: rdrobust	disenroller	Contribution Amount (FPL at 100)	0.803	Y	0.088	8.244(N)	2.22	<0.001
Fuzzy: rdrobust	disenroller	Contribution Amount(FPL at 100)	1.044	N	0.013	10 (Y)	2.25	<0.001
Fuzzy: rdrobust	disenroller	Contribution Amount (FPL at 100)	1.007	Y	0.016	10(Y)	2.25	<0.001
Fuzzy: rdrobust	Disenrollller	Contribution Amount (FPL at 100)`	1.1	Y	<=0.05	15(Y)	2.31	<0.001
Regress	disenroller	Contribution Amount	0.65	Y	<0.001			
Subgroup Analyses								
Below Median Spending	Disenroller	Contribution Amount (FPL at 100)	1.15	Y	0.048	7.867 (N)	2.834	<0.001
	Disenroller	Contribution Amount (FPL at 100)	1.251	Y	0.008	10(Y)	2.917	<0.001
Above Median Spending	Disenroller	Contribution Amount (FPL at 100)	0.568	Y	.448	11.889(N)	1.48	<0.001
	Disenroller	Contribution Amount (FPL at 100)	0.367	Y	.659	10(Y)	1.47	<0.001
No Chronic Disease Claims	Disenroller	Contribution Amount (FPL at 100)	1.29	Y	.020	8.937(N)	2.720	<0.001
	Disenroller	Contribution Amount (FPL at 100)	1.453	Y	.005	10(Y)	2.77	<0.001

Chronic Disease Claims	Disenroller	Contribution Amount (FPL at 100)	0.089	Y	.910	8.607(N)	1.70	<0.001
	Disenroller	Contribution Amount (FPL at 100)	0.389	Y	.589	10(Y)	1.71	<0.001

Table 4.11 Alternative Specifications and Sensitivity Checks

	Effect of exceeding cutoff on				Treatment effect of	
	Any contribution (1/0)	Contribution Amount ($)	Disenrolled		Any Contribution (1/0)	Contribution Amount ($)
	(percentage points)		(percentage points)		(percentage points)	(percentage points)
Standard errors in italics						
CER Bandwidth (triangular kernel)	16***	2.03***	0.71		-16.2*	-1.4*
	(4.6)	(5.0)	(6.7)		(4.6)	(4.6)
	0.016	*0.18*	*0.012*		*0.090*	*0.0076*
CER Bandwidth (uniform kernel)	19***	2.26***	2.9***		-6.5	-0.54
	(4.6)	(4.6)	(6.5)		(4.6)	(4.6)
	0.015	*0.17*	*0.11*		*0.072*	*0.0061*
Global linear (2sls)	36***	4.34***			5.7***	0.83***
	0.0021	*0.028*			*0.0099*	*0.00082*
Retaining Average FPL 0% (n=410,295)						
MSE-Optimal Bandwidth (in brackets)	19***	2.21***	-4.0**		8.1	0.67
	(7.8)	(7.7)	(3.8)		(7.8)	(7.7)
	0.012	*0.13*	*0.017*		*0.057*	*0.0049*
BW = 10	19***	2.24***	2.2**		11.3**	0.98
	0.010	*0.12*	*0.0093*		*0.049*	*0.0042*
BW = 15	20***	2.31***	2.4***		12***	1.1***
	0.0081	*0.095*	*0.0075*		*0.037*	*0.0033*
Using 12-month follow up (MSE-optimal) (n=166,014)	20***	2.31	1.9*		3.4	0.7
	(7.0)	(8.9)	(10.1)		(7.0)	(8.9)
	0.015	*0.14*	*0.011*		*0.067*	*0.0050*
Using 12-month follow up, BW=10	22***	2.35***	1.9*		8.6*	0.81*
	0.012	*0.14*	*0.011*		*0.050*	*0.0046*
Using 12-month follow up, BW=15	23***	2.45***	1.8**		7.8**	0.73**
	0.0098	*0.11*	*0.0086*		*0.038*	*0.0036*
Running variable of minimum reported FPL, MSE-optimal bandwidth	22***	2.62***	1.8*		4.6	0.35
	(7.5)	(7.3)	(9.6)		(7.5)	(7.3)
	0.012	*0.14*	*0.010*		*0.054*	*0.0047*
Running variable of minimum reported FPL, BW=10	23***	2.68***	1.9*		8.3*	0.71*
	0.010	*0.12*	*0.010*		*0.045*	*0.0038*

Notes: Each row shows estimates using a different bandwidth. Columns 1-3 present estimates of a "sharp" regression discontinuity design on the probability an enrollee faces any premium (column 1), the amount of premium they are asked to contribute (column 2), and the probability that they disenroll (column 3). Columns 4 and 5 scale the disenrollment effect by the probability of receiving a premium (column 4) or the premium amount (column 5), presenting the "treatment on the treated" effect of these measures. Significance levels: *=0.10, **=0.05, ***=0.01.

Table 4.12 Sensitivity Check: Descriptive Statistics for Population Followed up to 19 Months

	Disenroller	Continuously Enrolled	P-value from two-sample ttest
Female (%)	52	63.4	<0.001
Age (mean)	38.2	40.4	<0.001
First enrollment month	Aug-14	Aug-14	<0.001*
FPL percent	81.3	71.9	<0.001
Region			
Northern Michigan	10.2	10.3	0.64
Central Michigan	31.7	31.2	0.095
Southern Michigan	23	19.3	<0.001
Detroit	35.1	39.2	<0.001
Race			
White	62.2	66.1	<0.001
Black	18.5	20.8	<0.001
Other	19.4	13.1	<0.001
Monthly medical spending (mean)	186.52	296.19	<0.001
Monthly number of chronic disease claims (mean)	0.26	0.42	<0.001
Received contribution statement (%)	22.7	25.4	<0.001
Received copay statement (%)	29.8	50.9	<0.001
Contribution Invoice (mean)	2.75	2.36	<0.001
Copay Invoice (mean)	0.37	0.62	<0.001
Total Number	35,283	130,731	
Notes:			
Inclusion Criteria: 1) Not part of special population 2) Between 22 and 62 years of age 3) Enrolled in HMP-MC before March 2015, so that we have at least 19 months of potential observation 4) At least 7 months of continuous HMP-MC enrollment 5) Income between 1% and 133% FPL			
Disenroller: Drops HMP-MC after a spell of at least 7 months in the program up to 13 months in program. Disenrollers must not come back to any Michigan Medicaid program for at least 6 months. Must have dropped from HMP-MC, i.e. not switched into another program and then dropped.			
*These are different because disenrollers tend to enroll toward end of month (6.5) while enrollers are toward beginning of month (6.1) likely suggesting more enrollers in earlier parts of program			

Table 4.13 Sensitivity Check--Basic Statistics 19 Months Enrollment

19 month total follow up		
	Percent	Total Number in Group
Percent with Contribution with FPL rounded to nearest 1…..		
99 to 100	31.8	1352
100 to 101	48.1	1394
Percent Disenroller		
Overall	19.4	166,014
< 100 % FPL	16.6	118,252
>= 100% FPL	26.2	47,762
100 to < 115 FPL	23.6	21,308
85 to < 100 FPL	21.3	22, 373
100 to < 105	23	7,664
95 to < 100	20.4	7,011

Table 4.14 Sensitivity Check: RD Estimates from Population Followed for up to 19 Months

Sample followed 19 Months						
Total sample N=166,014						
Bandwidth selector: linear sharp: MSERD (10) CER (6); quadratic, sharp: MSERD: 13, CER: 7)						
Bandwidth selector: linear fuzzy: MSERD (7) CER (4); quadratic fuzzy: MSERD: (16) CER: (8)						
RUNNING VARIABLE: AVERAGE FPL PERCENT						
Specification	Bandwidth (equal on both sides)	Covariates?	Estimate (in percentage points)	p-value	First stage coefficient	p-value
SHARP: rdrobust, linear	7	Y	0.65	0.627		
SHARP: rdrobust, linear	10	Y	1.9	0.077		
SHARP: rdrobust, linear	12	Y	2	0.038		
SHARP: rdrobust, linear	15	Y	1.8	0.035		
SHARP: rdrobust, quadratic	5	Y	-0.14	0.68		
SHARP: rdrobust, quadratic	10	Y	-0.85	0.626		
SHARP: rdrobust, quadratic	12	Y	0.46	0.766		
SHARP: rdrobust, quadratic	15	Y	1.8	0.178		
SHARP: regress, linear	10	Y	4.5	<0.001		
SHARP: regress, linear	15	Y	4.5	0.545		
FUZZY: rdrobust, linear	5	Y	-9.5	0.337	0.168	<0.001
FUZZY: rdrobust, linear	8	Y	5.9	0.315	0.21	<0.001
FUZZY: rdrobust, linear	10	Y	8.6	0.082	0.22	<0.001
FUZZY: rdrobust, linear	12	Y	9	0.041	0.224	<0.001
FUZZY: rdrobust, linear	15	Y	7.9	0.038	0.231	<0.001
FUZZY: rdrobust, quadratic	5	Y	-22.2	0.673	0.061	0.094
FUZZY: rdrobust, quadratic	10	Y	-4.9	0.623	0.174	<0.001
FUZZY: rdrobust, quadratic	12	Y	2.33	0.767	0.195	<0.001
FUZZY: rdrobust, quadratic	15		8.75	0.186	0.204	<0.001
FUZZY: 2sls, linear	none	Y	4	<0.001		

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RUNNING VARIABLE: MINIMUM REPORTED FPL						
Bandwidth selector: linear sharp: MSERD (11) CER (6); quadratic, sharp: MSERD: (12), CER: (6)						
Bandwidth selector: linear fuzzy: MSERD (6) CER (4); quadratic fuzzy: MSERD: (14) CER: (7)						
SHARP: rdrobust, linear	5	Y	-3.1	0.106		
SHARP: rdrobust, linear	9	Y	1.6	0.221		
SHARP: rdrobust, linear	10	Y	1.8	0.131		
SHARP: rdrobust, linear	12	Y	1.9	0.074		
SHARP: rdrobust, quadratic	10	Y	-1.2	0.535		
SHARP: rdrobust, quadratic	12	Y	0.29	0.866		
FUZZY: rdrobust, linear	5	Y	-14.5	0.1	0.21	<0.001
FUZZY: rdrobust, linear	7	Y	2.7	0.667	0.24	<0.001
FUZZY: rdrobust, linear	10	Y	6.9	0.136	0.26	<0.001
FUZZY: rdrobust, linear	12	Y	7.2	0.078	0.27	<0.001
FUZZY: rdrobust, quadratic	10	Y	-5.7	0.531	0.21	<0.001
FUZZY: rdrobust, quadratic	12	Y	1.2	0.867	0.23	<0.001
FUZZY: rdrobust, quadratic	15	Y	6.3	0.072	0.28	<0.001
FUZZY: 2sls, linear	none	N				

Table 4.15 Effect of Premiums on Medicaid Disenrollment

	Effect of exceeding cutoff on				Treatment effect of	
	Any contribution (1/0) (percentage points)	**Contribution Amount ($)**	**Disenrolled (percentage points)**		**Any contribution (1/0) (percentage points)**	**Contribution Amount ($) (percentage points)**
Full Sample						
MSE-Optimal BW (in brackets)	19.1*** (8.3) 0.011	2.22*** (8.4) 0.13	2.6*** (12.3) 0.0083		9.4* (8.3) 0.055	0.82* (8.4) 0.0046
BW=10	19*** 0.010	2.24*** 0.12	2.2** 0.0093		11.6** 0.049	0.98** 0.0042
BW=15	20*** 0.0081	2.31*** 0.095	2.4*** 0.0075		12.4*** 0.037	1.1*** 0.0033
Sample Split by Spending in first 7 months enrollment						
Above Median Spending (>$77/month)						
MSE-Optimal BW (in brackets)	14*** (9.2) 0.015	1.48*** (11.9) 0.16	.023 (8.4) 0.013		2.1 (9.2) 0.092	0.60 (11.9) 0.0075
BW=10	14*** 0.015	1.48*** 0.18	0.57 0.012		4.1 0.088	0.41 0.0084
Below Median Spending (<$77/month)						
MSE-Optimal BW (in brackets)	24*** (8.0) 0.016	2.82*** (7.9) 0.18	-1.9† (4.2) 0.023		12.8* (8.0) 0.067	1.06* (7.9) 0.0056
BW=10	24*** 0.014	2.90*** 0.16	3.4*** 0.14		14.3*** 0.058	1.19***
Means of Dependent Variable below/above cutoff, full sample (FPL split in brackets)	22.8/41.2 (99/100-101)	1.81/4.36 (95-99/100-105)	19.5/22.7 (95-99/100-105)			

Notes: Each row shows estimates using a different bandwidth. Columns 1-3 present estimates of a "sharp" regression discontinuity design on the probability an enrollee faces any premium (column 1), the amount of premium they are asked to contribute (column 2), and the probability that they disenroll (column 3). Columns 4 and 5 scale the disenrollment effect by the probability of receiving a premium (column 4) or the premium amount (column 5), presenting the "treatment on the treated" effect of these measures. BW=bandwidth. Significance levels: *<=0.10, **<=0.05, ***<=0.01. †This number is sensitive to kernel specification around the cutoff. Estimate shown, like others, uses a triangular kernel density specification. With a uniform kernel, the MSE-optimal bandwith is 7.5, estimate is 3.7 and statistically significant (p=0.01).

Table 4.16 Donut Estimator Using MSE-Optimal Bandwidths

	All Eligible					
Dropped FPL	First Stage Estimate	Standard Error	P-value	Treatment Estimate	Standard Error P-value	p-value
95	0.181	0.013	0.000	0.021	0.066	0.753
96	0.186	0.013	0.000	0.053	0.064	0.400
97	0.183	0.013	0.000	0.019	0.066	0.773
98	0.192	0.015	0.000	-0.025	0.071	0.729
99	0.203	0.016	0.000	0.251	0.081	0.002
100	0.204	0.014	0.000	-0.039	0.062	0.525
101	0.189	0.013	0.000	0.247	0.067	0.000
102	0.177	0.012	0.000	-0.039	0.063	0.537
103	0.193	0.012	0.000	0.098	0.057	0.084
104	0.189	0.012	0.000	0.079	0.058	0.172
105	0.189	0.012	0.000	0.074	0.058	0.198
98/99	0.349	0.035	0.000	0.235	0.109	0.032
101/102	0.167	0.015	0.000	0.094	0.082	0.248

Table 4.17 Donut Estimator, Using MSE-Optimal Bandwidths, Split by Medical Spend

	Lower than Median Spend					
Dropped FPL	First Stage Estimate	Standard Error	P-value	Treatment Estimate	Standard Error P-value	P-value
95	0.238	0.014	0.000	0.148	0.061	0.016
96	0.236	0.017	0.000	0.124	0.073	0.087
97	0.231	0.016	0.000	0.117	0.069	0.087
98	0.241	0.015	0.000	0.100	0.064	0.115
99	0.257	0.017	0.000	0.328	0.072	0.000
100	0.253	0.019	0.000	-0.016	0.073	0.827
101	0.242	0.015	0.000	0.305	0.067	0.000
102	0.221	0.017	0.000	0.024	0.076	0.754
103	0.243	0.015	0.000	0.165	0.063	0.010
104	0.237	0.016	0.000	0.129	0.069	0.060
105	0.237	0.016	0.000	0.131	0.068	0.053
98/99	0.277	0.021	0.000	0.377	0.089	0.000
101/102	0.214	0.017	0.000	0.200	0.080	0.012
	Higher than Median Spend					
95	0.133	0.017	0.000	-0.041	0.107	0.705
96	0.135	0.017	0.000	-0.018	0.104	0.865
97	0.124	0.018	0.000	-0.090	0.119	0.451
98	0.150	0.019	0.000	-0.005	0.107	0.959
99	0.142	0.021	0.000	0.157	0.126	0.215
100	0.150	0.021	0.000	-0.083	0.112	0.458
101	0.123	0.022	0.000	-0.026	0.148	0.862
102	0.127	0.018	0.000	-0.168	0.117	0.151
103	0.139	0.016	0.000	0.009	0.098	0.926
104	0.142	0.015	0.000	0.034	0.087	0.694
105	0.139	0.015	0.000	0.029	0.090	0.743
98/99	0.235	0.025	0.000	0.359	0.108	0.001
101/102	0.114	0.019	0.000	-0.034	0.136	0.805

Table 4.18 Donut Estimator, Using MSE-Optimal Bandwidths, Split by Chronic Disease Diagnosis

No Chronic Disease Diagnoses						
Dropped FPL	First Stage Estimate	Standard Error	P-value	Treatment Estimate	Standard Error P-value	P-value
95	0.217	0.018	0.000	0.092	0.084	0.270
96	0.230	0.016	0.000	0.145	0.068	0.034
97	0.222	0.016	0.000	0.122	0.074	0.102
98	0.233	0.017	0.000	0.112	0.073	0.127
99	0.244	0.020	0.000	0.322	0.089	0.000
100	0.242	0.019	0.000	0.060	0.075	0.424
101	0.237	0.016	0.000	0.302	0.070	0.000
102	0.214	0.018	0.000	0.019	0.083	0.823
103	0.229	0.016	0.000	0.154	0.072	0.033
104	0.231	0.015	0.000	0.150	0.067	0.025
105	0.226	0.016	0.000	0.131	0.073	0.072
98/99	0.310	0.030	0.000	0.407	0.121	0.001
101/102	0.211	0.021	0.000	0.165	0.097	0.089
Chronic Disease Diagnoses						
95	0.150	0.015	0.000	0.027	0.085	0.752
96	0.150	0.016	0.000	0.002	0.090	0.985
97	0.138	0.016	0.000	-0.061	0.103	0.549
98	0.161	0.017	0.000	0.000	0.094	0.998
99	0.157	0.023	0.000	0.171	0.133	0.199
100	0.156	0.017	0.000	-0.078	0.092	0.393
101	0.144	0.017	0.000	0.182	0.108	0.090
102	0.137	0.018	0.000	-0.166	0.113	0.141
103	0.162	0.014	0.000	0.080	0.074	0.284
104	0.151	0.016	0.000	0.011	0.089	0.906
105	0.150	0.015	0.000	0.018	0.088	0.840
98/99	0.236	0.023	0.000	0.369	0.098	0.000
101/102	0.122	0.020	0.000	0.003	0.143	0.981

Table 4.19 Estimated Change at 100 percent FPL for Demographic Covariates (MSE-optimal bandwidths; triangular kernel)

Estimate of jump at 100% FPL	Standard error	p-value	Bandwidth
0.77	0.28	0.005	9.228
-0.29	0.010	0.004	11.773
-0.0098	0.0084	0.25	14.663
0.0020	0.0074	0.79	12.444
0.0053	0.0068	0.44	14.548
-0.011	0.0073	0.140	8.941
0.0127	0.010	0.220	10.416
0.0052	0.0089	0.561	10.548
-0.0076	0.0100	0.444	11.115
Estimated from RD local linear equations where each covariate is a dependent variable and covariates not in the same demographic category are covariates in regressions.			

Table 4.20 Total Spending Regressions; Predicted Monthly Spending by Covariates

	Total Spending		**Medical Spending**		**Rx Spending**		**Total Spending: Disenroller interacted with Above 100**	
	Estimate	pvalue	Estimate	pvalue	Estimate	pvalue	Estimate	pvalue
Disenroller								
No	$ 293.15		$ 215.74		$ 77.86			
Yes	$ 175.84	0.000	$ 132.46	0.000	$ 43.57	0.000		
Gender								
Male	$ 242.83		$ 167.99		$ 75.01		$ 242.83	
Female	$ 289.20	0.000	$ 220.80	0.000	$ 69.13	0.000	$ 289.20	0.000
Age in Bands (under 30 reference)								
30 to 39	$ 296.86	0.036	$ 204.95	0.647	$ 98.10	0.000	$ 296.84	0.033
40 to 49	$ 378.60	0.000	$ 261.50	0.000	$ 125.63	0.000	$ 378.61	0.000
over 50	$ 422.99	0.000	$ 303.95	0.000	$ 128.00	0.000	$ 423.00	0.000
Region of Residence (Detroit reference)								
UP/Northern Michigan	$ 237.90	0.000	$ 175.68	0.000	$ 63.39	0.000	$ 237.90	0.000
Region: Central Mich.	$ 257.67	0.000	$ 193.98	0.017	$ 65.34	0.000	$ 257.67	0.000
Region: Southern Mich.	$ 318.91	0.002	$ 245.65	0.001	$ 72.74	0.487	$ 318.92	0.002
Race (White reference)								
Black	$ 243.26	0.000	$ 172.52	0.000	$ 69.62	0.301	$ 243.28	0.000
Other	$ 239.57	0.000	$ 177.93	0.005	$ 61.94	0.000	$ 239.55	0.000
FPL_percent		0.000		0.000		0.000		0.000
25	$ 463.78		$ 387.43		$ 90.88		$ 467.40	
50	$ 366.13		$ 291.27		$ 81.24		$ 367.86	
75	$ 289.05		$ 218.97		$ 72.61		$ 289.52	
100	$ 228.19		$ 164.62		$ 64.91		$ 227.87	
125	$ 180.15		$ 123.76		$ 58.02		$ 179.34	
Disenroller								
No: Above 100% FPL							$ 291.66	0.933
No: Below 100% FPL							$ 293.90	
Yes: Above 100% FPL							$ 174.53	0.959
Yes: Below 100% FPL							$ 176.54	0.000

Notes: Spending reflects both plan and patient payments to medical providers and pharmacies adjudicated through the claims process. Regression specified as a generalized linear model with a log link and gamma family. Predictions obtained using marginal effects at acutal values through the *margins* command in Stata 14.2

Figure 4.1 Unadjusted Probability of Disenrollment by Prior Period Invoice Amount

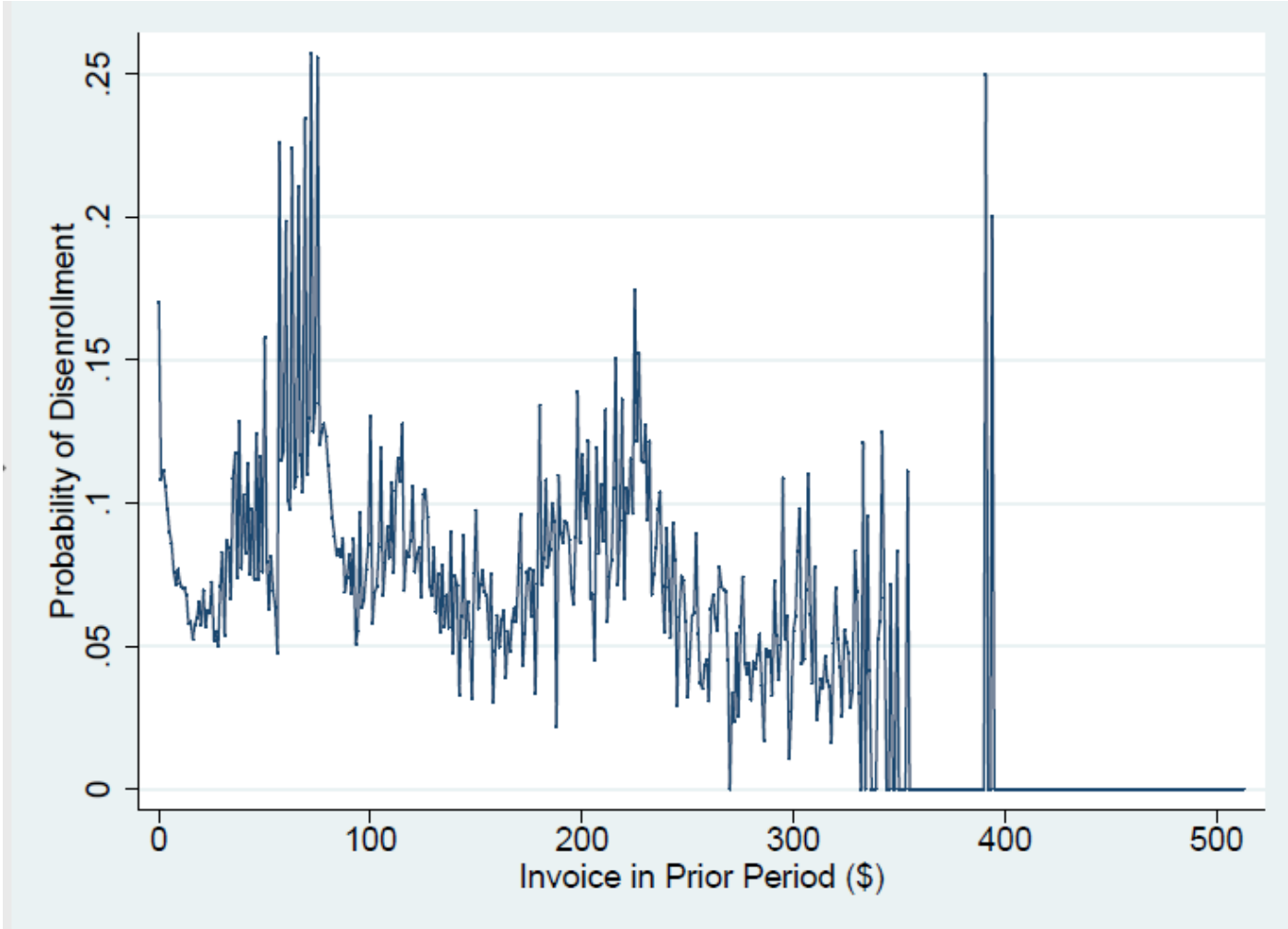


Figure 4.1a Unadjusted Probability of Disenrollment by Prior Period Invoice Amount, Invoice <= $150

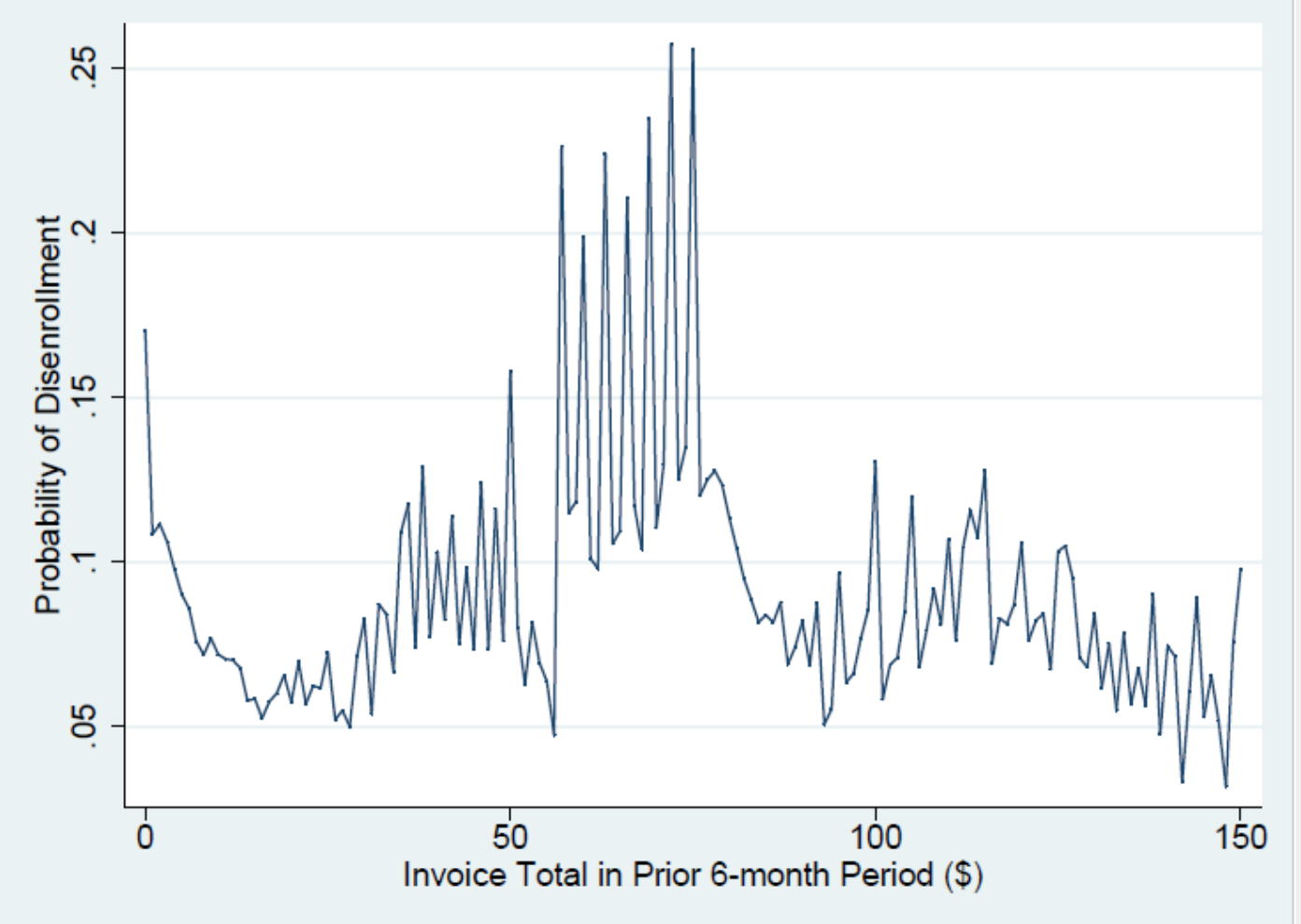


Figure 4.2 Predicted Probability of Disenrollment by Prior Period Invoice Amount, Logit Regression with Invoice Specified Linearly

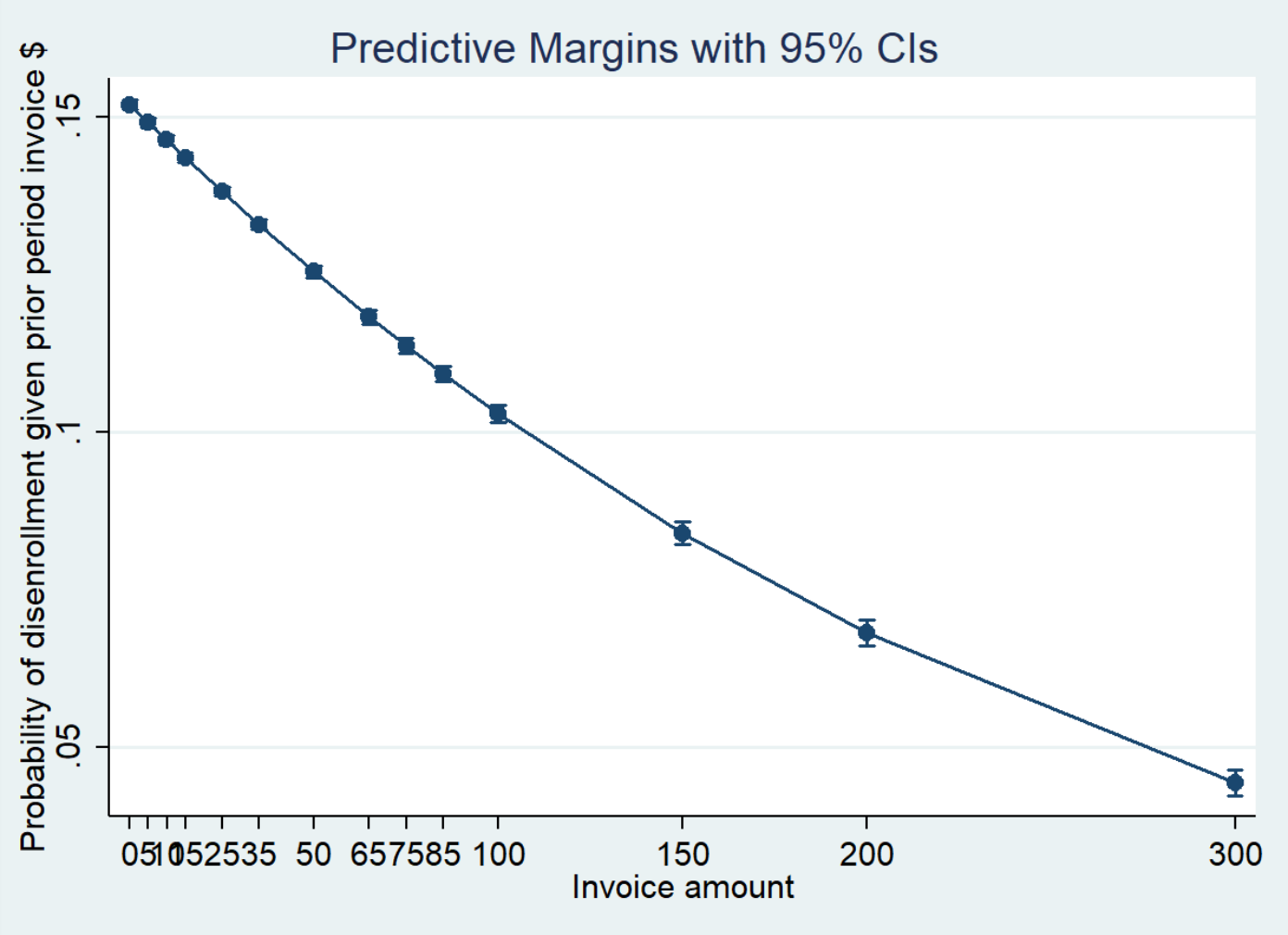


Figure 4.2a Predicted Probability of Disenrollment by Prior Period Invoice Amount Logit Regression with Invoice Specified Quadratically

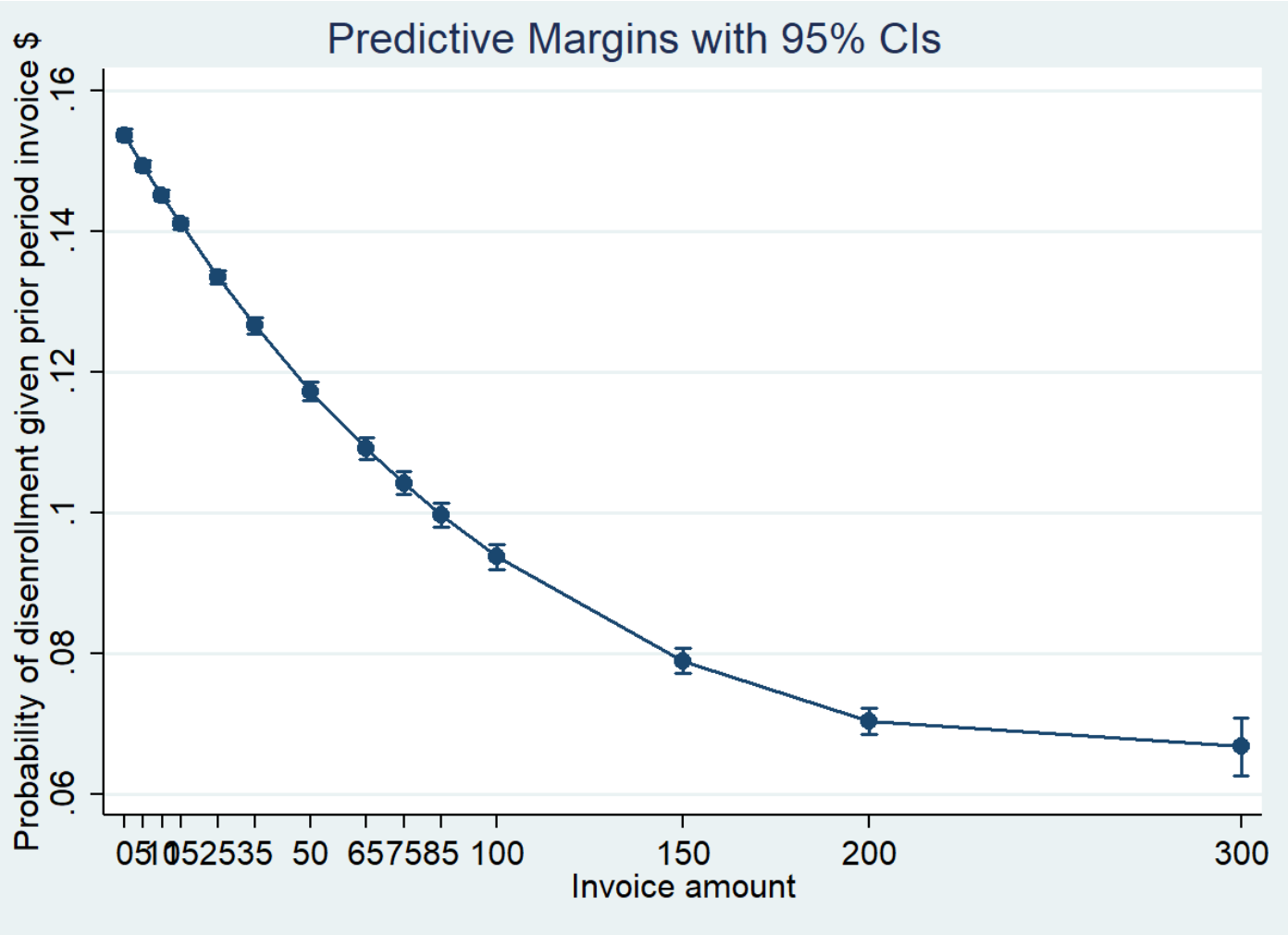


Figure 4.2b Predicted Probability of Disenrollment by Prior 6-11 Period Invoice Amount Interacted with FPL Above/Below 100%, Logit Regression with Invoice Specified Quadratically

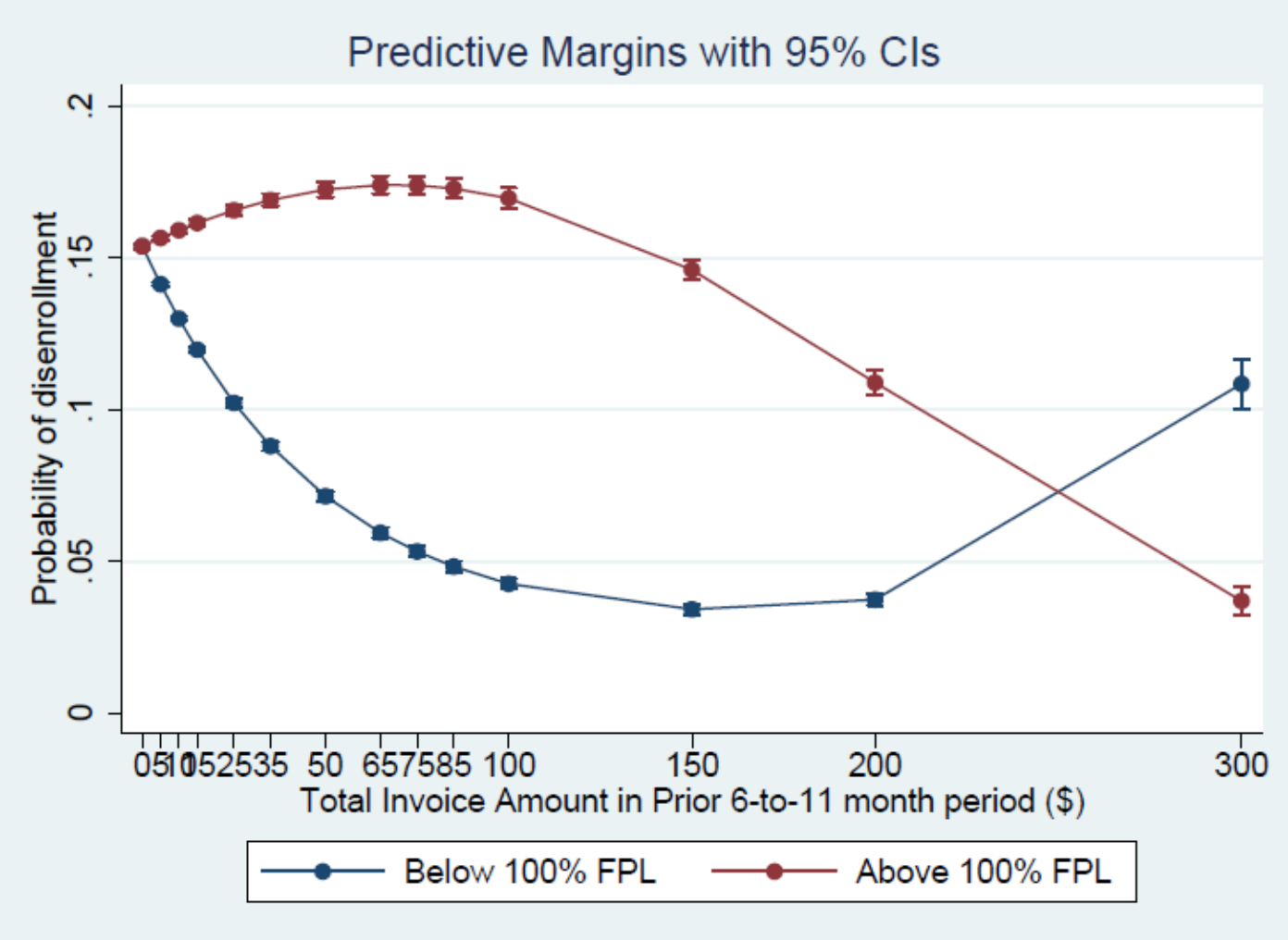


Figure 4.2c Predicted Probability of Disenrollment by Prior 6-11 Month Contribution Amount Interacted with FPL Above/Below 100%, Logit Regression with Invoice Specified Quadratically

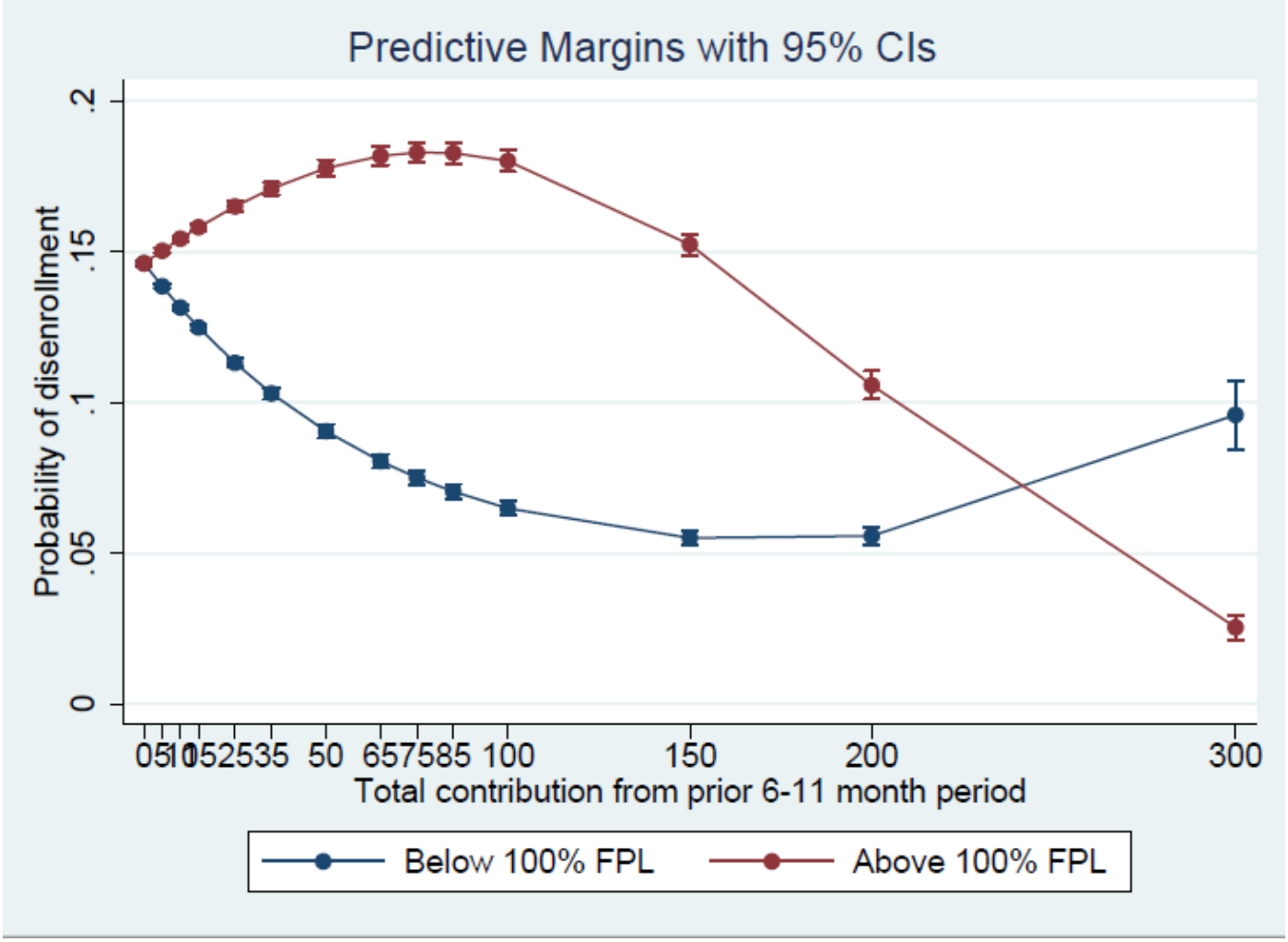


Figure 4.2d Predicted Probability of Disenrollment by Prior 6-11 Month Copay Amount Interacted with FPL Above/Below 100%, Logit Regression with Invoice Specified Quadratically

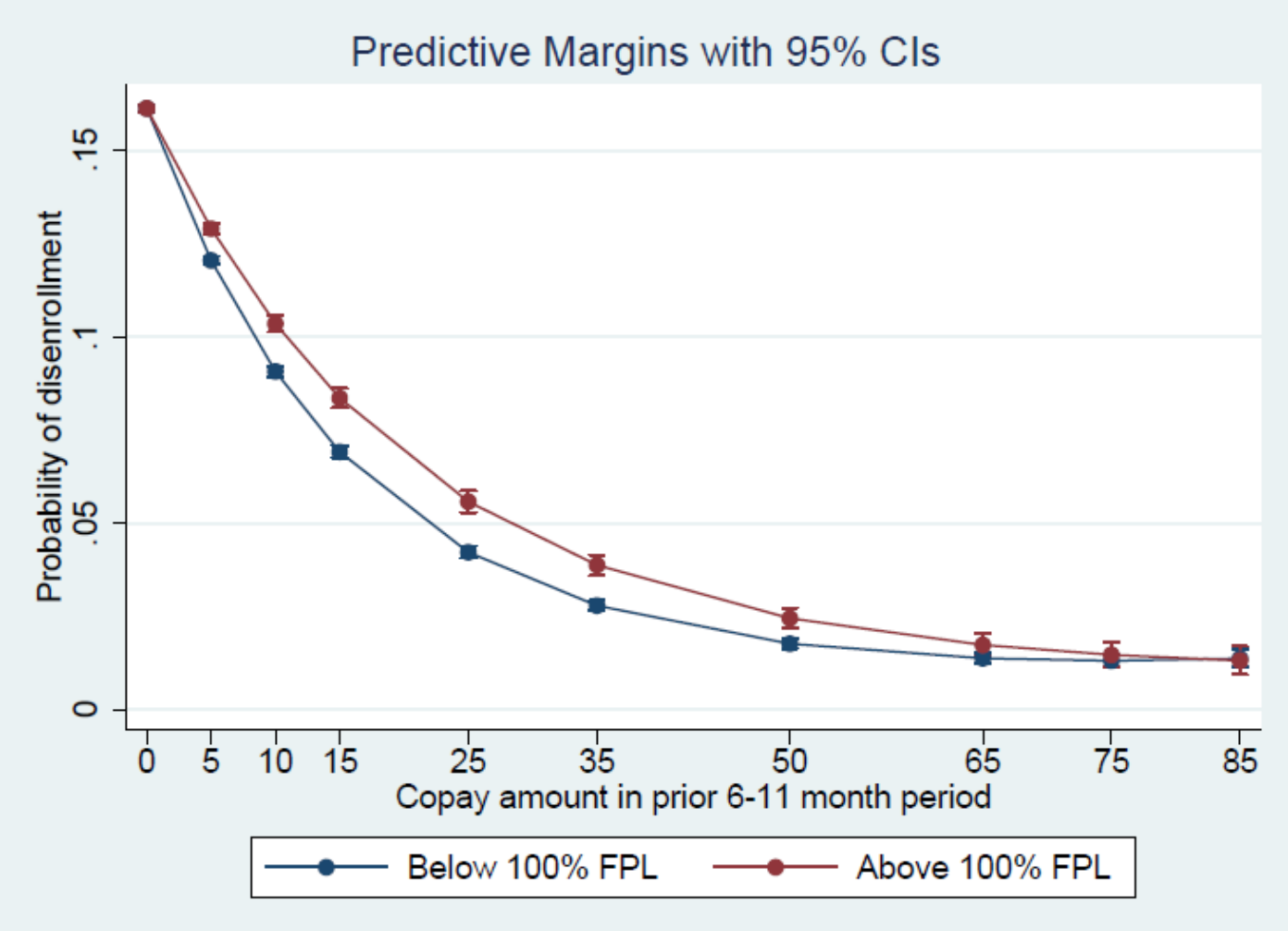


Figure 4.3 Histogram of FPL

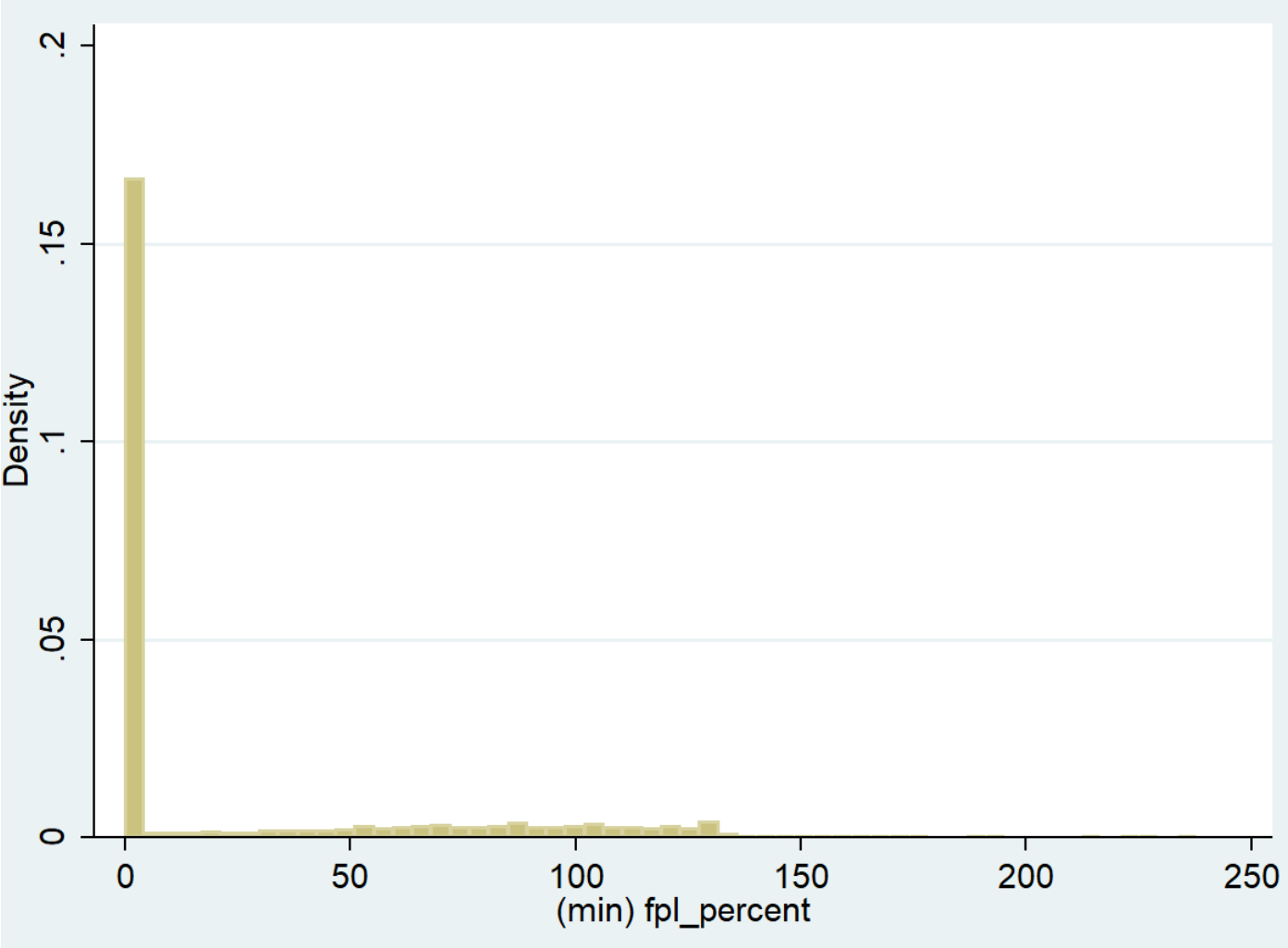


Figure 4.3a Histogram of Federal Poverty Level (>0% FPL to 133% FPL, rounded to nearest whole percent, from RD analysis (n=195,495)

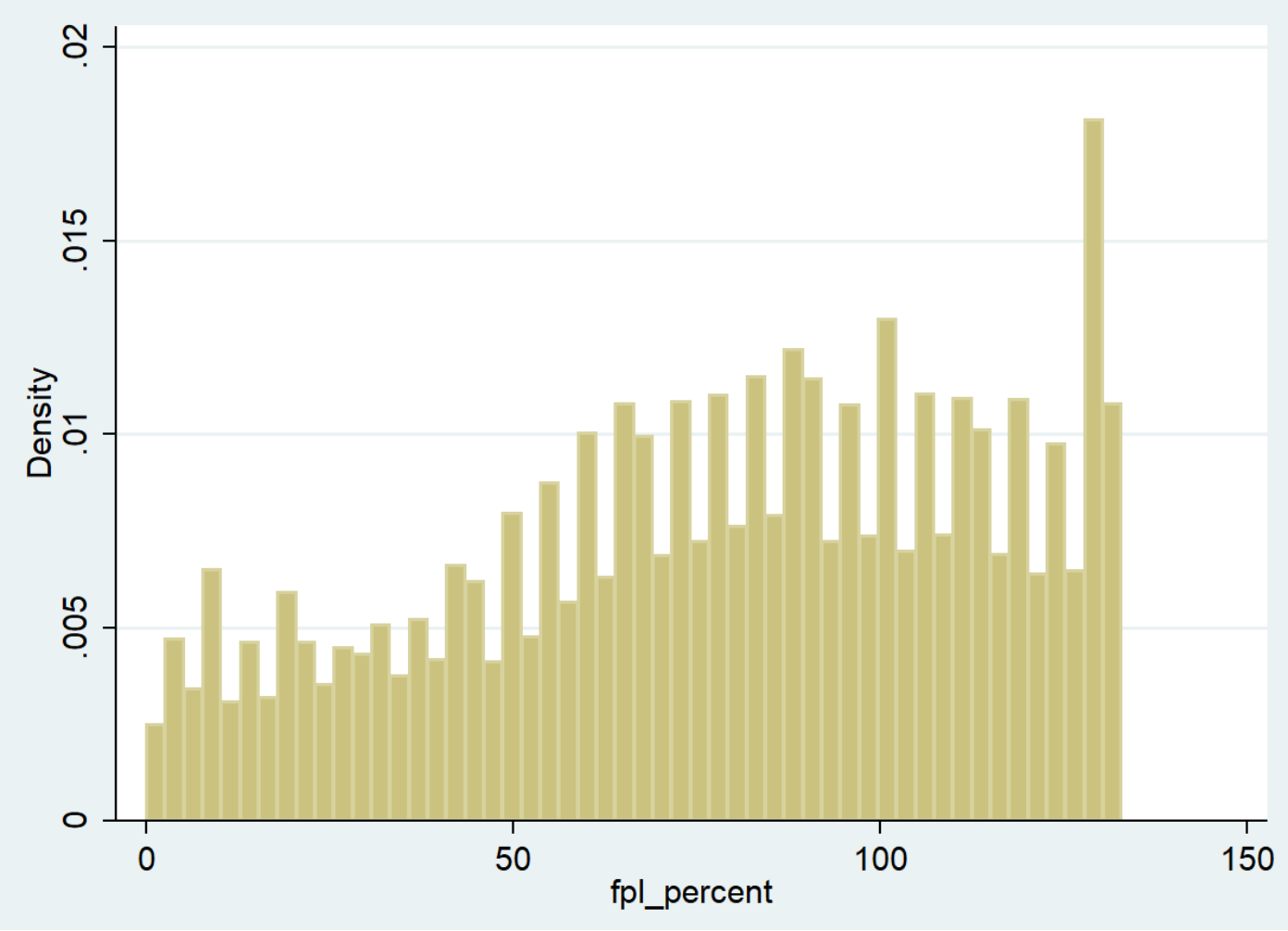


Figure 4.3b Histogram of FPL > 70% and <130%, from RD analysis

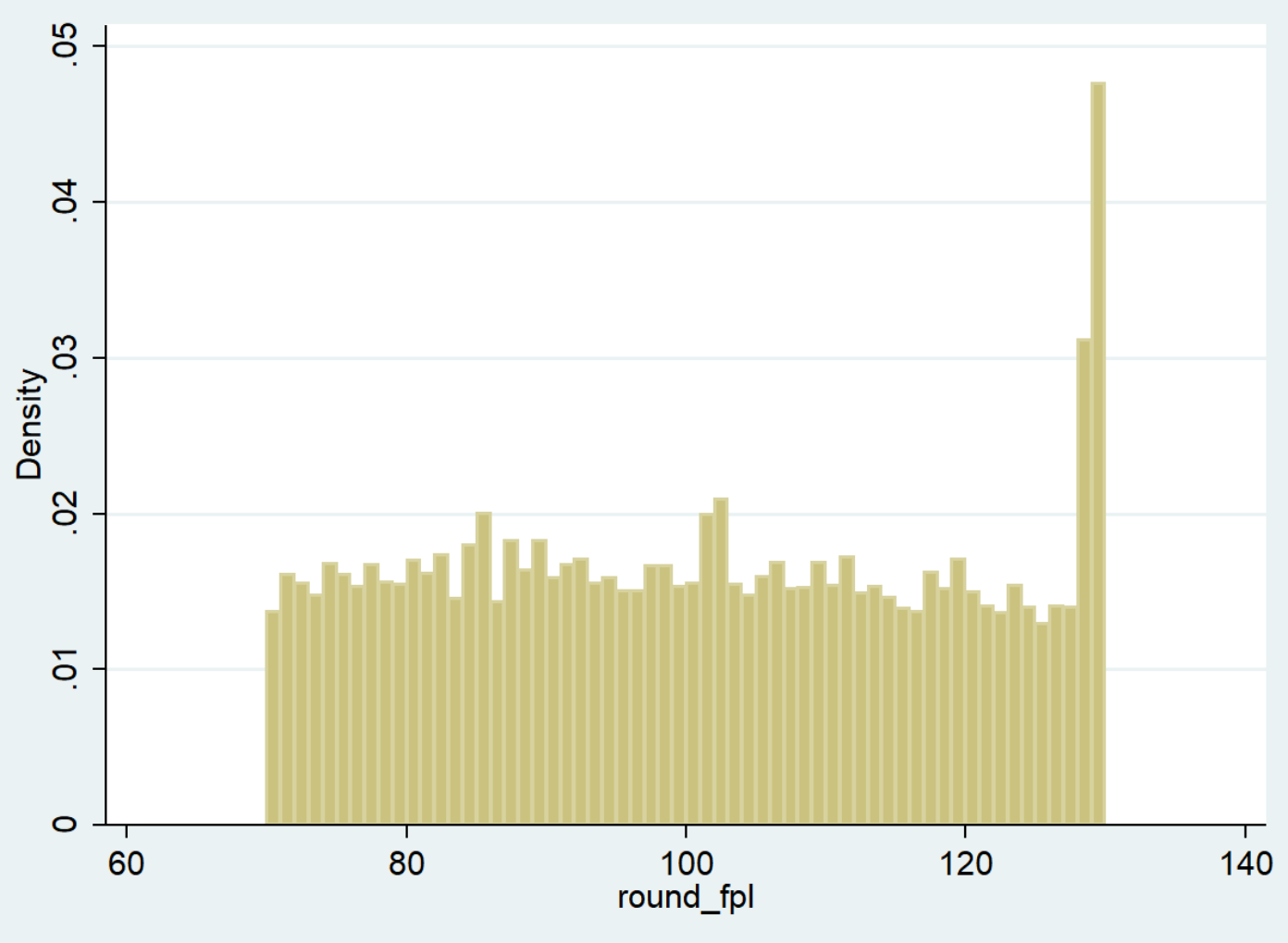


Figure 4.3c Histogram of FPL > 90% and <110%, from RD analysis

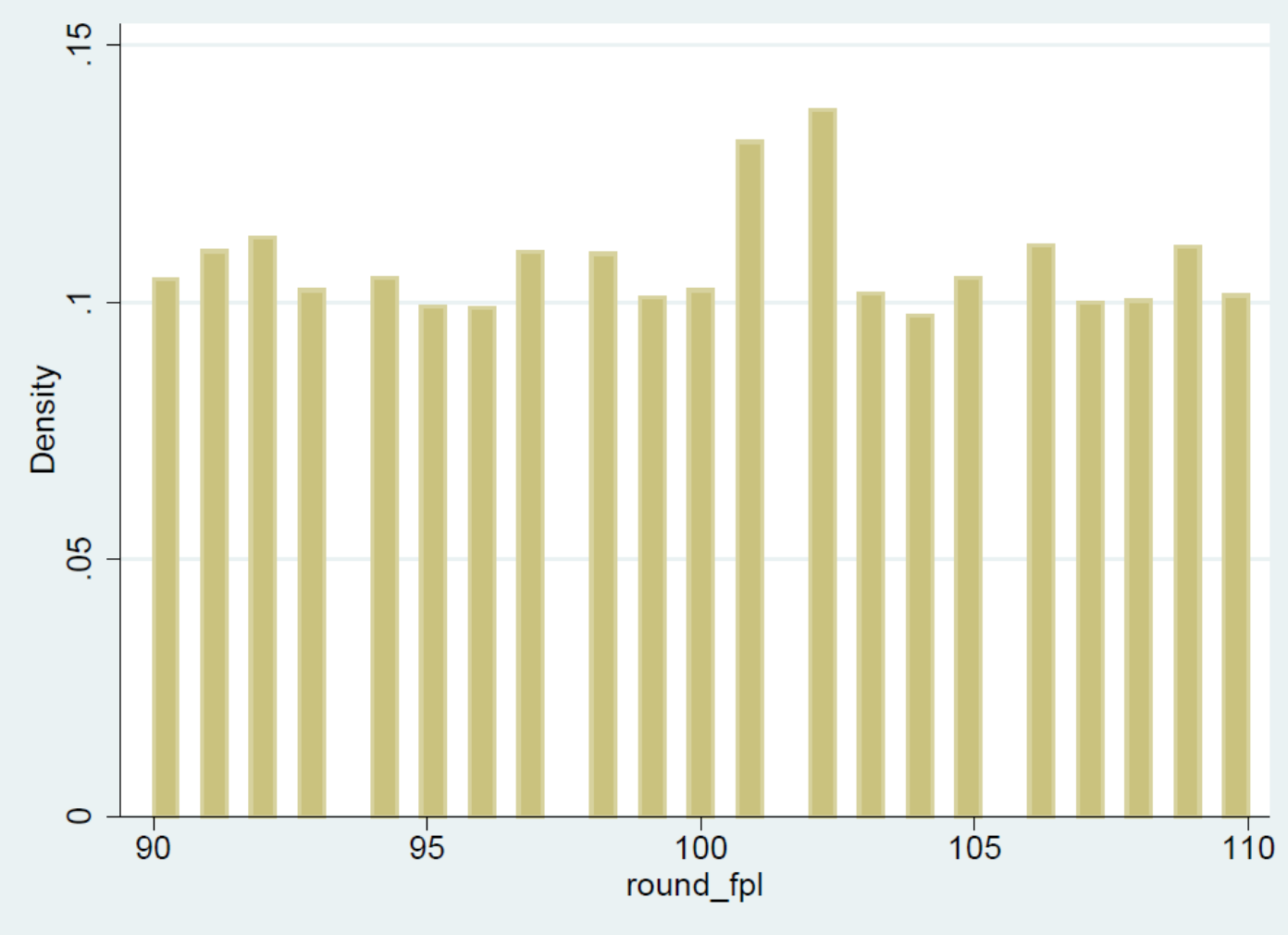
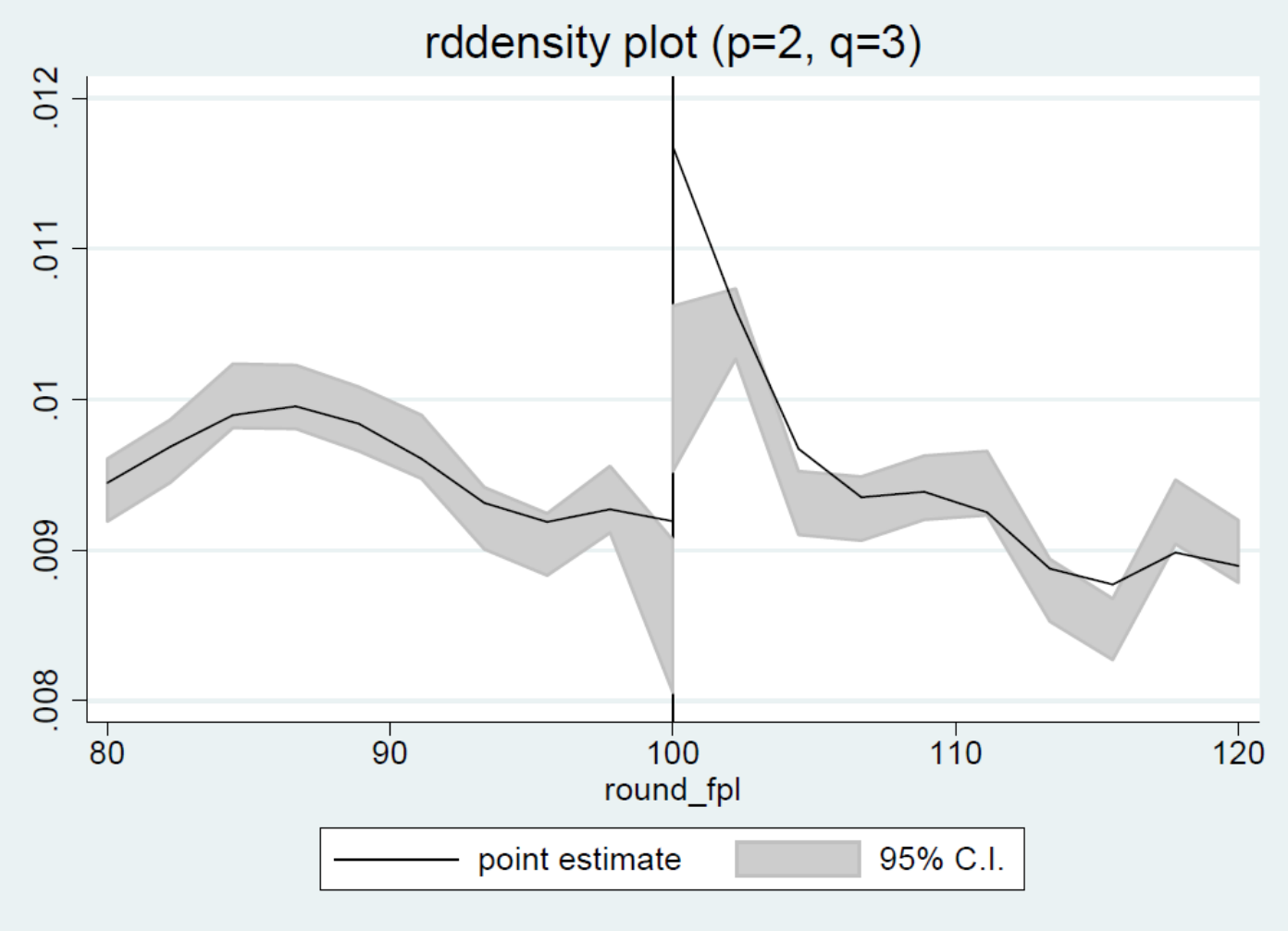
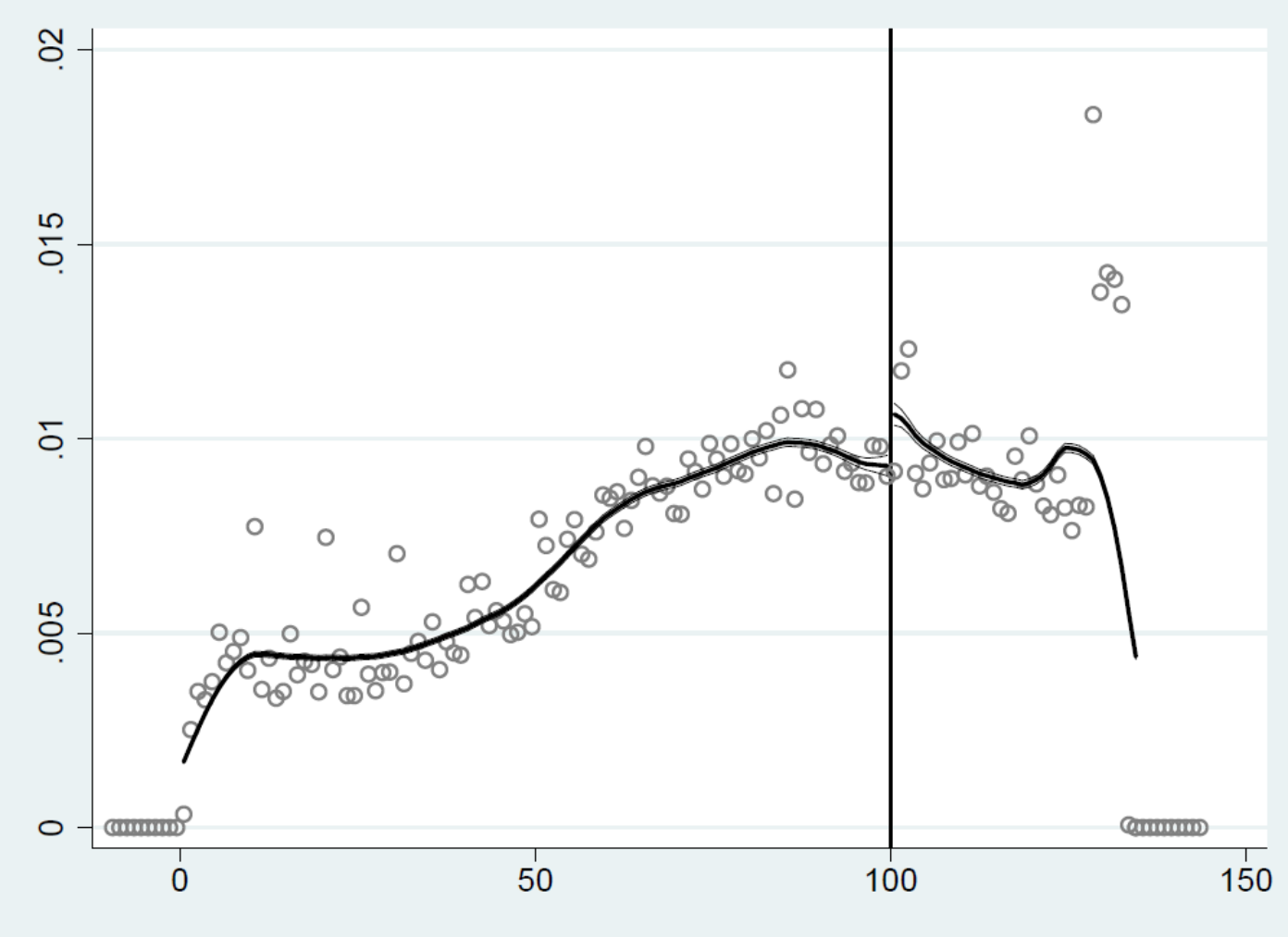


Figure 4.3d CCT RD Density Plot



Notes: The T-statistic estimating the degree of difference in density on either side of the cutoff line is 2.5642. The p-value of the confidence with which we can reject the null that this difference is not different than 0 is 0.0103. At conventional levels, then, we see there is a difference in density, here the density is higher on the right side of the cutoff (>100% FPL).

Figure 4.3e McCrary Density Plot



Notes: Output from the McCrary density test looks like this Discontinuity estimate (log difference in height): .143254085 (.022192522). I believe this rejects the null of no difference with a confidence level of p=0.022, though I couldn't find much documentation on the output.

I also ran density tests on a break at 85 FPL [(log difference in height).0633405 (.021863919)]; 90 FPL [(log difference in height): -.073934225 (.022139484)] and 110 [(log difference in height): .026855361 (.023011226)].

Figure 4.4 Histogram of Time to First Invoice

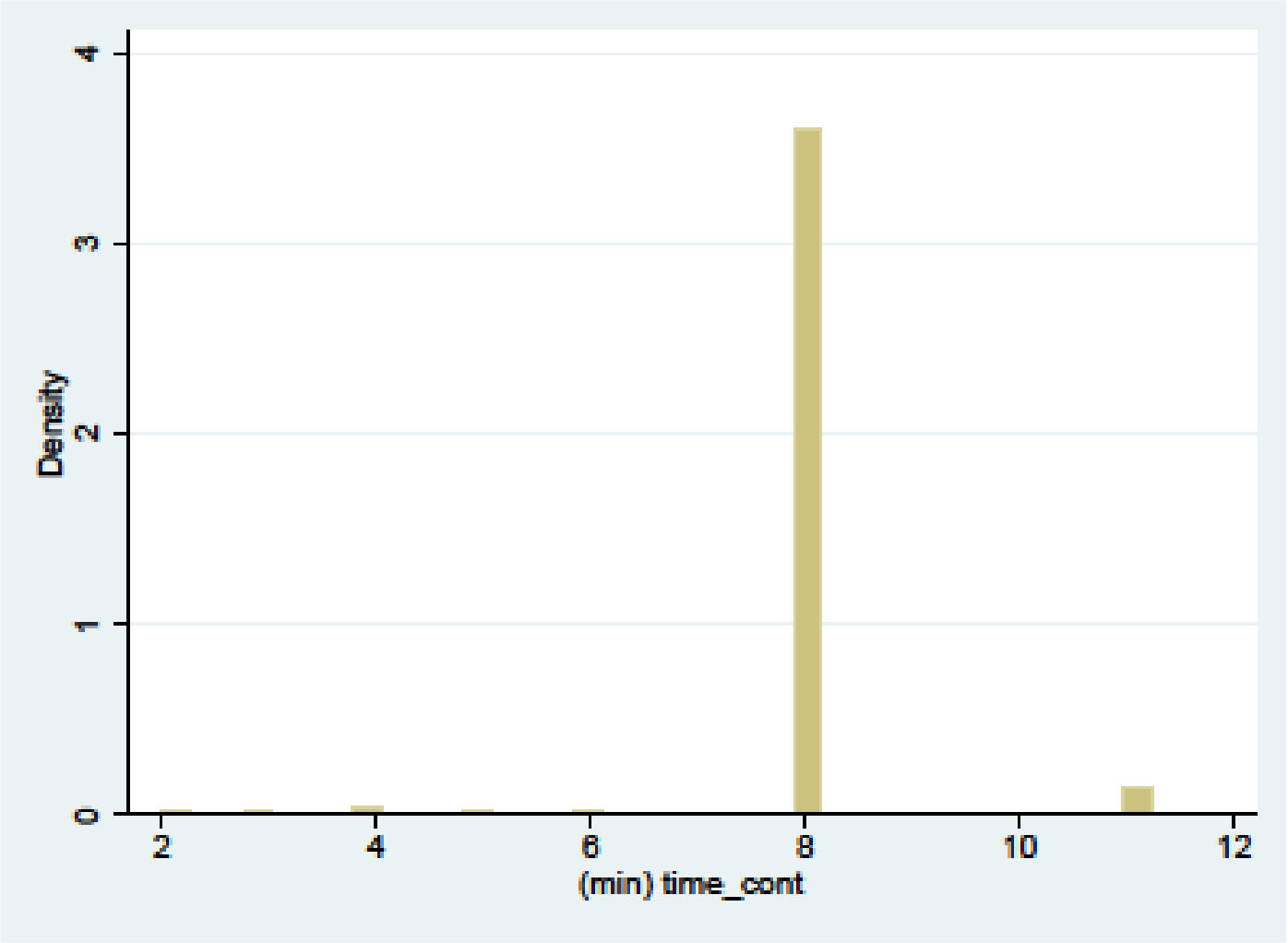


Figure 4.4a Time to First Contribution Invoice

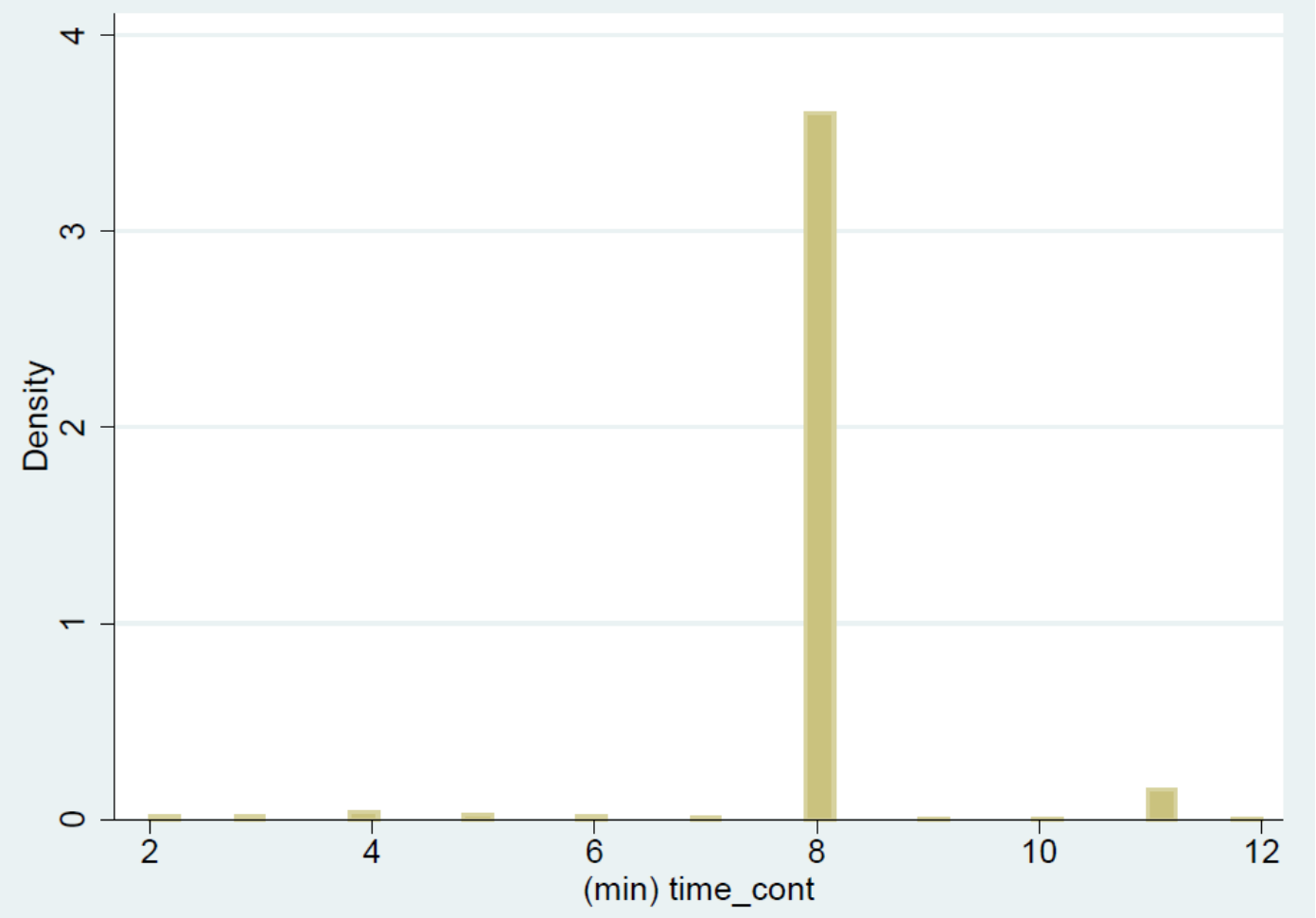


Figure 4.5 Time of Disenrollment

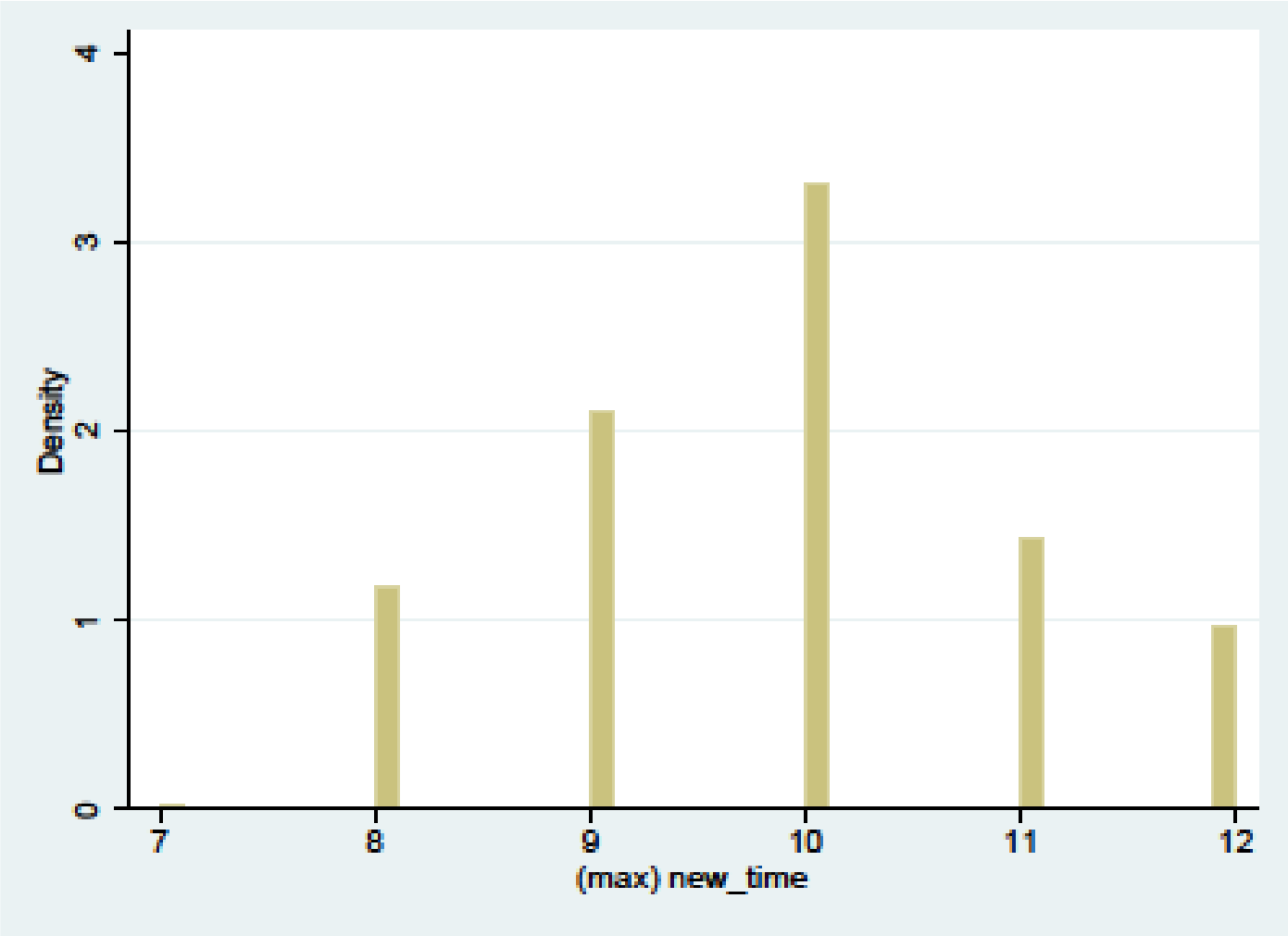


Figure 4.5a Percent of Beneficiaries who Drop by Number of Months Enrolled

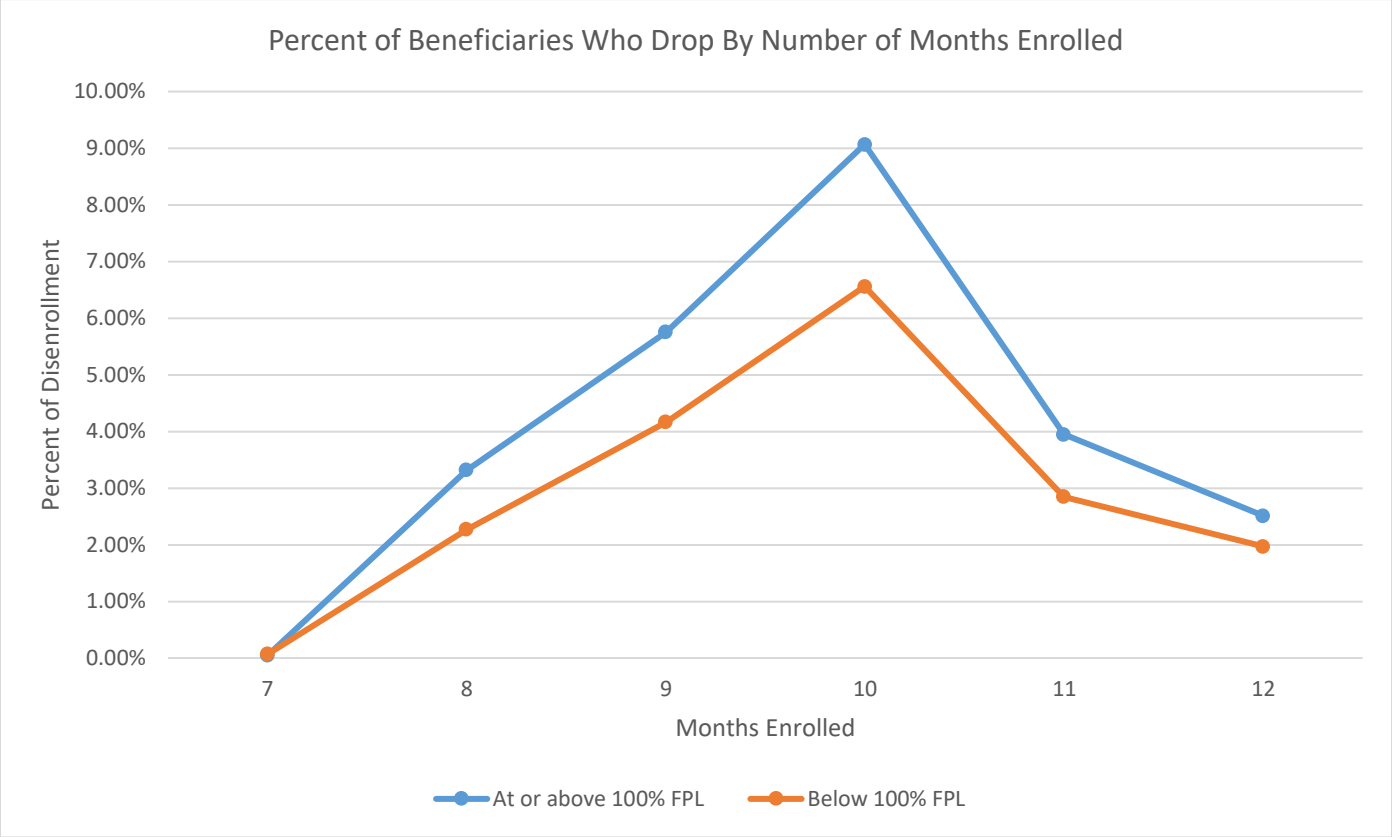


Figure 4.6 Likelihood of Contribution and FPL Scatterplot

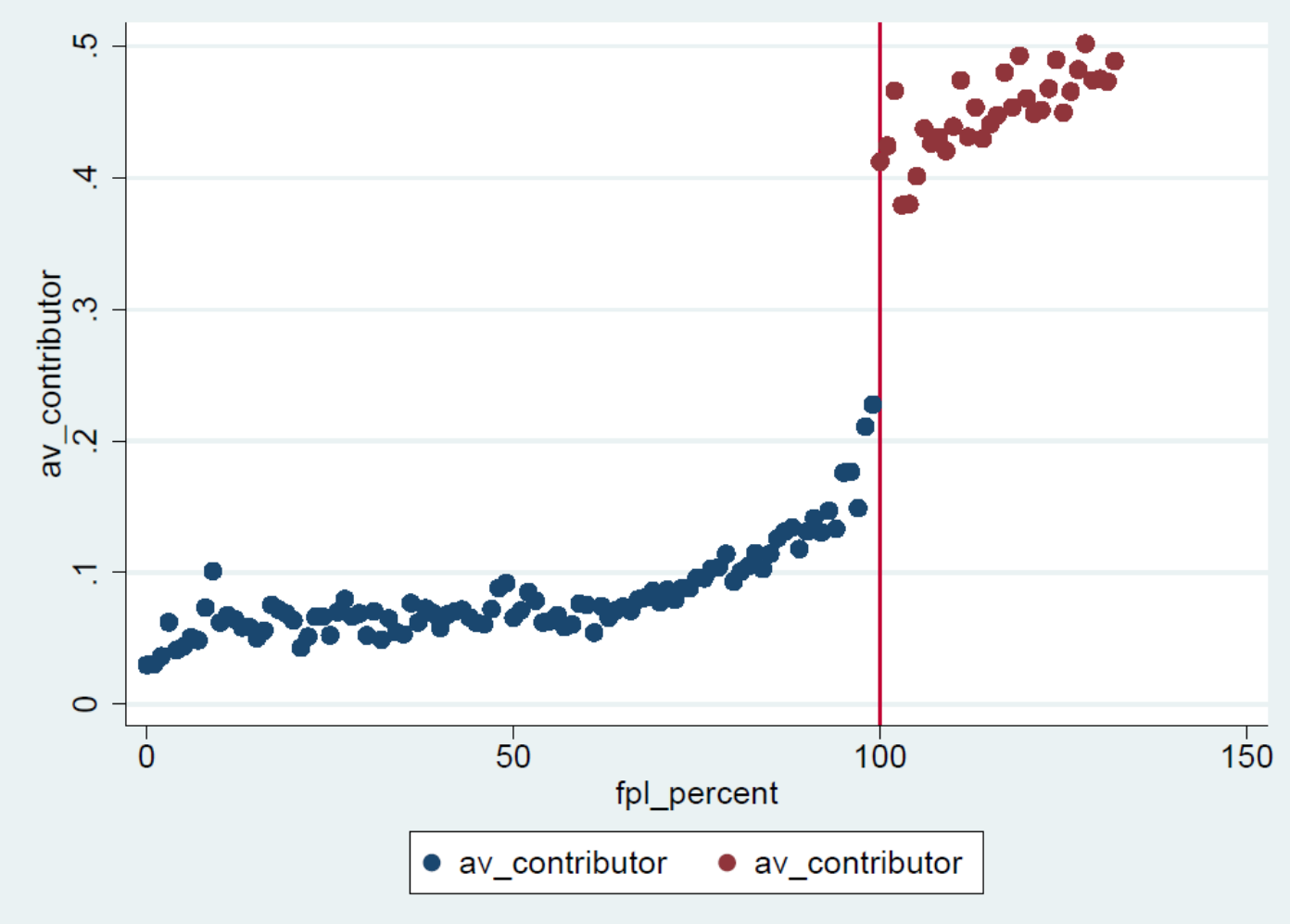


Figure 4.6a Contribution Amount and FPL

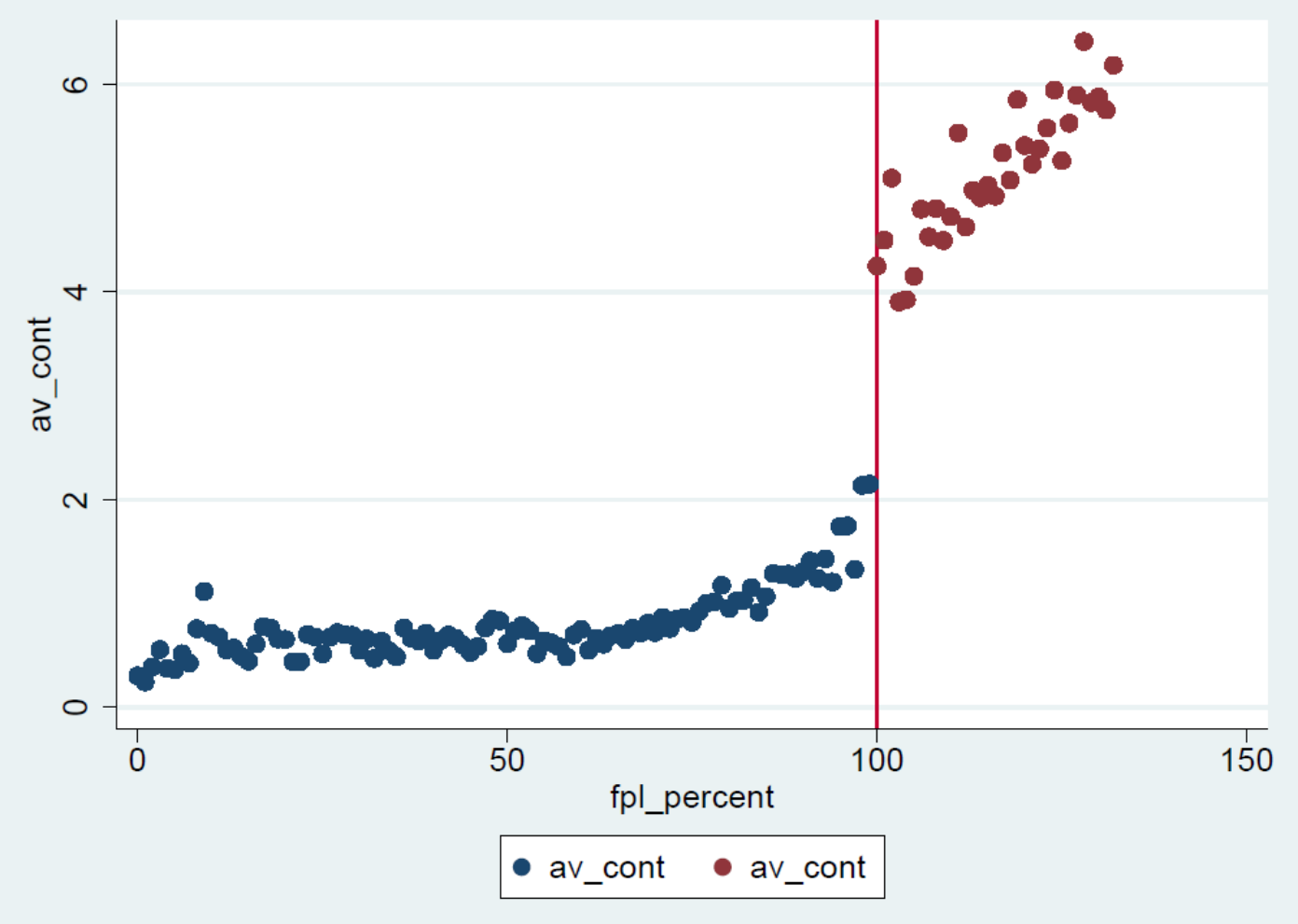


Figure 4.6b Contribution Amount and FPL: RDPlot

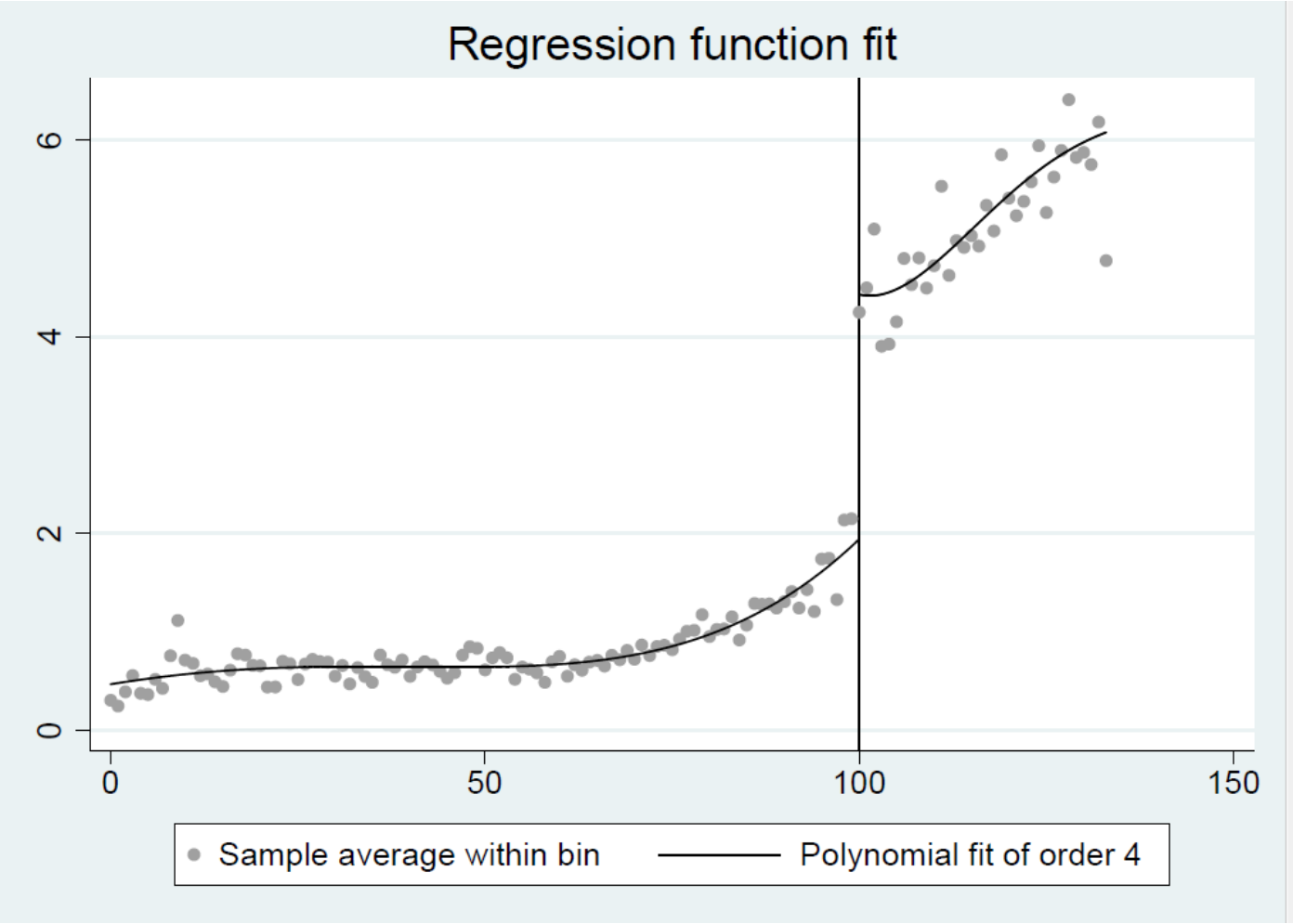


Figure 4.7 Likelihood of Copayment and FPL

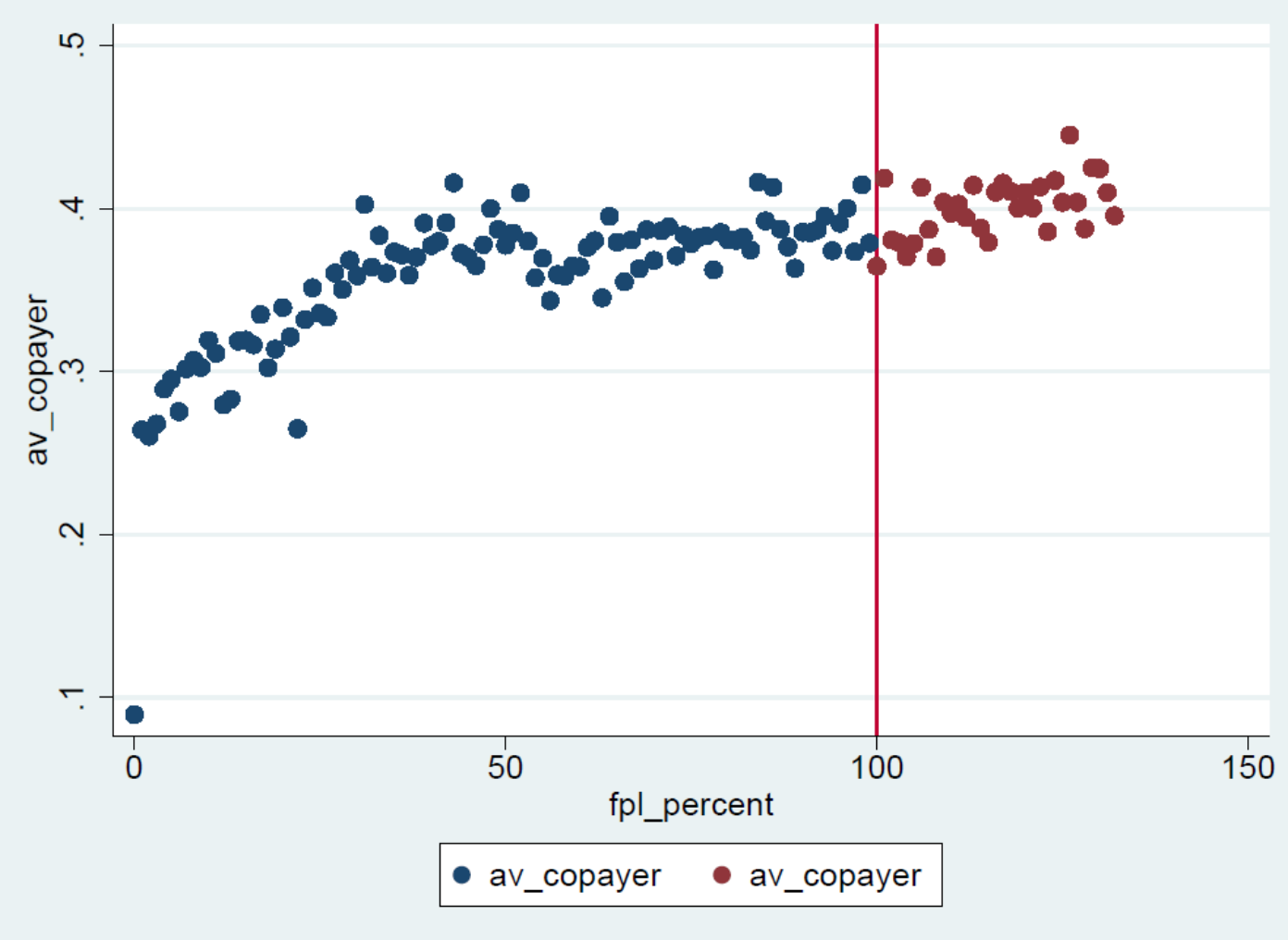


Figure 4.7a Copayment Amount and FPL

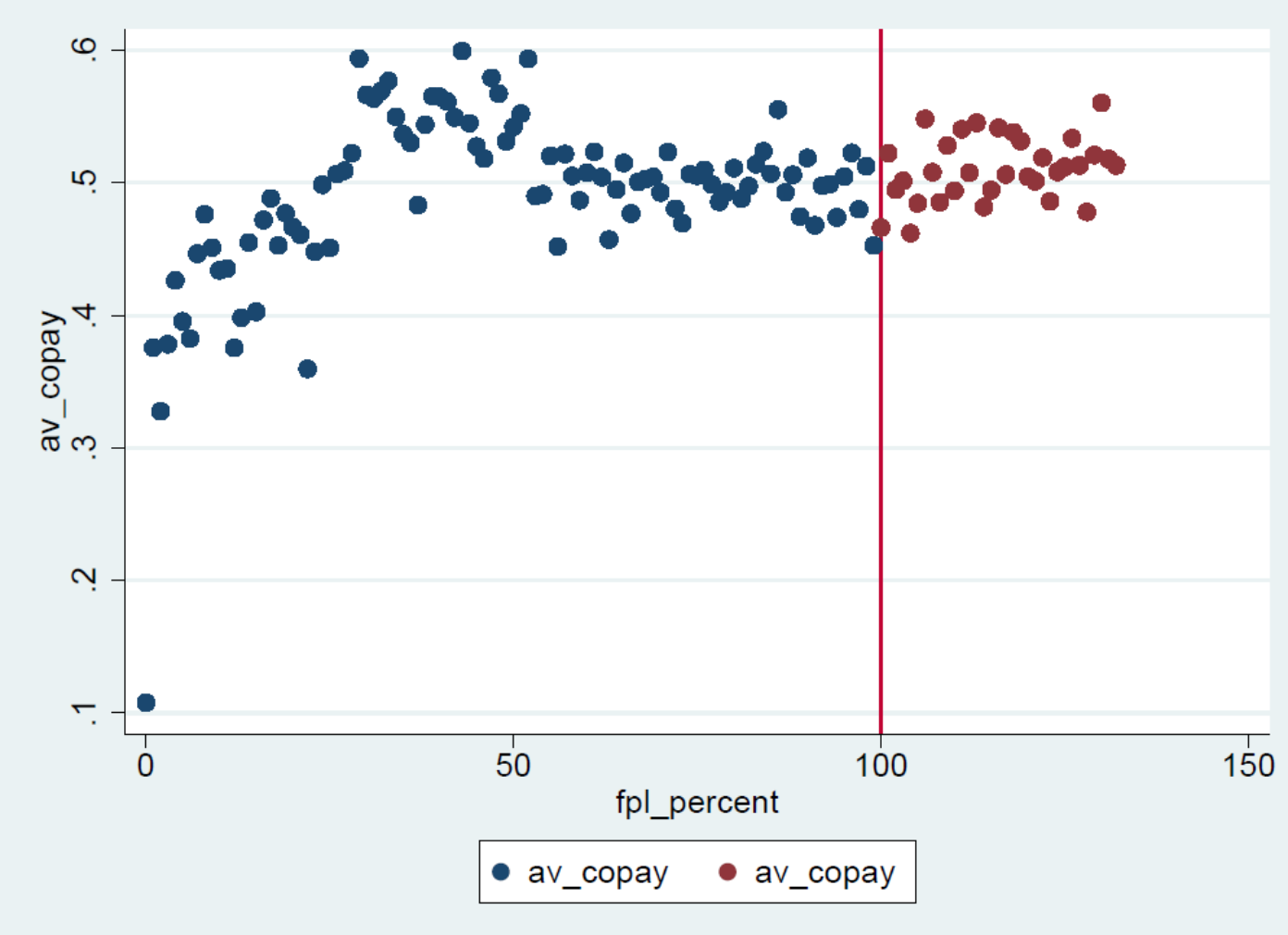


Figure 4.8 Likelihood of Disenrollment by FPL

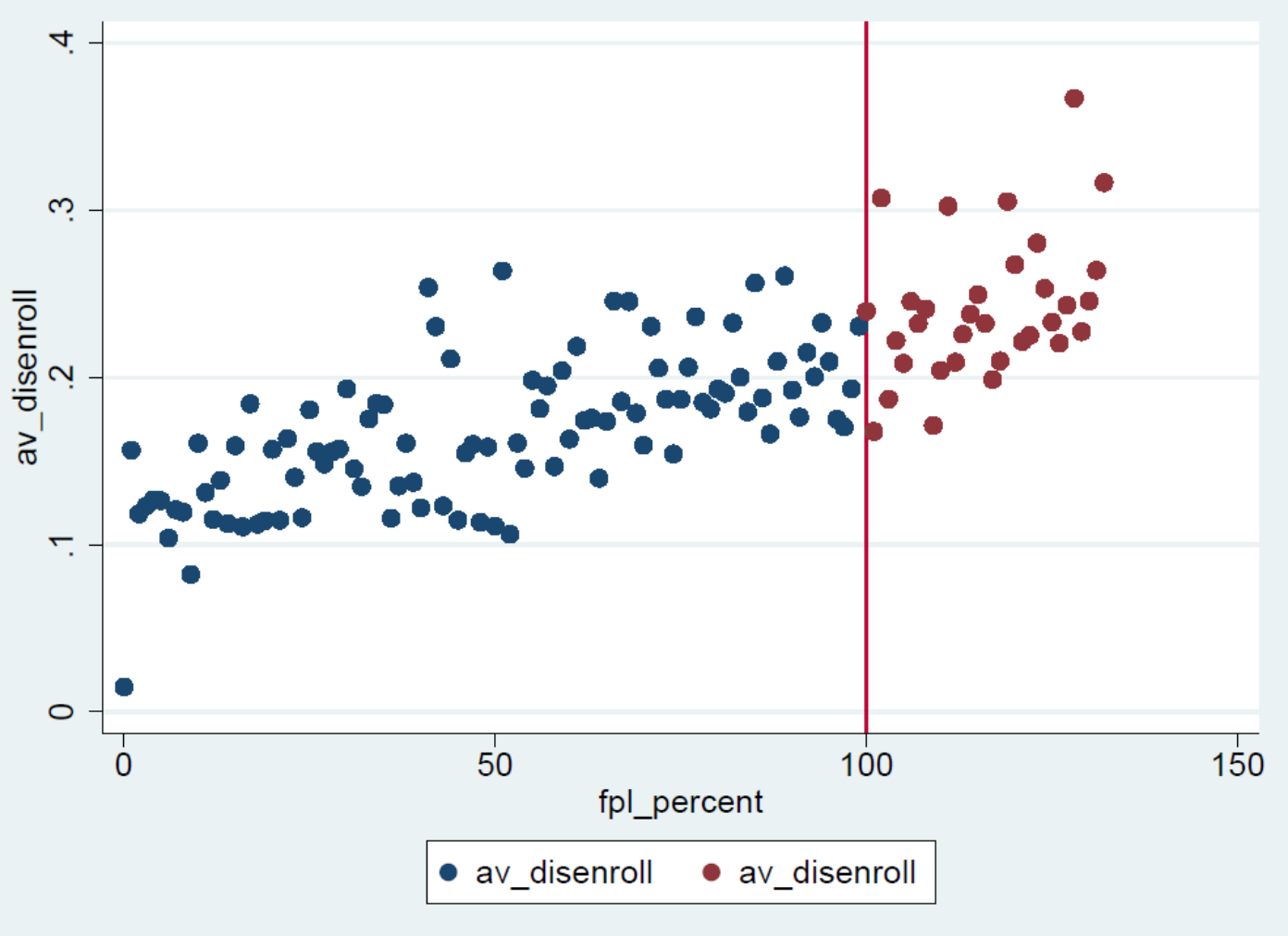


Figure 4.8a Likelihood of Disenrollment, FPL in bins of 7

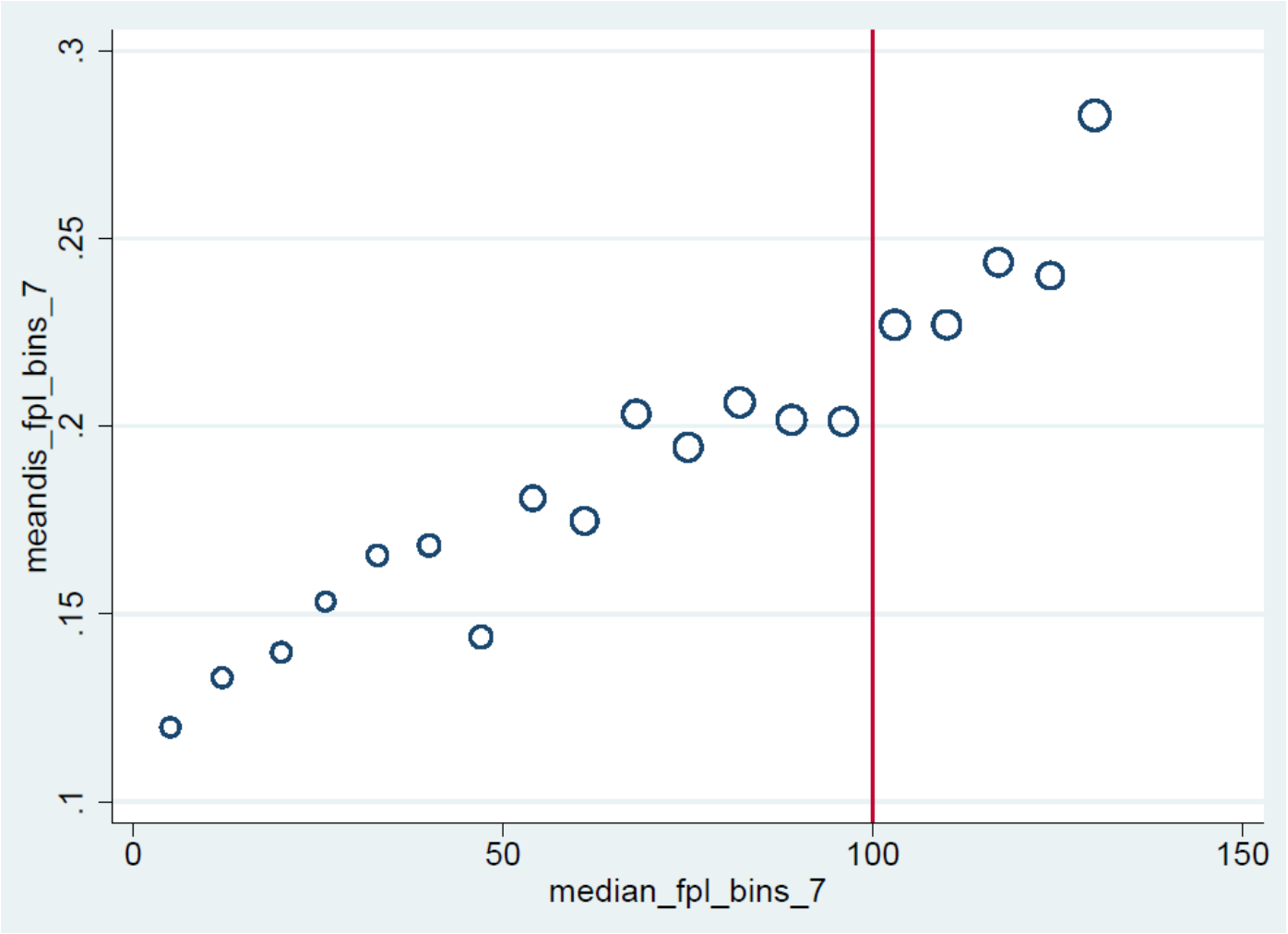


Figure 4.8b Likelihood of Disenrollment, FPL in bins of 5

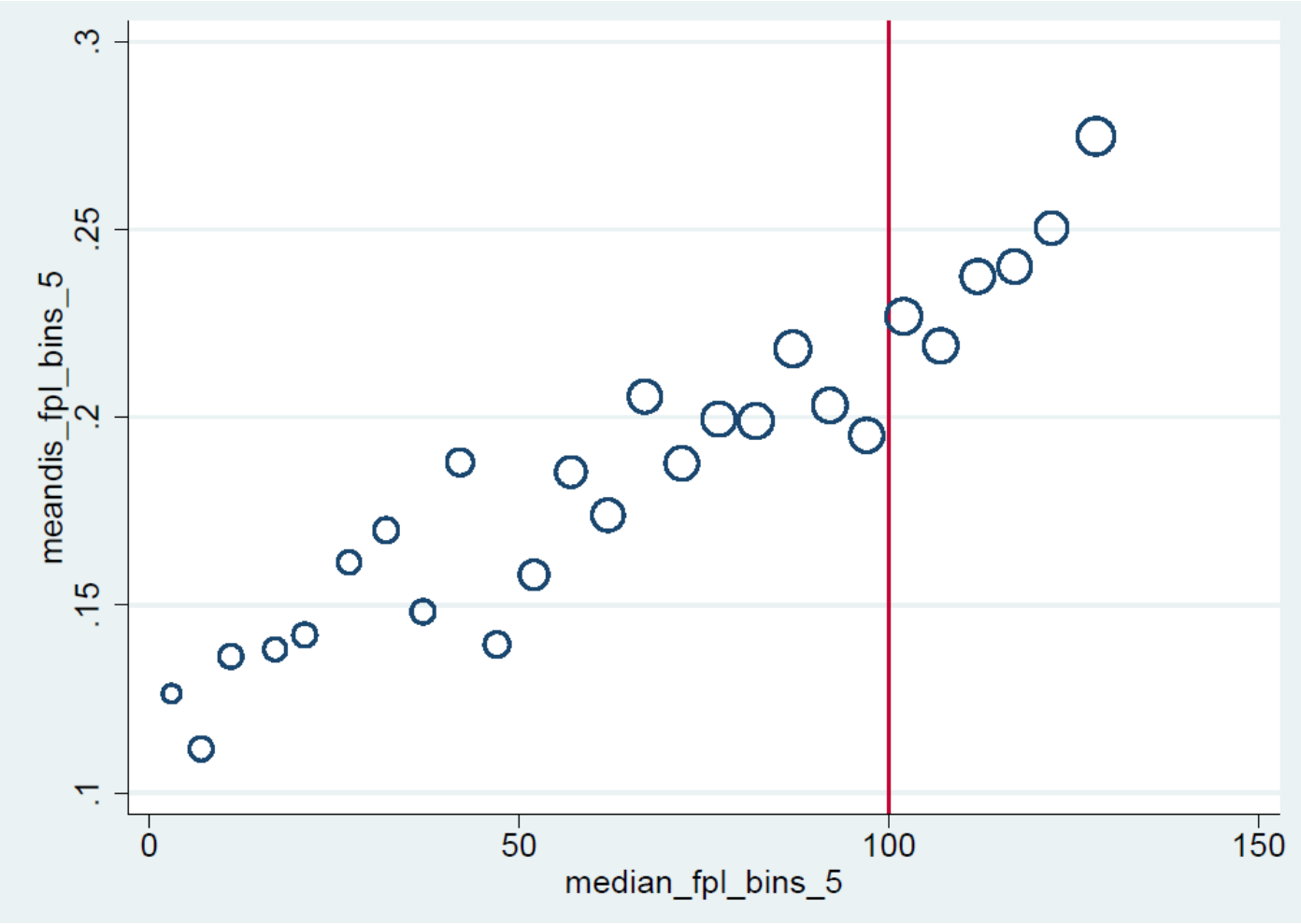


Figure 4.8c Likelihood of Disenrollment, FPL in bins of 4

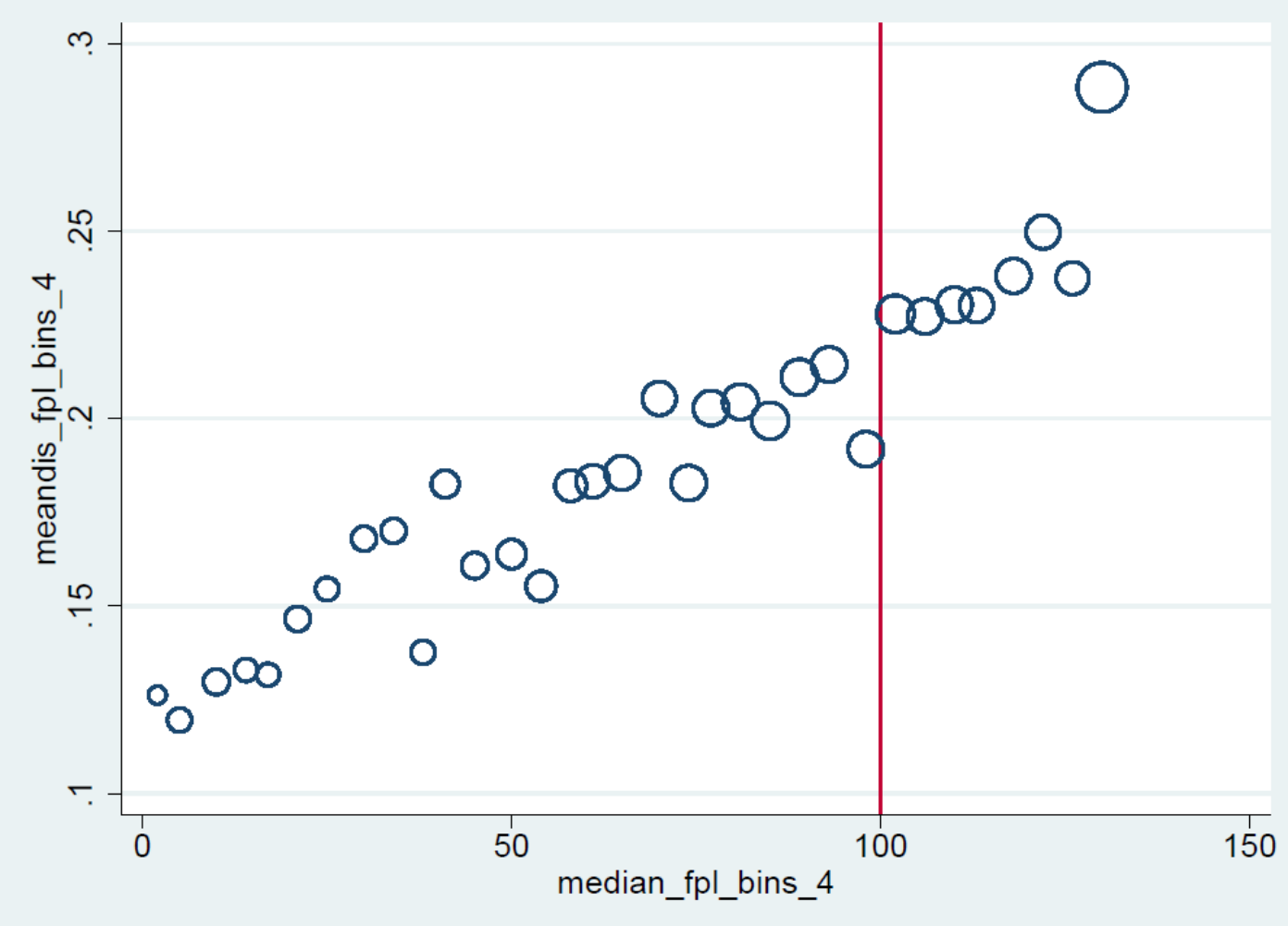


Figure 4.9 RD Plot Sharp, Mean FPL Percent

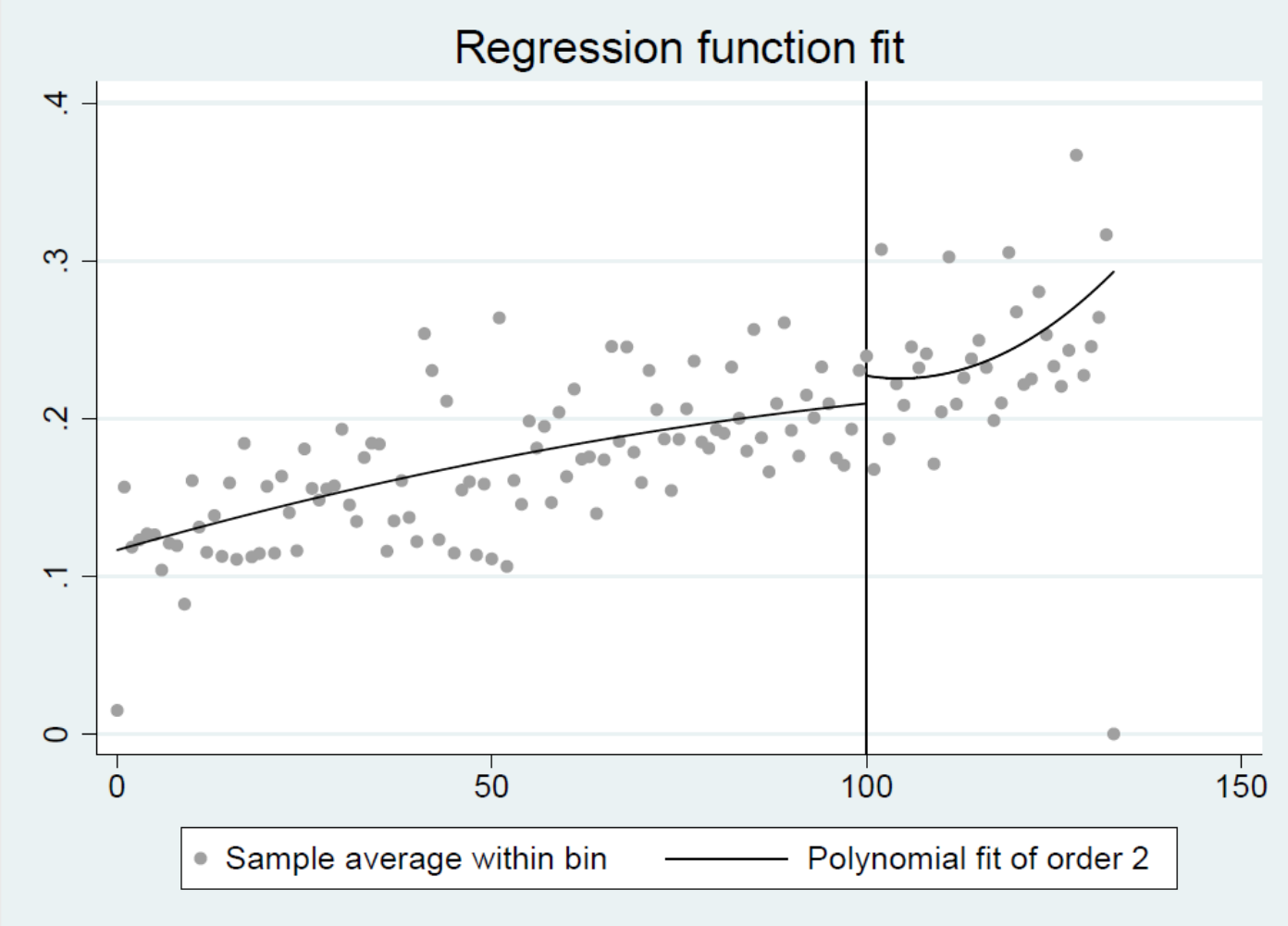


Figure 4.9a RD Plot on minimum reported FPL

Figure 4.10 RD Plot of Disenrollment for Bottom Half of Spenders (including $0; 1st 7 months enrollment)

Figure 4.10a RD Plot of Disenrollment for Top Half of Spenders (no truncation; 1st 7 months enrollment)

Figure 4.11 RD Plot of Disenrollment for People with No Chronic Disease Claims (1st 7months enrollment)

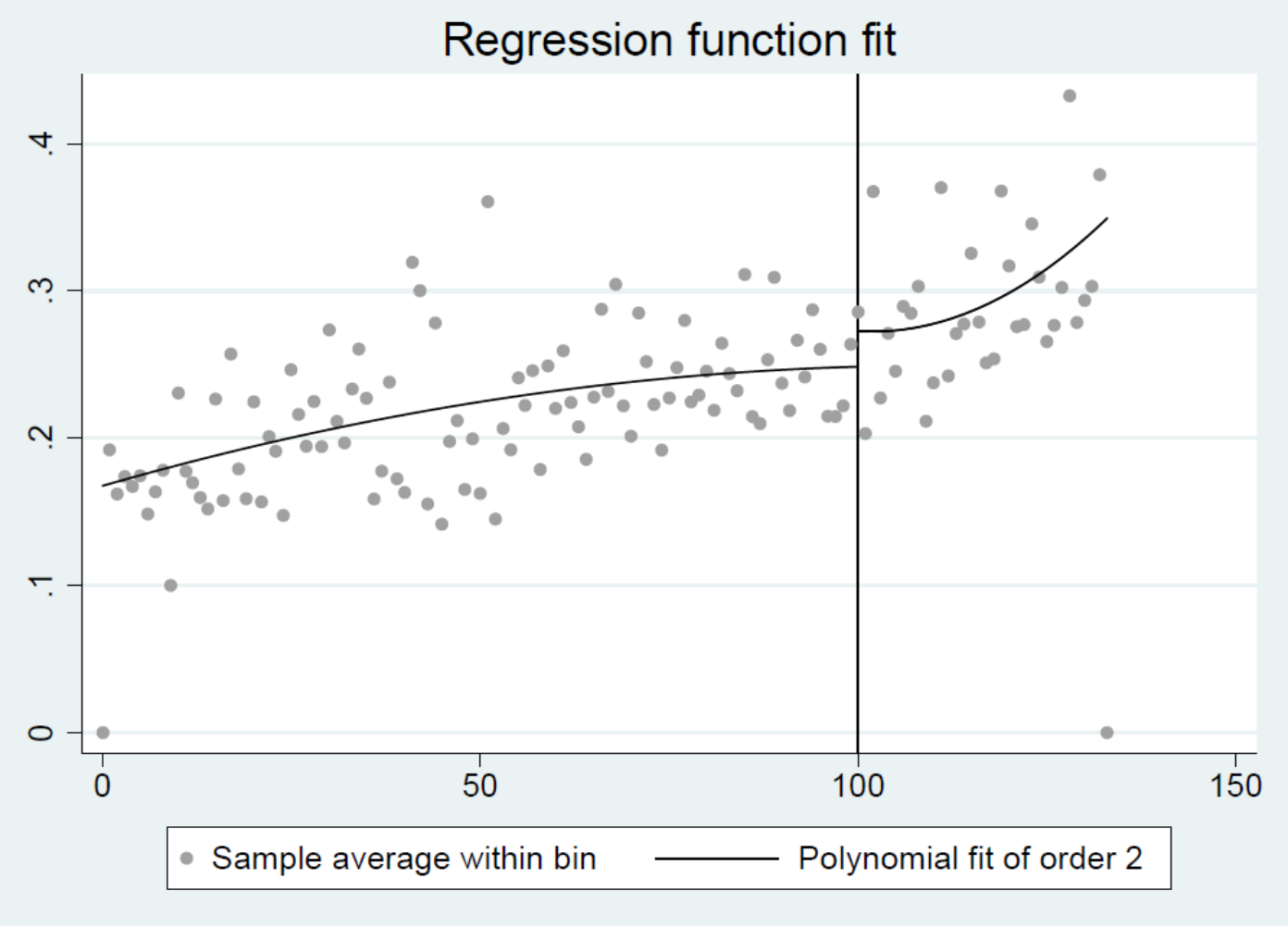


Figure 4.11a RD Plot of Disenrollment for People with Any Chronic Disease Claims (1st 7months enrollment)

Figure 4.12 Sensitivity Check: Qfit and Scatter of Age on FPL

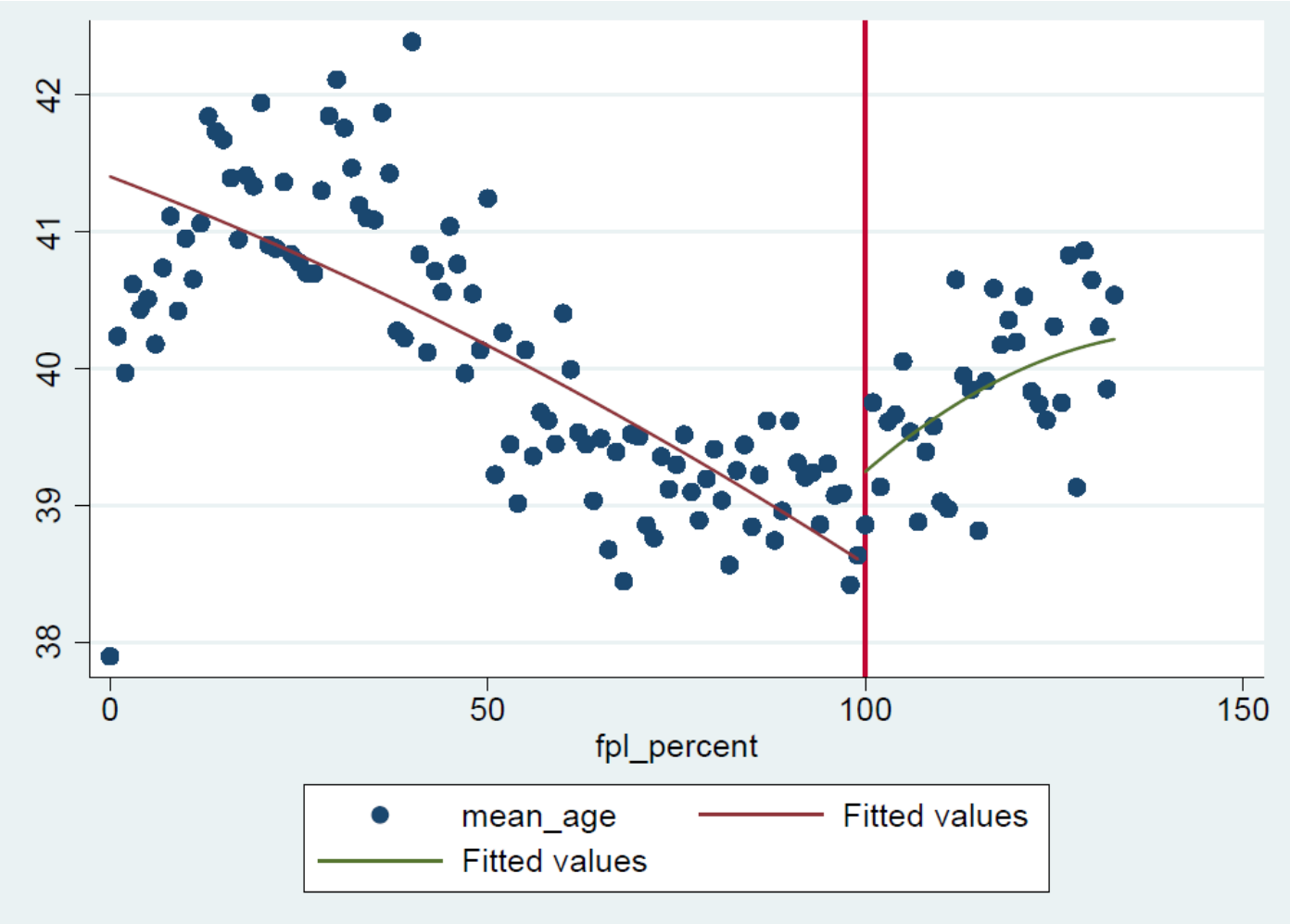


Figure 4.12a Sensitivity Check: RD Plot of Age on FPL

Figure 4.13 Sensitivity Check: Qfit and Scatter of Female on FPL

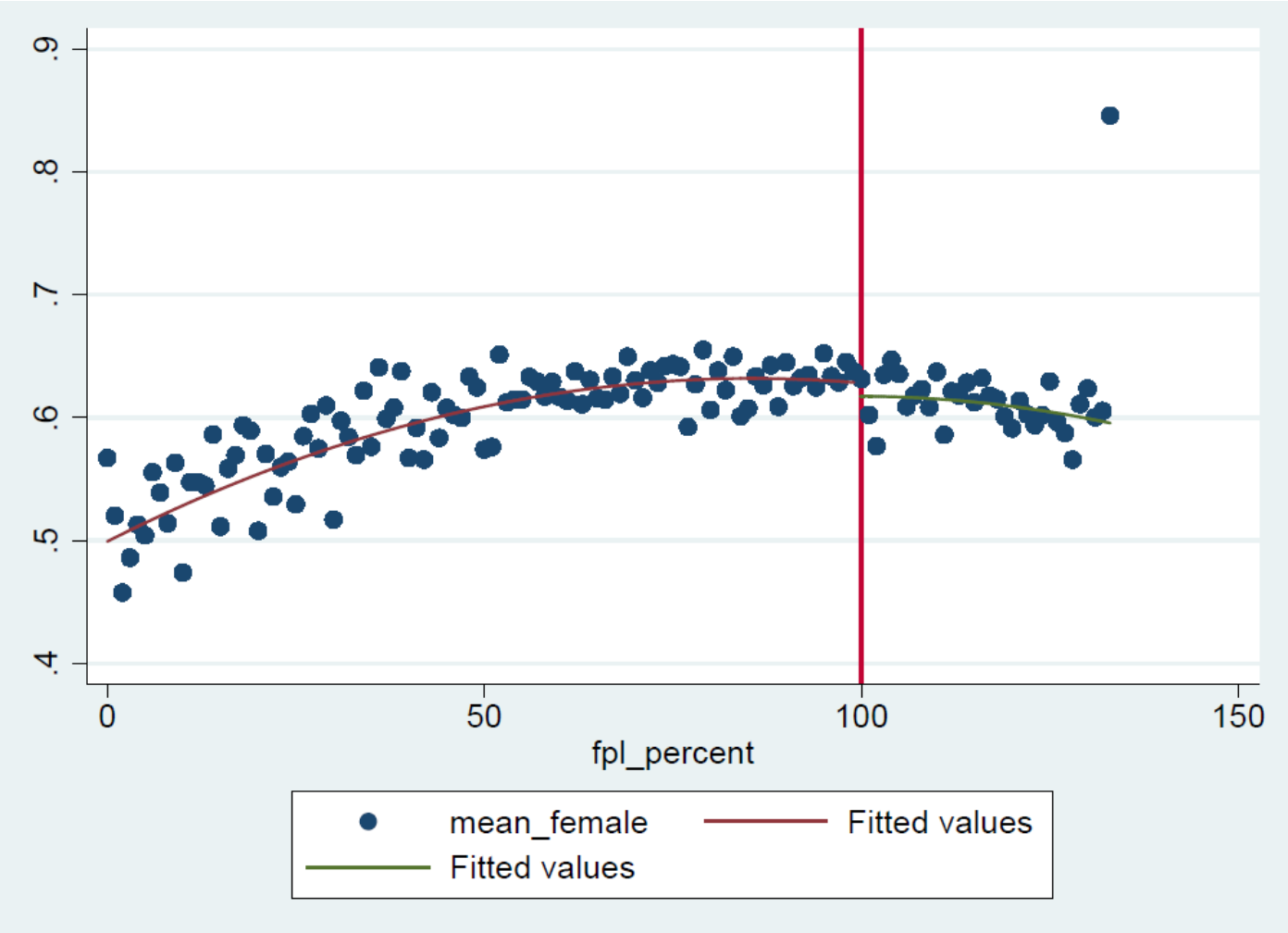


Figure 4.13a Sensitivity Check: RD Plot of Female on FPL

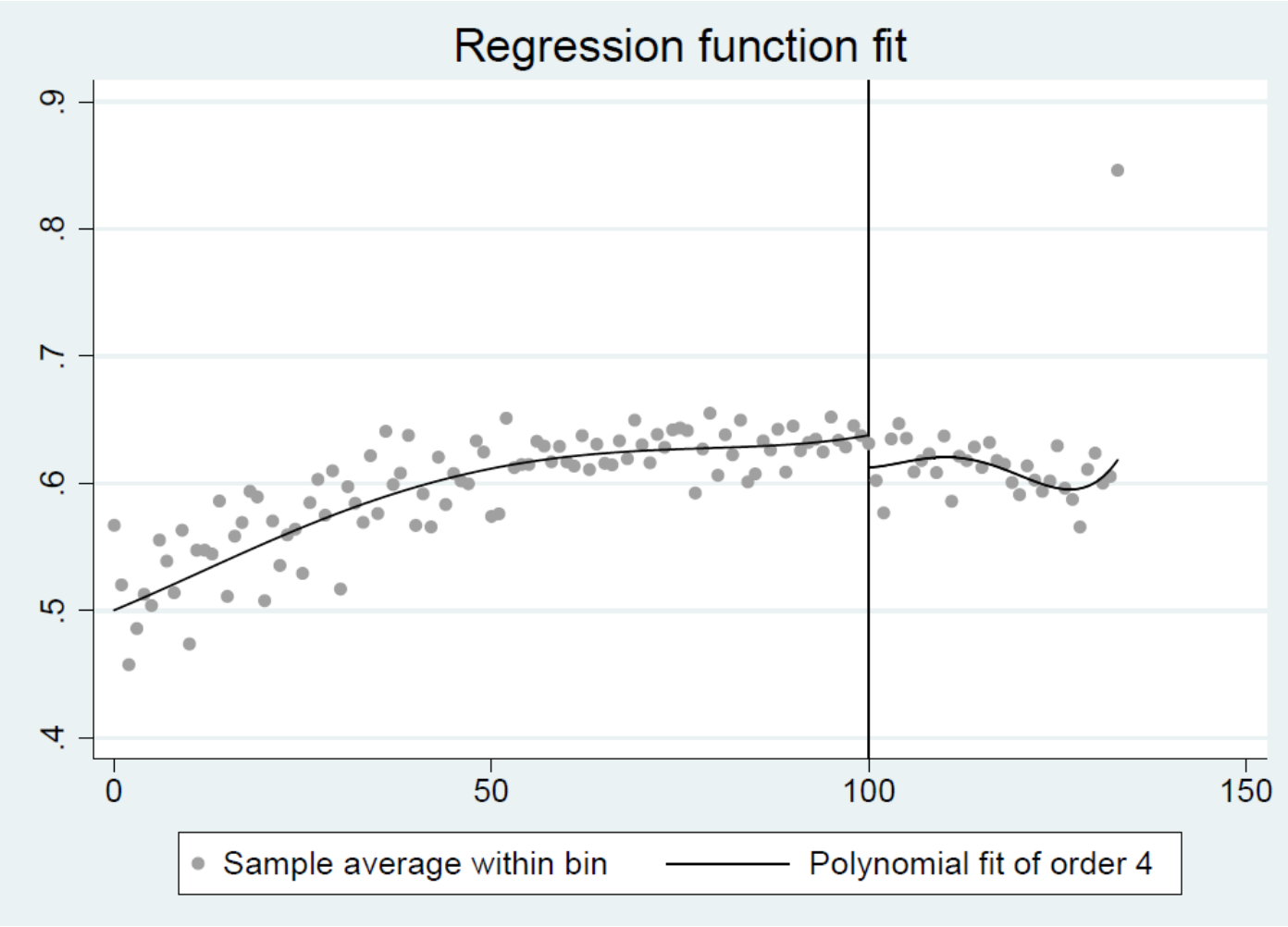
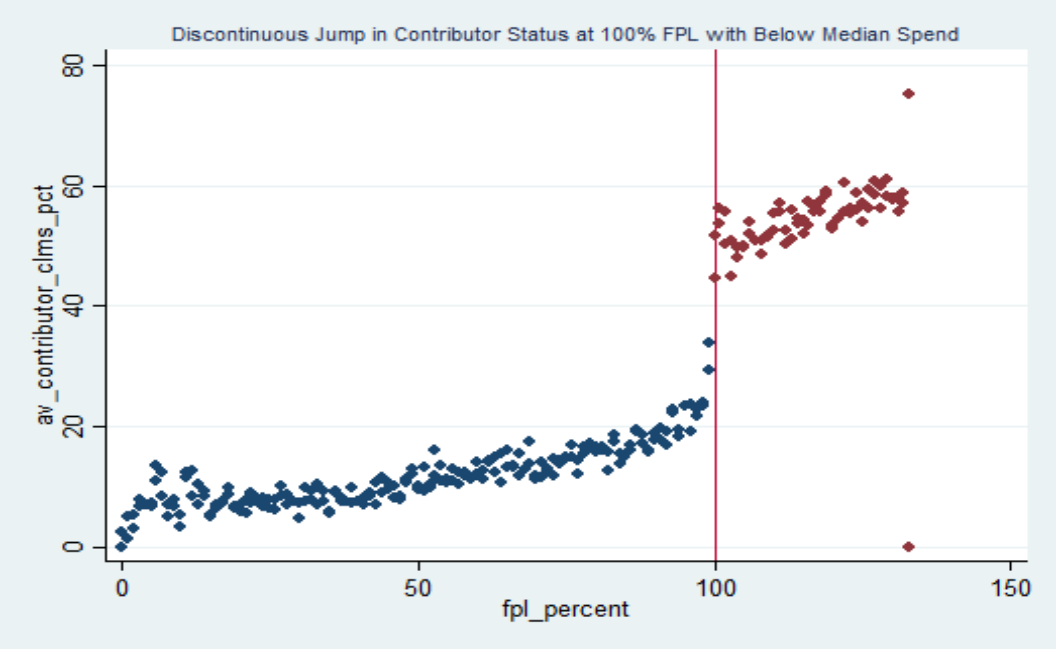


Figure 4.14 Scatter Plot, Contribution Percentage and Average Contribution Amount, Below Median Spending



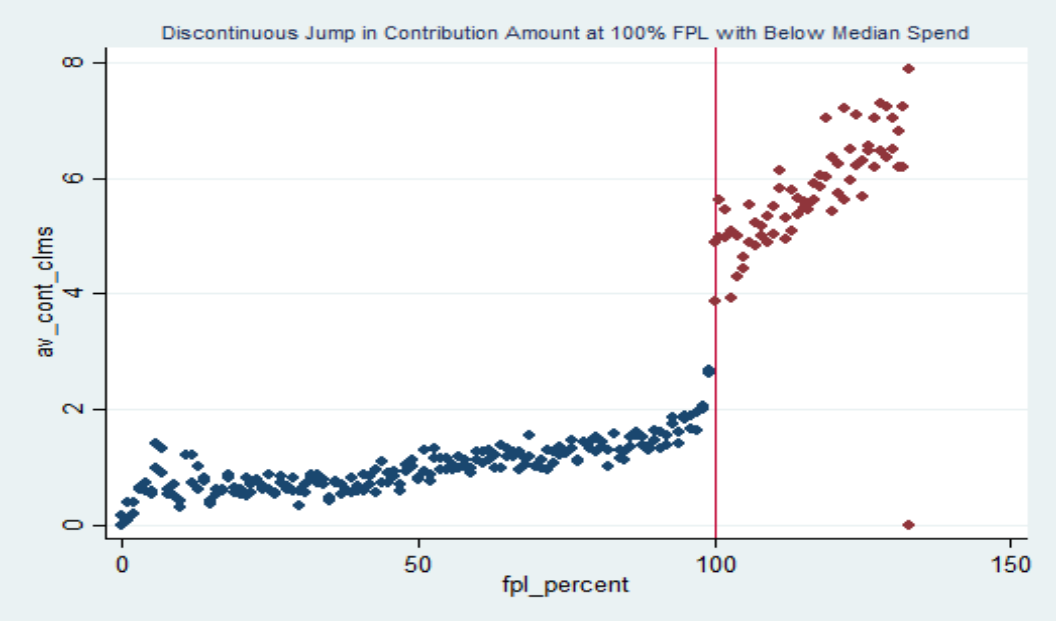
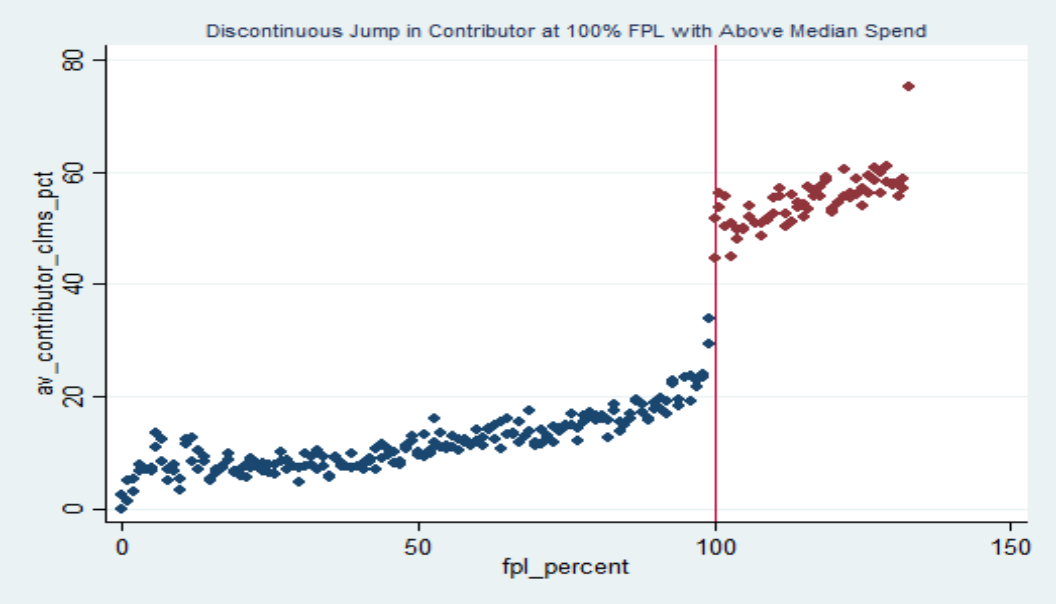


Figure 4.15 Scatter Plot, Contribution Percentage and Average Contribution Amount, Above Median Spending



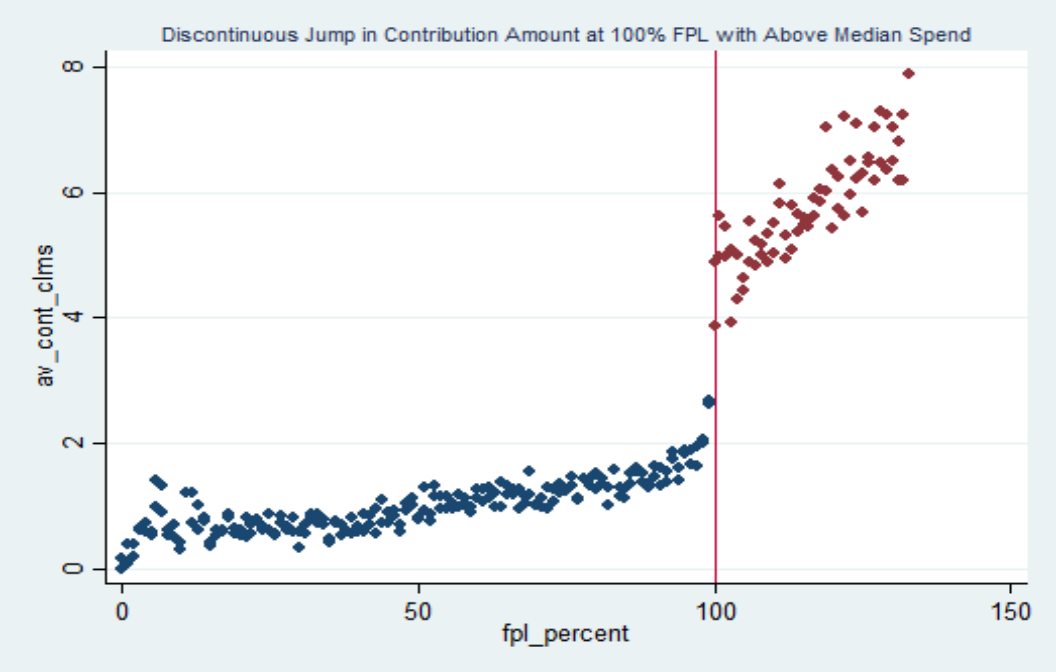
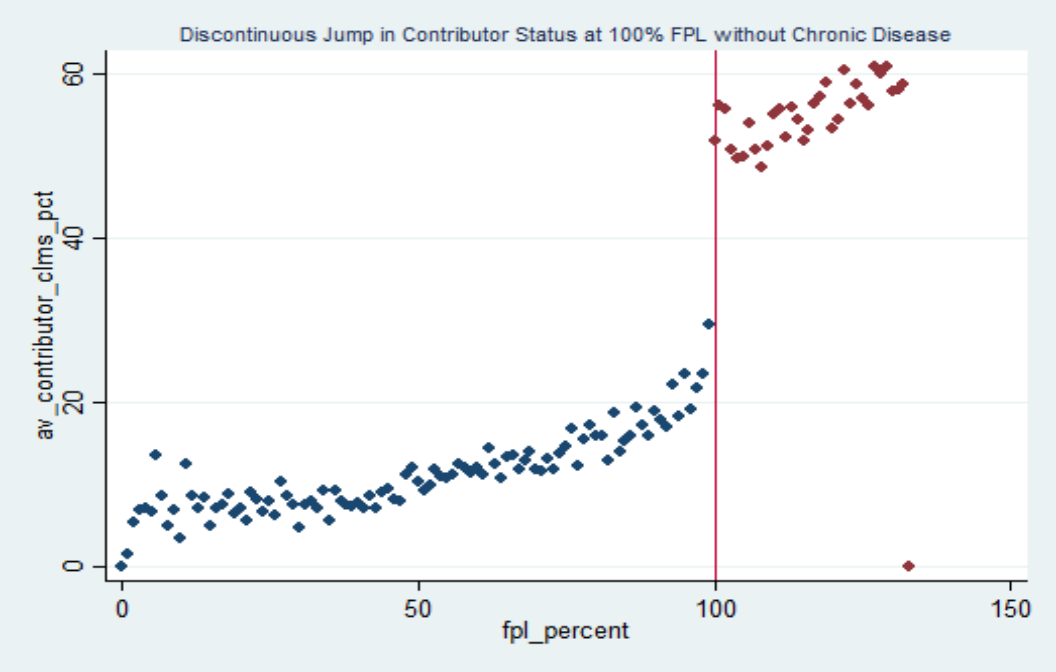


Figure 4.16 Scatter Plot, Contribution Percentage and Average Contribution Amount, No Chronic Disease Claims



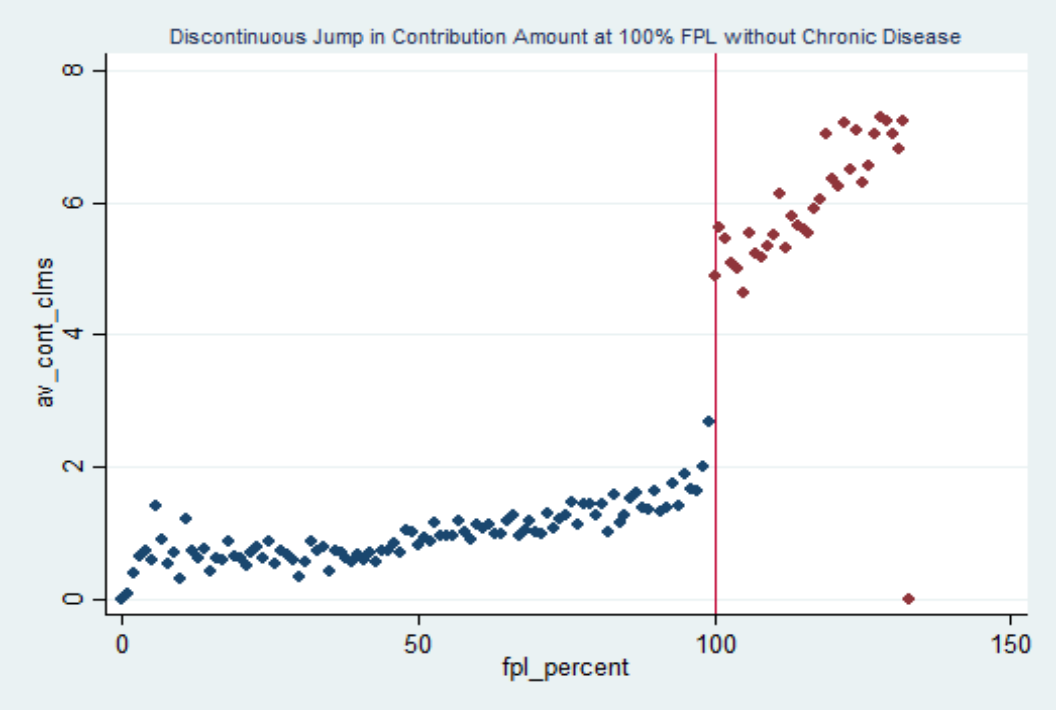
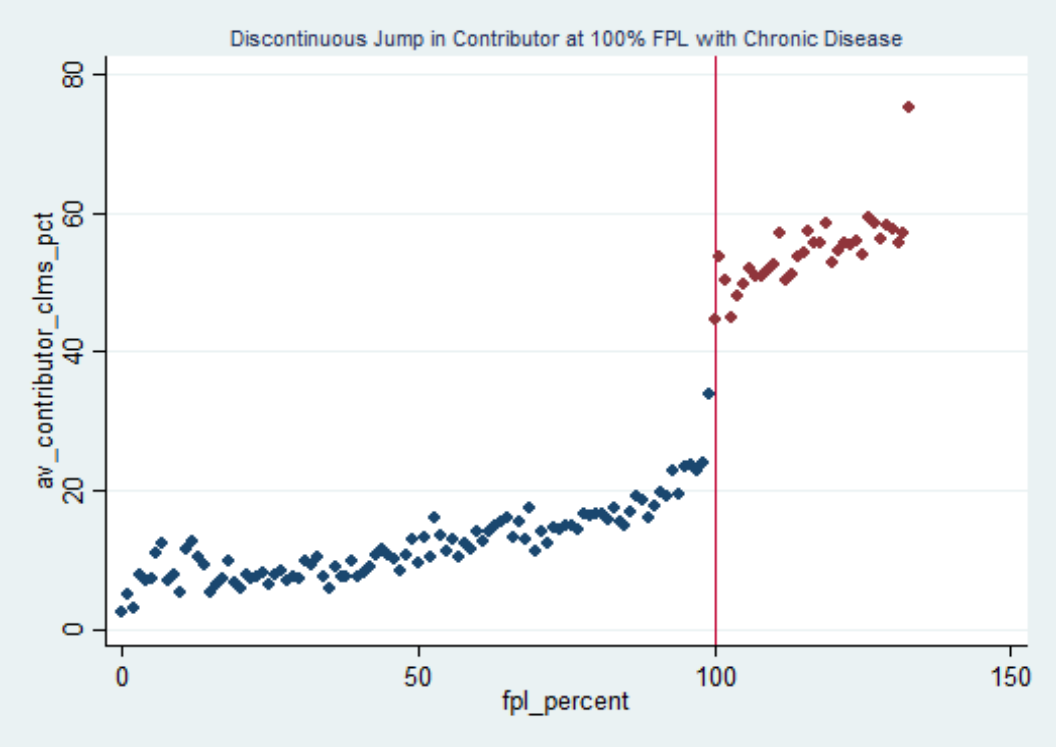


Figure 4.17 Scatter Plot, Contribution Percentage and Average Contribution Amount, Chronic Disease Claims



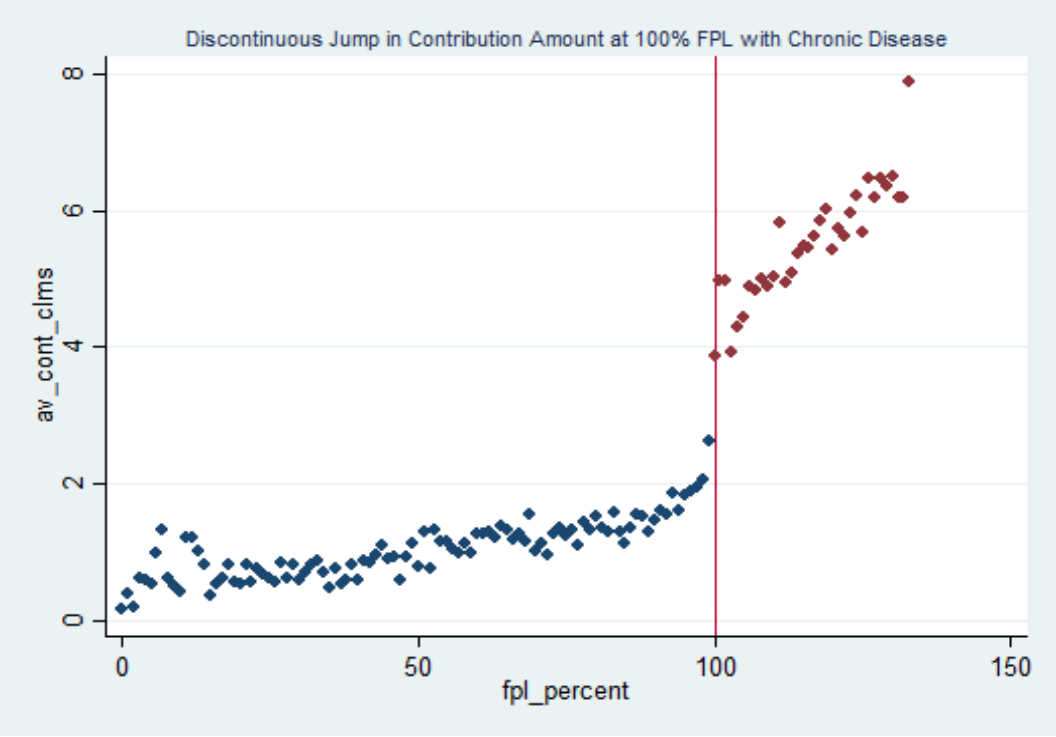


Figure 4.18 Disenrollment Percent by FPL with cutoffs at FPL 20% to FPL 115%, MSE-optimal bandwidths, triangular kernel

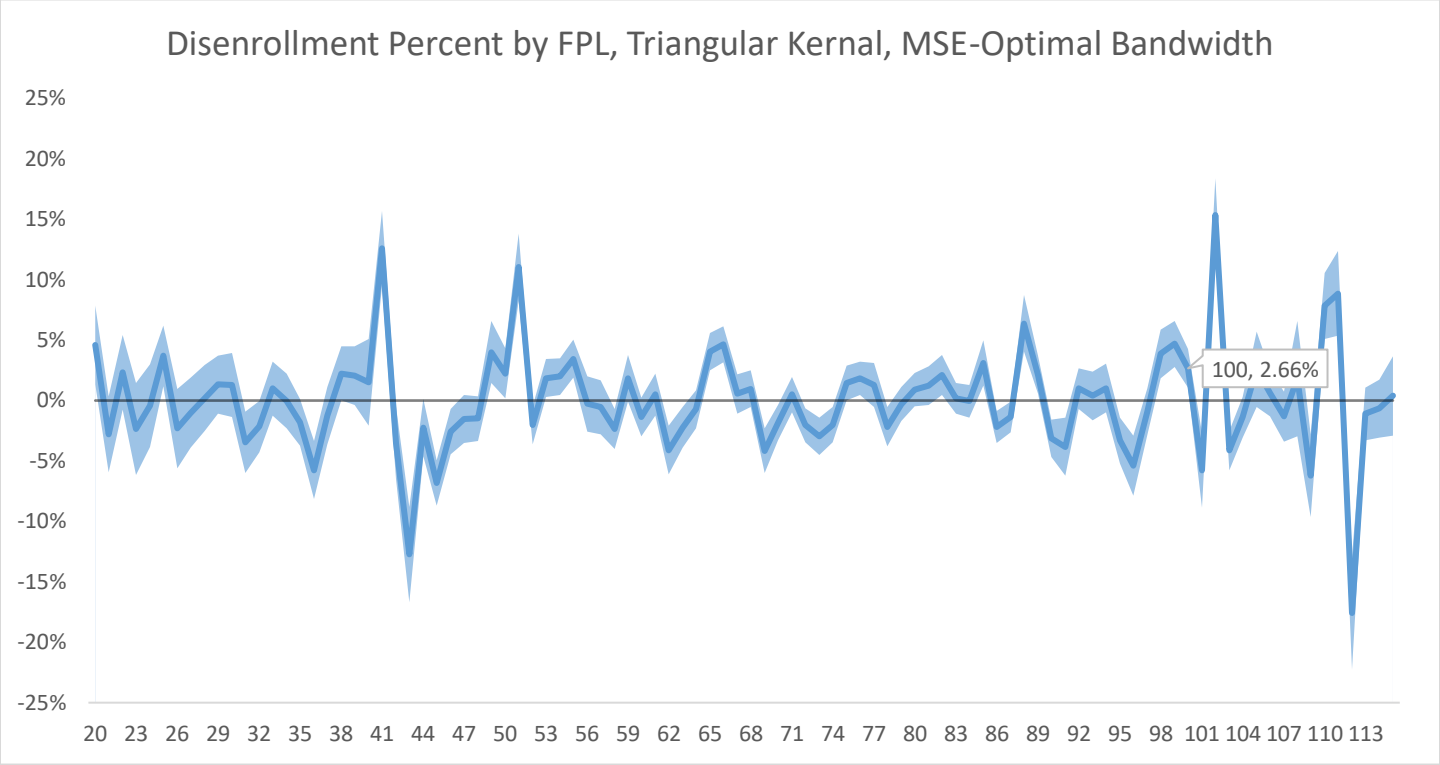
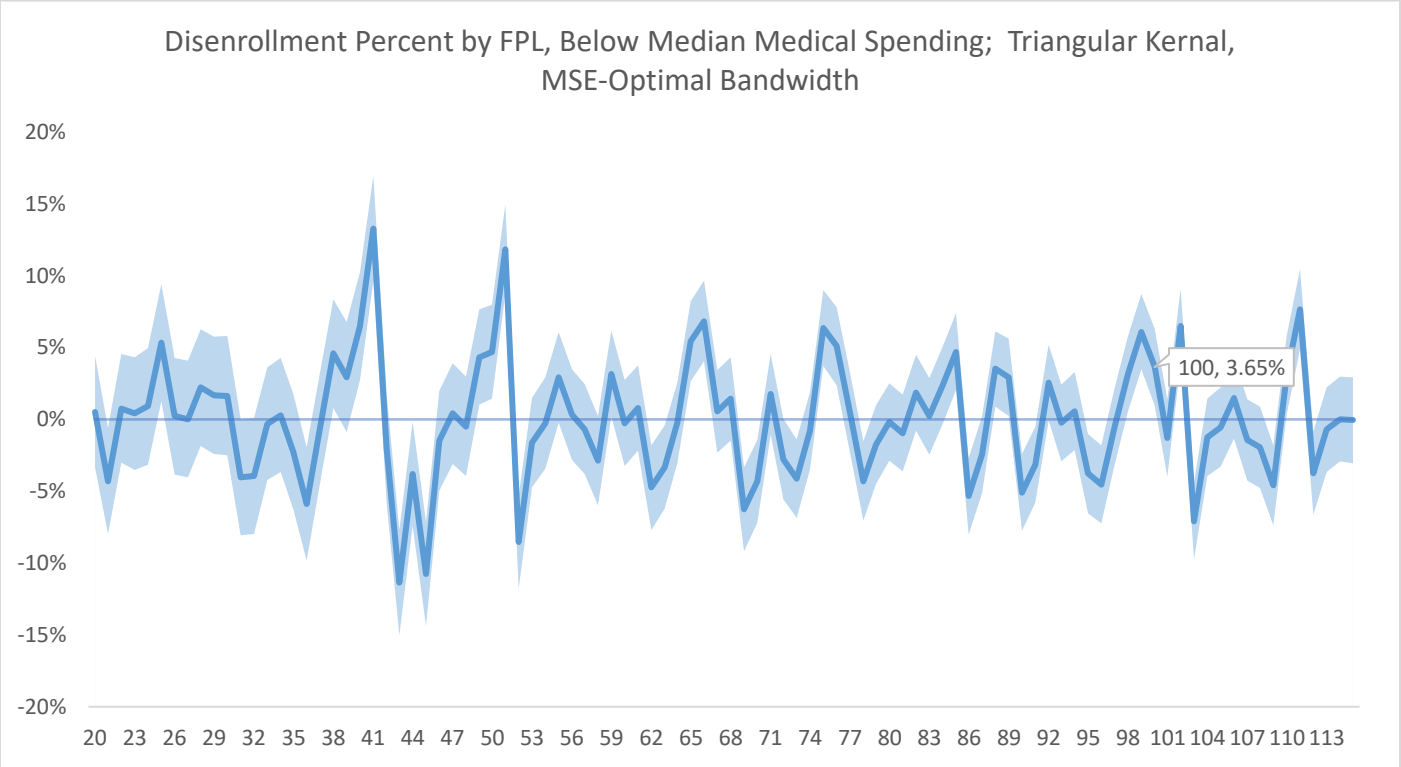


Figure 4.19 Disenrollment Percent by FPL with cutoffs at FPL 20% to FPL 115%, MSE-optimal bandwidths, triangular kernel, Below and Above Median Spending



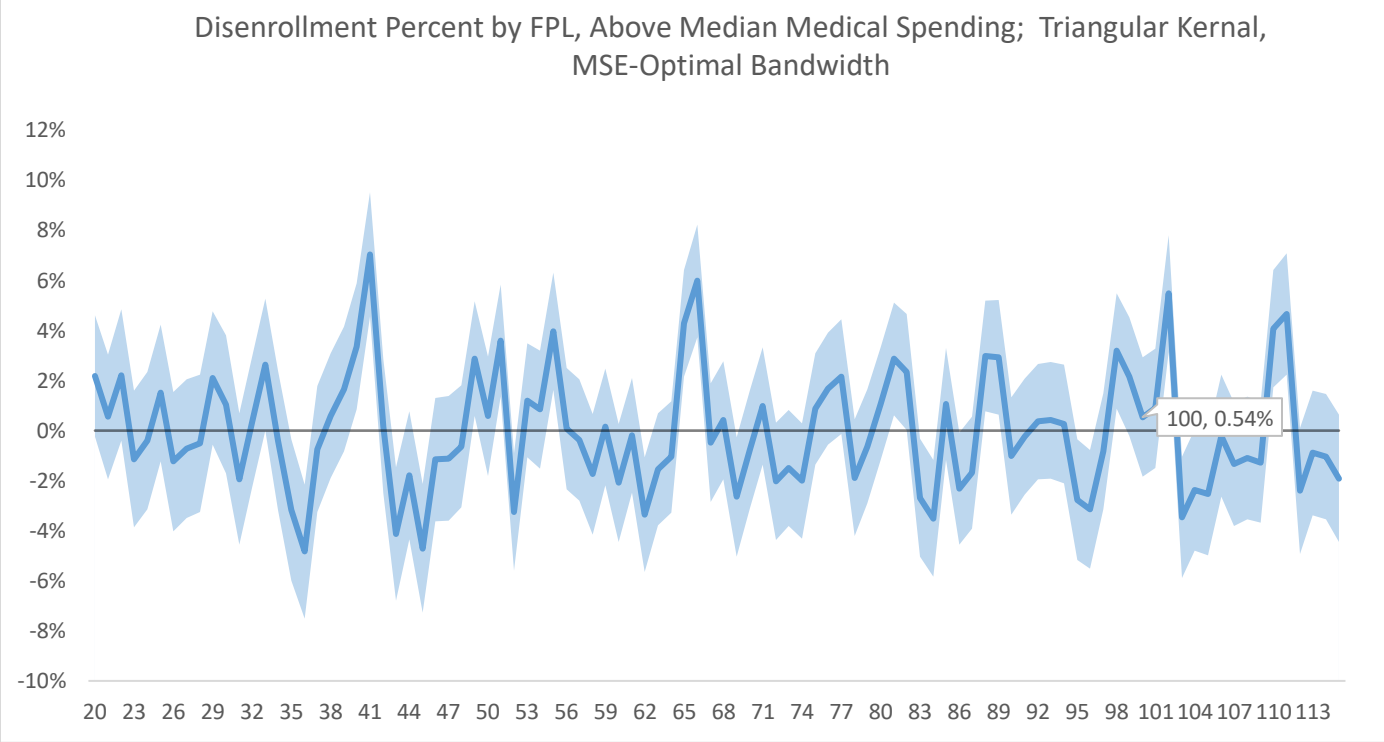
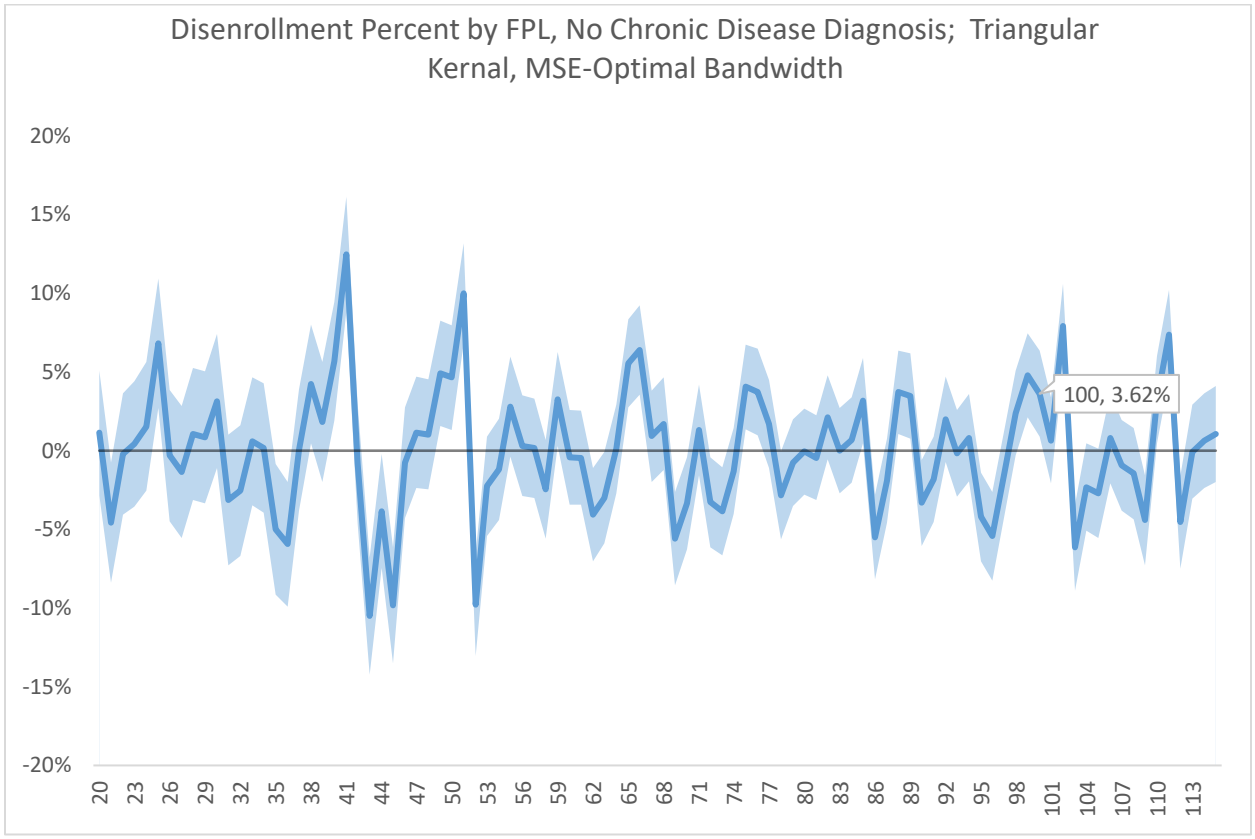


Figure 4.20 Disenrollment Percent by FPL with cutoffs at FPL 20% to FPL 115%, MSE-optimal bandwidths, triangular kernel, Chronic and No Chronic Diagnoses



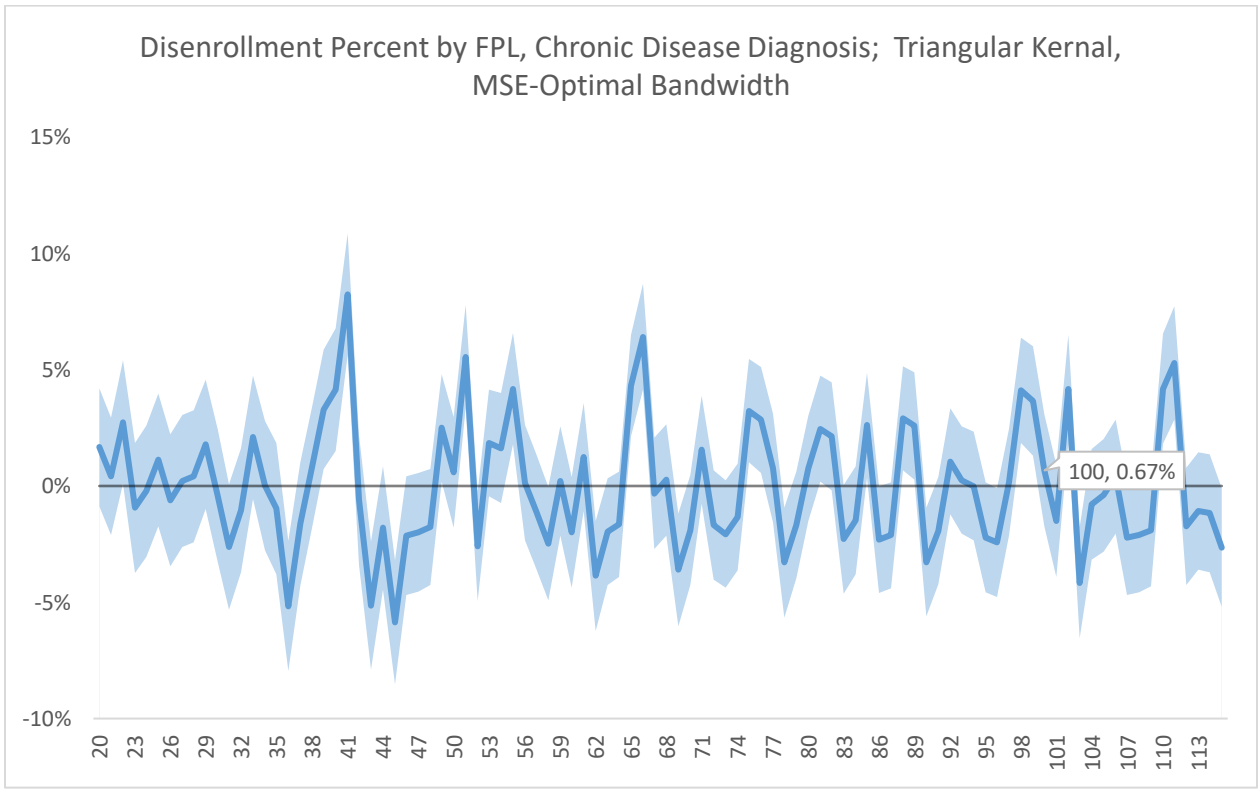


Figure 4.21 Overall density of number of months enrolled among disenrollers, all FPL and all Medicaid programs, sample of enrollees in HMP-MC or HMP-FFS >1 month

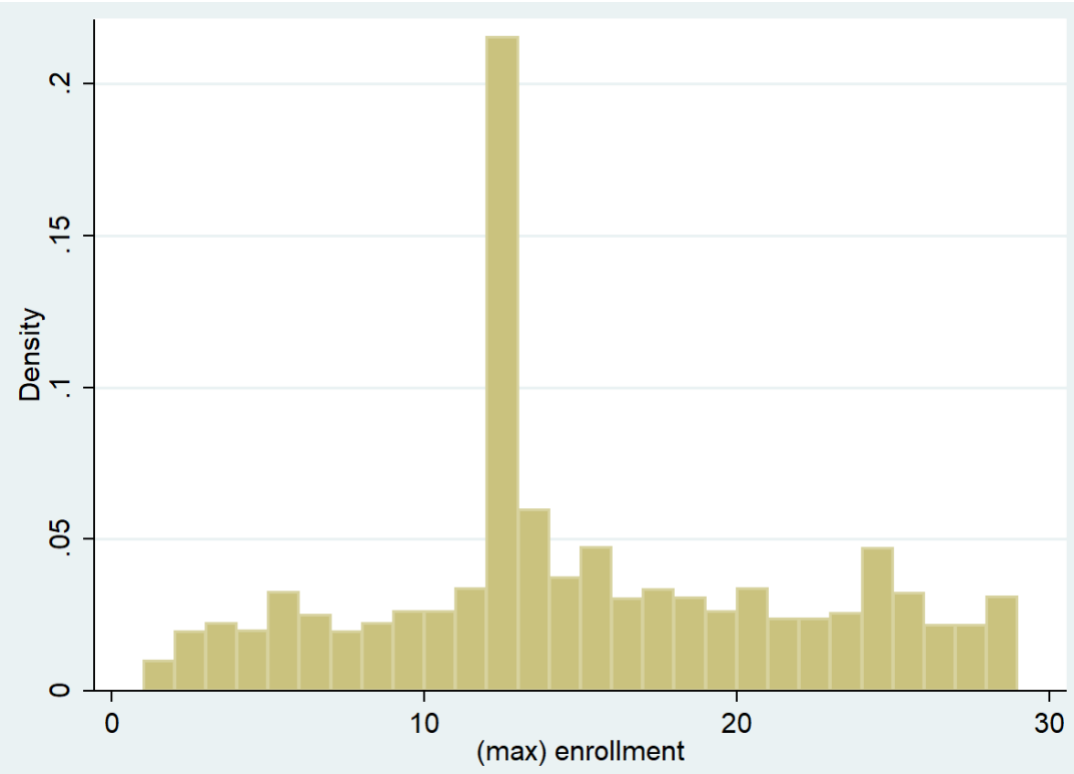
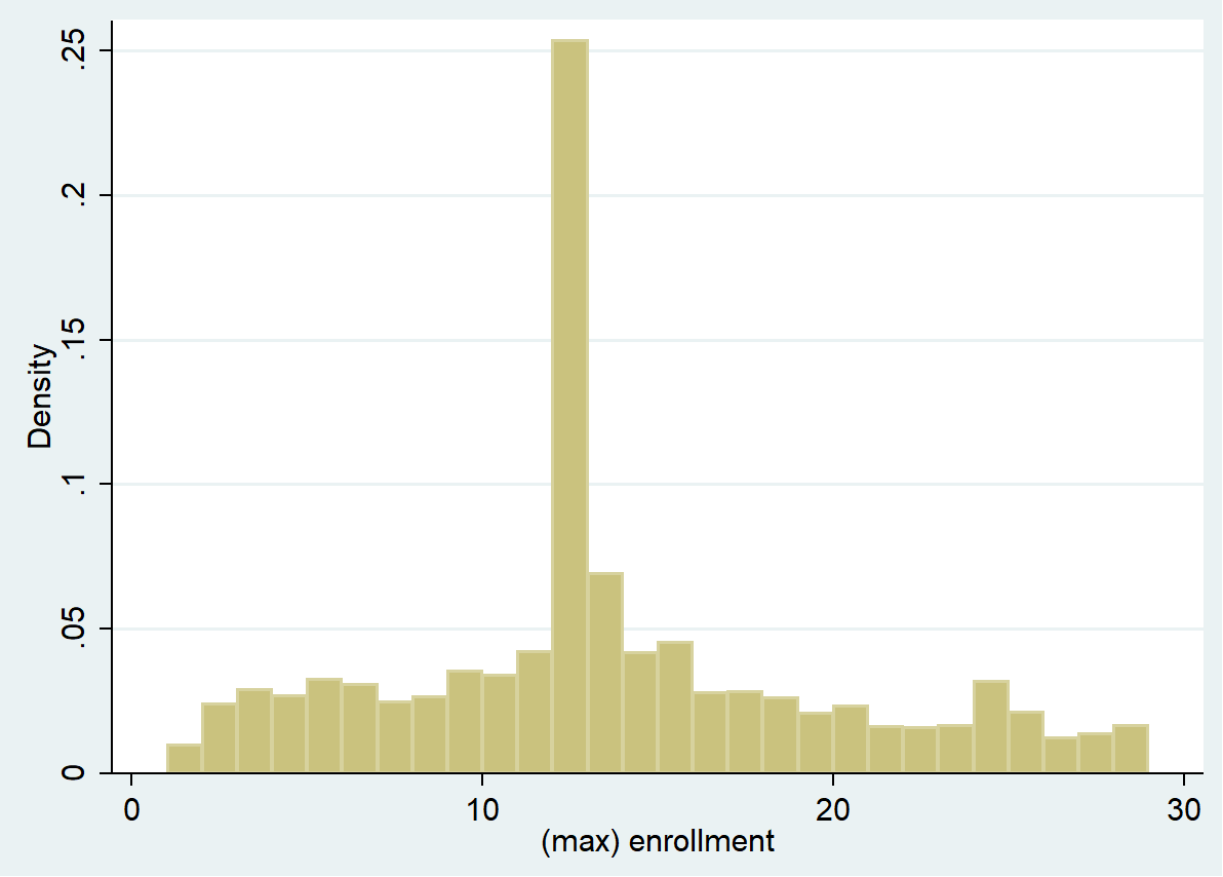


Figure 4.22 Overall density of number of months enrolled among disenrollers, FPL 100%+ and all Medicaid programs, sample of enrollees in HMP-MC or HMP-FFS >1 month



Hypothesis 4: Healthy Behavior Rewards and Healthy Behaviors

Table 5.1 Predictors of Healthy Behaviors, Predicted Prevalence Numbers Based on Probit Regression

	Lost weight in past 12 months (n=4,030)	***p-value on regression coefficient***	**Among smokers, trying to quit smoking (n=1,513)**	***p-value on regression coefficient***	**Got flu shot this year (n= 4,030)**	***p-value on regression coefficient***
Healthy behavior reward						
No	30.5%		79.9%		35.3%	
Yes	34.5%	0.047	87.8%	0.005	42.8%	< 0.001
Age						
19-34	31.6%		77.5%		34.0%	
35-50	33.7%	0.365	82.9%	0.117	37.5%	0.142
51-64	29.0%	0.240	86.7%	0.003	43.0%	< 0.001
Gender						
Male	29.4%		79.6%		36.5%	
Female	33.7%	0.023	85.2%	0.028	38.6%	0.297
Race						
White	30.1%		80.8%		37.0%	
Black	36.8%	0.011	87.2%	0.089	37.3%	0.904
Other	26.8%	0.354	76.4%	0.453	43.7%	0.075
Mixed	32.7%	0.589	80.6%	0.979	34.5%	0.615
FPL						
0-35 %	30.8%		82.5%		38.3%	
36-99 %	32.7%	0.345	83.6%	0.699	36.7%	0.473
100+ %	32.4%	0.465	78.0%	0.162	37.0%	0.596
Region						
UP/NW/NE	34.7%	0.489	81.8%	0.854	39.7%	0.493
W/E Central/E	29.7%	0.215	81.1%	0.685	36.1%	0.528
SW/S Central/SE	30.6%	0.418	82.8%	0.945	38.5%	0.771
Detroit Metro	32.7%		82.6%		37.7%	

*p-value on regression coefficient from probit regression coefficient

Table 5.2 Predicted Prevalence of Healthy Behavior Based on Healthy Behavior Reward and Demographic Characteristics from Probit Regressions of flags for Behavior

	Preventive visit	*p-value on regression coefficient*	Preventive screening	*p-value on regression coefficient*	Using copay exempt medication	*p-value on regression coefficient*
Time Period and Federal poverty level						
0-6 Months: No Reward	24.8%		44.3%		35.8%	
0-6 Months: Reward	15.4%	< 0.001	36.0%	< 0.001	37.8%	< 0.001
7-12 Months: No Reward	17.4%	< 0.001	37.3%	< 0.001	38.9%	< 0.001
7-12 Months: Reward	12.4%	< 0.001	29.0%	< 0.001	37.7%	0.238
13-18 Months: No Reward	10.9%	< 0.001	26.2%	< 0.001	38.8%	< 0.001
13-18 Months: Reward	54.7%	< 0.001	67.2%	< 0.001	47.2%	0.854
19-24 Months: No Reward	26.2%	< 0.001	47.6%	< 0.001	48.9%	< 0.001
19-24 Months: Reward	33.6%	< 0.001	53.1%	< 0.001	50.5%	0.113
25- 30 Months: No Reward	21.9%	< 0.001	41.1%	< 0.001	49.7%	< 0.001
25- 30 Months: Reward	19.2%	< 0.001	38.2%	< 0.001	50.8%	0.348
FPL						
0-35 %	21.5%		40.3%		42.7%	
36-99 %	22.0%	< 0.001	40.6%	0.023	39.1%	< 0.001
100+ %	21.6%	0.460	40.2%	0.692	38.6%	< 0.001
Age						
Under 30	20.3%		31.3%		16.4%	
30 to 39	20.8%	0.001	33.7%	< 0.001	28.4%	< 0.001
40 to 49	22.3%	< 0.001	42.5%	< 0.001	46.8%	< 0.001
Over 50	22.4%	< 0.001	47.5%	< 0.001	57.3%	< 0.001
Gender						
Male	16.7%		32.3%		39.6%	
Female	25.8%	< 0.001	47.1%	< 0.001	42.5%	< 0.001
Race						
White	22.3%		40.2%		41.0%	
Black	20.3%	< 0.001	40.4%	0.165	42.0%	< 0.001
American Indian	22.5%	0.778	41.6%	0.075	46.3%	< 0.001
Hispanic	20.0%	< 0.001	42.4%	< 0.001	40.5%	0.165
Asian/Pacific Islander	22.9%	0.411	42.4%	0.007	38.4%	0.001
Unknown	21.2%	< 0.001	40.1%	0.604	39.3%	< 0.001
Region						
Upper Peninsula	18.0%	< 0.001	35.1%	< 0.001	38.8%	< 0.001
Northwest	22.5%	< 0.001	37.3%	< 0.001	39.2%	< 0.001
Northeast	18.2%	< 0.001	37.7%	< 0.001	40.1%	0.001
West	19.8%	< 0.001	40.5%	< 0.001	43.0%	< 0.001
East Central	17.3%	< 0.001	37.2%	< 0.001	41.9%	0.001
East	20.6%	< 0.001	39.0%	< 0.001	39.7%	< 0.001
South Central	17.7%	< 0.001	38.6%	< 0.001	38.8%	< 0.001

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Southwest	19.3%	< 0.001	38.9%	< 0.001	43.2%	< 0.001
Southeast	19.7%	< 0.001	39.6%	< 0.001	41.7%	0.010
Detroit Metro	25.0%	< 0.001	42.6%	< 0.001	41.1%	< 0.001
Total observations (Enrollee/months)	681,697		681,697		681,697	

Table 5.3 Marginal Effects of Fixed Effect Regressions on Healthy Behaviors (Diff in Diff Framework)

	Preventive visit	***p-value on regression coefficient***	**Preventive screening**	***p-value on regression coefficient***	**Using copay exempt medication**	***p-value on regression coefficient***
Healthy behavior reward						
Year 1						
Year 2+	-8.21%	< 0.001	-3.53%	< 0.001	0.73%	< 0.001
Time period						
0-6 Months						
7-12 Months	-14.92%	< 0.001	-11.46%	< 0.001	1.87%	< 0.001
13-18 Months	-8.95%	< 0.001	-7.94%	< 0.001	2.93%	< 0.001
19-24 Months	-16.05%	< 0.001	-17.46%	< 0.001	1.59%	< 0.001
25-30 Months	-19.47%	< 0.001	-23.15%	< 0.001	1.00%	< 0.001
FPL						
0-35 %						
36-99 %	0.99%	0.222	2.29%	0.011	0.62%	0.309
100+ %	2.36%	0.006	3.27%	0.001	0.93%	0.132
Total enrollees	158,366		158,366		158,366	

Table measures likelihood of preventive visit. Rows (except for constant) are change in percent likelihood from baseline, measured by constant.

Figure 5.1 Predictive Margins of Percentage of Enrollees Who Engaged in a Preventive Visit by Period and Healthy Behavior Reward; Predicted Percentages, Probit Regression with Interactions on Period and Reward.

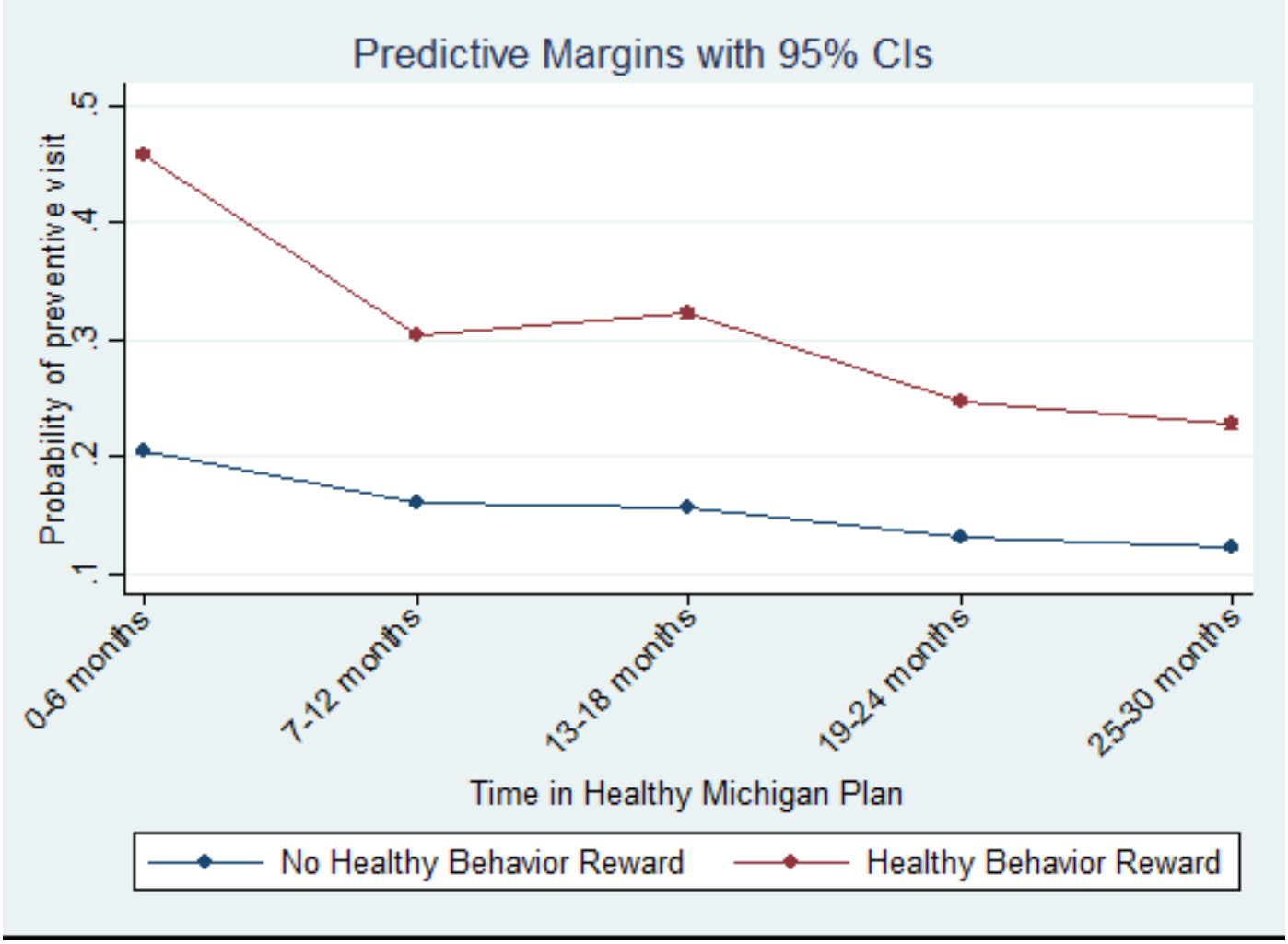


Figure 5.2 Predictive Margins of Percentage of Enrollees Who Engaged in a Preventive Screening by Period and Healthy Behavior Reward; Predicted Percentages, Probit Regression with Interactions on Period and Reward.

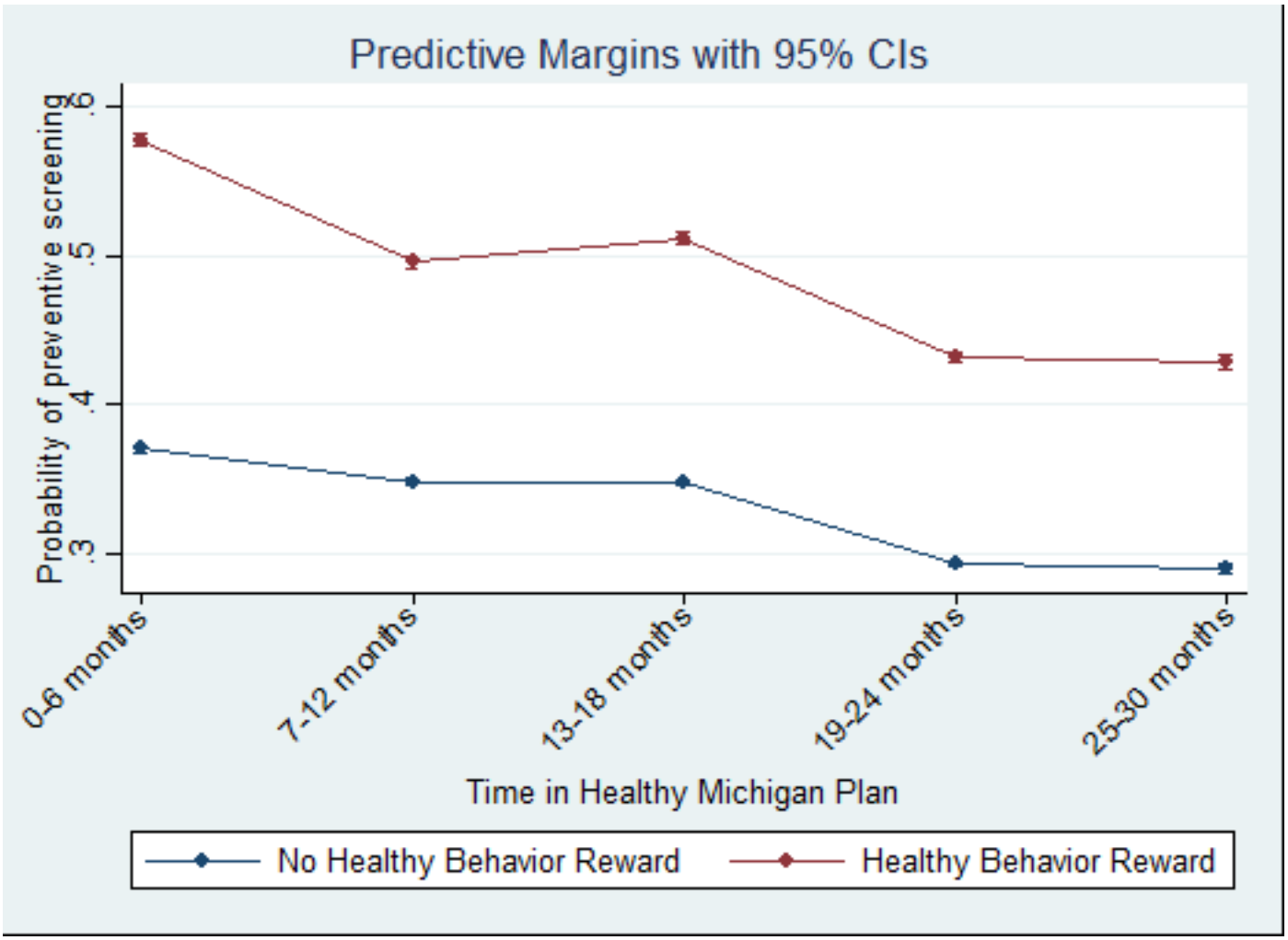
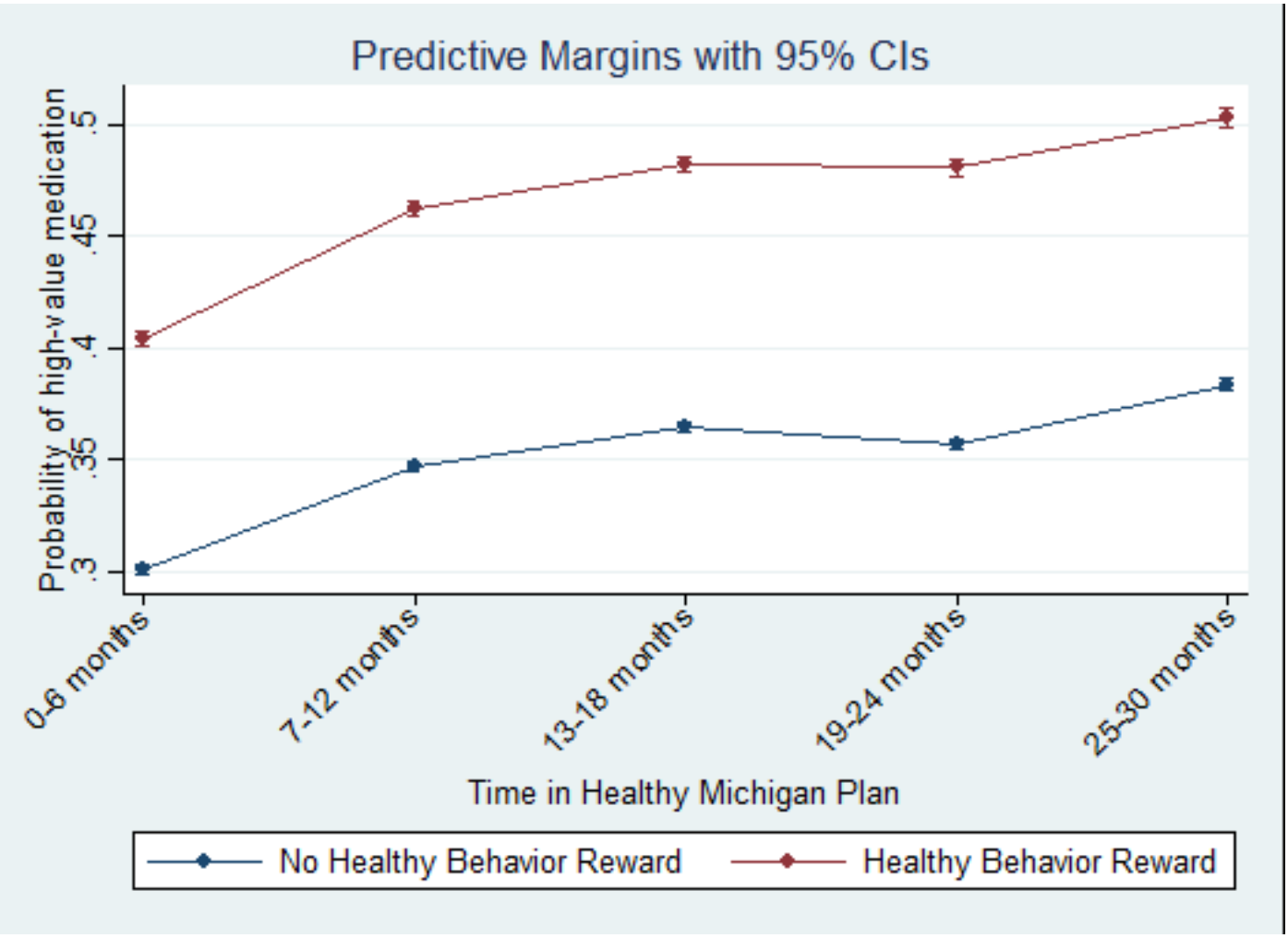


Figure 5.3 Predictive Margins of Percentage of Enrollees Who Use a High-Value Medication by Period and Healthy Behavior Reward; Predicted Percentages, Probit Regression with Interactions on Period and Reward.



The Healthy Michigan Plan
PA 107 §105(d)(8-9)
2017 Report on Uncompensated Care

December 21, 2018

Submitted to the Michigan Department of Health and Human Services

Thomas Buchmueller, University of Michigan, Institute for Healthcare Policy & Innovation

Helen Levy, University of Michigan, Institute for Healthcare Policy & Innovation

Jordan Rhodes, University of Michigan, Stephen M. Ross School of Business

105(d)(8) The program described in this section is created in part to extend health coverage to the state's low-income citizens and to provide health insurance cost relief to individuals and to the business community by reducing the cost shift attendant to uncompensated care. Uncompensated care does not include courtesy allowances or discounts given to patients. The Medicaid hospital cost report shall be part of the uncompensated care definition and calculation. In addition to the Medicaid hospital cost report, the department of community health shall collect and examine other relevant financial data for all hospitals and evaluate the impact that providing medical coverage to the expanded population of enrollees described in subsection (1)(a) has had on the actual cost of uncompensated care. This shall be reported for all hospitals in the state. By December 31, 2014, the department of community health shall make an initial baseline uncompensated care report containing at least the data described in this subsection to the legislature and each December 31 after that shall make a report regarding the preceding fiscal year's evidence of the reduction in the amount of the actual cost of uncompensated care compared to the initial baseline report. The baseline report shall use fiscal year 2012-2013 data. Based on the evidence of the reduction in the amount of the actual cost of uncompensated care borne by the hospitals in this state, beginning April 1, 2015, the department of community health shall proportionally reduce the disproportionate share payments to all hospitals and hospital systems for the purpose of producing general fund savings. The department of community health shall recognize any savings from this reduction by September 30, 2016. All the reports required under this subsection shall be made available to the legislature and shall be easily accessible on the department of community health's website.

Executive Summary

This report, pursuant to §105(d)(8-9) of PA 107 of 2013, provides the 2018 annual update to the baseline estimate of uncompensated care borne by Michigan hospitals.

The main source of data is cost reports that hospitals submit annually to the Michigan Department of Health and Human Services (MDHHS). The initial report, submitted in December 2014, provided baseline data on hospital uncompensated care from 2013, i.e., prior to the implementation of the Healthy Michigan Plan (HMP). Subseqent reports have presented data for the years after HMP implementation. Because of reporting lags and the timing of hospital fiscal years, this report presents data from fiscal year 2016 for all hospitals and from fiscal year 2017 for some hospitals.

The baseline report documented that before HMP was in place the average hospital in Michigan provided $8.1 million in uncompensated care annually. This amount represented 4.8 percent of total hospital expenditures. By 2016, the amount of uncompensated care provided by Michigan hospitals had fallen to $3.8 million per year on average, or 2 percent of total expenditures. The most recent data, for fiscal year 2017, come from a representative subset of hospitals. In fiscal year 2017, these hospitals provided an average of $3.3 million in uncompensated care, or roughly 45 percent of the average amount provided by these hospitals in 2013.

Introduction

In order to measure the effect of the Healthy Michigan Plan, §105(d)(8) of Public Act 107 requires the Department of Community Health—now the Department of Health and Human Services (MDHHS)—to publish annual reports on uncompensated care in Michigan. This report fulfills the requirement of §105(d)(8). The main analysis is based on data from Medicaid cost reports submitted to the state annually.

Background: Healthy Michigan Plan Enrollment and Hospital Payer Mix

Table 1 presents information on year-end enrollment in the Healthy Michigan Plan (HMP) and the percentage of inpatients at Michigan hospitals who were uninsured from 2013 to 2017. At the end of 2014, the HMP had 507,618 enrollees. HMP enrollment grew by nearly 20 percent between December 2014 and December 2015. Enrollment continued to grow in 2016 and 2017, though at a lower rate, and stood at 683,447 at the end of 2017. The growth in HMP enrollment coincided with a change in inpatient payer mix. Between 2013 and 2014, the percentage of adult hospital patients without insurance fell roughly in half, from 3.95 percent to 1.95 percent. The percent uninsured fell again in 2015, to just under 1 percent, and remained roughly constant in subsequent years.

Data: Medicaid cost reports

Each year, Michigan hospitals submit cost reports to the state Medicaid program. The cost of uncompensated care provided by each hospital can be calculated based on several data elements contained in these reports.

Uncompensated care is the sum of charity care and bad debt. Charity care is the cost of medical care for which there was no expectation of payment because the patient has been deemed unable to pay. Bad debt is the cost of medical care for which there was an expectation of payment, but ultimately payment was not received. Both types of uncompensated care may arise from patients who are uninsured or from those who are under-insured and unable to afford deductibles or other cost-sharing required by their insurance plans when they receive hospital care. Appendix A provides more information on the definition of uncompensated care.

Hospitals report financial data on a fiscal year basis. There is variation in the timing of hospital fiscal years, which affects when data are reported to the state. Table 2 summarizes the timing of hospital fiscal years and indicates how this timing affects our ability to measure changes in uncompensated care over time.

For hospitals with fiscal years ending in the first three quarters of the calendar year (i.e., on or before September 30) the data reported to the state in a particular calendar year corresponds to the previous fiscal year. Thus, in 2018, 85 hospitals with fiscal years ending in the first three quarters reported data from fiscal year 2017. There are currently 52 hospitals with fiscal years

ending in the fourth quarter (i.e., after September 30). Since these hospitals report data with a one year lag, the most recent data for these hospitals pertains to fiscal year 2016.

The bottom row of Table 2 presents the number of hospitals providing cost report data to the Department of Health and Human Services each year. There is slight variation in the number of hospitals reporting data in each year, which complicates cross-year comparisons of total dollar amounts measured at the level of the state. Differences in average amounts per hospital are easier to interpret.

Uncompensated care, FY 2013 to FY 2017

Table 3 presents data on hospital uncompensated care over the period 2013 to 2017. The first 4 columns present data for all Michigan hospitals. Because for most hospitals 2014 represents a mix of pre-HMP and post-HMP experience, the best estimate of the initial impact of HMP on hospital uncompensated care comes from a comparison of data from fiscal year 2013 to fiscal year 2015. That comparison indicates that the total cost of uncompensated care provided by Michigan hospitals fell roughly in half, from $1.1 billion to $542 million after the program was put in place. Measured at the level of the average hospital in the state, this corresponds to a decline from $8.1 million (or 4.8 percent of total expenditures) to $3.9 million (or 2.2 percent of total expenditures). The change between 2015 and 2016 was minimal. In 2016, the average Michigan hospital provided $3.8 million in uncompensated care. This amount represented 2 percent of total expenditures.

Results for hospitals with fiscal years ending in the first three quarters are presented in the right panel of the table. We report results separately for these hospitals in order to provide information on uncompensated care provided in fiscal year 2017. The mean results for 2013 to 2016 are quite similar to those for the full set of Michigan hospitals, indicating that the quarter in which a hospital's fiscal year ends is not systematically related to the amount of uncompensated care provided. Comparing the data from 2017 and 2016, uncompensated care provided by the average hospital fell by an additional 11 percent (to $3.3 million from $3.7 million). The 2017 average represents 45 percent of the average for 2013.

In addition to the average results presented in Table 3, it is important to understand how the changes were distributed among individual hospitals. Appendix Table 1 presents the uncompensated care provided by each hospital in fiscal years 2013, 2016, and 2017. (Previous reports provide the same detailed information for the intervening fiscal years.) The distribution can also be summarized graphically. Figure 1 plots the full distribution of the change between 2013 and 2016 in uncompensated care as a percentage of total expenses. It is clear from the figure that declines in uncompensated care were widespread: 85 percent of hospitals (117 out of 137) experienced a decrease. The median change was -2.0 percentage points, just slightly below the mean decline of 2.8 percentage points shown in Table 3. Thirty-six percent of hospitals experienced a decline of 3 percentage points or more.

Figure 2 plots the change between 2013 and 2016 in uncompensated care as a percentage of total expenditures (on the vertical axis) against the baseline (2013) measure of uncompensated care as

a percentage of expenditures. The scatterplot reveals a strong negative relationship between these two measures, which is not surprising. Hospitals that faced the greatest burden of uncompensated care before HMP was established had the most to gain from the program. The figure also shows that hospitals that experienced an increase in uncompensated care expenditures tend to be hospitals that already faced a low burden. For these hospitals, the increase in uncompensated care is mainly reflective of year-to-year variability.

Conclusion

This is the fifth in a series of annual reports analyzing changes in uncompensated care following the implementation of the Healthy Michigan Plan. It is the second to present data representing a full year of post-HMP experience for all hospitals. This report presents data from fiscal year 2016 for all Michigan hospitals and also for 2017 for a representative subgroup.

Prior reports documented a substantial decline in uncompensated care between 2013 and 2015. The data presented in this report indicate that uncompensated care expenditures stabilized between 2015 and 2016 before falling slightly in 2017. Consistent with results presented in earlier reports, the most recent data indicate that the vast majority of Michigan hospitals are providing less uncompensated care than they were in 2013. The reductions in uncompensated care were most pronounced for hospitals that faced a heavy burden of uncompensated care before the enactment of the HMP.

Table 1. Healthy Michigan Enrollment and Percent of Uninsured Patients by Year

	2013	2014	2015	2016	2017
Year-End HMP Enrollment	0	507,618	606,490	635,374	683,447
Percent of Adult Uninsured Patients	3.95%	1.95%	0.99%	0.96%	0.94%

Notes: Healthy Michigan Plan enrollment is taken from weekly progress reports published by the Michigan Department of Health & Human Services (http://www.michigan.gov/mdhhs/0,5885,7-339-71547_2943_66797---,00.html)
The percent of uninsured patients is calculated using data from the HCUP Fast Stats program (https://www.hcup-us.ahrq.gov/faststats/landing.jsp). The Fast Stats program reports quarterly data on the percentage of adult inpatients by the following payer source categories: Medicaid, age 19-64; Uninsured, age 19-64; Private, age 19-64; Medicare, age 65+.

Table 2. The Number of Hospitals Reporting Data to the State by Reporting Year and Fiscal Year End

Reporting Year	**2013**		**2014**		**2015**		**2016**		**2017**	
Fiscal Year	**2012**	**2013**	**2013**	**2014**	**2014**	**2015**	**2015**	**2016**	**2016**	**2017**
Quarter in which FY Ends										
1		8 (0)		9 (0)		9 (12)		8 (12)		8 (12)
2		63 (0)		61 (3)		59 (12)		60 (12)		59 (12)
3		19 (0)		19 (6)		20 (12)		18 (12)		18 (12)
4	49 (0)		51 (0)		51 (9)		51 (12)		52 (12)	
Total Number of Hospitals	139		140		139		137		137	

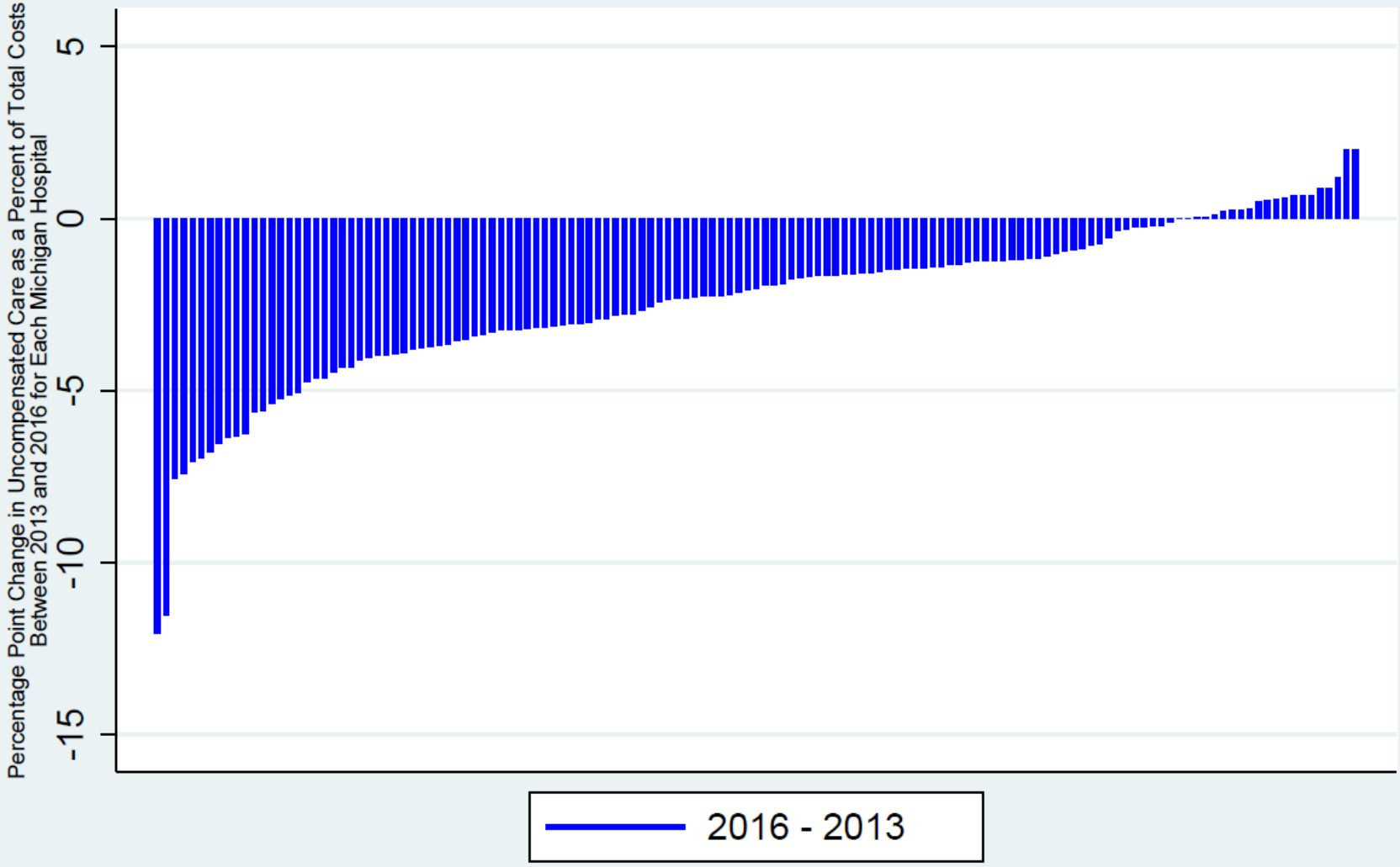
Notes: Average number of months of exposure to Healthy Michigan expansion (4/01/2014) in parentheses. Some hospitals change fiscal year reporting periods during the data years; as a result, there are slight discrepancies in quarterly hospital counts across fiscal years.

Table 3. The Cost of Uncompensated Care Provided by Michigan Hospitals by Fiscal Year, 2013 to 2016

	All Hospitals				Hospitals FY Ends Q1 - Q3				
End Year	**2013**	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**	**2017**
Number of Hospitals	141	140	139	138	90	89	88	86	85
Mean months post-HMP	0	5.41	12	12	0	3.35	12	12	12
Uncompensated Care Costs									
Total ($ millions)	1145.0	926.9	541.7	521.5	663.2	607.7	336.1	320.9	283.9
Mean ($ millions)	8.1	6.6	3.9	3.8	7.4	6.8	3.8	3.7	3.3
As a % of Total Costs	4.8	3.9	2.2	2.0	4.5	4.1	2.2	2.0	1.7

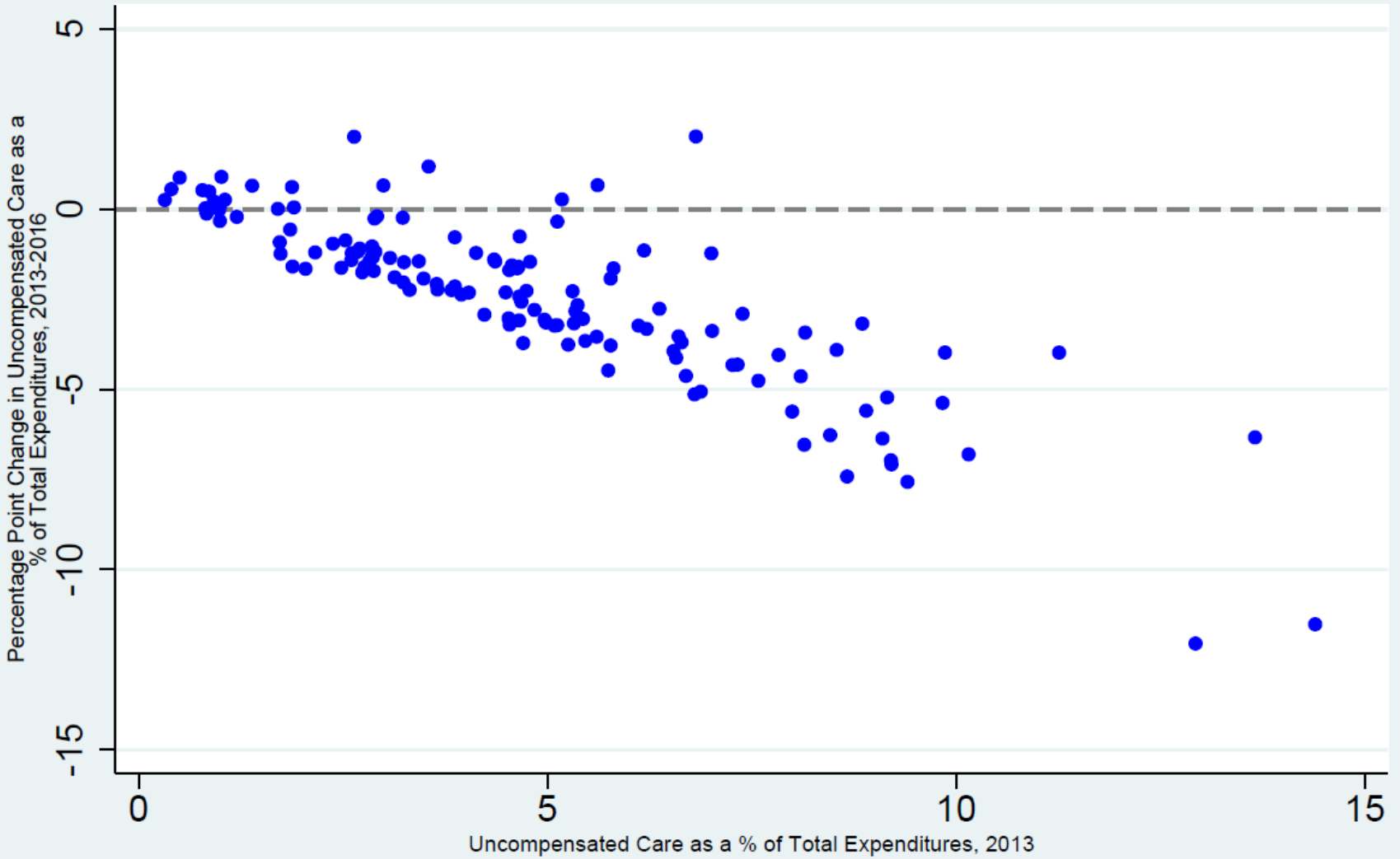
Note: All cost figures have been converted into 2015 dollars.

Figure 1: Change in Uncompensated Care as a Percentage of Total Costs Between 2013 and 2016



Notes: The sample consists of the 137 hospitals that submitted data in both FY 2013 and FY 2016. Each bar represents the percentage point change for an individual hospital.

Figure 2: Changes in Uncompensated Care Across Michigan Hospitals
by Baseline Levels of Uncompensated Care



Notes: The sample consists of the 137 hospitals that submitted data in both FY 2013 and FY 2016.
Each dot represents an individual hospital.

Appendix: Data Elements for Calculating Uncompensated Care and Discharges

Data Elements and Methods for Calculating Uncompensated Care

1. Defining uncompensated care

Uncompensated care is defined as the cost of charity care plus the cost of bad debt.

Charity care is the cost of medical care for which there was no expectation of payment because the patient has been deemed unable to pay for care. Each hospital has its own criteria for identifying patients who are eligible for charity care. However, not all discounted medical care is charity care. Discounts provided for prompt payment or discounts negotiated between the patient and the provider to standard managed care rates do not represent charity care.

Bad debt is the cost of medical care for which there was an expectation of payment because the patient was deemed to be able to pay for care. For example, bad debt includes the unpaid medical bills of an uninsured patient who applied for charity care but did not meet the hospital's specific criteria. Insured patients who face deductibles and coinsurance payments for hospital care can also generate bad debt.

Hospitals report charity care and bad debt separately on the Michigan Medicaid Forms, though hospitals vary in the criteria they use to distinguish one from another. In addition, even within a particular hospital, rules governing eligibility for charity care are often not strictly applied and may take into account the judgment of individuals determining eligibility.

For purposes of this report, Medicaid and Medicare shortfalls—the difference between reimbursements by these programs and the cost of care—are not included in the estimate of uncompensated care. Similarly, expenditures for community health education, health screening or immunization, transportation services, or loss on health professions education or research are not considered uncompensated care. Although the hospital does not expect to receive reimbursement for these services, they do not represent medical care for an individual. These costs incurred by hospitals fall into the broader category of "community benefit," a concept used by the Internal Revenue Service in assessing hospitals' non-profit status.

2. Measuring uncompensated care using Michigan Medicaid cost report data

The cost of charity care is measured as full charges for uninsured charity care patients minus patient payments, multiplied by the cost-to-charge ratio. The cost of bad debt is measured as unpaid patient charges for which an effort was made to collect payment minus any recovered payments, multiplied by the cost-to-charge ratio. Bad debts include charges for uninsured patients who did not qualify for a reduction in charges through a charity care program, and unpaid coinsurance, co-pays and deductibles for insured patients.

The cost-to-charge ratio is the ratio of the cost of providing medical care to what is charged for medical care, measured at the hospital-level. For example, a cost-to-charge ratio of 0.6 means that on average, 60 cents of every charged dollar covers the cost of care. Variation in cost-to-

charge ratios among different payment source categories reflects differences in the mix of services received by patients in those categories. Charity care and bad debt charges for uninsured patients are translated to costs using the cost-to-charge ratio for uninsured patients. Bad debt charges for insured patients are translated to costs using the whole hospital cost-to-charge ratio.

The specific data elements from the Michigan Medicaid Forms (MMF) that are used for these calculations are as follows.

Measures of care for which payment was not received enter positively:

- **Uninsured charity care charges** (MMF line 6.00)
  Full charge of care provided to patients who have no insurance and qualify for full or partial charity care. Payment is not expected.

- **Uninsured patient-pay charges** (MMF line 6.10)
  Full charge of care provided to patients who have no insurance and do not qualify for full or partial charity care (self-pay). Payment is expected but hospital has not yet made a reasonable attempt to collect payment.

- **Uninsured bad debts** (MMF line 6.36)
  Full charge of care provided to patients who have no insurance and do not qualify for charity care. Payment is expected and hospital has made a reasonable attempt to collect payment.

- **Third party bad debts** (MMF line 6.38)
  Insured patients' unpaid coinsurance, co-pays or deductibles when there is an expectation of payment. This includes gross Medicare bad debts. Payment is expected and the hospital has made a reasonable attempt to collect the amount from the patient

These amounts are offset by payments that were received by patients who qualify for charity care as well as bad debt recoveries. These payments enter the calculation of uncompensated care negatively:

- **Uninsured payments from charges** (MMF line 6.60)
  Total payments made by uninsured charity care patients and uninsured self-pay patients towards charges.

- **Recoveries for uninsured bad debt** (MMF line 10.96)
  Recovered amounts for uninsured bad debts, which can include amounts that were collected from patients or amounts from community sources (such as an uncompensated care pool).

- **Recoveries for third party bad debts and offsets** (MMF line 10.98)
  Recovered amounts for insured patients' co-pays, co-insurance and deductibles, including Medicare beneficiaries.

The cost-to-charge ratios used in the calculation are:

- **Uninsured inpatient cost-to-charge ratio**
  Cost-to-charge ratio calculated by MDHHS for the purposes of determining Disproportionate Share Hospital (DSH) payments. It is used to convert charges for care provided to uninsured patients to costs.

- **Whole hospital cost-to-charge ratio**
  Cost-to-charge ratio calculated by MDHHS and used to convert charges for care provided to insured patients to costs.

In addition to measuring the dollar amount of uncompensated care costs, we also measure these costs relative to total hospital costs (MMF line 11.30) as a percentage.

Appendix C

Table 1. Uncompensated Care Expenses by Individual Hospital, FY 2013, FY 2016 and FY 2017

		FY 2013		FY 2016		FY 2017	
Hospital Name - CMS ID	**Qtr of FY end**	**Total UC**	**as a % of Cost**	**Total UC**	**as a % of Cost**	**Total UC**	**as a % of Cost**
Allegan General Hospital - 1328	4	1.76	4.57%	1.17	3.01%		
Ascension Crittenton Hospital - 0254	4	5.35	2.64%				
Ascension Crittenton Hospital - 0254**	2			8.88	4.65%		
Ascension Crittenton Hospital - 0254	2					1.51	0.93%
Aspirus Iron River Hospital & Clinics - 1318	4	1.65	4.63%				
Aspirus Iron River Hospital & Clinics - 1318	2			1.16	2.99%	0.75	1.87%
Aspirus Ironwood Hospital – 1333	2	2.03	5.12%	1.99	4.78%	1.55	2.93%
Aspirus Keweenaw Hospital - 1319	2	1.37	4.54%	1.02	2.85%	0.65	1.66%
Aspirus Ontonagon Hospital - 1309	2	0.17	1.73%	0.09	0.81%	0.21	2.03%
BCA StoneCrest Center – 4038	4	0.13	0.83%	0.15	0.71%		
Baraga County Memorial Hospital - 1307	3	1.01	6.70%	0.33	2.07%	0.25	1.49%
Barbara Ann Karmanos Cancer Hospital - 0297	2	2.16	0.99%				
Barbara Ann Karmanos Cancer Hospital - 0297	3			1.38	0.67%	1.19	0.59%
Beaumont Hospital - Dearborn - 0020	4	18.12	3.49%	9.02	1.56%		
Beaumont Hospital - Farmington Hills - 0151	4	16.7	6.88%	5.82	1.82%		
Beaumont Hospital - Taylor - 0270	4	6.15	5.12%	2.36	1.90%		
Beaumont Hospital - Trenton - 0176	4	3.5	2.82%	1.89	1.38%		
Beaumont Hospital - Wayne - 0142	4	7.97	6.64%	4.03	2.95%		
Beaumont Hospital, Grosse Pointe - 0089	4	9.16	5.44%	4.59	2.39%		
Beaumont Hospital, Royal Oak - 0130	4	46.66	4.04%	22.42	1.73%		
Beaumont Hospital, Troy - 0269	4	19.68	3.87%	9.9	1.73%		
Bell Memorial Hospital - 1321	2	3.25	8.67%	0.4	1.25%	0.22	0.69%
Borgess Hospital – 0117	2	27.84	7.58%	10.36	2.82%	9.36	2.35%
Borgess-Lee Memorial Hospital - 1315	2	4.1	13.66%	1.96	7.33%	1.9	6.90%
Bronson Battle Creek Hospital - 0075	4	15.6	8.54%	8.93	4.63%		

Bronson Lake View Hospital - 1332	4	2.81	6.19%	2.04	5.04%		
Bronson Methodist Hospital - 0017	4	50.26	10.16%	17.16	3.35%		
Bronson South Haven Hospital - 0085	2	1.5	4.71%	0.33	0.99%		
Bronson South Haven Hospital - 0085*	4			0.74	1.98%		
Children's Hospital of Michigan - 3300	4	3.54	1.06%	4.1	1.32%		
Chippewa War Memorial Hospital - 0239	4	2.39	3.32%	0.92	1.08%		
Clinton Memorial Hospital – 1326	4	0.71	2.92%	0.68	2.72%		
Covenant Medical Center, Inc. - 0070	2	9.96	2.74%	4	0.98%	4.07	0.99%
Deckerville Community Hospital - 1311	2	0.22	3.55%	0.32	4.73%	0.29	4.39%
Detroit Receiving Hospital - 0273	4	32	14.40%	6.35	2.88%		
Dickinson County Memorial Hospital - 0055	4	1.6	2.16%	0.87	0.96%		
Doctors' Hospital of Michigan - 0013	4	3.54	12.93%	0.13	0.88%		
Eaton Rapids Medical Center - 1324	2	1.59	9.87%	1.13	5.89%	1	4.79%
Edward W. Sparrow Hospital – 0230	4	21.67	3.08%	12.7	1.72%		
Forest Health Medical Center, Inc. - 0144	4	0.41	1.20%	0.45	0.99%		
Forest View Psychiatric Hospital - 4030	4	0.2	1.39%	0.35	2.04%		
Garden City Hospital – 0244	3	6.21	5.18%				
Garden City Hospital – 0244	4			6.41	5.45%		
Genesys Regional Medical Center - 0197	2	15.14	3.95%	6.09	1.58%	7.01	1.88%
Harbor Beach Community Hospital - 1313	4	0.06	0.82%	0.07	0.84%		
Harbor Oaks Hospital – 4021	2	0.06	0.50%	0.2	1.38%	0.15	0.88%
Harper University Hospital - 0104	4	9.85	2.48%	3.63	0.86%		
Havenwyck Hospital – 4023	2	0.22	0.86%	0.42	1.35%	0.29	0.91%
Hayes Green Beach Memorial Hospital - 1327	1	3.66	7.83%	1.62	3.79%	2.09	4.85%
Healthsource Saginaw - 0275	4	0.19	0.78%	0.35	1.31%		
Helen Newberry Joy Hospital - 1304	4	1.88	7.39%	1.13	4.48%		
Henry Ford Allegiance Health - 0092	2	36.27	9.84%	17.99	4.46%	9.25	2.19%
Henry Ford Hospital – 0053	4	97.97	8.46%	28.57	2.19%		
Henry Ford Macomb Hospital - 0047	4	14.88	4.66%	7.7	2.23%		
Henry Ford West Bloomfield Hospital - 0302	4	6.35	2.53%	4.3	1.66%		
Henry Ford Wyandotte Hospital - 0146	4	21.8	9.10%	6.61	2.74%		

Hills & Dales General Hospital - 1316	3	0.62	3.23%	0.64	2.99%	0.66	2.94%
Hillsdale Hospital - 0037	2	2.72	5.62%	2.98	6.28%	2.48	5.47%
Holland Community Hospital - 0072	1	4.96	3.00%	6.46	3.65%	7.04	3.57%
Hurley Medical Center - 0132	2	27.97	9.41%	6.4	1.84%	4.78	1.33%
Huron Valley - Sinai Hospital - 0277	4	8.79	5.75%	1.97	1.27%		
Ionia County Memorial Hospital - 1331	4	1.72	6.61%	1.08	3.08%		
Kalkaska Memorial Health Center - 1301	2	1.94	8.90%	0.86	3.31%	0.62	2.21%
Kingswood Psychiatric Hospital - 4011	4	0.2	0.99%	0.22	0.97%		
Lake Huron Medical Center - 0031	2	4.99	7.33%				
Lake Huron Medical Center - 0031	4			2.13	3.02%		
Lakeland Hospital - St. Joseph - 0021	3	14.2	5.31%	9.02	3.03%	6.51	2.18%
Lakeland Hospital Watervliet - 0078	3	2.09	9.21%	0.6	2.24%	0.63	2.16%
Mackinac Straits Hospital – 1306	1	2.26	11.26%	2.01	7.28%	1.37	4.87%
Marlette Regional Hospital – 1330	2	0.78	3.43%	0.39	1.98%	0.36	1.86%
Marquette General Hospital - 0054*	2	4.04	2.04%				
Marquette General Hospital – 0054	2			0.89	0.39%	0.55	0.26%
Mary Free Bed Hospital & Rehabilitation Center - 3026	1	0.88	1.86%	0.71	1.29%	0.82	1.28%
McKenzie Memorial Hospital - 1314	3	0.61	4.65%	0.4	3.05%	0.39	2.99%
McLaren - Central Michigan - 0080	3	2.28	2.90%	1.38	1.71%	1.16	1.49%
McLaren - Greater Lansing – 0167	3	7.68	2.71%	4.99	1.61%	8.85	2.91%
McLaren Bay Regional – 0041	3	6.94	2.86%	4.65	1.82%	3.67	1.34%
McLaren Caro Region - 1329	4	0.48	4.79%	0.38	3.33%		
McLaren Flint - 0141	3	14.36	3.66%	5.6	1.43%	5.67	1.50%
McLaren Lapeer Region - 0193	3	5.75	5.61%	2.15	2.07%	2.07	2.11%
McLaren Macomb - 0227	3	20.27	8.15%	4.47	1.61%	5.46	1.98%
McLaren Oakland - 0207	3	5.99	4.98%	2.48	1.84%	3.29	2.31%
McLaren Port Huron - 0216	2	7.77	4.75%				
McLaren Port Huron - 0216	3			4.12	2.48%	3.86	2.12%
McLaren Thumb Region - 0118	3	0.82	2.87%	0.48	1.53%	0.38	1.25%
McLaren-Northern Michigan - 0105	3	5.15	2.89%	5.38	2.63%	4.38	2.07%
Memorial Healthcare - 0121	4	2.08	2.60%	1.17	1.19%		

Mercy Health Muskegon - 0066	2	11.15	6.82%	6.68	8.84%	8.57	1.90%
Mercy Health Partners - Lakeshore Campus - 1320	2	1.06	6.37%	0.63	3.61%	0.81	4.26%
Mercy Health Partners - Mercy Campus - 0004	2	9.01	6.19%				
Metro Health Hospital - 0236	2	13.53	6.12%	7.57	2.89%	4.86	1.69%
Mid Michigan Medical Center - Gladwin - 1325	2	0.89	4.35%	0.68	2.95%	0.63	2.71%
MidMichigan Medical Center - Alpena - 0036	2	2.59	2.88%	1.16	1.17%	1.29	1.09%
MidMichigan Medical Center - Clare - 0180	2	1.67	5.33%	0.78	2.16%	0.94	2.37%
MidMichigan Medical Center - Gratiot - 0030	2	3.14	3.83%	1.36	1.58%	1.95	2.21%
MidMichigan Medical Center - Midland - 0222	2	7.69	3.13%	4.04	1.24%	3.98	1.23%
MidMichigan Medical Center - West Branch - 0095	1	2.23	5.78%	1.65	3.85%	0.88	2.13%
Munising Memorial Hospital – 1308	1	0.46	5.78%	0.15	1.99%	0.24	3.47%
Munson Healthcare Cadillac Hospital - 0081	2	2.8	4.54%	0.96	1.34%	0.61	0.82%
Munson Healthcare Charlevoix Hospital - 1322	1	0.93	3.24%				
Munson Healthcare Charlevoix Hospital - 1322**	2			0.43	1.21%		
Munson Healthcare Charlevoix Hospital - 1322	2					0.5	1.27%
Munson Healthcare Grayling Hospital - 0058	2	2.54	4.23%	0.8	1.31%	0.58	0.94%
Munson Healthcare Otsego Memorial Hospital - 0133	4	1.36	2.61%	0.87	1.39%		
Munson Medical Center - 0097	2	23.09	4.97%	9.2	1.90%	7.48	1.47%
North Ottawa Community Hospital - 0174	2	2.09	4.66%	0.82	1.57%	0.88	1.54%
Oakland Regional Hospital - 0301	4	0.11	0.40%	0.22	0.96%		
Oaklawn Hospital - 0217	2	4.46	5.09%				
Oaklawn Hospital - 0217	1			1.6	1.85%	1.5	1.59%
Paul Oliver Memorial Hospital - 1300	2	1.12	8.16%	0.66	4.73%	0.39	2.79%
Pine Rest Christian Hospital - 4006	2	0.55	1.01%	1.19	1.91%	0.87	1.25%
ProMedica Coldwater Regional Hospital - 0022	4	5.64	9.16%	2.11	3.94%		
ProMedica Herrick Hospital – 1334	4	0.59	1.88%	0.54	2.49%		
ProMedica Monroe Regional Hospital – 0099	2	9.63	6.55%				
ProMedica Monroe Regional Hospital – 0099	4			3.33	2.61%		
Promedica Bixby Hospital - 0005	4	1.2	1.70%	1.31	1.71%		
Providence-Providence Park Hospital - 0019	2	21.83	3.65%	10.02	1.57%	11.25	1.80%
Rehabilitation Institute - 3027	4	1.54	1.90%	1.51	1.95%		

Saint Mary's Standish Community Hospital - 1305	2	0.89	4.49%	0.4	2.18%	0.55	3.18%
Samaritan Behavioral Center - 4040	4	0.09	0.99%	0.1	1.09%		
Scheurer Hospital - 1310	2	1.58	5.37%	0.91	2.71%	0.65	1.86%
Schoolcraft Memorial Hospital - 1303	4	0.34	1.74%	0.12	0.50%		
Sheridan Community Hospital - 1312	1	1.05	8.10%	0.48	3.47%	0.46	3.89%
Sinai-Grace Hospital - 0024	4	29.02	9.21%	6.61	2.13%		
Southeast Michigan Surgical Hospital - 0264	4	0.04	0.32%				
Southwest Regional Rehabilitation Hospital - 3025	2	0.46	3.88%				
Sparrow Carson Hospital - 0208	4	1.39	3.25%	0.9	1.78%		
Spectrum Health - 0038	2	33.42	2.86%	21.56	1.58%	25.04	1.79%
Spectrum Health - Reed City Campus - 1323	2	2.94	6.80%	0.85	1.66%	1.1	2.16%
Spectrum Health Big Rapids - 0093	2	2.68	5.81%	2.39	4.17%	1.91	3.44%
Spectrum Health Gerber Memorial - 0106	2	3	5.00%				
Spectrum Health Gerber Memorial - 1338	2			1.98	2.78%	3.13	4.13%
Spectrum Health Ludington Hospital - 0110	3	2.3	4.13%				
Spectrum Health Ludington Hospital - 0110	2			2	2.92%	1.74	2.50%
Spectrum Health Pennock - 0040	3	2.28	4.66%				
Spectrum Health Pennock - 0040*	2			1.97	3.91%		
Spectrum Health Pennock – 0040	2					1.39	2.61%
Spectrum Health United Hospital - 0035	2	2.61	4.36%	2.07	2.91%	2.27	3.11%
Spectrum Health United Memorial - Kelsey Campus - 1317	2	0.89	7.01%	0.77	5.78%	0.86	6.73%
Spectrum Health Zeeland Community Hospital - 0003	2	1.6	3.87%	1.57	3.09%	1.79	3.23%
St Joseph Mercy Chelsea - 0259	2	2.61	2.76%	1.18	1.16%	1.15	1.11%
St. Francis Hospital & Medical Group - 1337	3	4.24	7.27%	1.85	2.94%	1.72	2.68%
St. John Hospital and Medical Center - 0165	2	36.69	5.47%	14.07	1.81%	11.99	1.74%
St. John Macomb-Oakland Hospital-Macomb Center - 0195	2	22.49	6.22%	10.5	2.89%	9.58	2.68%
St. John River District Hospital - 0241	2	1.2	2.68%	0.65	1.51%	0.54	1.27%
St. Joseph Mercy Hospital - Ann Arbor - 0156	2	30.63	4.53%	10.3	1.50%	6.87	1.14%
St. Joseph Mercy Livingston Hospital - 0069	2	8.44	8.86%	4.64	5.68%	2.28	2.59%
St. Joseph Mercy Oakland - 0029	2	14.02	4.84%	6.24	2.05%	4.09	1.31%
St. Mary Mercy Hospital - 0002	2	10.82	5.26%	3.33	1.50%	3.43	1.59%

St. Mary's Health Care (Grand Rapids) - 0059	2	15.86	4.68%	9.37	2.11%	9.56	2.08%
St. Mary's of Michigan Medical Center - 0077	2	18.3	8.00%	5.32	2.38%	4.75	2.23%
Straith Memorial Hospital - 0071	4	0.03	0.32%	0.06	0.57%		
Sturgis Memorial Hospital - 0096	3	2.34	7.02%	1.26	3.64%	0.67	1.87%
Tawas St. Joseph Hospital - 0100	2	2.22	5.35%	1.02	2.51%	0.79	2.00%
The Behavioral Center of Michigan - 4042	4	0.08	0.92%	0.11	1.14%		
Three Rivers Health - 0015*	4	2.58	6.58%				
Three Rivers Health – 0015	4			1.01	2.45%		
UP Health System - Portage - 0108	2	1.08	1.88%				
UP Health System - Portage - 0108*	4	1.11	1.86%				
UP Health System - Portage - 0108	4			0.14	0.29%		
University of Michigan Health System - 0046	2	52.28	2.38%	37.09	1.42%	30.6	1.13%

Note: All cost figures have been annualized and converted into 2015 dollars.

***Contains observations that are either less than, (* < 362), or more than, (** > 365), 365 days.

Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

January 16, 2018

University of Michigan
Institute for Healthcare Policy & Innovation

Evaluation team: Susan Dorr Goold, Renuka Tipirneni, Adrianne Haggins, Eric Campbell, Cengiz Salman, Edith Kieffer, Erica Solway, Lisa Szymecko, Sarah Clark, Sunghee Lee

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Acknowledgement: The authors would like to acknowledge the valuable insights provided by Zachary Rowe from Friends of Parkside and the members of the Steering Committee: Karen Calhoun, Michigan Institute for Clinical and Health Research and City Connect Detroit; Adnan Hammad, Global Health Research, Management and Solutions; Lynnette LaHahnn, AuSable Valley Community Mental Health Authority; Charo Ledón, Acción Buenos Vecinos; Raymond Neff, Spectrum Health; Jennifer Raymond, Mid-Michigan Community Action; George Sedlacek, Marquette County YMCA; and Ashley Tuomi, American Indian Health and Family Services.

EXECUTIVE SUMMARY

The University of Michigan Institute for Healthcare Policy and Innovation (IHPI) is conducting the evaluation required by the Centers for Medicare and Medicaid Services (CMS) of the Healthy Michigan Plan (HMP) under contract with the Michigan Department of Health and Human Services (MDHHS). The fourth aim of Domain IV of the evaluation is to describe primary care practitioners' experiences with Healthy Michigan Plan beneficiaries, practice approaches and innovation adopted or planned in response to the Healthy Michigan Plan, and future plans regarding care of Healthy Michigan Plan patients.

Methods

We conducted 19 semi-structured telephone interviews with primary care practitioners caring for Healthy Michigan Plan patients in five Michigan regions selected to include racial/ethnic diversity and a mix of urban and rural communities. Interviews informed survey items and measures and enhanced the interpretation of survey findings.

We then surveyed all primary care practitioners in Michigan with at least 12 assigned Healthy Michigan Plan patients about practice changes and innovations since April 2014 and their experiences caring for patients with the Healthy Michigan Plan.

Results

The final response rate was 56% resulting in 2,104 respondents.

Knowledge of Patient Insurance

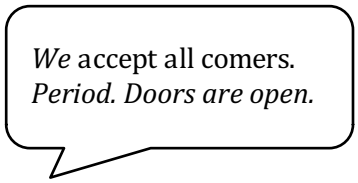
- 53% report knowing a patient's insurance at the beginning of an appointment
- 91% report that it is easy to find out a patient's insurance status
- 35% report intentionally ignoring a patient's insurance status

Familiarity with HMP

- 71% very or somewhat familiar with how to complete a Health Risk Assessment
- 25% very/somewhat familiar with beneficiary cost-sharing
- 36% very/somewhat familiar with healthy behavior incentives for patients
- PCPs working in small, non-academic, non-hospital-based and FQHC practices and those with predominantly Medicaid or uninsured patients reported more familiarity with HMP

Acceptance of Medicaid and HMP

- 78% report accepting <u>new</u> Medicaid/HMP patients – more likely if:
    - Female, racial minorities or non-physician PCPs
    - Internal medicine specialty
    - Salary payment
    - Medicaid predominant payer mix
    - Previously provided care to underserved
    - Stronger commitment to caring for underserved
- 73% felt a responsibility to care for patients regardless of their ability to pay
- 72% agreed all providers should care for Medicaid/HMP patients



Changes in Practice

- 52% report an increase in new patients to a great or to some extent
- 56% report an increase in the number of new patients who hadn't seen a PCP in many years
- 51% report established patients who had been uninsured gained insurance
- Most practices hired clinicians (53%) and/or staff (58%) in the past year
- 56% report consulting with care coordinators, case managers and/or community health workers

- 41% said that almost all established patients who request a same or next day appointment can get one; 34% said the proportion getting those appointments had increased over the past year
- FQHCs, those with predominantly uninsured, Medicaid and mixed payer mixes and suburban practices were more likely to report an increase in new patients. FQHCs, and those with predominantly Medicaid payer mix, were more likely to report existing patients who had been uninsured gained insurance, and an increase in the number of patients who hadn't seen a PCP in many years.
- Large and FQHC practices were more likely to have hired new clinicians in the past year. Small, non-FQHC, academic and suburban practices and were less likely to report hiring additional staff.

Your working poor people who just were in between the cracks, didn't have anything, and now they've got something, which is great.

- Large and FQHC practices and those with predominantly private or uninsured payer mixes were all more likely to report consulting with care coordinators, case managers and/or community health workers in the past year.
- MiPCT practices were more likely to have newly co-located mental health in the past year.

Experiences Caring for HMP Beneficiaries - Health Risk Assessments

- 79% completed at least one HRA with a patient; most of those completed >10
- 65% don't know if they or their practice has received a bonus for completing HRAs
- PCPs reported completing more HRAs if they
    - Were located in Northern regions
    - Were paid by capitation or salary compared to fee-for-service
    - Reported receiving a financial incentive for completing HRAs
    - Were in a smaller practice (5 or fewer) size
- 58% reported that financial incentives for patients and 55% reported financial incentives for practices had at least a little influence on completing HRAs
- 52% said patients' interest in addressing health risks had at least some influence on HRA completion
- Most PCPs found HRAs useful for identifying and discussing health risks, persuading patients to address their most important health risks, and documenting behavior change goals

What I've heard people say is "I just want to stay healthy or find out if I'm healthy."

ER Use and Decision Making

- 30% felt that they could influence non-urgent ER use by their patients a great deal (and 44% some)
- 88% accepted major or some responsibility as a PCP to decrease non-urgent ER use
- Many reported offering services to avoid non-urgent ER use, such as walk-in appointments, 24-hour telephone triage, weekend and evening appointments, and care coordinators or social work assistance for patients with complex problems
- PCPs identified care without an appointment, being the place patients are used to getting care and access to pain medicine as major influences for non-urgent ER use
- PCPs recommended PCP practice changes, ER practice changes, patient educational initiatives, and patient penalties/incentives when asked about strategies to reduce non-urgent ER use

People who work day shift…It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.

Access

- PCPs with HMP patients who were previously uninsured reported some or great impact on health, health behavior, health care and function for those patients. The greatest impact was for control of chronic conditions, early detection of serious illness, and improved medication adherence

I learned a long time ago if the patient doesn't take the medicine, they don't get better…if they don't have insurance to cover it and they don't ever pick it up, then they're not going to take it.

- PCPs reported that HMP enrollees, compared to those with private insurance, more often had difficulty accessing specialists, medications, mental health care, dental care, treatment for substance use and counseling for behavior change

It can still take up to six months to see a psychiatrist unless you get admitted to the hospital.

Discussing Costs with Patients

- 22% of PCPs reported discussing out-of-pocket costs with an HMP patient. The patient was the most likely one to bring up the topic
- 56% of the time, such a discussion resulted in a change of management plans
- PCPs who were white, Hispanic/Latino, non-physician practitioners and with Medicaid or uninsured predominant payer mixes were more likely to have cost conversations with patients
- PCPs who were younger and in rural practices were more likely to report a change in management due to cost conversations with patients

Impact and Suggestions to Improve the Healthy Michigan Plan

We provided PCPs open-ended opportunities in the survey to provide additional information. We asked about the impact of HMP:

- PCPs noted HMP has allowed patients to get much needed care, improved financial stability, provided a sense of dignity, improved mental health, increased accessibility to care and compliance (especially medications), helped people engage in healthy behaviors like quitting smoking and saved lives

And also about suggestions to improve HMP:

- Educating patients about health insurance, health behaviors, when and where to get care, medication adherence and greater patient responsibility
- Improving accessibility to other providers, especially mental health and other specialists, and improving reimbursement
- Educating providers and providing up-to-date information about coverage, formularies, administrative processes and costs faced by patients
- Better coverage for some services (e.g., physical therapy)
- Formularies should be less limited, more transparent and streamlined across plans
- Decrease patient churn on/off insurance

Conclusions

Our survey results, and the more detailed accounts from interviews, indicate that HMP has improved access to care and, especially for previously uninsured patients, led to new detection of serious conditions, adherence to medications, management of chronic conditions, and improved health behaviors.

PCPs in Michigan, as in other states, reported improved detection and management of chronic conditions such as diabetes and hypertension in patients who gained coverage due to Medicaid expansion, and better adherence to medical regimens. Most PCPs also reported that the Healthy Michigan Plan had a positive impact on improved health behaviors, better ability to work or attend school, improved emotional wellbeing and improved ability to live independently. In interviews, PCPs described previously uninsured patients for whom they had identified serious illness early; survey results confirmed these are frequent experiences reported by PCPs.

PCPs reported an increase in new patients, including some who had not sought primary care in many years. They reported hiring clinicians and staff; changing workflow for new patients; co-locating

mental health care in primary care; and consulting with care coordinators, case managers, and community health workers. Perhaps due to those changes, few reported that established patients' access to same- or next-day appointments worsened.

We found that PCP demographics, salary structure, history of caring for the underserved and perceived practice capacity were all associated with continued acceptance of new Medicaid patients. These results confirm several of the same factors considered important to PCPs in prior studies – practice capacity, specialist availability, medical and psychosocial needs of Medicaid patients. In addition, PCPs in our survey placed less emphasis on reimbursement, perhaps because many served in salaried positions, or because they instead emphasized professional commitment to caring for the poor and underserved.

Access to some services (e.g., specialty care, mental health care) remains challenging. Disparities in access have been noted for Medicaid patients before and after the ACA in other states. As one of our interviewed physicians said, "It's kind of a mess. But I don't blame Medicaid expansion for that. It was a mess before then."

Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

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The University of Michigan Institute for Healthcare Policy and Innovation (IHPI) is conducting the evaluation required by the Centers for Medicare and Medicaid Services (CMS) of the Healthy Michigan Plan (HMP) under contract with the Michigan Department of Health and Human Services (MDHHS). The fourth aim of Domain IV of the evaluation is to describe primary care practitioners' experiences with Healthy Michigan Plan beneficiaries, practice approaches and innovation adopted or planned in response to the Healthy Michigan Plan, and future plans regarding care of Healthy Michigan Plan patients.

METHODS

IN-DEPTH INTERVIEWS WITH PRIMARY CARE PRACTITIONERS

Sample: To develop PCP survey items and measures, and to enhance the interpretation of survey findings, we conducted 19 semi-structured interviews with primary care practitioners caring for Medicaid/Healthy Michigan Plan patients between December 2014 and April 2015. These interviews were conducted in five Michigan regions: Detroit, Kent County, Midland/Bay/Saginaw Counties, Alcona/Alpena/Oscoda Counties, and Marquette/Baraga/Iron Counties. These regions were purposefully selected to include racial/ethnic diversity and a mix of urban and rural communities. Interviewees were both physicians and non-physician practitioners who worked at small private practices, Federally Qualified Health Centers (FQHCs), free/low-cost clinics, hospital-based practices, or rural practices.

Interview Topics: Topics included: provider knowledge/awareness of patient insurance and experiences caring for HMP patients, including facilitators and challenges of accessing needed care; changes in practice, due to or to meet the needs of HMP patients; how decisions were made about whether to accept Medicaid/HMP patients and what might change PCPs' acceptance of new Medicaid/HMP patients in the future; provider and patient decision-making about ER use; experience with Health Risk Assessments (HRAs), and any knowledge or conversation with patients about out of pocket costs.

Analysis: Interviews were audio recorded, transcribed and coded iteratively using grounded theory and standard qualitative analysis techniques.[1,2] Quotations that illustrate key findings included in this report were drawn from these interviews.

SURVEY OF PRIMARY CARE PRACTITIONERS

To evaluate the impact of the Healthy Michigan Plan, we surveyed primary care practitioners about their experiences caring for Healthy Michigan Plan beneficiaries, new practice approaches and innovations, and future plans.

Sample: The sample was drawn from the 7,360 National Provider Identifier (NPI) numbers assigned in the MDHHS Data Warehouse as the primary care provider for at least one Healthy Michigan Plan managed care member as of April 2015. Eligible for the survey were those with at least 12 assigned members (an average of one per month); 2,813 practitioners were excluded based on <12 assigned members. Of the remaining 4,547 NPIs, 25 were excluded because the NPI entity code did not reflect an individual physician (20 were organizational NPIs, 4 were deactivated, and 1 was invalid). Also excluded were 161 physicians with only pediatric specialty; 4 University of Michigan physicians involved in the Healthy Michigan Plan evaluation; and 35 physicians with out-of-state addresses >30 miles from the Michigan border. After exclusions, 4,322 primary care practitioners (3,686 physicians and 636 nurse practitioners/physician assistants) remained as the survey sampling frame.

Survey Design: The survey included measures of primary care practitioner and practice characteristics, and measures related to the Healthy Michigan Plan on a variety of topics, including:

- Plans to accept new Medicaid patients
- Perceptions of difficulty accessing care for Healthy Michigan Plan beneficiaries with parallel questions about difficulty accessing care for privately insured patients
- Experiences with Healthy Michigan Plan beneficiaries regarding decision making about emergency department use
- Perceptions of influences on non-urgent ER use by Healthy Michigan Plan beneficiaries
- Practice approaches in place to prevent non-urgent ER use
- Experiences of caring for newly insured Medicaid patients, including ability to access non-primary care (specialty care, equipment, medication, dental care, mental health care)
- New practice approaches adopted within the previous year
- Future plans regarding care of Medicaid patients

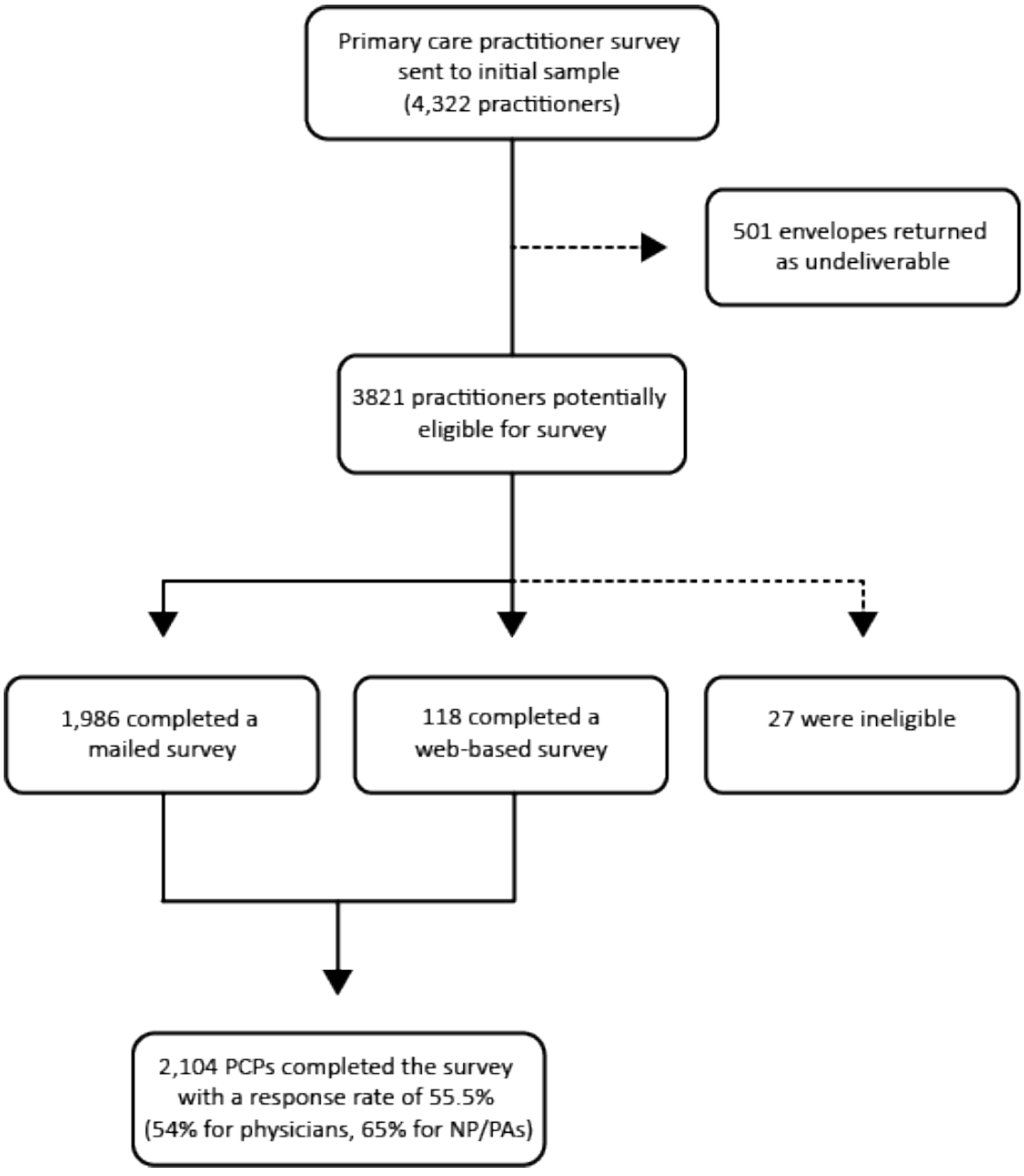
Drs. Goold, Campbell and Tipirneni developed the survey questions in collaboration with other members of the research team. The development process began by identifying the key survey domains through an iterative process with the members of the evaluation team. Then, literature searches identified survey items and scales measuring the domains of interest.[3-8] For domains without existing valid measures, items were developed from data collected from the 19 semi-structured individual interviews with PCPs. New items were cognitively pretested with two primary care practitioners who serve Healthy Michigan Plan patients, one MD from a low-cost clinic and one PA from a private practice. Both practitioners were asked about their understanding of each original survey item, their capacity to answer these questions, and how they would answer said items. The final survey itself was pretested with one PCP for timing and flow.

Survey Administration: Primary care provider addresses were identified from the MDHHS data warehouse Network Provider Location table, the MDHHS Provider Enrollment Location Address table, and the National Plan & Provider Enumeration System (NPPES) registry detail table linked to NPI. Research assistants reviewed situations where primary care practitioners had multiple addresses, and selected (a) the address with more detail (e.g., street address + suite number, rather than street alone), (b) the address that occurred in multiple databases, or (c) the address that matched an internet search for that physician.

The initial survey mailing occurred in June 2015 and included a personalized cover letter describing the project, a Fact Sheet about the Healthy Michigan Plan, a hard copy of the survey, a $20 bill, and a postage-paid return envelope. The cover letter gave information on how to complete the survey via Qualtrics, rather than hard copy. Two additional mailings were sent to nonrespondents in August and September 2015. Data from mail surveys returned by November 1, 2015, were entered in an excel spreadsheet, reviewed for accuracy, and subsequently merged with data from Qualtrics surveys.

Survey Response Characteristics: Of the original sample of 4,322 primary care practitioners in the initial sample, 501 envelopes were returned as undeliverable. Of the 2,131 primary care practitioners who responded, 1,986 completed a mailed survey, 118 completed a Qualtrics survey, and 27 were ineligible (e.g., retired, moved out of state). The final response rate was 56% (54% for physicians, 65% for nurse practitioners/physician assistants) (Figure 1).

Figure 1. Flowchart of PCP Survey Response Rates



Comparison of the 2,104 eligible respondents and the 1,690 nonrespondents revealed no differences in gender, birth year, number of affiliated Medicaid managed care plans, and FQHC designation. More nonrespondents had internal medicine specialty and practiced in urban areas (Table 1).

Table 1. Comparison of Respondents to Nonrespondents

	Respondents (N=2,104)	Nonrespondents (N=1,690)	p
Gender			
Female	44.6	43.7	NS
Male	55.4	56.3	
Birth Year			
1970 or earlier	71.0	69.5	NS
1971 or later	29.0	30.5	
Medicaid Managed Care Plans			
1 plan	20.5	20.1	NS
2 plans	27.2	25.7	
3 or more plans	52.3	54.2	
Practice setting			
FQHC	14.9	14.7	NS
Not FQHC	85.1	85.3	
Specialty			
Family/general practice	54.5	51.0	
Internal medicine	27.3	36.3	<.0001
Nurse practitioner/physician assistant	17.0	11.3	
Ob-gyn/other	1.2	1.4	
Urbanicity			
Urban	75.8	83.1	<0.001
Suburban	8.8	7.3	<0.001
Rural	15.4	9.6	
Region			
Upper Peninsula/Northwest/Northeast	14.5	8.3	
West/East Central/East	32.9	31.6	<0.001
South Central/Southwest/Southeast	21.3	23.9	
Detroit Metro	31.3	36.3	

Analysis: We calculated descriptive statistics such as proportion of primary care practitioners reporting difficulty accessing specialty care for Healthy Michigan Plan beneficiaries or experiences related to emergency department decision making. No survey weighting was necessary, as the sample included the full census of PCPs with ≥12 HMP patients. Bivariate and multivariate logistic regression analysis was used to assess the association of independent variables (personal, professional and practice characteristics) with dependent variables - practice changes reported since Medicaid expansion. Multivariate models were run with and without interaction variables (Ownership*Practice size and FQHC*predominant payer type), and chi-square goodness-of-fit tests calculated. All analyses were performed using STATA version 14 (Stata Corp, College Station, TX. Quotes from practitioner interviews have been used to expound upon some key findings from our analysis of survey data. To address practice-level clustering where more than one PCP from a practice completed the survey, sensitivity analyses were performed for each regression model, adding practice ID as a random intercept in the model. Results from these analyses did not represent any changes in significance or direction of associations, and full output from these analyses can be found in the appendix.

RESULTS FROM SURVEY OF PRIMARY CARE PRACTITIONERS

Survey results are presented in the following format:

Topic

Key findings

Illustrative quote(s) from PCP interviews

Tables of Results

Numeric endnotes in tables refer to citations for survey measures

NS indicates p≥.05

Results of analysis of relationships (e.g., chi-square, multivariate logistic regression) with reference to tables in Appendix A.

Respondents' Personal, Professional and Practice Characteristics

Just over half of respondents were men. About 80% self-identified as white. Eleven percent identified as Asian/Pacific Islander, with small numbers in other racial and ethnic groups. More than 80% of respondents were physicians, although nearly three-quarters had non-physician providers in their practice. About half identified their specialty as family medicine and a quarter as internal medicine. More than half were in practices with 5 or fewer providers; 15% practiced in FQHCs. Three-quarters of PCP respondents practiced in urban settings, 31% in Detroit. Their self-reported payer mix varied; about one-third had Medicaid/HMP as the predominant payer (Table 2).

Table 2. Personal, Professional and Practice Characteristics of PCP Respondents (N=2,104)

Personal characteristics		
Gender	**N**	**%**
Male	1,165	55.4
Female	939	44.6
Race		
White	1,583	79.3
Black/African-American	93	4.7
Asian/Pacific Islander	224	11.2
American Indian/Alaska Native	10	0.5
Other	86	4.3
Ethnicity		
Hispanic/Latino	46	2.3
Non-Hispanic/Latino	1,978	97.7
Professional characteristics		
Provider type	**N**	**%**
Physician	1,750	83.2
Non-Physician (NP/PA)	357	16.8
Specialty		
Family medicine	1,123	53.4
Internal medicine	507	24.1
Medicine-Pediatrics	67	3.2
General practice (GP)	24	1.1
Obstetrics/Gynecology (OB/Gyn)	12	0.6
Nurse practitioner (NP)	192	9.1
Physician's Assistant (PA)	165	7.8
Other	14	0.7

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Board/Specialty certification		
Yes	1,695	81.6
No	383	18.4
Years in practice		
<10 years	520	25.9
10-20 years	676	33.7
>20 years	810	40.4
Provider ownership of practice		
Full-owner	446	22.0
Partner/part-owner	232	11.4
Employee	1,352	66.6
Practice characteristics		
Practice size (mean, median, SD)	7.5, 5, 16.5	
Small (≤5 practitioners)[a]	1,157	57.5
Large (≥6 practitioners)	855	42.5
Presence of non-physician practitioners in practice[b]	1,275	71.7
Federally qualified health center (FQHC)	311	14.9
University/teaching hospital practice	276	13.1
Hospital-based practice (non-teaching)	643	30.7
Payer mix (current % of patients with insurance type)	**Mean %**	**SD**
Private	32.8%	19.8
Medicaid	23.3%	18.3
Healthy Michigan Plan	10.9%	11.8
Medicare	30.2%	16.7
Uninsured	5.8%	7.1
Predominant payer mix[c]	**N**	**%**
Private	522	27.4
Medicaid/Healthy Michigan Plan	686	36.0
Medicare	645	33.9
Uninsured	15	0.8
Mixed	37	1.9
Payment arrangement		
Fee-for-service	784	37.5
Salary	946	45.3
Capitation	44	2.1
Mixed	275	13.2
Other	40	1.9
Participation in MiPCT	511	24.3
Urbanicity[d]		
Urban	1,584	75.3
Suburban	193	9.2
Rural	327	15.5
Region		
Upper Peninsula/NW/NE	301	14.6
West/East Central/East	675	32.8
South Central/SW/SE	438	21.3
Detroit Metro	642	31.2

[a] Dichotomized at sample median

[b] >5% missing

[c] Composite variable of all current payers: payer is considered predominant for the practice if >30% of physician's patients have this payer type and <30% of patients have any other payer type. "Mixed" includes practices with more than one payer representing >30% of patients, or practices with <30% of patients for each payer type.
[d] Zip codes and county codes were linked to the U.S. Department of Agriculture Economic Research Service 2013 Urban Influence Codes to classify regions into urban (codes 1-2), suburban (codes 3-7) and rural (codes 8-12) designations.

Knowledge of Patient Insurance

Because we relied on PCPs to report their experiences caring for patients with Healthy Michigan Plan coverage we asked them questions about their knowledge of patients' insurance status.

About half report knowing what kind of insurance a patient has at the beginning of an encounter. Nearly all report that it is easy to find out a patient's insurance status. About a third report intentionally ignoring a patient's insurance status (Table 3).

Table 3. Knowledge of Patients' Insurance Status

	Strongly agree	Agree	Neither	Disagree	Strongly disagree
If I need to know a patient's insurance status it is easy to find out (n=2,081)	43.4%	47.2%	6.3%	2.7%	0.3%
I know what kind of insurance a patient has at the beginning of an encounter (n=2,081)	21.2%	32.2%	16.4%	20.5%	9.6%
I ignore a patient's insurance status on purpose so it doesn't affect my recommendations (n=2,078)	14.1%	20.8%	26.4%	27.8%	10.8%
I only find out about a patient's insurance coverage if they have trouble getting something I recommend (n=2,071)	13.6%	26.6%	19.0%	31.3%	9.5%

Familiarity with Healthy Michigan Plan

PCPs report familiarity with how to complete and submit a Health Risk Assessment. They report less familiarity with beneficiary cost-sharing and rewards, and the availability of specialists and mental health services (Table 4).

We hypothesized that PCPs in different practice settings would differ in their familiarity with Healthy Michigan Plan.

PCPs working in small, non-academic, non-hospital-based and FQHC practices, as well as practices with predominantly Medicaid or uninsured payer mixes, reported greater familiarity with Healthy Michigan Plan (Appendix A, Table 1).

> *But I mean it's not reported to me. I don't know anything about their health accounts or MI Health account kind of thing.*
>
> - Rural physician; Small, private practice

Table 4. Familiarity with Healthy Michigan Plan

	Very familiar	Somewhat familiar	A little familiar	Not at all familiar
In general, how familiar are you with the Healthy Michigan Plan? (n=2,031)	15.1%	38.2%	27.4%	19.3%
How familiar are you with the following:				
How to complete a Health Risk Assessment (n=2,028)	47.6%	23.3%	13.6%	15.5%
How to submit a Health Risk Assessment (n=2,025)	34.6%	23.2%	17.5%	24.7%
Healthy behavior incentives that Healthy Michigan Plan Patients can receive (n=2,032)	12.6%	23.7%	27.0%	36.7%
Specialists available for Healthy Michigan Plan patients (n=2,027)	9.3%	27.3%	26.3%	37.1%
Mental health services available for Healthy Michigan Plan patients (n=2,032)	7.7%	18.2%	27.8%	46.4%
Out-of-pocket expenses Healthy Michigan Plan Patients have to pay (n=2,031)	6.7%	18.6%	28.4%	46.3%
Dental coverage in the Healthy Michigan Plan (2,032)	4.4%	13.5%	20.4%	61.7%

Acceptance of Medicaid and Healthy Michigan Plan

About 4 in 5 survey respondents reported accepting <u>new</u> Medicaid/Healthy Michigan Plan patients (Table 5). Most PCPs reported having at least some influence on that decision. Capacity to accept any new patients was rated as a very important factor in decisions to accept Medicaid/ Healthy Michigan Plan patients (Table 6). Of PCPs' <u>established patients</u>, an average of 11% had Healthy Michigan Plan and 23% had Medicaid as their primary source of coverage (Table 2).

> *We accept all comers. Period. Doors are open. Come on in. But I have to add a comment to that or a clarification…a qualification to that. My nurse manager…The site manager just came to me on Monday of this week and said, "You know, [name], if a person wants a new appointment with you, we're scheduling…It's like the end of April. There are so many patients now that are in the system that even for routine follow-up stuff, we can't get them in."*
>
> – Urban physician, FQHC

Most PCPs reported providing care in a setting that serves poor and underserved patients with no anticipation of being paid in the past three years, and nearly three-quarters felt a responsibility to care for patients regardless of their ability to pay. Nearly three-quarters agreed all practitioners should care for Medicaid/Healthy Michigan Plan patients (Table 7).

We hypothesized that acceptance of new Medicaid/Healthy Michigan Plan patients would vary by PCPs' personal, professional and practice characteristics.

In multivariate analyses, PCPs were more likely to accept new Medicaid/Healthy Michigan Plan patients if the PCP was female, a racial minority, a non-physician provider, specializing in internal

medicine, paid by salary vs. fee-for service, with prior history of care to the underserved, or working in practices with Medicaid predominant payer mixes. PCPs were less likely to accept new Medicaid/Healthy Michigan Plan patients if they considered their practice's overall capacity to accept new patients important (Table 8).

> *[A]s long as the rural health center plans still pay me adequately, I don't foresee making any changes. If they were to all of a sudden say, "Okay, we're only going to reimburse 40% or 50% of what we used to," that would be enough to put me out of business. So I would think twice about seeing those patients then, but as long as they continue the way they have been for the last six years that I've owned the clinic, I don't see making any changes. It works just fine.*
>
> – Rural nurse practitioner, Rural health center

We asked PCPs whether they were currently accepting new patients with Healthy Michigan Plan and other types of insurance:

Table 5. Acceptance of New Patients by Insurance Type[5]

Accepting *new* patients, by type of insurance	%
Private (n=1,774)	87.0%
Medicaid* (n=1,517)	75.0%
Healthy Michigan Plan* (n=1,464)	72.8%
Medicare (n=1,717)	84.4%
No insurance (i.e., self-pay) (n=1,541)	76.4%

*Combined, 1,575 (78%) of PCP respondents reported accepting new patients with either Healthy Michigan Plan or Medicaid.

How much influence do you have in making the decision to accept or not accept Medicaid or Healthy Michigan Plan patients in your practice?[1]

The decision is entirely mine (n=459)	I have a lot of influence (n=275)	I have some influence (n=425)	I have no influence (n=866)
22.7%	13.6%	21.0%	42.8%

Table 6. Importance for Accepting New Medicaid or Healthy Michigan Plan Patients

Please indicate the importance of each of the following for your practice's decision to accept new Medicaid or Healthy Michigan Plan patients:	Very important	Moderately important	Not very important	Not at all important	Don't know
Capacity to accept new patients with any type of insurance (n=2,049)	37.8%	31.1%	9.1%	8.6%	13.3%
Reimbursement amount (n=2,056)	25.9%	29.8%	13.3%	15.1%	15.9%
Availability of specialists who see Medicaid or Healthy Michigan Plan patients (n=2,052)	25.7%	30.1%	15.1%	13.8%	15.3%
Psychosocial needs of Medicaid or Healthy Michigan Plan patients (n=2,051)	19.7%	30.4%	18.3%	16.8%	14.8%
Illness burden of Medicaid or Healthy Michigan Plan patients (n=2,052)	18.0%	28.0%	21.5%	18.0%	14.4%

Table 7. Attitudes About Caring for Poor or Underserved Patients

	Strongly agree	Agree	Neither	Disagree	Strongly disagree
All practitioners should care for some Medicaid/Healthy Michigan Plan patients (n=2,073)	45.4%	26.8%	16.7%	7.2%	3.9%
It is my responsibility to provide care for patients regardless of their ability to pay (n=2,066)	42.3%	31.1%	13.6%	9.2%	3.8%
Caring for Medicaid/Healthy Michigan Plan patients enriches my clinical practice (n=2,067)	20.2%	28.5%	36.1%	11.9%	3.2%
Caring for Medicaid/Healthy Michigan Plan patients increases my professional satisfaction (n=2,064)	18.4%	26.3%	38.5%	12.6%	4.3%

In the past three years, have you provided care in a setting that serves poor and underserved patients with no anticipation of being paid?

Yes (n=1,153)	No (n=871)
57.0%	43.0%

Table 8. Multivariate Analysis of Association of PCP and Practice Characteristics with Medicaid Acceptance

	Unadjusted Odds of Medicaid Acceptance OR [95% CI]	Adjusted[a] Odds of Medicaid Acceptance aOR [95% CI]
Personal and professional characteristics		
Female	1.59 [1.28, 1.98]**	1.32 [1.01, 1.72]*
Race		
White	[ref]	[ref]
Black/African American	3.93 [1.80, 8.57]*	3.46 [1.45, 8.25]*
Asian/Pacific Islander	1.76 [1.20, 2.58]*	1.84 [1.21, 2.80]*
Other	1.94 [1.04, 3.62]*	1.79 [0.84, 3.80]
Ethnicity, Hispanic	1.88 [0.79, 4.48]	1.54 [0.56, 4.22]
Years in practice		
<10 years	[ref]	[ref]
10-20 years	0.69 [0.51, 0.93]*	0.87 [0.62, 1.22]
>20 years	0.51 [0.38, 0.68]**	0.82 [0.58, 1.15]
Non-physician provider (vs. physician provider)	4.78 [3.09, 7.40]**	2.21 [1.32, 3.71]*
Specialty		
Family medicine	[ref]	[ref]
Internal medicine	1.43 [1.12, 1.83]*	1.47 [1.09, 1.97]*
Nurse practitioner (NP)	7.81 [3.95, 15.45]**	3.53 [1.64, 7.61]*
Physician Assistant (PA)	4.07 [2.32, 7.16]**	1.83 [0.94, 3.56]
Other	2.86 [1.21, 6.79]*	2.02 [0.75, 5.45]
Board Certified	0.57 [0.42, 0.77]**	0.92 [0.64, 1.32]

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Personal and professional characteristics		
Payment arrangement		
Fee-for-service	[ref]	[ref]
Salary predominant	3.02 [2.36, 3.85]**	2.09 [1.58, 2.77]**
Mixed payment	1.34 [0.98, 1.84]	1.43 [0.99, 2.07]
Other payment arrangements	2.44 [1.01, 5.93]*	1.33 [0.51, 3.49]
PCP attitudes		
Capacity very/moderately important	0.53 [0.41, 0.68]**	0.59 [0.44, 0.79]**
Reimbursement very/moderately important	0.64 [0.51, 0.79]**	0.86 [0.67, 1.10]
Specialist availability very/moderately important	0.95 [0.76, 1.17]	1.11 [0.86, 1.42]
Illness burden of patients very/moderately important	1.02 [0.83, 1.27]	1.03 [0.81, 1.32]
Psychosocial needs of patients very/moderately important	1.10 [0.89, 1.37]	1.14 [0.89, 1.45]
Provided care to the underserved in past 3 years	1.64 [1.33, 2.03]**	1.35 [1.05, 1.73]*
Expressed commitment to caring for underserved	1.16 [1.13, 1.19]**	1.14 [1.11, 1.18]**
Practice characteristics		
Small practice with ≤5 providers (vs. large practice)	1.18 [0.95, 1.47]	1.27 [0.99, 1.63]
Urban (vs. rural/suburban)	0.69 [0.53, 0.89]*	0.97 [0.72, 1.31]
Federally qualified health center (FQHC)	2.40 [1.66, 3.47]**	1.08 [0.70, 1.65]
Mental health co-location	1.99 [1.42, 2.79]**	1.16 [0.79, 1.71]
Predominant payer mix		
Private insurance	[ref]	[ref]
Medicaid/HMP	9.04 [6.33, 12.91]**	7.31 [5.05, 10.57]**
Medicare	1.66 [1.30, 2.13]**	2.04 [1.52, 2.73]**
Mixed	6.88 [2.09, 22.72]*	3.76 [2.24, 6.30]**

[a] Logistic regression model with odds ratios, adjusted for covariates of gender, years in training, physician vs. non-physician provider, and all listed covariates.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in Practice

Most PCPs reported an increase in new patients and in the number of new patients who hadn't seen a PCP in many years (Table 9).

> *Really the only thing I know about the expansion is in early 2014 we started getting a way lot more requests for a new patient visit than we've ever had before. I was just like, "what is going on? We don't get 25 requests for new patients/month." So when it started really climbing, that's when I figured out, "Okay. It's probably due to the Obamacare Medicaid expansion."*
>
> – Urban physician; Small, private practice

Most reported established patients who had been uninsured gained insurance. Fewer reported patients changing from other insurance to Healthy Michigan Plan (Table 9).

> *Your working poor people who just were in between the cracks, didn't have anything, and now they've got something, which is great.*
>
> – Urban physician, FQHC

Most practices hired clinicians and/or staff in the past year. Most reported consulting with care coordinators, case managers and/or community health workers in the past year. A substantial

minority had newly co-located mental health within primary care within the past year (Table 10).

About a third of PCPs reported that the portion of established patients able to obtain a same- or next-day appointment had increased over the previous year (Table 11).

Large and FQHC practices were more likely to have hired new clinicians in the past year. Small, non-FQHC, academic and suburban practices and were less likely to report hiring additional staff (Table 12).

Large, MiPCT, and FQHC practices and those with predominantly private or uninsured payer mixes were all more likely to report consulting with care coordinators, case managers and/or community health workers in the past year (Table 12).

In multivariate analyses, FQHCs, those with predominantly uninsured, Medicaid and mixed payer mixes and suburban practices were more likely to report an increase in new patients. FQHCs, and those with predominantly Medicaid payer mix, were more likely to report existing patients who had been uninsured gained insurance, and an increase in the number of patients who hadn't seen a PCP in many years (Table 13 below, and Appendix A, Tables 15).

Large, FQHC, MiPCT, and rural practices, and those with predominantly Medicaid or uninsured patients, were more likely to have co-located mental health within the past year (Table 12).

Table 9. Experiences of Practices Since April 2014

To what extent has your practice experienced the following since Healthy Michigan Plan began in April 2014?	To a great extent	To some extent	To a little extent	Not at all	Don't know
Increase in the number of new patients who haven't seen a primary care practitioner in many years (n=2,020)	24.6%	31.6%	20.1%	6.4%	17.3%
Increase in number of new patients (n=2,021)	17.4%	34.9%	19.2%	9.6%	18.8%
Existing patients who had been uninsured or self-pay gained insurance (n=2,019)	15.9%	34.7%	24.9%	5.3%	19.2%
Existing patients changed from other insurance to Healthy Michigan Plan (n=2,019)	5.4%	26.2%	28.5%	8.7%	31.1%

Table 10. Changes Made to PCP Practices Within the Past Year

Has your practice made any of the following changes in the past year? (check all that apply)	Checked	Not Checked‡
Hired additional clinicians (n=2,104)	53.2%	46.8%
Hired additional office staff (n=2,104)	57.5%	42.5%
Consulted with care coordinators, case managers, community health workers (n=2,104)	55.8%	44.2%
Changed workflow processes for new patients (n=2,104)	41.7%	58.3%
Co-located mental health within primary care (n=2,104)	15.4%	84.6%

‡288 (13.7%) participants did not check any boxes indicating that their practice had made changes in the previous year. This data was factored into the "Not Checked" category for each potential response.

Table 11. Availability of Urgent Appointments

What proportion of your established patients who request a same- or next-day appointment at your primary practice can get one? (n=2,033)[7]

Almost all >80% (n=826)	Most 60-80% (n=527)	About half ~50% (n=237)	Some 20-40% (n=287)	Few <20% (n=122)	Don't know (n=34)
40.6%	25.9%	11.7%	14.1%	6.0%	1.7%

Over the past year, this proportion has:

Increased (n=682)	Decreased (n=316)	Stayed the same (n=883)	Don't know (n=123)
34.0%	15.8%	44.1%	6.1%

Table 12. Multivariate Analysis of Association of Practice Characteristics with Changes Made in PCP Practices Within the Past Year

Has your practice made the following changes in the past year?	Hired additional clinicians	Hired additional office staff	Consulted with care coordinator, case manager, or community health worker	Changed workflow processes for new patients	Co-located mental health within primary care
Practice size					
Large (ref)	71.8%	67.8%	68.2%	49.0%	18.3%
Small	40.0%***	52.6%***	51.9%***	38.5%***	12.2%**
Practice type					
FQHC (ref)	62.4%	70.0%	72.6%	44.2%	29.9%***
Non-FQHC	52.1%**	57.1%**	56.1%***	42.8%	11.8%
Academic (ref)	49.2%	51.6%	52.1%	39.6%	13.9%
Non-academic	54.3%	60.1%	59.3%	43.5%	15.6%
Hospital-based (ref)	51.6%	59.3%	55.1%	42.8%	11.2%**
Not hospital-based	54.6%	58.8%	59.9%	43.1%	17.8%
Predominant payer mix					
Private (ref)	54.8%	60.0%	62.3%	40.7%	11.0%
Medicare	50.9%	58.8%	55.8%*	48.5%*	13.1%
Medicaid	53.2%	60.1%	55.5%*	44.0%	19.7%***
Uninsured	40.9%	34.5%	68.3%	40.5%	29.1%*
Mixed	57.6%	51.6%	59.9%	35.1%	15.3%
MiPCT					
Yes	52.8%	60.0%	78.0%***	44.4%	22.0%
No	53.8%	58.6%	52.3%	42.5%	13.1%
Urbanicity					
Urban (ref)	53.6%	60.0%	58.1%	41.5%	13.6%
Suburban	52.6%	50.5%*	53.3%	45.5%	14.8%
Rural	53.9%	58.9%	62.2%	48.3%	23.6%***

*Proportions are the predictive margins from logistic regression models adjusted for each practice characteristic in the table, as well as PCP gender, specialty, ownership of practice, and years in practice. All p-values are based on logistic regression analysis

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 13. Multivariate Analysis of Association of Practice Characteristics with Experiences of Practices Since April 2014

To what extent has your practice experienced the following since the Healthy Michigan Plan began in April 2014?[1]	Increase number of new patients	Existing patients who had been uninsured or self-pay gained insurance	Existing patients changed from other insurance to Healthy Michigan Plan	Increase in the number of new patients who have not seen a primary care practitioner in many years
All	52.3%	50.6%	31.6%	56.2%
Practice size				
Large (ref)	51.4%	50.0%	28.9%	54.0%
Small	51.7%	51.2%	31.9%	57.8%
Practice type				
FQHC (ref)	58.8%	64.9%	32.6%	63.7%
Non-FQHC	50.5%*	48.5%***	30.3%	55.1%*
Academic (ref)	52.9%	53.5%	29.9%	59.2%
Non-academic	51.3%	50.2%	30.8%	55.7%
Hospital-based (ref)	51.5%	49.5%	28.3%	56.9%
Not hospital-based	51.6%	51.3%	31.7%	55.8%
Predominant payer mix				
Private (ref)	39.4%	41.5%	22.4%	46.2%
Medicare	43.8%	44.8%	25.0%	50.5%
Medicaid	69.7%***	64.7%***	43.0%***	72.4%***
Uninsured	79.4%*	59.1%	14.4%	61.5%
Mixed	49.9%*	50.4%	29.2%	49.7%
Urbanicity				
Urban (ref)	51.0%	49.5%	28.6%	56.7%
Suburban	59.8%*	55.6%	33.1%	60.3%
Rural	49.1%	53.7%	38.8%**	51.3%

Proportions are the predictive margins from logistic regression models adjusted for each practice characteristic in the table, as well as PCP gender, specialty, ownership of practice, and years in practice.
[1]Analyses based on sum of those who responded "to a great extent" or "to some extent" for the items below.
All p-values are based on logistic regression analysis
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Experiences Caring for Healthy Michigan Plan Beneficiaries

Health Risk Assessment

About four-fifths of PCPs who responded to the survey have completed at least one HRA with a patient; over half of those have completed more than 10 (Table 14).

Most PCPs reported their practice has a process in place for submitting HRAs, but not for identifying patients who needed HRAs completed. Some PCPs reported having been contacted by a health plan about a patient who needed to complete an HRA. Most don't know whether they or their practice has received a financial incentive for completing HRAs (Table 15, Figure 2).

Most PCPs reported that financial incentives for patients and practices had at least a little influence

on completing HRAs. According to PCPs, patients' interest in addressing health risks had at least as much influence (Table 16, Figure 3).

> *We finally get the chance to do prevention because if someone doesn't have insurance and doesn't see a doctor, then there's no way we can do any kind of prevention. We're just kind of dealing with the end-stage results of whatever's been going on and hasn't been treated. So I mean what I've heard people say is "I just want to stay healthy or find out if I'm healthy," and to me that says a lot. We can at least find out where they stand in terms of chronic illness or if they have any or if they are healthy, how can we make sure that they stay that way?*
>
> – Urban physician; Large, hospital-based practice

Most PCPs found HRAs very or somewhat useful for identifying and discussing health risks, persuading patients to address their most important health risks, and documenting behavior change goals. About half found them very or somewhat useful for getting patients to change behavior (Table 17, Figure 4).

> *I recently… In the last month, I've signed up two people [for Weight Watchers] …two or three people to that, and one of them is really sticking to it. She's already lost 10 pounds.*
>
> – Urban physician; Small, private practice

PCPs reported completing more HRAs if they were located in Northern regions, reported a Medicaid or uninsured predominant payer mix, payment by capitation or salary, compared to fee-for-service, receiving a financial incentive for completing HRAs, smaller practice size, and co-location of mental health in primary care (Appendix A, Table 22).

Table 14. Health Risk Assessment Completion

Approximately how many Health Risk Assessments have you completed with Healthy Michigan Plan patients? (n=2,032)

None (n=420)	1-2 (n=235)	3-10 (n=503)	More than 10 (n=874)
20.7%	11. 6%	24.8%	43.0%

How often do your Healthy Michigan Plan patients bring in their Health Risk Assessment to complete at their initial office visit? (n=1,923)

Almost always (n=215)	Often (n=416)	Sometimes (n=720)	Rarely/never (n=572)
11.2%	21.6%	37.4%	29.7%

Table 15. Experience with Health Risk Assessments

Please report your experience with the following:	Yes	No	Don't know
My practice has a process to submit completed HRAs to the patient's Medicaid Health Plan. (n=2,041)	61.2%	8.6%	30.1%
My practice has a process to identify Healthy Michigan Plan patients who need to complete an HRA. (n=2,042)	34.1%	25.2%	40.7%
I/my practice have been contacted by a Medicaid Health Plan about a patient who needs to complete an HRA. (n=2,040)	33.2%	21.5%	45.3%
I/my practice have received a financial bonus from a Medicaid Health Plan for helping patients complete HRAs. (n=2,033)	18.1%	16.7%	65.3%

Figure 2. Experience with Health Risk Assessments

Please report your experience with the following:

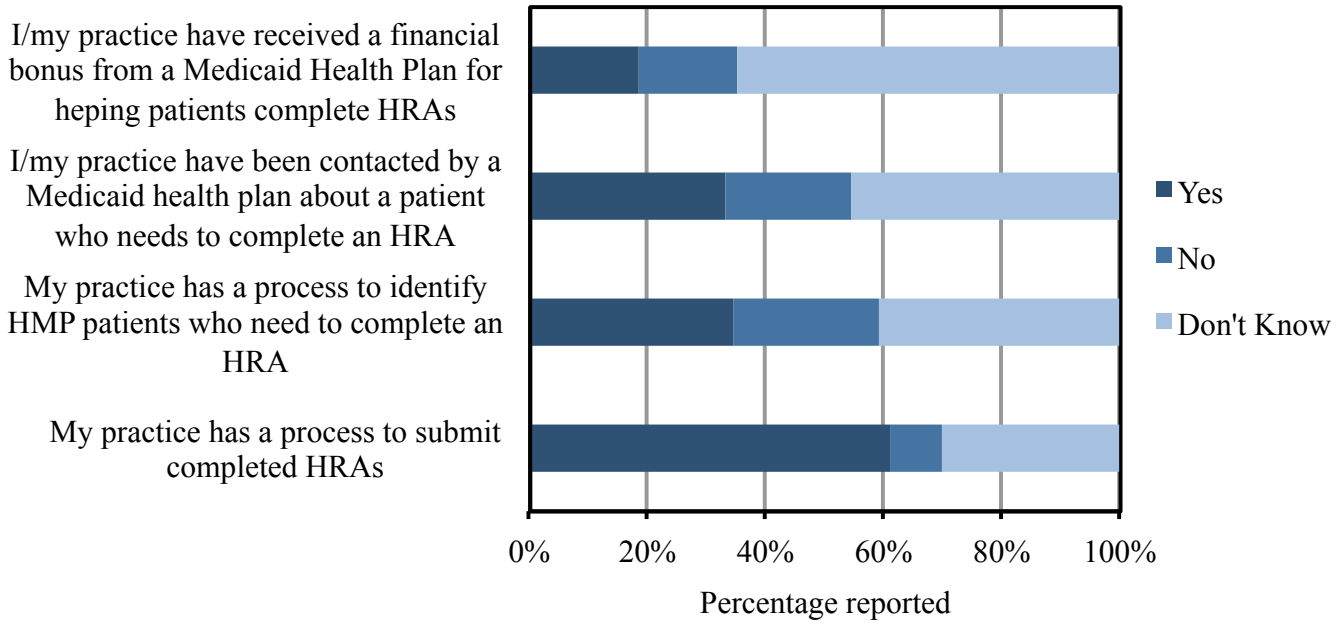


Table 16. Influence on Completing HRA

How much influence do the following have on completion and submission of the Health Risk Assessment?	A great deal	Some	A little	No	Don't know
Financial incentives for patients (n=2,046)	26.8%	23.8%	7.6%	14.4%	27.5%
Patients' interest in addressing health risks (n=2,046)	21.4%	30.2%	18.3%	8.8%	21.3%
Financial incentives for practices (n=2,044)	18.3%	24.6%	12.6%	17.3%	27.3%

Figure 3. Influence on Completing HRA

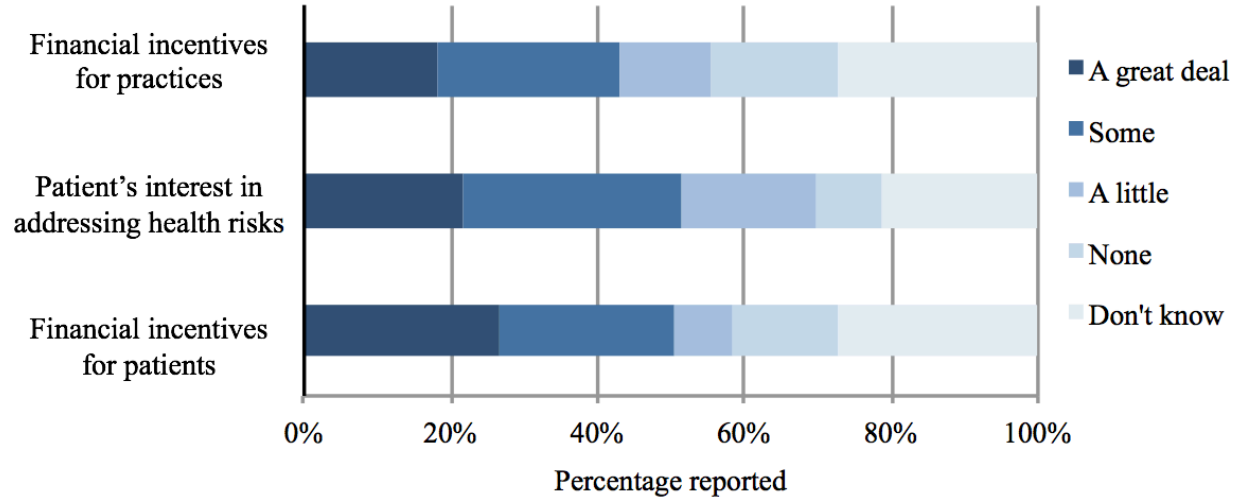
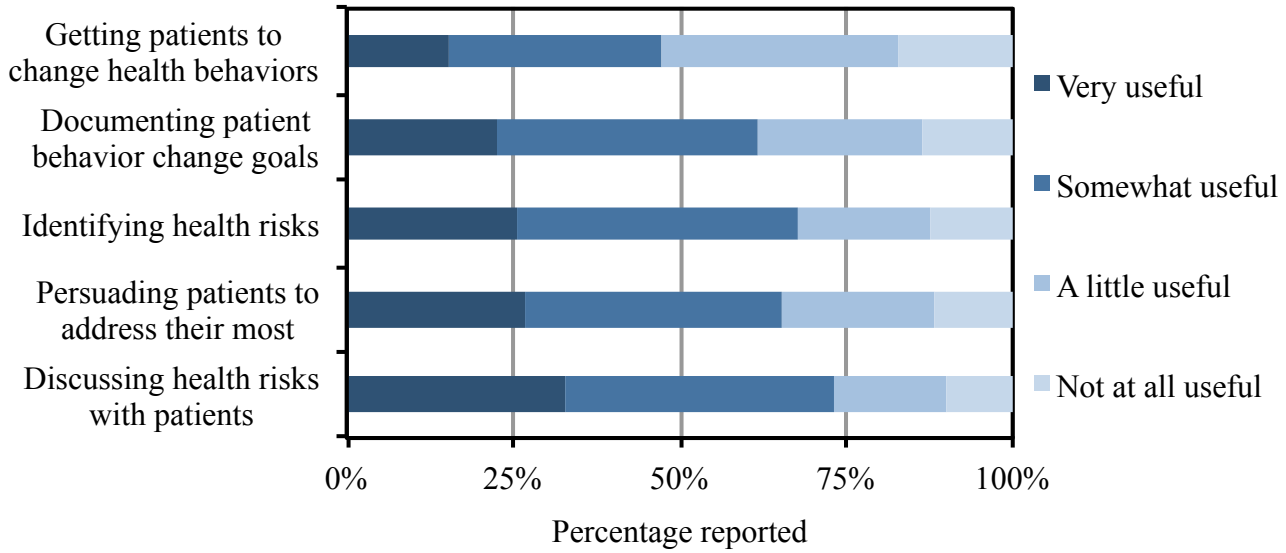


Table 17. Perceived Usefulness of HRA

For Healthy Michigan Plan patients who have completed their HRA, how useful has this been for each of the following?	Very useful	Somewhat useful	A little useful	Not at all useful
Discussing health risks with patients (n=1,828)	32.9%	40.1%	17.0%	10.0%
Persuading patients to address their most important health risks (n=1,828)	26.5%	38.9%	22.7%	11.9%
Identifying health risks (n=1,833)	25.7%	42.0%	20.1%	12.2%
Documenting patient behavior change goals (n=1,826)	22.4%	39.2%	24.6%	13.8%
Getting patients to change health behaviors (n=1,821)	15.2%	32.0%	35.8%	17.0%

Figure 4. Perceived Usefulness of HRA



PCPs were more likely to report a process to identify patients who needed to complete an HRA if they reported (Appendix A, Table 2):

- Co-location of mental health within primary care
- Medicaid or uninsured predominant payer mix
- They or their practice had received an incentive for completing an HRA
- Their practice was located in Northern, Mid-state, or Detroit regions, compared with the Southern region

PCPs reported completing more HRAs if they reported (Appendix A, Table 22):

- Smaller practice size
- Co-location of mental health within primary care in the past year
- Medicaid or uninsured predominant payer mix
- Payment by capitation or salary, compared with fee-for-service
- They or their practice had received an incentive for completing an HRA
- Their practice was located in Northern regions of the state compared with other regions

We hypothesized that PCPs who identify a process in place at their practice for identifying patients who need to complete an HRA would report completing more HRAs and that was confirmed (Appendix A, Table 22). PCPs reporting greater familiarity with healthy behavior incentives and out of pocket expenses faced by patients also reported completing more HRAs.

Estimates of HRA completion rates by PCPs

It is not possible to link PCP surveys directly to HRA records, since the HRAs are linked to patients, and the PCP listed on the HRA does not have to be the assigned PCP (it could be any PCP within the plan). As a proxy, in July 2016 we retrieved the count of all HMP enrollees for whom the PCP respondent was the PCP of record, and the number of those enrollees who had a complete HRA on record (which may or may not have been completed by the PCP respondent) from the data warehouse,. Since these data reflected the number of enrollees per PCP and the number of HRAs completed about one year after the survey, we cannot draw firm conclusions based on the relationship between survey responses and this data.

HRA completion rates by PCP are not quite normally distributed (Appendix A, Figure 1).

	Mean (SE)	Median	Interquartile range (IQR)
HMP member count	94 (2.6)	53	27-111
HRA completions	18 (0.62)	9	4-20
Rate of HRA completions (HRA completions/HMP members)	19.6% (0.003)	15.8%	9.5-25.9%

We examined the relationship between HRA completion, as documented (attested) in the Data Warehouse, and provider characteristics, practice characteristics and PCP views of the HRA**.**

PCP familiarity with the HRA was the only consistent predictor of HRA completion, particularly after sensitivity analyses adjusting for practice ID (Appendix A, Tables 20, 21).

ER Use and Decision Making

The majority of PCPs surveyed reported that they could influence ER utilization trends for their Medicaid patient population and nearly all accepted responsibility for playing a role in reducing non-urgent ER use. Many reported offering services to avoid non-urgent ER use, such as walk-in appointments, 24-hour telephone triage, weekend and evening appointments, and care coordinators or social work assistance for patients with complex problems, but were less likely to offer transportation services (Table 18).

PCPs who reported a greater sense of influence on ER use (Appendix Table 4):

- **Reported fewer years in practice**
- **Reported larger practice size**
- **Reported hiring new staff or clinicians in the past year**
- **Reported offering care coordination or social work assistance for patients with complex problems**

PCPs who reported a greater sense of responsibility for decreasing ER use (Appendix Table 4):

- **Reported fewer years in practice**
- **Were more likely to be non-physicians**
- **Reported larger practice size**
- **Reported practice changes in the past year including hiring new clinicians, consulting with care coordinators, case managers, or community health workers, changes in workflow, and newly co-locating mental health.**

- **Were more likely to report the availability of urgent appointments had increased**
- **Were more likely to report the availability of walk-in appointments and weekend and evening appointments at their practice**
- **Were more likely to report offering transportation assistance and care coordination or social work assistance**

PCPs reported that accessibility to pain medication and evaluations without appointments are major drivers of ER use, along with patients' comfort with accessing ER services (Table 19).

> *People who work day shift… It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.*
>
> – Rural physician; Small, private practice

> *I think that a lot of it is cultural. I don't mean ethnic culture. I mean just culture… There are some people who that is just what they understand, and that is how they operate. They've seen people do it for years, and they've done it and they just feel comfortable with that.*
>
> – Urban physician assistant, FQHC

PCP views about other factors that affect ER use also influenced their sense of influence and responsibility (Appendix Table 4).

In multivariate analyses (Appendix Table 5), years in practice, Asian/Pacific Islander race and suburban location were associated with PCPs' sense of influence over ER use.

In multivariate analyses (Appendix Table 5), years in practice, non-physician status, practice size and changes in workflow in the past year and suburban location were associated with PCPs' sense of responsibility for ER use.

When asked how to reduce non-urgent ER use (open-ended, write-in question), many respondent suggestions addressed **PCP availability** (e.g., increases in the workforce) and changes in **PCP practice** (e.g., extended hours, same-day appointments, improved follow-up). They also recommended gatekeeper strategies, non-primary care options (e.g., urgent care clinics) and greater use of care coordinators and case managers.

Some PCPs suggested **modifications to ER practice**, such as diversion to PCPs, nearby urgent care sites or reducing payment to hospitals/ER practitioners. Others recommended **limiting pain medication** prescriptions in the ER. A few PCPs suggested that the Emergency Medical Treatment and Labor Act (EMTALA) be changed to allow ER practitioners to more readily divert patients to other settings, along with altering the "litigation culture."

Patient educational initiatives were also recommended, for example to clarify "when to seek care," awareness of available alternative services, enhancing patient "coping" and self-management skills, as well as increased transparency on the costs associated with ER care.

Most commonly, PCPs recommended **patient penalties**. Financial penalties were overwhelmingly co-pays, or point-of care payment for ER visits, particularly for visits that do not result in a hospital admission or for patients deemed "high utilizers." Non-financial penalties included having the patient dismissed from the practice panel, or by the insurer.

Others suggested instituting **financial incentives to encourage patients to contact their PCP** prior to seeking ER care, or suggested both increasing out of pocket costs for ER visits while lowering or eliminating costs for visits to primary or urgent care.

How much can PCPs influence non-urgent ER use by their patients?

A great deal (n=608)	Some (n=886)	A little (n=460)	Not at all (n=80)
29.9%	43.6%	22.6%	3.9%

To what extent do you think it is your responsibility as a PCP to decrease non-urgent ER use?

Major Responsibility (n=740)	Some Responsibility (n=1,035)	Minimal responsibility (n=212)	No responsibility (n=43)
36.5%	51.0%	10.4%	2.1%

Table 18. PCP Practice Offerings to Avoid Non-Urgent ER Use

Does your practice offer any of the following to help Healthy Michigan Plan patients avoid non-urgent ER use?	Yes	No	Don't know
Walk-in appointments (n=2,010)	66.5%	30.2%	3.3%
Assistance with arranging transportation to appointments (n=2,008)	30.6%	57.0%	12.4%
24-hour telephone triage (n=2,015)	74.0%	21.7%	4.2%
Appointments during evenings and weekends (n=2,012)	55.8%	40.7%	3.5%
Care coordination/social work assistance for patients with complex problems (n=2,008)	56.5%	33.5%	10.1%

Table 19. Influence on Non-Urgent ER Use

In your opinion, to what extent do the following factors influence non-urgent ER use?	Major influence	Minor influence	Little or no influence
The ER will provide care without an appointment (n=2,030)	82.7%	13.4%	3.8%
Patients believe the ER provides better quality of care (2,026)	16.8%	39.4%	43.8%
The ER offers quicker access to specialists (n=2,028)	30.3%	35.7%	34.1%
Hospitals encourage use of the ER (n=2,012)	18.7%	28.7%	52.6%
The ER offers access to medications for patients with chronic pain (n=2,031)	50.7%	31.8%	17.5%
The ER is where patients are used to getting care (n=2,023)	59.5%	31.3%	9.2%

Access

PCPs with Healthy Michigan Plan patients who were previously uninsured reported some or great impact on health, health behavior, health care and function for those patients. The greatest impact was reported for control of chronic conditions, early detection of serious illness, and improved medication adherence (Table 20).

> *One patient…a 64-year-old gentleman who has lived in Michigan or at least lived in the United States for 40 years and had never pursued primary care. Upon receiving health insurance and upon his daughter's recommendation, he pursued care and that was his first…according to him, his first physical evaluation of any sort in 40 years, and he has just.... It wasn't a full health maintenance exam. It was a new patient evaluation, and in the time in that initial evaluation he was found to be hypertensive. Upon subsequent labs, you know, ordered on that visit, he was found to be diabetic and*

upon routine referral at that initial visit for an eye exam, given his hypertension, he was found to have had…hemianopia, which later was determined to be caused by a prior stroke.

– Urban physician assistant, FQHC

Well, I learned a long time ago if the patient doesn't take the medicine, they don't get better. There are a lot of different reasons they don't take it, but the easy one is that if they don't have insurance to cover it and they don't ever pick it up, then they're not going to take it….if they have financial barriers to getting that done, they're not going to get it done. So I'd say it has a humungous effect.

– Rural physician, FQHC

PCPs reported that Healthy Michigan Plan patients, compared to those with private insurance, more often had difficulty accessing specialists, medications, mental health care, dental care, treatment for substance use and counseling for behavior change (Table 21).

It can still take up to six months to see a psychiatrist unless you get admitted to the hospital… the ones that work for the hospital that don't take Medicaid or Medicare. And then at discharge, you really aren't going to see the other psychiatrist any quicker. It's kind of a mess. But I don't blame Medicaid expansion for that. It was a mess before then.

– Urban physician; Small, private practice

He has a job that I think he gets paid $9/hour to work, and he's like a super hard-working guy….I think his son has like…is 14 years old with…mental disabilities,….So now we're talking about a man that needs to get a super expensive medication….Although I feel like I'm a great primary care doc, sometimes, you know, those medications and the follow-up need to probably…There needs to be a team….some teamwork between the rheumatologist and the primary care doctor, and we couldn't get him back in.

– Urban physician, FQHC

Table 20. Impact of Healthy Michigan Plan on Previously Uninsured Patients

Please think about what has changed for your patients <u>who were previously uninsured</u> and are now covered by the Healthy Michigan Plan. Rate the extent to which you think HMP has had an impact on each of the following for these patients:

	Great impact	Some impact	Little impact	No impact	Don't know
Better control of chronic conditions (n=2,005)	35.0%	39.4%	6.9%	1.5%	17.3%
Early detection of serious illness (n=2,002)	33.7%	37.4%	7.6%	2.0%	19.3%
Improved medication adherence (n=2,004)	28.3%	40.8%	10.7%	2.7%	17.5%
Improved health behaviors (n=2,005)	16.1%	40.4%	18.9%	5.3%	19.3%
Better ability to work or attend school (n=2,003)	13.1%	33.0%	19.9%	5.7%	28.3%
Improved emotional wellbeing (n=2,004)	16.4%	40.6%	17.4%	3.8%	21.9%
Improved ability to live independently (n=2,002)	11.9%	29.6%	21.9%	7.0%	29.5%

Table 21. Reported Frequency of Access Difficulty – Healthy Michigan Plan Patients

	Often	Sometimes	Rarely	Never	Don't know
How often do Healthy Michigan Plan patients have difficulty accessing the following?[7]					
Specialists **+ (n=2,059)	31.3%	35.4%	6.7%	0.9%	25.7%
Medications **+ (n=2,058)	15.6%	43.1%	16.0%	1.8%	23.5%
Mental Health Care **+ (n=2,059)	34.5%	25.4%	9.4%	1.7%	29.0%
Dental/Oral Health Care **+ (n=2,061)	30.2%	17.5%	6.4%	1.1%	44.8%
Treatment for substance use disorder **+ (n=2,058)	28.9%	21.7%	7.3%	1.5%	40.6%
Counseling and support for health behavior change **+ (n=2,060)	26.0%	26.4%	10.6%	2.7%	34.4%
How often do your privately insured patients have difficulty accessing the following?[7]					
Specialists **+ (n=2,074)	3.4%	31.3%	48.6%	13.2%	3.4%
Medications **+ (n=2,074)	6.6%	50.8%	34.7%	4.7%	3.3%
Mental Health Care **+ (n=2,072)	17.7%	43.1%	26.6%	6.0%	6.6%
Dental/Oral Health Care **+ (n=2,072)	7.5%	30.5%	30.1%	6.4%	25.5%
Treatment for substance use disorder **+ (n=2,071)	14.7%	38.6%	25.4%	4.7%	16.6%
Counseling and support for health behavior change **+ (n=2,072)	12.4%	38.7%	31.3%	6.9%	10.7%

**p<.001 paired t-test comparing don't know responses for HMP and privately insured patients
+p<.001 Wilcoxon signed-rank test comparing responses for HMP and privately insured patients

Discussing Costs with Patients

Given the cost-sharing features of Healthy Michigan Plan, we asked PCPs about conversations they may have had with patients about out-of-pocket costs.

About one-fifth of PCPs reported discussing out-of-pocket costs with a Healthy Michigan Plan patient. The patient was more likely than the PCP to bring up the topic. About half the time the discussion resulted in a change of management plans.

> *They don't have that stigma any longer of not being insured and there's not that barrier between us about them worrying about the money, even though we really never made a big deal of it, but they could feel that. I don't know. I think they feel more worth.*
>
> – Rural physician; Small, private practice

We hypothesized that PCPs' likelihood of having cost conversations would vary by their PCPs' personal, professional and practice characteristics.

In multivariate analyses, we found that PCPs who were white, Hispanic/Latino, non-physician practitioners and with Medicaid or uninsured predominant payer mixes were more likely to have cost conversations with patients. PCPs with fewer years in practice and in rural practices were

more likely to report a change in management due to cost conversations with patients (Tables 22, 23).

Have you ever discussed out-of-pocket medical costs with a Healthy Michigan Plan patient? (n=1,988)

Yes (n=445)	No (n=1,543)
22.4%	77.6%

Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, who brought up the topic? (n=440)

The patient (n=247)	Me (n=171)	Somebody else in the practice (n=16)	Other (n=6)
56.1%	38.9%	3.6%	1.4%

Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, did the conversation result in a change in the management plan for the patient? (n=440)

Yes (n=248)	No (n=131)	Don't remember (n=61)
56.4%	29.8%	13.9%

Table 22. Unadjusted Association of PCP Personal, Professional and Practice Characteristics with Frequency of Cost Conversations and Change in Clinical Management due to Cost Conversations

	%	
	Cost Conversations†	Change in Management due to Cost Conversation‡
Personal characteristics		
Gender		
Male (n=345)	20.5%*	52.7%
Female (n=348)	24.7%	60.2%
Race		
White (n=571)	24.3%**	56.0%
Black/African American (n=22)	15.4%	57.1%
Asian/Pacific Islander (n=39)	12.3%	60.9%
Other/More than one (n=28)	17.5%	55.6%
Ethnicity		
Hispanic/Latino (n=23)	33.3%	53.3%
Not Hispanic/Latino (n=650)	22.0%	56.9%
Professional characteristics		
Provider type		
Physician (n=517)	20.4%**	54.1%
Non-physician (NP or PA) (n=176)	32.2%	63.6%
Specialty		
Family medicine (n=349)	21.6%**	52.2%*
Internal medicine (n=154)	17.8%	61.7%
Other physician specialty (n=14)	21.6%	27.3%
Non-physician (NP or PA) (n=176)	32.2%	63.6%
Years in practice		
<10 years (n=213)	25.1%	69.6%*
10-20 years (n=206)	20.8%	54.1%
>20 years (n=256)	22.8%	49.7%

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Prior care for underserved patients		
Yes (n=445)	25.8%**	57.1%
No (n=233)	18.1%	55.4%
Practice characteristics		
Practice size		
Small (≤5 providers) (n=393)	23.2%	56.4%
Large (>5 providers) (n=284)	22.1%	57.9%
FQHC practice		
Yes (n=152)	31.4%**	61.7%
No (n=535)	20.8%	54.8%
University/teaching hospital practice		
Yes (n=75)	18.3%	57.5%
No (n=605)	23.0%	56.5%
Hospital-based practice (non-teaching)		
Yes (n=216)	22.0%	62.1%
No (n=464)	22.5%	54.2%
Payer mix		
Medicaid/Uninsured predominant (n=281)	26.4%*	58.8%
Private/Medicare/Other predominant (n=360)	20.0%	55.7%
Practice characteristics		
Urbanicity		
Urban (n=480)	20.9%*	54.4%*
Suburban (n=62)	22.7%	47.6%
Rural (n=151)	29.3%	67.4%
Total	22.4%	56.4%

†Percent among total respondents

‡Percent among those respondents who had a cost conversation

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 23. Multivariate Association of PCP Personal, Professional and Practice Characteristics with Likelihood of Cost Conversations, and Likelihood of Change in Clinical Management due to Cost Conversations

	Adjusted Odds Ratio† [95% CI]	
	Odds of Cost Conversation	Odds of Change in Management due to Cost Conversation
Personal characteristics		
Male	0.82 [0.63, 1.05]	0.91 [0.58, 1.41]
Race		
White	[ref]	[ref]
Black/African American	0.52 [0.28, 0.96]*	0.92 [0.29, 2.93]
Asian/Pacific Islander	0.43 [0.27, 0.70]*	1.37 [0.54, 3.46]
Other/More than one	0.65 [0.36, 1.17]	1.60 [0.52, 4.94]
Ethnicity, Hispanic/Latino	2.11 [1.08, 4.12]*	0.93 [0.31, 2.77]

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Professional characteristics		
Provider type, physician (ref=non-physician)	0.71 [0.51, 0.99]*	0.96 [0.54, 1.73]
Years in practice		
<10 years	[ref]	[ref]
10-20 years	0.81 [0.60, 1.09]	0.52 [0.30, 0.89]*
>20 years	1.04 [0.77, 1.42]	0.47 [0.27, 0.82]*
Practice characteristics		
Payer mix		
Medicaid/Uninsured predominant	1.31 [1.02, 1.69]*	0.95 [0.60, 1.51]
Private/Medicare/Other predominant	[ref]	[ref]
Urbanicity		
Urban	0.82 [0.60, 1.11]	0.62 [0.35, 1.11]
Suburban	0.70 [0.45, 1.11]	0.41 [0.18, 0.95]*
Rural	[ref]	[ref]

Logistic regression models with adjusted odds ratios. Models are adjusted for all listed variables.
†Each column represents a different multivariate model
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Suggestions for Improvement and Impact of the Healthy Michigan Plan

We provided PCPs open-ended opportunities in the survey to provide additional information, including asking them for suggestions to improve and impact of the Healthy Michigan Plan.

Suggestions from PCPs included the following:

- Ways to increase patient responsibility
- Need for increased patient education about health insurance, health behaviors, primary care, appropriate ER use, and medication adherence
- Improve accessibility to and availability of other practitioners (especially specialists including mental health and addiction providers)
- Increase reimbursement to encourage practitioners to participate
- Need for increased provider education and up-to-date information about what is/is not covered, program features, administrative processes, billing for HRA completion, and costs faced by patients
- Need for better coverage for some specific services (e.g., behavioral health, physical therapy)
- Formularies are too limited, lack transparency, and require too much paperwork to obtain authorization for necessary prescription drugs
- Suggested streamlining formularies between Medicaid plans, keeping an updated list of preferred medications and more transparency around medication rejections
- Reduce the complexity of paperwork
- HRA had mixed responses; some saw it as more paperwork or redundant with existing primary care practice, others saw it as worthwhile
- Patient churn on and off and between types of coverage is challenging, especially because patients are often unaware of the change

Impact of the Healthy Michigan Plan:

- Many respondents reported that Healthy Michigan Plan had a positive impact by allowing patients to get much needed care, improving financial stability, providing a sense of dignity, improving mental health, increasing accessibility to care and compliance (especially with medications), helping people to engage in healthy behaviors like quitting smoking, and saving lives

- Some reported a negative impact, saying that it has “opened a flood gate” and there are not enough practitioners, that too many new patients are seeking [pain] medications, and that it even influenced their decision to change careers or retire

RESULTS FROM IN-DEPTH INTERVIEWS WITH PRIMARY CARE PRACTITIONERS

The results section begins with a brief description and summary table of the characteristics of 19 primary care providers who care for Medicaid/HMP patients, and who participated in in-depth semi-structured telephone interviews between December 2014 and April 2015. The next section provides key findings from those interviews. The main topics appear in boxes, followed by key findings in bold font, a brief summary explanation in regular font, if indicated, and illustrative quotations, in italics. Additional excerpts can be found in Appendix B.

Characteristics of Primary Care Practitioners Interviewed

Between December 2014 and April 2015, we conducted 19 semi-structured telephone interviews with sixteen physicians (84%) and three non-physician (16%) primary care practitioners. Of the sixteen physicians interviewed, fourteen specialized in family medicine (88%) and two in internal medicine (12%). Five of these providers practiced in the City of Detroit (26%); four practiced in Marquette, Baraga, or Iron County (21%); four practiced in Kent County (21%); three in Midland, Bay, or Saginaw County (16%); and three in Alcona, Alpena, or Oscoda County (16%). PCPs interviewed came from both urban and rural settings, had a range of years in practice, included private practices, hospital-based practices, Federally Qualified Health Centers, rural clinics and free/low-cost clinics.

Table 24. Personal, Professional and Practice Characteristics of PCP Interviewees (N=19)

Personal characteristics		
Gender	N	%
Male	12	63
Female	7	37
Professional characteristics		
Provider type		
Physician	16	84
Non-Physician (NP/PA)	3	16
Specialty		
Family medicine	14	74
Internal medicine	2	11
Nurse practitioner (NP)	1	5
Physician's Assistant (PA)	2	11
Years in practice		
<10 years	5	26
10-20 years	6	32
>20 years	8	42
Practice characteristics		
Presence of non-physician providers in practice		
Yes	16	84
No	3	16
Practice type		
Federally qualified health center (FQHC)	5	26
Large/hospital-based practice	3	16
Free/low-cost clinic	2	11
Practice type		
Small, private practice	7	37
Rural health clinic	2	11

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Practice characteristics	N	%
Urbanicity		
Urban	12	63
Rural	7	37

Interview results are presented in the following format:
Key Findings
Representative quote(s)

PCP Understanding of Healthy Michigan Plan and its Features

There was significant variation among the PCPs in their understanding of the Healthy Michigan Plan and its features, and therefore their ability to navigate or help patients obtain services.

> *I had a ton of exposure during the development and the implementation of Healthy Michigan because we were trying to get all of our thousands of enrollees [on the county health plan] onto Healthy Michigan. So that would be back when I first heard about it.*
>
> – Urban physician, FQHC

> *Really the only thing I know about the expansion is in early 2014 we started getting a way lot more requests for a new patient visit than we've ever had before. I was just like, "what is going on? We don't get 25 requests for new patients/month." So when it started really climbing, that's when I figured out, "Okay. It's probably due to the Obamacare Medicaid expansion."*
>
> – Urban physician; Small, private practice

> *I'm not aware of a change in how patients can get access to care with regards to transportation since Healthy Michigan has begun. Is there…I don't know…Is there some additional payment available for patients to get to doctors and dentists with Healthy Michigan?*
>
> – Rural physician; Large, hospital-based practice

Many PCPs perceived that the Healthy Michigan Plan cost-sharing requirements may create some misunderstandings among patients but were supportive of patients making financial contributions to their care.

> *The only significant difficulty that I foresee is with the copay issue. I have a concern that patients see this as free for the first six months, and now all of a sudden are confronted with a bill that they don't understand how they got.*
>
> – Urban physician, Free/low-cost clinic

> *We've got it posted in the front where people exit, and I looked at the amounts and thought, "Well, it's pretty fair actually." You know, it's not break the bank copays, but it gets people to think, "Well, yeah, you know, that's less than the cost of a pack of cigarettes."*
>
> – Rural physician, Rural health clinic

> *For the most part, the patients have it all filled out ahead of time … And then the nurse puts in their vitals, their last cholesterol and things like that on that sheet. We look that over and answer a couple of questions on the back.*
>
> – Rural physician, FQHC

The health risk assessments. So, part of my selling point is, "Okay, you're going to get half off on your copays. We've done it. You're set," you know, kind of thing. While that doesn't totally engage them in the process (LAUGHTER), you know, we continue to work on that.

– Urban physician, FQHC

Some of the plans, and I think these might be the Medicare/Medicaid plans, have offered patients like a gift card or something, and that has prompted a lot of patients to really make sure that we fill those forms out, but I don't recall patients really telling me, "Well, I have to pay a low copay because you fill out this form for me."

– Urban physician; Large, hospital-based practice

PCPs found the Healthy Michigan Plan's <u>Health Risk Assessment</u> useful for identifying health risks, disease detection, discussing risks with patients, and setting health goals.

…In the last month, I've signed up two people [for Weight Watchers] …two or three people to that, and one of them is really sticking to it. She's already lost 10 pounds. She really likes it. She's hoping that she can get an extension on it. The other two I haven't really heard back from yet. They just started it, but I personally think that's a great benefit because a lot of people need education on how to properly eat and what a good diet actually is instead of just Popeye's chicken.

– Urban physician; Small, private practice

There were some people that came in with the Healthy Michigan plan and their health risk assessment, although I don't remember anybody that said, "Hey, you have no issues." It was at least, "You need to stop smoking," or "work on your diet or exercise," and "get a flu shot," if not needing management for diabetes or asthma or other things like that.

– Rural physician, FQHC

PCP Decision Making on Acceptance of Medicaid/Healthy Michigan Plan Patients

PCPs described influences on the Medicaid acceptance decision at the provider level (illness burden and psychosocial needs of Medicaid patients), practice level (capacity to see both new and established patients), health system level (availability of specialists and administrative structures), and the policy environment level (reimbursement).

There are days when we'll look at each other and it's like, "I think we've got enough people like that." It's like the person who takes the energy of dealing with six ordinary people.

– Rural physician assistant, Rural health clinic

It has to do with what our capacity is. So looking at schedules, looking at next appointments, are we able to adequately care for the patients that we're currently responsible for.

– Urban physician, Free/low-cost clinic

I think the actual decision as to whether to accept Healthy Michigan patients … is made ... at a higher level... It's at the health system level... I wouldn't really be involved in making that decision, nor would most of my clinic leadership.

– Urban physician; Large, hospital-based practice

I've been hearing about [the Medicaid/Medicare primary care rate bump], but I don't feel like I've paid attention to details.

–Urban physician; Large, hospital-based practice

For our clinic, [reimbursement amount] plays no role in whether we accept more Medicaid patients … we're gonna serve that population and take care of them ... We'll do whatever reasonably we can do to get paid for that, but that doesn't make or break the decision whether we're going to do that.

– Urban physician, Free/low-cost clinic

[A]s long as the rural health center plans still pay me adequately, I don't foresee making any changes. If they were to all of a sudden say, "Okay, we're only going to reimburse 40% or 50% of what we used to," that would be enough to put me out of business. So I would think twice about seeing those patients then, but as long as they continue the way they have been for the last six years that I've owned the clinic, I don't see making any changes. It works just fine.

– Rural nurse practitioner, Rural health clinic

Overall Impact of Healthy Michigan Plan on Beneficiaries

Many of the PCPs interviewed had favorable views of the Healthy Michigan Plan and its overall benefits for patients and health systems.

I think…I hate to tell you, but so far everything has been easier. I don't know that I've had anything that's worse. There might be something with drugs as far as ordering stuff, but across the board that's not just Healthy Michigan. I mean they want us to use generics. We're happy to do that. Once in a while, a generic is not going to do it, but I don't think I've had…I can't think of anything that is really negative about it. It's like…People just…I think they're just…They're thankful for it. People aren't overly demanding. They're not coming in acting like, "I deserve this. I want an MRI of my entire body. Nobody's like that, you know? They just…It's like, you know…It's really…It's kind of a nice working together partnership. It's like I usually tell people, "Let's get you caught up." It has become my motto for that. It's like, "We're gonna get you caught up."

– Rural physician assistant, Free/low-cost clinic

Yes. [E]very single day this law has changed my patients' lives…So I get to be in this special niche where I feel like I have a front row seat to the good things that happen as a result of Healthy Michigan…. So for example, half the patients I would see pre-Healthy Michigan had essentially nothing in terms of health insurance, right?... I could almost do no labs. I could do very limited health maintenance. I certainly could do no referrals and had a really difficult time getting any type of imaging or substantive workup apart from a physical exam and some in-house kind of labs because people were petrified of the bills that would accumulate.

– Urban physician, FQHC

You know, the Healthy Michigan part has made a big difference…The idea of more people having insurance is good for everyone. Now we'll see long-term in terms of the cost and everything. I know that's a big challenge, but there's no doubt…Like the reimbursement of specifically the hospitals in the city, they're doing much better knowing that a lot of the patients that never had insurance before, do have insurance and that they can get some reimbursement instead of having to, you know, worry about some of the challenges of, you know, unnecessary care.

– Urban physician, FQHC

This program is helping people. It's helping working people, not the totally indigent people who are on disability who are already getting things. These are people…like a parent, a relative of yours that's been working and can't afford the insurance which is ridiculous.

– Urban physician; Small, private practice

Many of these people are working and so they're going to be able to continue working and paying taxes and contributing to society, where if you ignore your diabetes and you ignore your blood

pressure, eventually you might end up losing limbs, losing your kidneys. Now you're on disability and, oh look, now you qualify for Medicaid.

– Urban physician; Small, private practice

PCPs noted that their patients were relieved of the stigma and worry associated with not being able to pay for needed care, and able to get needed services they could not previously afford.

They don't have that stigma any longer of not being insured and there's not that barrier between us about them worrying about the money, even though we really never made a big deal of it, but they could feel that. I don't know. I think they feel more worth.

– Rural physician; Small, private practice

People are definitely more receptive to the idea of talking about healthcare maintenance items now as opposed to just wanting to deal with the acute issue. It may be because they feel less stressed about the ability to actually be able to get the test done because they understand that it's a…It's a benefit covered under the insurance.

– Urban physician, FQHC

The positive impact of the Healthy Michigan Plan has had a ripple effect in encouraging people to get covered and seek needed care.

Not only are they maybe talking to other people who are then applying and have applied and have gotten the insurance coverage…It just seems like more people are coming, both uninsured and insured because they maybe heard good things about the ease with which they've been able to get care or they've seen how maybe other peoples' circumstances have seemingly changed. I just feel like there's been kind of…a positive ripple effect of people just pursuing care, whether insured or not.

– Urban physician, FQHC

I know a lot of people that didn't have access to healthcare before are getting it now. The ones who were able to get Medicaid that weren't otherwise qualified for it before are starting to get help now, and we're able to find the conditions that they have never been able to get tested for before and treat them for it.

– Urban physician; Small, private practice

Healthy Michigan Plan is Meeting Many Unmet Health Needs

PCPs reported many examples of patients with unmet health care needs, whose health and well-being greatly improved after enrolling in Healthy Michigan Plan. This was particularly true for patients who were previously uninsured and for those with chronic illness (e.g., diabetes, asthma, hypertension) that were often diagnosed after enrolling in Healthy Michigan Plan.

Upon receiving health insurance and upon his daughter's recommendation, he [patient in his early 60s] pursued care and that was his first …according to him, his first physical evaluation of any sort in 40 years, and he has just…It wasn't a full health maintenance exam. It was a new patient evaluation, and in the time in that initial evaluation he was found to be hypertensive. Upon subsequent labs, you know, ordered on that visit, he was found to be diabetic and upon routine referral at that initial visit for an eye exam, given his hypertension, he was found to have had…hemianopia, which later was determined to be caused by a prior stroke.

– Urban physician, FQHC

A lot of neglected… A lot of chronic diseases that have been neglected. Because before, what would suddenly make that person decide to come in and see the doctor and pay out of pocket if they hadn't

been doing that for three years? There's nothing to make them come in and take care of it. They wanted to, but they couldn't afford it. They weren't even seeing anybody. Now suddenly, there's this opportunity to get health insurance or to get Medicaid, and so now they are coming to the doctor because they know that they need to get their diabetes under control.

– Urban physician; Small, private practice

*She's only 33 and I had five diagnoses at the end….. it's even double that if you're 70. They waited all this time. They haven't had a doctor; you have to, at least, touch on everything the first time you see them… you have to know what's wrong with them***.**

-Urban physician; Small, private practice

So yesterday I had a patient… The guy's got totally uncontrolled diabetes…. He's like 53. He hadn't been to a doctor, he thinks, since his twenties. The only reason he came in . . .because he got this new insurance. He had his little health risk assessment. He's like, "Alright. I'm going in."

-Urban physician, FQHC

PCPs reported an increased ability to provide preventive services and tests that had previously been an unmet need.

I know a lot of people that didn't have access to healthcare before are getting it now. The ones who were able to get Medicaid that weren't otherwise qualified for it before are starting to get help now, and we're able to find the conditions that they have never been able to get tested for before and treat them for it.

- Urban physician; Small, private practice

I think on one level, it's a sense of relief that they don't have to go to the ER for urgent things, that they can come to us first if it's something that we can handle, and then just having a chance to confirm that either they're healthy or that there are issues that they need to work on. I guess from my perspective is that we finally get the chance to do prevention because if someone doesn't have insurance and doesn't see a doctor, then there's no way we can do any kind of prevention. We're just kind of dealing with the end-stage results of whatever's been going on and hasn't been treated. So I mean what I've heard people say is "I just want to stay healthy or find out if I'm healthy," and to me that says a lot.

– Urban physician; Large, hospital-based practice

We're taking care of the comorbidities before they happen. In the long run, the program is going to pay for itself. We're identifying diabetics. Hypertension is rampant.

-Urban physician; Small, private practice

Coverage for dental services, prescription drugs, and mental health services were specifically noted as unmet needs being addressed by the Healthy Michigan Plan. Access to these services were described "as a lifesaver." PCPs reported increased ability to connect people to needed services, though challenges remain, especially in the area of mental health.

I refer a lot for mental health services and counseling, and a lot of these people just don't know about the services out there. So being able to connect people with the appropriate care that they need or could use in the future, I think, has been really valuable.

– Urban physician; Large, hospital-based practice

For thirteen years, getting dental has been like pulling teeth… It's been very difficult for our patient population. Dental is a huge issue. I would say well over half of our folks have significant dental problems that haven't been cared for in years.

– Urban physician; Free/low-cost clinic

[W]*hile it doesn't allow them to access say whatever specialist they want, by all means, they have access to things that I think are appropriate for them, i.e. this particular study, that particular lab, this particular workup…In addition to that, they also now have access to a pharmaceutical formulary which is, you know, light years better than what they had when they were looking at, "Okay, what's the $4 Wal-Mart offer me?"*

– Urban physician; FQHC

PCPs reported challenges finding local specialists for referrals. In some cases, this was because of a general shortage of specialists in the area, but often it was noted that there are too few practitioners willing to accept patients with Healthy Michigan Plan/Medicaid coverage. Some PCPs also reported that their patients had difficulty accessing counseling services for healthy behavior change.

Dermatology is a huge issue…Yeah, in this county…In this county we have a huge problem because we have no place to send our Medicaid patients. And obviously they can't afford to do it out of pocket.

– Rural nurse practitioner; Rural health center

The specialty offices that don't accept Medicaid, don't accept Healthy Michigan plan Medicaid either…So, I mean, I don't think that's changed with the Healthy Michigan plan.

– Urban physician; Free/low-cost clinic

[I]in terms of referral and specialty care, it is still tricky. So while our ability to care for them has dramatically expanded, our ability to tap into our disjointed healthcare system in terms of specialty care, I think, maybe hasn't changed a whole lot. I think if I lived closer to [medical center] or closer to some other big training centers, that would probably be different. But like private specialists don't really care if they're uninsured or if they have Healthy Michigan.

– Urban physician; FQHC

We have a Medicaid dental clinic here, but it's a long wait to get in. …up here no one accepts Medicaid … They kind of just pull people's teeth out and not do the usual restorative work.

-Rural physician; Small, private-practice

We do have. . . a smoking cessation program in our health system, but they don't take Medicaid patients. ... we do have a weight management program, but they don't take Medicaid.

-Urban physician; Large, hospital-based practice

PCPs noted that connecting patients to mental health services remains particularly challenging.

[W]e've got community mental health services available but they don't have enough money and they're too busy, and the patients suffer because of that. And Medicaid helps that to a modest degree, but there's still not enough providers and still not enough, I guess, reimbursement from Medicaid.

– Urban physician; Free/low-cost clinic

In our area, due to the limited resources, I think it is difficult that there's not enough psychiatrists and counselors around....and there doesn't seem to be any stability with respect to who is a practicing psychiatrist within the community, meaning individuals might have a psychiatrist for a couple of months, and then somebody else new comes on board. So I do think it's an area that is not being handled well.

– Rural physician; Small, private practice

PCPs noted that barriers to care, such as transportation, are reduced but remain.

You've solved the insurance problem, but then there are certain other parts of their life that makes it hard for them to deal with the healthcare system, and that is they may not follow up with appointments, they may not go to appointments, they may not be so good at communicating their history, they may not follow through with getting medications even if they have insurance. It's kind of like a whole host of behavioral parts to it. So, solving the insurance issue is a really important part, but then really many of these people almost like need a case manager to help make sure all the other little pieces come together because just leaving them on their own, they won't necessarily get the care.

– Urban physician; Small, private practice

Transportation has always been an issue with our patients. We've provided transportation for our uninsured patients, and we know that about one-third of our patients wouldn't have been able to get here or to their specialty appointments without that. Now fortunately [Healthy Michigan Plan health plan] does provide transportation. There's two barriers to their transportation. One is the amount of time patients have to call ahead to get it, which is understandable. But for our patients, sometimes difficult. And the fact that it tends to run late. In some circumstances, it's not a real predictable timeframe. So that's been a challenge. I know I've had one patient who's been so frustrated. We referred her to counseling. She made two counselling appointments, and transportation didn't pick her up for either.

– Urban physician; Free/low-cost clinic

That's a great question. That's a great question. Transportation is huge. That's a huge, huge issue that sort of is under the radar for most people. That's a huge issue for my patients. People just don't have cars, and they don't have family or friends with cars. If you don't have insurance, you are stuck. I just had a guy…I had two guys yesterday who I hadn't seen in, I don't know, maybe six months. Both of them. "I just can't get in to see you, doc." "I can't get in to see you." I said to them yesterday, "Well how did you get in to see me today?" "Oh, I just called my insurance." Fantastic!

– Rural physician; FQHC

ER Use

PCPs discussed a number of factors influencing high rates of ER use including culture or habit, sense of urgency for care and need for afterhours care. Some PCPs noted that some Healthy Michigan Plan beneficiaries use the ER because it's convenient. Even for those practices with extended hours, their office may not be open at convenient time for patients, and their schedules may not coincide with when health issues arise.

I mean those people who use the ER…sometimes it's just the culture. That's just how they've been …they…I don't want to say "conditioned," but maybe long-term circumstances or habit or what have you…They just tend to utilize the ER as a means of…almost like a secondary or a primary care clinic.

– Urban physician assistant, FQHC

You know, to some degree, it is convenience. You know, we have a few days where we're open to 6:00 or 7:00, but not every day, and we're not open on Saturdays or Sundays…People who work day shift… It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.

– Rural physician; Small, private practice

Yeah, I know what you mean. The question is it somehow more convenient or timely or something to go to the ER or come to the office? And I think sometimes people have that perception, but they always wait for 3 hours in the ER. They're never in and out in 20 minutes, you know.

– Urban physician, FQHC

The families up here that I know have always done that do it because…Like the one lady, for example, might be sitting and watching television at 6:00, and she gets a little twinge in her abdomen. Because she has an anxiety condition, she talks herself into the fact that she's got colon cancer, and she goes to the ER in about a 20-minute time frame.

– Rural nurse practitioner, Rural health clinic

PCPs also discussed ways to reduce ER use such as educating patients on appropriate use, providing other sources of afterhours care (e.g., urgent care), and imposing a financial penalization or higher cost sharing for inappropriate ER use.

You know, I mean I think it still comes to education and availability…continuing to try to educate patients on, you know, why it is important to kind of…appropriately pursue care. So, you know, kind of having a conversation with patients about…why it's in their best interest to come to their primary care office, though it may take a little longer to do so than to go to the ER, and also making sure that we have available appointments so a patient doesn't feel, you know, as if they have no other alternative. So, you know, having office hours that…evening office hours…having a fair amount of those and getting appropriate…appropriately trained triage staff to be able to adequately address patients' acute care needs and questions when they call in.

– Urban Physician Assistant, FQHC

If you go to the ER and you're not admitted to the hospital, you're charged a significant amount…That tends to deter people, and I think that's the only way things are going to change and whether the ER's have a triage person that can determine this is an ER-appropriate problem and send people elsewhere, but I think it…There has to be some financial consequences …Even if it's a small amount. I know you're dealing with economically disadvantaged people, but even a small amount of money tends to sometimes affect behaviors.

– Rural physician; Small, private practice

I think certainly accessibility because I'm sure part of it has to do with accessibility. So possibly providing extended hours, weekend hours…Clearly the health system does have access, extended hours, weekend hours…They're not really well-located for MY patients in the sense that my patients live in downtown [city], are in the [city] area specifically, and they don't necessarily have access to some of these facilities which tend to be near [city], but not necessarily in [city]. So I think that maybe setting up that kind of an urgent care close to the hospital, right here. If it means co-locating it next to the ER so we can send the urgent care-type patients there; that would be certainly something that we can do.

– Urban physician; Large, hospital-based practice

PCPs noted that the hospitals play a role in rates of ER use.

The hospital is not incentivized to send those people away because they're paying customers. They want to support having a busy ER. There are some places that actively deter people from going to the emergency room where they'll do a medical screen and exam and say, "No. Your problem is not acute. You don't need to be seen in the emergency room today. Go back and make an appointment with your primary care doctor."

– Rural physician, FQHC

Actually, I think it's 29 [minutes] right now, and then in mid and Northern Michigan, there are… billboards that tell you exactly what your wait time is right now in their ER. So it will say 8 minutes or 10 minutes or whatever their wait time is.

– Urban physician, Free/low-cost clinic

Impact of Healthy Michigan Plan on PCP Practice

PCPs reported utilizing a variety of practice innovations including co-locating mental health care, case management, community health workers, same-day appointments, extended hours and use of midlevel practitioners.

At our office, we have two behavioral health specialists. I think they're both MSWs. So they do counseling and group therapy and so our clinic is kind of special. We're able to route a lot of people to them.

– Rural physician, FQHC

I think our office has become much more accommodating with phone calls for same-day appointments. So we've done a better job at looking at schedules, at planning for this… for these kinds of patients that fall into the acute care category. So we're able to do that a lot more readily. We're a large clinic than we used to be. We've got more providers, and that certainly makes a difference also. So there's multiple reasons for it.

– Rural physician; Large, hospital-based practice

Yeah. We have a number of people working as caseworkers now. That's been a big change in the last year. I should probably mention that…We're part of MiPCT, and I guess with the start of MiPCT, we got financial support for a number of caseworkers, and then we sort of steal their time for basically any insurance that needs some management. We're having a lot of…We're getting a lot of help with case managers for people coming out of hospitals to coordinate care there.

– Rural physician, FQHC

So, one of the pieces that we are developing now is using our navigator to reach out to those patients. As we see new people assigned to us and we don't see an appointment on the schedule, reaching out to them, helping them get into care.

– Urban physician, Free/low-cost clinic

That [co-location] has been very helpful especially to our Medicaid patients …we can get those people in quickly and get treatment, which was otherwise very difficult. …now it's less of a barrier for them to get behavioral health services.

-Rural physician; Small, private practice

PCPs noted an increase in administrative burden as a result of the Healthy Michigan Plan because of increased paperwork and need for more communication. PCPs reported that pre-authorizations, multiple formularies, patient churn in and out of insurance and (sometimes) HRAs presented challenges for their practice.

Yes. Much more work for the staff. Not much more, but, of course, it's [HRA] more work for the staff because of the long requirements and things have to be dated the same day as this thing or that thing. Yeah, it's much more of a pain in the neck for them. And I understand that we get some $25…some malarkey for doing it, and the patient gets some discount on something.

– Urban physician, Free/low-cost clinic

But this insurance wouldn't let us order a stress test. They felt that we needed to do a separate stress ECG and then order a separate 2D echo. So that was one scenario where, you know, I actually had to do a physician-to-physician contact because I didn't think it made sense, but that was the only way they would cover it. So I had to order two separate tests where one could have probably given me the answer I was seeking.

– Urban physician; Large, hospital-based practice

For me, the bigger issue, I think, for us is that, you know, there are certain insurances that we do accept even in the Healthy Michigan plan, and some we do and some we don't. So what will end up happening is maybe they had an appointment to see me, and they come in and then, of course, we don't accept that one. So then they…I would say for the most part they're not too happy about that. Then they'll get sent to talk with one of the insurance people, and they'll find a way to fix it if it is fixable.

– Urban physician, FQHC

So we've also had an influx of or an increase in the number of medical prior authorizations that have created basically a headache for us because there's no standardization amongst the Medicaid plans…Yeah, and they're flip-flopping fairly regularly with respect to…This drug might be covered for a period of time, and then a short while later, they don't cover that drug. So we've got to go through the process for another medication. That requires more staff time. It doesn't necessarily benefit patient care.

– Rural physician; Small, private practice

PCPs noted their practices were considerably busier since implementation of the Healthy Michigan Plan.

So our plan is to continue accepting more…We're open to those three Medicaids right now… straight Medicaid, Meridian and Priority. So we see new patients every day with those, and that's…That's what our game plan is at least for the time being. We're not…We're not overwhelmed enough with the patients that we can't do that.

– Urban physician, Free/low-cost clinic

Some PCPs hired new staff to increase their capacity to handle the increase in demand.

So we had to hire…create a position for somebody to basically find out who takes Medicaid and arrange for those referrals, as well as process those prior authorizations for various tests. So it did require us to hire somebody or create a position for somebody to handle that…So, nonetheless that's an increase cost to us.

– Rural physician; Small, private practice

We're going to be able to hire a full-time social worker…. if we didn't have Medicaid expansion, there's no way we'd have the dollars to do that.

- Urban physician, FQHC

For some PCPs, wait times also increased.

We accept all comers. Period. Doors are open. Come on in. But I have to add a comment to that or a clarification…a qualification to that…There are so many patients now that are in the system that even for routine follow-up stuff, we can't get them in." So what's happened is…The results of this great expansion and people now trying to come get primary care…She [site manager] *said to me this week, "We'll probably have to close your panel, although I don't think we're allowed to close your panel per FQHC guidelines."*

– Urban physician, FQHC

Some PCPs noted that the Healthy Michigan Plan has an impact on their relationships with patients.

So I do think by requiring one to come in…it [an initial appointment] helps to facilitate the beginning, hopefully in most cases, of a relationship between the provider and the patient. It helps assign…It helps align them together hopefully with some mutual goals in the interest of the patient. So, yes, I do think bringing them in and kind of making that a requirement is helpful. I think it's just helpful because it works to establish that relationship.

– Urban physician, FQHC

Part of my concern is it's going to decrease trust. From the standpoint that before our patients were getting free care, [so] they knew that our only incentive for caring for them was their best interest. That incentive hasn't changed. The revenue that we get from Healthy Michigan is great, but…it's not even enough to pay our staff. It's not going to change what the providers have in any way, but that may not be the perception our patients have. Especially as people talk about, you know, "Well, if your doctor says no to this, it's because they get more money if they don't refer." And before when we didn't refer, patients understood it was either we couldn't get it or it wasn't in their best interest or whatever.

– Urban physician, Free/low-cost clinic

Some PCPs noted that reimbursement rates are an important consideration depending on the type/structure of their practice.

Well, we're a rural health clinic. So that means we're reimbursed for Medicaid patients. We get a flat amount for them irrespective of the complexity of the visit, and it's more favorable than if we were just taking straight Medicaid. So right now we can afford to see Medicaid patients as being part of the rural health clinic initiative, but if we weren't and the reimbursement for primary care reverted back to the old way of doing things with Medicaid, we would probably have to change how we handle things with respect to taking new Medicaid patients and how many Medicaid patients we take. So I know the current Medicaid reimbursement scheme is par with Medicare in Michigan.

– Rural physician; Rural health clinic

You're talking about government reimbursing at the Medicare rates. That was 2013 and 2014 that did that…So far they haven't approved to do that in 2015 or 2016, and the rates that they pay for…the plans pay for Medicaid patients are substandard…you know, are markedly below any other insurances in this country. So they definitely are underpaying primary care providers. There's no two ways about that.

– Urban physician; Small, private practice

So, it hasn't affected our practice because as an FQHC we're reimbursed differently than . . . Medicaid reimburses a hospital practice or a private practice. Because we have to see all comers including all uninsured, and we can't cherry pick…I shouldn't say "cherry pick." We can't self-select what patients we see and won't see…We get "x" dollars for every Medicaid visits. We get "x" dollars for every whatever, with the assumption that we'll see everybody.

– Urban physician, FQHC

It's not affected our practice directly, but it seems that especially in a couple of the counties around us, that the number of private providers who are accepting Medicaid has actually, if anything, gone down, and so what we're finding are patients coming out of other practices, especially private practices with no cost base reimbursement, coming to us or asking to get in line to be with us.

– Rural physician, FQHC

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Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

Appendix A: Results from Multivariate Analyses

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Table 1. Bivariate associations between familiarity with HMP by practice types and predominant payer mix

Familiarity with Healthy Michigan Plan	A little/not at all familiar	Very/somewhat familiar	*p*-value
	N (Row %)	N (Row %)	
Practice size			0.047
Large practice	409 (49.4%)	419 (50.6%)	
Small practice	500 (44.8%)	615 (55.2%)	
Practice type			< 0.001
FHQC	101 (33.2%)	203 (66.8%)	
Non-FQHC	833 (48.8%)	874 (51.2%)	
University/teaching hospital			< 0.001
Academic	158 (58.5%)	112 (41.5%)	
Non-academic	771 (44.8%)	951 (55.2%)	
Hospital-based practice			0.043
Hospital-based	310 (50.0%)	310 (50.0%)	
Not hospital-based	619 (45.1%)	753 (54.8%)	
Predominant payer mix			< 0.001
Private	371 (56.5%)	286 (43.5%)	
Medicaid	206 (30.5%)	469 (69.5%)	
Medicare	236 (56.3%)	183 (43.7%)	
Uninsured	3 (25.0%)	9 (75.0%)	
Mixed	67 (47.5%)	74 (52.5%)	
Participating in MiPCT			0.023
Yes	254 (51.1%)	243 (48.9%)	
No	694 (45.2%)	840 (54.8%)	

p-values were calculated using Pearson's chi-square

Table 2. Bivariate associations between practice having a process to identify HMP patients who need HRA completed by practice characteristics

Practice has process to identify HMP patients who need HRA completed	Yes	No/don't know	
	Row %	Row %	*p*-value
Region			< 0.001
Upper Peninsula/Northwest/Northeast (n=296)	38.9	61.1	
West/East Central/East (n=656)	36.6	63.4	
South Central/Southwest/Southeast (n=422)	23.2	76.8	
Detroit Metro (n=623)	37.4	62.6	
Urbanicity			NS
Urban (n=1,530)	32.9	67.1	
Suburban (n=190)	35.8	64.2	
Rural (n=322)	38.8	61.2	
Practice size			NS
Large practice (6+) (n=837)	31.9	68.1	
Small practice (0-5) (n=1,118)	36.0	64.0	
New clinicians hired in past year?			NS
No/Not checked (n=953)	34.4	65.6	
Yes (n=1,089)	33.9	66.1	
New office staff hired in past year?			NS
No/Not checked (n=863)	31.9	68.1	
Yes (n=1,179)	35.8	64.2	
Consulted with care coordinators, case managers, community health workers in past year?			NS
No/Not checked (n=897)	32.7	67.3	
Yes (n=1,145)	35.3	64.7	
Changed workflow in past year?			NS
No/Not checked (n=1,185)	32.6	67.4	
Yes (n=857)	36.3	63.7	
Co-located Mental Health w/in Primary Care in past year?			< 0.001
No/Not checked (n=1,720)	31.6	68.4	
Yes (n=322)	47.5	52.5	
Payment arrangement			NS
FFS-predominant (n=758)	31.1	68.9	
Capitation-predominant (n=44)	40.9	59.1	
Salary-predominant (n=921)	36.2	63.8	
Mixed payment (n=266)	34.2	65.8	
Other payment arrangement (n=40)	42.5	57.5	
Predominant payer mix			< 0.001
Private (n=639)	22.5	77.5	
Medicaid (n=666)	47.4	52.6	
Medicare (n=407)	30.7	69.3	
Uninsured (n=11)	72.7	27.3	
Mixed (n=136)	33.1	66.9	
Received financial bonus for HRA completion			< 0.001
No/Don't know (n=1,664)	26.4	73.6	
Yes (n=365)	69.3	30.7	

p-values were calculated using Pearson's chi-square

Table 3. Bivariate associations between number of self-reported HRAs completed by practice characteristics

Number of HRAs completed (self-reported)	None	1-2	3-10	>10	
	Row %	Row %	Row %	Row %	*p*-value
Region					< 0.001
Upper Peninsula/Northwest/ Northeast (n=293)	13.7	5.5	24.2	56.7	
West/East Central/East (n=654)	18.5	10.6	23.9	47.1	
South Central/Southwest/Southeast (n=416)	31.0	16.1	22.8	30.0	
Detroit Metro (n=624)	19.1	12.2	27.6	41.2	
Urbanicity					< 0.001
Urban (n=1,527)	23.1	13.1	25.7	38.0	
Suburban (n=186)	11.8	9.1	18.8	60.2	
Rural (n=319)	14.1	5.6	23.5	56.7	
Practice size					< 0.001
Large practice (6+) (n=823)	23.9	13.4	25.3	37.4	
Small practice (0-5) (n=1,121)	17.8	10.4	24.8	47.0	
New clinicians hired in past year?					NS
No/Not checked (n=954)	19.7	10.4	26.1	43.8	
Yes (n=1,078)	21.5	12.6	23.6	42.3	
New office staff hired in past year?					NS
No/Not checked (n=863)	21.7	10.4	26.9	41.0	
Yes (n=1,169)	19.9	12.4	23.2	44.5	
Consulted with care coordinators, case managers, community health workers in past year?					NS
No/Not checked (n=899)	22.7	10.3	25.1	41.8	
Yes (n=1,133)	19.1	12.5	24.4	44.0	
Changed workflow in past year?					NS
No/Not checked (n=1,182)	21.3	10.9	26.3	41.5	
Yes (n=850)	19.8	12.5	22.6	45.2	
Co-located Mental Health w/in Primary Care in past year?					< 0.001
No/Not checked (n=1,714)	22.3	12.0	26.0	39.8	
Yes (n=318)	11.9	9.4	18.2	60.4	
Payment arrangement					0.008
FFS-predominant (n=754)	24.0	12.9	26.4	36.7	
Capitation-predominant (n=42)	19.0	9.5	21.4	50.0	
Salary-predominant (n=915)	18.0	10.9	23.1	48.0	
Mixed payment (n=268)	20.5	11.6	26.9	41.0	
Other payment arrangement (n=39)	20.5	5.1	20.5	53.8	
Predominant payer mix					< 0.001
Private (n=635)	27.6	14.3	26.8	31.3	
Medicaid (n=668)	9.7	8.1	17.1	65.1	
Medicare (n=409)	29.3	13.0	31.8	25.9	
Uninsured (n=12)	8.3	8.3	8.3	75.0	
Mixed (n=134)	15.7	15.7	30.6	38.1	

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Practice has process to identify HMP patients who need HRA completed					< 0.001
No/Don't know (n=1,312)	28.5	15.1	26.2	30.2	
Yes (n=694)	3.9	5.2	22.5	68.4	
Practice has process to submit completed HRAs					< 0.001
No/Don't know (n=764)	47.3	18.6	20.7	13.5	
Yes (n=1,243)	3.1	7.3	27.6	61.9	
Received financial incentive for HRA completion					< 0.001
No/Don't know (n=1,636)	23.8	12.8	25.7	37.7	
Yes (n=365)	2.7	6.6	21.1	69.6	
Familiarity with out-of-pocket HMP expenses					< 0.001
Very familiar (n=136)	2.2	1.5	16.9	79.4	
Somewhat familiar (n=371)	8.4	9.4	25.1	57.1	
A little familiar (n=560)	11.4	13.8	26.6	48.2	
Not at all familiar (n=904)	34.5	12.5	23.9	29.1	

p-values were calculated using Pearson's chi-square

Table 4. Bivariate analysis of demographic and practice characteristics and PCP influence and responsibility for decreasing ER use

		PCP influence on ER use			PCP responsibility for decreasing ER use		
	Total (%)	A little/ not at all (%)	Some/ a great deal (%)		Minimal/no (%)	Major/some (%)	
Years in practice (mean, [95%CI])		20.3 [19.3, 21.4]	18.2 [17.6, 18.8]	.001[a]	22.2 [20.7, 23.7]	18.3 [17.7, 18.9]	<.001[b]
				p[c]			p[c]
Race				.005			NS
White (n=1,553)	79.5	83.5	78.1		84.1	78.9	
Black/African American (n=92)	4.7	5.6	4.4		3.8	4.9	
Asian/Pacific Islander (n=215)	11.0	7.0	12.5		8.8	11.3	
American Indian/Alaska Native (n=10)	0.5	0.2	0.6		0.0	0.6	
Other (n=83)	4.2	3.7	4.5		3.3	4.3	
Hispanic/Latino				NS			NS
Yes (n=45)	2.3	1.9	2.4		1.2	2.4	
No (n=1,934)	97.7	98.1	97.6		98.8	97.6	
MD/Non-MD				NS			0.001
MD/DO (n= 1,692)	83.2	83.9	82.9		90.2	82.2	
Non-physicians (n= 342)	16.8	16.1	17.1		9.8	16.8	
Specialty				NS			.008
FM (n=1,088)	53.5	55.7	52.7		63.1	52.1	
GP (n=23)	1.1	1.3	1.1		2.0	1.0	
IM (n=487)	23.9	21.9	24.7		22	24.2	
Med-Peds (n=66)	3.2	3.1	3.3		2.4	3.4	
NP (n=186)	9.1	9.3	9.1		4.7	9.7	
OB/GYN (n=12)	0.6	1.1	0.4		0.8	0.6	
Other (n=13)	0.6	0.6	0.7		0.0	0.7	
PA (n=159)	7.8	7.0	8.1		5.1	8.2	
Urbanicity				.05			NS
Urban (n=1,530)	75.2	72.6	76.2		73.3	75.5	
Suburban (n=188)	9.2	11.9	8.3		9.4	9.2	
Rural (n=316)	15.5	15.6	15.5		17.3	15.2	

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Practice size				.01			<.001
Large practice (6+) (n=832)	42.6	38.0	44.3		30.9	44.2	
Small practice (0-5) (n=1,120)	57.4	62.0	55.7		69.1	55.8	
New clinicians hired in past year?				.04			.002
No/Not checked (n=946)	46.5	50.4	45.1		55.7	45.3	
Yes (n=1,088)	53.5	49.6	54.9		44.3	54.7	
New office staff hired in past year?				.03			NS
No/Not checked (n=859)	42.2	46.1	40.8		47.1	41.5	
Yes (n=1,175)	57.8	53.9	59.2		52.9	58.5	
Consulted with care coordinators, case managers, community health workers in past year?				NS			.01
No/Not checked (n=896)	44.1	44.3	44.0		51.4	43.0	
Yes (n=1,138)	55.9	55.7	56.0		48.6	57.0	
Changed workflow in past year?				NS			.001
No/Not checked (n=1,182)	58.1	60.6	57.2		67.5	56.7	
Yes (n=852)	41.9	39.4	42.8		32.5	43.3	
Co-located Mental Health w/in Primary Care in past year?				NS			.001
No/Not checked (n=1,720)	84.6	86.5	83.9		91.4	83.6	
Yes (n=314)	15.4	13.5	16.1		8.6	16.4	
Practice ownership				NS			.02
Full owner (n=431)	21.9	22.6	21.7		28.6	21.0	
Partner/part-owner (n=228)	11.6	9.9	12.2		12.5	11.4	
Employee (n=1,305)	66.4	67.5	66.1		58.9	67.5	
Underserved care within 3y				NS			NS
No (n=854)	43.2	45.3	42.4		45.2	42.8	
Yes (n=1,125)	56.8	54.7	57.6		54.8	57.2	

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Proportion of established patients who can get same-day/next-day appointment				NS			NS
Almost all (>80%) (n=807)	40.6	42.7	39.8		46.8	39.6	
Most (60-80%) (n=514)	25.9	24.2	26.4		20.0	26.8	
About half (~50%) (n=234)	11.8	12.6	11.5		13.2	11.6	
Some (20-40%) (n=280)	14.1	12.8	14.6		10.8	14.6	
Few (<20%) (n=121)	6.1	5.8	6.2		7.2	5.9	
Don't know (n=32)	1.6	1.9	1.5		2.0	1.6	
Proportion of established patients who can get same-day/next-day appointment has: _				NS			.02
Increased (n=671)	34.2	30.5	35.6		28.3	35.0	
Decreased (n=309)	15.8	17.0	15.3		17.4	15.6	
Stayed the same (n=862)	44	46.6	43.0		51.0	42.9	
Don’t know (n=119)	6.1	5.9	6.1				
Predominant payer mix				NS			.009
Private (n=653)	34.9	33.7	35.3		40.1	34.1	
Medicaid (n=663)	35.4	36.9	34.9		30.8	36.0	
Medicare (n=409)	21.8	21.7	21.9		17.7	22.4	
Uninsured (n=12)	0.6	0.2	0.8		0.0	0.7	
Mixed (n=136)	7.3	7.6	7.1		11.4	6.7	
Specialists available for HMP patients				NS			.009
Very familiar (n=185)	9.3	8.4	9.6		8.0	9.4	
Somewhat familiar (n=541)	27.2	25.3	27.9		19.1	28.4	
A little familiar (n=523)	26.3	26.5	26.3		31.1	25.7	
Not at all familiar (n=739)	37.2	39.8	36.2		41.8	36.5	
Mental health services available for HMP patients				NS			.02
Very familiar (n=153)	7.7	7.9	7.6		5.6	8.1	
Somewhat familiar (n=357)	17.9	16.9	18.3		13.1	18.5	
A little familiar (n=554)	27.8	25.7	28.6		25.9	28.1	
Not at all familiar (n=927)	46.6	49.6	45.4		55.4	45.3	

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Dental coverage in HMP				NS			.06
Very familiar (n=86)	4.3	4.7	4.2		2.4	4.6	
Somewhat familiar (n=269)	13.5	12.4	13.9		10.8	13.8	
A little familiar (n=402)	20.2	19.7	20.4		17.5	20.7	
Not at all familiar (n=1,234)	62.0	63.3	61.5		69.3	60.9	
Difficulty accessing specialists				NS			.03
Often (n=627)	31.3	32.5	30.9		37.4	30.5	
Sometimes (n=701)	35.0	33.8	35.5		27.6	36.1	
Rarely (n=133)	6.6	6.4	6.8		4.7	6.9	
Never (n=18)	0.9	1.1	0.8		0.8	0.9	
Don't know (n=522)	26.1	26.2	26.1		29.5	25.5	
Difficulty accessing medications				NS			.02
Often (n=310)	15.5	15.7	15.4		20.9	14.8	
Sometimes (n=857)	42.9	44.8	42.2		38.2	43.6	
Rarely (n=320)	16	14.2	16.7		11.8	16.7	
Never (n=36)	1.8	2.4	1.6		1.6	1.8	
Don't know (n=476)	23.8	22.8	24.2		27.6	23.2	
Difficulty accessing mental health care				NS			NS
Often (n=690)	34.5	33.8	34.7		35.0	34.4	
Sometimes (n=508)	25.4	25.4	25.4		21.3	26.0	
Rarely (n=183)	9.1	9.3	9.1		7.5	9.4	
Never (n=34)	1.7	3.0	1.2		2.0	1.7	
Don't know (n=586)	29.3	28.4	29.6		34.3	28.5	
Difficulty accessing dental care				NS			.05
Often (n=599)	29.9	33.0	28.8		34.6	29.2	
Sometimes (n=348)	17.4	14.8	18.3		11.4	18.2	
Rarely (n=128)	6.4	5.6	6.7		5.1	6.6	
Never (n=23)	1.1	1.7	1.0		0.8	1.2	
Don't know (n=904)	45.2	44.9	45.2		48.0	44.7	

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Difficulty accessing substance abuse treatment				.02			.03
Often (n=576)	28.8	29.8	28.5		31.9	28.4	
Sometimes (n=431)	21.6	18.4	22.7		13.8	22.6	
Rarely (n=145)	7.3	7.1	7.3		7.9	7.2	
Never (n=28)	1.4	2.6	1.0		2.0	1.3	
Don't know (n=819)	41.0	42.1	40.5		44.5	40.4	
Walk-in appointments available in practice				NS			.03
No/Don't know (n=673)	33.6	34.8	33.2		39.7	32.8	
Yes (n=1,331)	66.4	65.2	66.8		60.3	67.2	
Transportation assistance by practice				NS			.002
No/Don't know (n=1,389)	69.4	71.5	68.6		78.1	68.2	
Yes (n=613)	30.6	28.5	31.4		21.9	31.8	
24h telephone triage in practice				NS			NS
No/Don't know (n=521)	25.9	25.8	26.0		26.5	25.9	
Yes (n=1,488)	74.1	74.2	74.0		73.5	74.1	
Weekend/Evening appts in practice				NS			.005
No/Don't know (n=888)	44.3	47.4	43.1		52.6	43.1	
Yes (n=1,118)	55.7	52.6	56.9		47.4	56.9	
Care coordination/ social work for patients w/complex problems in practice				.03			<.001
No/Don't know (n=870)	43.4	47.4	42.0		57.2	41.5	
Yes (n=1,133)	56.6	52.6	58.0		42.8	58.5	
ER will provide care without appt				.01			NS
Major influence (n=1,677)	82.8	86.5	81.4		82.4	82.9	
Minor influence (n=272)	13.4	9.6	14.8		13.7	13.4	
Little or no influence (n=77)	3.8	3.9	3.8		3.9	3.8	
Patients believe ER provides better quality of care				.01			NS
Major influence (n=341)	16.9	17.2	16.7		19.4	16.5	
Minor influence (n=797)	39.4	34.2	41.3		33.2	40.2	
Little or no influence (n=884)	43.7	48.6	42.0		47.4	43.2	

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ER offers quicker access to specialists				NS			NS
Major influence (n=613)	30.3	28.9	30.8		32.7	29.9	
Minor influence (n=722)	35.7	34.5	36.1		31.5	36.3	
Little or no influence (n=689)	34.0	36.7	33.1		35.8	33.8	
Hospitals encourage use of ER				.01			<.001
Major influence (n=377)	18.8	22.9	17.3		32.5	16.8	
Minor influence (n=577)	28.7	25.5	29.9		22.2	29.7	
Little or no influence (n=1,054)	52.5	51.6	52.8		45.2	53.5	
ER offers access to meds for chronic pain				.001			.01
Major influence (n=1,029)	50.8	57.7	48.3		58.7	49.6	
Minor influence (n=644)	31.8	27.3	33.4		24.4	32.9	
Little or no influence (n=354)	17.5	15.0	18.3		16.9	17.5	
ER is where patients are used to getting care				<.001			<.001
Major influence (n=1,202)	59.6	70.1	55.7		72.0	57.7	
Minor influence (n=631)	31.3	24.4	33.7		22.0	32.7	
Little or no influence (n=185)	9.2	5.4	10.5		5.9	9.6	

Data in the table are shown as column percentages

"Predominant payer mix" is the composite variable of all current payers: payer is considered predominant for the practice if >30% of physician's patients have this payer type and <30% of patients have any other payer type. "Mixed" includes practices with more than one payer representing >30% of patients, or practices with <30% of patients for each payer type.

[a] Years in practice did not violate Levene's test for equality of variances, df(1,1939)= .057, p= .811; therefore students t-test was used, t(1939)= 4.866, p < .001

[b] Years in practice did not violate Levene's test for equality of variances, df(1,1939)=2.664, p= .103; therefore students t-test was used, t(1939)= 3.429, p < .001

[c] *p*-value from Pearson's chi-squared test

Table 5. Multivariate analysis of PCP influence in ER use, and PCP responsibility in decreasing ER use

	PCP influence (N= 1,786)		PCP responsibility (N= 1,773)	
	aOR	95% CI	aOR	95% CI
Years in practice	0.99*	[0.98, 1.00]	0.98**	[0.97, 1.00]
Race				
White (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Black/African American	0.81	[0.49, 1.35]	1.67	[0.70, 3.97]
Asian/Pacific Islander	1.89**	[1.27, 2.83]	1.61	[0.97, 2.69]
American Indian/Alaska Native	2.81	[0.35, 22.67]	1.00	[1.00, 1.00]
Other	1.35	[0.73, 2.51]	1.39	[0.58, 3.33]
Hispanic/Latino				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.49	[0.64, 3.49]	4.82	[0.65, 35.91]
Physician				
Non-physician (NP/PA) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Physician	0.93	[0.68, 1.26]	0.54*	[0.33, 0.88]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.66*	[0.46, 0.93]	0.94	[0.57, 1.57]
Rural	1.00	[0.73, 1.36]	0.76	[0.51, 1.13]
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.84	[0.66, 1.06]	0.66*	[0.48, 0.92]
New clinicians hired in past year?				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.08	[0.84, 1.38]	1.20	[0.86, 1.67]
New office staff hired in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.15	[0.90, 1.46]	0.93	[0.68, 1.28]
Consulted with care coordinators, case managers, community health workers in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	0.81	[0.64, 1.03]	1.02	[0.75, 1.39]
Changed workflow in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.15	[0.91, 1.44]	1.41*	[1.03, 1.94]
Co-located Mental Health w/in Primary Care in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.16	[0.84, 1.60]	1.62	[0.97, 2.71]

Logistic regression with adjusted odds ratios; 95% confidence intervals in brackets. Each column is a separate model adjusted for the covariates shown.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6. Multivariate analysis of PCP influence on ER use: sensitivity analysis with random intercept for practice ID

PCP influence on ER use[a]	Original model (N= 1,786)		Practice adjusted model (N= 1,786)	
	aOR	95% CI	aOR	95% CI
Years in practice	0.99*	[0.98, 1.00]	0.99*	[0.98, 1.00]
Race				
White (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Black/African American	0.81	[0.49, 1.35]	0.80	[0.46, 1.39]
Asian/Pacific Islander	1.89**	[1.27, 2.83]	1.96**	[1.28, 3.01]
American Indian/Alaska Native	2.81	[0.35, 22.67]	3.04	[0.34, 26.82]
Other	1.35	[0.73, 2.51]	1.38	[0.71, 2.65]
Hispanic/Latino				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.49	[0.64, 3.49]	1.59	[0.65, 3.91]
Physician				
Non-physician (NP/PA) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Physician	0.93	[0.68, 1.26]	0.91	[0.66, 1.27]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.66*	[0.46, 0.93]	0.63*	[0.42, 0.94]
Rural	1.00	[0.73, 1.36]	0.99	[0.70, 1.39]
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.84	[0.66, 1.06]	0.83	[0.64, 1.08]
New clinicians hired in past year?				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.08	[0.84, 1.38]	1.10	[0.84, 1.43]
New office staff hired in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.15	[0.90, 1.46]	1.17	[0.90, 1.52]
Consulted with care coordinators, case managers, community health workers in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	0.81	[0.64, 1.03]	0.79	[0.61, 1.03]
Changed workflow in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.15	[0.91, 1.44]	1.15	[0.90, 1.46]
Co-located Mental Health w/in Primary Care in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.16	[0.84, 1.60]	1.18	[0.84, 1.67]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "PCP influence on ER use" Responses dichotomized as Some influence or A great deal of influence vs. A little influence or No influence at all

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7. Multivariate analysis of PCP responsible for decreasing ER use: sensitivity analysis with random intercept for practice ID

PCP responsible for decreasing ER use[a]	Original model (N= 1,773)		Practice adjusted model (N= 1,773)	
	aOR	95% CI	aOR	95% CI
Years in practice	0.98**	[0.97, 1.00]	0.98*	[0.97, 1.00]
Race				
White (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Black/African American	1.67	[0.70, 3.97]	1.73	[0.69, 4.34]
Asian/Pacific Islander	1.61	[0.97, 2.69]	1.59	[0.92, 2.76]
American Indian/Alaska Native	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Other	1.39	[0.58, 3.33]	1.42	[0.56, 3.59]
Hispanic/Latino				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	4.82	[0.65, 35.91]	5.54	[0.70, 44.04]
Physician				
Non-physician (NP/PA) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Physician	0.54*	[0.33, 0.88]	0.51*	[0.30, 0.87]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.94	[0.57, 1.57]	0.92	[0.53, 1.62]
Rural	0.76	[0.51, 1.13]	0.72	[0.46, 1.14]
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.66*	[0.48, 0.92]	0.66*	[0.46, 0.95]
New clinicians hired in past year?				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.20	[0.86, 1.67]	1.24	[0.86, 1.78]
New office staff hired in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	0.93	[0.68, 1.28]	0.92	[0.65, 1.31]
Consulted with care coordinators, case managers, community health workers in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.02	[0.75, 1.39]	1.01	[0.72, 1.41]
Changed workflow in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.41*	[1.03, 1.94]	1.46*	[1.03, 2.05]
Co-located Mental Health w/in Primary Care in past year?				
No/Not checked (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.62	[0.97, 2.71]	1.69	[0.97, 2.94]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "PCP responsible for decreasing ER use" Responses dichotomized as Major responsibility or Some responsibility vs. A little responsibility or No responsibility at all

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8. Multivariate analysis of HRA completion: sensitivity analysis with random intercept for practice ID

Complete any HRA[a]	Original model (N= 1,637)		Practice adjusted model (N= 1,637)	
	aOR	95% CI	aOR	95% CI
PCP familiarity with completing HRA				
Very familiar (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat familiar	0.50	[0.20, 1.24]	0.50	[0.20, 1.24]
A little familiar	0.27**	[0.10, 0.71]	0.27**	[0.10, 0.71]
Not at all familiar	0.23*	[0.07, 0.76]	0.23*	[0.07, 0.76]
HRA useful for identifying health risks				
Very useful (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat useful	0.95	[0.27, 3.36]	0.95	[0.27, 3.36]
A little useful	3.41	[0.42, 27.75]	3.41	[0.42, 27.75]
Not at all useful	11.13	[0.35, 350.17]	11.13	[0.35, 350.17]
HRA useful for discussing health risks				
Very useful (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat useful	0.56	[0.13, 2.51]	0.56	[0.13, 2.51]
A little useful	0.04*	[0.00, 0.49]	0.04*	[0.00, 0.49]
Not at all useful	0.04	[0.00, 3.83]	0.04	[0.00, 3.83]
HRA useful for persuading patients to address risks				
Very useful (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat useful	2.95	[0.62, 14.06]	2.95	[0.62, 14.06]
A little useful	26.95**	[2.87, 253.14]	26.95**	[2.87, 253.14]
Not at all useful	8.34	[0.33, 210.86]	8.34	[0.33, 210.86]
HRA useful for documenting patient behavior goals				
Very useful (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat useful	0.71	[0.18, 2.84]	0.71	[0.18, 2.84]
A little useful	0.79	[0.14, 4.35]	0.79	[0.14, 4.35]
Not at all useful	1.32	[0.10, 17.34]	1.32	[0.10, 17.34]
HRA useful for getting patients to change behaviors				
Very useful (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Somewhat useful	1.03	[0.25, 4.19]	1.03	[0.25, 4.19]
A little useful	0.87	[0.19, 3.94]	0.87	[0.19, 3.94]
Not at all useful	0.28	[0.03, 2.50]	0.28	[0.03, 2.50]
Provider type				
Non-physician (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Physician	0.89	[0.40, 2.01]	0.89	[0.40, 2.01]
Practice location				
Non-urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Urban	0.39*	[0.17, 0.93]	0.39*	[0.17, 0.93]

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Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	0.42*	[0.18, 0.99]	0.42*	[0.18, 0.99]
Medicare	1.34	[0.54, 3.33]	1.34	[0.54, 3.33]
Uninsured	0.05*	[0.00, 0.83]	0.05*	[0.00, 0.83]
Mixed	0.71	[0.18, 2.84]	0.71	[0.18, 2.84]
HMP-MC members assigned to PCP as of 7-25-2016	1.22***	[1.16, 1.27]	1.22***	[1.16, 1.27]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.
[a] "Complete any HRA" Responses dichotomized as any completion rate greater than 0 vs completion rates equal to 0
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9. Multivariate analysis of HRA completion rate: sensitivity analysis with random intercept for practice ID

HRA completion rate	Original model (N= 1,637)		Practice adjusted model (N= 1,637)	
	Coefficients	95% CI	Coefficients	95% CI
PCP familiarity with completing HRA				
Very familiar (ref)	-	-	-	-
Somewhat familiar	1.19***	[0.74, 1.63]	-0.25***	[-0.38, -0.12]
A little familiar	1.56***	[0.96, 2.16]	-0.32***	[-0.49, -0.15]
Not at all familiar	2.98***	[2.11, 3.85]	-0.52***	[-0.72, -0.33]
HRA useful for identifying health risks				
Very useful (ref)	-	-	-	-
Somewhat useful	-0.45	[-1.07, 0.18]	0.08	[-0.12, 0.29]
A little useful	-0.39	[-1.24, 0.45]	0.09	[-0.18, 0.36]
Not at all useful	-0.50	[-1.68, 0.69]	0.12	[-0.28, 0.53]
HRA useful for discussing health risks				
Very useful (ref)	-	-	-	-
Somewhat useful	0.31	[-0.32, 0.93]	-0.08	[-0.28, 0.13]
A little useful	0.32	[-0.57, 1.20]	-0.08	[-0.37, 0.22]
Not at all useful	0.15	[-1.32, 1.62]	-0.08	[-0.55, 0.40]
HRA useful for persuading patients to address risks				
Very useful (ref)	-	-	-	-
Somewhat useful	0.01	[-0.65, 0.66]	0.02	[-0.19, 0.23]
A little useful	-0.47	[-1.31, 0.36]	0.14	[-0.13, 0.41]
Not at all useful	0.04	[-1.34, 1.43]	0.01	[-0.41, 0.43]
HRA useful for documenting patient behavior goals				
Very useful (ref)	-	-	-	-
Somewhat useful	-0.54	[-1.20, 0.11]	0.10	[-0.10, 0.30]
A little useful	-0.57	[-1.35, 0.20]	0.09	[-0.15, 0.33]
Not at all useful	-0.62	[-1.67, 0.43]	0.10	[-0.22, 0.43]
HRA useful for getting patients to change behaviors				
Very useful (ref)	-	-	-	-
Somewhat useful	-0.12	[-0.93, 0.68]	0.02	[-0.21, 0.26]
A little useful	0.00	[-0.86, 0.87]	-0.01	[-0.27, 0.25]
Not at all useful	0.07	[-1.04, 1.18]	-0.02	[-0.37, 0.32]
Provider type				
Non-physician (ref)	-	-	-	-
Physician	0.22	[-0.24, 0.68]	-0.03	[-0.19, 0.13]
Practice location				
Non-urban (ref)	-	-	-	-
Urban	0.48*	[0.09, 0.87]	-0.11	[-0.24, 0.02]

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Predominant payer mix				
Private (ref)	-	-	-	-
Medicaid	0.44*	[0.00, 0.88]	-0.08	[-0.23, 0.06]
Medicare	0.21	[-0.26, 0.68]	-0.04	[-0.19, 0.11]
Uninsured	0.21	[-1.58, 2.01]	-0.09	[-0.71, 0.53]
Mixed	0.50	[-0.22, 1.22]	-0.11	[-0.32, 0.11]
HMP-MC members assigned to PCP as of 7-25-2016	0.002*	[0.000, 0.004]	-0.0003	[-0.0008, 0.0001]

Generalized linear model with gamma distribution predicting the rate (%) of HRA completions; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10. Multivariate analysis of consulted with care coordinator, case manager, or community health worker: sensitivity analysis with random intercept for practice ID

Consulted with care coordinators, case managers, community health workers in past year[a]	Original model (N= 1,652)		Practice adjusted model (N= 1,652)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.46***	[0.37, 0.59]	0.41***	[0.30, 0.56]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC	2.30***	[1.59, 3.34]	2.53***	[1.61, 3.95]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.70	[0.47, 1.07]	0.77	[0.47, 1.27]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.79	[0.57, 1.09]	0.80	[0.54, 1.19]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	0.72*	[0.54, 0.95]	0.70*	[0.50, 0.98]
Medicare	0.73*	[0.53, 1.00]	0.68*	[0.47, 0.99]
Uninsured	1.36	[0.33, 5.66]	1.42	[0.26, 7.76]
Mixed	0.89	[0.58, 1.36]	0.87	[0.53, 1.44]
Participating in MiPCT				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	3.58***	[2.65, 4.84]	4.23***	[2.89, 6.19]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.82	[0.56, 1.20]	0.79	[0.49, 1.26]
Rural	1.15	[0.84, 1.58]	1.26	[0.84, 1.87]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	1.02	[0.80, 1.30]	1.06	[0.80, 1.41]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	0.85	[0.64, 1.14]	0.85	[0.60, 1.21]
Non-physician provider	1.39	[0.98, 1.96]	1.41	[0.94, 2.11]
Other	0.98	[0.59, 1.62]	1.00	[0.55, 1.81]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	1.03	[0.70, 1.52]	1.00	[0.62, 1.60]
Employee	1.58*	[1.08, 2.31]	1.60*	[1.02, 2.50]
Years in practice	1.00	[0.99, 1.01]	1.00	[0.99, 1.01]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Consulted with care coordinators, case managers, community health workers in past year" Responses dichotomized as Yes vs. No or Not checked

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11. Multivariate analysis of co-located mental health within primary care in past year: sensitivity analysis with random intercept for practice ID

Co-located Mental Health within Primary Care in past year[a]	Original model (N= 1,652)		Practice adjusted label (N= 1,652)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.57***	[0.41, 0.79]	0.43***	[0.26, 0.71]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC	3.65***	[2.50, 5.33]	6.32***	[3.39, 11.79]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.85	[0.52, 1.39]	0.85	[0.42, 1.74]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.53**	[0.36, 0.79]	0.49*	[0.28, 0.88]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	2.18***	[1.45, 3.28]	2.65***	[1.51, 4.64]
Medicare	1.25	[0.76, 2.04]	1.44	[0.76, 2.74]
Uninsured	4.01*	[1.08, 14.96]	2.88	[0.47, 17.80]
Mixed	1.53	[0.81, 2.88]	1.13	[0.49, 2.61]
Participating in MiPCT				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	2.15***	[1.50, 3.09]	2.41**	[1.39, 4.17]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.13	[0.66, 1.91]	1.55	[0.72, 3.35]
Rural	2.24***	[1.51, 3.33]	2.72**	[1.47, 5.02]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	0.99	[0.71, 1.37]	0.94	[0.62, 1.43]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	1.19	[0.78, 1.82]	1.05	[0.58, 1.91]
Non-physician provider	1.12	[0.74, 1.69]	1.21	[0.70, 2.10]
Other	0.94	[0.46, 1.90]	0.66	[0.25, 1.77]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	0.80	[0.36, 1.79]	0.59	[0.21, 1.65]
Employee	2.49**	[1.36, 4.58]	2.34*	[1.06, 5.15]
Years in practice	1.00	[0.99, 1.02]	1.00	[0.99, 1.02]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Co-located Mental Health within Primary Care in past year" Responses dichotomized as Yes vs. No or Not checked

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 12. Multivariate analysis of hiring additional clinicians within the past year: sensitivity analysis with random intercept for practice ID

Hired additional clinicians within the past year[a]	Original model (N= 1,652)		Practice adjusted model (N= 1,652)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.25***	[0.19, 0.31]	0.13***	[0.08, 0.20]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC	1.64**	[1.15, 2.33]	1.89*	[1.10, 3.23]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.78	[0.53, 1.17]	0.81	[0.44, 1.47]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.87	[0.63, 1.19]	0.84	[0.52, 1.34]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	0.92	[0.70, 1.22]	0.99	[0.66, 1.50]
Medicare	0.83	[0.61, 1.14]	0.76	[0.49, 1.20]
Uninsured	0.51	[0.15, 1.77]	0.61	[0.10, 3.64]
Mixed	1.15	[0.75, 1.75]	1.18	[0.65, 2.14]
Participating in MiPCT				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	0.95	[0.73, 1.25]	1.09	[0.70, 1.71]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.95	[0.65, 1.39]	1.22	[0.66, 2.25]
Rural	1.01	[0.74, 1.39]	1.18	[0.71, 1.98]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	0.97	[0.77, 1.23]	1.00	[0.72, 1.39]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	1.13	[0.85, 1.50]	1.21	[0.79, 1.86]
Non-physician provider	1.15	[0.82, 1.61]	1.11	[0.68, 1.79]
Other	0.66	[0.40, 1.09]	0.49	[0.23, 1.04]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	1.98***	[1.33, 2.93]	2.18*	[1.20, 3.96]
Employee	1.98***	[1.35, 2.90]	2.35**	[1.35, 4.10]
Years in practice	0.99**	[0.98, 1.00]	0.98*	[0.97, 1.00]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.
[a] "Hired additional clinicians within the past year" Responses dichotomized as Yes vs. No or Not checked
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 13. Multivariate analysis of hiring new office staff within the past year: sensitivity analysis with random intercept for practice ID

New office staff hired in past year[a]	Original model (N= 1,652)		Practice adjusted model (N= 1,652)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.51***	[0.41, 0.65]	0.39***	[0.27, 0.56]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC	1.82***	[1.28, 2.58]	2.00**	[1.23, 3.24]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.68	[0.47, 1.01]	0.76	[0.44, 1.29]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	1.03	[0.75, 1.40]	1.13	[0.74, 1.74]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	1.00	[0.77, 1.31]	1.01	[0.70, 1.46]
Medicare	0.95	[0.70, 1.28]	0.94	[0.62, 1.40]
Uninsured	0.32	[0.09, 1.10]	0.19*	[0.04, 0.99]
Mixed	0.69	[0.46, 1.04]	0.66	[0.39, 1.14]
Participating in MiPCT				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.06	[0.82, 1.39]	1.10	[0.74, 1.63]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	0.66*	[0.46, 0.94]	0.61	[0.36, 1.04]
Rural	0.95	[0.70, 1.29]	0.99	[0.63, 1.56]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	0.82	[0.65, 1.03]	0.77	[0.57, 1.03]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	0.86	[0.65, 1.13]	0.88	[0.60, 1.29]
Non-physician provider	0.95	[0.68, 1.32]	0.99	[0.64, 1.53]
Other	0.75	[0.47, 1.21]	0.73	[0.38, 1.40]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	2.25***	[1.53, 3.31]	2.80***	[1.63, 4.83]
Employee	1.38	[0.96, 1.99]	1.45	[0.88, 2.38]
Years in practice	0.98***	[0.97, 0.99]	0.98***	[0.96, 0.99]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "New office Staff hired in past year" Responses dichotomized as Yes vs. No or Not checked

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14. Multivariate analysis of changed workflow in the past year: sensitivity analysis with random intercept for practice ID

Changed workflow in past year[a]	Original model (N= 1,652)		Practice adjusted model (N= 1,652)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	0.65***	[0.52, 0.81]	0.61***	[0.46, 0.80]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC	1.06	[0.77, 1.46]	0.99	[0.67, 1.47]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.85	[0.58, 1.24]	0.87	[0.55, 1.36]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.99	[0.73, 1.33]	1.00	[0.70, 1.42]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	1.15	[0.88, 1.50]	1.19	[0.87, 1.62]
Medicare	1.39*	[1.03, 1.87]	1.51*	[1.06, 2.14]
Uninsured	0.99	[0.30, 3.26]	0.88	[0.22, 3.56]
Mixed	0.78	[0.52, 1.18]	0.77	[0.48, 1.24]
Participating in MiPCT				
No (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Yes	1.08	[0.84, 1.39]	1.12	[0.82, 1.54]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.18	[0.83, 1.68]	1.16	[0.75, 1.80]
Rural	1.33	[0.99, 1.78]	1.42	[0.99, 2.05]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	0.96	[0.77, 1.20]	0.95	[0.74, 1.23]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	0.75*	[0.57, 0.98]	0.71*	[0.51, 0.99]
Non-physician provider	1.05	[0.77, 1.44]	1.07	[0.75, 1.55]
Other	0.80	[0.50, 1.27]	0.77	[0.44, 1.35]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	1.00	[0.68, 1.45]	1.02	[0.65, 1.61]
Employee	0.86	[0.60, 1.23]	0.81	[0.53, 1.25]
Years in practice	0.98***	[0.97, 0.99]	0.98***	[0.97, 0.99]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Changed workflow in past year" Responses dichotomized as Yes vs. No or Not checked

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 15. Multivariate analysis of an increase in the number of new patients: sensitivity analysis with random intercept for practice ID

Increase in the number of new patients[a]	Original model (N= 1,638)		Practice adjusted model (N= 1,638)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	1.02	[0.81, 1.29]	1.05	[0.80, 1.37]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC (ref)	1.34	[0.95, 1.90]	1.42	[0.95, 2.11]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.89	[0.60, 1.31]	0.87	[0.56, 1.35]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.81	[0.60, 1.12]	0.79	[0.55, 1.12]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	3.56***	[2.72, 4.65]	4.01***	[2.92, 5.50]
Medicare	1.16	[0.86, 1.56]	1.15	[0.83, 1.61]
Uninsured	6.43*	[1.36, 30.37]	7.31*	[1.36, 39.21]
Mixed	1.52*	[1.02, 2.27]	1.59*	[1.02, 2.48]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.48*	[1.01, 2.17]	1.55	[1.00, 2.42]
Rural	0.87	[0.63, 1.18]	0.85	[0.59, 1.22]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	1.45**	[1.15, 1.82]	1.48**	[1.15, 1.91]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	1.09	[0.82, 1.43]	1.09	[0.80, 1.49]
Non-physician provider	1.32	[0.94, 1.86]	1.36	[0.93, 1.98]
Other	0.71	[0.43, 1.15]	0.72	[0.42, 1.25]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	0.66*	[0.45, 0.97]	0.63*	[0.40, 0.98]
Employee	1.05	[0.73, 1.52]	1.08	[0.71, 1.63]
Years in practice	0.99	[0.98, 1.00]	0.99	[0.98, 1.00]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Increase in the number of new patients" Responses dichotomized as To a great extent or To some extent vs. To a little extent or Not at all or Don't know

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 16. Multivariate analysis of existing patients who had been uninsured or self-pay gained insurance: sensitivity analysis with random intercept for practice ID

Existing patients who had been uninsured or self-pay gained insurance[a]	Original model (N= 1,638)		Practice adjusted model (N= 1,638)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	1.05	[0.83, 1.31]	1.05	[0.82, 1.34]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC (ref)	1.92***	[1.36, 2.72]	1.98***	[1.36, 2.87]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	1.00	[0.69, 1.47]	1.01	[0.67, 1.51]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.81	[0.60, 1.11]	0.80	[0.58, 1.11]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	2.61***	[2.01, 3.39]	2.74***	[2.06, 3.65]
Medicare	1.11	[0.83, 1.50]	1.12	[0.82, 1.53]
Uninsured	2.08	[0.59, 7.29]	2.07	[0.55, 7.71]
Mixed	1.44	[0.97, 2.15]	1.47	[0.96, 2.23]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.32	[0.91, 1.91]	1.34	[0.90, 1.99]
Rural	1.16	[0.86, 1.58]	1.17	[0.84, 1.63]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	1.35*	[1.07, 1.69]	1.36*	[1.07, 1.73]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	0.96	[0.73, 1.26]	0.95	[0.71, 1.27]
Non-physician provider	1.54*	[1.10, 2.15]	1.55*	[1.09, 2.20]
Other	0.99	[0.61, 1.59]	1.00	[0.60, 1.65]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	0.75	[0.51, 1.10]	0.74	[0.49, 1.10]
Employee	1.01	[0.70, 1.46]	1.02	[0.70, 1.50]
Years in practice	1.00	[0.99, 1.01]	1.00	[0.99, 1.01]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Existing patients who had been uninsured or self-pay gained insurance" Responses dichotomized as To a great extent or To some extent vs. To a little extent or Not at all or Don't know

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 17. Multivariate analysis of existing patients changed from other insurance to HMP: sensitivity analysis with random intercept for practice ID

Existing patients changed from other insurance to Healthy Michigan Plan[a]	Original model (N= 1,639)		Practice adjusted model (N= 1,639)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	1.17	[0.92, 1.49]	1.16	[0.88, 1.52]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC (ref)	1.11	[0.79, 1.56]	1.12	[0.76, 1.64]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	0.92	[0.61, 1.39]	0.91	[0.57, 1.43]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.82	[0.59, 1.13]	0.79	[0.55, 1.13]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	2.62***	[1.98, 3.47]	2.84***	[2.07, 3.89]
Medicare	1.13	[0.80, 1.58]	1.12	[0.78, 1.62]
Uninsured	0.61	[0.13, 2.91]	0.54	[0.10, 2.84]
Mixed	1.46	[0.94, 2.26]	1.49	[0.93, 2.40]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.22	[0.83, 1.78]	1.30	[0.85, 2.00]
Rural	1.57**	[1.15, 2.14]	1.66**	[1.16, 2.37]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	1.17	[0.91, 1.49]	1.17	[0.90, 1.53]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	1.22	[0.91, 1.65]	1.23	[0.88, 1.71]
Non-physician provider	1.45*	[1.05, 2.01]	1.55*	[1.08, 2.22]
Other	1.04	[0.62, 1.75]	1.05	[0.60, 1.84]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	0.92	[0.60, 1.40]	0.92	[0.58, 1.45]
Employee	0.98	[0.66, 1.44]	0.97	[0.63, 1.47]
Years in practice	1.00	[0.99, 1.01]	1.00	[0.99, 1.01]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Existing patients changed from other insurance to Healthy Michigan Plan" Responses dichotomized as To a great extent or To some extent vs. To a little extent or Not at all or Don't know

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 18. Multivariate analysis of an increase in the number of new patients who have not seen a primary care practitioner in many years: sensitivity analysis with random intercept for practice ID

Increase in the number of new patients who have not seen a primary care practitioner in many years[a]	Original model (N= 1,638)		Practice adjusted model (N= 1,638)	
	aOR	95% CI	aOR	95% CI
Practice size				
Large practice (6+) (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Small practice (0-5)	1.18	[0.94, 1.48]	1.19	[0.91, 1.54]
Practice type				
Non-FQHC (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
FQHC (ref)	1.45*	[1.02, 2.07]	1.54*	[1.04, 2.29]
Non-academic (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Academic	1.07	[0.72, 1.57]	1.06	[0.68, 1.63]
Not hospital-based/non-teaching (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Hospital-based (non-teaching)	0.97	[0.71, 1.32]	0.94	[0.66, 1.33]
Predominant payer mix				
Private (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Medicaid	3.06***	[2.34, 4.01]	3.37***	[2.47, 4.59]
Medicare	1.18	[0.88, 1.57]	1.19	[0.86, 1.65]
Uninsured	1.87	[0.54, 6.51]	1.81	[0.46, 7.09]
Mixed	1.13	[0.76, 1.68]	1.17	[0.75, 1.81]
Urbanicity				
Urban (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Suburban	1.19	[0.81, 1.74]	1.21	[0.78, 1.86]
Rural	0.79	[0.58, 1.07]	0.76	[0.53, 1.08]
Sex				
Male (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Female	1.29*	[1.03, 1.62]	1.31*	[1.02, 1.68]
Specialty care				
Family medicine (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Internal medicine	0.94	[0.72, 1.23]	0.91	[0.67, 1.24]
Non-physician provider	1.54*	[1.09, 2.18]	1.61*	[1.10, 2.34]
Other	0.81	[0.51, 1.31]	0.88	[0.52, 1.51]
Practice ownership				
Full owner (ref)	1.00	[1.00, 1.00]	1.00	[1.00, 1.00]
Partner/part-owner	0.83	[0.57, 1.22]	0.83	[0.54, 1.27]
Employee	1.00	[0.69, 1.44]	1.00	[0.67, 1.51]
Years in practice	1.00	[0.99, 1.01]	0.99	[0.98, 1.01]

Logistic regression analysis with adjusted odds ratios; 95% confidence intervals in brackets. First column shows model adjusted for all covariates shown. Second model adds a random intercept for the practice ID.

[a] "Increase in the number of new patients who have not seen a primary care practitioner in many years" Responses dichotomized as To a great extent or To some extent vs. To a little extent or Not at all or Don't know

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 19. Predictive margins of primary care physician impact on emergency room use and primary care physician responsibility for emergency room use

	Primary care provider influence on emergency room use[a]		Primary care provider responsibility for emergency room use[b]	
	Predictive margins %	95% CI	Predictive margins %	95% CI
Race				
White	72.1	[69.8, 74.4]	86.6	[84.9, 88.4]
Black/African American	67.7	[57.2, 78.3	91.4	[84.9, 98.0]
Asian/Pacific Islander	82.9**	[77.6, 88.2]	91.2	[87.4, 95.0]
American Indian/Alaska Native	87.8	[65.6, 110.0]	-	-
Other	77.7	[67.3, 88.0]	89.9	[82.3, 97.5]
Hispanic/Latino				
Yes	73.2	[71.2, 75.3]	87.3	[85.8, 88.8]
No	80.2	[67.1, 93.3]	97.0	[91.2, 102.8]
MD/Non-MD				
MD/DO	74.5	[69.4, 79.6]	92.1*	[88.9, 95.3]
Non-physicians	73.1	[70.8, 75.4]	86.6	[84.8, 88.3]
Urbanicity				
Urban	74.2	[71.8, 76.6]	88.0	[86.3, 89.7]
Suburban	65.5*	[58.4, 72.7]	87.4	[82.4, 92.4]
Rural	74.2	[69.0, 79.4]	84.9	[80.5, 89.3]
Practice size				
Large practice (6+)	75.3	[72.1, 78.4]	90.0	[87.7, 92.3]
Small practice (0-5)	71.9	[69.0, 74.8]	85.8*	[83.6, 87.9]
New clinicians hired in past year?				
No/Not checked	72.6	[69.4, 75.8]	86.5	[84.2, 88.9]
Yes	74.0	[71.0, 77.1]	88.5	[86.2, 90.7]
New office staff hired in past year?				
No/Not checked	71.8	[68.4, 75.3]	87.9	[85.6, 90.2]
Yes	74.5	[71.7, 77.2]	87.1	[84.9, 89.4]
Consulted with care coordinators, case managers, community health workers in past year?				
No/Not checked	75.6	[72.5, 78.7]	87.4	[85.1, 89.7]
Yes	71.6	[68.7, 74.5]	87.6	[85.4, 89.8]
Changed workflow in past year?				
No/Not checked	72.2	[69.4, 75.0]	86.0	[83.9, 88.2]
Yes	74.9	[71.7, 78.0]	89.6*	[87.3, 91.9]
Co-located Mental Health w/in Primary Care in past year?				
No/Not checked	72.9	[70.7, 75.2]	86.9	[85.2, 88.6]
Yes	75.7	[70.5, 81.0]	91.4	[87.6, 95.2]

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Years in practice (intervals)	*		**	
0 years	77.4	[73.8, 81.0]	90.6	[88.2, 93.1]
10 years	75.3	[72.8, 77.8]	89.2	[87.3, 91.0]
20 years	73.1	[71.1, 75.2]	87.5	[86.0, 89.1]
30 years	70.9	[67.9, 73.8]	85.7	[83.6, 87.9]

[a] "How much can primary care practitioners influence non-urgent ER use by their patients?" Responses dichotomized as A great deal or Some vs. A little or Not at all

[b] "To what extent do you think it is your responsibility as a primary care practitioner to decrease non-urgent ER use?" Responses dichotomized as Major responsibility or Some responsibility vs. Minimal or No responsibility

Logistic regression with predicted margins; each column is a separate model/outcome, adjusted for all covariates shown.

The variable "Years in practice" was originally continuous, margins are estimated at specific cut shown. Significance testing was conducted on the continuous variable.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 20. Bivariate and multivariate associations of any HRA completion

PCP familiarity with completing HRA (n=1,898)	%[a]	OR	*p*-value	95% CI
Very familiar (n=928)	48.9	-		
Somewhat familiar (n=440)	23.2	0.50	NS	[0.20, 1.24]
A little familiar (n=248)	13.1	0.27	0.008	[0.10, 0.71]
Not at all familiar (n=282)	14.9	0.23	0.02	[0.07, 0.76]
HRA useful for identifying health risks (n=1,730)				
Very useful (n=453)	26.2	-		
Somewhat useful (n=727)	42.0	0.95	NS	[0.27, 3.36]
A little useful (n=347)	20.1	3.41	NS	[0.42, 27.75]
Not at all useful (n=203)	11.7	11.14	NS	[0.35, 350.18]
HRA useful for discussing health risks (n=1,727)				
Very useful (n=579)	33.5	-		
Somewhat useful (n=696)	40.3	0.56	NS	[0.13, 2.52]
A little useful (n=288)	16.9	0.04	0.01	[0.004, 0.485]
Not at all useful (n=164)	9.5	0.04	NS	[0.004, 3.828]
HRA useful for persuading patients to address risks (n=1,728)				
Very useful (n=464)	26.9	-		
Somewhat useful (n=674)	39.0	2.95	NS	[0.62, 14.06]
A little useful (n=394)	22.8	26.95	0.004	[2.87, 253.14]
Not at all useful (n=196)	11.3	8.34	NS	[0.33, 210.86]
HRA useful for documenting patient behavior goals (n=1,727)				
Very useful (n=391)	22.6	-		
Somewhat useful (n=683)	39.6	0.71	NS	[0.18, 2.84]
A little useful (n=424)	24.6	0.79	NS	[0.14, 4.35]
Not at all useful (n=229)	13.3	1.32	NS	[0.01, 17.34]
HRA useful for getting patients to change behaviors (n=1,722)				
Very useful (n=267)	15.5	-		
Somewhat useful (n=551)	32.0	1.03	NS	[0.25, 4.19]
A little useful (n=620)	36.0	0.87	NS	[0.19, 3.94]
Not at all useful (n=284)	16.5	0.28	NS	[0.03, 2.50]
Provider type (n=1,972)				
Non-physician (n=315)	16.0	-		
Physician (n=1,657)	84.0	0.89	NS	[0.40, 2.01]
Practice location (n=1,972)				
Non-urban (n=488)	24.8	-		
Urban (n=1,484)	75.3	0.39	0.03	[0.17, 0.93]
Predominant payer mix (n=1,787)				
Private (n=610)	34.1	-		
Medicaid (n=640)	35.8	0.42	0.05	[0.18, 0.99]
Medicare (n=393)	22.0	1.34	NS	[0.54, 3.33]
Uninsured (n=11)	0.6	0.05	0.04	[0.003, 0.830]
Mixed (n=133)	7.4	0.71	NS	[0.18, 2.84]

Bivariate association and adjusted logistic regression with odds ratios predicting any completion of HRA from data warehouse records. Multivariate model was adjusted for all variables shown, as well as the number of HMP members assigned to the PCP.

[a] Percent of respondents per level of familiarity with completing HRA.

Table 21. Rate of HRA completion by predictive factor

PCP familiarity with completing HRA	Completion rate (%)	*p*-value	95% CI
Very familiar	23.3	-	[22.1, 24.4]
Somewhat familiar	18.2	<0.001	[16.8, 19.5]
A little familiar	17.0	<0.001	[15.4, 18.6]
Not at all familiar	13.7	<0.001	[12.1, 15.2]
HRA useful for identifying health risks			
Very useful	18.9	-	[17.0, 20.9]
Somewhat useful	20.7	NS	[19.4, 22.1]
A little useful	20.5	NS	[18.4, 22.6]
Not at all useful	21.0	NS	[16.8, 25.1]
HRA useful for discussing health risks			
Very useful	21.2	-	[18.8, 23.5]
Somewhat useful	19.8	NS	[18.5, 21.1]
A little useful	19.8	NS	[17.5, 22.0]
Not at all useful	20.5	NS	[15.2, 25.8]
HRA useful for persuading patients to address risks			
Very useful	19.8	-	[17.6, 22.0]
Somewhat useful	19.8	NS	[18.4, 21.1]
A little useful	21.9	NS	[19.7, 24.2]
Not at all useful	19.6	NS	[15.3, 24.0]
HRA useful for documenting patient behavior goals			
Very useful	18.5	-	[16.6, 20.5]
Somewhat useful	20.7	NS	[19.3, 22.0]
A little useful	20.8	NS	[19.7, 22.6]
Not at all useful	21.0	NS	[17.5, 24.5]
HRA useful for getting patients to change behaviors			
Very useful	20.1	-	[17.0, 23.2]
Somewhat useful	20.7	NS	[19.1, 22.2]
A little useful	20.1	NS	[18.8, 21.4]
Not at all useful	19.8	NS	[17.2, 22.5]
Provider type			
Non-physician	21.0	-	[19.2, 22.8]
Physician	20.0	NS	[19.2, 20.9]
Practice location			
Non-urban	21.8	-	[20.2, 23.3]
Urban	19.7	0.02	[18.8, 20.5]
Predominant payer mix			
Private	21.3	-	[20.0, 22.7]
Medicaid	19.4	0.05	[18.3, 20.6]
Medicare	20.4	NS	[18.7, 22.1]
Uninsured	20.4	NS	[12.7, 28.0]
Mixed	19.2	NS	[16.7, 21.7]

Predicted HRA completion rates from GLM regression with gamma distribution predicting rate of completed HRAs using data warehouse records. Multivariate model was adjusted for all variables shown, as well as the number of HMP members assigned to the PCP.

Table 22. Multivariate analysis of associations with self-reported numbers of HRAs completed

	Number of HRAs completed (N= 1,697)	
	aOR	95% CI
Region		
Upper Peninsula/Northwest/Northeast	Reference	
West/East Central/East	0.71	[0.27, 1.89]
South Central/Southwest/Southeast	0.48	[0.17, 1.34]
Detroit Metro	0.61	[0.22, 1.70]
Urbanicity		
Urban	Reference	
Suburban	1.75**	[1.18, 2.59]
Rural	1.06	[0.41, 2.79]
Practice size		
Large practice (6+)	Reference	
Small practice (0-5)	1.49***	[1.20, 1.87]
New clinicians hired in past year?		
No/Not checked	Reference	
Yes	0.86	[0.68, 1.08]
New office staff hired in past year?		
No/Not checked	Reference	
Yes	1.17	[0.93, 1.46]
Consulted with care coordinators, case managers, community health workers in past year?		
No/Not checked	Reference	
Yes	1.01	[0.80, 1.26]
Changed workflow in past year?		
No/Not checked	Reference	
Yes	0.89	[0.72, 1.10]
Co-located Mental Health w/in Primary Care in past year?		
No/Not checked	Reference	
Yes	1.46*	[1.07, 1.99]
Payment arrangement		
FFS-predominant	Reference	
Capitation-predominant	1.72	[0.85, 3.49]
Salary-predominant	1.45**	[1.16, 1.82]
Mixed payment	1.06	[0.78, 1.45]
Other payment arrangement	1.50	[0.71, 3.17]
Predominant payer mix		
Private	Reference	
Medicaid	2.34***	[1.81, 3.03]
Medicare	0.75*	[0.58, 0.97]
Uninsured	3.41	[0.66, 17.53]
Mixed	1.24	[0.84, 1.83]
Practice has process to identify HMP patients who need HRA completed		
No/Don't know	Reference	
Yes	1.80***	[1.40, 2.32]

Continued on next page

Continued from previous page

Practice has process to submit completed HRAs		
No/Don't know	Reference	
Yes	7.88***	[6.16, 10.07]
Received financial bonus for HRA		
No/Don't know	Reference	
Yes	1.14	[0.84, 1.55]
Familiarity with HMP expenses		
Very familiar	Reference	
Somewhat familiar	0.49*	[0.27, 0.87]
A little familiar	0.47**	[0.27, 0.83]
Not at all familiar	0.48*	[0.27, 0.87]
Familiarity with healthy behavior incentives		
Very familiar	Reference	
Somewhat familiar	0.60*	[0.39, 0.92]
A little familiar	0.51**	[0.33, 0.80]
Not at all familiar	0.24***	[0.15, 0.38]
Model cuts		
Cut 1[a]	0.15**	[0.05, 0.50]
Cut 2[b]	0.43	[0.13, 1.43]
Cut 3[c]	2.48	[0.75, 8.18]

Ordered logistic regression with adjusted odds ratios adjusted for the covariates shown; 95% confidence intervals in brackets

Dependent variable ordinal categories are "None", "1-2", "3-10", and ">10"

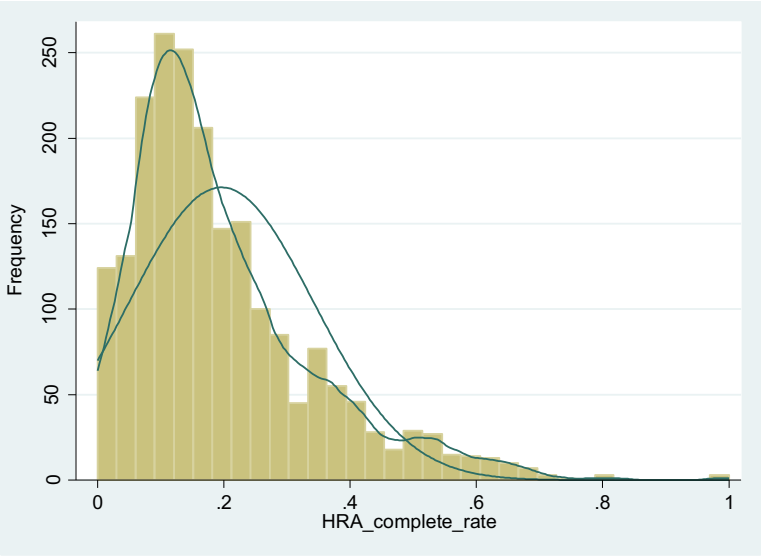
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

[a] Cut 1: Estimated cut point on the underlying latent variable used to differentiate category of None completed from 1-2, 3-10, and > 10 completed when the predictor variables are evaluated at zero

[b] Cut 2: Estimated cut point on the underlying latent variable used to differentiate categories of None and 1-2 completed from 3-10 and > 10 completed when the predictor variables are evaluated at zero

[c] Cut 3: Estimated cut point on the underlying latent variable used to differentiate categories of None, 1-2, and 3-10 completed from > 10 completed when the predictor variables are evaluated at zero

Figure 1. Distribution of HRA completion rates by PCP



Variable definitions

HRA rate: Calculated variable based on data warehouse information compiled 7/25/16. Rate represents the number of HMP members assigned to the PCP with a completed HRA attestation date divided by the total number of HMP members assigned to the PCP. PCPs with 0 HMP patients assigned at the date of data collection were marked as missing.

MiPCT: Indicator variable from the data warehouse marking practice participation in the Michigan Primary Care Transformation Project (MiPCT).

Predominant payer mix: Composite variable of all current payers: payer is considered predominant for the practice if it represents the highest share of payer types and >30% of physician's patients have this payer type. "Mixed" includes practices with more than one payer representing >30% of patients where there is a tie, or practices with <30% of patients for each payer type.

Urbanicity: County codes were linked to the U.S. Department of Agriculture Economic Research Service 2013 Urban Influence Codes to classify regions into urban (codes 1-2), suburban (codes 3-7) and rural (codes 8-12) designations.

Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

Appendix B: Quotes from In-Depth Interviews with Primary Care Practitioners

1. Patient Descriptions

1.1 Unmet Needs

I think just the fact that so many things had not been addressed in the past and some of them just came in with lists. Like, "I've got bad teeth." "I have a hernia." "I haven't had a Pap smear in how long?" "I think my blood pressure is a problem." "I've got this skin thing." You know, "My hand is numb." . . . It's like the dam burst.

(Rural physician assistant, Rural health clinic)

I would say, you know, overall the patients are overall unhealthy in terms of having uncontrolled diseases which have been there for a while and which have resulted in some end-organ damage. They overall tend to be, you know, more overweight. Unhealthier habits such as smoking I would say are definitely more prevalent. Issues with both mental health as well as substance abuse.

(Urban physician; Large, hospital-based practice)

So we see a lot of people with asthma, and a number of patients who, you know, are just kind of eeking by on borrowed medications . . . Some part of medications that now we're able to get inhalers for them and do a pulmonary function test and start working on improving things instead of just damage control. Also, there's a number of people with diabetes . . . a number of people who hadn't had labs in two or three years and were just kind of type 1 diabetics who were managing their insulin, rarely checking their blood sugars and never getting the hemoglobin A1C.

(Rural physician; Large, hospital-based practice)

1.2 Long Time without Care

Most of the new people we got last year probably…. You know, I'd say, "When was your last physical?" And they'd say, "I don't know. I don't think I've ever had one," or "It's been 5 years plus." … Or the only thing they had was just going to the emergency room.

(Urban physician; Small, private practice)

So, for instance…two cases where gentlemen have walked in, not having been seen in, you know, in twenty years perhaps, if at all. One gentleman said he hadn't been to see the doctor in forty years. One had multifocal carcinoma upon presentation, and the other had hypertension, diabetes and was later found to have had a stroke, all prior to arrival at the office, but those were all new diagnoses made.

(Urban physician assistant, FQHC)

Literally I've had some patients who haven't seen a doctor for twenty years, and those who were kind of getting primary care in the emergency room, through like free clinics and things of that nature.

(Urban physician; Large, hospital-based practice)

Some are existing patients that now have insurance, and so now they can get the things done you had been wanting them to do, but I would say I've seen several that didn't have a doctor for years. They knew they had diabetes and other problems, but they didn't . . . They had no health insurance, and so they just ignored it for years. Now they're coming in and getting established.

(Urban physician; Small, private practice)

1.3 Patient Insurance Status

Back in the day prior to the Affordable Care Act and the Medicaid expansion, we had maybe 20% of our patients were insured, and the rest were low-income, uninsured. Most of our patients are employed...but, as I said, most of them had no insurance. So when Affordable Care passed and when Medicaid expansion in particular passed, then we started doing a lot more of insurance billing, and it kind of expanded the Medicaids which we participated with.

(Urban physician, Free/low-cost clinic)

We had a 45% increase in the people who basically signed up and named us at their providers. Some of those actually came out of our . . . offices, and so they were not necessarily new patients every one of them, but a large majority of them were. . . They were being seen other places or not being seen at all, and when they signed up and we increased, you know, basically our commitment to 45% new patients in the Medicaid plan, we didn't increase our providers by 45%, and I know we're having a real struggle here at times getting some of these people in when we've got already established patients who pretty much filled our time up even before we started this.

(Rural physician, FQHC)

1.4 Churn

You know, they'll say something like, "Can we do this before the end of the month because my insurance is going to lapse?" And then they come back and, you know, a few months later, "Well, I'm back on insurance." I mean it's just crazy.

(Rural physician assistant, Rural health clinic)

I have a sense that that seems to happen somewhat regularly, meaning like annually it seems like, but this is all new and so it's hard to say. ... I have no way of knowing if they've recently changed or if they're planning to change.

(Urban physician, FQHC)

It matters what they have now or if ... they know and bring it up, like "Hey, I'm gonna lose this," or "Let's not do that now. I'm enrolled for this new insurance plan.... Let's let these things off until next month or the first of the year or whatever.

(Rural physician, FQHC)

Especially with the county health plans, those were a month-to-month thing. They covered nothing.

(Urban physician; Small, private practice)

1.5 New Patient Population

We have so many working poor people up here. You know, they work two and three jobs, barely can scrape it together, and they're coming in after years of little or no care, especially the men because the women at least have the breast and pelvic exam program ... And it's like they are getting everything done. They are . . . It's like problems that have backed up over the years. Dental stuff is being taken care of. Vision is being taken care of, but they usually start with me, and it's been really wonderful.

(Rural physician assistant, Rural health clinic)

These are deserving people. They have genuine issues. They're not, you know, lying around. These are a lot of working poor people.

(Rural physician assistant, Rural health clinic)

We're in an area where there's a lot of working poor out there with no insurance at all. We're in a big, kind of logging and mom and pop machine shop area kind of thing. So those people basically didn't have any kind of insurance up until a year ago. ....A lot of them are these independent sorts that don't want anything to do with the federal government or anything having to do with government in general, and yet they kind of come in and on one hand they slam-bam the administration that got their insurance for them, and yet they'll turn around and say, "It's kind of nice having insurance."

(Rural physician, FQHC)

I think the majority have jobs ..., but they didn't have insurance ... Their employer didn't offer it ... They fell through the cracks because they weren't poor enough and they're working....

(Urban physician assistant, FQHC)

I think the newer patients I've had who've recently had insurance tend to be a little bit healthier because I think they have been engaged in the workforce somehow. . .

(Urban physician; Large, hospital-based practice)

2. Practice Characteristics

2.1 Patient-Centered Care

. . . we are really trying to follow an integrated health model, you know, with [organization] and because we have on-site behavioral health services in the primary care clinic, yes. There have been a number of patients who have walked in, been evaluated and had a subsequent behavioral evaluation and counselling services scheduled subsequently as a result of coming in.

(Urban physician assistant, FQHC)

Because we have onsite dental and, you know, often times with just the general evaluation, you know we will refer not only for just routine cleaning but obviously if we see some problematic issues. So, yes, they can receive care pretty seamlessly. We often times can even get patients seen for dental the same day that they are seen for medical.

(Urban physician assistant, FQHC)

So I would say that a primary care physician making an initial referral to a psychiatric or behavioral health has about a 10% chance of actually working due to all of the complexities in the systems and how they work ... This is if you're not co-located ... But if I have the psych social worker here and we can work out a plan right on site, then he/she can be active in making sure that the appointments are actually set up. . . making sure that the person knows where they're going and that they have transportation. It's much more effective. It's like going from a 10% to 80% chance that they will, you know, have . . . That they will actually connect with their therapist.

(Urban physician; Small, private practice)

So I mean we emphasize that we have. . . someone answering our phones 24/7. So if they have a concern and they're not sure if they should wait until tomorrow or go to the ER, call us first. We can help you talk through that. So we mention that as an option. For our patients that tend to go to the ER frequently, we have a nurse case manager as well. So for people who go frequently, we always touch base with them after the ER visit to say, "What happened? How could we prevent this? Do you need follow-up with our office?" So then we have a chance to talk in the office and say, "Look, what happened? Next time that that happens, please call us first. We're happy to talk." Sometimes that helps; sometimes it doesn't.

(Urban physician; Large, hospital-based practice)

2.2 Provider on Call/Phone Triage

The other thing we have is 24/7 phone call availability for a provider. So we pretty much insisted with our patients that they call us first unless, you know, they're sucking air on their back with chest pain . . . Then it's pretty clear they need to be in an ambulance, but short of that, we want them to call us and talk to us before they go running to the emergency room.

(Rural physician, FQHC)

There's been kind of a new promotion going on here which is called "Call Us First," which is just to try to repeat this message over and over to people that they should call their primary physician's office first before deciding what to do if they're sick after hours ... It's just a series of different messages throughout the system.

(Urban physician; Small, private practice)

They call the doctor on call. I think there's a difference between that and a hotline. A hotline implies to me somebody you don't know who just calls and they give you some good advice, but if they call me, I can tell them "I will see you tomorrow morning at 8:00."

(Rural physician; Small, private practice)

Our clinic specifically does not have after-hours service. So, you know, our clinic has traditional hours. . . . Our health system has set up some urgent care clinics. They are not very near our community, and that might be part of the reason why our patients go to the ED, but definitely kind of in the extended area there are urgent care centers which do have kind of extended hours, same-day clinics and that kind of thing. But I still don't really see our patients buying into that as much as we would hope.

(Urban physician; Large, hospital-based practice)

We do have a pretty good network with our home nurses to increase their visitations on our chronic disease patients to help adjust things as best they can. I get frequent phone calls from them when I'm on call at night after 8:00... trying to decide what to do with a patient who may be having some problems.

(Rural physician; Large, hospital-based practice)

2.3 Urgent Appointments

We keep slots open every day. If you call at 8:00 in the morning, you will be able to get in with your practitioner because even the busiest, fullest practice guy has got openings . . . Patients have learned I'm here, and if they come in and they're [another provider's] patient, but I'm seeing them and I realize this is bad, I'm going to immediately find [that provider] and bring him in. You know, and so that's another thing that I think has cut down on, "Well, let's just go to the ER" is that we can look right there.

(Rural physician assistant, Rural health clinic)

Just in parallel with Healthy Michigan, we re-formatted our schedule, . . . I guess that we just found that all of a sudden we had patients who are more willing to come in to see us. All the providers have re-formatted their schedule so that all of us now have whole half days where we're just dealing with acute emergent urgent care type stuff. Just trying to open up access to people who . . . just trying to decrease them going to the ER.

(Urban physician, FQHC)

3. Changes in Practice

3.1 Hired New Clinicians or Staff

So organization-wide. . . Thirty-nine persons have been slotted for new employment. So it's about an 8 or 10% staff addition as a result of Healthy Michigan.

(Urban physician, FQHC)

There are more PA's at our clinic than there used to be.

(Rural physician; Large, hospital-based practice)

Other things is we've been able to increase the number of persons who are answering phones so that our wait times for patients are improving. Another big problem we've had for years is how long patients have to wait for referrals. We've increased the staff for people processing referral requests, decreasing wait time for that…Patients don't have to wait as long to get their referrals processed.

(Urban physician, FQHC)

I know that we've hired new . . . new staff and support care . . . in support roles . . . a medical assistant.

(Urban physician assistant, FQHC)

This is kind of my personal beef with the Medicaid expansion plan is the huge requirement for prior authorization. So we have had to bring in a new secretary to the office just to handle prior authorization requests for our practice. Basically, even she alone cannot keep up with it. So, we have a couple of other secretaries who do prior authorizations, but that has been the biggest, I would say, my downside….

(Urban physician; Large, hospital-based practice)

3.2 Changes in Number of Patients

We've overwhelmed. (LAUGHTER) That's the short version. I mean, we are already, as you know with a federally qualified health center, we accept, always have accepted, Medicaid because we have a cost-base reimbursement agreement with the state for seeing those patients with the Medicaid expansion going up to whatever it was 133 or 137% or whatever that was . . . Then that gave us a whole lot more patients . . . current patients who now qualify for Medicaid under the Medicaid expansion. So, I guess that's the biggest change. All of a sudden, we've got a whole lot more patients serving the same population, but now they've got insurance.

(Urban physician, Free/low-cost clinic)

3.3 Wait Times

Whoa, we're sort of overrun and the house is full. So, we're still open. Any Healthy Michigan patient can call us and come see us, but it's not like you're going to probably get as timely care as would be ideal.

(Urban physician, FQHC)

Well, the goal has been to improve wait times. I just think that, to be honest, because we're encountering patients who may have been kind of off the grid, so to speak, without healthcare for so long, that when they come in, they have . . . It takes a lot . . . It's requiring more of us . . . more time to thoroughly evaluate the patient and kind of get them moving forward, you know, as far as healthcare.

(Urban physician assistant, FQHC)

It hasn't been a problem for us because . . . There's enough of us present and there's enough availability for appointments that I don't think it's been much of a problem.

(Rural physician; Large, hospital-based practice)

3.4 Administrative Burden

Say if they have [health plan A], a written referral on a prescription pad is pretty much useless. It's got to be all done online. For [health plan B], they don't have to have a formal referral, and for C and D [health plans] it's just gotta be written on a prescription pad. So, it [which HMP affiliated health plan] kind of basically steers me in the direction of how I give them referrals, and it also determines how I give them a prescription for an MRI or a CT scan. Some I know are going to require prior authorization right out of the gate, and some of them don't require prior authorization, and some of them I have to go online. Same thing. So, their insurance kind of determines, you know, what's going to be involved in getting them the necessary tests and medications.

(Urban physician; Small, private practice)

3.5 Practice Capacity/Flow

I know there's demands on how fast we've got to get them in, and that's probably the thing that got us the worst. I mean if they said, "Well, as long as you see them in the first year and start to pick up their care after that," we could have handled that, but the idea of a huge wave of people knocking on the door saying, "We need our first exam in three months," …It was overwhelming.

(Rural physician, FQHC)

3.6 Revenue

Since my center opened in like '95, they really hadn't done any facility updates in that twenty years. Now in the last six months, moneys have been freed up to . . . So for the first time ever, we had some rooms repainted. This is despite like bullet holes in the walls and other crazy stuff. They were patched and painted. Again, this all ties back to not so much like Healthy Michigan is directly paying for these things, but we went from having not an extra penny at the end of the fiscal year to, "Okay, we can breathe. So maybe we can start to do the things we want to do."

(Urban physician, FQHC)

So, we're actually getting revenue now. That's a new experience. It's certainly fairly low, but it's more than zero, and so that's awesome.

(Urban physician, Free/low-cost clinic)

[O]ne of our challenges…from an FQHC standpoint, when we have patients that do have Medicaid, we do get an increased reimbursement. So that number…being aware of that is, I think, very important for all of the providers in the clinic and probably all of the staff as well.

(Urban physician, FQHC)

4. Acceptance of Medicaid/Healthy Michigan Plan Patients

We just don't take anybody off the street. No. No matter what plan. We screen. They're screened.

(Urban physician; Small, private practice)

So unless we get new providers or, you know, somehow we can increase the providers we have up here available, we're gonna have to kind of turn the screws down a little bit and just slow down the intake

until we can get some. We're always working on that. I'll be honest, the pipeline for primary care in rural America is not getting more open. It seems to be getting tighter.

(Rural physician, FQHC)

Since we are part of this large health system, there are a lot of administrators that are involved in this decision-making process. So we do have monthly meetings with them, the physicians and the administrators, and these topics are discussed. Thus far, most providers have figured out... how to accommodate the higher number of patients without it having too much of an impact on how much time they're in the clinic. Clearly the more patients you see, the more paperwork and other after-hours work that a physician has to provide, and that does have its limits.

(Rural physician; Large, hospital-based practice)

Well, I mean that's kind of, sort of the fundamental basis of our clinic. So that's not really any decision at this point as to whether we're going to accept them. That's really kind of who we are. So that's kind of what our main mission is is to see people who are underinsured or uninsured.

(Urban physician; Small, private practice)

I chose to work at a clinic where I knew there was an 80% Medicaid population. So I think it's a population I knew I wanted to work with. I'm not sure what else to say, but I mean it's a population that I think needs care for many different perspectives in terms of, you know, social work, financial, mental health, and I think it's a valuable population for me to provide care to. It's meaningful for me.

(Urban physician; Large, hospital-based practice)

I guess the thing right now is that we're short staff providers, and so we don't have a lot of capacity for adding new patients. That's at my clinic. We recently had a provider that left, and we weren't able to fully replace that position. So the same amount of people, but less providers.

(Rural physician; Large, hospital-based practice)

For us it's a little bit different critter because we accept patients without insurance. And we don't charge. If you don't have insurance, we ask people for a $10 copay. If they can't afford it, we don't send them to collections or nothing like that. We still take care of people. So when they get Medicaid, now we're just getting paid for what we did when we didn't have that before.

(Urban physician, Free/low-cost clinic)

If they're coming from outside the county and there are chronic pain meds involved, you know we want the MAPs . . . that Michigan automated program where we can see where they've been getting the stuff from. Because you'll find somebody who is perfectly compliant, who has maybe gotten a few here and a few there, and then you see the person who's averaging over 300 pain pills/month, and they're getting them from multiple people. And you realize, "Oh, I don't want this person anywhere near my practice."

(Rural physician assistant, Rural health clinic)

5. Reimbursement Rates

You know, the previous Medicaid rate was not very good. . . We tended to limit new patients. We would occasionally take a new patient, but sometimes we'd feel like we just couldn't, but it's certainly better than the Medicaid rate. We're looking forward to when they can pay us like [the] Medicare rate at the time of service.

(Rural physician; Small, private practice)

Well, if they cut the reimbursement by half, then I can't afford to see them. Then I'd just see the new patients. Other people that I've been treating for free for years, I'll keep seeing. I have to pay my bills.
(Urban physician; Small, private practice)

I have heard that the reimbursement rates for primary care will be better or are better than they used to be, but that's about the extent of what I know.
(Urban physician; Large, hospital-based practice)

What I understand is they are currently at Medicare rates. And that that is supposed to change in 2015, and there's a debate about whether or not to extend them. If we are talking about access for patients long-term, they have to be extended or we're going to have a different crisis in this state in terms of again people with[Medicaid/HMP] cards with no access. I know the stories that we hear from our patients coming back from other Medicaid providers. . . haven't been positive. If we're serious about giving these folks true access to healthcare, then the providers need to be paid to provide that.
(Urban physician, Free/low-cost clinic)

Well, that would be great whenever we get it, but [HMP health plan] bundles it all up and sends it to us twice a year, and we have no idea when they're going to send it.... We don't get paid as we go along. Michigan Medicaid does, but [HMP health plan] does not ... When we get a check, it's just a check with no numbers attached to it, and we beg for the data. On which patient did we get this? Which bill did we get the uplift, because there's no accountability. It's just sort of a lump sum.
(Rural physician; Small, private practice)

6. Impact of Healthy Michigan Plan on Patients

6.1 Overall Impact on Patients and Their Health

We're getting a lot more . . . smoking cessation right now because the individuals coming in . . . now they can afford to get the patches or the gum or whatever . . . We're getting a lot more people trying to quit smoking, which is encouraging, but that's about the only change that I've seen.... I think there's a little bit of . . . maybe a little bit of freedom of choice there that they maybe didn't have before.
(Rural nurse practitioner, Rural health clinic)

It is a huge benefit. I think it's so interesting to hear some of the political rhetoric that you hear on TV… they don't really understand the waste that goes on in terms of . . . when people don't have insurance and what ends up happening that could have been fixed much sooner if they did have insurance.
(Urban physician, FQHC)

The people I've seen so far, lives are improving. You know, blood pressure is getting treated. Smoking is getting dealt with. Diet is . . . people are looking at eating, you know, somewhat differently.
(Rural physician assistant, Rural health clinic)

6.2 Reduced Financial Concern by Patients

They are no longer petrified about, "Oh, I can't afford that," or "I can't do that."
(Urban physician, FQHC)

So they have come to see me, and I've tended to bandage them when they got sick. We've done little in-office screens . . . limited, but this patient has almost no money but they're financially responsible. They have a little job, and they make their money and they do their job, but they're really scared of debt. So

they have never let me do much. They have never let me offer much. . . . They'll come to see me when they need me and that kind of thing. They got their Healthy Michigan. They show up and they're like, "Alright doctor, I want everything."

(Urban physician, FQHC)

The primary care and prescription parts . . . They just didn't do it because they knew they couldn't afford it. So now it's within reach. That makes it a little smoother for them.

(Rural nurse practitioner, Rural health clinic)

Her particular issue is mental health, and she's got a few mental health things. One of them is attention deficit disorder. Another is anxiety and panic disorder, and so the impact is a couple fold. First off, it's going to make it easier getting medications because she's no longer trying to pay cash to get medicines.

(Urban physician, Free/low-cost clinic)

6.3 Control of Chronic Conditions

Well, they're benefiting from being able to have any preventive services available to them…. Maybe they had high blood pressure and had other conditions when they were incarcerated, that they're now able to follow up on and get their medications for and so forth.

(Urban physician; Small, private practice)

I think the impact of that overall . . . this patient is now going to have some pretty longstanding health conditions managed, hopefully managed well. . . The risks for further sequelae due to those chronic medical conditions will be hopefully minimized. His risk for recurrent stroke . . . Now we can, you know, try and modify . . .minimize that risk. The same for end-organ damage with his kidneys, retinopathy . . . those types of things. I think we can positively impact that.

(Urban physician assistant, FQHC)

It's hard to measure that [impact of HMP on patients], but I really think that especially these people who knew they had chronic health problems, they were just ignoring them, and now they can actually get them taken care of. It's gonna add years onto their life because now it's not going to be uncontrolled diabetes. It's gonna be controlled diabetes and controlled hypertension and hyperlipidemia.

(Urban physician; Small, private practice)

6.4 Ripple Effect

Many patients in coming to our clinic with Healthy Michigan thought that they needed to have Healthy Michigan or have some sort of insurance to even be able to access care which is, in our case, being a federally qualified health center not the case. I mean they could come even if uninsured. So there have been a number of individuals who. . . I believe that they have been seen as a result of having the insurance . . . [they've] been able to get things like mammography, Pap smears, optometry services quite easily, and then also I believe have referred family members and friends who may not be insured to receive primary care because they understand that they can be seen without insurance here.

(Urban physician assistant, FQHC)

6.5 Disease Detection and Treatment

But I've had new people come in and say that they didn't have insurance until this came up. They're working two jobs, and luckily they fall just under the level where they can get it . . . We run cholesterol tests and sugar tests on them and anemia, and we find things with them.

(Urban physician; Small, private practice)

A guy said to us, "I'm so thankful to come in." We just checked him over, and criminy…. He's got all kinds of issues, you know, with cholesterol. We found out he's a diabetic now. We found out this prostate thing is elevated. Where he would have been out in the cold. A young guy, too.

(Urban physician; Small, private practice)

Getting new uninsured patients in, these folks have multiple problems going on. So like I did a new patient visit this last week where my problem list at the end of the visit had like twelve items on it. Most of them haven't had any preventive care.

(Urban physician, Free/low-cost clinic)

6.6 Patient Activation

I think they felt, and for whatever reason, that when they were coming in on sliding fee, that basically we were just covering their nickel for them. . . . They tended not to take advantage of primary care as much as they might have otherwise. And now that they've got coverage, I think they sort of feel empowered.

(Rural physician, FQHC)

They seem to feel freer to come to the office with the same things they might have taken to the ER a year ago, but that's also part of being established in an office practice for the first time in some cases, too.

(Rural physician, FQHC)

The only thing I have seen more directly for me . . . and this hasn't happened very often, but a few times it's like, "Oh, well I have insurance now. So, doc, can you get me that full body MRI? I need to make sure I get all the cancer blood tests because, you know, now I have insurance and I can get all that stuff." That discussion sometimes comes up a little bit more for me. "That's great that you have insurance, but that's not necessarily what we need to get for you."

(Urban physician, FQHC)

I think there's less barrier, and they're more willing to come in and talk about things because they know there's not going to be a problem every time we make a recommendation with trying to afford it and that kind of a thing .... I think they're more like a partner in the whole situation again rather than a one-sided recipient.

(Rural physician; Small, private practice)

7. Providers' Thoughts on ER Use

7.1 Appropriate/Inappropriate Use

I think a lot of times we have good relationships with people. They'd rather be seen by us, but we've also got people who just abuse the system in general. Every little twinge is, you know, Armageddon and they need to be seen immediately.

(Rural physician assistant, Rural health clinic)

The ones that abuse the ER don't call first. They just don't. The ER . . . The closest one . . The staff is very helpful there. They're very nice. It's probably a pleasant experience for them to go get pampered for simple things. So the ones that abuse it, I don't think that the Healthy Michigan Plan is going to change that. The only thing that will change is maybe some of the diabetics or the people who are being identified with high blood pressure and, you know, we work with those . . . We may save them a visit to the ER once a year, but the ones who are big abusers, it makes no difference if they have insurance or not. They just go there.

(Rural nurse practitioner, Rural health clinic)

You know, I've seen ER visit reports where it's been something relatively serious, and then I've seen it where it's been something ridiculous, to the point where I don't actually ask the patients this question, but what's running through my head is, "You went in over this?" So, I don't know if there's an absolute way to decrease ER visits. One of the things I encourage my patients to do is if it's not that serious or if it's just a sore throat, try urgent care first You won't wait as long, and it's not nearly as expensive .... We do have an after-hours phone number for people to call if it's something that needs attention right now this minute, but it's not an absolute emergency which requires an ER visit. Sometimes we get a call, and sometimes we don't.

(Urban physician; Small, private practice)

I mean they can ignore that recommendation and go there [the ER] directly, but then we'll catch them after they've made a few inappropriate visits and then we'll start . . . It's usually one of our nurse educators will get ahold of them during a visit and counsel them about how to take advantage of the system outside the ER ...

(Rural physician, FQHC)

They're always encouraged to call our office, and with the expanded hours we're going to be more apt to get them in. ... In fact, almost all of our patients that have an acute care issue when they call our office, we get them in, and that's a high priority. ... but we do know what the . . . The serious issues . . . They go to the ED.

(Rural physician; Large, hospital-based practice)

You know, I think that principally, lack of access as well as extended hours I'm sure does play a role, but I think some of it is . . . "If I'm really sick, I'm going to go to the ER" kind of an attitude which is also a problem there. Maybe it's our failure to pre-communicate to our patients that we are available to answer questions and kind of help manage the problem . . . help triage the problem. So it's certainly one of the things that's on our mind is to try to figure out how we can get a better handle on this to help our patients.

(Urban physician; Large, hospital-based practice)

Well, if they had a copay.. . . I don't know if you can do that, but like if it's not an urgent thing and you end up in the ER, you end up with a copay with some sort of penalty. To bring it to their attention that they need to call their doctor first before they go to the ER, unless it's life threatening.

(Urban physician; Small, private practice)

Probably the majority of the ER visits tend to be something that could have been dealt with at our office. Probably in terms of hours and I think having patients understand that, you know, sometimes you can call us and it's okay to wait a little bit longer . . .But again, I think if we had more openings markedly available, then they might not feel they'd have to wait another week to get seen or if there is something urgent, that they can get seen that day, not have to wait until the next morning.

(Urban physician; Large, hospital-based practice)

There was a big partnership with [organization], and so somebody was able to prove to [organization] maybe 15 years ago now that, "Hey, if you take care of these patients up front and maybe you allow them to get specialized care, then …they won't come to the ER and get admitted for unnecessary care that could have been taken care of, you know, previously." ….I think a lot of docs do amazing work in primary care, but when there's an issue that needs to see a specialist, it's like, "Alright. Here's a list of docs. Go call them." And then the patient goes there, and it's like, "Well, you need to pay $250 to get seen," and they may not have that money.

(Urban physician, FQHC)

When we get ER reports, they follow through with the patient to see what is their plan for follow-up because a lot of times people get into this routine of you went to the ER once and now a week later you're not better, and so you go back to the ER. We're trying to prevent that because that's something we can have an effect on.

(Urban physician, Free/low-cost clinic)

I mean what can a health system do? I don't know. Change people's attitude. Change people's philosophy. I don't know. I don't know that health systems can do a whole lot about that, I mean without being punitive. I mean the way to fix it, of course, is be punitive and tell the patients after the fact this wasn't an emergency and we're not going to pay for it. What is that going to do? They've got no money to pay for it themselves.

(Urban physician, Free/low-cost clinic)

First of all, we've gone out in trying to change this for long before we ever started the new Medicaid folks because we're also in an ACO, and so there's financial incentive to try to keep them out of the ER. Plus, we know that the care there is going to be expensive. We also know that it's fractured.

(Rural physician, FQHC)

7.2 Patient Education about ER Use

Patient education [about ER use], but it doesn't work. We stress that to our people. "What the hell are you doing in urgent care again?" "What are you doing going to the emergency room again?" "Well, there was a 2 hour wait out there, doctor. … In my office sometimes… I'll see 60 -80 . . . rarely 80, but sometimes 80 . . . 60-70 people/day….We go through and evaluate each patient, but that goes when you sign up with me. If you don't like it, then sign up with another doctor. I can't do anything about it.

(Urban physician; Small, private practice)

I think a lot of it is education…. a lot of the young don't read newspapers any more. Thinking things that come across phones… The fact that if you have a cold, if you have these symptoms, going onto an antibiotic is not going to make you better faster. You know, that kind of mass education. Keep it simple, straightforward might help.

(Rural physician assistant, Rural health clinic)

I do a lot of teaching. Like if someone comes here for a sore throat or something, I teach them how they got what they got, what the natural progression is before it's going to be over. If they take a medication for it, teach them what the common side effects are and what allergic symptoms would be to try and make them educated enough so they don't feel the need to go to the ER over every little thing. . . . I guess that's what we do here. I spend a ton of time teaching, but that only works for the people who listen, I guess.

(Rural nurse practitioner, Rural health clinic)

Well, yeah, in my mind, a caseworker solves like a remedial problem, a very high intensity of inputs, and I think that can be good for people who are really quite somewhat impaired in their abilities, but there's kind of like a basic level in which maybe we should anticipate that most of these people don't know how to use a primary care physician. Things that you and I assume because of how we've grown up . . .They don't have in their baseline. And so, some sort of just like basic education to people about how to use a doctor's office… Like how does it work? How do you make an appointment? How do you come in? When should you call us? When should you call us if something's going wrong? If you don't get your medicine . . . What should you do if you're sick?

(Urban physician; Small, private practice)

I actually saw a patient yesterday . . . . I think he has Medicaid, not necessarily Healthy Michigan . . . But like he went [to the ER] last month for, you know, an upper respiratory infection and two months ago for like allergies. So I asked him what was the point? And his response, and I think this is kind of classic for a lot of people, was like, "Well, I didn't know if it was an emergency or not, and so that's why I went." Luckily it wasn't, and so we kind of talked about, you know, what other options could you go to get some other reassurance that it's not an emergency. And so we talked to him specifically about, "Just give a call, and we'll . . . We'll keep in touch."

(Urban physician, FQHC)

Is it an emergency? My throat is really sore. "Well, do you think you're going to die?" "No, of course, I'm not going to die." But they've got a really sore throat, so I'd better go to emergency. So I don't know if the education fixes that per se…. I don't know what fixes that.

(Urban physician, Free/low-cost clinic)

7.3 Recommending Other Sources of Care

I think convenience is an issue, and as more practices either have more extended hours and/or we make more use of urgent care versus emergency care, I think that can help a bit with that issue.

(Urban physician, Free/low-cost clinic)

8. Reasons for ER Use

8.1 Culture of ER Use

They don't listen. They don't pay attention. We've dismissed many patients because of that. It's more convenient to go to the emergency room. I can see on a weekend if they call me first and there's an issue, I'll tell the answering service or I'll talk to them and say, "Yeah, well, you'd better be checked. Do not wait until Monday." But a lot of them are just constantly going into the ER, and that's always been a problem….The pain, they feel, is worse, and they need to be seen right then.

(Urban physician; Small, private practice)

People go to the ER way more for many things. . . that aren't anyway near an emergency unfortunately, and it's just sort of a culture. "Oh, I don't feel good; I'll go to the ER," in the community where we're at. So it's hard. And I can envision how maybe Healthy Michigan or, excuse me, having Medicaid and getting some care may over time reduce that.

(Urban physician, FQHC)

In the whole state of Michigan, I think we're one of the highest ED utilization clinics in the state of Michigan. Our kind of copartner in this is, I believe, like another [city] clinic, and some of it is we think possibly some kind of a cultural issue. When you're really sick, you go to the ER type of attitude, but we

do have a lot of ED utilization, even amongst patients who just have had insurance and they're back in the ED with a problem, in spite of the fact that we do give literature and information about some urgent care centers and how to access us if it's after hours and things like that, but that is a challenge.

(Urban physician; Large, hospital-based practice)

I think some of these people honestly since they haven't had insurance, maybe ever, or haven't been to the doctor in a long time . . . They don't understand why they can't come in that day to be seen and why they can't go to the ER and tell everybody I'm their doctor, and then I start getting all these reports to review and I've never heard of this person. Some of these people are so ignorant of the healthcare system that they just don't really understand that I'm not your doctor until you see me, but I would say that's the case of people even who have private insurance.

(Urban physician; Small, private practice)

I think people use the ER whether they have insurance or not. They don't even think of, "I'm going to the ER and I'm going to get a bill." Their mindset is, "Well, I can't afford it anyway, and so I'm not paying for it." It's not even a big deal. So, whether they have insurance or not, I don't necessarily think I've seen an increase in people saying, "Well, I have insurance, and now it'll cover."

(Urban physician, FQHC)

8.2 Perceived Need

The vast majority of my patients that go to the ER took it upon themselves to go to the ER. They didn't call us first. If they called us first, it would be things like chest pain or can't breathe or might be having a stroke, or they're calling when we're closed. But then we usually say Urgent Care unless it's chest pain, I can't breathe or I'm having a stroke.

(Urban physician; Small, private practice)

Sometimes. . . it's a benign thing, but it's something they're very frightened about. So we had a young man who was having vertigo, and he had been seen here a couple of times for it. He didn't fully understand and was still frightened by it . . . And so he went to the ER.

(Urban physician, Free/low-cost clinic)

I think for some folks with mental health problems, until we get the mental health problem solved, there is nothing to be done because they're going to be scared in the middle of the night, have difficulty interpreting what they're feeling, and they're going to end up there.

(Urban physician, Free/low-cost clinic)

They're just worried. . . . I mean it's me judging them by the telephone…. I can't allay all of their fears that they have something bad going on. So that's the main thing . . . They're worried that they have a serious illness. They don't understand what's serious and what's not sometimes.

(Rural physician; Small, private practice)

8.3 Need for Off Hours Care/Convenience

Some other ones go there because the best ride they can get or the family members that give them transportation work during the day and are only available in the evening. So they just go to the ER because that's when they have a ride.

(Rural nurse practitioner, Rural health clinic)

I always ask them, "Why did you go? What happened? Are you feeling any better?" And usually it's, "Well, Saturday morning I woke up and . . ." or "Saturday I had a fall," or "Saturday I had trouble breathing and I went to the ER."

(Urban physician; Small, private practice)

We have a lot of population that lives downtown, and there is not an urgent care. The ER is much more accessible than an urgent care is downtown.

(Urban physician; Large, hospital-based practice)

8.4 Encouraged to Go by Their Provider

So sometimes we'll just order . . . I'll just order a troponin and order it stat. Then they call me. If it's elevated, I'll send them right over to the emergency room then . . . I tell them, "Hold them there. If it's elevated . . . It only takes a few minutes to run it . . . send them to the ER." People come in with leg pain. I send them over to the lab. I send them over to get a Doppler right away . . . venous . . . and if it comes back positive . . . Send them right to the emergency room. They evaluate them, and get them on medication right away . . . Or admit them if they need to be.

(Urban physician; Small, private practice)

We'll have people come in and realize they need to be in the ER. We got the wheelchair and I take them down there and confer with the ER doctor and tell them why. So it kind of goes both ways.

(Rural physician assistant, Rural health clinic)

Let's say someone had a patient this week with an abrupt turnaround from a recent hospitalization, had abnormal labs. He followed up the way he was supposed to have, but when we got his lab results, you know, the tests revealed that his acute condition was, you know, recurring. So in those instances, you know, we'll give them a call and say, "Hey, you've got to go to the ER for further evaluation, only because we can't directly admit you ourselves."

(Urban physician assistant, FQHC)

So most of the ones that have gone, so far that I'm aware of, have been people we've sent from the office… Two diabetics actually that we've sent, one twice and one once, who were completely out of control and things like that.

(Urban physician, Free/low-cost clinic)

Many of our patients have difficulty expressing what they're feeling adequately or giving a really good history, it's even hard to triage it on the phone. I know I have sent people into the ER where I'm 90% sure it's relatively benign, but I can't be certain enough with the history I'm getting to say "no, they don't belong there."

(Urban physician, Free/low-cost clinic)

9. Barriers to/Facilitators of Care

9.1 Wait Times

And yes, some people I want to get in where they have depression and things. They need somebody. It's very hard to get them in. It's a six-month wait, or they don't take them anymore. A six-month wait!

(Urban physician; Small, private practice)

Mental health services are always a problem. I don't recall offhand, but it depends on the plan and where they get referred to. . . . Most of the plans participate with one or two of the mental health facilities that are around. . . They have to call and make the appointment . . . the patient does, and a lot of times they are then seen by a psychologist. They are not seen by psychiatrists . . . seen by psychiatrists if they're needed . . . but that's usually a couple of months down the line.

(Urban physician; Small, private practice)

Some of those people were coming to see me already and they just didn't really have insurance .... But a lot of these people weren't accessing healthcare, and now they're trying to access healthcare. And while we've expanded. . . You know, we already had a shortage of family docs or internists or whatever primary care person you're thinking of. And so, you know, if you want a new appointment with me, you're looking at like a 10 or 12 week waiting list, okay? So that's just crazy… So all of these people have coverage. Now they all want to come to the clinic and be seen. They can't get to see me for a long time. "Well, I'll go to the ER." So while it's helped with coverage, there's a long way to go in terms of improvement for access.

(Urban physician, FQHC)

I just saw a guy today. . . He said, "They can't get me in for three months." …He said, "They told me you'd fill my psych meds." I told him, "And they're right. I will." . . . He's a guy who's had issues over the decades. He needs to actually be sitting down with a shrink. They can't do anything for three months? He does not need to be without his meds.

(Rural physician assistant, Rural health clinic)

We have occasional newbies who move up here. "Oh, I have diabetes and where's the nearest endocrinologist?" "Sixty-five miles down the road, and he's booked three months down the road." We tell them, "We'll handle your diabetes unless you are totally out of whack or you have an insulin pump, or you're a really touchy brittle diabetic." I've got lots of diabetics in my practice.

(Rural physician assistant, Rural health clinic)

So now they're [CMH] starting to use Telehealth where they have psychiatrists from all over the country skyping with patients. Unfortunately, the psychiatrist is only available the one day a week they're skyping, and then if there's a medication question or question from me to that psychiatrist during the week, they're not available. But the staff takes a message, and they wait to ask them on the next Tuesday that they're skyping. It makes getting patients in to see a psychiatrist very difficult.

(Urban physician; Small, private practice)

I guess for the patients who have Medicaid, there are [dental] clinics that will accept Medicaid patients, but either there's a really long wait list or they have to go and just wait in line.

(Urban physician; Large, hospital-based practice)

You know dental is the same problem as it is in the whole state. You know, we have a Medicaid dental clinic here, but it's a long wait to get in. It's still a problem because regular dentists don't . . . I don't know about downstate, but up here no one accepts Medicaid.

(Rural physician; Small, private practice)

9.2 Administrative Burden

Philosophically I would say I would want my practice to accept Medicaid patients. If there were something that was in my power to make the process of taking care of the Medicaid patients less onerous. . . At the collective level as you are making that decision, I would hope that my system leadership

would advocate for kind of cutting the red tape that is sometimes required . . . which is what makes it difficult to care for Medicaid patients.

(Urban physician; Large, hospital-based practice)

Well, we accept three of them [Medicaid health plans] right now. We don't accept every one that's in [area of] Michigan. We no longer accept Healthplan A Medicaid or Healthplan B Healthy Michigan simply because they're such a pain ... to deal with.

(Urban physician, Free/low-cost clinic)

9.3 Acceptance of Medicaid/Healthy Michigan Plan Patients

My staff will do like a little quick run-through what medications do they take . . . Briefly, what are their health issues. If it's someone who has morphine addiction and they're trying to be brought down using suboxone ... that's not a good fit for her.... So we pretty much take everybody except we weed out the ones where I don't think it's a good fit.

(Rural nurse practitioner, Rural health clinic)

So I would say it's 10 times as hard to get dental care as it is medical care.

(Urban physician; Small, private practice)

So the mental health situation in this area . . .We have a couple of private psychiatrists . . . The only ones I'm really familiar with work for the hospital. They don't take Medicaid or Medicare.

(Urban physician; Small, private practice)

9.4 Workforce

I think the fundamental problem with regard to ER is related to access . . . primary care access. So I live in a real huge bottleneck. There's just not enough of me . . . There's not enough primary care . . .

(Urban physician, FQHC)

Well, we have a particular problem in this area because we're very underserved as far as mental health goes. In this county, all we have is the community mental health office, and...They don't have a full-time psychiatrist. ... if the counselor believes the person needs psychiatric intervention by the MD, then they get ahold of me and say, "Please write a referral so we can slide this person in with the psychiatrist." So it takes a long time.

(Rural nurse practitioner, Rural health clinic)

But it's [i.e. transportation] definitely a problem up here because where . . . Where we're located, the nearest hospital is 40 miles away. All of the specialists are a minimum of 40 miles away. So it's very . . . Travel is a very difficult obstacle here.

(Rural nurse practitioner, Rural health clinic)

We have no dermatologists in this county. So when I try to refer one of my patients to a dermatologist, there are no offices that will take the patients. So that's kind of a problem for us is the lack of specialists who take Medicaid patients in certain fields.

(Rural nurse practitioner, Rural health clinic)

Well, we were already getting a lot of new patient requests even before this because there's just not enough doctors in this area. I guess it picked up a little bit with that expansion, but I mean the hospital won't let us hire more staff. …So we just had to limit how many new patients we'll take.

(Urban physician; Small, private practice)

It doesn't help them very much if they have an insurance, but the nearest orthopedist is 1-1/2 hours away.

(Urban physician, Free/low-cost clinic)

9.5 Out-of-Pocket Costs

But, you know, those are two examples that I could repeat in my practice of people who didn't want any health intervention screening care because they were just nervous about the bills that would be generated. They don't want to know if they're supposed to be on a medicine because they're nervous about paying for it. Now they're okay to explore that.

(Urban physician, FQHC)

our population in general doesn't go to the ER very often and I think it's because when you're uninsured, you don't go to the ER because then you just get a big ass bill and now you've got to go to collections and then you bankrupt.

(Urban physician, Free/low-cost clinic)

You know, my practice style has and always will be do what's right for the patient and then worry about the cost afterwards, but it has made things a little easier now that they do have insurance. So my recommendations were always the same, but whether the individual went through with the plan when they didn't have insurance, did vary depending upon their own personal beliefs and, you know, personal financial situation.

(Rural physician; Large, hospital-based practice)

9.6 Patient-Primary Care Interactions

I just think that kind of . . . I believe it kind of helps to kind of develop the working relationship between the provider and the patient because we're talking, and they're allowed to talk relatively freely.

(Urban physician assistant, FQHC)

9.7 Transportation

That's a problem up here. It's a a widespread rural area. There are 320,000 people in the entire [area]. People live on the bush. People's cars freeze. People will have drunk driving on their record. They have to rely on other people to drive them in. I had three cancellations in one day where the driver fell through.

(Rural physician assistant, Rural health clinic)

I had two guys yesterday in my office who called their insurance, got transportation arranged, and came to see me. Most of the people I see are Medicaid. So, it's possible. But I can guarantee you that [lack of] transportation is a huge hindrance to good healthcare in the population that I see. So that as a benefit is a huge help.

(Urban physician, FQHC)

I think that's [transportation] actually a really good service because, again, my office is located in [city]. A lot of my patients, particularly Medicaid patients, have big transportation barriers….there is, I believe, like a three-day advance notice or something they have to give. So sometimes that can get in the way if the patient needs to come back … for . . . like an immediate short-term follow-up.

(Urban physician; Large, hospital-based practice)

A lot of the poor folks who would be on this program would live in Sawyer which is 18 miles away. They are offered like bus vouchers or something or advised they can take the bus, or they can actually get a voucher for a door-to-door bus, but it's very limited and very strict …. If you take a bus to the doctor's office and the office is behind, your bus has to leave.

(Rural physician; Small, private practice)

I didn't go to medical school to be screwing around with signing forms about getting people to and from their doctor's appointment. That doesn't help them be healthier per se. It doesn't require my involvement or my signature.

(Rural physician; Large, hospital-based practice)

10. Types of Care

10.1 Serious/Complex Mental Health

It's difficult but, you know, we do so much mental health stuff. I treat depression every day. I treat generalized anxiety every day. I don't need [organization] for that. I need them for my schizophrenic patients. I need them for out of control bipolars who've jumped off their meds. . . . You need them for the stuff that's really heavy duty. Severe depression or nonresponsive or, you know, you're thinking, "Does this person need shock therapy?" I can't order that.

(Rural physician assistant, Rural health clinic)

If they don't think you're bad enough, they won't see you. "Oh, ADHD? We don't do that." "Oh, it's just mild depression. No, you're okay. Go back to your doctor." . . . Even if they're severe enough to need a psychiatrist, I've seen people wait four to six months on a waiting list. If you miss any of your counseling appointments in between, they might kick you off the list. It's kind of brutal.

(Urban physician; Small, private practice)

You know, I think where you see this specifically is like I've had a couple of patients that I've been like long-term . . . you know, maybe has long-term psychiatric needs and not been able to get the correct care, and we've done our best to help them, but now you say, "Hey, let's get you set up," and now they're going to therapy, they're getting the correct medications that they need. That makes a humungous difference, I think, for them.

(Urban physician, FQHC)

The colocation is primarily they are health psychologists. So they're psychologists. They're not psychiatrists. So they do have limitation that they can do initial evaluations and counseling, but not really manage kind of complex . . . If the patient needs a prescription and it's for a simple condition like depression, we can certainly co-manage with them. But when we're dealing with more complex psychiatric illnesses, we do need these patients to be referred on to a psychiatrist, and at that point we have had problems with the patients not always having access to behavioral health, because many of the Medicaid plans, part of Healthy Michigan, are not accepted by the behavioral health department in our health system.

(Urban physician; Large, hospital-based practice)

10.2 Mental Health

Because there are so many mental health and social issues, it's probably overwhelming for most primary physicians to have a significant percentage of their practice be Medicaid without having a social worker or a care manager or an integrated psychiatric part to their practice.

(Urban physician; Small, private practice)

I think we would love to have colocation of mental health, but it hasn't been feasible from our discussions so far. You know, I mean we're trying to work more on group models of care to help with waiting times for patients and with patient satisfaction and just overall care, but that's been an ongoing theme we've been trying to improve.

(Urban physician; Large, hospital-based practice)

They can get into Psychiatry, but it's much more challenging. They have to go to three psychology visits. They can't miss those visits. Then they get referred to a psychiatrist who will see them for a short-term basis. Often I hear a lot of negative comments about the psychiatry experience that they have. The counseling piece generally has been okay and doable. If the patient is motivated to call and make the initial appointment, then I think it has been going well for them.

(Urban physician; Large, hospital-based practice)

10.3 Dental Care

The new one, they get some dental stuff too. They've had dental problems for years, and their teeth are falling out, affecting their hearts and everything else….

(Urban physician; Small, private practice)

I can't tell you how many times a day I get asked for antibiotics because of some form of dental infection, and either they can't get a dental appointment or it's two months into the future. I really don't know of very many patients that have an easy time getting dental.

(Urban physician; Small, private practice)

I mean even to get access to dental care. That was a huge problem in the past . . . Primary care doctors would see people with dental pain with abscesses, and they couldn't get in to see a dentist. So our job was often to put them on antibiotics and pain meds, and knowing that what they needed was to have an extraction or a root canal done.

(Rural physician; Large, hospital-based practice)

10.4 Primary Care

Access to preventative services, prescriptions, and more just access to physicians for medical problems . . . chronic disease management . . . All that is improved with Healthy Michigan. No question in my mind, and I'm sure that your data is going to support that.

(Rural physician; Large, hospital-based practice)

Because they just weren't going to come in for a complete physical that might cost them a lot of money, as much as we begged them to, or even if we gave them a deal. So now we can sit down, and they get sort of top notch review just like anybody else with good insurance. Complete exam, screening labs and talk about preventative care . . . Like finally they've recognized that they need this too…. It seems like

they're happy and relieved now to be covered, and they feel . . . that sense that there is a safety net there for them.

(Rural physician; Small, private practice)

I think one of the biggest benefits that I see from the insurance …now there's a lot of help in terms of the chronic disease management. I think we do see a high proportion of chronic disease, whether that's diabetes, blood pressure, smoking, obesity. And you know the nice thing about that is that it allows . . . more options.

(Urban physician, FQHC)

From the patient perspective though, I see tons of benefits because they get . . . preventative care . . . One of the big things is if you don't have insurance, you know the idea of getting a colonoscopy. That's not even feasible. You know, that's so expensive. And now that they have insurance . . . The same thing with some of the screening stuff, specifically mammograms and Pap smears, things like that.

(Urban physician, FQHC)

10.5 Specialty Care

With [healthplan], it's very easy. They don't have to have a formal referral, either prescription or online. They can just find one in the [healthplan] directory and go see them. . . . Sometimes the specialist will call me and say, "did you recommend this?" Sometimes I have, and sometimes I haven't. But, again… they don't need a formal referral.

(Urban physician; Small, private practice)

Specialists had a limited number of openings for the uninsured in the past… There were a certain number per month that different groups allowed . . . As far as I know, there's no change in saying "yes" to anybody who's got Healthy Michigan insurance. I would assume that all the specialists accept that in this area.

(Rural physician; Large, hospital-based practice)

So, for some specialties we had very good access. For other specialties, we had very limited or no access. So, there's a gynecologist . . . who's been incredibly generous, and so we've always had really good access for that. But things like neurology and neurosurgery have been a little more difficult. Dermatology is kind of forget it. Podiatry . . .If somebody had a significant problem, we could. Ear, Nose, Throat – again, you had to really have a very significant problem. Sleep studies for sleep apnea - which is very prevalent in our patients – we had no access for a long time. Over the last year or so, we've had some limited access, but with them having insurance, now I've got really good access for them.

(Urban physician, Free/low-cost clinic)

[C]ertain specialties we struggle with getting patients with Medicaid in. Like Rheumatology is probably the biggest one. Other than that, it's been actually pretty good. We've been able to get most of our patients with Medicaid into most specialties or other care that they need.

(Urban physician; Large, hospital-based practice)

Specialists – If they have no insurance versus they have Medicaid or Healthy Michigan Medicaid, again, there's just a world of difference because now I can get stuff done. You know, back in the day, we never used to order colonoscopies for patients if they were uninsured because nobody can afford $2,000 to have that done. But with Medicaid where that's a covered benefit, yeah, now we get to order them all the time on people.

(Urban physician, Free/low-cost clinic)

10.6 Testing and Pathology

Another great thing is screening colonoscopies for colon cancer. So under the program I was talking about, we could get them a colonoscopy . . . if I saw a polyp on sigmoid, I could send them. If they had a disease like ulcerative colitis, I could send them, but I could not get a screening colonoscopy, even for people with family history of colon cancer. Now, I can write the referral. They go! It's fantastic! I'm very excited.

(Urban physician, Free/low-cost clinic)

Let's say somebody has got a heart murmur. Somebody has got fluid in their legs, and you're listening to their heart and thinking, "Hmmm. I can get an EKG. I can send them for an echocardiogram . . . I can do this stuff. I can check a pro BNP. I can look at their kidney function." Before I'd have to call over to the lab and say, "Alright, how much is it going to cost this person to pay cash so we can check their kidney function?" ...You know, I'm not a money person. I'll take care of people, and Healthy Michigan has made that easier.

(Rural physician assistant, Rural health clinic)

So if you have diabetes, the good thing is that we can get labs. That's not an issue. [organization] has allowed us to get labs and actually doesn't even charge the patient for labs, which is pretty awesome.

(Urban physician, FQHC)

I am seeing patients come in and getting the care that they need. Yes, it sometimes is a headache because if I need something, I will have to run in through many channels and sometimes things don't get done. I have had patients, for instance, coming with a belly mass where they needed a CAT scan, and you know the prior authorization didn't go through and they waited like three months or four months before somebody figured out that they hadn't had a CAT scan. It delayed care which possibly could have had some adverse outcome.

(Urban physician; Large, hospital-based practice)

10.7 Hearing and Vision

. . . hearing aids. That's fantastic. Vision. . . . Most all the plans cover the vision. They get a checkup for that. They don't pay for their glasses….

(Urban physician; Small, private practice)

People like my age . . . fifties/sixties . . . [I] ask… "When's the last time you've had a good eye exam?" It's not like they need to go to an ophthalmologist, but, you know, I want them to go. We've got good optometry. If they see something that needs an ophthalmologist, I know they can refer them on.

(Rural physician assistant, Rural health clinic)

10.8 Medications and Supplies

[T]hey also now have access to a pharmaceutical formulary which is, you know, light years better than what they had when they were looking at, "Okay, what's the $4 Wal-Mart offer me?"

(Urban physician, FQHC)

So if you are somebody who needs insulin, it can get really tricky if you don't have insurance because insulin can be hundreds of dollars. You would get people who would resist seeing you because they're afraid of how much things are going to cost, and so they just persist in their uncontrolled diabetes, and then all the complications that come with it. Once they're sort of like, "Okay, well, insulin is covered and

I can get my routine labs because that will get covered," well then they show up, and it just makes my life easier for sure, and theirs, I think. And then COPD . . . Some of the inhalers and other things that, you know, are recommended in terms of standard of care treatment . . . Those are also quite expensive and... If things are expensive, people are just not going to do it. It doesn't matter if it's the right thing or even if it helps them.

(Urban physician, FQHC)

I'm not a huge fan of [healthplan]. I mean it's better than no insurance, but they're pretty restrictive on a lot of things. If you call and you sit on hold and you fill out forms, then they finally give them the medicine. Half of the time, no, they still won't give them the medicine. So that's a frustration. You start to remember the drugs they're just never going to cover, and you just try to avoid those . . . Just like private insurance formularies. They change all the time... You just prescribe, and if the pharmacist shrugs his shoulders and says, "No, that's not covered," you say, "Then, what is? What do they cover?" It usually involves my staff having to call all the insurance companies, sit on hold and ask them that question.

(Urban physician; Small, private practice)

If I prescribe a medication that's not covered, the person doesn't call me often times. It's just not out of their mindset to think they can call me and say, "I'm having trouble." So, they either don't know that they should call or they can't call, or they're not skilled at using the phone and leaving a message and so forth. So what happens is if I prescribe somebody something on March 1st, they didn't get it at the pharmacy. They just let it drop until the next time they're here, and then I find out six weeks later that they didn't get the medication . . . So we could have solved the problem right away because I would have used some alternative, but to start with I don't have clear information about what's covered, and then secondly the patient isn't used to expecting to get something, and so they just take it for granted that they can't get it. End of story.

(Urban physician; Small, private practice)

Glucometer strips were our number one pharmacy cost. So, the fact that that cost is going away means we can do a lot more work in other areas. Awesome.

(Urban physician, Free/low-cost clinic)

The main challenges have been with contraception because they will only cover things like the NuvaRing or the patch if the patient can prove that they failed OCPs [oral contraceptives]. It's completely ridiculous because so many people can't remember to take those.

(Urban physician; Large, hospital-based practice)

The other issue that's been a problem is that there are some things that are covered by [healthplan] that are over-the-counter, but the pharmacies don't know about it. For example, vitamin D is covered in certain dosages. So I'll tell patients, "Look, I know it's covered. I've talked to [healthplan]. They've confirmed for me that it's covered. They go to the pharmacy, and the pharmacy says, "Sorry. You'll have to pay out of your pocket."

(Urban physician; Large, hospital-based practice)

And we had. . . a lot of people with asthma who were being managed with a borrowed nebulizer and the nebules from Walmart, packs of 100 because. . . That was the cheapest way for them to get asthma medication because they couldn't afford inhalers . . . So we're able to get medications for them and do a pulmonary function test ...start working on improving things instead of just damage control.

(Rural physician; Large, hospital-based practice)

But for the most part, I think, the access to medication makes a huge difference and especially when we're talking about chronic disease management. It's such a benefit.

(Urban physician, FQHC)

For generic drugs that are covered, not a problem, but even some of the generic drugs aren't covered. We have a formulary that is updated in our electronic medical record that works most of the time, that lets us know what's covered and what's not, but even then it's not accurate. The patient will go to the pharmacy to pick up their prescription, and it's not covered and then they can't dispense it, and then it's a big hassle for everybody and it doesn't . . . It's not resolved in a very timely fashion. So sometimes these individuals will go without their prescription for a couple of days until Medicaid processes their prior authorization.

(Rural physician; Large, hospital-based practice)

10.9 Substance Use Disorder

They don't come in actively seeking treatment. The only ones that I found here are the ones who have been sent in by court order or have lost their job and family is getting after them to either straighten up or get out. Those individuals don't come looking for help until something really dire happens, and some of them have, you know, even gone to jail and had their children taken away and have been given a choice, "Either straighten up or we'll take the children"….They have to be forced into it.

(Rural nurse practitioner, Rural health clinic)

They do provide evaluation and they can certainly provide the patient with some resources to get help, but we don't really do substance abuse counseling or treatment at our center.

(Urban physician; Large, hospital-based practice)

For a lot of our folks with substance abuse, … when they are ready to make the change, we've referred them through the state programs . . . Almost all of them have been uninsured to date. I haven't had anybody that's really under [healthplan] yet that's really ready to make that change.

(Urban physician, Free/low-cost clinic)

10.10 Pain Management

I'd say the one area where we have probably some limitations is the person who is outside our county who wants to come in with complex pain and mental health issues... You've got somebody who's on beaucoup pain meds. You get the feeling, you know, "why are you not in your own county?" It's either that people are refusing to prescribe any pain meds, which is ridiculous, or these are people who've burned their bridges.

(Rural physician assistant, Rural health clinic)

One of our biggest referrals for behavioral health for new people coming in are people who are on chronic pain meds. We pretty much insist that they participate . . . at least be offered, you know, assistance in behavioral health for chronic pain management, and it seems like pretty good numbers in the last year have taken advantage of that.

(Rural physician, FQHC)

If you turn in your paperwork and you're on a bunch of controlled substances and it appears that you expect me to start filling those, that sends off red flags. Not to say we don't, but we look and see why you're taking those things and let you know that we may disagree and may want to transition you to a

different medication or wean you off of them. If you're seeing a pain specialist and you plan on continuing the meds, fine. Then we don't . . . That's not a red flag.

(Urban physician; Small, private practice)

A lot of people go there [the ED] for pain medication. They ran out of the pain medication they have or they're not getting their pain treated in a way that they want. So they'll go to the ER and at least get a. . . short supply of opiate medications. That's it. That's a big component. A lot of people with musculoskeletal complaints, back pain that's chronic, will go to the ER.

(Rural physician; Large, hospital-based practice)

11. Health Risk Assessment

11.1 Process

[T]hey always complete their portion of it [HRA] prior to seeing me. So I don't discuss their . . .I don't go through the, "how do you feel your health is?" "Are you smoking?" "What are your goals?" I can see where that's probably trying to generate conversation. I don't do any of their portion with them. That's all done prior to me sitting down. So then I fill out everything . . . the physician portion; 80% of the time I fill that out in the room with them, and then that leads to a conversation about some appropriate health screenings . . . whether or not we want to check their cholesterol or, "Okay, I'm just looking at your BMI here. This is something that's going to be reported."

(Urban physician, FQHC)

I review it with them. If they haven't completed it, we go over it. I'll just ask them, you know, "what do you want to be serious about on here?" "Is there something you'd really like to go after?" For some guys, it's simple. I've . . . Guys say, "I want to drop 20 pounds." I'll ask them, "What do they drink?" "I drink a lot of pop." You know, "Hey. Just stop drinking pop. You'll probably drop 20 pounds right there."

(Rural physician assistant, Rural health clinic)

My girls would look on the computer first and see that they had straight Medicaid, which isn't the HMP . . . the Healthy Michigan plan. So the people would come in and they would have their HRA forms half filled out, or they would have been faxed to us half-filled out. So we were seeing on the computer that they didn't have HMP, but yet they were walking in with forms for it. So in the beginning, it was very confusing… Now people are starting to come through right from the get-go… It's a little smoother now than it was last year.

(Rural nurse practitioner, Rural health clinic)

The health risk assessment [sometimes] comes to us partially filled in based on the conversation that the caseworker had with the member, and so there was a real good lead-in that way because the person on the phone explained to the member "this is where you're going to go," and they helped them understand where my office is. So when they come in, they already feel like they actually belong here…They actually come in with a sense of continuity, like they're just on the next step of the ladder.

(Rural nurse practitioner, Rural health clinic)

But filling out that form facilitates those discussions . . . Usually the first visit is kind of more of a Q and A and introduction to each other, and the next we schedule for a full physical. So it gives us the opportunity to kind of prep folks for what they're going to get in a physical and why.

(Urban physician assistant, FQHC)

I would have to say we have not really done a good job of accommodating it...it's one of those, at the end of a visit, after the fact type of thing. ...I'm thinking maybe one of the better ways to facilitate it is to actually ask the patient at the check-in, "Do they have any forms that need to be completed?"

(Urban physician; Large, hospital-based practice)

Well, we've just had to change our policy so that the receptionist knew that when they called and said they had that form, it had to be scheduled as a physical. Yeah, that's really the big thing was just making sure they were scheduled appropriately and then billed appropriately. I mean it's supposed to be billed as a physical . . . To get that checkmark that "yes, you've done it," it's not going to register with [healthplan] that they've done it unless it comes in as a physical.

(Urban physician; Small, private practice)

It's a pretty long form. It would be nice to figure out a way to make it more simple and smaller.

(Urban physician; Small, private practice)

I think the nurses help do it before I get in the room. They'll like put some of the data in when they talk with the patient.

(Rural physician; Small, private practice)

Those sorts of things . . . a good primary care doctor would already have reviewed with the patient. So I feel it's kind of duplicate work and unnecessary clerical work for our staff . . . that it's already documented in the record, and I just don't think it changes behaviors.

(Rural physician; Large, hospital-based practice)

Well, all of the plans are doing the health risk assessment, which is great and we've been able to set up a process here so that. . . If they're patients that have been ours... we're able to do the health risk assessment here with their first visit. If it's a new patient, we do it at their second visit because we have some additional information that we can put into that to help set their goals. You know, having those tools to be able to help patients make . . . do goal-setting and move forward has been really helpful.

(Urban physician, Free/low-cost clinic)

A lot of times we get that as a fax where they've already pre-filled out their part [of the HRA] on either online or over the phone. You know, asking questions like, "So you actually do eat healthy?" "You do exercise." Sometimes they answer "no," and sometimes . . . Sometimes it's like, "Well, yeah, I do that. I walk a lot." Sometimes, it's "No, I just thought that's what they wanted to hear." You know, when they say . . . They checkmark on there, "I do want to quit smoking." And I'll say, "Well, would you like to try the patch?" They'll say, "No, not yet. I'm not ready just yet."

(Urban physician; Small, private practice)

11.2. Impact of HRA Completion and Discussion

Oh, we usually will talk about strategies to improve their health. Usually with obesity, addressing some of the factors that may be contributing to obesity, cholesterol issues and diabetes risk. Probably higher . . . equally as high on the totem pole, I guess, would be tobacco use. We talk a lot about cessation, and I refer a lot of people over to Michigan Quit line as a result of us kind of sitting down and specifically talking about those kinds of areas of interest on the HRA forms.

(Urban physician assistant, FQHC)

I think that it helps to focus what the patient wanted to work on with regard to their health issues, you know, and their risk factors.

(Urban physician; Small, private practice)

I'll tell you one patient for whom this was extremely helpful for me and hopefully for the patient, was a patient who I'd been taking care of for a long time, serious depression. We had been battling with the depression. I've known her for over twenty years. In the past, I knew she'd used marijuana, but she had stopped. The question that we had not talked about, and when my coordinator this on the front, it was about her marijuana use again. It was like, "Oh, you're using again," and it led us into that discussion, which we might not have had. She at least reportedly has stopped again so far, and her depression has improved, not controlled but better, and so that was a huge help. So sometimes it can clue us into things that we thought were addressed and done, but they're not.

(Urban physician, Free/low-cost clinic)

I think I do remember something at the end about something they were going to try to improve, but I've not seen anybody come back and have like some sort of . . . made some achievement or have I been asked to document that they made that change, do you know what I mean? I haven't seen that come back yet.

(Urban physician; Small, private practice)

Now what I have seen is that although I may bring that up on one visit and maybe I bring that up before I do the [HRA] questionnaire, over time they know because the next time they come back and they've had some goals that we've talked about and they got printed out and they were given to them, and then they come back and I can say, "How did these go?" Sometimes they say, "I didn't do any of them," and sometimes they say, "I did all of them."

(Urban physician, FQHC)

I haven't sensed that it's helped motivate them to be healthier. It's more a process that they have to go through.

(Rural physician; Large, hospital-based practice)

We've got weight management programs. We've got healthy eating classes every evening. We have a nutritionist that come in and hold "How to Grill Vegetables" classes. We do a lot of that stuff already, and so maybe because that's an option we already have available for patients that we've been running for a number of years. . . Maybe it's just kind of second nature to us and to our patients that these options are there. So…Does this help me in a discussion with the patient? I don't think so really whatsoever. Does it somehow tweak the patient that maybe they ought to get a flu shot this year? No. People either want it or they don't want it. Like I said, filling out a questionnaire is not going to help them decide that kind of stuff, I don't think.

(Urban physician, Free/low-cost clinic)

It seems to encourage not being passive about it. You know, that you are a partner in this.

(Rural physician assistant, Rural health clinic)

So when I get in and introduce myself and whatever the niceties are, then we usually start with that because that opens up the conversation and gets them talking about things . . . Because I have to reinforce what they're doing well already and the things where they need some improvement perhaps and then we get into the physical part of it.

(Rural nurse practitioner, Rural health clinic)

There are a few people who come in and say, "Well, I'm here because my insurance company told me I had to." They don't fully grasp it as being a part of health maintenance yet, but that will probably come with time.

(Rural nurse practitioner, Rural health clinic)

You know, there's still a long way to go in terms of people understanding their situation, but, you know, at least it's still . . . It's creating the conversation.

(Urban physician, FQHC)

11.3 HMP Impact on Health Behaviors

He got his first physical . . . He said it was the first one he had had in his life. He had never had a physical before. Also he started on the smoking cessation.

(Rural nurse practitioner, Rural health clinic)

The smoking cessation resources . . . Those are quite helpful. Also for the obese group, they haven't actually taken advantage of dietician services yet, but some of the diabetics have. So that's a resource that's helpful. Those are probably the two biggest ones. Smoking and diabetes are big in this area.

(Rural nurse practitioner, Rural health clinic)

Like I'll take advantage of community resources. For instance, the YMCA has a program to help patients who may be prediabetic or at significant risk for diabetes. So we'll initiate their participation in that program to help them additionally with behavioral and lifestyle changes for better health outcome and to minimize risk for, you know, diabetes and other chronic medical conditions . . . hypertension, and that type of thing.

(Urban physician assistant, FQHC)

12. Cost Sharing

I don't know anything about it because most of my patients . . . The ones that I'm seeing have no copays on the plans and they're mostly indigent.

(Urban physician; Small, private practice)

Well I actually don't pay attention to the copay part. I just like to know what insurance they have in case I need to do a referral or order medications or something. That's why I look at it, but I don't stand with them at their checking out at the end of their visit. So I wasn't sure if any of them had copays or not…. People have a hard time understanding copay versus deductible, and I guess I didn't realize that applied to anybody in our county on the Healthy Michigan plan.

(Rural nurse practitioner, Rural health clinic)

They could start making people pay something [for nonurgent ER visits] whether they have to pay $5 or $10 or $20. I think the biggest problem with healthcare is people have these little plastic cards that allow them to go somewhere and it doesn't cost them.

(Rural nurse practitioner, Rural health clinic)

Well, the first thing that comes to mind is the same way we give them benefits . . . you know, give them financial incentives for being healthy. We should take some of it back away if they overuse the ER inappropriately.

(Rural physician, FQHC)

The only other thing I really see that's important on the negative side is . . . that six-month lapse between service and payment. The other question I know that we've had in this office is . . . Let's say the patient gets that bill at the end of six months and they don't pay it. What happens to these folks? Because that's gonna be important for our planning down the road. Are those folks going to go back to being uninsured because then we have to be able to plan in six months to a year to be taking on a load of uninsured patients again.

(Urban physician, Free/low-cost clinic)

There's that stupid list of a dozen or so diseases that when people have regular Medicaid, but Healthy Michigan plan that if this is the primary diagnosis, then they're exempt from the copay, and if it's not, then they've got to pay the $2 copay. I mean that kind of stuff is a pain in the neck.

(Urban physician, Free/low-cost clinic)

13. Financial Incentives

I know that people have come in and they have told me they're here because they want a reward, or their insurance told them they would be rewarded for doing . . . whatever it is. . . As far as if they do particular behaviors, they get particular rewards? I've never had a conversation with a patient about that aspect. So I feel like the only rewards I'm aware of is they showed up, they filled out their health risk [assessment], and they get some reward.

(Urban physician, FQHC)

I have heard some people comment that if they come in, they get a $25 gift card to Wal-Mart or something like that. It didn't sound as though it was tied to anything other than coming in for their first visit.

(Rural nurse practitioner, Rural health clinic)

The only rewards program I know of is on [healthplan] and, you know, people bring their paperwork in and say, "Can you just basically sign this that I completed my mammogram this year so I can get a $15 gift card?" Or, "If my diabetes is controlled, I get a $20 gift card." Those are usually the ones that I see. I've got a couple of patients who every year, they're all over their [health plan] insurance. They know exactly what they have to do to get their gift cards, and they bring them in like clockwork, but not a whole lot of them do that. There's only a couple of people that I know of who routinely bring me in health rewards.

(Urban physician; Small, private practice)

They've never mentioned like, "Hey, I came in today because I know this is waived." They might know that it's a covered benefit and so they'll do it, but I would be unaware that it was because they had costs waived. But it's important for me to know because I can encourage them to come in then.

(Urban physician; Large, hospital-based practice)

I thought that it doesn't take effect for like a year, like to discount some premiums and that kind of stuff or discounts on co-insurance. That's just starting to take effect now. And most of ours qualify for the gift card because, again, their income is low enough that they don't have a lot of copays and stuff yet.

(Urban physician, Free/low-cost clinic)

14. PCP Communication

14.1 PCP Communication with Health Plans

All I know is that we got the communications and we got something telling us about . . . certain forms that we have to fill out for the . . . called the HRA forms. But I don't remember exactly, you know, the initial communications and how it was determined that we were going to get it.

(Urban physician; Small, private practice)

Like with [healthplan A and B], they have representatives who stop in periodically and actually do face-to-face questions and answers and verbally went over their programs.

(Rural nurse practitioner, Rural health clinic)

I got a couple of memos by mail. I didn't really pay that much attention to them…" until I started getting all these new patient requests.

(Urban physician; Small, private practice)

Well, it [i.e., communication with health plans] at least gave. . . a clear expectation of what those patients should receive upon initial evaluation and kind of help to explain what the goals were from the health care organizations in evaluating the patient's health status.

(Urban physician; Small, private practice)

The first we got was from a group called Free Clinics of Michigan, and then Michigan Primary Care Association …and, since then, of course, you've spoken to the provider reps of the individual insurance plans and that kind of stuff.

(Urban physician, Free/low-cost clinic)

14.2 PCP Communication with Patients

We've got some people who qualify for that [i.e., Medicaid cell phone]. Cell phones can be a problem though because a lot of times, you know, people let them lapse, like especially if they have something like a Trac fone. All of a sudden the number is out of order. It's harder to get a hold of people because there are less land lines. If it's something where we need to get a hold of the person, we'll dictate letters and send them. But a lot of times they get returned. People move around.

(Rural physician assistant, Rural health clinic)

A lot of my patients have those [Medicaid cell phones]. The minutes are quite limited, and so they are sort of always out of minutes, it feels like. I had a guy yesterday. I said, "Okay, so we're gonna have to call you when these labs come back. What's the best way to reach you?" And he pulls out his phone. "Oh, just call my Obama phone." We call people who utilize these . . . the Obama phones on a daily basis.

(Urban physician, FQHC)

I know some people that are on their third phone number. …That's one of our problems is people come in, they give us a phone number, and then a month or two later they'll call to make an appointment… And then when they go to do the courtesy call the day before to remind them, we don't have a good number. So when they do show up, we say "Okay, we need a better phone number for you," and they say, "Oh, yeah, I got a new Obama phone." Well, a lot of my patients go through phones faster than I go through shoes . . . No, I mean I'm sure it's [Medicaid cell phone] helped. I mean a lot of people wouldn't have access to a cell phone either way.

(Urban physician; Small, private practice)

The Obama phone is great. Yeah. People very . . . My understanding from those folks who have mentioned having it . . . That's enabled them to, for the most part, stay connected to the office and to, you know, maintain means by which to be contacted for information relating to medical care and whatnot.

(Urban physician assistant, FQHC)

As part of a medical home, we have a lot of services that we are trying to provide, by telephone services like titrating insulin and things like that, and the lack of available phone service has impacted. You know, many of the patients we cannot help are people that we cannot communicate with because. . . One week they have a phone; the next week they don't. I know I have had a few patients tell me that they have this [i.e., Medicaid cell phone] . . .

(Urban physician; Large, hospital-based practice)

Some [cell phones] are not really working, and some are….

(Urban physician; Small, private practice)

Here we have phone interpretation. Yeah, we have phone interpretation at the front desk. So if they call, you know, we schedule appointments and we can see them with phone interpretation, but if they're home and they need to call to make an appointment, that's when it gets challenging.

(Urban physician; Large, hospital-based practice)

15. Provider Knowledge about HMP and Medicaid Expansion

I may have received some emails [about HMP]. You know, I'm sure I did. As far as the . . . I have a variety of routine emails that come from state agencies that keep physicians apprised of things.

(Urban physician assistant, FQHC)

Well, I think that when the governor was trying to get this to be approved in Michigan, he had to go around to all the hospital systems and get CEO's of different hospital systems to get on board and say, "We guarantee that we are going to help you to see these people," because there wouldn't be any point in having a new program if everybody declined to see the patients.

(Urban physician; Small, private practice)

Oh, I think it was back when the governor finally got the motion in Congress to get that rolling after working with the feds. They had published a list of the requirements for being on Medicaid, and that was online. So that's probably . . . I learned about the same time everybody else did.

(Rural physician, FQHC)

…frankly I didn't even really understand that Healthy Michigan was the Medicaid expansion (LAUGHTER) until you called and started talking about it that way because there used to be a plan called… I'm thinking there was something with a very similar name that phased out when Medicaid expansion went through. We used to have a community charity voucher or discount program.

(Urban physician; Small, private practice)

I was impressed that our governor bucked his own party to do it because, of course, I was very much aware of how many people were falling through the cracks who were definitely poor and were told that they didn't qualify for Medicaid, but worked at a crappy job that didn't offer insurance. So, I knew we had expanded Medicaid. I just didn't understand…how they were doing it.

(Urban physician; Small, private practice)

My recollection is I first became aware of it [i.e., the Healthy Michigan Plan] in the newspaper, but more so from a bulletin from the Michigan State Medical Society.

(Rural physician; Large, hospital-based practice)

Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

Appendix C: Primary Care Practitioner Survey Instrument

Healthy Michigan Plan Evaluation: Perspectives of Primary Care Practitioners

Thank you for completing this survey about your views and experiences caring for patients enrolled in the Healthy Michigan Plan (the expansion of Medicaid in Michigan). We recognize the difficulty distinguishing Healthy Michigan Plan patients from others, especially other Medicaid managed care patients. Please do the best you can. ***All individual responses will be kept confidential. Only aggregate responses will be reported.***

Section 1: Practice, Patient, and Personal Characteristics

Please answer questions about your practice with your primary practice location in mind.

1. **In what year did you complete clinical training?** _____

2. **Are you board certified?** ☐ No ☐ Yes → **2a. If yes, in which specialties?** _____

3. **What is the zip code for your primary practice location?** ___ ___ ___ ___ ___

4. **Not including yourself, how many of the following practitioners are associated with you at this location?**
   a. Physicians: _____ c. Physician assistants: _____
   b. Nurse practitioners: _____ d. Nurse midwives: _____

5. **Has your practice made any of the following changes in the past year?** *(check all that apply)*
   ☐ Hired additional clinicians (physicians, nurse practitioners, physician assistants, nurses, medical assistants)
   ☐ Hired additional office staff
   ☐ Consulted with care coordinators, case managers, community health workers, or similar professionals
   ☐ Changed workflow processes for new patients
   ☐ Co-located mental health within primary care

6. **Regarding ownership of your practice, are you a:**
   ☐ Full-owner
   ☐ Partner/part-owner
   ☐ Employee → **6a. If employee, what type of entity is your employer?**
      ☐ University or teaching hospital
      ☐ Hospital
      ☐ Other (*specify*):_____

7. **What best describes the primary way you are paid for seeing patients?**
   ☐ Fee-for-service ☐ Salary based
   ☐ Capitation or patient enrollment-based ☐ Other (*specify*): _____

8. In the past three years, have you provided care in a setting that serves poor and underserved patients with no anticipation of being paid?

☐ Yes ☐ No

9. What proportion of your <u>established</u> patients who request a same- or next-day appointment at your primary practice can get one?

☐ Almost all (>80%) ☐ Most (60-80%) ☐ About half (~50%) ☐ Some (20-40%) ☐ Few (<20%) ☐ Don't know

9a. Over the past year, this proportion has:

☐ Increased ☐ Decreased ☐ Stayed the same ☐ Don't know

10. Are you Hispanic or Latino? ☐ Yes ☐ No

11. What is your race? *(check all that apply)*

☐ Black or African American
☐ Asian
☐ American Indian or Alaska Native
☐ White (European, Middle Eastern, other)
☐ Native Hawaiian or Pacific Islander
☐ Other (*specify*): _____

12. Please estimate the proportion of patients you see who are: *(these do not have to add up to 100%)*

a. African American or Black: _____%
b. Hispanic or Latino: _____%
c. Do not speak English well enough to give an adequate history: _____%

13. Please estimate the percent of your patients who have each of the following as their primary source of health insurance coverage: *(total should add to 100%)*

a. Private insurance _____ %
b. Medicaid _____ %
c. Healthy Michigan Plan _____ %
d. Medicare _____ %
e. No insurance (i.e., self-pay) _____ %

Total = 100%

14. Are you currently accepting new patients with…?

a. Private insurance	☐ Yes	☐ No	☐ Don't know
b. Medicaid	☐ Yes	☐ No	☐ Don't know
c. Healthy Michigan Plan	☐ Yes	☐ No	☐ Don't know
d. Medicare	☐ Yes	☐ No	☐ Don't know
e. No insurance (i.e., self-pay)	☐ Yes	☐ No	☐ Don't know

Section 2: Experience with the Healthy Michigan Plan (HMP)

These questions ask about your experiences caring for patients enrolled in the Healthy Michigan Plan (Medicaid expansion). For more information about the Healthy Michigan Plan, see the enclosed Fact Sheet.

15. In general, how familiar are you with the Healthy Michigan Plan?

☐ Very familiar ☐ Somewhat familiar ☐ A little familiar ☐ Not at all familiar

16. How familiar are you with the following:

	Very familiar	Somewhat familiar	A little familiar	Not at all familiar
a. Specialists available for Healthy Michigan Plan patients	☐	☐	☐	☐
b. How to complete a Health Risk Assessment	☐	☐	☐	☐
c. Out-of-pocket expenses Healthy Michigan Plan patients have to pay	☐	☐	☐	☐
d. How to submit a Health Risk Assessment	☐	☐	☐	☐
e. Healthy behavior incentives that Healthy Michigan Plan patients can receive	☐	☐	☐	☐
f. Mental health services available for Healthy Michigan Plan patients	☐	☐	☐	☐
g. Dental coverage in the Healthy Michigan Plan	☐	☐	☐	☐

17. To what extent has your practice experienced the following since the Healthy Michigan Plan began in April 2014?

	To a great extent	To some extent	To a little extent	Not at all	Don't know
a. Increase in number of new patients	☐	☐	☐	☐	☐
b. Existing patients who had been uninsured or self-pay gained insurance	☐	☐	☐	☐	☐
c. Existing patients changed from other insurance to Healthy Michigan Plan	☐	☐	☐	☐	☐
d. Increase in the number of new patients who haven't seen a primary care practitioner in many years	☐	☐	☐	☐	☐

18. How much influence do you have in making the decision to accept or not accept Medicaid or Healthy Michigan Plan patients in your practice?

☐ The decision is entirely mine ☐ I have some influence

☐ I have a lot of influence ☐ I have no influence

19. Please indicate the importance of each of the following for your practice's decision to accept new Medicaid or Healthy Michigan Plan patients.

	Very important	Moderately important	Not very important	Not at all important	Don't know
a. Reimbursement amount	☐	☐	☐	☐	☐
b. Capacity to accept new patients with any type of insurance	☐	☐	☐	☐	☐
c. Availability of specialists who see Medicaid or Healthy Michigan Plan patients	☐	☐	☐	☐	☐
d. Illness burden of Medicaid or Healthy Michigan Plan patients	☐	☐	☐	☐	☐
e. Psychosocial needs of Medicaid or Healthy Michigan Plan patients	☐	☐	☐	☐	☐

20. How often do your <u>Healthy Michigan Plan</u> patients have difficulty accessing the following?

	Often	Sometimes	Rarely	Never	Don't know
a. Specialists	☐	☐	☐	☐	☐
b. Medications	☐	☐	☐	☐	☐
c. Mental health care	☐	☐	☐	☐	☐
d. Dental/oral health care	☐	☐	☐	☐	☐
e. Treatment for substance use disorder	☐	☐	☐	☐	☐
f. Counseling and support for health behavior change	☐	☐	☐	☐	☐

21. How often do your <u>privately insured patients</u> have difficulty accessing the following?

	Often	Sometimes	Rarely	Never	Don't know
a. Specialists	☐	☐	☐	☐	☐
b. Medications	☐	☐	☐	☐	☐
c. Mental health care	☐	☐	☐	☐	☐
d. Dental/oral health care	☐	☐	☐	☐	☐
e. Treatment for substance use disorder	☐	☐	☐	☐	☐
f. Counseling and support for health behavior change	☐	☐	☐	☐	☐

The questions on this page ask about your experiences with Health Risk Assessments (HRAs).

22. Approximately how many Health Risk Assessments have you completed with Healthy Michigan Plan patients?

☐ None ☐ 1-2 ☐ 3-10 ☐ More than 10

23. How often do your Healthy Michigan Plan patients bring in their Health Risk Assessment to complete at their initial office visit?

☐ Almost always ☐ Often ☐ Sometimes ☐ Rarely/never

24. Please report your experience with the following:

	Yes	No	Don't know
a. My practice has a process to identify Healthy Michigan Plan patients who need to complete an HRA.	☐	☐	☐
b. I/my practice have been contacted by a Medicaid Health Plan about a patient who needs to complete an HRA.	☐	☐	☐
c. My practice has a process to submit completed HRAs to the patient's Medicaid Health Plan.	☐	☐	☐
d. I/my practice have received a financial bonus from a Medicaid Health Plan for helping patients complete HRAs.	☐	☐	☐

25. How much influence do the following have on completion and submission of the Health Risk Assessment?

	A great deal of influence	Some influence	A little influence	No influence	Don't know
a. Financial incentives for patients	☐	☐	☐	☐	☐
b. Patients' interest in addressing health risks	☐	☐	☐	☐	☐
c. Financial incentives for practices	☐	☐	☐	☐	☐

26. For Healthy Michigan Plan patients who have completed their Health Risk Assessment, how useful has this been for each of the following:

	Very useful	Somewhat useful	A little useful	Not at all useful
a. Identifying health risks	☐	☐	☐	☐
b. Discussing health risks with patients	☐	☐	☐	☐
c. Persuading patients to address their most important health risks	☐	☐	☐	☐
d. Documenting patient behavior change goals	☐	☐	☐	☐
e. Getting patients to change health behaviors	☐	☐	☐	☐

The questions on this page ask about non-urgent emergency room (ER) use.

27. How much can primary care practitioners influence non-urgent ER use by their patients?

☐ A great deal ☐ Some ☐ A little ☐ Not at all

28. To what extent do you think it is your responsibility as a primary care practitioner to decrease non-urgent ER use?

☐ Major responsibility ☐ Some responsibility ☐ Minimal responsibility ☐ No responsibility

29. Does your practice offer any of the following to help Healthy Michigan Plan patients avoid non-urgent ER use?

	Yes	No	Don't know
a. Walk-in appointments.	☐	☐	☐
b. Assistance with arranging transportation to appointments	☐	☐	☐
c. 24-hour telephone triage	☐	☐	☐
d. Appointments during evenings and weekends	☐	☐	☐
e. Care coordination/social work assistance for patients with complex problems	☐	☐	☐

30. In your opinion, to what extent do the following factors influence non-urgent ER use?

	Major influence	Minor influence	Little or no influence
a. The ER will provide care without an appointment	☐	☐	☐
b. Patients believe the ER provides better quality of care	☐	☐	☐
c. The ER offers quicker access to specialists	☐	☐	☐
d. Hospitals encourage use of the ER	☐	☐	☐
e. The ER offers access to medicines for patients with chronic pain	☐	☐	☐
f. The ER is where patients are used to getting care	☐	☐	☐

31. What, in your experience, could decrease non-urgent ER use by Healthy Michigan Plan patients?

_____

_____

32. Please think about what has changed for your patients <u>who were previously uninsured</u> and are now covered by the Healthy Michigan Plan. Rate the extent to which you think the Healthy Michigan Plan has had an impact on each of the following for these patients: *(If you have no previously uninsured patients now covered by the Healthy Michigan Plan, choose "Don't know" for all.)*

	Great impact	Some impact	Little impact	No impact	Don't know
a. Better control of chronic conditions	☐	☐	☐	☐	☐
b. Improved medication adherence	☐	☐	☐	☐	☐
c. Better ability to work or attend school	☐	☐	☐	☐	☐
d. Improved ability to live independently	☐	☐	☐	☐	☐
e. Improved health behaviors	☐	☐	☐	☐	☐
f. Improved emotional wellbeing	☐	☐	☐	☐	☐
g. Early detection of serious illness	☐	☐	☐	☐	☐

33. When was the most recent time, if ever, you discussed out-of-pocket medical costs with a Healthy Michigan Plan patient?

☐ Yes ☐ No → ***If no, SKIP to Question 36***

34. Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, who brought up the topic? *(check one)*

☐ The patient

☐ Me

☐ Somebody else in the practice (e.g., clerical or nursing staff)

☐ Other (*specify*): _____

35. Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, did the conversation result in a change in the management plan for the patient?

☐ Yes ☐ No ☐ Don't remember

36. Given what you know about it, in general, do you support or oppose the continuation of the Healthy Michigan Plan?

☐ Support ☐ Oppose ☐ Don't know

37. What changes would you suggest for the Healthy Michigan Plan?

_____

_____

38. Please rate your agreement with each of the following statements.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. All providers should care for some Medicaid/Healthy Michigan Plan patients.	☐	☐	☐	☐	☐
b. Caring for Medicaid/Healthy Michigan Plan patients enriches my clinical practice.	☐	☐	☐	☐	☐
c. Caring for Medicaid/Healthy Michigan Plan patients increases my professional satisfaction.	☐	☐	☐	☐	☐
d. It is my responsibility to provide care for patients regardless of their ability to pay.	☐	☐	☐	☐	☐

39. In general, to what extent do you agree or disagree with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. I know what kind of insurance a patient has at the beginning of an encounter.	☐	☐	☐	☐	☐
b. I ignore a patient's insurance status on purpose so it doesn't affect my recommendations.	☐	☐	☐	☐	☐
c. If I need to know a patient's insurance status it is easy to find out.	☐	☐	☐	☐	☐
d. I only find out about a patient's insurance coverage if they have trouble getting something I recommend.	☐	☐	☐	☐	☐

40. Is there anything else you would like to tell us about the impact of the Healthy Michigan Plan on your patients or your practice?

_____

_____

41. If you are you interested in receiving a special summary of survey findings, please provide your email address below. *(Your email will be used only for the purpose of sending survey findings.)*

Email address: _____@_____

Thank you for completing this survey. Please return the survey in the envelope provided.

2017 Healthy Michigan Voices
New Enrollee Survey Report

December 30, 2018

University of Michigan
Institute for Healthcare Policy & Innovation

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INSTITUTE FOR HEALTHCARE POLICY & INNOVATION
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Executive Summary

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). Domain IV of the evaluation includes a series of surveys called *Healthy Michigan Voices*. This report presents findings from the 2017 *Healthy Michigan Voices* New Enrollee Survey. From June to December 2017, 607 individuals who had recently enrolled in HMP completed the survey. This report complements the in-depth qualitative interviews conducted in 2017 with individuals who were likely eligible for, but not enrolled in, HMP by examining the characteristics and early experiences of individuals who had recently enrolled in HMP.

Methods

Sampling for the *Healthy Michigan Voices* New Enrollee Survey was performed in June 2017 (750 enrollees sampled) and September 2017 (1,000 enrollees sampled). Sampling was performed in two separate months to minimize bias from seasonal enrollment and employment.

At the time of sample selection, enrollees had to meet each of the following inclusion criteria:

- Initial HMP enrollment in fee for service (FFS) or managed care (MC) 5 months prior to sampling month
- HMP-MC enrollment for at least 2 months at the time of sampling
- No other Medicaid enrollment for 2 years prior to sampling
- Age between 19 years and 63 years
- Complete address, phone number, and federal poverty level (FPL) fields in the Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

The sampling plan utilized the same combination of four grouped prosperity regions in the state (Upper Peninsula/North West/North East; West/East Central/East; South Central/South West/South East; Detroit) and three FPL categories (0-35%; 36-99%; ≥100%) as was used in the 2016 *Healthy Michigan Voices* Enrollee Survey. In total, 607 new enrollees had complete survey data. The weighted response rate for the *Healthy Michigan Voices* new enrollee survey was 41.0%.

Many items on the survey were drawn from established surveys. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about Health Risk Assessments, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees, cognitively tested, and used in the 2016 *Healthy Michigan Voices* Enrollee Survey. Responses were recorded using computer-assisted telephone interviewing software, programmed with the survey questions.

Descriptive statistics were generated for responses to all questions, with survey weights calculated and applied to adjust for the probability of selection, nonresponse, and other factors. Bivariate and multivariate analyses were also performed.

Results

New enrollee characteristics

- 70.2% had incomes between 0-35% FPL.
- 62.6% were men.
- 55.1% were employed; 52.7% of these were employed full-time.
- 87.3% had at least a high school diploma or equivalent.
- 21.8% had housing insecurity (three or more places lived in the past 3 years) and 13.4% had been homeless in the past 12 months.

Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

Current health status and chronic health conditions

- 30.7% reported fair or poor health.
- 66.8% reported having at least one chronic condition; 41.2% reported having two or more.

Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

Knowledge and understanding of HMP cost-sharing requirements and healthy behavior rewards

- 16.9% said they did not receive any information about how much they would need to pay for HMP.
- 30.0% thought they could be disenrolled from HMP for failing to pay their bill and 52.3% were unsure.
- When asked about ways they could reduce the amount they have to pay, most new enrollees (96.4%) did not mention any. When asked specifically about whether they could get a reduction in the amount they have to pay if they complete a health risk assessment, 33.1% said yes, while 56.2% said they did not know.
- 86.0% strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea.
- 68.0% were aware that some kinds of visits, tests, and medicines have no copays.

Knowledge and understanding of HMP covered benefits

- The majority of new enrollees knew that HMP covers prescription medications (85.9%), dental care (63.8%), and counseling for mental or emotional problems (53.6%). Nearly half knew that HMP covers birth control or family planning (48.9%) and eyeglasses (48.5%). Less than half knew that HMP covers substance use treatment (42.4%) and treatment to stop smoking (34.7%).

- New enrollees were less knowledgeable about HMP covered benefits and costs than enrollees surveyed in 2016 who had been enrolled for at least one year.

Challenges using HMP coverage

- About 1 in 6 new enrollees (15.9%) reported that they had questions or difficulties using their HMP coverage.

Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

Regular source of care prior to HMP

- In the 12 months before enrolling in HMP, 63.5% reported having a place they would usually go for health care. Of those, 57.3% said that place was a doctor's office, 13.1% a clinic, 18.0% an urgent care, and 9.3% reported the emergency room.
- New enrollees were less likely to have a regular source of care prior to HMP enrollment compared to enrollees surveyed in 2016 who had been enrolled for at least one year.

Forgone health care prior to HMP

- In the 12 months before enrollment, 20.4% reported not getting health care they needed; 63.4% attributed this to lack of insurance coverage and 24.5% attributed this to cost.

Forgone dental care prior to HMP

- In the 12 months before enrollment, 34.7% reported not getting dental care they needed; 64.8% attributed this to lack of insurance coverage and 29.8% attributed this to cost.
- New enrollees with chronic conditions were more likely than those without to have forgone dental care prior to HMP enrollment (38.9% vs. 26.3%).

Financial consequences of health care prior to HMP

- Nearly half (44.8%) said they had problems paying medical bills in the 12 months before enrollment. Of those, 72.4% reported being contacted by a collections agency.
- New enrollees with chronic conditions were more likely than those without to report problems paying medical bills prior to HMP enrollment (51.0% vs. 32.3%).

Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

Health risk assessment

- New enrollees were asked how they completed the first section of the HRA and most commonly reported that they filled it out themselves (39.6%).
- Of those who reported completing the first section of the HRA, 48.7% said they discussed the HRA with their doctor or someone at their primary care provider's office.
- Among new enrollees who discussed the HRA with their doctor or someone at their primary care provider's office, 63.9% reported that it taught them something about their

health, 87.1% reported that it helped their PCP better understand their health needs, and 87.9% reported that it motivated them to be more responsible for their health.

Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Not applicable to the new enrollee survey.

Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Not applicable to the new enrollee survey.

Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

Insurance status prior to HMP

- 47.9% were uninsured for all 12 months prior to HMP enrollment, 24.2% were uninsured for some of the 12 months, and 27.9% were insured for all 12 months prior to HMP enrollment. There were no statistically significant relationships between new enrollees' insurance status in the 12 months prior to HMP enrollment and their FPL or employment status.
- The most commonly reported reasons why new enrollees were without insurance for some or all of the 12 months prior to enrollment included: not having a job (30.2%), it was too expensive (non-specific) (24.3%), their job does not offer insurance (13.2%), and other reasons (14.3%) that commonly included personal life changes such as moving across states, aging off of parent's policy, divorce, imprisonment, etc.

Reasons for not applying to HMP

- Among new enrollees who reported being without insurance for two months or more in the 12 months prior to enrollment, 32.3% said there was a time when they knew about HMP but did not apply.
- The most commonly reported reasons for not applying included: thinking they were not eligible (33.7%), they did not get around to it (33.2%), and because they were healthy or did not need care (16.3%). Fewer new enrollees said the process was too burdensome (7.4%), they did not need health insurance (4.6%), did not want to be on a government program (3.5%), or provided some other reason or said they did not know why (8.4%).
- Very few new enrollees (1.0%) said the reason they did not apply was because they did not like a certain feature of HMP.

Applying for HMP

- New enrollees reported applying for HMP because they lost their other health insurance (29.6%); had a medical condition that needed care (19.2%); it was suggested and/or they were signed up at the ER, hospital, or another place (15.2%); they needed some form of health insurance (15.0%); or for some other reason (21.5%).

- Few new enrollees (4.9%) reported that they had problems with the HMP application and enrollment process.
- Almost half (45.2%) said they tried to keep their existing doctor or clinic when they chose their health plan and primary care provider. Of those, 82.0% said they were able to keep their doctor or clinic.

Conclusions

Prior to enrolling in HMP, many new enrollees lacked health insurance coverage and experienced difficulties paying for and getting the care they needed. Nearly three in four had a period without health insurance in the 12 months prior to HMP enrollment, most often because they did not have a job, they had a job that did not offer health insurance, health insurance was too expensive, or because of personal life changes. Nearly half reported having problems paying medical bills before HMP and most of those had been contacted by a collections agency. One in five new enrollees reported not getting the health care they needed in the 12 months before enrolling in HMP, usually because of cost. New enrollees with chronic conditions were more likely than those without to report problems paying medical bills and to have forgone dental care prior to HMP enrollment.

Additionally, only one in three new enrollees felt their health was excellent or very good, and two in three reported having a chronic condition. Many had housing instability, including homelessness, and/or challenges related to health literacy. Most new enrollees who reported being unable to work said it was due to poor health or disability. New enrollees over 50 were less likely than younger enrollees to be employed.

Just one in three new enrollees who lacked insurance before enrollment reported there being a time when they knew about HMP but did not apply, indicating that an important obstacle for those who may be eligible but not enrolled is a lack of awareness of HMP. Since a third of those who were aware of HMP thought they would not be eligible for the program, a misunderstanding of the eligibility requirements for HMP is another common barrier to enrollment.

New enrollees' stated reasons for enrolling in HMP varied. The most common reasons were losing other health insurance, having a medical condition that needed care, and enrollment being suggested or facilitated by an ER, hospital, or another place. New enrollees reported few, if any, challenges during the application and enrollment process. More than four in five of those who tried to keep their existing doctor or clinic were able to do so.

Recommendations

As noted in this report, lack of awareness of HMP and understanding of eligibility requirements were barriers to enrollment. Continued outreach and education to those who may be newly eligible for HMP could result in individuals experiencing fewer gaps in health insurance coverage. Gaps in health insurance coverage, as we saw in this survey and previous surveys, can lead to forgone care and financial problems. Outreach and education efforts should take

into account the complex health and social needs (e.g. housing instability and limited health literacy) reported by many new enrollees.

Over half of new enrollees were employed, and about half of those were employed full-time. Over a third of those who were not employed said they were unable to work, often due to poor health or disability. Sufficient time should be provided to address health needs that present barriers to employment and supportive resources should be made available to those who are required to meet the workforce engagement requirements. Sufficient time should be allowed and processes should be clearly communicated to enrollees who may apply for an exemption.

New enrollees reported few, if any, challenges with the application and enrollment process. Support to individuals provided during the process of enrolling in HMP seems to contribute to a smooth enrollment experience and should be continued.

Introduction

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). Domain IV of the evaluation includes a series of surveys called *Healthy Michigan Voices*. This report presents findings from the 2017 *Healthy Michigan Voices* New Enrollee Survey. From June to December 2017, 607 individuals who had recently enrolled in HMP completed the survey. This report complements the in-depth qualitative interviews conducted in 2017 with individuals who were likely eligible for, but not enrolled in, HMP by examining the characteristics and early experiences of individuals who had recently enrolled in HMP.

Methods

Survey design

The survey included established measures of demographics, health, access to care, and insurance status drawn from national surveys, including the National Health and Nutrition Exam Survey (NHANES),[1] the Health Tracking Household Survey (HTHS),[2] the National Health Interview Survey (NHIS),[3] the Behavioral Risk Factor Surveillance System (BRFSS[4] and MiBRFSS[5]), the Short Form Health Survey (SF-12),[6] the Food Attitudes and Behaviors Survey,[7] the Consumer Assessment of Healthcare Providers and Systems (CAHPS),[8] the Employee Benefit Research Institute Consumer Engagement in Healthcare Survey (CEHCS),[9] the Commonwealth Fund Health Care Quality Survey,[10] and the U.S. Census. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about Health Risk Assessments, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees from five target geographic regions across the state of Michigan (Detroit, Kent County, Midland/Bay/Saginaw Counties, Alcona/Alpena/Oscoda Counties, and Marquette/Baraga/Iron Counties) conducted by the evaluation team April to August 2015. New items underwent cognitive testing, and pre-testing for timing and clarity and many were used successfully in the 2016 *Healthy Michigan Voices* Enrollee Survey.[11]

[1] NHANES (National Health and Nutrition Exam Survey, CDC)
[2] HTHS (Health Tracking Household Survey)
[3] NHIS (National Health Interview Survey, CDC)
[4] BRFSS (Behavioral Risk Factor Surveillance System, CDC)
[5] MiBRFSS (Michigan Behavioral Risk Factor Surveillance System, MDHHS)
[6] SF-12 (Short Form Health Survey, RAND)
[7] FAB (Food Attitudes and Behaviors Survey, NCI)
[8] CAHPS (Consumer Assessment of Healthcare Providers and Systems)
[9] Consumer Engagement in Health Care Survey (EBRI: CEHCS)
[10] Commonwealth Fund Health Care Quality Survey
[11] Report on the 2016 Healthy Michigan Voices Survey

Survey administration

HMP enrollees selected to participate in the *Healthy Michigan Voices* New Enrollee Survey were mailed an introductory packet that contained a letter explaining the project, a brochure about the project, and a postage-paid postcard that could be used to indicate a preferred time/day for interview or refusal to participate. The letter also provided a toll-free number and email address for enrollees who wished to indicate a preferred time/day for interview or refusal to participate. For all sampled enrollees who did not refuse by one of those methods, *Healthy Michigan Voices* interviewers placed phone calls to sampled enrollees between the hours of 9 am and 9 pm. Surveys were conducted in English, Arabic and Spanish; enrollees who could not speak one of those languages were excluded from participation. Responses were recorded using computer-assisted telephone interviewing software, programmed with the survey questions.

At the outset of the survey, enrollees were informed that their individual responses would be kept confidential; only aggregate data would be reported to the state. They were also informed that completing the survey was voluntary and that they could skip questions if they wished. Those who completed the survey were mailed a $25 gift card to compensate them for their time spent answering the survey questions. The average duration of time it took to complete the survey was 14.5 minutes; the time to complete the survey ranged from 8 to 40 minutes.

Survey population and inclusion criteria

Sampling for the *Healthy Michigan Voices* New Enrollee Survey was performed in June 2017 (750 enrollees sampled) and September 2017 (1,000 enrollees sampled). Sampling was performed in two separated months to minimize bias from seasonal enrollment and employment. A separate sample was selected in May 2017 (200 sampled enrollees) and used exclusively for pilot testing of the survey instrument and contact methodology; pilot test responses were not included in the final results.

At the time of sample selection, enrollees had to meet each of the following inclusion criteria:

- Initial HMP enrollment in fee for service (FFS) or managed care (MC) 5 months prior to sampling month
- HMP-MC enrollment for at least 2 months at the time of sampling
- No other Medicaid enrollment for 2 years prior to sampling
- Age between 19 years and 63 years
- Complete address, phone number, and federal poverty level (FPL) fields in the Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

Eligibility was determined independently for June 2017 and September 2017 samples. Data extraction was performed via a secure Virtual Private Network (VPN) connection by a data analyst with specific approval from MDHHS for this purpose, using existing protocols that require two layers of password protection. The June 2017 and September 2017 samples were drawn to reflect the target sampling plan.

Sampling plan

The sampling plan utilized the same combination of four grouped prosperity regions in the state (Upper Peninsula/North West/North East; West/East Central/East; South Central/South West/South East; Detroit) and three FPL categories (0-35%; 36-99%; ≥100%) as was used in the 2016 *Healthy Michigan Voices* Enrollee Survey. Inclusion criteria for the new enrollee survey were applied to the Medicaid population in May 2017, allocated to these 12 strata. The eligible population for the new enrollee survey was substantially different than the eligible population for the 2016 *Healthy Michigan Voices* Enrollee Survey, specifically the large proportion (67.0%) in the lowest-income strata, with 29.6% of the total eligible population in the Detroit region in the lowest income strata. To achieve a more balanced eligible population, five constraints were placed in the sample design:

a. Keeping the minimum stratum-level sample size at 50 across all strata
b. Keeping the maximum stratum-level sample size of the 0-35% FPL income group at 110 for West/East Central/East Region, 100 for South Central/South West/South East Region, and 150 for Detroit Region
c. Keeping the maximum stratum level sample size at 90 for the strata inapplicable to the constraint b above
d. Keeping the minimum sample size at 300 per income group
e. Keeping the maximum sample size at 350 per region

The table below shows the target proportion of each stratum in the sample. Under this design, the expected design effect was 1.344.[12]

	Prosperity Region				
	UP/NW/NE	W/EC/E	SC/SW/SE	DET	Total
Federal Poverty Level					
0-35%	5.0%	10.7%	9.3%	15.0%	40.0%
36-99%	5.0%	9.0%	7.0%	9.0%	30.0%
≥100%	5.0%	9.0%	7.0%	9.0%	30.0%
Total	15.0%	28.7%	23.3%	33.0%	100.0%

Our monthly sample was drawn using the proportions above. A total of 1,750 enrollees on the frame were selected. The 607 respondents with complete survey data closely mirror the sampling plan above.

[12] Design effect indicates the magnitude of the increase in variance due to the sampling method, compared to what you would expect with simple random sampling. The value of the design effect indicates that our design requires a sample size 1.344 times bigger than what it would need to be for the same confidence intervals with simple random sampling.

Characteristics of the 607 new enrollee survey respondents

	Prosperity Region				
	UP/NW/NE	W/EC/E	SC/SW/SE	DET	Total
Federal Poverty Level					
0-35%	28	62	60	89	239
	4.6%	10.2%	9.9%	14.7%	39.4%
36-99%	35	50	42	65	192
	5.7%	8.2%	6.9%	10.7%	31.6%
≥100%	32	51	49	44	176
	5.3%	8.4%	8.1%	7.2%	29.0%
Total N complete	95	163	151	198	607
Total % complete	15.7%	26.9%	24.9%	32.6%	100.00%

Survey response characteristics

A total of 1,750 enrollees on the frame were selected and attempted for an interview. Some numbers did not work, hence, no contact was established; some numbers worked but no contact was ever established, so we were unable to ascertain eligibility; and other numbers worked and contact was established. We summarize the results briefly as follows:

Table 1. Call results to sampled individuals

Description	**n**	**%**
Response (I)	607	34.7
Nonresponse	462	26.4
Refusal (R)	168	9.6
Noncontact, Other NR (NC,O)	286	16.3
Partial complete (P)	8	0.5
Ineligible	117	6.7
Unknown eligibility (UN)	458	26.2
Nonworking phone number	106	6.1
Total	1,750	100.0

There are many ways to calculate response rates as outlined by the American Association for Public Opinion Research (AAPOR, 2016[13]). Response rate formula 3 defined below is one of the common formulas used, particularly for telephone surveys.

$$RR3 = \frac{I}{(I+P)+(R+NC+O)+e\times UN}$$

where e is an estimate eligibility rate for the cases for which we cannot ascertain eligibility. One way to estimate e is to use our call results among those we established contact with. Hence,

[13] The American Association for Public Opinion Research. 2016. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th edition. AAPOR. Access from http://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf

$$e = \frac{607 + 462}{607 + 462 + 117} = 90.1\%$$

This means that the observed eligibility rate was 90.1% among the cases where we were able to ascertain eligibility. By applying e as estimated above, we obtain the following response rate:

$$RR3 = \frac{607}{(607 + 8) + (168 + 286) + .901 \times 458} = 41.0\%$$

The weighted response rate was calculated to ascertain the response rate that is not subject to the sample design. We used the selection weight (w_1 described shortly) to the RR3 formula and used weights applicable for known eligibility cases (w_3 described shortly) to e, the estimated eligibility rate. The results are as follows:

$$weighted\ e = 89.7\%$$
$$Weighted\ RR3 = 41.0\%$$

Thus, the weighted response rate for the *Healthy Michigan Voices* new enrollee survey was 41.0%.

In order to assess potential nonresponse bias, respondents are compared to those who refused, were not contacted ("NC"), did not complete for other reasons ("O") or completed partially ("P") in Table 2 on age, gender, race/ethnicity, income level, and prosperity region from the MDHHS Data Warehouse enrollment data as well as sampling month. Further, in order to compensate for differential selection probabilities, nonworking telephone rates and ineligibility rates, this comparison used estimates weighted by w_4.

Overall, nonrespondents and respondents were different in the age and sex distribution: new enrollees in the youngest age group (19-34 years old) and male new enrollees were significantly less likely to respond than their counterparts. Race/ethnicity, cohort, sampling stratum, FPL, and region were distributed similarly between respondents and nonrespondents.

Table 2. Comparison of characteristics of new enrollee survey respondents and nonrespondents using frame data

Characteristics	Respondents N=607 (%)	Nonrespondents N=462 (%)	*p* value
Age			
19-34	35.3%	46.5%	<0.001
35-50	26.7%	28.0%	
51-64	38.1%	25.5%	
Gender			
Male	55.7%	69.7%	<0.001
Female	44.3%	30.3%	

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Race/Ethnicity			
Hispanic	2.8%	4.7%	0.147
Non-Hispanic White	59.0%	52.7%	
Non-Hispanic Black	19.7%	19.0%	
Non-Hispanic Other	18.5%	23.6%	
Sampling Month (Cohort)			
June 2017	50.4%	51.8%	0.714
September 2017	49.6%	48.2%	
Income (% FPL)			
0-35% FPL	70.1%	70.4%	0.965
36-99% FPL	17.3%	16.8%	
100-133% FPL	12.5%	12.7%	
Prosperity Region			
Northern Michigan	9.4%	9.7%	0.272
Central Michigan	27.5%	28.6%	
Southern Michigan	24.5%	18.8%	
Detroit Metro	38.7%	42.9%	

Weighting adjustment

Weights were calculated to adjust for the probability of selection (see Base Selection Weight, below), nonresponse bias (see Nonresponse Adjustment) and other adjustments (Nonworking Number adjustment, Unknown Eligibility adjustment, Known Eligibility adjustment). Note the sample was drawn independently during June 2017 and September 2017 using the same target sampling plan. We treat samples from these two points belonging to separate "cohorts" and develop weight accordingly.

Base Selection Weight

Reflecting the sample design, the first step uses an inverse of sampling probability and calculates selection weights for sample unit *i* in cohort *c* in sampling stratum *h* as follows:

$$w_{1,hci} = \frac{N_{hc}}{n_{hc}}$$

where N_{hc} is the population size and n_{hc} is the sample size. Note that $N_{cohort1} = 3{,}424$, $N_{cohort2} = 3{,}287$, $n_{cohort1} = 750$, and $n_{cohort2} = 1{,}000$.

We make adjustment for nonworking numbers, ineligible cases, unknown eligibility cases and nonresponse (noncontacts and refusal combined) separately as follows.

Nonworking Number Adjustment

We use the following adjustment, $f_{2,hci}$, factor for nonworking numbers considered out of our target population.

$$f_{2,hci} = \begin{cases} 0, & \text{if } i \text{ is not working number} \\ \dfrac{\sum_i w_{1,hci}}{\sum_i I\_WR_i \times w_{1,hci}}, & \text{if } i \text{ is a working number} \end{cases}$$

where I_WR_i is a $1/0$ indicator for working number status (1: working number, 0: nonworking number). The resulting weight is:

$$w_{2,hci} = f_{2,hci} \times w_{1,hci}$$

Unknown Eligibility Adjustment

Besides the nonworking numbers, there were working numbers with whom contact was not established. With these cases, the eligibility could not be ascertained. Moreover, the eligibility rate may have differed systematically across strata and cohort. Thus, a new adjustment factor was applied to the weight from the previous stage:

$$f_{3,hci} = \begin{cases} 0, & \text{if eligibility is unknown for } i \\ \dfrac{\sum_i w_{2,hci}}{\sum_i I\_UE_i \times w_{2,hci}}, & \text{if eligibility is known for } i \end{cases}$$

where I_UE_i is a $1/0$ indicator for unknown eligibility status (1: known eligibility; 0: unknown eligibility. The resulting weight is:

$$w_{3,hci} = f_{3,hci} \times w_{2,hci}$$

Known Eligibility Adjustment

Among those who were contacted, some may not have been eligible for various reasons related to the eligibility criteria described previously. These cases fell outside of the target population and, hence, were removed through the following:

$$f_{4,hci} = \begin{cases} 0, & \text{if } i \text{ is ineligible} \\ \dfrac{\sum_i w_{3,hci}}{\sum_i I\_EL_i \times w_{3,hci}}, & \text{if } i \text{ is eligible} \end{cases}$$

where I_EL_i is a $1/0$ indicator for eligibility status (1: eligible; 0: ineligible). The resulting weight is:

$$w_{4,hci} = f_{4,hci} \times w_{3,hci}$$

Nonresponse Adjustment

Even though respondents and nonrespondents were mostly similar as shown in Table 2, when examining nonresponse separately for each sampling cohort, the September cohort showed more significant differences between respondents and nonrespondents. In addition to the differences by age and gender, stratum and region made a difference in that, in particular, individuals in the lowest income group in Detroit were less likely to respond than the

remainder (results not shown). Hence, we considered the following characteristics separately for each sampling cohort for nonresponse adjustment:

- Sex
- Age (19-34; 35-49; 50-64 years old)
- Race/ethnicity (Hispanic; Non-Hispanic White; Non-Hispanic Black; Non-Hispanic other)
- Stratum (FPL x Region)
- FPL
- Region

The nonresponse adjustment followed Lee and Valliant (2008)[14], where a logistic regression model was used to predict response while controlling for differences in characteristics between respondents and nonrespondents. The predictors included age, sex, race/ethnicity, and sampling strata separately for each sampling cohort.

The adjustment factor, $f_{5,ci}$, is the inverse of response propensity predicted from the logistic regression. The resulting weight is:

$$w_{5,hci} = w_{4,hci} \times f_{5,ci}$$

Post-stratification

The target population of the new enrollee survey were 6,711 ($= N_{cohort1} + N_{cohort2}$, defined previously), whose age, sex, race/ethnicity and sampling stratum are known from the warehouse data. Any potential discrepancies in these characteristics between the target population and the nonresponse adjusted sample are controlled in the post-stratification using iterative proportional fitting method. The resulting weight is $w_{6,hci}$. When using this post-stratified weight, the sample matches the target population perfectly with respect to age, sex, race/ethnicity and sampling stratum which combines FPL and region.

Analyses

We generated descriptive statistics for responses to all questions in the survey, and present the weighted percentage with 95% confidence intervals (CIs) in Appendix A. Weights were applied to the data to adjust for the probability of selection, nonresponse bias, and other adjustments as described above. As a result, please note that the proportions included in this report reflect how the results we observed would apply to the eligible population of HMP enrollees (based on inclusion and exclusion criteria described on page 10). The number of individuals who responded to each survey question is noted in the tables in Appendix A. When N is less than 607, either some respondents missed that question or the question was part of a skip pattern and was therefore only asked of a subset of respondents based on their previous responses.

We examined bivariate relationships with age, gender, race/ethnicity, FPL group, and region for all single-response closed-ended questions (see Appendix A). Additional analyses were conducted to examine relationships between other selected variables of interest (see Appendix

[14] Lee S, Valliant R. 2008. Weighting telephone samples using propensity scores. Advances in Telephone Survey Methodology. 170-183.

B). For all analyses of bivariate and multivariate relationships, the types of analysis, models, variables included and how they are defined or measured are included in Appendices A and B of this report. The specific tests are described in the table footnotes.

Results

This section includes key findings from descriptive and multivariate analyses. Some findings are not reported in text; see Appendix A and B for detailed results from all analyses.

Note: The superscript † indicates that respondents were able to provide multiple responses to the survey question.

New enrollee characteristics

Few new enrollees (12.7%) had incomes 100-133% FPL, while most (70.2%) had incomes between 0-35% FPL. Nearly two in three new enrollees (62.6%) were men. One in twenty new enrollees (5.6%) were veterans. Nearly all new enrollees (87.3%) had at least a high school diploma or equivalent. (Appendix A Table 2.1)

Over half of new enrollees (55.1%) were employed. Most of those not employed had been out of work for less than a year (61.8%). While there were no statistically significant differences in overall employment rates by race/ethnicity, employed new enrollees who were Black were more likely than other groups to be working part-time and employed new enrollees who were Hispanic were more likely to be working full-time. New enrollees over age 50 were less likely than younger enrollees to be employed (37.5%), and more likely, if they were working, to be working part-time. (Appendix A Tables 2.3-2.3.1, 2.4.1)

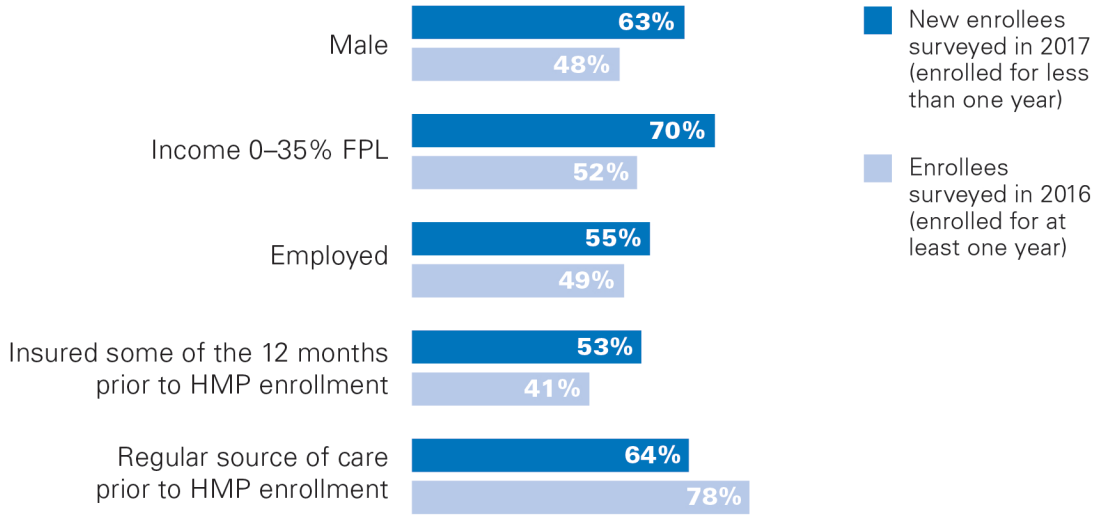
Those who were not employed most often reported being out of work (50.5%) or unable to work (36.7%); fewer reported being retired (6.0%), or not looking for work at this time (6.9%). Women were less likely to report being out of work and more likely to report not looking for work at this time. New enrollees over age 50 were more likely to report being unable to work. Most new enrollees who reported being unable to work said that was due to poor health (70.1%) or disability (19.3%). (Appendix A Tables 2.4, 2.4.1.1)

More than one in five new enrollees (21.8%) had housing insecurity (i.e., they had lived three or more places in the past 3 years) while 13.4% had been homeless in the past 12 months. About one in six new enrollees (16.4%) sometimes, often, or always needed help reading instructions, pamphlets, or other written material from a doctor, pharmacy or health plan. (Appendix A Table 2.1)

Compared to enrollees surveyed in 2016 who had been enrolled for at least one year, new enrollees surveyed in 2017, who had been enrolled for less than one year, were more often male (62.6% vs. 48.4%), between 0-35% FPL (70.2% vs. 51.8%), employed (55.1% vs. 48.8%), veterans (5.6% vs. 3.4%), and insured at some time during the 12 months prior to enrollment (53.1% vs. 40.7%). Compared to enrollees surveyed in 2016 who had been enrolled for at least one year,

fewer new enrollees had a regular source of care prior to HMP enrollment (63.5% vs. 78.3%), were Arab, Chaldean, Middle Eastern ethnicity (3.8% vs. 6.2%), and fewer had another household member with HMP (27.8% vs. 35.7%). (Appendix B Table 1.1)

New enrollees surveyed in 2017 were different than enrollees surveyed in 2016.



Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

Current health status

About one in three new enrollees (35.3%) reported that their health was excellent or very good. The health status of new enrollees surveyed in 2017 was similar to that of enrollees surveyed in 2016 who had been enrolled for at least one year. (Appendix A Table 3.1; Appendix B Table 1.1)

Chronic health conditions

Two in three new enrollees (66.8%) reported having at least one chronic condition; 41.2% reported having two or more. About the same percentage of new enrollees surveyed in 2017 had at least one chronic condition as enrollees surveyed in 2016. The most common chronic conditions† reported by new enrollees were mood disorder (30.5%), hypertension (28.5%), and arthritis or a related condition (21.4%). Fewer new enrollees reported that they had asthma (12.6%), diabetes (7.0%), or a heart condition or heart disease (6.0%). (Appendix A Tables 3.2-3.2.2; Appendix B Table 1.1)

There was no statistically significant relationship between the number of self-reported chronic conditions among new enrollees and their insurance status in the 12 months prior to HMP enrollment. (Appendix B Table 2.2)

Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

Knowledge and understanding of HMP cost-sharing requirements and healthy behavior rewards

One in six new enrollees (16.9%) said they did not receive any information about how much they would need to pay for HMP. Those who did receive information reported receiving it from the following sources†: a letter or enrollment packet from the state or their health plan (55.6%), on the phone at enrollment (7.8%), a caseworker or another person who helped them enroll (7.4%), or some other source (9.0%). (Appendix A Table 4.1)

Nearly one in three new enrollees (30.0%) believed they could be disenrolled from HMP for not paying their bill and more than half (52.3%) were unsure. (Appendix A Table 4.3)

When asked about ways they could reduce the amount they have to pay, most new enrollees (96.4%) did not mention any†. When asked specifically about whether they could get a reduction in the amount they have to pay if they complete a health risk assessment, 33.1% said yes, while 56.2% said they did not know. (Appendix A Tables 4.2, 4.4)

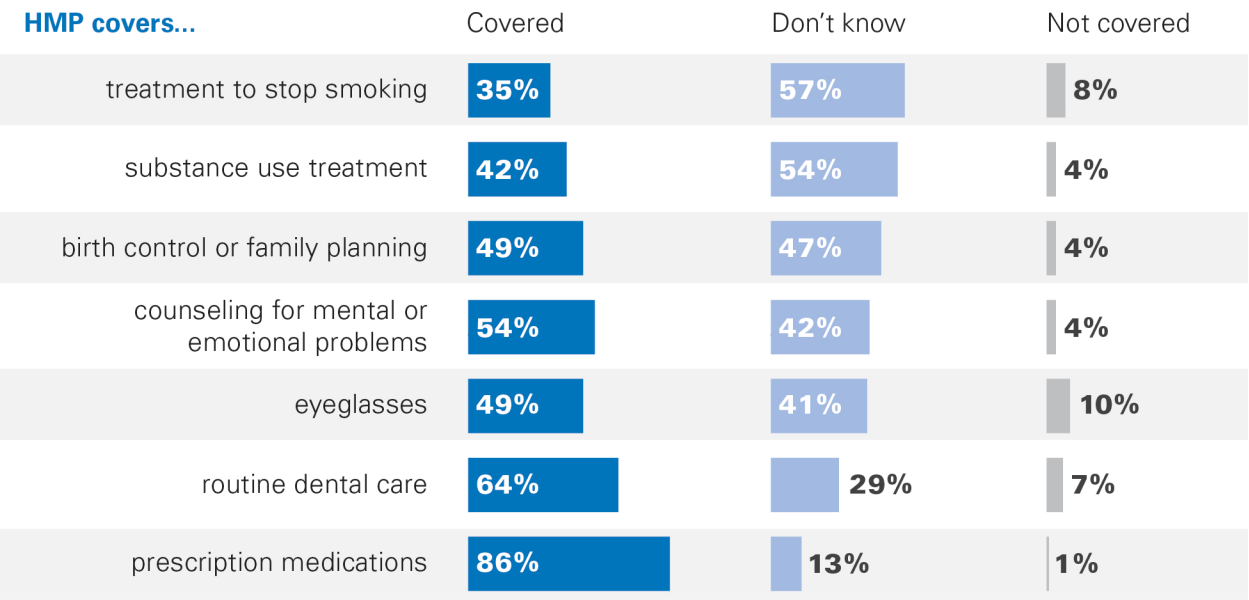
The majority of new enrollees (86.0%) strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea. (Appendix A Table 4.6)

The majority of new enrollees (68.0%) were aware that some kinds of visits, tests, and medicines have no copays. (Appendix A Table 4.5)

Knowledge and understanding of HMP covered benefits

The majority of new enrollees knew that HMP covers prescription medications (85.9%), dental care (63.8%), and counseling for mental or emotional problems (53.6%). Nearly half knew that HMP covers birth control or family planning (48.9%) and eyeglasses (48.5%). Less than half knew that HMP covers substance use treatment (42.4%) and treatment to stop smoking (34.7%). (Appendix A Tables 4.7-4.13)

There is room for improvement in new enrollees' **understanding of HMP covered benefits**.



New enrollees were less knowledgeable about HMP covered benefits and costs than enrollees surveyed in 2016 who had been enrolled for at least one year, controlling for gender, age, race/ethnicity, and income. In multivariate analyses using 2016 enrollee survey data and 2017 new enrollee survey data that controlled for survey year, race/ethnicity, and FPL, those age 51-64 compared to those age 19-34, those 0-35% FPL compared to those 100-133% FPL, and women compared to men had better knowledge of HMP covered benefits and costs; level of education was not included in the model because it was not measured in 2016. (Appendix B Table 3.2.2)

Challenges using HMP coverage

A minority of new enrollees (15.9%) reported that they had questions or difficulties using their HMP coverage. Among those who had questions or difficulties, the most commonly reported challenges† included: difficulty/inability finding a provider (48.6%), needing a service that was not covered (17.5%), and difficulty finding out information about HMP (13.5%). (Appendix A Tables 4.14-4.14.1)

Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

Regular source of care prior to HMP

In the 12 months before enrolling in HMP, 63.5% of new enrollees reported having a place they would usually go for a checkup, when they felt sick, or when they wanted advice about their health. Among new enrollees who reported having a place that they would go for health care in the 12 months before enrolling in HMP, 57.3% reported a doctor's office, 13.1% a clinic, 18.0% an urgent care, and 9.3% reported the emergency room as their regular source of care. New enrollees surveyed in 2017 were less likely to have a regular source of care prior to HMP enrollment compared to enrollees surveyed in 2016 (aOR=0.61), controlling for demographics,

health status, number of chronic conditions, and insurance status in the 12 months prior to HMP enrollment. (Appendix A Tables 5.1-5.1.1; Appendix B Table 4.1.1)

Forgone health care prior to HMP

One in five new enrollees (20.4%) reported not getting the health care they needed in the 12 months before enrolling in HMP. Among new enrollees who reported not getting the health care they needed:

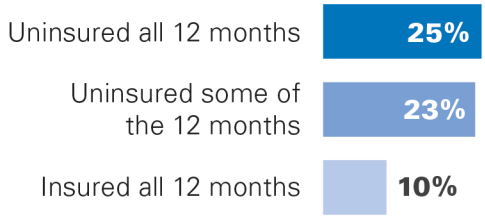
- the most commonly reported types of forgone health care† were primary care (61.1%) and prescription medications (21.4%); specialty care was mentioned by 12.7% and mental health care by 9.7%.
- the most commonly reported reasons for not getting the health care they needed†, regardless of the type of health care, were not having insurance coverage (63.4%) and cost (24.5%). (Appendix A Tables 5.2-5.2.2)

In bivariate analyses, new enrollees with diabetes, cancer, or asthma were more likely than new enrollees without those conditions to report having forgone health care in the 12 months prior to enrollment. (Appendix B Table 4.2.1)

In bivariate analyses, those who were uninsured for all or some of the 12 months prior to HMP enrollment were more likely to report having forgone health care in the 12 months prior to enrollment than those who were insured for all 12 months (24.7% and 23.4%, respectively, vs. 10.4%). (Appendix B Table 4.2.1)

In multivariate analyses, being insured for all 12 months prior to HMP enrollment (aOR=0.31) or male (aOR=1.82 for women) made forgone care less likely in the 12 months prior to HMP enrollment (Appendix B Table 4.2.5)

Those who had **a period without health insurance prior to HMP** enrollment were more likely to report **forgone health care**.



Forgone dental care prior to HMP

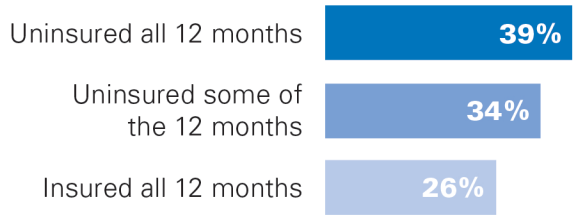
One in three new enrollees (34.7%) reported not getting the dental care they needed in the 12 months before enrolling in HMP. Among new enrollees who reported forgone dental care, the most commonly reported reasons for not getting the dental care they needed† were not having insurance coverage (64.8%) and cost (29.8%). (Appendix A Tables 5.3-5.3.1)

In bivariate analyses, there was no statistically significant relationship between new enrollees' reports of forgone dental care prior to HMP enrollment and their insurance status in the 12 months prior to HMP enrollment. (Appendix B Table 4.2.2)

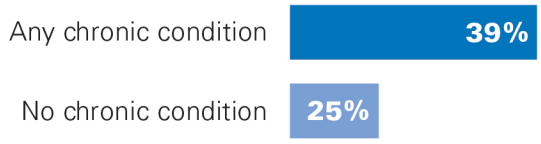
In bivariate analyses, new enrollees with chronic conditions were more likely than those without chronic conditions to have forgone dental care in the 12 months prior to HMP enrollment (38.9% vs. 26.3%). New enrollees with hypertension, diabetes, and arthritis or a related condition were more likely than new enrollees without those conditions to have forgone dental care prior to HMP enrollment. (Appendix B Table 4.2.2)

In multivariate analyses, those with a chronic condition (aOR=1.96) were more likely to have forgone dental care in the 12 months prior to HMP enrollment, while new enrollees who were insured all 12 months prior to HMP enrollment were less likely than those who were uninsured all 12 months to have forgone dental care during those 12 months (aOR=0.55). (Appendix B Table 4.2.5)

Those who had **a period without health insurance prior to HMP** enrollment were more likely to report **forgone dental care**.



Those with **chronic conditions** were more likely to report **forgone dental care**.



Financial consequences of health care prior to HMP

In the 12 months before enrolling in HMP, nearly one in five new enrollees (18.4%) spent over $500 out of pocket for their own medical and dental care. Hispanic enrollees and those age 35-50 years were the most likely to spend more than $500 (33.2% and 23.0%, respectively). New enrollees with chronic conditions were more likely than those without to report more than $500 in out-of-pocket costs for care prior to HMP enrollment (21.8% vs. 11.6%). New enrollees who were insured all 12 months prior to HMP enrollment were more likely than those who were uninsured for all or some of the 12 months to report out-of-pocket costs over $500 for care during those 12 months (25.1% vs. 19.4% for uninsured some of the 12 months and 14.0% for uninsured all 12 months). (Appendix A Table 5.4; Appendix B Table 4.3.1)

In the 12 months before enrolling in HMP, 44.8% of new enrollees reported having problems paying medical bills. New enrollees with chronic conditions were more likely than those without to report problems paying medical bills prior to HMP enrollment (51.0% vs. 32.3%). Of those who reported problems paying medical bills, most (72.4%) reported being contacted by a collections agency and 29.4% thought about filing for bankruptcy. New enrollees residing in Metro Detroit (40%) were the most likely and those in the UP/NW/NE (11.8%) were the least likely to report that they thought about filing for bankruptcy if they reported problems paying medical bills. Of those who thought about filing for bankruptcy, 11.5% filed for bankruptcy. (Appendix A Tables 5.5-5.5.2; Appendix B Table 4.3.2)

Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

Health risk assessment

New enrollees were asked how they completed the first section of the HRA and most commonly reported that they filled it out themselves (39.6%). Other responses included: completing it on the phone at the time of enrollment (17.0%) and completing it with a doctor or another person in an office or clinic (16.1%). About one in ten new enrollees (9.8%) could not remember how they completed the first section of the HRA and 17.4% said they had not completed it. (Appendix A Table 6.1)

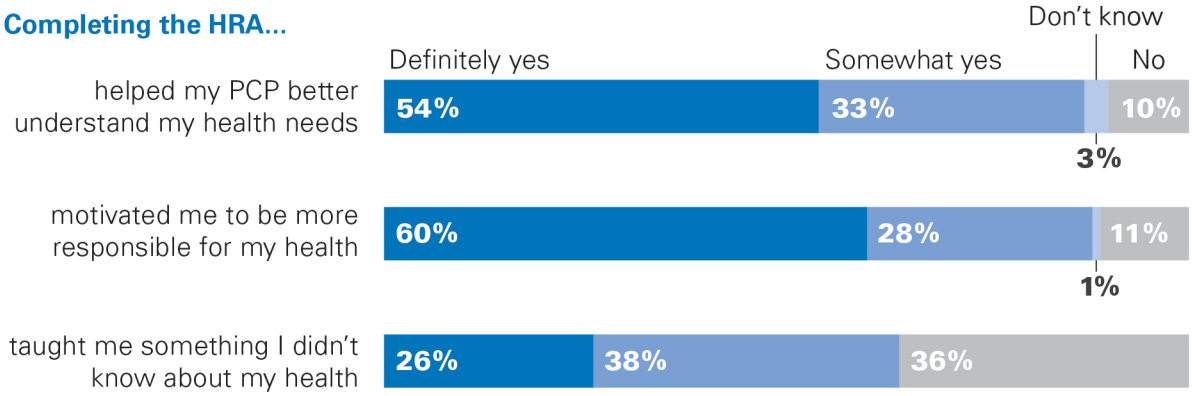
Among new enrollees who completed the first section of the HRA, 48.7% said they discussed the HRA with their doctor or someone at their primary care provider's office. Among those who discussed the HRA with their doctor or someone at their primary care provider's office, 85.9% chose to work on at least one health behavior. The most common behaviors† that new enrollees chose to work on were related to nutrition/diet (35.3%), exercise/activity (29.9%), and reducing/quitting tobacco use (20.3%). New enrollees were asked why they chose the healthy behavior they did and were able to provide multiple reasons.

- Among those who chose to work on nutrition/diet, 51.4% said they chose this behavior because it was something that they wanted to do anyway, 31.4% chose it because it would help them improve their condition, and 23.8% chose it because the doctor suggested it.
- Among those who chose to work on exercise/activity, 75.8% said they chose this behavior because it was something that they wanted to do anyway, 15.5% chose it because the doctor suggested it, and 8.5% chose it because it would help them improve their condition.
- Among those who chose to work on reducing/quitting tobacco use, 65.5% said they chose this behavior because it was something that they wanted to do anyway, 38.2% chose it because the doctor suggested it, and 10.0% chose it because it would help them improve their condition. (Appendix A Tables 6.2-6.2.2)

Among new enrollees who discussed the HRA with their doctor or someone at their primary care provider's office:

- 63.9% reported that completing the HRA taught them something they did not know about their health. Men and those who were Black or Hispanic were more likely to say the HRA taught them something about their health.
- 87.1% reported that completing the HRA helped their PCP better understand their health needs.
- 87.9% reported that completing the HRA motivated them to be more responsible for their health. (Appendix A Tables 6.3-6.5)

Many new enrollees who completed the HRA found it **helpful**.



Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Not applicable to the new enrollee survey.

Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Not applicable to the new enrollee survey.

Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

Insurance status prior to HMP

Close to half of new enrollees (47.9%) were uninsured for all 12 months prior to HMP enrollment, 24.2% were uninsured for some of the 12 months, and 27.9% were insured for all 12 months prior to HMP enrollment. There were no statistically significant relationships between new enrollees' insurance status in the 12 months prior to HMP enrollment and their FPL or employment status. (Appendix A Table 9.1; Appendix B Table 8.1.2)

In multivariate analyses, adjusted for gender, age, race/ethnicity, FPL, health status, and number of chronic conditions, new enrollees were more likely than enrollees surveyed in 2016, who had been enrolled for at least one year, to have had health insurance at some time during the 12 months prior to enrollment (aOR=1.78). (Appendix B Table 8.1.1)

Among new enrollees who were uninsured for some or all 12 months prior to HMP enrollment, the most commonly reported reasons why they were without insurance† included: not having a job (30.2%), it was too expensive (non-specific) (24.3%), their job does not offer insurance (13.2%), and other reasons (14.3%) that commonly included personal life changes such as moving across states, aging off of parent's policy, divorce, imprisonment, etc. (Appendix A Table 9.4)

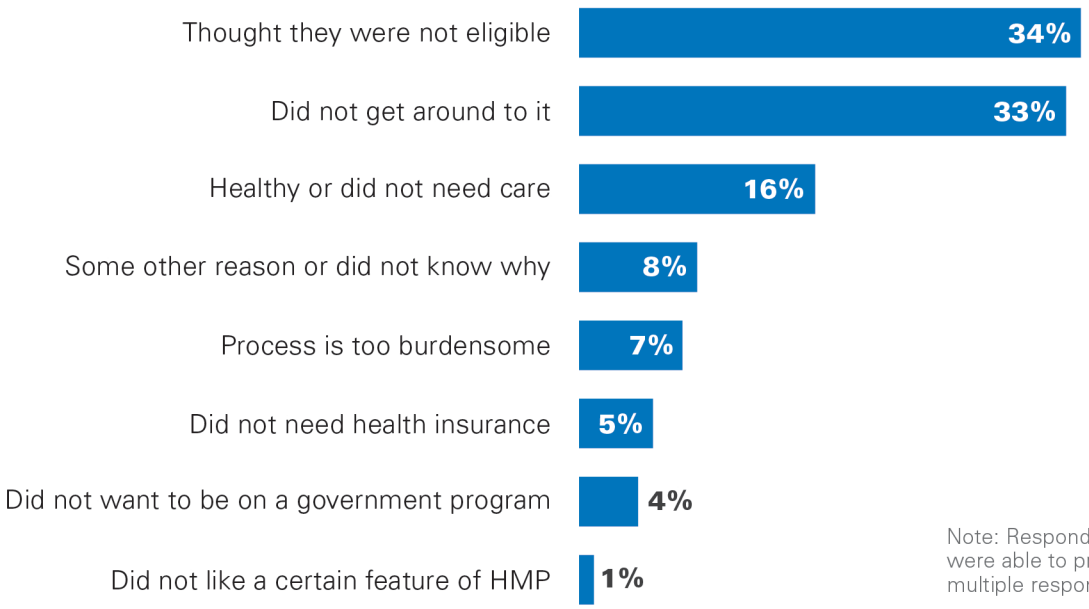
In multivariate analyses controlling for demographics, new enrollees were more likely to be uninsured for all 12 months prior to enrollment if they reported they were without insurance because insurance is too expensive (non-specific), they had problems reapplying for Medicaid, or they did not get around to it. (Appendix B Table 8.1.5)

Reasons for not applying to HMP

Among new enrollees who reported being without insurance for two months or more in the 12 months prior to enrollment, 32.3% said there was a time when they knew about HMP but did not apply. There were no statistically significant relationships between new enrollees' saying there was a time when they knew about HMP but did not apply while they were uninsured and their health literacy, housing insecurity, experience of homelessness, or number of chronic conditions. (Appendix A Table 9.5; Appendix B Table 8.2.1)

The most commonly reported reasons for not applying† included: thinking they were not eligible (33.7%), did not get around to it (33.2%), and because they were healthy or did not need care (16.3%). Fewer new enrollees said the process was too burdensome (7.4%), they did not need health insurance (4.6%), did not want to be on a government program (3.5%), or some other reason or they did not know why (8.4%). Very few new enrollees (1.0%) said the reason they did not apply was because they did not like a certain feature of HMP. There were no statistically significant relationships between reasons new enrollees provided for not applying and their health literacy, housing insecurity, experience of homelessness, or number of chronic conditions. (Appendix A Table 9.5.1; Appendix B Tables 8.2.2-8.2.3)

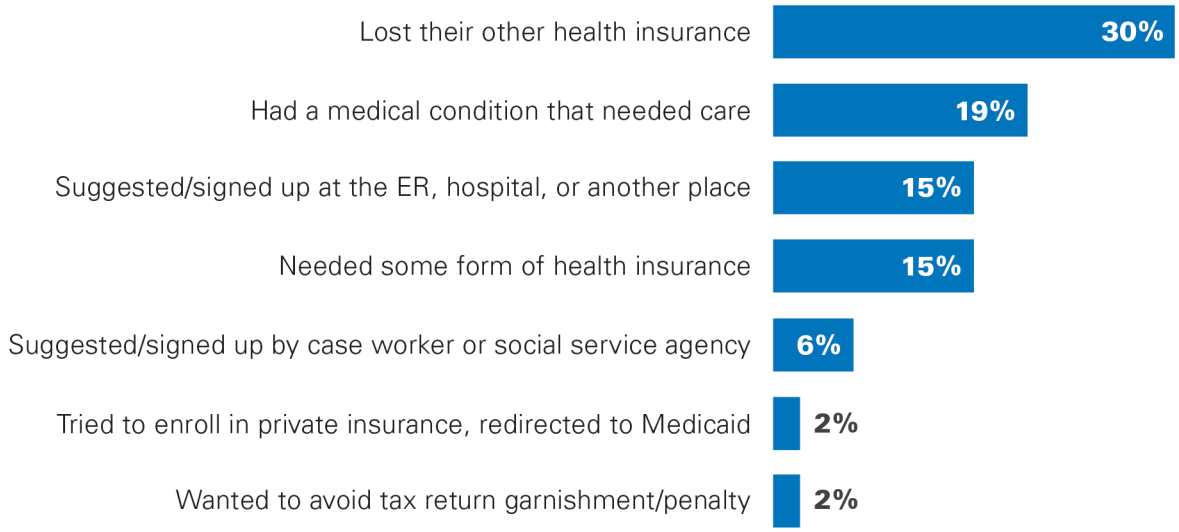
The most commonly reported reasons new enrollees gave for not previously applying for HMP were they **thought they were not eligible** and **did not get around to it**.



Applying for HMP

New enrollees reported applying for HMP because† they lost their other health insurance (29.6%); had a medical condition that needed care (19.2%); it was suggested and/or they were signed up at the ER, hospital, or another place (15.2%); they needed some form of health insurance (15.0%); or for other reasons (21.5%). (Appendix A Table 9.6)

New enrollees most commonly reported applying for HMP because they **lost their other health insurance**.



Note: Respondents were able to provide multiple responses. In addition to the responses above, 22% reported other reasons and 1% reported that they didn't know.

New enrollees were less likely to report applying for HMP due to losing other health insurance if they were homeless (16.2% vs. 31.8%), or if they were uninsured all 12 months prior to HMP (2.7% of those uninsured all 12 months vs. 45.5% of those uninsured some of the 12 months, and 62.3% of those insured all 12 months). New enrollees were more likely to report applying for HMP due to losing other health insurance if they had diabetes (44.9% vs. 28.5%) or if they had arthritis or a similar condition (38.6% vs. 27.3%). (Appendix B Table 8.3.1)

New enrollees were more likely to report applying for HMP because they had a medical condition that needed care if they had two or more chronic conditions (26.3% vs. 14.2% for one chronic condition and 14.1% for none) or had one of several chronic conditions: heart disease (37.6% vs. 17.7%), diabetes (38.8% vs. 17.5%), a mood disorder (28.2% vs. 15.1%), or a substance use disorder (52.3% vs. 17.3%). (Appendix B Table 8.3.2)

New enrollees were also more likely to report applying for HMP because they had a medical condition that needed care if they had difficulty with health literacy (34.7% vs. 16.1%) and were uninsured all 12 months prior to HMP (24.2% vs. 18.4% of those insured some of past 12 months, and 11.5% of those insured all of past 12 months). (Appendix B Table 8.3.2)

New enrollees were more likely to report being signed up for HMP or suggested to enroll in HMP by the ER or hospital if they were uninsured all 12 months prior to HMP (22.2% vs. 14.2% of those uninsured some of the 12 months and 3.9% of those insured all 12 months). (Appendix B Table 8.3.3)

New enrollees were more likely to report applying to HMP due to needing some form of health insurance if they were uninsured for some or all 12 months prior to HMP (18.9% of those uninsured all 12 months, 17.2% of those uninsured some of the 12 months, and 5.8% of those insured all 12 months). (Appendix B Table 8.3.5)

We examined reasons for HMP enrollment for two distinct ages due to thresholds for eligibility (19 years of age) or loss of other health insurance (26 years of age). There were no statistically significant differences between new enrollees near these ages (19-21 and 26-28 years) compared to other ages in whether they specify having lost other insurance or needing some form of health insurance as a reason for enrollment. (Appendix B Tables 8.3.8-8.3.9)

Few new enrollees (4.9%) reported that they had problems with the HMP application and enrollment process. Among new enrollees who reported having a problem with the HMP application and enrollment process, the most commonly reported problems[†] included: difficulty completing enrollment materials, administrative problems related to case worker, and eligibility or administrative errors. (Appendix A Tables 9.7- 9.7.1)

About half of new enrollees (45.2%) said they tried to keep their existing doctor or clinic when they chose their health plan and primary care provider; new enrollees age 19-34 and men were less likely to report this. Among new enrollees who tried to keep their existing doctor or clinic, 82.0% said they were able to do so. Those who were Black or Hispanic, those with incomes 100-133% FPL, and those in the Detroit Metro region were less likely to say they were able to keep their doctor or clinic. Among new enrollees who were not able to keep their existing doctor or clinic, 66.2% said it was because their doctor or clinic does not accept Medicaid, and 31.0% said it was for some other reason. (Appendix A Tables 9.8-9.8.1.1)

Limitations

As with any survey, HMV responses may be biased by social desirability. While the survey was available in three languages, it was not available in all languages spoken by enrollees; however, only 2 sampled enrollees were deemed ineligible for this reason. While many measures were based on those used in large national surveys, some questions were newly developed specifically to assess new enrollees' perspectives on key features of HMP, their early experiences with the program, reasons for not applying before, and reasons for enrolling. In addition, this survey was cross-sectional; longitudinal follow-up surveys are underway in 2018.

Bivariate analyses should be interpreted with caution as they may identify relationships between variables that are due to confounding and small sample sizes may limit the ability to detect relationships.

Lessons Learned

Several lessons were learned in the process of conducting outreach to new enrollees for participation in this survey:

In the 2016 *Healthy Michigan Voices* Enrollee Survey, many early respondents offered descriptions and anecdotes not captured by fixed-choice or brief response items used with the computer-assisted telephone interviewing system. For subsequent survey waves, including the 2017 new enrollee survey, enrollees were asked if their interview could be recorded and nearly all agreed. These recordings provided additional details about the new enrollee experience in a more open-ended fashion.

For new enrollees who were challenging to reach by phone within 2-3 weeks, we queried the MDHHS data warehouse to look for updated contact information; in some cases this process identified individuals who were no longer enrolled in HMP, a change since sample selection, and thus were no longer eligible for the survey.

Enrollees who completed the survey were mailed a gift card to compensate them for their time answering the survey questions. Initially, the gift card envelope included the standard gift card vendor insert – two dense pages of small print and technical language. After receiving numerous calls to report problems using the gift card, we added a brief "How to Use Your Gift Card" summary with bullet points in simple language. The same message in Spanish or Arabic was added to the summary for enrollees who completed the survey in those languages. This addressed some issues that arose during the initial 2016 enrollee survey where some respondents had questions or issues using the gift card they received for participation in the survey.

Conclusions

Prior to enrolling in HMP, many new enrollees lacked health insurance coverage and experienced difficulties paying for and getting the care they needed. Nearly three in four had a period without health insurance in the 12 months prior to HMP enrollment, most often because they did not have a job, they had a job that did not offer health insurance, health insurance was too expensive, or because of personal life changes. Nearly half reported having problems paying medical bills before HMP and most of those had been contacted by a collections agency. One in five new enrollees reported not getting the health care they needed in the 12 months before enrolling in HMP, usually because of cost. New enrollees with chronic conditions were more likely than those without to report problems paying medical bills and to have forgone dental care prior to HMP enrollment.

Additionally, only one in three new enrollees felt their health was excellent or very good, and two in three reported having a chronic condition. Many had housing instability, including homelessness, and/or challenges related to health literacy. Most new enrollees who reported being unable to work said it was due to poor health or disability. New enrollees over 50 were less likely than younger enrollees to be employed.

Just one in three new enrollees who lacked insurance before enrollment reported there being a time when they knew about HMP but did not apply, indicating that an important obstacle for those who may be eligible but not enrolled is a lack of awareness of HMP. Since a third of those who were aware of HMP thought they would not be eligible for the program, a misunderstanding of the eligibility requirements for HMP is another common barrier to enrollment.

New enrollees' stated reasons for enrolling in HMP varied. The most common reasons were losing other health insurance, having a medical condition that needed care, and enrollment being suggested or facilitated by an ER, hospital, or another place. New enrollees reported few, if any, challenges during the application and enrollment process. More than four in five of those who tried to keep their existing doctor or clinic were able to do so.

Recommendations

As noted in this report, lack of awareness of HMP and understanding of eligibility requirements were barriers to enrollment. Continued outreach and education to those who may be newly eligible for HMP could result in individuals experiencing fewer gaps in health insurance coverage. Gaps in health insurance coverage, as we saw in this survey and previous surveys, can lead to forgone care and financial problems. Outreach and education efforts should take into account the complex health and social needs (e.g. housing instability and limited health literacy) reported by many new enrollees.

Over half of new enrollees were employed, and about half of those were employed full-time. Over a third of those who were not employed said they were unable to work, often due to poor health or disability. Sufficient time should be provided to address health needs that present barriers to employment and supportive resources should be made available to those who are required to meet the workforce engagement requirements. Sufficient time should be allowed and processes should be clearly communicated to enrollees who may apply for an exemption.

New enrollees reported few, if any, challenges with the application and enrollment process. Support to individuals provided during the process of enrolling in HMP seems to contribute to a smooth enrollment experience and should be continued.

2017 Healthy Michigan Voices New Enrollee Survey
Appendix A

Contents

1 How to read the tables

1.1 Question asked for the corresponding table will be shown here

Universe: The 'universe' tells you which respondents answered the question.

	Variable of Interest								
	Response Option 1		**Response Option 2**		**Response Option 3**		**Response Option 4**		**Total Column**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category									
0-35% (n=772)	2.3	[1.3, 4.0]	12.0	[9.4, 15.2]	84.4	[80.9, 87.4]	1.2	[0.5, 3.1]	100.0
36-99% (n=641)	2.4	[1.4, 4.0]	8.8	[6.1, 12.4]	88.3	[84.6, 91.2]	0.5	[0.2, 1.3]	100.0
$\geq$ 100%($n = 456$)	3.9	[2.1, 6.9]	8.9	[6.4, 12.3]	86.9	[82.9, 90.1]	0.3	[0.0, 2.3]	100.0
Pearson: Uncorrected chi2(6) =	11.0315								
Design-based F(5.68, 10542.54) =	1.4657	Pr =	0.189						
Region									
UP/NW/NE (n=354)	3.8	[2.1, 6.8]	10.8	[7.7, 14.9]	84.6	[79.9, 88.4]	0.8	[0.3, 2.8]	100.0
W/E Central/E (n=564)	1.8	[1.0, 3.4]	9.0	[6.5, 12.3]	88.6	[85.1, 91.3]	0.6	[0.2, 1.9]	100.0
S Central/SW/SE (n=407)	2.9	[1.3, 6.2]	8.3	[5.8, 11.9]	87.6	[83.3, 91.0]	1.1	[0.4, 3.6]	100.0
Detroit Metro (n=544)	2.8	[1.6, 4.7]	12.6	[9.4, 16.6]	83.7	[79.4, 87.3]	0.9	[0.2, 3.6]	100.0
Pearson: Uncorrected chi2(9) =	10.0786								
Design-based F(7.48, 13888.33) =	0.8540	Pr =	0.549						
Total (n=1,869)	2.6	[1.9, 3.7]	10.6	[8.9, 12.6]	85.9	[83.7, 87.9]	0.9	[0.4, 1.8]	100.0

[1] Each table will show a variable of interest and the response options at the top. Where 'Variable of Interest' is currently, the variable name or description will replace it and the 'Response Option' will be replaced with the response options for that question. The variable of interest is analyzed in a cross-tabulation format against other variables. These variables are on the left side of the table. The name of the variable is in bold on top of the categories that correspond to that variable. Each variable on the left side of the table is separated by horizontal black lines. The statistical analysis information is between two variables; the analysis information corresponds to the variable above it.

[2] 'Row%' is the weighted percentage of respondents that answered that response option in the survey. The '95%CI' is the range of values that one can be 95% confident contains the true value. The 'Total Column' shows that the row adds up to 100%. The value in 'Pr= value' indicates if there is a significant relationship between the two variables. If 'value' is less than 0.05, it can be interpreted that there is a significant relationship between the two variables.

[3] The 'Total' row is at the bottom of the table. This row displays the weighted proportions for the population as a whole.

[4] Some questions have greater or fewer response options than the table presented here.

2 Demographics Tables

2.1 Main Demographics Table

Universe: All respondents (n = 607)

	Weighted Proportion	95%CI
FPL category		
0-35% (n=239)	70.2	[69.0, 71.3]
36-99% (n=192)	17.1	[16.3, 18.0]
100%+ (n=176)	12.7	[12.0, 13.5]
Region		
UP/NW/NE (n=95)	9.6	[8.6, 10.7]
W/E Central/E (n=163)	27.9	[26.6, 29.3]
S Central/SW/SE (n=151)	22.0	[20.6, 23.5]
Detroit Metro (n=198)	40.5	[39.1, 41.9]
Age		
19-34 (n=220)	41.4	[36.7, 46.3]
35-50 (n=178)	30.4	[26.1, 35.1]
51-64 (n=209)	28.2	[24.3, 32.4]
Gender		
Male (n=326)	62.6	[58.0, 67.0]
Female (n=281)	37.4	[33.0, 42.0]
Race/ethnicity		
White, non-Hispanic (n=401)	61.7	[57.0, 66.2]
Black, non-Hispanic (n=114)	23.2	[19.5, 27.4]
Hispanic (n=33)	6.5	[4.3, 9.7]
Other, non-Hispanic (n=54)	8.5	[6.2, 11.7]
Race		
White (n=408)	63.2	[58.5, 67.6]
Black (n=114)	23.2	[19.5, 27.4]
Other (n=53)	9.2	[6.7, 12.4]
More than one (n=26)	4.4	[2.7, 7.2]
Hispanic/Latino		
Yes (n=33)	6.5	[4.3, 9.6]
No (n=567)	93.1	[90.0, 95.4]
Don't know (n=2)	0.4	[0.1, 1.7]
Arab/Chaldean/Middle Eastern		
Yes (n=22)	3.8	[2.3, 6.2]
No (n=581)	96.2	[93.8, 97.7]
Urbanicity		
Urban (n=456)	81.4	[78.5, 84.0]
Suburban (n=50)	7.7	[5.6, 10.4]
Rural (n=101)	10.9	[9.3, 12.6]
Highest level of education		
Less than high school (n=66)	12.7	[9.6, 16.4]
High school graduate (n=225)	37.6	[33.0, 42.4]
Some college (n=138)	22.8	[19.0, 27.2]
Associate's degree (n=94)	12.6	[9.9, 15.9]
Bachelor's degree (n=66)	11.1	[8.4, 14.5]
Post graduate degree (n=17)	3.2	[1.9, 5.5]
Employed/self-employed		
Yes (n=364)	55.1	[50.2, 59.9]
No (n=241)	44.9	[40.1, 49.8]
Employment status–detailed		
Full-time employment (n=182)	29.0	[24.7, 33.6]
Part-time employment (n=176)	26.0	[22.0, 30.4]
Out of work (n=101)	22.7	[18.7, 27.4]
Unable to work (n=98)	16.5	[13.3, 20.4]
Retired (n=18)	2.7	[1.6, 4.6]
Not looking for work at this time (n=21)	3.1	[1.9, 5.0]
In school		
Yes (n=53)	8.1	[5.9, 11.1]
No (n=554)	91.9	[88.9, 94.1]

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Veteran		
Yes (n=32)	5.6	[3.7, 8.4]
No (n=573)	94.4	[91.6, 96.3]
Marital status		
Married (n=147)	17.3	[14.4, 20.7]
Divorced (n=121)	18.3	[15.0, 22.1]
Widowed (n=19)	2.5	[1.4, 4.4]
Separated (n=18)	3.1	[1.7, 5.4]
Partnered (n=23)	3.1	[1.9, 4.9]
Never married (n=274)	55.7	[50.9, 60.4]
Other HMP enrollee in household		
Yes (n=203)	27.8	[23.8, 32.2]
No (n=378)	66.2	[61.6, 70.6]
Don't know (n=25)	6.0	[3.9, 9.0]
Number of places lived in past 3 years		
One (n=293)	45.9	[41.1, 50.8]
Two (n=188)	31.8	[27.4, 36.5]
Three (n=73)	13.0	[10.0, 16.7]
Four or more (n=48)	8.8	[6.3, 12.0]
Don't know (n=4)	0.6	[0.2, 1.6]
Homeless in the last 12 months		
Yes (n=63)	13.4	[10.3, 17.3]
No (n=542)	86.6	[82.7, 89.7]
Need help reading written materials		
Never (n=422)	68.2	[63.4, 72.6]
Rarely (n=86)	15.5	[12.1, 19.5]
Sometimes (n=51)	8.3	[6.1, 11.3]
Often (n=24)	4.0	[2.5, 6.3]
Always (n=23)	4.1	[2.5, 6.5]

2.2 Q: What is the highest grade of school you have completed, or the highest degree you have received?

Universe: All respondents

	Highest level of education						
	High school or less		**Associate's degree/some college**		**Bachelor's/post graduate degree**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	52.8	[44.9,60.5]	34.3	[27.5,41.9]	12.9	[8.7,18.9]	100.0
35-50 (n=178)	46.7	[37.9,55.6]	35.8	[27.7,44.8]	17.5	[11.6,25.6]	100.0
51-64 (n=208)	50.3	[42.1,58.5]	36.7	[29.2,44.9]	13.0	[8.3,19.8]	100.0
Pearson: Uncorrected chi2(4) =	2.8384						
Design-based F(3.97, 2359.58) =	0.4988	Pr =	0.735				
Gender							
Male (n=326)	58.3	[51.8,64.4]	28.3	[22.9,34.3]	13.5	[9.7,18.4]	100.0
Female (n=280)	36.7	[30.2,43.8]	47.5	[40.4,54.7]	15.8	[11.1,22.0]	100.0
Pearson: Uncorrected chi2(2) =	28.3857						
Design-based F(2.00, 1187.07) =	10.3610	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=401)	47.5	[41.5,53.5]	34.4	[28.9,40.2]	18.2	[13.9,23.4]	100.0
Black, non-Hispanic (n=113)	50.4	[39.9,61.0]	40.4	[30.6,50.9]	9.2	[4.6,17.6]	100.0
Hispanic (n=33)	62.4	[42.0,79.2]	32.1	[16.3,53.4]	5.5	[2.5,11.7]	100.0
Other, non-Hispanic (n=54)	59.8	[43.5,74.2]	31.4	[18.6,47.9]	8.8	[3.3,21.4]	100.0
Pearson: Uncorrected chi2(6) =	13.6105						
Design-based F(5.36, 3155.83) =	1.7170	Pr =	0.122				
FPL category							
0-35% (n=239)	52.0	[45.4,58.6]	32.8	[27.0,39.3]	15.1	[11.0,20.4]	100.0
36-99% (n=191)	45.6	[38.8,52.7]	41.6	[34.8,48.6]	12.8	[8.9,18.0]	100.0
100%+ (n=176)	46.3	[39.1,53.6]	41.7	[34.6,49.1]	12.1	[8.1,17.5]	100.0
Pearson: Uncorrected chi2(4) =	4.3415						
Design-based F(3.61, 2143.57) =	1.6185	Pr =	0.173				
Region							
UP/NW/NE (n=95)	50.1	[37.3,62.9]	37.7	[25.9,51.1]	12.2	[6.0,23.3]	100.0
W/E Central/E (n=162)	55.0	[45.8,63.9]	32.6	[24.8,41.5]	12.4	[7.3,20.2]	100.0
S Central/SW/SE (n=151)	44.7	[35.1,54.7]	38.5	[29.3,48.5]	16.8	[11.2,24.5]	100.0
Detroit Metro (n=198)	49.9	[41.8,58.0]	35.2	[28.0,43.1]	14.8	[9.9,21.7]	100.0
Pearson: Uncorrected chi2(6) =	3.6494						
Design-based F(5.82, 3455.66) =	0.4562	Pr =	0.836				
Total (n=606)	50.2	[45.3,55.1]	35.4	[31.0,40.2]	14.3	[11.3,18.1]	100.0

2.3 Q: Are you currently employed or self-employed?

Universe: All respondents

	Employed/self-employed				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=219)	64.3	[56.1,71.8]	35.7	[28.2,43.9]	100.0
35-50 (n=178)	58.8	[49.8,67.3]	41.2	[32.7,50.2]	100.0
51-64 (n=208)	37.5	[30.0,45.6]	62.5	[54.4,70.0]	100.0
Pearson: Uncorrected chi2(2) =	30.9683				
Design-based F(1.97, 1170.04) =	10.4972	Pr =	0.000		
Gender					
Male (n=326)	57.6	[51.1,63.8]	42.4	[36.2,48.9]	100.0
Female (n=279)	50.9	[43.7,58.0]	49.1	[42.0,56.3]	100.0
Pearson: Uncorrected chi2(1) =	2.5412				
Design-based F(1.00, 593.00) =	1.8247	Pr =	0.177		
Race/ethnicity					
White, non-Hispanic (n=400)	52.8	[46.9,58.8]	47.2	[41.2,53.1]	100.0
Black, non-Hispanic (n=114)	64.0	[53.3,73.4]	36.0	[26.6,46.7]	100.0
Hispanic (n=33)	58.1	[37.7,76.1]	41.9	[23.9,62.3]	100.0
Other, non-Hispanic (n=53)	43.0	[28.2,59.3]	57.0	[40.7,71.8]	100.0
Pearson: Uncorrected chi2(3) =	8.3303				
Design-based F(2.98, 1751.02) =	1.7920	Pr =	0.147		
FPL category					
0-35% (n=237)	47.4	[40.8,54.1]	52.6	[45.9,59.2]	100.0
36-99% (n=192)	67.5	[60.8,73.6]	32.5	[26.4,39.2]	100.0
100%+ (n=176)	80.5	[74.4,85.4]	19.5	[14.6,25.6]	100.0
Pearson: Uncorrected chi2(2) =	36.8826				
Design-based F(1.80, 1069.67) =	28.9887	Pr =	0.000		
Region					
UP/NW/NE (n=95)	53.3	[40.7,65.5]	46.7	[34.5,59.3]	100.0
W/E Central/E (n=162)	56.8	[47.7,65.5]	43.2	[34.5,52.3]	100.0
S Central/SW/SE (n=151)	56.5	[46.7,65.8]	43.5	[34.2,53.3]	100.0
Detroit Metro (n=197)	53.6	[45.4,61.6]	46.4	[38.4,54.6]	100.0
Pearson: Uncorrected chi2(3) =	0.6040				
Design-based F(2.92, 1729.18) =	0.1523	Pr =	0.924		
Total (n=605)	55.1	[50.2,59.9]	44.9	[40.1,49.8]	100.0

2.3.1 Q: Are you working full-time or part-time?

Universe: Respondents who are employed (n = 358)

	Employment status				
	Full-time		**Part-time**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=157)	63.7	[54.3,72.2]	36.3	[27.8,45.7]	100.0
35-50 (n=111)	53.4	[42.0,64.4]	46.6	[35.6,58.0]	100.0
51-64 (n=90)	23.7	[15.1,35.0]	76.3	[65.0,84.9]	100.0
Pearson: Uncorrected chi2(2) =	31.8244				
Design-based F(1.94, 672.67) =	12.0771	Pr =	0.000		
Gender					
Male (n=204)	55.8	[47.3,63.8]	44.2	[36.2,52.7]	100.0
Female (n=154)	46.9	[37.0,57.1]	53.1	[42.9,63.0]	100.0
Pearson: Uncorrected chi2(1) =	2.5472				
Design-based F(1.00, 346.00) =	1.7692	Pr =	0.184		
Race/ethnicity					
White, non-Hispanic (n=233)	53.8	[45.7,61.7]	46.2	[38.3,54.3]	100.0
Black, non-Hispanic (n=76)	39.4	[27.2,52.9]	60.6	[47.1,72.8]	100.0
Hispanic (n=16)	81.5	[54.9,94.1]	18.5	[5.9,45.1]	100.0
Other, non-Hispanic (n=31)	64.6	[43.9,81.0]	35.4	[19.0,56.1]	100.0
Pearson: Uncorrected chi2(3) =	16.3637				
Design-based F(2.88, 990.38) =	3.8449	Pr =	0.010		
FPL category					
0-35% (n=101)	51.7	[41.7,61.6]	48.3	[38.4,58.3]	100.0
36-99% (n=122)	47.6	[39.0,56.5]	52.4	[43.5,61.0]	100.0
100%+ (n=135)	61.5	[53.1,69.2]	38.5	[30.8,46.9]	100.0
Pearson: Uncorrected chi2(2) =	2.9291				
Design-based F(1.74, 600.58) =	1.6669	Pr =	0.193		
Region					
UP/NW/NE (n=57)	63.2	[47.9,76.2]	36.8	[23.8,52.1]	100.0
W/E Central/E (n=100)	56.0	[43.8,67.5]	44.0	[32.5,56.2]	100.0
S Central/SW/SE (n=93)	52.4	[39.4,65.1]	47.6	[34.9,60.6]	100.0
Detroit Metro (n=108)	48.0	[36.9,59.2]	52.0	[40.8,63.1]	100.0
Pearson: Uncorrected chi2(3) =	3.2002				
Design-based F(2.80, 967.59) =	0.7885	Pr =	0.493		
Total (n=358)	52.7	[46.2,59.1]	47.3	[40.9,53.8]	100.0

2.4 Q: Are you out of work, unable to work, retired, or not looking for work at this time?

Universe: Respondents who are not employed (n = 238)

	Unemployed status								
	Out of work		**Unable to work**		**Retired**		**Not looking for work at this time**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=61)	69.7	[56.0,80.7]	14.9	[7.4,27.7]	0.0		15.3	[8.3,26.5]	100.0
35-50 (n=62)	57.7	[43.3,71.0]	40.4	[27.4,54.9]	0.0		1.9	[0.7,5.2]	100.0
51-64 (n=115)	29.0	[20.2,39.8]	52.4	[41.7,62.9]	15.2	[9.0,24.6]	3.3	[1.3,8.0]	100.0
Pearson: Uncorrected chi2(6) =	66.0694								
Design-based F(5.22, 1178.90) =	9.8878	Pr =	0.000						
Gender									
Male (n=117)	55.5	[45.3,65.3]	37.0	[27.8,47.2]	5.8	[2.8,11.6]	1.7	[0.5,6.0]	100.0
Female (n=121)	43.0	[32.9,53.7]	36.3	[27.0,46.6]	6.3	[2.8,13.6]	14.5	[8.7,23.0]	100.0
Pearson: Uncorrected chi2(3) =	15.3686								
Design-based F(2.97, 671.77) =	4.4937	Pr =	0.004						
Race/ethnicity									
White, non-Hispanic (n=161)	45.8	[36.8,55.1]	38.2	[30.0,47.2]	7.7	[4.3,13.3]	8.4	[4.9,14.0]	100.0
Black, non-Hispanic (n=37)	66.5	[48.6,80.6]	31.0	[17.3,49.1]	0.7	[0.1,4.1]	1.8	[0.5,6.5]	100.0
Hispanic (n=16)	71.8	[41.6,90.1]	12.9	[3.9,35.2]	13.0	[1.9,53.3]	2.3	[0.4,12.9]	100.0
Other, non-Hispanic (n=22)	37.3	[17.3,62.7]	52.0	[28.6,74.5]	1.0	[0.2,6.4]	9.7	[2.2,33.7]	100.0
Pearson: Uncorrected chi2(9) =	17.1643								
Design-based F(6.30, 1410.11) =	2.1557	Pr =	0.042						
FPL category									
0-35% (n=133)	52.0	[43.3,60.6]	35.9	[28.0,44.6]	6.2	[3.3,11.3]	5.9	[3.1,10.9]	100.0
36-99% (n=67)	41.3	[29.8,53.7]	44.9	[33.4,57.0]	4.3	[1.7,10.4]	9.6	[4.5,19.2]	100.0
100%+ (n=38)	48.6	[33.3,64.1]	29.7	[18.7,43.9]	6.2	[2.1,16.4]	15.5	[6.5,32.7]	100.0
Pearson: Uncorrected chi2(6) =	3.5232								
Design-based F(5.36, 1210.44) =	1.3083	Pr =	0.255						
Region									
UP/NW/NE (n=37)	36.2	[19.4,57.2]	44.3	[26.1,64.2]	9.4	[3.3,24.1]	10.1	[2.5,32.7]	100.0
W/E Central/E (n=61)	40.1	[26.7,55.1]	44.7	[31.0,59.2]	9.8	[3.9,22.3]	5.4	[1.8,15.0]	100.0
S Central/SW/SE (n=55)	53.8	[38.6,68.4]	29.7	[18.6,43.8]	3.2	[0.8,11.9]	13.3	[6.4,25.6]	100.0
Detroit Metro (n=85)	58.9	[46.8,70.0]	33.2	[23.0,45.3]	4.1	[1.5,11.0]	3.8	[1.4,10.2]	100.0
Pearson: Uncorrected chi2(9) =	14.5732								
Design-based F(8.65, 1954.06) =	1.4790	Pr =	0.153						
Total (n=238)	50.5	[43.1,57.8]	36.7	[30.0,44.0]	6.0	[3.5,10.1]	6.9	[4.3,10.9]	100.0

2.4.1 Q: How long have you been [out of work/unable to work/retired]?

Universe: Respondents who are not employed (n = 238)

	Unemployed length of time				
	Less than one year		One year or more		Total
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=61)	70.5	[55.8,81.9]	29.5	[18.1,44.2]	100.0
35-50 (n=62)	59.6	[44.6,72.9]	40.4	[27.1,55.4]	100.0
51-64 (n=115)	56.1	[45.3,66.3]	43.9	[33.7,54.7]	100.0
Pearson: Uncorrected chi2(2) =	3.9430				
Design-based F(1.97, 445.62) =	1.3530	Pr =	0.259		
Gender					
Male (n=117)	59.0	[48.5,68.8]	41.0	[31.2,51.5]	100.0
Female (n=121)	65.9	[55.5,75.0]	34.1	[25.0,44.5]	100.0
Pearson: Uncorrected chi2(1) =	1.1591				
Design-based F(1.00, 226.00) =	0.9106	Pr =	0.341		
Race/ethnicity					
White, non-Hispanic (n=161)	59.6	[50.3,68.3]	40.4	[31.7,49.7]	100.0
Black, non-Hispanic (n=37)	66.1	[46.9,81.2]	33.9	[18.8,53.1]	100.0
Hispanic (n=16)	66.0	[34.4,87.8]	34.0	[12.2,65.6]	100.0
Other, non-Hispanic (n=22)	63.2	[38.6,82.5]	36.8	[17.5,61.4]	100.0
Pearson: Uncorrected chi2(3) =	0.7754				
Design-based F(3.00, 671.04) =	0.1732	Pr =	0.914		
FPL category					
0-35% (n=133)	58.7	[49.7,67.2]	41.3	[32.8,50.3]	100.0
36-99% (n=67)	72.8	[61.6,81.7]	27.2	[18.3,38.4]	100.0
100%+ (n=38)	82.7	[69.2,91.0]	17.3	[9.0,30.8]	100.0
Pearson: Uncorrected chi2(2) =	4.7057				
Design-based F(1.83, 412.68) =	5.5581	Pr =	0.005		
Region					
UP/NW/NE (n=37)	60.2	[39.9,77.5]	39.8	[22.5,60.1]	100.0
W/E Central/E (n=61)	62.0	[47.4,74.8]	38.0	[25.2,52.6]	100.0
S Central/SW/SE (n=55)	58.1	[42.1,72.6]	41.9	[27.4,57.9]	100.0
Detroit Metro (n=85)	63.9	[51.3,74.8]	36.1	[25.2,48.7]	100.0
Pearson: Uncorrected chi2(3) =	0.4984				
Design-based F(2.94, 664.92) =	0.1287	Pr =	0.941		
Total (n=238)	61.8	[54.2,68.8]	38.2	[31.2,45.8]	100.0

2.4.1.1 Q: Why are you unable to work?

Universe: Respondents who are unable to work (n = 97)

	Weighted Proportion	95%CI
Poor health (n=72)	70.1	[70.1, 70.1]
Disabled (n=15)	19.3	[19.3, 19.3]
Other (n=4)	4.3	[4.3, 4.3]
Caregiving responsibilities (n=4)	3.6	[3.6, 3.6]
Old age (n=2)	0.8	[0.8, 0.8]

2.5 Q: Are you currently in school?

Universe: All respondents

	In school				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	16.3	[11.5,22.6]	83.7	[77.4,88.5]	100.0
35-50 (n=178)	3.7	[1.5,9.0]	96.3	[91.0,98.5]	100.0
51-64 (n=209)	0.9	[0.1,5.7]	99.1	[94.3,99.9]	100.0
Pearson: Uncorrected chi2(2) =	39.3790				
Design-based F(2.00, 1188.64) =	13.4476	Pr =	0.000		
Gender					
Male (n=326)	7.4	[4.6,11.7]	92.6	[88.3,95.4]	100.0
Female (n=281)	9.4	[6.1,14.1]	90.6	[85.9,93.9]	100.0
Pearson: Uncorrected chi2(1) =	0.7348				
Design-based F(1.00, 595.00) =	0.5494	Pr =	0.459		
Race/ethnicity					
White, non-Hispanic (n=401)	8.2	[5.4,12.2]	91.8	[87.8,94.6]	100.0
Black, non-Hispanic (n=114)	8.1	[4.3,15.0]	91.9	[85.0,95.7]	100.0
Hispanic (n=33)	10.1	[2.6,32.4]	89.9	[67.6,97.4]	100.0
Other, non-Hispanic (n=54)	7.1	[2.4,19.6]	92.9	[80.4,97.6]	100.0
Pearson: Uncorrected chi2(3) =	0.2632				
Design-based F(2.88, 1696.75) =	0.0596	Pr =	0.978		
FPL category					
0-35% (n=239)	6.1	[3.4,10.5]	93.9	[89.5,96.6]	100.0
36-99% (n=192)	16.4	[11.8,22.2]	83.6	[77.8,88.2]	100.0
100%+ (n=176)	8.6	[5.0,14.3]	91.4	[85.7,95.0]	100.0
Pearson: Uncorrected chi2(2) =	11.8612				
Design-based F(1.69, 1008.22) =	6.4778	Pr =	0.003		
Region					
UP/NW/NE (n=95)	9.1	[4.0,19.3]	90.9	[80.7,96.0]	100.0
W/E Central/E (n=163)	6.4	[3.4,11.5]	93.6	[88.5,96.6]	100.0
S Central/SW/SE (n=151)	12.9	[7.4,21.5]	87.1	[78.5,92.6]	100.0
Detroit Metro (n=198)	6.5	[3.4,12.1]	93.5	[87.9,96.6]	100.0
Pearson: Uncorrected chi2(3) =	5.7023				
Design-based F(2.87, 1709.41) =	1.4809	Pr =	0.219		
Total (n=607)	8.1	[5.9,11.1]	91.9	[88.9,94.1]	100.0

2.6 Q: Are you a veteran of the US military armed forces?

Universe: All respondents

	Veteran				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	4.1	[1.6,10.1]	95.9	[89.9,98.4]	100.0
35-50 (n=176)	5.7	[2.8,11.0]	94.3	[89.0,97.2]	100.0
51-64 (n=209)	7.8	[4.4,13.4]	92.2	[86.6,95.6]	100.0
Pearson: Uncorrected chi2(2) =	2.6559				
Design-based F(1.88, 1116.46) =	0.8009	Pr =	0.443		
Gender					
Male (n=325)	7.8	[5.0,12.1]	92.2	[87.9,95.0]	100.0
Female (n=280)	1.9	[0.8,4.7]	98.1	[95.3,99.2]	100.0
Pearson: Uncorrected chi2(1) =	9.3546				
Design-based F(1.00, 593.00) =	8.9930	Pr =	0.003		
Race/ethnicity					
White, non-Hispanic (n=401)	6.8	[4.3,10.6]	93.2	[89.4,95.7]	100.0
Black, non-Hispanic (n=114)	3.5	[1.2,9.4]	96.5	[90.6,98.8]	100.0
Hispanic (n=33)	0.0		100.0		100.0
Other, non-Hispanic (n=52)	7.9	[1.5,32.7]	92.1	[67.3,98.5]	100.0
Pearson: Uncorrected chi2(3) =	4.9776				
Design-based F(2.70, 1590.38) =	0.8850	Pr =	0.439		
FPL category					
0-35% (n=238)	6.2	[3.6,10.2]	93.8	[89.8,96.4]	100.0
36-99% (n=192)	3.7	[1.9,7.0]	96.3	[93.0,98.1]	100.0
100%+ (n=175)	5.2	[2.8,9.6]	94.8	[90.4,97.2]	100.0
Pearson: Uncorrected chi2(2) =	0.9988				
Design-based F(1.85, 1095.78) =	0.8218	Pr =	0.432		
Region					
UP/NW/NE (n=95)	7.0	[2.6,17.7]	93.0	[82.3,97.4]	100.0
W/E Central/E (n=162)	4.0	[2.0,7.5]	96.0	[92.5,98.0]	100.0
S Central/SW/SE (n=151)	9.3	[4.3,19.1]	90.7	[80.9,95.7]	100.0
Detroit Metro (n=197)	4.4	[2.0,9.4]	95.6	[90.6,98.0]	100.0
Pearson: Uncorrected chi2(3) =	5.2361				
Design-based F(2.75, 1630.89) =	1.2904	Pr =	0.277		
Total (n=605)	5.6	[3.7,8.4]	94.4	[91.6,96.3]	100.0

2.7 Q: Has anyone else in your household been enrolled in the Healthy Michigan Plan?

Universe: All respondents

	Other HMP enrollee in household						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	26.4	[20.3,33.6]	65.4	[57.6,72.5]	8.2	[4.5,14.4]	100.0
35-50 (n=177)	30.7	[23.4,39.2]	64.9	[56.3,72.7]	4.4	[2.1,9.0]	100.0
51-64 (n=209)	26.8	[20.4,34.3]	68.8	[60.9,75.8]	4.4	[1.8,10.3]	100.0
Pearson: Uncorrected chi2(4) =	4.6463						
Design-based F(3.94, 2338.38) =	0.8180	Pr =	0.512				
Gender							
Male (n=325)	24.2	[19.3,29.8]	70.1	[64.1,75.5]	5.7	[3.3,9.8]	100.0
Female (n=281)	33.9	[27.6,40.9]	59.7	[52.5,66.6]	6.4	[3.4,11.7]	100.0
Pearson: Uncorrected chi2(2) =	7.2607						
Design-based F(1.97, 1170.33) =	2.4588	Pr =	0.087				
Race/ethnicity							
White, non-Hispanic (n=401)	29.5	[24.5,35.0]	64.0	[58.1,69.5]	6.5	[3.9,10.7]	100.0
Black, non-Hispanic (n=114)	19.3	[12.3,29.0]	75.7	[65.4,83.7]	5.0	[1.8,12.9]	100.0
Hispanic (n=33)	23.8	[11.9,41.9]	70.9	[51.4,84.8]	5.3	[0.8,28.6]	100.0
Other, non-Hispanic (n=53)	44.6	[29.7,60.6]	50.0	[34.2,65.8]	5.3	[1.4,18.5]	100.0
Pearson: Uncorrected chi2(6) =	14.1979						
Design-based F(5.84, 3440.00) =	1.5209	Pr =	0.169				
FPL category							
0-35% (n=239)	22.9	[17.8,28.9]	70.0	[63.7,75.7]	7.1	[4.4,11.4]	100.0
36-99% (n=192)	40.4	[33.7,47.4]	56.4	[49.3,63.2]	3.2	[1.3,7.9]	100.0
100%+ (n=175)	38.3	[31.6,45.5]	58.4	[51.1,65.4]	3.3	[1.4,7.7]	100.0
Pearson: Uncorrected chi2(4) =	19.0072						
Design-based F(3.65, 2166.87) =	6.4412	Pr =	0.000				
Region							
UP/NW/NE (n=95)	32.2	[21.7,45.0]	59.7	[46.1,71.9]	8.1	[2.1,26.4]	100.0
W/E Central/E (n=163)	30.5	[23.2,38.8]	65.5	[56.8,73.2]	4.0	[1.6,9.9]	100.0
S Central/SW/SE (n=151)	25.3	[18.2,34.1]	68.9	[59.5,76.9]	5.8	[2.5,13.1]	100.0
Detroit Metro (n=197)	26.3	[19.9,33.9]	66.9	[58.9,74.0]	6.8	[3.7,12.4]	100.0
Pearson: Uncorrected chi2(6) =	3.7054						
Design-based F(5.66, 3359.77) =	0.4133	Pr =	0.861				
Total (n=606)	27.8	[23.8,32.2]	66.2	[61.6,70.6]	6.0	[3.9,9.0]	100.0

2.8 Q: In the past 3 years, how many places have you lived for one week or longer - including where you live now?

Universe: All respondents

	Number of places lived in past 3 years										
	One		Two		Three		Four or more		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age											
19-34 (n=220)	34.6	[27.5,42.6]	38.3	[30.9,46.3]	13.3	[8.8,19.6]	12.9	[8.3,19.4]	0.9	[0.2,3.4]	100.0
35-50 (n=178)	47.0	[38.2,55.9]	30.3	[22.6,39.2]	15.5	[9.8,23.6]	6.8	[3.7,12.3]	0.5	[0.1,3.1]	100.0
51-64 (n=208)	61.5	[53.2,69.2]	23.7	[17.4,31.4]	9.9	[5.9,16.2]	4.8	[2.2,10.2]	0.1	[0.0,0.8]	100.0
Pearson: Uncorrected chi2(8) =	34.9973										
Design-based F(7.13, 4233.89) =	3.5394	Pr =	0.001								
Gender											
Male (n=325)	43.0	[36.8,49.5]	33.0	[27.1,39.4]	13.9	[10.0,19.0]	9.5	[6.3,14.2]	0.6	[0.2,2.3]	100.0
Female (n=281)	50.8	[43.6,57.9]	29.8	[23.7,36.6]	11.4	[7.4,17.3]	7.5	[4.5,12.2]	0.5	[0.1,2.2]	100.0
Pearson: Uncorrected chi2(4) =	3.6798										
Design-based F(3.84, 2282.50) =	0.7329	Pr =	0.564								
Race/ethnicity											
White, non-Hispanic (n=400)	48.0	[42.0,54.0]	31.2	[25.8,37.1]	13.2	[9.7,17.9]	7.5	[4.8,11.5]	0.1	[0.0,0.4]	100.0
Black, non-Hispanic (n=114)	45.2	[35.0,55.9]	34.0	[24.7,44.8]	8.2	[3.7,17.0]	10.9	[5.8,19.6]	1.6	[0.4,6.1]	100.0
Hispanic (n=33)	38.2	[20.5,59.8]	23.9	[11.7,42.6]	20.2	[8.0,42.3]	15.5	[5.1,38.6]	2.2	[0.4,12.5]	100.0
Other, non-Hispanic (n=54)	37.7	[24.1,53.7]	37.6	[22.9,54.9]	17.2	[7.2,35.9]	7.5	[2.6,19.9]	0.0		100.0
Pearson: Uncorrected chi2(12) =	18.0187										
Design-based F(10.60, 6246.31) =	1.0773	Pr =	0.375								
FPL category											
0-35% (n=238)	46.6	[40.1,53.2]	30.7	[24.9,37.2]	13.4	[9.5,18.6]	8.8	[5.6,13.3]	0.5	[0.1,2.1]	100.0
36-99% (n=192)	42.4	[35.7,49.3]	35.4	[29.0,42.4]	12.5	[8.6,17.8]	9.8	[6.1,15.3]	0.0		100.0
100%+ (n=176)	46.9	[39.8,54.1]	32.8	[26.2,40.1]	11.4	[7.6,16.9]	7.5	[4.4,12.5]	1.4	[0.3,5.9]	100.0
Pearson: Uncorrected chi2(8) =	3.1247										
Design-based F(7.20, 4279.50) =	0.5254	Pr =	0.821								
Region											
UP/NW/NE (n=95)	54.2	[41.1,66.7]	34.3	[22.5,48.5]	7.1	[3.5,13.8]	4.4	[2.2,8.5]	0.0		100.0
W/E Central/E (n=162)	48.3	[39.3,57.5]	27.3	[19.9,36.2]	17.1	[10.7,26.1]	7.3	[3.5,14.7]	0.0		100.0
S Central/SW/SE (n=151)	38.0	[28.9,48.0]	30.3	[21.8,40.2]	13.7	[8.9,20.7]	16.2	[9.9,25.3]	1.9	[0.5,6.4]	100.0
Detroit Metro (n=198)	46.7	[38.7,54.9]	35.0	[27.7,43.1]	11.2	[6.8,17.8]	6.8	[3.6,12.2]	0.4	[0.1,2.1]	100.0
Pearson: Uncorrected chi2(12) =	26.2225										
Design-based F(9.84, 5844.89) =	1.9366	Pr =	0.037								
Total (n=606)	45.9	[41.1,50.8]	31.8	[27.4,36.5]	13.0	[10.0,16.7]	8.8	[6.3,12.0]	0.6	[0.2,1.6]	100.0

2.9 Q: Have you been homeless at any time in the last 12 months?

Universe: All respondents

	Homeless in the last 12 months				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	14.1	[9.1,21.0]	85.9	[79.0,90.9]	100.0
35-50 (n=176)	11.1	[6.7,17.9]	88.9	[82.1,93.3]	100.0
51-64 (n=209)	14.9	[9.5,22.6]	85.1	[77.4,90.5]	100.0
Pearson: Uncorrected chi2(2) =	1.2502				
Design-based F(1.99, 1180.59) =	0.3967	Pr =	0.672		
Gender					
Male (n=325)	15.0	[10.8,20.5]	85.0	[79.5,89.2]	100.0
Female (n=280)	10.7	[6.9,16.3]	89.3	[83.7,93.1]	100.0
Pearson: Uncorrected chi2(1) =	2.2798				
Design-based F(1.00, 593.00) =	1.5680	Pr =	0.211		
Race/ethnicity					
White, non-Hispanic (n=401)	10.4	[7.1,15.0]	89.6	[85.0,92.9]	100.0
Black, non-Hispanic (n=114)	18.8	[11.6,28.8]	81.2	[71.2,88.4]	100.0
Hispanic (n=33)	17.6	[6.4,39.9]	82.4	[60.1,93.6]	100.0
Other, non-Hispanic (n=52)	18.2	[8.2,35.7]	81.8	[64.3,91.8]	100.0
Pearson: Uncorrected chi2(3) =	7.8538				
Design-based F(2.99, 1755.40) =	1.5249	Pr =	0.206		
FPL category					
0-35% (n=238)	16.0	[11.7,21.4]	84.0	[78.6,88.3]	100.0
36-99% (n=192)	7.8	[4.5,13.2]	92.2	[86.8,95.5]	100.0
100%+ (n=175)	6.8	[3.9,11.4]	93.2	[88.6,96.1]	100.0
Pearson: Uncorrected chi2(2) =	8.1171				
Design-based F(1.86, 1101.02) =	6.2031	Pr =	0.003		
Region					
UP/NW/NE (n=95)	11.0	[4.3,25.2]	89.0	[74.8,95.7]	100.0
W/E Central/E (n=162)	12.0	[6.8,20.3]	88.0	[79.7,93.2]	100.0
S Central/SW/SE (n=151)	13.5	[8.3,21.2]	86.5	[78.8,91.7]	100.0
Detroit Metro (n=197)	14.9	[9.8,22.0]	85.1	[78.0,90.2]	100.0
Pearson: Uncorrected chi2(3) =	1.0673				
Design-based F(2.95, 1749.16) =	0.2288	Pr =	0.873		
Total (n=605)	13.4	[10.3,17.3]	86.6	[82.7,89.7]	100.0

2.10 Q: How often do you need to have someone help you read instructions, pamphlets, or other written material from a doctor, pharmacy or health plan?

Universe: All respondents

	Need help reading written materials										
	Never		**Rarely**		**Sometimes**		**Often**		**Always**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age											
19-34 (n=220)	72.7	[64.9,79.3]	16.4	[11.1,23.5]	7.8	[4.5,13.2]	2.2	[0.7,6.5]	1.0	[0.3,3.3]	100.0
35-50 (n=177)	67.4	[58.4,75.3]	12.9	[7.8,20.8]	5.9	[3.1,10.8]	6.6	[3.4,12.7]	7.1	[3.5,13.8]	100.0
51-64 (n=209)	62.3	[54.0,69.9]	16.9	[11.5,24.2]	11.7	[7.3,18.4]	3.7	[1.8,7.5]	5.3	[2.6,10.6]	100.0
Pearson: Uncorrected chi2(8) =	22.4114										
Design-based F(7.71, 4577.23) =	2.0306	Pr =	0.042								
Gender											
Male (n=325)	64.1	[57.7,70.1]	18.6	[13.9,24.5]	8.1	[5.4,11.8]	4.7	[2.7,8.0]	4.5	[2.4,8.1]	100.0
Female (n=281)	74.9	[68.2,80.6]	10.2	[6.9,14.8]	8.7	[5.2,14.5]	2.8	[1.2,6.3]	3.4	[1.6,6.8]	100.0
Pearson: Uncorrected chi2(4) =	10.8324										
Design-based F(3.98, 2364.01) =	2.1294	Pr =	0.075								
Race/ethnicity											
White, non-Hispanic (n=401)	70.6	[64.8,75.9]	15.0	[11.1,20.0]	6.7	[4.3,10.4]	5.3	[3.1,8.9]	2.4	[1.1,5.3]	100.0
Black, non-Hispanic (n=114)	71.2	[60.8,79.8]	16.7	[10.0,26.4]	4.7	[1.9,11.0]	2.5	[0.9,6.5]	5.0	[1.9,12.2]	100.0
Hispanic (n=33)	62.8	[42.0,79.8]	16.4	[5.2,40.9]	14.7	[6.0,31.5]	2.5	[0.4,15.2]	3.7	[0.9,13.6]	100.0
Other, non-Hispanic (n=53)	49.0	[33.0,65.3]	10.4	[3.8,25.3]	26.0	[14.1,42.9]	0.0		14.6	[6.3,30.4]	100.0
Pearson: Uncorrected chi2(12) =	50.0114										
Design-based F(11.21, 6601.72) =	3.0274	Pr =	0.000								
FPL category											
0-35% (n=239)	66.8	[60.3,72.7]	16.6	[12.1,22.2]	7.8	[5.0,12.0]	4.4	[2.5,7.7]	4.4	[2.4,7.9]	100.0
36-99% (n=192)	68.9	[62.1,74.9]	14.2	[10.0,19.7]	9.7	[6.3,14.5]	3.4	[1.7,6.8]	3.8	[1.8,8.0]	100.0
100%+ (n=175)	74.8	[67.9,80.6]	11.1	[7.5,16.0]	9.5	[5.7,15.5]	2.3	[0.9,5.7]	2.3	[0.9,5.6]	100.0
Pearson: Uncorrected chi2(8) =	4.0809										
Design-based F(7.21, 4284.74) =	0.7879	Pr =	0.601								
Region											
UP/NW/NE (n=95)	62.8	[49.5,74.4]	18.2	[10.1,30.6]	10.3	[4.1,23.6]	5.5	[2.0,14.2]	3.2	[1.0,9.9]	100.0
W/E Central/E (n=163)	66.8	[57.6,74.9]	15.2	[9.4,23.7]	10.9	[6.3,18.0]	3.8	[1.7,8.4]	3.2	[1.3,8.2]	100.0
S Central/SW/SE (n=151)	66.7	[56.4,75.5]	15.9	[9.6,25.3]	7.1	[3.6,13.7]	7.5	[3.2,16.3]	2.8	[1.0,7.5]	100.0
Detroit Metro (n=197)	71.2	[63.3,78.0]	14.7	[9.7,21.7]	6.7	[3.8,11.5]	1.8	[0.7,4.8]	5.5	[2.7,10.9]	100.0
Pearson: Uncorrected chi2(12) =	13.3102										
Design-based F(11.43, 6789.98) =	0.8650	Pr =	0.578								
Total (n=606)	68.2	[63.4,72.6]	15.5	[12.1,19.5]	8.3	[6.1,11.3]	4.0	[2.5,6.3]	4.1	[2.5,6.5]	100.0

3 Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

3.1 Q: In general, would you say your health is:

Universe: All respondents

	Health status												
	Excellent		Very good		Good		Fair		Poor		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age													
19-34 (n=220)	12.1	[7.8,18.3]	29.2	[22.5,37.0]	35.4	[28.3,43.2]	21.5	[15.4,29.2]	1.8	[0.7,4.8]	0.0		100.0
35-50 (n=177)	10.7	[6.1,18.0]	26.4	[19.2,35.1]	31.4	[23.9,39.9]	23.0	[16.1,31.7]	7.2	[3.8,13.2]	1.4	[0.2,8.8]	100.0
51-64 (n=209)	5.8	[2.9,11.2]	18.7	[13.3,25.7]	32.6	[25.5,40.7]	32.1	[24.9,40.2]	10.0	[6.0,16.3]	0.8	[0.1,5.2]	100.0
Pearson: Uncorrected chi2(10) =	30.2443												
Design-based F(9.51, 5646.91) =	2.0020	Pr =	0.032										
Gender													
Male (n=326)	11.3	[7.8,16.1]	22.5	[17.6,28.4]	34.3	[28.6,40.6]	25.8	[20.5,32.0]	5.0	[2.9,8.5]	1.0	[0.3,4.1]	100.0
Female (n=280)	7.5	[4.3,12.7]	30.2	[23.9,37.3]	31.8	[25.7,38.6]	23.5	[17.8,30.3]	7.0	[4.2,11.3]	0.0		100.0
Pearson: Uncorrected chi2(5) =	9.2118												
Design-based F(4.87, 2892.24) =	1.2225	Pr =	0.296										
Race/ethnicity													
White, non-Hispanic (n=400)	7.9	[5.2,11.7]	29.5	[24.2,35.3]	29.4	[24.4,35.0]	26.2	[21.1,32.0]	6.0	[3.9,9.2]	1.1	[0.3,4.2]	100.0
Black, non-Hispanic (n=114)	14.2	[7.8,24.6]	20.3	[13.2,30.0]	37.8	[28.2,48.3]	23.8	[15.8,34.4]	3.8	[1.5,9.8]	0.0		100.0
Hispanic (n=33)	5.7	[1.4,20.2]	33.4	[16.1,56.7]	36.4	[19.7,57.2]	18.2	[8.3,35.3]	6.3	[1.2,26.8]	0.0		100.0
Other, non-Hispanic (n=54)	16.4	[7.4,32.4]	6.0	[2.8,12.7]	45.3	[29.9,61.6]	23.1	[11.5,41.1]	9.2	[2.7,27.0]	0.0		100.0
Pearson: Uncorrected chi2(15) =	29.6453												
Design-based F(13.94, 8208.70) =	1.3019	Pr =	0.197										
FPL category													
0-35% (n=239)	10.0	[6.6,14.9]	25.3	[20.0,31.5]	30.0	[24.4,36.3]	27.4	[22.0,33.7]	6.3	[4.0,10.0]	0.9	[0.2,3.7]	100.0
36-99% (n=191)	7.0	[4.2,11.5]	25.1	[19.4,31.8]	44.1	[37.3,51.2]	18.7	[13.8,24.7]	5.1	[3.0,8.7]	0.0		100.0
100%+ (n=176)	12.9	[8.6,19.1]	26.3	[20.4,33.2]	37.7	[31.0,44.9]	19.6	[14.3,26.2]	3.4	[1.7,6.8]	0.0		100.0
Pearson: Uncorrected chi2(10) =	13.3000												
Design-based F(6.88, 4084.26) =	1.8248	Pr =	0.080										
Region													
UP/NW/NE (n=95)	6.9	[3.0,15.4]	19.8	[11.1,32.8]	27.3	[18.3,38.6]	37.8	[25.9,51.5]	8.1	[3.4,18.3]	0.0		100.0
W/E Central/E (n=162)	6.0	[3.5,10.3]	30.8	[22.9,40.1]	27.5	[20.3,36.2]	23.6	[16.6,32.6]	9.7	[5.5,16.5]	2.3	[0.6,9.0]	100.0
S Central/SW/SE (n=151)	11.0	[5.8,19.6]	25.0	[17.5,34.3]	32.1	[23.9,41.6]	28.2	[19.8,38.5]	3.7	[1.8,7.5]	0.0		100.0
Detroit Metro (n=198)	12.6	[7.9,19.7]	23.2	[17.0,30.8]	39.6	[32.0,47.7]	21.0	[15.0,28.5]	3.6	[1.5,8.2]	0.0		100.0
Pearson: Uncorrected chi2(15) =	37.8461												
Design-based F(12.50, 7424.07) =	2.1507	Pr =	0.010										
Total (n=606)	9.9	[7.3,13.3]	25.4	[21.4,29.9]	33.4	[29.1,38.0]	24.9	[20.9,29.5]	5.8	[4.0,8.3]	0.6	[0.2,2.6]	100.0

3.2 Q: Has a doctor or other health professional ever told you that you had any of the following?

Universe: All respondents

	Weighted Proportion	95%CI
Mood disorder		
Yes (n=184)	30.5	[26.2, 35.1]
No (n=418)	68.3	[63.7, 72.6]
Don't know (n=5)	1.2	[0.5, 3.1]
Hypertension		
Yes (n=181)	28.5	[24.4, 33.0]
No (n=425)	71.3	[66.8, 75.4]
Don't know (n=1)	0.1	[0.0, 0.8]
Other health condition		
Yes (n=156)	23.6	[19.8, 27.8]
No (n=450)	76.3	[72.1, 80.1]
Don't know (n=1)	0.1	[0.0, 0.5]
Arthritis or a related condition		
Yes (n=134)	21.4	[17.8, 25.5]
No (n=471)	78.3	[74.2, 81.9]
Don't know (n=1)	0.3	[0.0, 2.1]
Asthma		
Yes (n=80)	12.6	[9.8, 16.1]
No (n=527)	87.4	[83.9, 90.2]
Diabetes		
Yes (n=49)	7.0	[5.0, 9.5]
No (n=556)	92.7	[90.1, 94.7]
Don't know (n=2)	0.3	[0.1, 1.5]
Chronic lung disease		
Yes (n=54)	7.0	[5.1, 9.5]
No (n=550)	92.4	[89.9, 94.4]
Don't know (n=3)	0.5	[0.2, 1.7]
Heart condition or heart disease		
Yes (n=47)	6.0	[4.2, 8.4]
No (n=556)	93.1	[90.3, 95.1]
Don't know (n=4)	1.0	[0.3, 3.1]
Substance use disorder		
Yes (n=24)	4.9	[3.1, 7.6]
No (n=582)	95.1	[92.4, 96.9]
Cancer		
Yes (n=29)	4.4	[2.8, 6.6]
No (n=575)	95.0	[92.5, 96.6]
Don't know (n=3)	0.7	[0.2, 2.3]
Stroke		
Yes (n=16)	2.2	[1.2, 3.9]
No (n=591)	97.8	[96.1, 98.8]

Note: Respondents were able to provide multiple responses

3.2.1 Any chronic condition

Universe: All respondents

	Any chronic condition				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	55.7	[47.7,63.4]	44.3	[36.6,52.3]	100.0
35-50 (n=178)	66.2	[57.1,74.3]	33.8	[25.7,42.9]	100.0
51-64 (n=209)	83.7	[76.6,89.0]	16.3	[11.0,23.4]	100.0
Pearson: Uncorrected chi2(2) =	36.0689				
Design-based F(1.98, 1175.63) =	12.2466	Pr =	0.000		
Gender					
Male (n=326)	63.0	[56.5,69.1]	37.0	[30.9,43.5]	100.0
Female (n=281)	73.1	[66.1,79.1]	26.9	[20.9,33.9]	100.0
Pearson: Uncorrected chi2(1) =	6.5475				
Design-based F(1.00, 595.00) =	4.5873	Pr =	0.033		
Race/ethnicity					
White, non-Hispanic (n=401)	70.2	[64.3,75.5]	29.8	[24.5,35.7]	100.0
Black, non-Hispanic (n=114)	53.5	[42.8,63.9]	46.5	[36.1,57.2]	100.0
Hispanic (n=33)	75.6	[53.8,89.1]	24.4	[10.9,46.2]	100.0
Other, non-Hispanic (n=54)	69.5	[52.3,82.6]	30.5	[17.4,47.7]	100.0
Pearson: Uncorrected chi2(3) =	14.6594				
Design-based F(2.99, 1761.57) =	2.9969	Pr =	0.030		
FPL category					
0-35% (n=239)	67.8	[61.2,73.7]	32.2	[26.3,38.8]	100.0
36-99% (n=192)	63.9	[56.8,70.5]	36.1	[29.5,43.2]	100.0
100%+ (n=176)	65.1	[57.7,71.9]	34.9	[28.1,42.3]	100.0
Pearson: Uncorrected chi2(2) =	0.6824				
Design-based F(1.80, 1073.30) =	0.4654	Pr =	0.608		
Region					
UP/NW/NE (n=95)	61.4	[47.5,73.7]	38.6	[26.3,52.5]	100.0
W/E Central/E (n=163)	72.5	[63.9,79.7]	27.5	[20.3,36.1]	100.0
S Central/SW/SE (n=151)	70.0	[59.9,78.4]	30.0	[21.6,40.1]	100.0
Detroit Metro (n=198)	62.4	[54.0,70.1]	37.6	[29.9,46.0]	100.0
Pearson: Uncorrected chi2(3) =	6.0169				
Design-based F(2.95, 1757.84) =	1.4305	Pr =	0.232		
Total (n=607)	66.8	[62.0,71.3]	33.2	[28.7,38.0]	100.0

3.2.2 Count of chronic conditions

Universe: All respondents

	Number of chronic conditions						
	None		One		Two or more		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	44.3	[36.6,52.3]	31.0	[24.0,38.9]	24.7	[18.7,32.0]	100.0
35-50 (n=178)	33.8	[25.7,42.9]	20.7	[14.5,28.7]	45.5	[36.8,54.5]	100.0
51-64 (n=209)	16.3	[11.0,23.4]	23.0	[16.8,30.5]	60.8	[52.6,68.4]	100.0
Pearson: Uncorrected chi2(4) =	62.3356						
Design-based F(3.96, 2357.66) =	10.8072	Pr =	0.000				
Gender							
Male (n=326)	37.0	[30.9,43.5]	26.0	[20.7,32.1]	37.0	[31.1,43.4]	100.0
Female (n=281)	26.9	[20.9,33.9]	24.9	[19.1,31.7]	48.3	[41.2,55.4]	100.0
Pearson: Uncorrected chi2(2) =	8.8103						
Design-based F(2.00, 1189.13) =	3.1358	Pr =	0.044				
Race/ethnicity							
White, non-Hispanic (n=401)	29.8	[24.5,35.7]	26.4	[21.4,32.0]	43.9	[38.0,49.9]	100.0
Black, non-Hispanic (n=114)	46.5	[36.1,57.2]	21.5	[14.0,31.6]	32.0	[23.2,42.2]	100.0
Hispanic (n=33)	24.4	[10.9,46.2]	31.8	[14.8,55.6]	43.8	[25.7,63.7]	100.0
Other, non-Hispanic (n=54)	30.5	[17.4,47.7]	28.4	[16.1,45.2]	41.1	[26.3,57.6]	100.0
Pearson: Uncorrected chi2(6) =	15.1155						
Design-based F(5.87, 3462.87) =	1.5458	Pr =	0.161				
FPL category							
0-35% (n=239)	32.2	[26.3,38.8]	26.0	[20.6,32.2]	41.8	[35.7,48.2]	100.0
36-99% (n=192)	36.1	[29.5,43.2]	23.3	[17.9,29.7]	40.6	[34.0,47.6]	100.0
100%+ (n=176)	34.9	[28.1,42.3]	26.4	[20.4,33.3]	38.7	[31.9,46.1]	100.0
Pearson: Uncorrected chi2(4) =	0.8744						
Design-based F(3.61, 2150.66) =	0.3128	Pr =	0.852				
Region							
UP/NW/NE (n=95)	38.6	[26.3,52.5]	16.6	[9.4,27.7]	44.8	[32.7,57.6]	100.0
W/E Central/E (n=163)	27.5	[20.3,36.1]	21.8	[15.0,30.6]	50.7	[41.7,59.7]	100.0
S Central/SW/SE (n=151)	30.0	[21.6,40.1]	30.6	[22.2,40.5]	39.4	[30.3,49.2]	100.0
Detroit Metro (n=198)	37.6	[29.9,46.0]	27.6	[20.9,35.5]	34.8	[27.7,42.8]	100.0
Pearson: Uncorrected chi2(6) =	14.9030						
Design-based F(5.80, 3452.67) =	1.8404	Pr =	0.090				
Total (n=607)	33.2	[28.7,38.0]	25.6	[21.5,30.1]	41.2	[36.6,46.0]	100.0

3.2.3 Q: Has a doctor or other health professional ever told you that you had a mood disorder (for example, depression, anxiety, bipolar disorder)?

Universe: All respondents

	Mood disorder						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	31.3	[24.5,39.1]	68.7	[60.9,75.5]	0.0		100.0
35-50 (n=178)	31.0	[23.4,39.9]	67.7	[58.7,75.5]	1.3	[0.2,8.3]	100.0
51-64 (n=209)	28.6	[21.9,36.3]	68.4	[60.5,75.4]	3.0	[1.1,8.2]	100.0
Pearson: Uncorrected chi2(4) =	7.6639						
Design-based F(3.79, 2255.13) =	1.1669	Pr =	0.323				
Gender							
Male (n=326)	24.8	[19.6,30.8]	73.2	[67.1,78.6]	2.0	[0.8,5.0]	100.0
Female (n=281)	39.9	[33.1,47.2]	60.1	[52.8,66.9]	0.0		100.0
Pearson: Uncorrected chi2(2) =	18.7201						
Design-based F(1.99, 1181.75) =	5.9807	Pr =	0.003				
Race/ethnicity							
White, non-Hispanic (n=401)	34.1	[28.6,40.0]	64.9	[59.0,70.4]	1.0	[0.3,3.3]	100.0
Black, non-Hispanic (n=114)	17.5	[10.8,27.2]	79.7	[69.6,87.0]	2.8	[0.7,10.6]	100.0
Hispanic (n=33)	47.6	[28.4,67.6]	52.4	[32.4,71.6]	0.0		100.0
Other, non-Hispanic (n=54)	28.6	[15.9,45.9]	71.4	[54.1,84.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	22.0003						
Design-based F(5.92, 3495.25) =	2.2236	Pr =	0.039				
FPL category							
0-35% (n=239)	32.4	[26.6,38.7]	66.0	[59.6,71.8]	1.6	[0.6,4.4]	100.0
36-99% (n=192)	22.9	[17.7,29.0]	76.6	[70.4,81.8]	0.5	[0.1,3.2]	100.0
100%+ (n=176)	30.1	[23.7,37.4]	69.9	[62.6,76.3]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.7754						
Design-based F(3.01, 1789.24) =	1.6619	Pr =	0.173				
Region							
UP/NW/NE (n=95)	30.9	[20.9,43.2]	69.1	[56.8,79.1]	0.0		100.0
W/E Central/E (n=163)	38.1	[29.6,47.4]	60.4	[51.1,69.0]	1.5	[0.3,6.9]	100.0
S Central/SW/SE (n=151)	31.8	[23.5,41.4]	67.5	[57.8,75.8]	0.8	[0.1,5.0]	100.0
Detroit Metro (n=198)	24.4	[18.0,32.1]	74.0	[66.2,80.6]	1.6	[0.4,6.2]	100.0
Pearson: Uncorrected chi2(6) =	10.3566						
Design-based F(5.65, 3363.05) =	1.2382	Pr =	0.285				
Total (n=607)	30.5	[26.2,35.1]	68.3	[63.7,72.6]	1.2	[0.5,3.1]	100.0

3.2.4 Q: Has a doctor or other health professional ever told you that you had hypertension, also called high blood pressure?

Universe: All respondents

	Hypertension						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	12.9	[8.2,19.7]	87.1	[80.3,91.8]	0.0		100.0
35-50 (n=178)	25.0	[18.2,33.3]	74.6	[66.3,81.4]	0.4	[0.1,2.6]	100.0
51-64 (n=209)	55.3	[47.1,63.2]	44.7	[36.8,52.9]	0.0		100.0
Pearson: Uncorrected chi2(4) =	92.8618						
Design-based F(3.66, 2179.63) =	18.2343	Pr =	0.000				
Gender							
Male (n=326)	27.2	[21.9,33.2]	72.6	[66.6,77.9]	0.2	[0.0,1.3]	100.0
Female (n=281)	30.8	[24.6,37.7]	69.2	[62.3,75.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.3505						
Design-based F(1.81, 1077.12) =	0.6658	Pr =	0.500				
Race/ethnicity							
White, non-Hispanic (n=401)	27.3	[22.4,32.7]	72.5	[67.0,77.4]	0.2	[0.0,1.3]	100.0
Black, non-Hispanic (n=114)	29.7	[21.1,40.0]	70.3	[60.0,78.9]	0.0		100.0
Hispanic (n=33)	27.2	[12.6,49.2]	72.8	[50.8,87.4]	0.0		100.0
Other, non-Hispanic (n=54)	30.8	[18.1,47.3]	69.2	[52.7,81.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	0.9744						
Design-based F(5.63, 3323.34) =	0.1143	Pr =	0.993				
FPL category							
0-35% (n=239)	30.6	[25.1,36.8]	69.4	[63.2,74.9]	0.0		100.0
36-99% (n=192)	21.5	[16.7,27.4]	77.7	[71.7,82.7]	0.8	[0.1,4.6]	100.0
100%+ (n=176)	26.5	[20.5,33.5]	73.5	[66.5,79.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	7.2626						
Design-based F(3.08, 1833.14) =	3.5877	Pr =	0.012				
Region							
UP/NW/NE (n=95)	36.5	[25.2,49.5]	63.5	[50.5,74.8]	0.0		100.0
W/E Central/E (n=163)	26.7	[19.4,35.5]	72.8	[64.0,80.2]	0.5	[0.1,2.8]	100.0
S Central/SW/SE (n=151)	27.3	[19.5,36.8]	72.7	[63.2,80.5]	0.0		100.0
Detroit Metro (n=198)	28.6	[22.0,36.2]	71.4	[63.8,78.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.2170						
Design-based F(4.27, 2542.90) =	0.8409	Pr =	0.505				
Total (n=607)	28.5	[24.4,33.0]	71.3	[66.8,75.4]	0.1	[0.0,0.8]	100.0

3.2.5 Q: Has a doctor or other health professional ever told you that you had arthritis or a related condition (for example, rheumatoid arthritis, gout, lupus, or fibromyalgia)?n

Universe: All respondents

	Arthritis or a related condition						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	7.9	[4.6,13.2]	92.1	[86.8,95.4]	0.0		100.0
35-50 (n=177)	22.2	[15.7,30.4]	76.8	[68.4,83.5]	1.0	[0.2,6.7]	100.0
51-64 (n=209)	40.3	[32.6,48.6]	59.7	[51.4,67.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	68.5060						
Design-based F(3.93, 2334.65) =	11.3476	Pr =	0.000				
Gender							
Male (n=326)	19.4	[14.8,25.0]	80.1	[74.5,84.7]	0.5	[0.1,3.3]	100.0
Female (n=280)	24.7	[19.3,31.0]	75.3	[69.0,80.7]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.4060						
Design-based F(1.95, 1159.60) =	1.0912	Pr =	0.335				
Race/ethnicity							
White, non-Hispanic (n=401)	22.6	[18.1,27.9]	76.9	[71.5,81.5]	0.5	[0.1,3.4]	100.0
Black, non-Hispanic (n=114)	19.6	[12.7,29.1]	80.4	[70.9,87.3]	0.0		100.0
Hispanic (n=33)	6.3	[1.8,19.4]	93.7	[80.6,98.2]	0.0		100.0
Other, non-Hispanic (n=53)	28.6	[15.9,46.0]	71.4	[54.0,84.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	8.7550						
Design-based F(5.79, 3409.64) =	0.9796	Pr =	0.436				
FPL category							
0-35% (n=238)	23.6	[18.7,29.3]	76.0	[70.2,80.9]	0.4	[0.1,3.0]	100.0
36-99% (n=192)	16.4	[12.1,21.8]	83.6	[78.2,87.9]	0.0		100.0
100%+ (n=176)	16.1	[11.5,22.0]	83.9	[78.0,88.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	4.9655						
Design-based F(2.32, 1376.66) =	1.6311	Pr =	0.191				
Region							
UP/NW/NE (n=95)	20.7	[12.4,32.4]	79.3	[67.6,87.6]	0.0		100.0
W/E Central/E (n=162)	26.6	[19.5,35.3]	72.2	[63.5,79.6]	1.1	[0.2,7.4]	100.0
S Central/SW/SE (n=151)	18.7	[12.5,26.9]	81.3	[73.1,87.5]	0.0		100.0
Detroit Metro (n=198)	19.4	[13.8,26.5]	80.6	[73.5,86.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	9.1908						
Design-based F(4.27, 2537.40) =	1.5413	Pr =	0.184				
Total (n=606)	21.4	[17.8,25.5]	78.3	[74.2,81.9]	0.3	[0.0,2.1]	100.0

3.2.6 Q: Has a doctor or other health professional ever told you that you had asthma?

Universe: All respondents

	Asthma				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	17.1	[11.9,24.1]	82.9	[75.9,88.1]	100.0
35-50 (n=178)	11.9	[7.5,18.5]	88.1	[81.5,92.5]	100.0
51-64 (n=209)	6.6	[4.0,10.9]	93.4	[89.1,96.0]	100.0
Pearson: Uncorrected chi2(2) =	10.2582				
Design-based F(1.90, 1130.83) =	4.2666	Pr =	0.016		
Gender					
Male (n=326)	11.7	[8.1,16.5]	88.3	[83.5,91.9]	100.0
Female (n=281)	14.1	[9.9,19.6]	85.9	[80.4,90.1]	100.0
Pearson: Uncorrected chi2(1) =	0.7472				
Design-based F(1.00, 595.00) =	0.5564	Pr =	0.456		
Race/ethnicity					
White, non-Hispanic (n=401)	14.3	[10.5,19.2]	85.7	[80.8,89.5]	100.0
Black, non-Hispanic (n=114)	8.3	[4.4,15.3]	91.7	[84.7,95.6]	100.0
Hispanic (n=33)	9.6	[3.9,22.0]	90.4	[78.0,96.1]	100.0
Other, non-Hispanic (n=54)	9.8	[4.2,21.1]	90.2	[78.9,95.8]	100.0
Pearson: Uncorrected chi2(3) =	4.0236				
Design-based F(2.90, 1712.81) =	1.2595	Pr =	0.287		
FPL category					
0-35% (n=239)	11.5	[7.9,16.4]	88.5	[83.6,92.1]	100.0
36-99% (n=192)	18.6	[13.6,24.8]	81.4	[75.2,86.4]	100.0
100%+ (n=176)	10.8	[7.1,16.0]	89.2	[84.0,92.9]	100.0
Pearson: Uncorrected chi2(2) =	4.0824				
Design-based F(1.74, 1034.85) =	2.8155	Pr =	0.068		
Region					
UP/NW/NE (n=95)	5.3	[2.6,10.5]	94.7	[89.5,97.4]	100.0
W/E Central/E (n=163)	13.3	[8.6,19.9]	86.7	[80.1,91.4]	100.0
S Central/SW/SE (n=151)	20.1	[12.9,29.9]	79.9	[70.1,87.1]	100.0
Detroit Metro (n=198)	9.7	[5.8,15.8]	90.3	[84.2,94.2]	100.0
Pearson: Uncorrected chi2(3) =	11.5763				
Design-based F(2.51, 1495.80) =	3.3991	Pr =	0.024		
Total (n=607)	12.6	[9.8,16.1]	87.4	[83.9,90.2]	100.0

3.2.7 Q: Has a doctor or other health professional ever told you that you had diabetes or sugar diabetes (other than during pregnancy)?

Universe: All respondents

	Diabetes						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	1.3	[0.4,4.1]	98.7	[95.9,99.6]	0.0		100.0
35-50 (n=178)	6.0	[3.1,11.2]	94.0	[88.8,96.9]	0.0		100.0
51-64 (n=209)	16.2	[11.1,23.2]	82.7	[75.6,88.0]	1.1	[0.2,5.3]	100.0
Pearson: Uncorrected chi2(4) =	40.3463						
Design-based F(3.93, 2335.66) =	7.7296	Pr =	0.000				
Gender							
Male (n=326)	5.1	[3.1,8.4]	94.4	[91.0,96.5]	0.5	[0.1,2.5]	100.0
Female (n=281)	10.0	[6.6,14.9]	90.0	[85.1,93.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	6.2100						
Design-based F(2.00, 1189.34) =	2.4697	Pr =	0.085				
Race/ethnicity							
White, non-Hispanic (n=401)	7.5	[5.0,11.1]	92.5	[88.9,95.0]	0.0		100.0
Black, non-Hispanic (n=114)	8.1	[4.1,15.1]	90.8	[83.5,95.1]	1.1	[0.2,7.2]	100.0
Hispanic (n=33)	1.8	[0.5,6.3]	98.2	[93.7,99.5]	0.0		100.0
Other, non-Hispanic (n=54)	4.9	[2.1,10.6]	94.6	[88.7,97.5]	0.6	[0.1,3.4]	100.0
Pearson: Uncorrected chi2(6) =	6.7022						
Design-based F(4.22, 2492.08) =	1.1970	Pr =	0.310				
FPL category							
0-35% (n=239)	7.7	[5.1,11.4]	92.0	[88.2,94.6]	0.4	[0.1,2.4]	100.0
36-99% (n=192)	6.1	[3.8,9.7]	93.9	[90.3,96.2]	0.0		100.0
100%+ (n=176)	4.1	[2.2,7.4]	95.5	[92.1,97.5]	0.4	[0.1,2.2]	100.0
Pearson: Uncorrected chi2(4) =	1.8007						
Design-based F(2.61, 1553.44) =	0.6767	Pr =	0.546				
Region							
UP/NW/NE (n=95)	4.8	[2.1,10.5]	95.2	[89.5,97.9]	0.0		100.0
W/E Central/E (n=163)	7.0	[3.8,12.6]	92.8	[87.2,96.1]	0.2	[0.0,1.0]	100.0
S Central/SW/SE (n=151)	5.7	[3.0,10.4]	94.3	[89.6,97.0]	0.0		100.0
Detroit Metro (n=198)	8.1	[4.8,13.4]	91.3	[85.8,94.7]	0.6	[0.1,4.2]	100.0
Pearson: Uncorrected chi2(6) =	2.8500						
Design-based F(4.28, 2546.19) =	0.6020	Pr =	0.672				
Total (n=607)	7.0	[5.0,9.5]	92.7	[90.1,94.7]	0.3	[0.1,1.5]	100.0

3.2.8 Q: Has a doctor or other health professional ever told you that you had chronic lung disease, such as chronic bronchitis, COPD or emphysema?

Universe: All respondents

	Chronic lung disease						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	2.7	[1.4,5.1]	97.3	[94.9,98.6]	0.0		100.0
35-50 (n=178)	6.9	[3.4,13.3]	92.7	[86.3,96.2]	0.4	[0.1,2.6]	100.0
51-64 (n=209)	13.5	[9.2,19.5]	85.1	[78.8,89.7]	1.4	[0.3,5.6]	100.0
Pearson: Uncorrected chi2(4) =	22.4684						
Design-based F(3.68, 2188.68) =	5.3990	Pr =	0.000				
Gender							
Male (n=326)	5.2	[3.1,8.7]	93.9	[90.4,96.2]	0.8	[0.3,2.6]	100.0
Female (n=281)	10.0	[6.9,14.4]	90.0	[85.6,93.1]	0.0		100.0
Pearson: Uncorrected chi2(2) =	6.7745						
Design-based F(2.00, 1188.91) =	2.9566	Pr =	0.052				
Race/ethnicity							
White, non-Hispanic (n=401)	7.8	[5.3,11.3]	92.0	[88.4,94.5]	0.2	[0.0,1.5]	100.0
Black, non-Hispanic (n=114)	5.4	[2.6,10.8]	92.9	[86.9,96.3]	1.7	[0.4,6.7]	100.0
Hispanic (n=33)	5.6	[1.9,15.0]	94.4	[85.0,98.1]	0.0		100.0
Other, non-Hispanic (n=54)	5.4	[1.4,19.0]	94.6	[81.0,98.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.8179						
Design-based F(5.47, 3225.79) =	0.8584	Pr =	0.516				
FPL category							
0-35% (n=239)	6.4	[4.1,10.0]	93.0	[89.4,95.4]	0.6	[0.1,2.3]	100.0
36-99% (n=192)	8.8	[5.7,13.2]	90.5	[85.8,93.7]	0.8	[0.1,4.6]	100.0
100%+ (n=176)	7.9	[4.8,12.9]	92.1	[87.1,95.2]	0.0		100.0
Pearson: Uncorrected chi2(4) =	1.3468						
Design-based F(3.55, 2109.38) =	0.4270	Pr =	0.766				
Region							
UP/NW/NE (n=95)	12.6	[7.1,21.5]	85.9	[76.6,91.9]	1.5	[0.2,9.3]	100.0
W/E Central/E (n=163)	5.8	[2.9,11.2]	94.2	[88.8,97.1]	0.0		100.0
S Central/SW/SE (n=151)	7.8	[3.9,15.3]	92.2	[84.7,96.1]	0.0		100.0
Detroit Metro (n=198)	6.1	[3.6,10.1]	92.9	[88.7,95.7]	1.0	[0.2,3.9]	100.0
Pearson: Uncorrected chi2(6) =	7.1389						
Design-based F(5.07, 3016.67) =	1.2930	Pr =	0.263				
Total (n=607)	7.0	[5.1,9.5]	92.4	[89.9,94.4]	0.5	[0.2,1.7]	100.0

3.2.9 Q: Has a doctor or other health professional ever told you that you had a heart condition or heart disease?

Universe: All respondents

	Heart condition or heart disease						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	0.6	[0.1,3.0]	99.4	[97.0,99.9]	0.0		100.0
35-50 (n=178)	7.4	[4.1,12.9]	91.1	[84.7,95.0]	1.5	[0.2,9.4]	100.0
51-64 (n=209)	12.2	[7.8,18.7]	85.9	[79.0,90.8]	1.9	[0.5,7.1]	100.0
Pearson: Uncorrected chi2(4) =	30.3122						
Design-based F(3.51, 2089.29) =	4.7453	Pr =	0.001				
Gender							
Male (n=326)	6.3	[4.0,9.9]	92.2	[88.1,94.9]	1.5	[0.5,4.9]	100.0
Female (n=281)	5.4	[3.1,9.1]	94.5	[90.8,96.8]	0.1	[0.0,0.7]	100.0
Pearson: Uncorrected chi2(2) =	3.0868						
Design-based F(1.50, 895.39) =	2.2147	Pr =	0.124				
Race/ethnicity							
White, non-Hispanic (n=401)	8.2	[5.5,11.9]	91.0	[87.1,93.9]	0.8	[0.2,3.4]	100.0
Black, non-Hispanic (n=114)	2.4	[0.8,7.2]	97.4	[92.8,99.1]	0.2	[0.0,1.1]	100.0
Hispanic (n=33)	1.7	[0.3,9.4]	98.3	[90.6,99.7]	0.0		100.0
Other, non-Hispanic (n=54)	3.0	[1.0,8.8]	91.7	[74.4,97.7]	5.3	[0.8,28.3]	100.0
Pearson: Uncorrected chi2(6) =	19.4724						
Design-based F(4.00, 2358.16) =	2.9471	Pr =	0.019				
FPL category							
0-35% (n=239)	5.8	[3.6,9.4]	92.8	[88.8,95.5]	1.3	[0.4,4.4]	100.0
36-99% (n=192)	4.8	[2.8,8.0]	95.0	[91.7,97.0]	0.2	[0.0,1.5]	100.0
100%+ (n=176)	8.2	[5.3,12.5]	91.8	[87.5,94.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	2.8785						
Design-based F(2.33, 1387.32) =	0.8737	Pr =	0.432				
Region							
UP/NW/NE (n=95)	7.2	[3.0,16.3]	91.3	[81.7,96.1]	1.5	[0.2,9.7]	100.0
W/E Central/E (n=163)	7.3	[3.9,13.3]	92.7	[86.7,96.1]	0.0		100.0
S Central/SW/SE (n=151)	4.1	[2.0,8.3]	94.3	[88.4,97.3]	1.6	[0.2,10.0]	100.0
Detroit Metro (n=198)	5.8	[3.1,10.5]	93.0	[87.7,96.1]	1.2	[0.2,6.8]	100.0
Pearson: Uncorrected chi2(6) =	3.9571						
Design-based F(5.07, 3018.87) =	0.4715	Pr =	0.800				
Total (n=607)	6.0	[4.2,8.4]	93.1	[90.3,95.1]	1.0	[0.3,3.1]	100.0

3.2.10 Q: Has a doctor or other health professional ever told you that you had a substance use disorder?

Universe: All respondents

	Substance use disorder				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	2.9	[1.3,6.5]	97.1	[93.5,98.7]	100.0
35-50 (n=177)	7.6	[3.7,15.0]	92.4	[85.0,96.3]	100.0
51-64 (n=209)	4.9	[2.3,10.1]	95.1	[89.9,97.7]	100.0
Pearson: Uncorrected chi2(2) =	5.0525				
Design-based F(1.97, 1171.57) =	1.7236	Pr =	0.179		
Gender					
Male (n=326)	5.6	[3.2,9.6]	94.4	[90.4,96.8]	100.0
Female (n=280)	3.8	[1.9,7.4]	96.2	[92.6,98.1]	100.0
Pearson: Uncorrected chi2(1) =	0.9808				
Design-based F(1.00, 594.00) =	0.7497	Pr =	0.387		
Race/ethnicity					
White, non-Hispanic (n=401)	6.3	[3.8,10.3]	93.7	[89.7,96.2]	100.0
Black, non-Hispanic (n=114)	2.4	[0.5,10.1]	97.6	[89.9,99.5]	100.0
Hispanic (n=33)	4.6	[1.2,16.2]	95.4	[83.8,98.8]	100.0
Other, non-Hispanic (n=53)	2.5	[0.4,15.0]	97.5	[85.0,99.6]	100.0
Pearson: Uncorrected chi2(3) =	4.0342				
Design-based F(2.72, 1603.24) =	0.9952	Pr =	0.389		
FPL category					
0-35% (n=238)	5.7	[3.3,9.6]	94.3	[90.4,96.7]	100.0
36-99% (n=192)	2.7	[1.2,6.2]	97.3	[93.8,98.8]	100.0
100%+ (n=176)	3.4	[1.4,7.9]	96.6	[92.1,98.6]	100.0
Pearson: Uncorrected chi2(2) =	1.9894				
Design-based F(1.93, 1145.19) =	1.5229	Pr =	0.219		
Region					
UP/NW/NE (n=95)	3.9	[1.4,10.2]	96.1	[89.8,98.6]	100.0
W/E Central/E (n=162)	4.9	[2.0,11.6]	95.1	[88.4,98.0]	100.0
S Central/SW/SE (n=151)	6.1	[2.6,13.6]	93.9	[86.4,97.4]	100.0
Detroit Metro (n=198)	4.5	[2.1,9.4]	95.5	[90.6,97.9]	100.0
Pearson: Uncorrected chi2(3) =	0.6464				
Design-based F(2.67, 1587.31) =	0.1594	Pr =	0.906		
Total (n=606)	4.9	[3.1,7.6]	95.1	[92.4,96.9]	100.0

3.2.11 Q: Has a doctor or other health professional ever told you that you had cancer, other than skin cancer?

Universe: All respondents

	Cancer						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	1.1	[0.4,3.4]	98.9	[96.6,99.6]	0.0		100.0
35-50 (n=178)	6.4	[3.1,12.8]	93.3	[87.0,96.7]	0.3	[0.0,1.8]	100.0
51-64 (n=209)	6.9	[3.9,11.9]	91.0	[85.0,94.7]	2.1	[0.5,8.0]	100.0
Pearson: Uncorrected chi2(4) =	18.4741						
Design-based F(3.41, 2028.31) =	4.0222	Pr =	0.005				
Gender							
Male (n=326)	2.6	[1.2,5.5]	96.4	[93.1,98.1]	1.0	[0.2,3.7]	100.0
Female (n=281)	7.2	[4.3,12.0]	92.5	[87.8,95.5]	0.2	[0.0,1.5]	100.0
Pearson: Uncorrected chi2(2) =	8.1765						
Design-based F(1.76, 1045.81) =	3.9844	Pr =	0.023				
Race/ethnicity							
White, non-Hispanic (n=401)	5.9	[3.7,9.3]	93.4	[89.8,95.8]	0.7	[0.2,3.3]	100.0
Black, non-Hispanic (n=114)	0.0		98.9	[92.8,99.8]	1.1	[0.2,7.2]	100.0
Hispanic (n=33)	10.7	[3.2,30.1]	89.3	[69.9,96.8]	0.0		100.0
Other, non-Hispanic (n=54)	0.6	[0.1,3.5]	99.4	[96.5,99.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.8709						
Design-based F(5.26, 3104.01) =	1.8699	Pr =	0.092				
FPL category							
0-35% (n=239)	4.4	[2.4,7.7]	94.8	[91.2,96.9]	0.9	[0.2,3.3]	100.0
36-99% (n=192)	4.4	[2.4,8.1]	95.0	[91.2,97.3]	0.5	[0.1,3.2]	100.0
100%+ (n=176)	4.2	[2.2,7.9]	95.8	[92.1,97.8]	0.0		100.0
Pearson: Uncorrected chi2(4) =	0.7532						
Design-based F(2.89, 1719.90) =	0.2224	Pr =	0.874				
Region							
UP/NW/NE (n=95)	4.8	[1.9,11.2]	95.2	[88.8,98.1]	0.0		100.0
W/E Central/E (n=163)	9.9	[5.4,17.4]	90.1	[82.6,94.6]	0.0		100.0
S Central/SW/SE (n=151)	3.9	[1.6,8.9]	94.5	[88.1,97.6]	1.6	[0.2,10.0]	100.0
Detroit Metro (n=198)	0.7	[0.3,1.8]	98.4	[96.1,99.4]	0.9	[0.2,3.8]	100.0
Pearson: Uncorrected chi2(6) =	23.4382						
Design-based F(4.33, 2579.23) =	4.0701	Pr =	0.002				
Total (n=607)	4.4	[2.8,6.6]	95.0	[92.5,96.6]	0.7	[0.2,2.3]	100.0

3.2.12 Q: Has a doctor or other health professional ever told you that you had a stroke?

Universe: All respondents

	Stroke				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	0.2	[0.0,1.4]	99.8	[98.6,100.0]	100.0
35-50 (n=178)	0.5	[0.1,1.8]	99.5	[98.2,99.9]	100.0
51-64 (n=209)	6.8	[3.6,12.6]	93.2	[87.4,96.4]	100.0
Pearson: Uncorrected chi2(2) =	24.4206				
Design-based F(1.97, 1174.92) =	25.3601	Pr =	0.000		
Gender					
Male (n=326)	2.1	[1.0,4.6]	97.9	[95.4,99.0]	100.0
Female (n=281)	2.3	[1.0,5.3]	97.7	[94.7,99.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0177				
Design-based F(1.00, 595.00) =	0.0159	Pr =	0.900		
Race/ethnicity					
White, non-Hispanic (n=401)	2.3	[1.1,4.9]	97.7	[95.1,98.9]	100.0
Black, non-Hispanic (n=114)	1.5	[0.3,6.5]	98.5	[93.5,99.7]	100.0
Hispanic (n=33)	0.0		100.0		100.0
Other, non-Hispanic (n=54)	4.4	[1.3,13.3]	95.6	[86.7,98.7]	100.0
Pearson: Uncorrected chi2(3) =	2.3864				
Design-based F(2.90, 1709.08) =	0.6897	Pr =	0.553		
FPL category					
0-35% (n=239)	2.3	[1.0,4.8]	97.7	[95.2,99.0]	100.0
36-99% (n=192)	2.4	[1.1,5.1]	97.6	[94.9,98.9]	100.0
100%+ (n=176)	1.3	[0.5,3.6]	98.7	[96.4,99.5]	100.0
Pearson: Uncorrected chi2(2) =	0.3264				
Design-based F(1.76, 1049.68) =	0.3342	Pr =	0.689		
Region					
UP/NW/NE (n=95)	1.5	[0.3,6.4]	98.5	[93.6,99.7]	100.0
W/E Central/E (n=163)	3.8	[1.5,9.2]	96.2	[90.8,98.5]	100.0
S Central/SW/SE (n=151)	1.5	[0.5,3.9]	98.5	[96.1,99.5]	100.0
Detroit Metro (n=198)	1.6	[0.5,4.8]	98.4	[95.2,99.5]	100.0
Pearson: Uncorrected chi2(3) =	2.7800				
Design-based F(2.54, 1512.10) =	1.0851	Pr =	0.348		
Total (n=607)	2.2	[1.2,3.9]	97.8	[96.1,98.8]	100.0

3.2.13 Q: Has a doctor or other health professional ever told you that you had any other ongoing health condition?

Universe: All respondents

	Other chronic condition						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	15.5	[10.6,22.0]	84.3	[77.8,89.2]	0.2	[0.0,1.3]	100.0
35-50 (n=178)	30.4	[23.0,39.0]	69.6	[61.0,77.0]	0.0		100.0
51-64 (n=209)	28.2	[21.6,36.0]	71.8	[64.0,78.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	16.6458						
Design-based F(3.53, 2100.00) =	3.6083	Pr =	0.009				
Gender							
Male (n=326)	21.6	[16.9,27.3]	78.4	[72.7,83.1]	0.0		100.0
Female (n=281)	26.9	[21.2,33.6]	72.8	[66.2,78.6]	0.2	[0.0,1.4]	100.0
Pearson: Uncorrected chi2(2) =	3.1676						
Design-based F(1.60, 953.33) =	1.7735	Pr =	0.177				
Race/ethnicity							
White, non-Hispanic (n=401)	27.5	[22.6,33.1]	72.3	[66.7,77.3]	0.1	[0.0,0.9]	100.0
Black, non-Hispanic (n=114)	14.2	[8.5,22.7]	85.8	[77.3,91.5]	0.0		100.0
Hispanic (n=33)	18.7	[7.8,38.4]	81.3	[61.6,92.2]	0.0		100.0
Other, non-Hispanic (n=54)	26.2	[13.9,43.8]	73.8	[56.2,86.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	11.0957						
Design-based F(5.46, 3219.86) =	1.3617	Pr =	0.231				
FPL category							
0-35% (n=239)	23.4	[18.4,29.2]	76.6	[70.8,81.6]	0.0		100.0
36-99% (n=192)	26.7	[21.0,33.4]	72.8	[66.1,78.5]	0.5	[0.1,3.0]	100.0
100%+ (n=176)	20.6	[15.6,26.6]	79.4	[73.4,84.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	3.6365						
Design-based F(2.89, 1719.66) =	1.9815	Pr =	0.117				
Region							
UP/NW/NE (n=95)	33.9	[23.3,46.5]	66.1	[53.5,76.7]	0.0		100.0
W/E Central/E (n=163)	28.1	[20.5,37.2]	71.9	[62.8,79.5]	0.0		100.0
S Central/SW/SE (n=151)	23.0	[15.9,32.0]	76.6	[67.6,83.7]	0.4	[0.1,2.4]	100.0
Detroit Metro (n=198)	18.4	[13.0,25.3]	81.6	[74.7,87.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	10.9961						
Design-based F(3.98, 2367.20) =	2.3441	Pr =	0.053				
Total (n=607)	23.6	[19.8,27.8]	76.3	[72.1,80.1]	0.1	[0.0,0.5]	100.0

3.2.14 Q: What is the condition?

Universe: Respondents who indicated other chronic condition (n = 156)

	Weighted Proportion	95%CI
Other (various) (n=127)	82.0	[73.1, 88.4]
Back pain (n=15)	10.2	[5.6, 17.9]
Thyroid/hypo-thyroid (n=13)	6.8	[3.5, 12.7]
Cholesterol (n=11)	5.8	[2.6, 12.7]
Allergies (n=3)	2.4	[0.7, 8.2]

Note: Respondents were able to provide multiple responses

4 Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

4.1 Q: How did you receive information about how much you will need to pay to be in the Healthy Michigan Plan?

Universe: All respondents (n = 607)

	Weighted Proportion	95%CI
Letter/enrollment packet from State/health plan (n=349)	55.6	[50.7, 60.4]
None- did not get any cost info (n=105)	16.9	[13.6, 20.8]
Other (n=47)	9.0	[6.4, 12.6]
On phone at enrollment (n=46)	7.8	[5.7, 10.7]
Caseworker/other person helping enroll (n=48)	7.4	[5.3, 10.3]
Don't know (n=39)	6.8	[4.8, 9.6]

Note: Respondents were able to provide multiple responses

4.2 Q: Do you know about any ways to reduce the amount you might have to pay?

Universe: All respondents (n = 607)

	Weighted Proportion	95%CI
None mentioned (n=581)	96.4	[94.4, 97.7]
Other (n=14)	2.0	[1.1, 3.7]
Complete the HRA (n=7)	0.8	[0.3, 1.8]
Use preventive care/do the healthy behavior (n=5)	0.5	[0.2, 1.8]
Use generic drugs (n=1)	0.3	[0.0, 1.8]

Note: Respondents were able to provide multiple responses

4.3 Q: I could be dropped from the Healthy Michigan Plan for not paying my bill.

Universe: All respondents

	Could be dropped from HMP for not paying my bill						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	32.5	[25.5,40.3]	15.5	[10.5,22.2]	52.1	[44.1,60.0]	100.0
35-50 (n=178)	27.6	[20.4,36.2]	19.8	[13.5,28.1]	52.6	[43.6,61.4]	100.0
51-64 (n=207)	28.9	[22.1,36.9]	18.6	[12.9,26.1]	52.4	[44.2,60.5]	100.0
Pearson: Uncorrected chi2(4) =	2.1732						
Design-based F(3.96, 2348.53) =	0.3695	Pr =	0.829				
Gender							
Male (n=325)	30.4	[24.8,36.6]	16.5	[12.2,22.0]	53.1	[46.6,59.5]	100.0
Female (n=280)	29.3	[23.2,36.2]	19.6	[14.4,26.1]	51.1	[43.9,58.2]	100.0
Pearson: Uncorrected chi2(2) =	0.9501						
Design-based F(2.00, 1184.87) =	0.3379	Pr =	0.713				
Race/ethnicity							
White, non-Hispanic (n=399)	31.3	[26.0,37.1]	18.4	[14.0,23.8]	50.3	[44.2,56.3]	100.0
Black, non-Hispanic (n=114)	28.1	[19.6,38.7]	12.2	[7.1,20.1]	59.7	[49.0,69.5]	100.0
Hispanic (n=33)	14.8	[7.1,28.2]	28.5	[13.7,50.0]	56.8	[36.7,74.8]	100.0
Other, non-Hispanic (n=54)	39.2	[24.3,56.4]	13.5	[6.0,27.5]	47.3	[31.6,63.6]	100.0
Pearson: Uncorrected chi2(6) =	12.5767						
Design-based F(5.74, 3375.46) =	1.4818	Pr =	0.183				
FPL category							
0-35% (n=239)	27.7	[22.2,34.0]	19.4	[14.7,25.1]	52.9	[46.3,59.4]	100.0
36-99% (n=192)	36.4	[30.0,43.3]	13.5	[9.2,19.4]	50.1	[43.2,57.0]	100.0
100%+ (n=174)	34.0	[27.3,41.5]	13.8	[9.8,19.1]	52.2	[44.7,59.5]	100.0
Pearson: Uncorrected chi2(4) =	5.0170						
Design-based F(3.58, 2123.73) =	1.8472	Pr =	0.125				
Region							
UP/NW/NE (n=95)	29.7	[18.9,43.3]	15.3	[8.3,26.6]	55.0	[41.9,67.4]	100.0
W/E Central/E (n=162)	36.0	[27.7,45.2]	16.0	[10.5,23.5]	48.0	[39.0,57.2]	100.0
S Central/SW/SE (n=150)	33.1	[24.1,43.6]	14.3	[8.7,22.7]	52.5	[42.6,62.3]	100.0
Detroit Metro (n=198)	24.2	[18.2,31.4]	21.2	[15.1,29.0]	54.6	[46.4,62.5]	100.0
Pearson: Uncorrected chi2(6) =	9.1705						
Design-based F(5.84, 3464.29) =	1.1389	Pr =	0.337				
Total (n=605)	30.0	[25.8,34.6]	17.7	[14.2,21.8]	52.3	[47.4,57.2]	100.0

4.4 Q: I may get a reduction in the amount I might have to pay if I complete a health risk assessment.

Universe: All respondents

	May get reduction by completing HRA						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	34.2	[27.1,42.1]	7.9	[4.5,13.4]	57.9	[49.9,65.5]	100.0
35-50 (n=178)	31.4	[23.8,40.2]	12.0	[7.2,19.4]	56.6	[47.6,65.1]	100.0
51-64 (n=207)	33.3	[26.0,41.4]	13.3	[8.5,20.2]	53.4	[45.1,61.5]	100.0
Pearson: Uncorrected chi2(4) =	3.8385						
Design-based F(3.97, 2352.79) =	0.6500	Pr =	0.626				
Gender							
Male (n=325)	35.1	[29.3,41.5]	11.1	[7.6,15.9]	53.8	[47.3,60.1]	100.0
Female (n=280)	29.7	[23.6,36.5]	10.0	[6.5,15.1]	60.4	[53.2,67.1]	100.0
Pearson: Uncorrected chi2(2) =	2.5234						
Design-based F(2.00, 1185.43) =	0.9427	Pr =	0.390				
Race/ethnicity							
White, non-Hispanic (n=399)	34.0	[28.6,39.9]	10.9	[7.5,15.6]	55.1	[49.0,61.0]	100.0
Black, non-Hispanic (n=114)	33.3	[24.0,44.0]	5.2	[2.4,11.1]	61.5	[50.8,71.2]	100.0
Hispanic (n=33)	16.4	[7.2,33.3]	24.1	[10.6,46.0]	59.5	[39.2,77.0]	100.0
Other, non-Hispanic (n=54)	37.0	[22.5,54.2]	13.3	[6.1,26.7]	49.7	[33.7,65.8]	100.0
Pearson: Uncorrected chi2(6) =	15.7812						
Design-based F(5.85, 3439.23) =	1.8380	Pr =	0.090				
FPL category							
0-35% (n=239)	31.5	[25.7,37.9]	10.7	[7.3,15.5]	57.8	[51.2,64.1]	100.0
36-99% (n=192)	31.7	[25.6,38.4]	11.4	[7.4,17.2]	56.9	[49.9,63.6]	100.0
100%+ (n=174)	43.9	[36.6,51.5]	9.4	[5.7,15.1]	46.7	[39.5,54.1]	100.0
Pearson: Uncorrected chi2(4) =	4.6988						
Design-based F(3.64, 2158.87) =	1.6267	Pr =	0.171				
Region							
UP/NW/NE (n=95)	31.7	[22.2,43.1]	16.2	[7.5,31.6]	52.1	[39.3,64.7]	100.0
W/E Central/E (n=162)	29.5	[22.0,38.2]	9.0	[5.3,15.1]	61.5	[52.5,69.8]	100.0
S Central/SW/SE (n=150)	33.9	[25.0,44.0]	9.3	[4.8,17.4]	56.8	[46.7,66.4]	100.0
Detroit Metro (n=198)	35.5	[28.1,43.7]	11.2	[7.0,17.4]	53.3	[45.1,61.3]	100.0
Pearson: Uncorrected chi2(6) =	4.9338						
Design-based F(5.78, 3429.66) =	0.5984	Pr =	0.726				
Total (n=605)	33.1	[28.7,37.8]	10.7	[8.0,14.1]	56.2	[51.4,61.0]	100.0

4.5 Q: Some kinds of visits, tests and medicines have no copays.

Universe: All respondents

	Some kinds of visits, tests, and medicines have no copays						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	63.8	[55.8,71.1]	6.4	[3.6,11.1]	29.8	[22.9,37.8]	100.0
35-50 (n=178)	71.3	[62.9,78.5]	6.2	[3.0,12.2]	22.5	[16.1,30.4]	100.0
51-64 (n=207)	70.7	[62.7,77.6]	6.0	[3.0,11.6]	23.3	[17.1,30.8]	100.0
Pearson: Uncorrected chi2(4) =	3.9521						
Design-based F(3.97, 2355.55) =	0.7009	Pr =	0.590				
Gender							
Male (n=325)	63.8	[57.4,69.8]	7.0	[4.4,10.8]	29.2	[23.7,35.5]	100.0
Female (n=280)	75.1	[68.4,80.8]	5.0	[2.6,9.3]	19.9	[14.8,26.2]	100.0
Pearson: Uncorrected chi2(2) =	8.3082						
Design-based F(2.00, 1185.85) =	3.1129	Pr =	0.045				
Race/ethnicity							
White, non-Hispanic (n=399)	64.8	[58.8,70.4]	5.8	[3.5,9.4]	29.4	[24.1,35.3]	100.0
Black, non-Hispanic (n=114)	73.3	[63.0,81.6]	8.4	[4.3,15.9]	18.3	[11.4,28.1]	100.0
Hispanic (n=33)	87.6	[73.9,94.6]	0.0		12.4	[5.4,26.1]	100.0
Other, non-Hispanic (n=54)	59.5	[42.4,74.6]	8.7	[3.1,21.9]	31.8	[18.0,49.8]	100.0
Pearson: Uncorrected chi2(6) =	16.2859						
Design-based F(5.77, 3392.56) =	1.9340	Pr =	0.075				
FPL category							
0-35% (n=239)	67.8	[61.4,73.6]	5.8	[3.4,9.8]	26.4	[21.0,32.6]	100.0
36-99% (n=192)	65.4	[58.3,71.9]	6.4	[3.7,10.8]	28.2	[22.2,35.2]	100.0
100%+ (n=174)	72.9	[66.1,78.8]	8.2	[5.0,13.2]	18.9	[14.0,24.9]	100.0
Pearson: Uncorrected chi2(4) =	2.6995						
Design-based F(3.56, 2109.99) =	0.9691	Pr =	0.417				
Region							
UP/NW/NE (n=95)	57.0	[43.6,69.5]	7.9	[2.2,25.0]	35.0	[23.3,48.8]	100.0
W/E Central/E (n=162)	71.9	[63.3,79.2]	4.9	[2.4,9.8]	23.2	[16.5,31.6]	100.0
S Central/SW/SE (n=150)	68.4	[58.5,76.9]	5.4	[2.6,11.0]	26.2	[18.3,36.0]	100.0
Detroit Metro (n=198)	67.8	[59.7,75.0]	7.1	[4.0,12.4]	25.1	[18.5,33.0]	100.0
Pearson: Uncorrected chi2(6) =	5.0436						
Design-based F(5.72, 3394.91) =	0.5975	Pr =	0.725				
Total (n=605)	68.0	[63.3,72.4]	6.2	[4.3,9.0]	25.7	[21.7,30.3]	100.0

4.6 Q: Getting discounts on copays and premiums as a reward for working on improving your health is a good idea.

Universe: All respondents

	Discounts for improving health is a good idea												
	Strongly agree		**Agree**		**Neutral**		**Disagree**		**Strongly disagree**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age													
19-34 (n=220)	39.6	[32.1,47.7]	48.3	[40.5,56.2]	11.3	[7.5,16.6]	0.4	[0.1,1.5]	0.1	[0.0,0.7]	0.2	[0.0,1.3]	100.0
35-50 (n=178)	41.7	[33.1,50.8]	43.0	[34.6,51.9]	9.6	[5.5,16.5]	3.4	[1.3,8.5]	1.9	[0.5,7.4]	0.3	[0.0,1.7]	100.0
51-64 (n=206)	41.2	[33.4,49.5]	43.4	[35.5,51.6]	13.4	[8.7,20.3]	0.5	[0.2,1.9]	0.6	[0.2,2.2]	0.8	[0.1,5.2]	100.0
Pearson: Uncorrected chi2(10) =	15.5883												
Design-based F(8.03, 4755.43) =	1.7171	Pr =	0.089										
Gender													
Male (n=325)	42.3	[36.0,48.8]	44.1	[37.8,50.6]	10.2	[7.0,14.5]	1.9	[0.8,4.4]	1.1	[0.3,3.6]	0.5	[0.1,2.1]	100.0
Female (n=279)	38.1	[31.3,45.4]	47.4	[40.3,54.6]	13.5	[9.3,19.2]	0.5	[0.1,1.7]	0.3	[0.1,1.2]	0.2	[0.0,1.4]	100.0
Pearson: Uncorrected chi2(5) =	5.7103												
Design-based F(4.14, 2452.66) =	1.2963	Pr =	0.268										
Race/ethnicity													
White, non-Hispanic (n=399)	39.3	[33.5,45.3]	46.2	[40.3,52.2]	11.9	[8.7,16.1]	1.0	[0.3,3.9]	1.0	[0.3,3.7]	0.7	[0.2,2.2]	100.0
Black, non-Hispanic (n=114)	40.1	[30.2,50.9]	44.1	[33.9,54.9]	13.9	[8.0,23.1]	1.5	[0.4,6.2]	0.3	[0.1,1.9]	0.0		100.0
Hispanic (n=33)	35.9	[18.8,57.6]	59.3	[38.5,77.2]	3.8	[0.8,15.9]	1.0	[0.2,5.4]	0.0		0.0		100.0
Other, non-Hispanic (n=53)	55.3	[39.1,70.5]	33.8	[20.8,49.8]	5.6	[1.4,19.5]	4.1	[1.6,10.1]	1.2	[0.2,7.0]	0.0		100.0
Pearson: Uncorrected chi2(15) =	16.4049												
Design-based F(12.62, 7407.98) =	0.9264	Pr =	0.522										
FPL category													
0-35% (n=239)	42.0	[35.7,48.7]	44.9	[38.5,51.5]	11.0	[7.6,15.6]	0.9	[0.2,3.7]	0.8	[0.2,3.3]	0.3	[0.0,2.1]	100.0
36-99% (n=191)	34.9	[28.6,41.7]	51.4	[44.5,58.3]	9.8	[6.2,15.1]	2.8	[1.2,6.2]	0.6	[0.1,3.5]	0.5	[0.1,3.1]	100.0
100%+ (n=174)	41.2	[34.1,48.7]	39.3	[32.4,46.6]	16.0	[11.4,22.1]	1.8	[0.6,5.1]	1.0	[0.3,3.5]	0.7	[0.1,4.0]	100.0
Pearson: Uncorrected chi2(10) =	6.8611												
Design-based F(8.65, 5119.11) =	0.9869	Pr =	0.447										
Region													
UP/NW/NE (n=95)	43.3	[31.0,56.5]	47.0	[34.5,59.9]	9.7	[4.7,18.8]	0.0		0.0		0.0		100.0
W/E Central/E (n=162)	36.7	[28.3,45.9]	46.5	[37.6,55.8]	12.9	[8.0,20.2]	3.0	[1.0,9.0]	0.0		0.8	[0.1,5.3]	100.0
S Central/SW/SE (n=150)	47.8	[38.0,57.8]	38.2	[29.2,48.2]	11.5	[7.2,17.9]	0.8	[0.2,2.9]	1.3	[0.3,6.0]	0.4	[0.1,2.4]	100.0
Detroit Metro (n=197)	39.0	[31.3,47.3]	47.9	[39.9,56.0]	10.7	[6.6,16.9]	0.9	[0.4,2.1]	1.3	[0.3,5.0]	0.2	[0.0,1.3]	100.0
Pearson: Uncorrected chi2(15) =	14.1515												
Design-based F(12.12, 7176.86) =	0.9290	Pr =	0.517										
Total (n=604)	40.7	[36.0,45.6]	45.3	[40.5,50.2]	11.4	[8.7,14.7]	1.4	[0.6,2.9]	0.8	[0.3,2.3]	0.4	[0.1,1.3]	100.0

4.7 Q: Do you think eyeglasses are covered, not covered, or don't know?

Universe: All respondents

	Eyeglasses covered						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	42.6	[34.9,50.7]	14.0	[9.5,20.2]	43.4	[35.7,51.4]	100.0
35-50 (n=177)	50.6	[41.7,59.4]	8.5	[4.8,14.4]	41.0	[32.5,50.0]	100.0
51-64 (n=209)	54.9	[46.6,62.9]	6.6	[3.8,11.3]	38.5	[30.7,46.9]	100.0
Pearson: Uncorrected chi2(4) =	10.2967						
Design-based F(3.91, 2321.22) =	1.9049	Pr =	0.109				
Gender							
Male (n=325)	43.5	[37.2,50.0]	9.8	[6.7,14.3]	46.7	[40.3,53.2]	100.0
Female (n=281)	56.9	[49.8,63.7]	10.9	[7.4,15.8]	32.2	[26.0,39.1]	100.0
Pearson: Uncorrected chi2(2) =	12.6504						
Design-based F(2.00, 1186.25) =	4.8179	Pr =	0.008				
Race/ethnicity							
White, non-Hispanic (n=401)	44.0	[38.1,50.0]	13.1	[9.6,17.7]	42.9	[37.0,49.0]	100.0
Black, non-Hispanic (n=114)	59.0	[48.2,69.0]	6.5	[2.9,14.1]	34.5	[25.2,45.3]	100.0
Hispanic (n=33)	61.3	[41.9,77.7]	4.8	[1.3,16.5]	33.9	[18.8,53.1]	100.0
Other, non-Hispanic (n=53)	44.6	[29.1,61.2]	4.5	[1.9,10.5]	50.9	[34.8,66.8]	100.0
Pearson: Uncorrected chi2(6) =	17.3189						
Design-based F(5.40, 3181.91) =	2.2885	Pr =	0.039				
FPL category							
0-35% (n=239)	49.9	[43.4,56.4]	8.3	[5.2,12.8]	41.8	[35.5,48.4]	100.0
36-99% (n=192)	42.4	[35.7,49.4]	16.3	[11.7,22.2]	41.4	[34.6,48.5]	100.0
100%+ (n=175)	48.9	[41.6,56.2]	13.1	[8.6,19.4]	38.0	[31.1,45.5]	100.0
Pearson: Uncorrected chi2(4) =	7.0689						
Design-based F(3.53, 2096.96) =	2.3544	Pr =	0.060				
Region							
UP/NW/NE (n=95)	37.8	[27.1,49.9]	13.5	[6.1,27.0]	48.7	[36.1,61.5]	100.0
W/E Central/E (n=163)	52.1	[43.0,61.0]	9.5	[5.6,15.8]	38.4	[30.0,47.6]	100.0
S Central/SW/SE (n=151)	41.0	[31.7,50.9]	10.1	[5.9,16.6]	49.0	[39.2,58.8]	100.0
Detroit Metro (n=197)	52.6	[44.5,60.7]	10.1	[6.2,16.0]	37.3	[29.7,45.5]	100.0
Pearson: Uncorrected chi2(6) =	8.9160						
Design-based F(5.82, 3454.27) =	1.1349	Pr =	0.339				
Total (n=606)	48.5	[43.7,53.3]	10.2	[7.7,13.4]	41.3	[36.6,46.1]	100.0

4.8 Q: Do you think prescription medications are covered, not covered, or don't know?

Universe: All respondents

	Prescription medications covered						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	83.8	[77.2,88.8]	1.2	[0.5,3.0]	15.0	[10.2,21.6]	100.0
35-50 (n=177)	86.4	[78.9,91.5]	1.3	[0.3,6.4]	12.3	[7.5,19.5]	100.0
51-64 (n=209)	88.5	[82.2,92.8]	0.5	[0.2,1.3]	11.0	[6.8,17.4]	100.0
Pearson: Uncorrected chi2(4) =	2.3626						
Design-based F(3.36, 1997.23) =	0.5291	Pr =	0.683				
Gender							
Male (n=325)	82.9	[77.6,87.1]	0.7	[0.2,1.9]	16.5	[12.3,21.7]	100.0
Female (n=281)	91.0	[85.8,94.4]	1.6	[0.5,4.8]	7.4	[4.3,12.3]	100.0
Pearson: Uncorrected chi2(2) =	11.4768						
Design-based F(1.93, 1144.70) =	5.0153	Pr =	0.007				
Race/ethnicity							
White, non-Hispanic (n=401)	86.3	[81.4,90.1]	0.5	[0.2,1.4]	13.2	[9.4,18.1]	100.0
Black, non-Hispanic (n=114)	84.5	[75.4,90.7]	0.8	[0.3,2.4]	14.7	[8.6,23.9]	100.0
Hispanic (n=33)	92.4	[79.7,97.4]	0.0		7.6	[2.6,20.3]	100.0
Other, non-Hispanic (n=53)	80.8	[66.1,90.0]	6.1	[1.5,21.5]	13.2	[6.3,25.5]	100.0
Pearson: Uncorrected chi2(6) =	15.2447						
Design-based F(4.95, 2912.97) =	2.4926	Pr =	0.030				
FPL category							
0-35% (n=239)	86.2	[81.0,90.1]	0.5	[0.1,3.2]	13.3	[9.5,18.4]	100.0
36-99% (n=192)	86.4	[80.3,90.9]	2.0	[0.7,5.7]	11.6	[7.5,17.5]	100.0
100%+ (n=175)	83.6	[77.0,88.6]	2.8	[1.1,7.0]	13.6	[9.0,19.9]	100.0
Pearson: Uncorrected chi2(4) =	4.8573						
Design-based F(3.38, 2005.37) =	1.3671	Pr =	0.248				
Region							
UP/NW/NE (n=95)	75.1	[59.6,86.1]	1.3	[0.4,4.4]	23.6	[12.8,39.4]	100.0
W/E Central/E (n=163)	87.1	[80.5,91.7]	0.9	[0.2,3.5]	12.0	[7.5,18.5]	100.0
S Central/SW/SE (n=151)	86.3	[78.0,91.8]	0.3	[0.1,1.9]	13.3	[7.9,21.7]	100.0
Detroit Metro (n=197)	87.4	[80.8,91.9]	1.4	[0.4,4.7]	11.2	[6.9,17.6]	100.0
Pearson: Uncorrected chi2(6) =	7.6496						
Design-based F(4.89, 2902.51) =	1.2422	Pr =	0.287				
Total (n=606)	85.9	[82.2,89.0]	1.0	[0.5,2.2]	13.1	[10.1,16.7]	100.0

4.9 Q: Do you think routine dental care is covered, not covered, or don't know?

Universe: All respondents

	Routine dental care covered						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	63.5	[55.5,70.7]	12.7	[8.1,19.4]	23.9	[17.9,31.1]	100.0
35-50 (n=177)	63.4	[54.4,71.5]	4.9	[2.4,9.9]	31.7	[23.9,40.6]	100.0
51-64 (n=208)	64.8	[56.6,72.2]	0.8	[0.2,2.8]	34.4	[27.0,42.6]	100.0
Pearson: Uncorrected chi2(4) =	26.5809						
Design-based F(3.67, 2178.80) =	5.4257	Pr =	0.000				
Gender							
Male (n=325)	60.4	[54.0,66.5]	8.4	[5.4,12.9]	31.2	[25.6,37.4]	100.0
Female (n=280)	69.6	[62.5,75.8]	4.5	[2.2,9.3]	25.9	[20.2,32.6]	100.0
Pearson: Uncorrected chi2(2) =	6.2735						
Design-based F(1.99, 1179.01) =	2.1721	Pr =	0.115				
Race/ethnicity							
White, non-Hispanic (n=401)	62.1	[56.0,67.8]	8.5	[5.5,12.9]	29.4	[24.3,35.2]	100.0
Black, non-Hispanic (n=113)	71.5	[60.9,80.1]	4.7	[1.6,13.0]	23.8	[16.0,33.9]	100.0
Hispanic (n=33)	69.0	[49.2,83.6]	9.8	[2.7,30.2]	21.2	[10.3,38.8]	100.0
Other, non-Hispanic (n=53)	53.2	[36.7,69.0]	0.6	[0.1,3.7]	46.2	[30.5,62.7]	100.0
Pearson: Uncorrected chi2(6) =	15.3923						
Design-based F(5.21, 3065.52) =	1.8717	Pr =	0.093				
FPL category							
0-35% (n=239)	64.8	[58.3,70.8]	6.3	[3.6,10.8]	28.9	[23.4,35.2]	100.0
36-99% (n=191)	63.7	[56.7,70.1]	7.2	[4.2,12.1]	29.1	[23.2,35.8]	100.0
100%+ (n=175)	58.5	[50.9,65.8]	10.6	[6.2,17.6]	30.9	[24.3,38.3]	100.0
Pearson: Uncorrected chi2(4) =	2.2399						
Design-based F(3.54, 2100.04) =	0.6997	Pr =	0.575				
Region							
UP/NW/NE (n=95)	53.9	[40.7,66.5]	8.2	[2.5,23.7]	37.9	[26.0,51.5]	100.0
W/E Central/E (n=163)	66.7	[57.8,74.6]	7.5	[3.7,14.8]	25.8	[18.9,34.1]	100.0
S Central/SW/SE (n=151)	58.6	[48.5,68.0]	7.1	[3.3,14.8]	34.3	[25.4,44.4]	100.0
Detroit Metro (n=196)	67.0	[59.0,74.2]	6.2	[3.3,11.5]	26.7	[20.2,34.5]	100.0
Pearson: Uncorrected chi2(6) =	6.3599						
Design-based F(5.86, 3472.91) =	0.7063	Pr =	0.641				
Total (n=605)	63.8	[59.0,68.3]	7.0	[4.8,10.1]	29.2	[25.0,33.8]	100.0

4.10 Q: Do you think treatment to stop smoking is covered, not covered, or don't know?

Universe: All respondents

	Treatment to stop smoking covered						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	28.6	[22.0,36.3]	12.6	[8.0,19.5]	58.7	[50.6,66.4]	100.0
35-50 (n=177)	34.9	[26.8,43.9]	6.7	[3.5,12.7]	58.4	[49.4,66.9]	100.0
51-64 (n=209)	43.5	[35.7,51.7]	2.7	[0.9,7.6]	53.7	[45.6,61.7]	100.0
Pearson: Uncorrected chi2(4) =	20.0123						
Design-based F(3.97, 2357.25) =	3.4028	Pr =	0.009				
Gender							
Male (n=325)	36.6	[30.5,43.1]	8.3	[5.3,12.8]	55.1	[48.6,61.5]	100.0
Female (n=281)	31.6	[25.6,38.4]	7.6	[4.2,13.6]	60.7	[53.6,67.5]	100.0
Pearson: Uncorrected chi2(2) =	1.8616						
Design-based F(1.96, 1165.61) =	0.6112	Pr =	0.540				
Race/ethnicity							
White, non-Hispanic (n=401)	35.5	[30.0,41.5]	4.3	[2.4,7.7]	60.1	[54.1,65.8]	100.0
Black, non-Hispanic (n=114)	33.4	[24.2,44.1]	11.2	[5.7,20.9]	55.4	[44.6,65.7]	100.0
Hispanic (n=33)	27.7	[12.8,50.1]	19.7	[8.0,41.1]	52.5	[32.5,71.8]	100.0
Other, non-Hispanic (n=53)	34.1	[20.1,51.4]	17.8	[7.7,36.0]	48.2	[32.3,64.5]	100.0
Pearson: Uncorrected chi2(6) =	22.8618						
Design-based F(5.95, 3501.79) =	2.2682	Pr =	0.035				
FPL category							
0-35% (n=239)	34.9	[28.9,41.4]	8.3	[5.1,13.1]	56.8	[50.2,63.2]	100.0
36-99% (n=192)	33.6	[27.4,40.5]	4.9	[2.4,9.9]	61.5	[54.4,68.1]	100.0
100%+ (n=175)	35.2	[28.8,42.2]	11.1	[7.2,16.7]	53.7	[46.4,60.8]	100.0
Pearson: Uncorrected chi2(4) =	2.7588						
Design-based F(3.62, 2150.76) =	0.9312	Pr =	0.438				
Region							
UP/NW/NE (n=95)	37.5	[26.2,50.2]	8.1	[2.4,23.8]	54.4	[41.4,66.8]	100.0
W/E Central/E (n=163)	39.8	[31.2,49.0]	6.7	[3.1,14.1]	53.5	[44.3,62.4]	100.0
S Central/SW/SE (n=151)	37.3	[28.1,47.5]	4.4	[1.7,10.8]	58.3	[48.2,67.8]	100.0
Detroit Metro (n=197)	29.2	[22.3,37.2]	10.9	[6.7,17.4]	59.9	[51.6,67.6]	100.0
Pearson: Uncorrected chi2(6) =	9.7747						
Design-based F(5.79, 3440.71) =	1.0776	Pr =	0.373				
Total (n=606)	34.7	[30.3,39.5]	8.0	[5.6,11.4]	57.2	[52.3,62.0]	100.0

4.11 Q: Do you think birth control or family planning is covered, not covered, or don't know?

Universe: All respondents

	Birth control or family planning covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	54.7	[46.7,62.5]	1.8	[0.9,3.8]	43.4	[35.7,51.5]	100.0
35-50 (n=177)	43.8	[35.2,52.8]	8.3	[4.2,15.6]	47.9	[39.2,56.7]	100.0
51-64 (n=208)	45.7	[37.8,53.9]	1.9	[0.6,5.6]	52.4	[44.2,60.4]	100.0
Pearson: Uncorrected chi2(4) =	18.6925						
Design-based F(3.82, 2262.31) =	3.7900	Pr =	0.005				
Gender							
Male (n=325)	40.8	[34.5,47.3]	5.1	[2.9,8.7]	54.1	[47.6,60.5]	100.0
Female (n=280)	62.4	[55.4,68.9]	1.7	[0.6,4.8]	35.9	[29.6,42.8]	100.0
Pearson: Uncorrected chi2(2) =	27.7986						
Design-based F(2.00, 1183.82) =	10.7572	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=400)	48.4	[42.4,54.5]	2.2	[1.1,4.6]	49.3	[43.3,55.4]	100.0
Black, non-Hispanic (n=114)	53.9	[43.2,64.3]	6.6	[2.7,15.6]	39.5	[29.6,50.3]	100.0
Hispanic (n=33)	35.1	[19.2,55.2]	7.0	[2.2,19.8]	57.9	[37.9,75.6]	100.0
Other, non-Hispanic (n=53)	45.7	[29.9,62.5]	5.3	[1.2,20.2]	48.9	[32.9,65.2]	100.0
Pearson: Uncorrected chi2(6) =	12.0098						
Design-based F(5.83, 3428.89) =	1.3580	Pr =	0.229				
FPL category							
0-35% (n=239)	50.2	[43.6,56.8]	3.4	[1.6,7.0]	46.4	[39.9,53.0]	100.0
36-99% (n=192)	43.6	[36.8,50.6]	4.7	[2.3,9.4]	51.7	[44.7,58.7]	100.0
100%+ (n=174)	48.6	[41.2,56.0]	5.0	[2.6,9.3]	46.4	[39.2,53.8]	100.0
Pearson: Uncorrected chi2(4) =	1.9858						
Design-based F(3.52, 2087.80) =	0.6545	Pr =	0.604				
Region							
UP/NW/NE (n=94)	41.4	[29.3,54.7]	2.0	[0.4,8.9]	56.6	[43.4,68.9]	100.0
W/E Central/E (n=163)	48.6	[39.6,57.8]	1.2	[0.4,3.7]	50.2	[41.1,59.2]	100.0
S Central/SW/SE (n=151)	48.1	[38.4,58.0]	2.4	[0.7,7.4]	49.5	[39.7,59.3]	100.0
Detroit Metro (n=197)	51.2	[43.1,59.3]	6.8	[3.6,12.5]	42.0	[34.2,50.2]	100.0
Pearson: Uncorrected chi2(6) =	13.9297						
Design-based F(5.57, 3304.07) =	2.0305	Pr =	0.064				
Total (n=605)	48.9	[44.0,53.8]	3.8	[2.3,6.2]	47.3	[42.5,52.2]	100.0

4.12 Q: Do you think counseling for mental or emotional problems is covered, not covered, or don't know?

Universe: All respondents

	Counseling for mental or emotional problems covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	49.6	[41.7,57.5]	6.4	[3.8,10.5]	44.0	[36.3,52.1]	100.0
35-50 (n=177)	56.0	[47.0,64.5]	4.7	[1.9,11.1]	39.4	[31.2,48.2]	100.0
51-64 (n=209)	56.8	[48.6,64.6]	0.7	[0.3,1.6]	42.5	[34.8,50.7]	100.0
Pearson: Uncorrected chi2(4) =	9.7109						
Design-based F(3.33, 1977.69) =	2.0214	Pr =	0.102				
Gender							
Male (n=325)	50.0	[43.5,56.4]	4.7	[2.7,8.2]	45.3	[39.0,51.8]	100.0
Female (n=281)	59.5	[52.6,66.2]	3.4	[1.8,6.4]	37.0	[30.6,44.0]	100.0
Pearson: Uncorrected chi2(2) =	5.2719						
Design-based F(1.97, 1171.79) =	2.1812	Pr =	0.114				
Race/ethnicity							
White, non-Hispanic (n=401)	55.6	[49.7,61.4]	2.2	[1.2,4.2]	42.1	[36.4,48.1]	100.0
Black, non-Hispanic (n=114)	50.3	[39.7,60.8]	9.4	[4.6,18.4]	40.3	[30.4,51.0]	100.0
Hispanic (n=33)	54.7	[34.2,73.7]	4.9	[1.3,17.1]	40.4	[22.2,61.8]	100.0
Other, non-Hispanic (n=53)	48.8	[32.8,65.0]	3.4	[1.0,11.1]	47.8	[32.0,64.1]	100.0
Pearson: Uncorrected chi2(6) =	14.0033						
Design-based F(5.52, 3253.79) =	1.7769	Pr =	0.106				
FPL category							
0-35% (n=239)	56.6	[50.0,63.0]	2.8	[1.2,6.4]	40.6	[34.4,47.1]	100.0
36-99% (n=192)	42.0	[35.4,49.0]	8.1	[4.9,13.2]	49.9	[42.9,56.9]	100.0
100%+ (n=175)	52.1	[44.7,59.4]	7.2	[3.9,12.8]	40.7	[33.7,48.2]	100.0
Pearson: Uncorrected chi2(4) =	12.5249						
Design-based F(3.30, 1962.98) =	3.7148	Pr =	0.009				
Region							
UP/NW/NE (n=95)	43.8	[31.6,56.7]	3.0	[1.2,7.4]	53.3	[40.5,65.6]	100.0
W/E Central/E (n=163)	52.1	[43.0,61.1]	1.8	[0.7,4.2]	46.1	[37.2,55.3]	100.0
S Central/SW/SE (n=151)	52.5	[42.5,62.2]	2.8	[0.9,8.6]	44.7	[35.1,54.7]	100.0
Detroit Metro (n=197)	57.5	[49.4,65.2]	7.0	[3.9,12.3]	35.5	[28.2,43.6]	100.0
Pearson: Uncorrected chi2(6) =	14.6474						
Design-based F(5.31, 3152.82) =	2.2146	Pr =	0.046				
Total (n=606)	53.6	[48.7,58.3]	4.2	[2.7,6.5]	42.2	[37.5,47.0]	100.0

4.13 Q: Do you think substance use treatment is covered, not covered, or don't know?

Universe: All respondents

	Substance use treatment covered						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	32.3	[25.4,40.1]	5.2	[3.1,8.4]	62.5	[54.7,69.7]	100.0
35-50 (n=177)	45.8	[37.1,54.9]	5.4	[2.4,11.5]	48.8	[40.0,57.6]	100.0
51-64 (n=209)	53.3	[45.2,61.2]	0.3	[0.1,1.2]	46.4	[38.5,54.4]	100.0
Pearson: Uncorrected chi2(4) =	25.1945						
Design-based F(3.32, 1970.07) =	5.6584	Pr =	0.000				
Gender							
Male (n=325)	44.8	[38.5,51.4]	4.1	[2.4,6.9]	51.1	[44.6,57.5]	100.0
Female (n=281)	38.2	[31.6,45.3]	3.5	[1.6,7.2]	58.3	[51.3,65.0]	100.0
Pearson: Uncorrected chi2(2) =	3.0133						
Design-based F(1.99, 1182.20) =	1.1819	Pr =	0.307				
Race/ethnicity							
White, non-Hispanic (n=401)	43.7	[37.8,49.8]	2.4	[1.4,4.3]	53.8	[47.8,59.8]	100.0
Black, non-Hispanic (n=114)	45.0	[34.7,55.7]	5.9	[2.5,13.2]	49.1	[38.7,59.7]	100.0
Hispanic (n=33)	25.2	[12.4,44.7]	5.8	[1.6,19.4]	68.9	[49.4,83.5]	100.0
Other, non-Hispanic (n=53)	39.5	[24.4,56.9]	7.6	[2.4,21.5]	53.0	[36.4,68.9]	100.0
Pearson: Uncorrected chi2(6) =	10.9913						
Design-based F(5.83, 3436.12) =	1.3362	Pr =	0.239				
FPL category							
0-35% (n=239)	44.1	[37.8,50.7]	2.0	[0.8,5.2]	53.8	[47.3,60.2]	100.0
36-99% (n=192)	34.5	[28.3,41.4]	7.4	[4.1,12.8]	58.1	[51.0,64.9]	100.0
100%+ (n=175)	43.0	[36.0,50.3]	9.2	[5.5,15.1]	47.8	[40.5,55.1]	100.0
Pearson: Uncorrected chi2(4) =	15.3404						
Design-based F(3.27, 1944.66) =	4.4758	Pr =	0.003				
Region							
UP/NW/NE (n=95)	42.0	[29.9,55.1]	1.4	[0.5,3.8]	56.6	[43.6,68.7]	100.0
W/E Central/E (n=163)	38.1	[29.7,47.3]	2.6	[1.2,5.5]	59.3	[50.1,67.9]	100.0
S Central/SW/SE (n=151)	39.3	[30.1,49.3]	1.9	[0.9,4.1]	58.8	[48.9,68.0]	100.0
Detroit Metro (n=197)	47.0	[39.0,55.2]	6.4	[3.5,11.3]	46.6	[38.5,54.8]	100.0
Pearson: Uncorrected chi2(6) =	13.4024						
Design-based F(4.77, 2830.77) =	2.3449	Pr =	0.042				
Total (n=606)	42.4	[37.6,47.2]	3.9	[2.5,5.9]	53.8	[48.9,58.5]	100.0

4.14 Q: Have you had any questions or difficulties using your Healthy Michigan Plan insurance so far?

Universe: All respondents

	Questions or difficulties								
	Yes		No		NA- haven't tried to get care		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=220)	15.9	[11.1,22.3]	79.6	[72.7,85.1]	3.5	[1.7,7.4]	1.0	[0.1,6.4]	100.0
35-50 (n=178)	15.6	[9.8,23.9]	74.4	[65.3,81.7]	10.0	[5.6,17.4]	0.0		100.0
51-64 (n=209)	16.1	[11.0,22.9]	77.7	[70.3,83.8]	6.1	[3.1,11.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	11.0653								
Design-based F(5.70, 3390.61) =	1.1691	Pr =	0.320						
Gender									
Male (n=326)	16.0	[11.8,21.4]	75.6	[69.7,80.7]	7.7	[5.0,11.7]	0.6	[0.1,4.3]	100.0
Female (n=281)	15.6	[11.2,21.4]	80.6	[74.3,85.7]	3.7	[1.6,8.7]	0.0		100.0
Pearson: Uncorrected chi2(3) =	5.5773								
Design-based F(2.84, 1689.51) =	1.0526	Pr =	0.366						
Race/ethnicity									
White, non-Hispanic (n=401)	17.6	[13.4,22.7]	74.9	[69.3,79.8]	7.5	[4.8,11.5]	0.0		100.0
Black, non-Hispanic (n=114)	12.1	[6.6,20.9]	81.2	[71.0,88.5]	4.9	[1.7,13.5]	1.8	[0.3,11.1]	100.0
Hispanic (n=33)	10.1	[3.1,28.2]	89.9	[71.8,96.9]	0.0		0.0		100.0
Other, non-Hispanic (n=54)	19.3	[9.1,36.5]	74.8	[57.9,86.4]	5.9	[1.9,16.9]	0.0		100.0
Pearson: Uncorrected chi2(9) =	16.3723								
Design-based F(8.54, 5039.73) =	1.1227	Pr =	0.343						
FPL category									
0-35% (n=239)	16.4	[12.1,21.8]	76.5	[70.5,81.6]	6.5	[3.9,10.6]	0.6	[0.1,3.8]	100.0
36-99% (n=192)	15.3	[10.9,21.0]	79.1	[72.7,84.3]	5.6	[3.0,10.2]	0.0		100.0
100%+ (n=176)	13.7	[9.7,18.9]	80.7	[74.6,85.5]	5.7	[3.1,10.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	1.7122								
Design-based F(3.48, 2067.95) =	0.3379	Pr =	0.827						
Region									
UP/NW/NE (n=95)	24.3	[14.7,37.5]	62.8	[49.5,74.5]	12.9	[6.1,25.0]	0.0		100.0
W/E Central/E (n=163)	13.2	[8.4,20.1]	80.2	[72.3,86.2]	6.7	[3.5,12.6]	0.0		100.0
S Central/SW/SE (n=151)	16.7	[10.7,25.2]	77.4	[67.9,84.6]	5.9	[2.4,13.9]	0.0		100.0
Detroit Metro (n=198)	15.3	[10.1,22.5]	79.2	[71.4,85.3]	4.5	[2.0,9.8]	1.0	[0.1,6.5]	100.0
Pearson: Uncorrected chi2(9) =	14.2870								
Design-based F(7.04, 4188.22) =	1.2642	Pr =	0.264						
Total (n=607)	15.9	[12.6,19.8]	77.5	[73.1,81.3]	6.2	[4.2,9.1]	0.4	[0.1,2.7]	100.0

4.14.1 Q: What kind of questions or difficulties did you have?

Universe: Respondents who had questions or difficulties with using the Healthy Michigan Plan (n = 97)

	Weighted Proportion	95%CI
Difficulty/inability finding a provider (n=47)	48.6	[36.3, 61.1]
Other (n=13)	17.7	[9.6, 30.4]
Needed a service that wasn't covered (n=17)	17.5	[10.2, 28.5]
Difficulty finding out information (n=16)	13.5	[7.6, 23.0]
Problem with Medicaid/HMP ID card (n=6)	3.1	[1.4, 6.7]
Disenrolled/declared ineligible but don't know why (n=2)	2.9	[0.6, 12.3]
Difficulty getting appointment (n=1)	2.8	[0.4, 17.2]
Payment issues: charged incorrectly/too much (n=3)	2.4	[0.6, 9.6]
Inaccurate information from/problem with Medicaid health plan (n=4)	2.1	[0.9, 4.8]
Payment issues: trouble making payments (n=2)	1.7	[0.4, 6.7]
Transportation/logistics (n=1)	0.3	[0.0, 1.9]

Note: Respondents were able to provide multiple responses

5 Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

5.1 Q: In the 12 months before enrolling in the Healthy Michigan Plan, was there a place that you usually would go for a checkup, when you felt sick, or when you wanted advice about your health?

Universe: All respondents

	Regular source of care prior to HMP								
	Yes		**No**		**Don't know**		**N/A: did not need care**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=220)	62.8	[54.7,70.2]	32.5	[25.3,40.6]	0.3	[0.0,1.6]	4.5	[2.1,9.2]	100.0
35-50 (n=178)	59.4	[50.2,68.0]	34.4	[26.3,43.6]	1.3	[0.2,8.3]	4.9	[2.1,11.0]	100.0
51-64 (n=209)	69.1	[60.8,76.3]	30.3	[23.1,38.6]	0.0		0.6	[0.2,1.6]	100.0
Pearson: Uncorrected chi2(6) =	11.1482								
Design-based F(4.76, 2834.49) =	1.4181	Pr =	0.217						
Gender									
Male (n=326)	53.6	[47.1,60.0]	40.4	[34.2,47.0]	0.6	[0.1,4.2]	5.4	[3.1,9.2]	100.0
Female (n=281)	80.2	[74.1,85.2]	19.2	[14.2,25.3]	0.3	[0.0,1.7]	0.3	[0.1,1.2]	100.0
Pearson: Uncorrected chi2(3) =	46.2416								
Design-based F(2.50, 1487.71) =	17.7703	Pr =	0.000						
Race/ethnicity									
White, non-Hispanic (n=401)	65.6	[59.5,71.2]	31.2	[25.8,37.3]	0.0		3.2	[1.6,6.2]	100.0
Black, non-Hispanic (n=114)	60.8	[49.8,70.7]	32.8	[23.4,43.8]	2.2	[0.5,9.7]	4.3	[1.3,13.2]	100.0
Hispanic (n=33)	58.5	[37.8,76.5]	38.5	[21.0,59.5]	0.0		3.1	[0.5,17.0]	100.0
Other, non-Hispanic (n=54)	61.4	[44.3,76.0]	34.1	[20.1,51.5]	0.0		4.5	[1.1,17.4]	100.0
Pearson: Uncorrected chi2(9) =	11.8647								
Design-based F(8.72, 5145.00) =	0.8220	Pr =	0.592						
FPL category									
0-35% (n=239)	61.2	[54.6,67.5]	34.8	[28.8,41.4]	0.6	[0.1,3.7]	3.4	[1.6,7.0]	100.0
36-99% (n=192)	69.7	[62.7,75.9]	25.3	[19.6,31.9]	0.6	[0.1,3.7]	4.4	[2.0,9.3]	100.0
100%+ (n=176)	68.1	[60.7,74.7]	29.2	[22.8,36.5]	0.0		2.7	[1.2,6.0]	100.0
Pearson: Uncorrected chi2(6) =	4.7100								
Design-based F(4.24, 2524.42) =	0.8227	Pr =	0.517						
Region									
UP/NW/NE (n=95)	60.6	[46.7,73.0]	36.0	[23.8,50.3]	0.0		3.4	[0.9,12.1]	100.0
W/E Central/E (n=163)	65.6	[56.4,73.8]	28.8	[21.2,37.8]	0.0		5.5	[2.4,12.1]	100.0
S Central/SW/SE (n=151)	73.3	[63.2,81.4]	25.0	[17.0,35.0]	0.5	[0.1,2.9]	1.2	[0.2,7.9]	100.0
Detroit Metro (n=198)	57.5	[49.2,65.4]	38.2	[30.5,46.5]	1.0	[0.1,6.4]	3.3	[1.3,8.1]	100.0
Pearson: Uncorrected chi2(9) =	15.5533								
Design-based F(7.38, 4388.14) =	1.3293	Pr =	0.229						
Total (n=607)	63.5	[58.6,68.2]	32.5	[28.0,37.3]	0.5	[0.1,2.3]	3.5	[2.0,5.9]	100.0

5.1.1 Q: What kind of a place was it?

Universe: Respondents who had a regular source of care prior to HMP (n = 417)

	Type of regular source of care										
	A clinic		**Doctor's office**		**Urgent care/walk-in clinic**		**Emergency room**		**Other place**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age											
19-34 (n=151)	9.2	[5.0,16.4]	50.6	[41.0,60.2]	27.4	[19.7,36.9]	11.3	[6.4,19.1]	1.4	[0.4,5.7]	100.0
35-50 (n=114)	18.4	[11.3,28.4]	55.9	[44.6,66.6]	15.8	[9.3,25.6]	7.6	[3.5,16.0]	2.3	[0.3,13.9]	100.0
51-64 (n=152)	13.6	[8.3,21.4]	67.5	[58.0,75.7]	7.3	[3.8,13.3]	8.1	[4.1,15.3]	3.6	[1.3,9.7]	100.0
Pearson: Uncorrected chi2(8) =	27.8979										
Design-based F(7.64, 3094.98) =	2.3493	Pr =	0.018								
Gender											
Male (n=192)	11.5	[7.3,17.6]	52.7	[44.2,60.9]	18.3	[12.5,25.9]	13.7	[8.8,20.6]	3.9	[1.6,9.2]	100.0
Female (n=225)	15.0	[9.9,22.0]	62.4	[54.3,69.9]	17.7	[12.3,24.8]	4.3	[2.1,8.7]	0.6	[0.2,1.6]	100.0
Pearson: Uncorrected chi2(4) =	17.4927										
Design-based F(3.56, 1442.70) =	3.7326	Pr =	0.007								
Race/ethnicity											
White, non-Hispanic (n=277)	12.2	[8.3,17.8]	63.3	[56.0,70.0]	17.2	[12.3,23.7]	5.2	[2.9,9.1]	2.1	[0.7,5.8]	100.0
Black, non-Hispanic (n=80)	15.7	[8.6,26.9]	44.9	[32.6,58.0]	26.0	[15.9,39.4]	11.1	[5.5,21.1]	2.3	[0.3,14.2]	100.0
Hispanic (n=21)	19.0	[5.0,51.0]	37.4	[16.3,64.7]	9.3	[3.2,24.1]	32.7	[12.5,62.4]	1.7	[0.3,9.3]	100.0
Other, non-Hispanic (n=35)	9.2	[3.6,21.9]	60.0	[40.4,76.8]	10.1	[4.1,22.9]	15.7	[5.5,37.5]	5.0	[0.7,26.9]	100.0
Pearson: Uncorrected chi2(12) =	35.9903										
Design-based F(10.38, 4161.11) =	2.1905	Pr =	0.014								
FPL category											
0-35% (n=154)	13.7	[9.1,20.2]	58.3	[50.0,66.1]	16.7	[11.2,24.1]	8.7	[5.0,14.7]	2.6	[1.0,7.1]	100.0
36-99% (n=139)	12.5	[8.1,18.8]	58.2	[49.8,66.1]	19.5	[13.6,27.3]	8.0	[4.3,14.4]	1.8	[0.6,5.1]	100.0
100%+ (n=124)	11.3	[7.1,17.7]	51.0	[42.6,59.3]	22.4	[15.7,30.8]	13.7	[8.1,22.3]	1.5	[0.4,4.9]	100.0
Pearson: Uncorrected chi2(8) =	3.5337										
Design-based F(6.98, 2824.94) =	0.6053	Pr =	0.751								
Region											
UP/NW/NE (n=66)	17.6	[9.7,29.8]	47.9	[33.7,62.4]	21.5	[11.9,35.9]	9.8	[3.5,24.4]	3.2	[0.7,13.8]	100.0
W/E Central/E (n=112)	13.3	[7.3,23.1]	66.6	[55.1,76.3]	15.0	[8.5,25.1]	5.1	[1.9,13.4]	0.0		100.0
S Central/SW/SE (n=112)	12.1	[6.5,21.2]	51.7	[40.4,62.8]	17.7	[10.3,28.6]	16.2	[9.0,27.3]	2.4	[0.6,9.0]	100.0
Detroit Metro (n=127)	12.6	[7.2,21.2]	56.2	[45.7,66.1]	19.7	[12.7,29.3]	7.6	[3.9,14.5]	3.9	[1.2,11.4]	100.0
Pearson: Uncorrected chi2(12) =	17.4300										
Design-based F(11.16, 4519.56) =	1.0790	Pr =	0.374								
Total (n=417)	13.1	[9.7,17.6]	57.3	[51.4,63.0]	18.0	[13.8,23.1]	9.3	[6.3,13.3]	2.3	[1.0,5.1]	100.0

5.2 Q: In the 12 months before enrolling in the Healthy Michigan Plan, was there any time when you didn't get the health care you needed?

Universe: All respondents

	Forgone health care prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	21.4	[15.6,28.6]	76.7	[69.3,82.8]	1.9	[0.6,5.5]	100.0
35-50 (n=178)	17.4	[12.0,24.5]	82.0	[74.9,87.4]	0.6	[0.1,3.6]	100.0
51-64 (n=209)	22.2	[16.4,29.2]	77.8	[70.8,83.6]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.7331						
Design-based F(3.88, 2307.31) =	1.1390	Pr =	0.336				
Gender							
Male (n=326)	17.6	[13.4,22.7]	81.7	[76.5,86.0]	0.7	[0.3,2.2]	100.0
Female (n=281)	25.2	[19.4,31.9]	73.5	[66.6,79.4]	1.3	[0.3,6.0]	100.0
Pearson: Uncorrected chi2(2) =	5.7636						
Design-based F(2.00, 1189.86) =	2.1611	Pr =	0.116				
Race/ethnicity							
White, non-Hispanic (n=401)	19.8	[15.6,24.8]	80.0	[75.0,84.2]	0.2	[0.0,1.2]	100.0
Black, non-Hispanic (n=114)	19.9	[12.9,29.4]	80.1	[70.6,87.1]	0.0		100.0
Hispanic (n=33)	20.4	[8.0,43.0]	70.5	[48.5,85.9]	9.1	[2.2,30.4]	100.0
Other, non-Hispanic (n=54)	20.4	[10.9,34.9]	76.5	[61.9,86.7]	3.1	[0.8,11.4]	100.0
Pearson: Uncorrected chi2(6) =	33.2417						
Design-based F(5.27, 3107.73) =	4.2957	Pr =	0.001				
FPL category							
0-35% (n=239)	19.2	[14.6,24.8]	80.3	[74.6,84.9]	0.6	[0.1,3.7]	100.0
36-99% (n=192)	21.4	[16.4,27.5]	75.6	[69.1,81.2]	2.9	[1.0,8.2]	100.0
100%+ (n=176)	25.6	[19.7,32.6]	73.8	[66.8,79.7]	0.6	[0.1,3.1]	100.0
Pearson: Uncorrected chi2(4) =	6.9246						
Design-based F(2.96, 1763.09) =	2.0073	Pr =	0.112				
Region							
UP/NW/NE (n=95)	25.3	[15.8,38.1]	73.8	[61.1,83.5]	0.8	[0.2,4.1]	100.0
W/E Central/E (n=163)	19.4	[13.5,27.2]	78.8	[70.7,85.1]	1.8	[0.4,8.0]	100.0
S Central/SW/SE (n=151)	21.2	[14.2,30.4]	78.8	[69.6,85.8]	0.0		100.0
Detroit Metro (n=198)	19.5	[14.0,26.4]	79.6	[72.6,85.1]	1.0	[0.3,3.3]	100.0
Pearson: Uncorrected chi2(6) =	3.6370						
Design-based F(5.16, 3071.65) =	0.5206	Pr =	0.767				
Total (n=607)	20.4	[16.9,24.4]	78.6	[74.5,82.2]	1.0	[0.4,2.5]	100.0

5.2.1 Q: What kind of care was it?

Universe: Respondents who did not receive the health care they needed prior to HMP (n = 140)

	Weighted Proportion	95%CI
Primary care (n=84)	61.1	[50.7, 70.6]
Prescription medication (n=34)	21.4	[14.5, 30.4]
Specialist care (n=22)	12.7	[7.4, 20.8]
Mental health care (n=15)	9.7	[5.2, 17.3]
Vision care (n=19)	7.8	[5.1, 11.9]
Support services (n=7)	5.0	[1.9, 12.4]
Surgery or procedure (n=4)	3.1	[0.9, 10.6]
Lab/imaging test (n=7)	3.0	[1.2, 7.3]
Other services (n=6)	1.6	[0.7, 3.3]

Note: Respondents were able to provide multiple responses

5.2.2 Q: Why didn't you get the care you needed?

Universe: Respondents who did not receive the health care they needed prior to HMP (n = 140)

	Reasons for forgone health care prior to HMP							
	No insurance coverage		**Cost**		**Other**		**Needed a service that wasn't covered**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=140)	63.4	[52.9, 72.7]	24.5	[17.2, 33.6]	9.9	[5.0, 18.7]	5.3	[2.7, 10.3]
Primary care (n=84)	61.4	[47.8, 73.4]	31.6	[21.9, 43.1]	9.5	[4.0, 21.1]	0.0	
Prescription medications (n=34)	76.5	[76.5, 76.5]	24.4	[24.4, 24.4]	3.7	[3.7, 3.7]	13.7	[13.7, 13.7]
Specialist care (n=22)	74.6	[74.6, 74.6]	11.6	[11.6, 11.6]	7.0	[7.0, 7.0]	5.7	[5.7, 5.7]
Vision care (n=19)	61.5	[61.5, 61.5]	36.8	[36.8, 36.8]	0.0		11.2	[11.2, 11.2]
Mental health (n=15)	46.9	[46.9, 46.9]	37.1	[37.1, 37.1]	0.0		16.1	[16.1, 16.1]

Note: Respondents were able to provide multiple responses. Reasons are not reported for support services, surgery or procedure, lab/imaging test, or other services due to sample sizes <10.

	Reasons for forgone health care prior to HMP, continued							
	Difficulty getting appointment		**Transportation/logistics**		**Difficulty/inability finding a provider**		**Didn't get around to it**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=140)	4.2	[1.6, 10.5]	2.4	[0.6, 9.0]	1.9	[0.5, 6.4]	1.2	[0.4, 3.3]
Primary care (n=84)	5.8	[1.9, 16.4]	0.0		3.0	[0.8, 10.5]	1.4	[0.4, 4.9]
Prescription medications (n=34)	0.0		0.0		0.0		0.0	
Specialist care (n=22)	7.8	[7.8, 7.8]	4.3	[4.3, 4.3]	0.0		5.5	[5.5, 5.5]
Vision care (n=19)	0.0		3.1	[3.1, 3.1]	0.0		0.0	
Mental health (n=15)	0.0		16.9	[16.9, 16.9]	0.0		0.0	

Note: Respondents were able to provide multiple responses. Reasons are not reported for support services, surgery or procedure, lab/imaging test, or other services due to sample sizes <10.

5.3 Q: In the 12 months before enrolling in the Healthy Michigan Plan, was there any time when you didn't get the dental care you needed?

Universe: All respondents

	Forgone dental care prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	32.3	[25.5,39.9]	67.5	[59.9,74.3]	0.2	[0.0,1.3]	100.0
35-50 (n=178)	32.1	[24.5,40.9]	67.6	[58.9,75.3]	0.2	[0.0,1.3]	100.0
51-64 (n=209)	41.0	[33.3,49.0]	59.0	[51.0,66.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	4.4247						
Design-based F(3.01, 1790.35) =	1.2402	Pr =	0.294				
Gender							
Male (n=326)	32.3	[26.7,38.5]	67.6	[61.4,73.2]	0.1	[0.0,0.6]	100.0
Female (n=281)	38.7	[32.0,45.8]	61.1	[53.9,67.7]	0.2	[0.0,1.4]	100.0
Pearson: Uncorrected chi2(2) =	2.7586						
Design-based F(1.52, 903.18) =	1.5923	Pr =	0.209				
Race/ethnicity							
White, non-Hispanic (n=401)	31.4	[26.3,36.9]	68.4	[62.8,73.4]	0.3	[0.1,0.9]	100.0
Black, non-Hispanic (n=114)	38.8	[29.0,49.5]	61.2	[50.5,71.0]	0.0		100.0
Hispanic (n=33)	38.0	[20.5,59.4]	62.0	[40.6,79.5]	0.0		100.0
Other, non-Hispanic (n=54)	40.2	[25.9,56.4]	59.8	[43.6,74.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.1822						
Design-based F(5.35, 3156.55) =	0.5076	Pr =	0.783				
FPL category							
0-35% (n=239)	32.4	[26.7,38.8]	67.6	[61.2,73.3]	0.0		100.0
36-99% (n=192)	42.7	[36.0,49.8]	56.7	[49.7,63.5]	0.5	[0.1,3.0]	100.0
100%+ (n=176)	36.4	[29.8,43.5]	63.1	[56.0,69.7]	0.5	[0.1,3.0]	100.0
Pearson: Uncorrected chi2(4) =	6.3832						
Design-based F(3.39, 2015.12) =	2.9597	Pr =	0.026				
Region							
UP/NW/NE (n=95)	43.1	[31.0,56.1]	56.9	[43.9,69.0]	0.0		100.0
W/E Central/E (n=163)	33.0	[25.4,41.6]	66.8	[58.1,74.4]	0.2	[0.0,1.4]	100.0
S Central/SW/SE (n=151)	32.0	[23.6,41.7]	67.6	[57.9,76.0]	0.4	[0.1,2.4]	100.0
Detroit Metro (n=198)	35.4	[28.0,43.4]	64.6	[56.6,72.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	3.5363						
Design-based F(4.29, 2551.16) =	0.7266	Pr =	0.583				
Total (n=607)	34.7	[30.3,39.4]	65.1	[60.5,69.5]	0.2	[0.0,0.6]	100.0

5.3.1 Q: Why didn't you get the dental care you needed?

Universe: Respondents who did not receive the dental care they needed prior to HMP (n = 232)

	Weighted Proportion	95%CI
No insurance coverage (n=150)	64.8	[56.7, 72.2]
Cost (n=74)	29.8	[23.1, 37.4]
Needed a service that wasn't covered (n=20)	9.9	[5.9, 16.1]
Difficulty getting appointment (n=5)	2.9	[0.8, 9.5]
Didn't get around to it (n=6)	2.5	[1.1, 5.6]
Other (n=7)	1.9	[0.9, 4.0]
Difficulty/inability finding a provider (n=4)	1.7	[0.6, 4.9]
Transportation/logistics (n=2)	0.7	[0.1, 3.1]
Afraid of going to dentist/dislike dentist (n=1)	0.1	[0.0, 0.9]

Note: Respondents were able to provide multiple responses

5.4 Q: During the 12 months before you were enrolled in the Healthy Michigan Plan, about how much did you spend out-of-pocket for your own medical and dental care?

Universe: All respondents

	Out of pocket costs prior to HMP								
	Less than $50		**$51-500**		**More than $500**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=220)	23.4	[17.4,30.9]	25.9	[19.4,33.7]	12.7	[8.5,18.7]	37.9	[30.5,45.9]	100.0
35-50 (n=178)	30.7	[22.9,39.8]	16.7	[11.1,24.3]	23.0	[16.3,31.4]	29.6	[22.3,38.2]	100.0
51-64 (n=209)	26.5	[19.8,34.5]	14.2	[9.4,20.7]	21.9	[15.8,29.5]	37.4	[29.9,45.6]	100.0
Pearson: Uncorrected chi2(6) =	20.5472								
Design-based F(5.94, 3532.94) =	2.3876	Pr =	0.027						
Gender									
Male (n=326)	29.0	[23.5,35.3]	20.6	[15.7,26.6]	17.0	[12.8,22.2]	33.4	[27.6,39.7]	100.0
Female (n=281)	22.3	[16.9,29.0]	18.4	[13.5,24.5]	20.9	[15.5,27.5]	38.4	[31.7,45.6]	100.0
Pearson: Uncorrected chi2(3) =	4.9251								
Design-based F(3.00, 1784.63) =	1.1962	Pr =	0.310						
Race/ethnicity									
White, non-Hispanic (n=401)	24.4	[19.5,30.1]	19.1	[14.7,24.4]	21.4	[16.9,26.8]	35.0	[29.6,40.9]	100.0
Black, non-Hispanic (n=114)	33.0	[23.7,43.9]	24.2	[16.2,34.6]	10.0	[5.4,17.8]	32.8	[23.7,43.3]	100.0
Hispanic (n=33)	15.2	[6.2,32.8]	8.7	[3.2,21.5]	33.2	[16.9,54.9]	42.9	[24.2,63.9]	100.0
Other, non-Hispanic (n=54)	34.6	[20.9,51.4]	17.8	[7.3,37.4]	9.1	[3.8,20.3]	38.5	[24.1,55.2]	100.0
Pearson: Uncorrected chi2(9) =	25.2785								
Design-based F(8.53, 5033.16) =	1.9218	Pr =	0.048						
FPL category									
0-35% (n=239)	28.2	[22.6,34.4]	20.2	[15.3,26.1]	17.8	[13.4,23.4]	33.8	[27.9,40.3]	100.0
36-99% (n=192)	23.4	[17.9,30.0]	17.1	[12.5,23.0]	19.1	[14.2,25.1]	40.4	[33.8,47.5]	100.0
100%+ (n=176)	21.7	[16.1,28.6]	21.2	[15.9,27.7]	20.9	[15.2,28.0]	36.2	[29.5,43.4]	100.0
Pearson: Uncorrected chi2(6) =	3.3852								
Design-based F(5.45, 3242.25) =	0.8060	Pr =	0.555						
Region									
UP/NW/NE (n=95)	25.5	[15.2,39.5]	17.8	[9.7,30.3]	19.8	[11.9,31.0]	36.9	[25.6,49.9]	100.0
W/E Central/E (n=163)	28.7	[21.1,37.8]	15.2	[9.6,23.3]	19.0	[13.2,26.6]	37.0	[28.6,46.3]	100.0
S Central/SW/SE (n=151)	23.5	[16.3,32.6]	24.5	[16.7,34.4]	18.0	[11.4,27.3]	34.0	[25.4,43.8]	100.0
Detroit Metro (n=198)	26.9	[20.2,34.9]	20.8	[14.9,28.3]	18.0	[12.5,25.2]	34.3	[27.1,42.3]	100.0
Pearson: Uncorrected chi2(9) =	4.8168								
Design-based F(8.73, 5193.23) =	0.3928	Pr =	0.936						
Total (n=607)	26.5	[22.4,31.1]	19.8	[16.1,24.0]	18.4	[15.0,22.4]	35.3	[30.8,40.0]	100.0

5.5 Q: In the 12 months before enrolling in the Healthy Michigan Plan, did you have problems paying medical bills?

Universe: All respondents

	Problems paying medical bills prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	42.4	[34.9,50.4]	56.4	[48.5,64.1]	1.1	[0.2,7.1]	100.0
35-50 (n=178)	42.6	[34.2,51.5]	57.4	[48.5,65.8]	0.0		100.0
51-64 (n=209)	50.6	[42.5,58.8]	49.4	[41.2,57.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	7.1447						
Design-based F(3.63, 2162.08) =	1.0515	Pr =	0.376				
Gender							
Male (n=326)	41.7	[35.5,48.2]	57.5	[51.1,63.8]	0.8	[0.1,4.8]	100.0
Female (n=281)	50.0	[42.8,57.1]	50.0	[42.9,57.2]	0.0		100.0
Pearson: Uncorrected chi2(2) =	5.3232						
Design-based F(1.82, 1084.58) =	1.3307	Pr =	0.264				
Race/ethnicity							
White, non-Hispanic (n=401)	40.7	[35.1,46.7]	58.5	[52.5,64.2]	0.8	[0.1,4.9]	100.0
Black, non-Hispanic (n=114)	47.7	[37.3,58.4]	52.3	[41.6,62.7]	0.0		100.0
Hispanic (n=33)	57.9	[37.7,75.7]	42.1	[24.3,62.3]	0.0		100.0
Other, non-Hispanic (n=54)	56.4	[39.9,71.6]	43.6	[28.4,60.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	9.8616						
Design-based F(5.66, 3341.04) =	0.9433	Pr =	0.459				
FPL category							
0-35% (n=239)	42.6	[36.3,49.2]	56.7	[50.1,63.1]	0.7	[0.1,4.3]	100.0
36-99% (n=192)	51.4	[44.5,58.4]	48.6	[41.6,55.5]	0.0		100.0
100%+ (n=176)	47.8	[40.6,55.2]	52.2	[44.8,59.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	3.9722						
Design-based F(2.10, 1252.18) =	0.9785	Pr =	0.380				
Region							
UP/NW/NE (n=95)	47.2	[35.1,59.6]	47.9	[35.3,60.8]	4.9	[0.7,26.3]	100.0
W/E Central/E (n=163)	44.6	[35.9,53.7]	55.4	[46.3,64.1]	0.0		100.0
S Central/SW/SE (n=151)	48.5	[38.7,58.4]	51.5	[41.6,61.3]	0.0		100.0
Detroit Metro (n=198)	42.3	[34.6,50.5]	57.7	[49.5,65.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	28.9522						
Design-based F(3.83, 2277.62) =	4.2235	Pr =	0.002				
Total (n=607)	44.8	[40.0,49.6]	54.7	[49.9,59.5]	0.5	[0.1,3.1]	100.0

5.5.1 Q: Because of these problems paying medical bills, have you or your family been contacted by a collections agency?

Universe: Respondents who had problems paying medical bills prior to HMP (n = 291)

	Contacted by a collections agency prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=95)	74.5	[62.7,83.6]	23.0	[14.5,34.5]	2.4	[0.4,14.8]	100.0
35-50 (n=87)	66.2	[53.4,77.0]	33.8	[23.0,46.6]	0.0		100.0
51-64 (n=109)	75.3	[64.7,83.5]	24.4	[16.1,35.0]	0.4	[0.1,2.2]	100.0
Pearson: Uncorrected chi2(4) =	6.3105						
Design-based F(3.00, 836.98) =	1.1135	Pr =	0.343				
Gender							
Male (n=146)	75.1	[66.1,82.4]	24.9	[17.6,33.9]	0.0		100.0
Female (n=145)	68.6	[58.5,77.1]	28.9	[20.8,38.6]	2.6	[0.5,13.0]	100.0
Pearson: Uncorrected chi2(2) =	5.1913						
Design-based F(1.88, 523.29) =	1.4177	Pr =	0.243				
Race/ethnicity							
White, non-Hispanic (n=187)	66.3	[57.2,74.2]	32.0	[24.3,40.9]	1.7	[0.3,10.7]	100.0
Black, non-Hispanic (n=55)	76.4	[62.0,86.5]	23.6	[13.5,38.0]	0.0		100.0
Hispanic (n=17)	100.0		0.0		0.0		100.0
Other, non-Hispanic (n=29)	71.7	[50.4,86.3]	27.3	[12.9,48.7]	1.1	[0.2,6.5]	100.0
Pearson: Uncorrected chi2(6) =	13.6318						
Design-based F(4.88, 1346.77) =	1.5560	Pr =	0.171				
FPL category							
0-35% (n=108)	73.4	[63.9,81.2]	25.1	[17.6,34.5]	1.4	[0.2,9.1]	100.0
36-99% (n=99)	66.7	[56.9,75.2]	32.7	[24.2,42.6]	0.6	[0.1,3.5]	100.0
100%+ (n=84)	75.3	[64.3,83.8]	24.7	[16.2,35.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	2.1549						
Design-based F(2.49, 695.42) =	0.4996	Pr =	0.648				
Region							
UP/NW/NE (n=52)	64.4	[49.1,77.2]	35.6	[22.8,50.9]	0.0		100.0
W/E Central/E (n=83)	71.9	[59.8,81.5]	28.1	[18.5,40.2]	0.0		100.0
S Central/SW/SE (n=67)	74.2	[58.6,85.4]	21.8	[11.9,36.5]	4.0	[0.6,23.0]	100.0
Detroit Metro (n=89)	73.7	[61.7,83.0]	26.0	[16.7,38.1]	0.3	[0.0,1.8]	100.0
Pearson: Uncorrected chi2(6) =	9.3285						
Design-based F(3.83, 1067.94) =	1.3750	Pr =	0.242				
Total (n=291)	72.4	[65.7,78.2]	26.6	[20.9,33.1]	1.1	[0.2,5.8]	100.0

5.5.2 Q: Because of these problems paying medical bills, have you or your family thought about filing for bankruptcy?

Universe: Respondents who had problems paying medical bills prior to HMP (n = 291)

	Thought about filing for bankruptcy prior to HMP				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=95)	23.2	[15.0,34.1]	76.8	[65.9,85.0]	100.0
35-50 (n=87)	35.7	[24.1,49.3]	64.3	[50.7,75.9]	100.0
51-64 (n=109)	31.4	[21.5,43.2]	68.6	[56.8,78.5]	100.0
Pearson: Uncorrected chi2(2) =	3.9079				
Design-based F(1.99, 556.20) =	1.3053	Pr =	0.272		
Gender					
Male (n=146)	33.1	[24.7,42.7]	66.9	[57.3,75.3]	100.0
Female (n=145)	24.3	[16.6,34.2]	75.7	[65.8,83.4]	100.0
Pearson: Uncorrected chi2(1) =	2.6001				
Design-based F(1.00, 279.00) =	1.7708	Pr =	0.184		
Race/ethnicity					
White, non-Hispanic (n=187)	26.9	[19.8,35.5]	73.1	[64.5,80.2]	100.0
Black, non-Hispanic (n=55)	40.1	[26.1,55.9]	59.9	[44.1,73.9]	100.0
Hispanic (n=17)	11.0	[3.4,30.2]	89.0	[69.8,96.6]	100.0
Other, non-Hispanic (n=29)	30.4	[14.2,53.4]	69.6	[46.6,85.8]	100.0
Pearson: Uncorrected chi2(3) =	8.3865				
Design-based F(2.86, 789.50) =	2.0130	Pr =	0.114		
FPL category					
0-35% (n=108)	31.5	[23.2,41.2]	68.5	[58.8,76.8]	100.0
36-99% (n=99)	23.9	[16.4,33.4]	76.1	[66.6,83.6]	100.0
100%+ (n=84)	27.3	[18.4,38.4]	72.7	[61.6,81.6]	100.0
Pearson: Uncorrected chi2(2) =	1.3322				
Design-based F(1.86, 517.90) =	0.8752	Pr =	0.410		
Region					
UP/NW/NE (n=52)	11.8	[5.9,22.1]	88.2	[77.9,94.1]	100.0
W/E Central/E (n=83)	23.2	[14.4,35.1]	76.8	[64.9,85.6]	100.0
S Central/SW/SE (n=67)	27.2	[16.3,41.6]	72.8	[58.4,83.7]	100.0
Detroit Metro (n=89)	40.0	[28.6,52.7]	60.0	[47.3,71.4]	100.0
Pearson: Uncorrected chi2(3) =	12.1722				
Design-based F(2.57, 717.28) =	3.4832	Pr =	0.021		
Total (n=291)	29.4	[23.4,36.2]	70.6	[63.8,76.6]	100.0

Note: Out of the 78 respondents who thought about filing for bankruptcy, 9 (11.5%) filed for bankruptcy.

6 Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

6.1 Q: How did you complete the first section of the HRA, which is answering the questions about your eating, exercise, and smoking behaviors?

Universe: All respondents

	Completed first section of HRA										
	On phone at enrollment		**With doctor/clinic staff**		**By filling it out myself**		**Don't remember**		**Have not completed it**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age											
19-34 (n=220)	21.3	[15.5,28.7]	13.6	[8.9,20.2]	34.9	[27.8,42.8]	12.5	[8.1,18.8]	17.7	[12.6,24.2]	100.0
35-50 (n=175)	18.5	[12.8,26.1]	17.8	[11.5,26.5]	36.0	[27.9,45.1]	9.7	[5.6,16.3]	18.0	[12.0,26.0]	100.0
51-64 (n=209)	9.1	[5.8,13.9]	18.2	[12.4,25.8]	50.3	[42.1,58.4]	5.9	[3.5,9.8]	16.6	[11.4,23.5]	100.0
Pearson: Uncorrected chi2(8) =	22.6429										
Design-based F(7.67, 4543.42) =	2.0707	Pr =	0.038								
Gender											
Male (n=324)	15.8	[11.7,21.1]	16.0	[11.7,21.6]	39.9	[33.7,46.4]	10.5	[7.2,15.0]	17.8	[13.4,23.2]	100.0
Female (n=280)	19.0	[13.8,25.6]	16.4	[11.4,22.9]	39.1	[32.4,46.2]	8.7	[5.4,13.7]	16.9	[12.4,22.5]	100.0
Pearson: Uncorrected chi2(4) =	1.3946										
Design-based F(3.98, 2355.43) =	0.2505	Pr =	0.909								
Race/ethnicity											
White, non-Hispanic (n=401)	15.4	[11.5,20.3]	13.9	[10.1,18.9]	40.5	[34.8,46.4]	11.5	[8.1,16.0]	18.7	[14.5,23.9]	100.0
Black, non-Hispanic (n=113)	21.9	[14.4,31.9]	16.0	[9.7,25.3]	41.8	[31.6,52.7]	5.5	[2.3,12.5]	14.9	[8.8,24.1]	100.0
Hispanic (n=33)	8.8	[2.4,27.4]	14.8	[5.9,32.5]	57.5	[37.6,75.2]	1.0	[0.2,6.0]	17.9	[7.6,36.6]	100.0
Other, non-Hispanic (n=52)	23.5	[11.8,41.3]	30.6	[16.3,49.8]	14.1	[7.7,24.3]	17.2	[8.0,33.0]	14.7	[6.9,28.7]	100.0
Pearson: Uncorrected chi2(12) =	35.0737										
Design-based F(11.01, 6461.03) =	2.1625	Pr =	0.014								
FPL category											
0-35% (n=238)	16.5	[12.2,22.0]	17.8	[13.2,23.5]	39.9	[33.7,46.4]	9.9	[6.7,14.4]	15.9	[11.6,21.3]	100.0
36-99% (n=192)	20.0	[14.8,26.4]	14.0	[9.7,19.7]	35.2	[28.9,42.1]	9.7	[6.3,14.9]	21.0	[16.0,27.2]	100.0
100%+ (n=174)	15.7	[10.9,22.1]	9.9	[6.1,15.6]	43.8	[36.6,51.3]	9.2	[6.0,13.8]	21.4	[16.0,28.1]	100.0
Pearson: Uncorrected chi2(8) =	6.5283										
Design-based F(7.21, 4270.07) =	1.1830	Pr =	0.308								
Region											
UP/NW/NE (n=95)	13.0	[7.2,22.2]	14.9	[7.1,28.6]	39.3	[27.9,52.0]	16.9	[9.0,29.6]	15.9	[7.9,29.3]	100.0
W/E Central/E (n=162)	11.6	[7.2,18.1]	17.7	[11.4,26.5]	49.1	[40.0,58.3]	8.4	[4.5,14.9]	13.2	[8.4,20.1]	100.0
S Central/SW/SE (n=150)	17.8	[11.8,25.8]	15.4	[9.3,24.4]	37.5	[28.4,47.6]	17.4	[10.6,27.2]	11.9	[7.5,18.3]	100.0
Detroit Metro (n=197)	21.3	[15.1,29.1]	15.8	[10.6,22.8]	34.2	[27.0,42.3]	4.9	[2.6,9.2]	23.7	[17.5,31.4]	100.0
Pearson: Uncorrected chi2(12) =	39.1147										
Design-based F(11.55, 6837.33) =	2.4797	Pr =	0.004								
Total (n=604)	17.0	[13.7,21.0]	16.1	[12.7,20.3]	39.6	[35.0,44.4]	9.8	[7.3,13.0]	17.4	[14.1,21.3]	100.0

6.2 Q: Did you discuss the HRA with your doctor or someone at your primary care provider's office?

Universe: Respondents who completed the first section of the HRA (n = 483)

	Discussed HRA with doctor or someone at PCP office								
	Yes		No		Haven't had an appointment yet		Don't remember		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=173)	43.4	[34.9,52.4]	36.5	[28.5,45.4]	14.7	[9.3,22.5]	5.3	[2.5,11.0]	100.0
35-50 (n=141)	40.1	[30.8,50.1]	34.1	[25.2,44.3]	17.2	[11.0,25.8]	8.7	[4.6,15.7]	100.0
51-64 (n=169)	65.5	[56.6,73.4]	22.5	[16.1,30.6]	8.0	[4.3,14.5]	4.0	[1.7,9.1]	100.0
Pearson: Uncorrected chi2(6) =	24.2430								
Design-based F(5.89, 2772.95) =	2.9093	Pr =	0.008						
Gender									
Male (n=262)	45.4	[38.4,52.7]	31.8	[25.6,38.7]	14.6	[10.2,20.5]	8.2	[5.1,13.0]	100.0
Female (n=221)	54.2	[46.0,62.2]	31.8	[24.6,40.0]	11.8	[7.3,18.3]	2.2	[1.1,4.4]	100.0
Pearson: Uncorrected chi2(3) =	9.1952								
Design-based F(2.73, 1283.97) =	2.6090	Pr =	0.056						
Race/ethnicity									
White, non-Hispanic (n=321)	46.2	[39.7,52.8]	30.4	[24.7,36.9]	16.9	[12.3,22.8]	6.5	[3.9,10.7]	100.0
Black, non-Hispanic (n=96)	50.5	[39.0,61.9]	37.4	[26.8,49.3]	4.9	[1.6,14.0]	7.2	[3.1,16.0]	100.0
Hispanic (n=24)	56.1	[33.3,76.6]	27.7	[12.1,51.8]	16.1	[5.6,38.4]	0.0		100.0
Other, non-Hispanic (n=39)	61.0	[41.6,77.4]	22.0	[10.5,40.3]	13.3	[4.5,33.5]	3.7	[1.2,10.8]	100.0
Pearson: Uncorrected chi2(9) =	16.2501								
Design-based F(8.44, 3949.87) =	1.2265	Pr =	0.276						
FPL category									
0-35% (n=204)	49.2	[42.2,56.3]	32.3	[26.1,39.1]	13.0	[8.8,18.7]	5.5	[3.0,9.8]	100.0
36-99% (n=147)	48.4	[40.4,56.5]	26.4	[20.0,34.1]	15.3	[10.0,22.9]	9.8	[5.9,15.9]	100.0
100%+ (n=132)	46.0	[37.8,54.3]	36.2	[28.5,44.7]	14.4	[9.4,21.5]	3.4	[1.6,7.0]	100.0
Pearson: Uncorrected chi2(6) =	4.1375								
Design-based F(5.23, 2465.13) =	1.0371	Pr =	0.395						
Region									
UP/NW/NE (n=77)	59.6	[46.2,71.7]	23.7	[15.2,34.9]	14.5	[6.9,27.8]	2.2	[0.9,5.0]	100.0
W/E Central/E (n=132)	50.4	[40.4,60.3]	23.3	[16.2,32.4]	19.2	[12.2,29.1]	7.1	[3.4,14.2]	100.0
S Central/SW/SE (n=124)	47.9	[37.2,58.8]	27.9	[19.4,38.5]	17.9	[10.7,28.5]	6.2	[2.8,13.3]	100.0
Detroit Metro (n=150)	45.4	[36.4,54.7]	42.3	[33.4,51.8]	6.4	[3.1,12.6]	5.9	[2.8,12.0]	100.0
Pearson: Uncorrected chi2(9) =	26.1151								
Design-based F(7.90, 3722.73) =	2.4081	Pr =	0.014						
Total (n=483)	48.7	[43.3,54.1]	31.8	[27.0,36.9]	13.5	[10.2,17.7]	6.0	[3.9,9.0]	100.0

6.2.1 Q: What healthy behavior did you choose to work on?

Universe: Respondents who discussed the HRA with their doctor or someone at their primary care provider's office (n = 243)

	Weighted Proportion	95%CI
At least one healthy behavior (n=212)	85.9	[79.3, 90.7]
Nutrition/diet (n=91)	35.3	[28.3, 43.0]
Exercise/activity (n=74)	29.9	[23.4, 37.3]
Reduce/quit tobacco use (n=51)	20.3	[14.9, 27.0]
Lose weight (n=27)	9.4	[5.9, 14.6]
Don't remember (n=20)	8.5	[5.0, 14.1]
Other (n=13)	5.3	[2.9, 9.5]
None (n=8)	3.5	[1.5, 7.9]
Reduce/quit alcohol use (n=6)	2.4	[0.9, 6.5]
Monitor my blood pressure/sugar (n=4)	1.8	[0.6, 5.1]
Take medicine regularly (n=3)	0.8	[0.2, 2.6]
Go to the dentist (n=1)	0.1	[0.0, 0.5]

Note: Respondents were able to provide multiple responses

6.2.2 Q: Why did you choose this healthy behavior?

Universe: Respondents who chose a healthy behavior (n = 212)

	Reasons for choosing healthy behavior									
	Wanted to do anyway		**Doctor suggested**		**Improve condition**		**Easy to do**		**Other**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Nutrition/diet (n=91)	51.4	[38.1, 64.5]	23.8	[14.8, 36.0]	31.4	[19.9, 45.7]	0.5	[0.1, 3.0]	3.1	[0.7, 13.2]
Exercise/activity (n=74)	75.8	[75.8, 75.8]	15.5	[15.5, 15.5]	8.5	[8.5, 8.5]	6.3	[6.3, 6.3]	1.3	[1.3, 1.3]
Reduce/quit tobacco use (n=51)	65.5	[65.5, 65.5]	38.2	[38.2, 38.2]	10.0	[10.0, 10.0]				
Lose weight (n=27)	77.8	[77.8, 77.8]	38.3	[38.3, 38.3]	18.8	[18.8, 18.8]				
Other (n=13)	44.6	[44.6, 44.6]	17.0	[17.0, 17.0]	38.4	[38.4, 38.4]				

Note: Respondents were able to provide multiple responses. Reasons are not reported for reduce/quit alcohol use, monitor blood pressure/sugar, take medicine regularly, or go to the dentist due to sample sizes <10.

6.3 Q: Did completing the Health Risk Assessment teach you something you didn't know about your health?

Universe: Respondents who discussed the HRA with their doctor or someone at their primary care provider's office (n = 235)

	Completing HRA taught me something about my health								
	Definitely yes		**Somewhat yes**		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=76)	26.8	[16.4,40.8]	45.8	[32.6,59.6]	27.3	[17.1,40.8]	0.0		100.0
35-50 (n=56)	28.3	[16.8,43.7]	32.5	[19.3,49.4]	39.1	[25.0,55.4]	0.0		100.0
51-64 (n=103)	23.0	[14.5,34.5]	34.5	[24.2,46.5]	42.2	[31.4,53.8]	0.3	[0.0,1.6]	100.0
Pearson: Uncorrected chi2(6) =	5.9321								
Design-based F(5.20, 1160.35) =	0.7668	Pr =	0.579						
Gender									
Male (n=116)	31.8	[22.6,42.7]	40.5	[30.2,51.8]	27.5	[18.9,38.1]	0.2	[0.0,1.0]	100.0
Female (n=119)	17.2	[10.5,26.8]	34.9	[25.2,46.2]	47.9	[37.2,58.8]	0.0		100.0
Pearson: Uncorrected chi2(3) =	12.0130								
Design-based F(2.27, 505.13) =	3.9655	Pr =	0.016						
Race/ethnicity									
White, non-Hispanic (n=153)	13.7	[8.6,21.1]	41.8	[32.2,52.1]	44.3	[34.9,54.2]	0.2	[0.0,1.0]	100.0
Black, non-Hispanic (n=52)	44.4	[29.7,60.2]	39.0	[25.0,55.0]	16.6	[7.8,31.7]	0.0		100.0
Hispanic (n=12)	47.1	[19.1,77.0]	37.2	[13.9,68.6]	15.7	[3.4,49.6]	0.0		100.0
Other, non-Hispanic (n=18)	30.0	[12.2,56.9]	13.0	[4.3,33.1]	57.1	[30.6,80.0]	0.0		100.0
Pearson: Uncorrected chi2(9) =	37.0235								
Design-based F(7.49, 1669.58) =	2.9421	Pr =	0.004						
FPL category									
0-35% (n=101)	23.6	[15.9,33.6]	40.9	[31.1,51.5]	35.5	[26.4,45.8]	0.0		100.0
36-99% (n=74)	31.6	[21.8,43.4]	30.7	[21.4,41.9]	37.0	[27.0,48.2]	0.7	[0.1,3.7]	100.0
100%+ (n=60)	30.9	[20.1,44.4]	31.8	[21.3,44.7]	37.3	[26.5,49.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	3.5600								
Design-based F(4.31, 960.71) =	1.1924	Pr =	0.312						
Region									
UP/NW/NE (n=39)	19.0	[7.8,39.5]	34.4	[17.0,57.3]	45.6	[27.3,65.2]	1.0	[0.2,5.5]	100.0
W/E Central/E (n=64)	16.9	[9.4,28.4]	39.0	[25.8,53.9]	44.1	[30.5,58.7]	0.0		100.0
S Central/SW/SE (n=61)	23.0	[11.5,40.7]	40.8	[26.0,57.5]	36.2	[22.2,52.9]	0.0		100.0
Detroit Metro (n=71)	37.1	[24.9,51.2]	37.1	[25.1,51.0]	25.8	[15.9,39.0]	0.0		100.0
Pearson: Uncorrected chi2(9) =	13.7671								
Design-based F(6.65, 1483.29) =	1.5202	Pr =	0.160						
Total (n=235)	25.7	[19.5,33.1]	38.2	[30.8,46.2]	35.9	[28.9,43.7]	0.1	[0.0,0.6]	100.0

Note: The n for this question is lower than in Table 6.2.1 (which has the same universe) due to item non-response.

6.4 Q: Did completing the Health Risk Assessment help your primary care provider better understand your health needs?

Universe: Respondents who discussed the HRA with their doctor or someone at their primary care provider's office (n = 235)

	Completing HRA helped PCP understand my health needs								
	Definitely yes		**Somewhat yes**		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=76)	51.7	[38.6,64.7]	38.7	[26.9,52.1]	5.5	[2.5,11.7]	4.0	[0.6,22.6]	100.0
35-50 (n=56)	56.1	[40.2,70.8]	34.1	[20.7,50.5]	9.0	[3.6,20.8]	0.8	[0.1,4.8]	100.0
51-64 (n=103)	55.2	[43.6,66.2]	26.8	[17.8,38.2]	15.9	[9.3,25.9]	2.1	[0.4,9.9]	100.0
Pearson: Uncorrected chi2(6) =	8.2989								
Design-based F(5.21, 1162.56) =	1.0976	Pr =	0.360						
Gender									
Male (n=116)	58.6	[47.9,68.4]	28.4	[19.8,39.0]	9.0	[5.0,15.8]	4.0	[1.1,14.1]	100.0
Female (n=119)	47.9	[37.3,58.7]	39.4	[29.2,50.7]	12.3	[7.1,20.5]	0.4	[0.1,2.2]	100.0
Pearson: Uncorrected chi2(3) =	6.8903								
Design-based F(2.53, 565.20) =	2.2687	Pr =	0.090						
Race/ethnicity									
White, non-Hispanic (n=153)	43.7	[34.4,53.5]	41.4	[31.9,51.5]	14.3	[9.1,21.7]	0.6	[0.2,2.2]	100.0
Black, non-Hispanic (n=52)	74.1	[59.2,84.9]	16.9	[8.6,30.4]	6.5	[2.1,18.6]	2.5	[0.4,15.8]	100.0
Hispanic (n=12)	60.3	[29.4,84.8]	36.7	[13.4,68.6]	3.0	[0.4,17.0]	0.0		100.0
Other, non-Hispanic (n=18)	57.4	[28.5,81.9]	22.7	[6.6,55.0]	2.8	[0.5,15.2]	17.1	[2.8,60.2]	100.0
Pearson: Uncorrected chi2(9) =	40.5636								
Design-based F(6.88, 1534.44) =	3.3745	Pr =	0.002						
FPL category									
0-35% (n=101)	53.8	[44.0,63.3]	34.2	[25.4,44.2]	9.1	[5.0,15.9]	3.0	[0.7,11.8]	100.0
36-99% (n=74)	54.5	[43.2,65.4]	32.6	[23.2,43.7]	11.6	[6.3,20.6]	1.2	[0.2,7.1]	100.0
100%+ (n=60)	55.8	[44.3,66.7]	26.1	[17.3,37.2]	16.8	[9.9,26.9]	1.4	[0.3,7.8]	100.0
Pearson: Uncorrected chi2(6) =	2.3497								
Design-based F(5.37, 1197.89) =	0.6881	Pr =	0.643						
Region									
UP/NW/NE (n=39)	38.5	[22.4,57.7]	40.1	[21.9,61.5]	21.4	[8.9,43.1]	0.0		100.0
W/E Central/E (n=64)	38.7	[26.0,53.0]	47.5	[33.6,61.8]	13.8	[7.0,25.7]	0.0		100.0
S Central/SW/SE (n=61)	51.5	[35.3,67.4]	28.3	[16.2,44.6]	11.8	[6.0,22.1]	8.4	[1.8,31.7]	100.0
Detroit Metro (n=71)	73.8	[61.1,83.5]	21.2	[12.7,33.3]	3.2	[0.8,11.9]	1.8	[0.3,11.9]	100.0
Pearson: Uncorrected chi2(9) =	37.3197								
Design-based F(7.44, 1658.52) =	3.1784	Pr =	0.002						
Total (n=235)	54.1	[46.6,61.4]	33.0	[26.2,40.5]	10.4	[6.9,15.3]	2.5	[0.7,8.4]	100.0

Note: The n for this question is lower than in Table 6.2.1 (which has the same universe) due to item non-response.

6.5 Q: Did completing the Health Risk Assessment motivate you to be more responsible for your health?

Universe: Respondents who discussed the HRA with their doctor or someone at their primary care provider's office (n = 235)

	Completing HRA motivated me to be more responsible for my health								
	Definitely yes		**Somewhat yes**		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age									
19-34 (n=76)	64.3	[50.1,76.4]	24.4	[14.5,38.0]	11.3	[4.6,25.3]	0.0		100.0
35-50 (n=56)	55.9	[39.6,71.0]	26.3	[14.3,43.4]	17.8	[8.2,34.5]	0.0		100.0
51-64 (n=103)	57.5	[45.6,68.6]	33.3	[23.1,45.3]	7.5	[3.3,16.2]	1.7	[0.2,10.8]	100.0
Pearson: Uncorrected chi2(6) =	7.5369								
Design-based F(5.88, 1310.92) =	0.7994	Pr =	0.568						
Gender									
Male (n=117)	58.6	[47.5,69.0]	30.9	[21.6,42.1]	9.3	[4.3,19.2]	1.1	[0.2,7.4]	100.0
Female (n=118)	61.0	[50.1,70.9]	24.5	[16.6,34.6]	14.5	[7.9,25.0]	0.0		100.0
Pearson: Uncorrected chi2(3) =	3.2856								
Design-based F(2.95, 657.83) =	0.7159	Pr =	0.540						
Race/ethnicity									
White, non-Hispanic (n=153)	49.7	[40.0,59.4]	37.1	[28.1,47.1]	13.2	[7.4,22.3]	0.0		100.0
Black, non-Hispanic (n=52)	77.4	[61.4,88.0]	13.3	[5.8,27.7]	6.7	[1.7,23.1]	2.5	[0.4,15.8]	100.0
Hispanic (n=12)	81.3	[49.4,95.1]	16.2	[3.6,49.8]	2.5	[0.4,14.0]	0.0		100.0
Other, non-Hispanic (n=18)	53.1	[26.1,78.4]	25.1	[6.9,60.3]	21.8	[5.6,56.4]	0.0		100.0
Pearson: Uncorrected chi2(9) =	25.7273								
Design-based F(7.94, 1771.26) =	1.7522	Pr =	0.083						
FPL category									
0-35% (n=102)	57.5	[47.0,67.3]	29.3	[20.8,39.7]	12.3	[6.7,21.5]	0.9	[0.1,6.0]	100.0
36-99% (n=73)	61.6	[50.6,71.5]	31.7	[22.3,42.8]	6.7	[3.1,14.1]	0.0		100.0
100%+ (n=60)	70.8	[59.1,80.3]	16.7	[9.3,28.2]	12.5	[7.0,21.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	3.6226								
Design-based F(4.09, 911.83) =	0.9247	Pr =	0.450						
Region									
UP/NW/NE (n=39)	53.2	[33.0,72.5]	36.3	[18.4,59.0]	10.5	[3.0,30.9]	0.0		100.0
W/E Central/E (n=64)	47.0	[33.1,61.3]	33.2	[21.2,47.9]	19.8	[9.9,35.8]	0.0		100.0
S Central/SW/SE (n=62)	63.8	[47.1,77.6]	25.6	[13.9,42.3]	10.6	[4.2,24.6]	0.0		100.0
Detroit Metro (n=70)	69.8	[55.8,80.9]	23.4	[13.6,37.1]	4.9	[1.2,17.6]	1.8	[0.3,11.9]	100.0
Pearson: Uncorrected chi2(9) =	16.2183								
Design-based F(7.31, 1629.50) =	1.4672	Pr =	0.171						
Total (n=235)	59.6	[51.7,67.1]	28.3	[21.7,36.0]	11.4	[7.0,18.0]	0.7	[0.1,4.4]	100.0

Note: The n for this question is lower than in Table 6.2.1 (which has the same universe) due to item non-response.

7 Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Not applicable to the New Enrollee Survey

8 Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Not applicable to the New Enrollee Survey

9 Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

9.1 Insurance status in the 12 months prior to HMP

Universe: All respondents

	Insurance status in 12 months prior to HMP						
	Uninsured all 12 months		**Uninsured some of the 12 months**		**Insured all 12 months**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=217)	45.9	[38.0,53.9]	29.2	[22.5,37.0]	24.9	[18.6,32.5]	100.0
35-50 (n=177)	52.9	[43.9,61.7]	21.6	[15.4,29.3]	25.5	[18.2,34.5]	100.0
51-64 (n=208)	45.4	[37.4,53.7]	19.8	[14.3,26.9]	34.8	[27.4,43.0]	100.0
Pearson: Uncorrected chi2(4) =	9.8591						
Design-based F(3.94, 2325.11) =	1.7193	Pr =	0.144				
Gender							
Male (n=322)	57.7	[51.2,64.0]	19.3	[14.8,24.8]	23.0	[17.8,29.1]	100.0
Female (n=280)	31.5	[25.4,38.3]	32.4	[25.9,39.7]	36.1	[29.4,43.3]	100.0
Pearson: Uncorrected chi2(2) =	38.9401						
Design-based F(1.99, 1176.31) =	13.9974	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=396)	44.7	[38.8,50.8]	25.4	[20.5,30.9]	30.0	[24.7,35.8]	100.0
Black, non-Hispanic (n=114)	52.5	[41.8,62.9]	20.5	[13.5,29.8]	27.1	[18.6,37.6]	100.0
Hispanic (n=33)	50.9	[31.1,70.4]	26.0	[11.4,48.8]	23.2	[9.8,45.5]	100.0
Other, non-Hispanic (n=54)	52.4	[36.0,68.3]	27.3	[15.1,44.1]	20.3	[9.8,37.4]	100.0
Pearson: Uncorrected chi2(6) =	4.8647						
Design-based F(5.92, 3463.60) =	0.5006	Pr =	0.806				
FPL category							
0-35% (n=239)	47.2	[40.7,53.8]	22.9	[17.8,28.8]	29.9	[24.2,36.3]	100.0
36-99% (n=191)	48.4	[41.5,55.4]	29.2	[23.4,35.9]	22.3	[17.3,28.3]	100.0
100%+ (n=172)	50.8	[43.4,58.2]	25.1	[19.2,32.1]	24.1	[18.6,30.6]	100.0
Pearson: Uncorrected chi2(4) =	3.7214						
Design-based F(3.58, 2113.77) =	1.3991	Pr =	0.236				
Region							
UP/NW/NE (n=95)	57.6	[44.5,69.7]	16.1	[10.2,24.5]	26.3	[15.8,40.6]	100.0
W/E Central/E (n=162)	44.9	[36.1,54.1]	24.1	[17.0,33.1]	31.0	[23.1,40.1]	100.0
S Central/SW/SE (n=148)	44.8	[35.0,54.9]	31.3	[23.0,41.0]	23.9	[16.6,33.2]	100.0
Detroit Metro (n=197)	49.3	[41.2,57.5]	22.4	[16.4,29.8]	28.3	[21.5,36.2]	100.0
Pearson: Uncorrected chi2(6) =	7.8582						
Design-based F(5.64, 3329.24) =	1.0003	Pr =	0.421				
Total (n=602)	47.9	[43.0,52.8]	24.2	[20.4,28.6]	27.9	[23.7,32.5]	100.0

9.2 Q: During the 12 months before you enrolled in the Healthy Michigan Plan, did you have any type of health insurance at any time?

Universe: All respondents

	Had health insurance at any time in the 12 months prior to HMP						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	54.4	[46.4,62.2]	44.7	[36.9,52.7]	0.9	[0.3,2.5]	100.0
35-50 (n=178)	47.6	[38.8,56.6]	52.2	[43.2,61.0]	0.2	[0.0,1.2]	100.0
51-64 (n=209)	56.9	[48.7,64.8]	43.1	[35.2,51.3]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.6816						
Design-based F(3.13, 1859.67) =	1.4671	Pr =	0.220				
Gender							
Male (n=326)	42.9	[36.6,49.4]	56.5	[50.0,62.8]	0.6	[0.2,1.7]	100.0
Female (n=281)	70.1	[63.4,76.1]	29.7	[23.8,36.4]	0.2	[0.0,1.0]	100.0
Pearson: Uncorrected chi2(2) =	42.4303						
Design-based F(1.50, 894.77) =	25.3875	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=401)	56.4	[50.3,62.3]	42.9	[37.0,49.0]	0.7	[0.3,1.8]	100.0
Black, non-Hispanic (n=114)	48.5	[38.1,59.1]	51.5	[40.9,61.9]	0.0		100.0
Hispanic (n=33)	49.1	[29.6,68.9]	50.9	[31.1,70.4]	0.0		100.0
Other, non-Hispanic (n=54)	47.6	[31.7,64.0]	52.4	[36.0,68.3]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.6809						
Design-based F(5.55, 3271.79) =	0.6641	Pr =	0.667				
FPL category							
0-35% (n=239)	53.8	[47.2,60.3]	46.2	[39.7,52.8]	0.0		100.0
36-99% (n=192)	52.7	[45.6,59.6]	46.5	[39.6,53.5]	0.8	[0.1,4.8]	100.0
100%+ (n=176)	49.6	[42.3,56.9]	48.1	[40.8,55.5]	2.3	[0.8,6.5]	100.0
Pearson: Uncorrected chi2(4) =	8.7244						
Design-based F(3.73, 2220.02) =	3.3137	Pr =	0.012				
Region							
UP/NW/NE (n=95)	44.7	[32.3,57.7]	55.3	[42.3,67.7]	0.0		100.0
W/E Central/E (n=163)	55.9	[46.8,64.7]	43.6	[34.8,52.8]	0.5	[0.1,2.7]	100.0
S Central/SW/SE (n=151)	54.8	[44.8,64.5]	44.3	[34.6,54.3]	0.9	[0.2,3.6]	100.0
Detroit Metro (n=198)	52.1	[44.0,60.2]	47.6	[39.6,55.8]	0.2	[0.0,1.5]	100.0
Pearson: Uncorrected chi2(6) =	3.9014						
Design-based F(5.02, 2987.39) =	0.6706	Pr =	0.646				
Total (n=607)	53.1	[48.2,57.9]	46.5	[41.7,51.4]	0.4	[0.2,1.1]	100.0

9.2.1 Q: What type of health insurance did you have? Was it insurance through a job or union, insurance purchased by you or someone else, or another type of insurance?

Universe: Respondents who had health insurance at any time in the 12 months prior to HMP (n = 332)

	Weighted Proportion	95%CI
Through job or union (n=241)	73.0	[66.7, 78.4]
Medicaid/MiChild/state program (n=39)	11.7	[8.1, 16.6]
Purchased by you or someone else (n=40)	11.3	[7.8, 16.0]
Other (n=5)	1.9	[0.7, 5.2]
Don't know (n=3)	1.3	[0.3, 5.2]
Veterans Administration or VA care (n=5)	1.2	[0.5, 3.2]
Medicare (n=1)	0.8	[0.1, 5.1]
County health plan (n=1)	0.1	[0.0, 0.4]

Note: Respondents were able to provide multiple responses

9.2.1.1 Q: Whose job is it?

Universe: Respondents who had insurance provided through a job or union (n = 241)

	Weighted Proportion	95%CI
Respondent (n=162)	68.6	[60.8, 75.5]
Family member (n=79)	31.4	[24.5, 39.2]

9.2.1.2 Follow up questions on purchased health insurance

Universe: Respondents who purchased insurance (n = 40)

	Weighted Proportion	95%CI
Who purchased it?		
Respondent (n=28)	72.4	[72.4, 72.4]
Family member (n=12)	27.6	[27.6, 27.6]
Was this insurance purchased through the marketplace known as healthcare.gov?		
Yes (n=25)	59.2	[59.2, 59.2]
No (n=9)	18.7	[18.7, 18.7]
Don't know (n=6)	22.0	[22.0, 22.0]
If insurance was purchased through the marketplace: Did you receive a subsidy?		
Yes (n=18)	74.9	[74.9, 74.9]
No (n=6)	23.7	[23.7, 23.7]
Don't know (n=1)	1.4	[1.4, 1.4]

9.3 Q: Was there any time in the 12 months before you enrolled in the Healthy Michigan Plan that you didn't have any health insurance?

Universe: Respondents who had health insurance at any time in the 12 months prior to HMP (n = 332)

	Had no insurance for some time in the 12 months prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=123)	54.6	[43.7,65.1]	45.4	[34.9,56.3]	0.0		100.0
35-50 (n=87)	46.5	[34.2,59.3]	53.5	[40.7,65.8]	0.0		100.0
51-64 (n=122)	38.8	[29.0,49.6]	61.0	[50.1,70.8]	0.3	[0.0,1.5]	100.0
Pearson: Uncorrected chi2(4) =	6.4968						
Design-based F(3.21, 1027.79) =	1.3685	Pr =	0.249				
Gender							
Male (n=140)	46.6	[37.0,56.4]	53.3	[43.4,62.9]	0.2	[0.0,0.9]	100.0
Female (n=192)	48.7	[39.9,57.5]	51.3	[42.5,60.1]	0.0		100.0
Pearson: Uncorrected chi2(2) =	0.3999						
Design-based F(1.27, 407.71) =	0.2314	Pr =	0.689				
Race/ethnicity							
White, non-Hispanic (n=231)	47.2	[39.4,55.1]	52.7	[44.8,60.5]	0.1	[0.0,0.7]	100.0
Black, non-Hispanic (n=60)	44.2	[30.5,58.9]	55.8	[41.1,69.5]	0.0		100.0
Hispanic (n=14)	52.9	[24.0,79.9]	47.1	[20.1,76.0]	0.0		100.0
Other, non-Hispanic (n=25)	57.3	[33.3,78.2]	42.7	[21.8,66.7]	0.0		100.0
Pearson: Uncorrected chi2(6) =	1.6412						
Design-based F(5.12, 1627.53) =	0.1875	Pr =	0.969				
FPL category							
0-35% (n=130)	44.4	[35.8,53.4]	55.6	[46.6,64.2]	0.0		100.0
36-99% (n=107)	57.9	[48.8,66.6]	42.1	[33.4,51.2]	0.0		100.0
100%+ (n=95)	52.0	[42.1,61.8]	47.3	[37.6,57.2]	0.7	[0.1,3.8]	100.0
Pearson: Uncorrected chi2(4) =	5.7171						
Design-based F(2.50, 798.51) =	3.5245	Pr =	0.021				
Region							
UP/NW/NE (n=44)	41.1	[25.3,58.9]	58.9	[41.1,74.7]	0.0		100.0
W/E Central/E (n=92)	44.9	[32.9,57.4]	55.1	[42.6,67.1]	0.0		100.0
S Central/SW/SE (n=88)	56.5	[43.5,68.6]	43.2	[31.0,56.1]	0.4	[0.1,2.0]	100.0
Detroit Metro (n=108)	45.9	[35.1,57.2]	54.1	[42.8,64.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.3078						
Design-based F(3.57, 1141.42) =	0.9464	Pr =	0.429				
Total (n=332)	47.6	[41.0,54.3]	52.3	[45.6,58.9]	0.1	[0.0,0.5]	100.0

9.4 Q: What were the main reasons you were without health insurance for that time?

Universe: Respondents who had no insurance for some or all of the 12 months prior to HMP (n = 433)

	Weighted Proportion	95%CI
No job during that time (n=119)	30.2	[25.2, 35.8]
Too expensive (non-specific) (n=133)	24.3	[20.0, 29.2]
Other (n=66)	14.3	[10.8, 18.6]
Have a job, but it does not offer insurance (n=53)	13.2	[9.7, 17.8]
Do not need health insurance (n=22)	7.2	[4.6, 11.3]
Marketplace/individual plan too expensive (n=27)	6.5	[4.1, 10.0]
Time for HMP application to be completed/accepted (n=29)	6.4	[4.1, 9.8]
Did not get around to it (n=23)	6.4	[3.9, 10.2]
Had problems with (re-)applying for Medicaid (n=17)	4.3	[2.6, 7.2]
Have a job, but insurance is too expensive (n=14)	2.7	[1.4, 5.2]
Tried to enroll, but redirected to Medicaid (n=4)	1.2	[0.4, 3.5]
Had problems with (re-)applying for private insurance (n=2)	0.6	[0.1, 2.5]
Have job, waiting for open enrollment (n=1)	0.1	[0.0, 0.3]
Do not know (n=1)	0.1	[0.0, 0.8]

Note: Respondents were able to provide multiple responses

9.5 Q: While you were without health insurance, was there a time when you knew about the Healthy Michigan Plan but did not apply?

Universe: Respondents who had no insurance for two months or more in the 12 months prior to enrollment (n = 264)

	Knew about HMP but did not apply: Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=92)	25.4	[16.8,36.5]	74.6	[63.5,83.2]	0.0		100.0
35-50 (n=87)	44.0	[32.0,56.8]	55.2	[42.4,67.2]	0.9	[0.2,3.0]	100.0
51-64 (n=85)	27.3	[17.7,39.5]	72.4	[60.2,82.0]	0.3	[0.1,2.0]	100.0
Pearson: Uncorrected chi2(4) =	9.9164						
Design-based F(2.73, 688.32) =	3.1025	Pr =	0.030				
Gender							
Male (n=179)	30.4	[23.0,38.9]	69.2	[60.7,76.6]	0.4	[0.1,1.4]	100.0
Female (n=85)	38.5	[27.2,51.2]	61.1	[48.4,72.5]	0.4	[0.1,2.3]	100.0
Pearson: Uncorrected chi2(2) =	1.4061						
Design-based F(1.38, 347.28) =	1.0224	Pr =	0.337				
Race/ethnicity							
White, non-Hispanic (n=164)	35.6	[27.2,45.0]	64.0	[54.6,72.4]	0.4	[0.1,1.7]	100.0
Black, non-Hispanic (n=53)	28.1	[16.4,43.9]	71.3	[55.6,83.2]	0.5	[0.1,2.9]	100.0
Hispanic (n=17)	23.3	[9.1,48.0]	76.7	[52.0,90.9]	0.0		100.0
Other, non-Hispanic (n=27)	29.7	[13.2,53.8]	70.3	[46.2,86.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	2.2502						
Design-based F(4.58, 1139.28) =	0.3696	Pr =	0.855				
FPL category							
0-35% (n=106)	31.5	[23.1,41.2]	68.5	[58.8,76.9]	0.0		100.0
36-99% (n=82)	36.4	[26.8,47.2]	63.6	[52.8,73.2]	0.0		100.0
100%+ (n=76)	31.0	[22.0,41.8]	66.0	[55.1,75.5]	2.9	[1.0,8.3]	100.0
Pearson: Uncorrected chi2(4) =	7.1204						
Design-based F(2.74, 691.70) =	4.0068	Pr =	0.010				
Region							
UP/NW/NE (n=51)	19.6	[10.8,32.8]	80.4	[67.2,89.2]	0.0		100.0
W/E Central/E (n=66)	46.1	[32.5,60.4]	53.5	[39.3,67.2]	0.4	[0.1,2.1]	100.0
S Central/SW/SE (n=61)	32.6	[20.0,48.2]	66.8	[51.2,79.4]	0.6	[0.1,3.4]	100.0
Detroit Metro (n=86)	27.1	[17.7,39.1]	72.5	[60.5,82.0]	0.4	[0.1,2.4]	100.0
Pearson: Uncorrected chi2(6) =	9.8312						
Design-based F(3.91, 986.18) =	2.1914	Pr =	0.070				
Total (n=264)	32.3	[25.9,39.3]	67.4	[60.3,73.7]	0.4	[0.1,1.1]	100.0

9.5.1 Q: Why did you not apply?

Universe: Respondents who had no insurance for two months or more in the 12 months prior to enrollment, and knew about HMP, but did not apply (n = 91)

	Weighted Proportion	95%CI
Did not think I was eligible (n=37)	33.7	[22.9,46.6]
Did not get around to it (n=28)	33.2	[23.0,45.3]
Healthy/did not need care (n=10)	16.3	[8.1,30.2]
Paperwork/application process was too burdensome (n=6)	7.4	[2.7,18.9]
Other (n=5)	6.3	[2.6,14.5]
Do not need health insurance (n=3)	4.6	[1.3,15.2]
Did not want to be on a government program (n=3)	3.5	[1.0,11.1]
Do not know (n=2)	2.1	[0.4,9.1]
Did not like a certain feature of HMP (n=1)	1.0	[0.1,6.3]

Note: Respondents were able to provide multiple responses

9.6 Q: What prompted you to apply for the Healthy Michigan Plan?

Universe: All respondents

	Weighted Proportion	95%CI
Lost my other health insurance (n=183)	29.6	[25.4,34.2]
Other (n=149)	21.5	[18.0,25.5]
Had a medical condition that needed care (n=111)	19.2	[15.6,23.3]
Suggested/signed up at ER/hospital/other (n=82)	15.2	[11.9,19.1]
Needed some form of health insurance (n=87)	15.0	[11.8,18.8]
Suggested/signed up by caseworker/social service agency (n=36)	5.6	[3.8,8.3]
Tried to enroll in private/Marketplace ins, redirected to Medicaid (n=9)	2.1	[1.0,4.6]
Wanted to avoid tax return garnishment/penalty (n=15)	2.0	[1.1,3.7]
Don't know (n=3)	0.9	[0.3,2.9]

Note: Respondents were able to provide multiple responses

9.7 Q: Did you have any problems with the Healthy Michigan Plan application and enrollment process?

Universe: All respondents

	Problems with HMP enrollment						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	6.1	[3.5,10.4]	93.9	[89.6,96.5]	0.0		100.0
35-50 (n=178)	5.1	[2.4,10.4]	94.7	[89.5,97.4]	0.2	[0.0,1.3]	100.0
51-64 (n=209)	3.0	[1.2,7.3]	96.8	[92.6,98.7]	0.1	[0.0,0.8]	100.0
Pearson: Uncorrected chi2(4) =	2.5843						
Design-based F(2.78, 1655.46) =	0.8579	Pr =	0.455				
Gender							
Male (n=326)	2.9	[1.5,5.5]	97.0	[94.4,98.4]	0.1	[0.0,0.6]	100.0
Female (n=281)	8.3	[5.1,13.4]	91.6	[86.5,94.8]	0.1	[0.0,0.6]	100.0
Pearson: Uncorrected chi2(2) =	8.9639						
Design-based F(1.38, 819.13) =	6.0179	Pr =	0.007				
Race/ethnicity							
White, non-Hispanic (n=401)	7.3	[4.8,11.1]	92.5	[88.8,95.0]	0.2	[0.0,0.6]	100.0
Black, non-Hispanic (n=114)	0.9	[0.3,2.6]	99.1	[97.4,99.7]	0.0		100.0
Hispanic (n=33)	1.0	[0.2,6.0]	99.0	[94.0,99.8]	0.0		100.0
Other, non-Hispanic (n=54)	1.8	[0.4,7.1]	98.2	[92.9,99.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	12.2163						
Design-based F(3.90, 2298.75) =	2.5934	Pr =	0.036				
FPL category							
0-35% (n=239)	4.1	[2.2,7.5]	95.9	[92.5,97.8]	0.0		100.0
36-99% (n=192)	8.1	[5.1,12.6]	91.7	[87.2,94.7]	0.2	[0.0,1.3]	100.0
100%+ (n=176)	5.4	[3.1,9.3]	94.1	[90.1,96.5]	0.5	[0.1,3.0]	100.0
Pearson: Uncorrected chi2(4) =	4.7943						
Design-based F(2.78, 1656.18) =	2.4741	Pr =	0.065				
Region							
UP/NW/NE (n=95)	2.1	[0.7,6.2]	97.5	[93.5,99.1]	0.4	[0.1,2.4]	100.0
W/E Central/E (n=163)	5.0	[2.6,9.6]	94.8	[90.2,97.3]	0.2	[0.0,1.4]	100.0
S Central/SW/SE (n=151)	8.6	[4.7,15.2]	91.4	[84.8,95.3]	0.0		100.0
Detroit Metro (n=198)	3.6	[1.5,8.4]	96.4	[91.6,98.5]	0.0		100.0
Pearson: Uncorrected chi2(6) =	7.0520						
Design-based F(3.56, 2117.36) =	1.8521	Pr =	0.124				
Total (n=607)	4.9	[3.3,7.3]	95.0	[92.6,96.6]	0.1	[0.0,0.4]	100.0

9.7.1 Q: What happened?

Universe: Respondents who had a problem with the Healthy Michigan Plan application and enrollment process (n = 36)

	Percent
Difficulty completing enrollment materials (n=19)	42.4
Other (n=6)	17.6
Administrative problems: case workers difficulties/difficult to reach (n=5)	15.4
Administrative problems: eligibility/administrative error by DHHS (n=3)	15.4
Enrollment materials submitted; DHHS said never received/incomplete (n=6)	14.7
Told I wasn't eligible (n=2)	10.0
Administrative problems: problem with information being requested (n=2)	9.4
Respondent didn't complete all steps (n=1)	8.3
Administrative problems: inaccurate information from/problem with Medicaid (n=1)	1.2
Administrative problems: problem with Medicaid/HMP ID card (n=1)	1.0

Note: Respondents were able to provide multiple responses

9.8 Q: When you were choosing your health plan and primary care provider, were you trying to keep your existing doctor or clinic?

Universe: All respondents

	Tried to keep existing doctor or clinic						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=220)	36.4	[29.2,44.3]	62.9	[55.0,70.2]	0.7	[0.1,4.3]	100.0
35-50 (n=178)	48.8	[39.9,57.7]	51.0	[42.0,59.8]	0.3	[0.0,1.5]	100.0
51-64 (n=209)	54.1	[45.8,62.1]	44.7	[36.8,53.0]	1.2	[0.2,7.6]	100.0
Pearson: Uncorrected chi2(4) =	15.6279						
Design-based F(3.56, 2117.32) =	3.0281	Pr =	0.021				
Gender							
Male (n=326)	40.1	[34.0,46.6]	58.9	[52.4,65.1]	1.0	[0.2,3.7]	100.0
Female (n=281)	53.6	[46.4,60.7]	46.2	[39.1,53.4]	0.2	[0.0,1.2]	100.0
Pearson: Uncorrected chi2(2) =	11.1105						
Design-based F(1.69, 1005.19) =	5.7502	Pr =	0.005				
Race/ethnicity							
White, non-Hispanic (n=401)	49.7	[43.7,55.7]	49.6	[43.6,55.6]	0.7	[0.1,3.3]	100.0
Black, non-Hispanic (n=114)	40.3	[30.3,51.1]	59.7	[48.9,69.7]	0.0		100.0
Hispanic (n=33)	32.4	[17.3,52.4]	67.6	[47.6,82.7]	0.0		100.0
Other, non-Hispanic (n=54)	33.0	[20.2,49.0]	63.8	[47.6,77.4]	3.2	[0.5,18.7]	100.0
Pearson: Uncorrected chi2(6) =	15.9159						
Design-based F(5.92, 3490.49) =	1.7141	Pr =	0.115				
FPL category							
0-35% (n=239)	45.1	[38.6,51.7]	54.1	[47.5,60.5]	0.9	[0.2,3.3]	100.0
36-99% (n=192)	44.7	[37.9,51.7]	54.9	[47.9,61.7]	0.4	[0.1,2.7]	100.0
100%+ (n=176)	46.3	[39.3,53.5]	53.7	[46.5,60.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	0.8606						
Design-based F(2.93, 1746.00) =	0.2474	Pr =	0.859				
Region							
UP/NW/NE (n=95)	48.9	[36.2,61.7]	51.1	[38.3,63.8]	0.0		100.0
W/E Central/E (n=163)	48.0	[39.1,57.2]	51.7	[42.6,60.7]	0.3	[0.0,1.7]	100.0
S Central/SW/SE (n=151)	43.5	[34.2,53.2]	55.3	[45.5,64.7]	1.2	[0.2,7.9]	100.0
Detroit Metro (n=198)	43.2	[35.3,51.5]	56.0	[47.7,63.9]	0.8	[0.1,5.5]	100.0
Pearson: Uncorrected chi2(6) =	2.7360						
Design-based F(5.29, 3146.56) =	0.3479	Pr =	0.893				
Total (n=607)	45.2	[40.4,50.0]	54.2	[49.3,58.9]	0.7	[0.2,2.3]	100.0

9.8.1 Q: Were you able to keep your same doctor or clinic?

Universe: Respondents who tried to keep their existing doctor or clinic (n = 295)

	Able to keep same doctor or clinic						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Age							
19-34 (n=87)	80.1	[69.3,87.8]	19.1	[11.5,29.9]	0.8	[0.2,3.2]	100.0
35-50 (n=90)	85.8	[74.5,92.6]	10.8	[5.2,21.1]	3.4	[0.7,14.3]	100.0
51-64 (n=118)	80.0	[70.2,87.2]	17.0	[10.6,26.2]	3.0	[0.7,12.0]	100.0
Pearson: Uncorrected chi2(4) =	4.0703						
Design-based F(3.52, 996.57) =	0.7975	Pr =	0.513				
Gender							
Male (n=140)	82.1	[73.3,88.4]	14.9	[9.3,23.2]	3.0	[0.8,10.3]	100.0
Female (n=155)	81.8	[74.4,87.4]	16.6	[11.2,23.9]	1.6	[0.6,4.3]	100.0
Pearson: Uncorrected chi2(2) =	0.7015						
Design-based F(1.97, 558.85) =	0.3069	Pr =	0.733				
Race/ethnicity							
White, non-Hispanic (n=211)	87.8	[83.2,91.3]	11.2	[7.8,15.7]	1.0	[0.4,2.8]	100.0
Black, non-Hispanic (n=46)	64.4	[46.5,79.0]	27.9	[15.2,45.6]	7.7	[2.0,25.8]	100.0
Hispanic (n=14)	69.5	[37.1,89.8]	27.4	[8.3,61.1]	3.1	[0.5,17.7]	100.0
Other, non-Hispanic (n=21)	81.9	[49.7,95.4]	18.1	[4.6,50.3]	0.0		100.0
Pearson: Uncorrected chi2(6) =	22.0611						
Design-based F(4.93, 1380.80) =	2.9191	Pr =	0.013				
FPL category							
0-35% (n=115)	85.2	[77.2,90.7]	12.2	[7.2,19.8]	2.7	[0.8,8.4]	100.0
36-99% (n=91)	79.1	[69.6,86.2]	18.9	[12.2,28.2]	2.0	[0.6,6.7]	100.0
100%+ (n=89)	68.5	[58.5,77.0]	30.0	[21.6,40.0]	1.5	[0.4,4.9]	100.0
Pearson: Uncorrected chi2(4) =	8.4058						
Design-based F(3.28, 927.74) =	3.3073	Pr =	0.017				
Region							
UP/NW/NE (n=49)	88.9	[77.2,95.0]	10.3	[4.4,22.2]	0.9	[0.2,4.4]	100.0
W/E Central/E (n=86)	86.0	[76.7,91.9]	13.7	[7.8,23.0]	0.3	[0.1,2.0]	100.0
S Central/SW/SE (n=73)	87.3	[79.6,92.4]	9.7	[5.5,16.6]	2.9	[0.9,8.8]	100.0
Detroit Metro (n=87)	74.1	[61.8,83.4]	21.8	[13.4,33.5]	4.1	[1.0,14.8]	100.0
Pearson: Uncorrected chi2(6) =	9.6928						
Design-based F(4.49, 1271.57) =	2.2519	Pr =	0.054				
Total (n=295)	82.0	[76.3,86.5]	15.7	[11.5,21.0]	2.4	[0.9,6.1]	100.0

9.8.1.1 Q: Why not?

Universe: Respondents who tried to keep their existing doctor or clinic and were not able to (n = 59)

	Percent	95%CI
My doctor/clinic does not take Medicaid (n=42)	66.2	[66.2,66.2]
Other (n=16)	31.0	[31.0,31.0]
N/A: hadn't picked a doctor yet (n=1)	1.6	[1.6,1.6]

2017 Healthy Michigan Voices New Enrollee Survey
Appendix B

Contents

1 Demographics

1.1 Demographic comparison of new enrollees in 2017 and enrollees in 2016

	Enrollees surveyed in 2016[a] (n = 4,090) Weighted %	95% CI	New enrollees surveyed in 2017[b] (n = 607) Weighted %	95% CI
Age				
19-34	40.0	[38.0, 42.0]	41.4	[36.7, 46.3]
35-50	34.0	[32.1, 35.9]	30.4	[26.1, 35.1]
51-64	26.0	[24.5, 27.6]	28.2	[24.3, 32.4]
Gender				
Male	48.4	[46.5, 50.4]	62.6	[58.0, 67.0]
Female	51.6	[49.6, 53.5]	37.4	[33.0, 42.0]
Race				
White	61.2	[59.3, 63.0]	63.2	[58.5, 67.6]
Black or African American	26.1	[24.3, 27.9]	23.2	[19.5, 27.4]
Other	8.8	[7.7, 10.0]	9.2	[6.7, 12.4]
More than one	4.0	[3.3, 4.9]	4.4	[2.7, 7.2]
FPL category				
0-35%	51.8	[50.8, 52.8]	70.2	[69.0, 71.3]
36-99%	28.4	[27.6, 29.3]	17.1	[16.3, 18.0]
100%+	19.8	[19.1, 20.4]	12.7	[12.0, 13.5]
Region				
UP/NW/NE	9.0	[8.6, 9.4]	9.6	[8.6, 10.7]
W/E Central/E	28.6	[27.8, 29.4]	27.9	[26.6, 29.3]
S Central/SW/SE	18.6	[17.8, 19.3]	22.0	[20.6, 23.5]
Detroit Metro	43.8	[42.8, 44.9]	40.5	[39.1, 41.9]
Hispanic/Latino				
Yes	5.2	[4.4, 6.2]	6.5	[4.3, 9.6]
No	94.3	[93.3, 95.2]	93.1	[90.0, 95.4]
Don't know	0.5	[0.2, 0.9]	0.4	[0.1, 1.7]
Arab, Chaldean, Middle Eastern				
Yes	6.2	[5.3, 7.2]	3.8	[2.3, 6.2]
No	93.6	[92.5, 94.5]	96.2	[93.8, 97.7]
Don't know	0.3	[0.1, 0.6]	-	-
Urbanicity				
Urban	81.0	[80.0, 82.0]	81.4	[78.5, 84.0]
Suburban	8.8	[7.9, 9.7]	7.7	[5.6, 10.4]
Rural	10.2	[9.7, 10.7]	10.9	[9.3, 12.6]
Employed or self-employed	48.8	[47.0, 50.7]	55.1	[50.2, 59.9]
Veteran				
Yes	3.4	[2.7, 4.2]	5.6	[3.7, 8.4]
No	96.5	[95.7, 97.2]	94.4	[91.6, 96.3]
Don't know	0.1	[0.0, 0.5]	-	-
Marital status				
Married	20.4	[19.0, 21.8]	17.2	[14.3, 20.6]
Partnered	4.3	[3.6, 5.1]	3.1	[1.9, 4.9]
Divorced	18.2	[16.8, 19.6]	18.2	[14.9, 22.0]
Widowed	2.8	[2.3, 3.4]	2.5	[1.4, 4.4]
Separated	2.8	[2.3, 3.4]	3.1	[1.7, 5.4]
Never married	51.6	[49.6, 53.5]	55.4	[50.6, 60.0]
Don't know	0.1	[0.0, 0.2]	0.6	[0.1, 2.3]
Any chronic condition				
Yes	69.2	[67.3, 71.0]	66.8	[62.0, 71.3]
No	30.8	[29.0, 32.7]	33.2	[28.7, 38.0]
Other HMP enrollee in household				
Yes	35.7	[34.0, 37.5]	27.8	[23.8, 32.2]
No	58.0	[56.1, 59.8]	66.2	[61.6, 70.6]
Don't know	6.3	[5.3, 7.6]	6.0	[3.9, 9.0]

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Need help reading written materials				
Never	72.6	[70.8, 74.3]	68.2	[63.4, 72.6]
Rarely	10.6	[9.5, 12.0]	15.5	[12.1, 19.5]
Sometimes	10.6	[9.4, 11.9]	8.3	[6.1, 11.3]
Often	2.4	[1.8, 3.1]	4.0	[2.5, 6.3]
Always	3.7	[3.1, 4.5]	4.1	[2.5, 6.5]
Don't know	0.0	[0.0, 0.1]	-	-
Insurance at any time in the 12 months prior to HMP				
Yes	40.7	[38.8, 42.6]	53.1	[48.2, 57.9]
No	57.9	[55.9, 59.8]	46.5	[41.7, 51.4]
Don't know	1.4	[1.0, 2.1]	0.4	[0.2, 1.1]
Health status				
Excellent	9.5	[8.4, 10.8]	9.9	[7.3, 13.3]
Very good	26.8	[25.0, 28.7]	25.4	[21.4, 29.9]
Good	33.8	[32.0, 35.7]	33.4	[29.1, 38.0]
Fair	22.2	[20.7, 23.8]	24.9	[20.9, 29.5]
Poor	7.5	[6.6, 8.6]	5.8	[4.0, 8.3]
Don't know	0.1	[0.0, 0.4]	0.6	[0.2, 2.6]
Regular source of care prior to HMP				
Yes	78.3	[72.0, 75.5]	63.5	[58.6, 68.2]
No	24.0	[22.4, 25.8]	32.5	[28.0, 37.3]
NA-didn't need care	2.1	[1.5, 2.8]	3.5	[2.0, 5.9]
Don't know	0.1	[0.1, 0.4]	0.5	[0.1, 2.3]

Note: Weighted proportions

2 Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

2.1 Health status by insurance status in the 12 months prior to HMP

	Health status										
	Excellent		**Very good**		**Good**		**Fair**		**Poor**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP											
Uninsured all 12 months (n=278)	12.1	[8.0, 18.0]	24.3	[18.8, 30.8]	32.4	[26.2, 39.3]	26.0	[20.2, 32.8]	5.2	[3.0, 8.7]	100.0
Uninsured some of the 12 months (n=152)	6.6	[3.3, 12.7]	29.2	[21.0, 39.1]	32.2	[24.1, 41.5]	26.4	[18.5, 36.1]	5.5	[2.5, 11.7]	100.0
Insured all 12 months (n=169)	9.3	[5.1, 16.4]	24.1	[16.9, 33.0]	37.0	[28.6, 46.2]	22.9	[15.8, 31.9]	6.8	[3.3, 13.6]	100.0
Pearson: Uncorrected chi2(8) =	5.9236										
Design-based F(7.94, 4658.65) =	0.5073	Pr =	0.850								
Total (n=604)	9.9	[7.3, 13.4]	25.6	[21.5, 30.1]	33.6	[29.3, 38.3]	25.1	[21.0, 29.7]	5.8	[4.0, 8.3]	100.0

Note: χ^2 test of independence.

2.2 Number of chronic conditions by insurance status in the 12 months prior to HMP

	Number of chronic conditions						
	None		**One**		**Two or more**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP							
Uninsured all 12 months (n=280)	35.2	[28.7, 42.3]	27.1	[21.0, 34.2]	37.7	[31.3, 44.6]	100.0
Uninsured some of the 12 months (n=153)	34.6	[25.9, 44.4]	28.6	[20.7, 38.0]	36.8	[28.1, 46.4]	100.0
Insured all 12 months (n=169)	28.9	[20.9, 38.6]	19.6	[13.5, 27.6]	51.5	[42.2, 60.6]	100.0
Pearson: Uncorrected chi2(4) =	10.3065						
Design-based F(3.98, 2347.71) =	1.7297	Pr =	0.141				
Total (n=607)	33.2	[28.7, 38.0]	25.6	[21.5, 30.1]	41.2	[36.6, 46.0]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

3 Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

3.1 Knowledge and understanding of HMP cost-sharing requirements and healthy behavior rewards

3.1.1 Did not receive information about HMP cost-sharing by age and education

	Did not receive cost sharing info				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Age					
19-34 (n=220)	20.8	[15.3, 27.6]	79.2	[72.4, 84.7]	100.0
35-50 (n=178)	30.3	[22.7, 39.0]	69.7	[61.0, 77.3]	100.0
51-64 (n=209)	21.0	[15.1, 28.4]	79.0	[71.6, 84.9]	100.0
Pearson: Uncorrected chi2(2) =	6.2677				
Design-based F(1.99, 1181.34) =	2.2459	Pr =	0.107		
Highest level of education					
High school or less (n=291)	27.5	[21.7, 34.2]	72.5	[65.8, 78.3]	100.0
Some college/Associate's (n=232)	21.1	[15.7, 27.8]	78.9	[72.2, 84.3]	100.0
Bachelor's degree or higher (n=83)	16.9	[9.1, 29.2]	83.1	[70.8, 90.9]	100.0
Pearson: Uncorrected chi2(2) =	5.4796				
Design-based F(1.99, 1179.38) =	1.8814	Pr =	0.153		
Total (n=607)	23.7	[19.9, 28.0]	76.3	[72.0, 80.1]	100.0

Note: χ^2 test of independence. Respondents were asked "How did you receive information about how much you will need to pay to be in the Healthy Michigan Plan?" and answered either that they did not get any information or that they don't know.

3.1.2 Awareness of ways to reduce payments by presence of a chronic condition

	Awareness of ways to reduce payments				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any chronic condition					
Yes (n=421)	4.0	[2.4, 6.7]	96.0	[93.3, 97.6]	100.0
No (n=186)	2.6	[1.1, 6.2]	97.4	[93.8, 98.9]	100.0
Pearson: Uncorrected chi2(1) =	0.7816				
Design-based F(1.00, 595.00) =	0.7032	Pr =	0.402		
Total (n=607)	3.6	[2.3, 5.6]	96.4	[94.4, 97.7]	100.0

Note: χ^2 test of independence. Respondents were asked "Do you know about any ways to reduce the amount you might have to pay?" and were coded as Yes if they gave any answer.

3.1.3 Awareness that HRA completion reduces amount owed by presence of a chronic condition

	Awareness that HRA completion reduces amount owed						
	Yes		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Any chronic condition							
Yes (n=419)	31.0	[25.9, 36.5]	12.0	[8.7, 16.5]	57.0	[51.1, 62.6]	100.0
No (n=186)	37.3	[29.2, 46.1]	7.9	[4.3, 14.1]	54.8	[46.0, 63.3]	100.0
Pearson: Uncorrected chi2(2) =	3.8426						
Design-based F(2.00, 1185.85) =	1.2387	Pr =	0.290				
Total (n=605)	33.1	[28.7, 37.8]	10.7	[8.0, 14.1]	56.2	[51.4, 61.0]	100.0

Note: χ^2 test of independence. Respondents were asked to say "Yes," "No," or "Don't know" to the following statement: "I may get a reduction in the amount I might have to pay if I complete a health risk assessment."

3.2 Knowledge and understanding of HMP covered benefits and costs

3.2.1 Knowledge of HMP covered benefits and costs by age, gender, race/ethnicity, FPL, region, and level of education

	Mean	SE	95%CI	Coef	95%CI	p-value
Age[a]						
19-34	4.7	0.17	[4.3, 5.0]		Reference	
35-50	5.0	0.21	[4.6, 5.4]	0.34	[-0.21, 0.88]	0.224
51-64	5.3	0.21	[4.9, 5.7]	0.61	[0.07, 1.15]	0.026
Gender						
Male	4.7	0.15	[4.4, 5.0]		Reference	
Female	5.3	0.16	[5.0, 5.6]	0.59	[0.15, 1.03]	0.008
Race/ethnicity						
White, non-Hispanic	4.9	0.14	[4.6, 5.2]		Reference	
Black, non-Hispanic	5.2	0.27	[4.6, 5.7]	0.24	[-0.36, 0.83]	0.437
Hispanic	5.0	0.33	[4.3, 5.6]	0.05	[-0.66, 0.76]	0.884
Other, non-Hispanic	4.5	0.39	[3.8, 5.3]	-0.40	[-1.21, 0.42]	0.339
FPL category						
0-35%	5.1	0.15	[4.8, 5.4]		Reference	
36-99%	4.6	0.16	[4.2, 4.9]	-0.33	[-0.77, 0.11]	0.139
$\geq$ 100%	5.0	0.16	[4.7, 5.3]	0.08	[-0.37, 0.53]	0.732
Region						
UP/NW/NE	4.4	0.37	[3.6, 5.1]		Reference	
W/E Central/E	5.0	0.21	[4.6, 5.4]	-0.04	[-0.63, 0.55]	0.889
S Central/SW/SE	4.8	0.22	[4.4, 5.2]	-0.04	[-0.64, 0.56]	0.892
Detroit Metro	5.2	0.19	[4.8, 5.5]	0.05	[-0.52, 0.62]	0.858
Highest level of education						
High school or less	4.5	0.17	[4.2, 4.9]		Reference	
Some college/Associate's	5.3	0.18	[4.9, 5.6]	0.76	[0.27, 1.25]	0.002
Bachelor's degree or higher	5.6	0.25	[5.1, 6.1]	1.07	[0.47, 1.66]	0.000
Total	5.0	0.11	[4.7, 5.2]			

Note: Weighted means and unadjusted linear regression models for significance testing. Knowledge score is the count of correct answers to a series of questions about the HMP program (range 0-10):

- I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK
- I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK
- Some kinds of visits, tests and medicines have no copays. Y/N/DK
- Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, prescription medications, routine dental care, treatment to stop smoking, birth control or family planning, counseling for mental or emotional problems, substance use treatment.

3.2.2 Predictors of knowledge of HMP covered benefits and costs

	Knowledge of HMP-covered benefits and costs			
	Coef	95% CI	p-value	Predicted value
Survey year				
Enrollees surveyed in 2016		Reference		**3.11**
New enrollees surveyed in 2017	-0.25	[-0.41,- 0.09]	0.003	**2.86**
Gender				
Male		Reference		
Female	0.30	[0.19, 0.42]	0.000	
Age				
19-34		Reference		
35-50	0.07	[-0.07, 0.20]	0.320	
51-64	0.15	[0.02, 0.28]	0.020	
Race/ethnicity				
White, non-Hispanic		Reference		
Black, non-Hispanic	-0.07	[-0.21, 0.07]	0.354	
Hispanic	-0.15	[-0.38, 0.08]	0.209	
Other, non-Hispanic	-0.21	[-0.40,- 0.02]	0.032	
FPL category				
0-35%		Reference		
36-99%	-0.03	[-0.15, 0.09]	0.656	
100%+	-0.17	[-0.31,- 0.04]	0.010	
Constant	2.98	[2.84, 3.12]	0.000	
N	4,642			
F-value	6.836			
Model degrees of freedom	9.000			
Residual degrees of freedom	4,630.000			
F-value significance	0.000			

Note: Adjusted linear regression with predicted margins. Knowledge score is the count of correct answers to a series of questions about the HMP program, which were common to both the 2016 and 2017 surveys (Range 0-6).

- I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK
- I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK
- Some kinds of visits, tests and medicines have no copays. Y/N/DK
- Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, routine dental care, counseling for mental or emotional problems.

4 Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

4.1 Regular source of care prior to HMP

4.1.1 Predictors of regular source of care prior to HMP

	RSOC prior to HMP		
	aOR	95% CI	p-value
Survey Year			
Enrollees surveyed in 2016		Reference	
New enrollees surveyed in 2017	0.61	[0.47, 0.78]	0.000
Gender			
Male		Reference	
Female	1.72	[1.43, 2.08]	0.000
Age			
19-34		Reference	
35-50	0.90	[0.71, 1.15]	0.399
51-64	0.81	[0.65, 1.02]	0.079
Race/ethnicity			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.37	[1.07, 1.75]	0.013
Hispanic	1.00	[0.64, 1.56]	0.993
Other, non-Hispanic	1.34	[0.94, 1.91]	0.103
FPL category			
0-35%		Reference	
36-99%	0.95	[0.76, 1.18]	0.630
100%+	1.19	[0.94, 1.49]	0.147
Health status			
Excellent		Reference	
Very good	1.63	[1.15, 2.32]	0.006
Good	1.21	[0.85, 1.72]	0.291
Fair	1.64	[1.11, 2.42]	0.012
Poor	1.18	[0.74, 1.88]	0.498
Number of chronic conditions			
None		Reference	
One	1.60	[1.23, 2.09]	0.000
Two or more	2.13	[1.62, 2.79]	0.000
Insurance status in 12 months prior to HMP			
Uninsured all 12 months		Reference	
Uninsured some of the 12 months	2.59	[1.86, 3.61]	0.000
Insured all 12 months	3.73	[2.91, 4.77]	0.000
Constant	0.66	[0.46, 0.94]	0.023
N	4,514		
F-value	13.604		
Model degrees of freedom	17.000		
Residual degrees of freedom	4,502.000		
F-value significance	0.000		

Note: Adjusted logistic regression.

4.1.2 Predictors of regular source of care prior to HMP (predicted values)

	RSOC prior to HMP	
	Predicted values (%)	95% CI
Survey year		
Enrollees surveyed in 2016	73.7	[71.9, 75.5]
New enrollees surveyed in 2017	64.3	[59.6, 68.9]
Gender		
Male	68.7	[66.0, 71.4]
Female	78.3	[76.2, 80.5]
Age		
19-34	75.1	[72.3, 77.9]
35-50	73.3	[70.3, 76.4]
51-64	71.5	[68.6, 74.4]
Race/ethnicity		
White, non-Hispanic	71.6	[69.3, 73.8]
Black, non-Hispanic	77.0	[73.5, 80.4]
Hispanic	71.6	[63.8, 79.4]
Other, non-Hispanic	76.6	[71.2, 82.1]
FPL category		
0-35%	73.3	[70.6, 75.9]
36-99%	72.3	[69.4, 75.2]
100%+	76.2	[73.2, 79.1]
Health status		
Excellent	67.7	[61.7, 73.7]
Very good	76.6	[73.2, 79.9]
Good	71.3	[68.3, 74.4]
Fair	76.7	[73.1, 80.3]
Poor	70.8	[64.6, 77.0]
Number of chronic conditions		
None	65.3	[61.5, 69.1]
One	74.3	[71.1, 77.5]
Two or more	78.9	[76.3, 81.5]
Insurance in 12 months prior to HMP		
Uninsured all 12 months	65.3	[62.9, 67.7]
Uninsured some of the 12 months	82.4	[78.1, 86.8]
Insured all 12 months	87.0	[84.5, 89.4]
Observations	4,514	

Note: Predicted margins from adjusted logistic regression.

4.2 Forgone health and dental care prior to HMP

4.2.1 Forgone health care prior to HMP by insurance status in the 12 months prior to HMP enrollment and chronic conditions

	Forgone health care prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP							
Uninsured all 12 months (n=280)	24.7	[19.4, 30.8]	74.1	[68.0, 79.4]	1.2	[0.5, 3.1]	100.0
Uninsured some of the 12 months (n=153)	23.4	[15.9, 33.1]	75.0	[65.1, 82.8]	1.6	[0.2, 10.1]	100.0
Insured all 12 months (n=169)	10.4	[6.2, 16.9]	89.6	[83.1, 93.8]	0.0		100.0
Pearson: Uncorrected chi2(4) =	17.3774						
Design-based F(3.59, 2115.73) =	3.0033	Pr =	0.022				
Any chronic condition							
Yes (n=421)	23.4	[19.0, 28.5]	75.4	[70.3, 79.9]	1.1	[0.4, 3.4]	100.0
No (n=186)	14.3	[9.2, 21.6]	85.1	[77.7, 90.3]	0.6	[0.1, 3.6]	100.0
Pearson: Uncorrected chi2(2) =	7.4347						
Design-based F(1.96, 1166.03) =	2.7913	Pr =	0.063				
Hypertension							
Yes (n=181)	26.5	[19.6, 34.7]	72.9	[64.6, 79.8]	0.6	[0.1, 3.8]	100.0
No (n=425)	18.0	[14.1, 22.7]	80.9	[76.2, 84.9]	1.1	[0.4, 3.3]	100.0
Pearson: Uncorrected chi2(2) =	5.6246						
Design-based F(1.97, 1173.01) =	2.3676	Pr =	0.095				
Heart condition or heart disease							
Yes (n=47)	17.5	[7.9, 34.3]	82.5	[65.7, 92.1]	0.0		100.0
No (n=556)	20.8	[17.1, 25.0]	78.2	[73.9, 81.9]	1.0	[0.4, 2.7]	100.0
Pearson: Uncorrected chi2(2) =	0.6421						
Design-based F(1.98, 1170.73) =	0.2591	Pr =	0.770				
Diabetes							
Yes (n=49)	43.4	[28.1, 60.0]	56.6	[40.0, 71.9]	0.0		100.0
No (n=556)	18.7	[15.2, 22.8]	80.3	[76.1, 83.9]	1.0	[0.4, 2.7]	100.0
Pearson: Uncorrected chi2(2) =	14.9511						
Design-based F(2.00, 1183.21) =	5.7778	Pr =	0.003				
Cancer							
Yes (n=29)	43.7	[24.6, 64.9]	56.3	[35.1, 75.4]	0.0		100.0
No (n=575)	19.4	[15.8, 23.5]	79.6	[75.4, 83.2]	1.0	[0.4, 2.6]	100.0
Pearson: Uncorrected chi2(2) =	9.3594						
Design-based F(1.99, 1176.60) =	3.5619	Pr =	0.029				
Mood disorder							
Yes (n=184)	26.1	[19.6, 33.8]	72.3	[64.3, 79.1]	1.6	[0.4, 7.3]	100.0
No (n=418)	17.7	[13.7, 22.5]	81.7	[76.8, 85.7]	0.7	[0.2, 2.0]	100.0
Pearson: Uncorrected chi2(2) =	7.1329						
Design-based F(2.00, 1179.68) =	2.6647	Pr =	0.070				
Stroke							
Yes (n=16)	19.1	[5.1, 50.9]	80.9	[49.1, 94.9]	0.0		100.0
No (n=591)	20.4	[16.9, 24.5]	78.6	[74.4, 82.2]	1.0	[0.4, 2.5]	100.0
Pearson: Uncorrected chi2(2) =	0.1496						
Design-based F(1.99, 1185.48) =	0.0606	Pr =	0.941				
Asthma							
Yes (n=80)	31.4	[20.3, 45.1]	68.0	[54.3, 79.1]	0.6	[0.1, 3.2]	100.0
No (n=527)	18.8	[15.2, 23.0]	80.2	[75.9, 83.9]	1.0	[0.4, 2.8]	100.0
Pearson: Uncorrected chi2(2) =	6.5565						
Design-based F(1.54, 918.33) =	3.4887	Pr =	0.043				
Chronic lung disease, COPD, or emphysema							
Yes (n=54)	22.1	[13.0, 35.0]	77.9	[65.0, 87.0]	0.0		100.0
No (n=550)	20.2	[16.5, 24.5]	78.7	[74.4, 82.5]	1.0	[0.4, 2.7]	100.0
Pearson: Uncorrected chi2(2) =	0.5204						
Design-based F(1.88, 1114.01) =	0.2398	Pr =	0.773				

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Substance use disorder							
Yes (n=24)	22.9	[10.2, 43.6]	77.1	[56.4, 89.8]	0.0		100.0
No (n=582)	20.1	[16.5, 24.2]	78.9	[74.7, 82.6]	1.0	[0.4, 2.6]	100.0
Pearson: Uncorrected chi2(2) =	0.4231						
Design-based F(1.98, 1176.58) =	0.1590	Pr =	0.851				
Arthritis or a related condition							
Yes (n=134)	23.6	[16.3, 32.9]	76.4	[67.1, 83.7]	0.0		100.0
No (n=471)	19.0	[15.1, 23.5]	79.8	[75.2, 83.8]	1.2	[0.5, 3.2]	100.0
Pearson: Uncorrected chi2(2) =	2.8591						
Design-based F(2.00, 1184.93) =	1.0648	Pr =	0.345				
Other: cholesterol							
Yes (n=11)	10.7	[2.2, 39.1]	89.3	[60.9, 97.8]	0.0		100.0
No (n=145)	24.5	[17.1, 33.9]	74.6	[65.3, 82.2]	0.8	[0.1, 4.9]	100.0
Pearson: Uncorrected chi2(2) =	1.0070						
Design-based F(1.85, 266.29) =	0.5813	Pr =	0.547				
Total (n=607)	20.4	[16.9, 24.4]	78.6	[74.5, 82.2]	1.0	[0.4, 2.5]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.2.2 Forgone dental care prior to HMP by insurance status in the 12 months prior to HMP enrollment and chronic conditions

	Forgone dental care prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP							
Uninsured all 12 months (n=280)	39.1	[32.5, 46.1]	60.9	[53.9, 67.5]	0.0		100.0
Uninsured some of the 12 months (n=153)	34.2	[25.9, 43.6]	65.4	[56.0, 73.7]	0.4	[0.1, 2.2]	100.0
Insured all 12 months (n=169)	27.1	[19.8, 35.9]	72.6	[63.8, 80.0]	0.2	[0.0, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	7.5693						
Design-based F(3.02, 1779.77) =	2.0991	Pr =	0.098				
Any chronic condition							
Yes (n=421)	38.9	[33.4, 44.7]	60.9	[55.1, 66.4]	0.2	[0.1, 0.8]	100.0
No (n=186)	26.3	[19.7, 34.1]	73.7	[65.9, 80.3]	0.0		100.0
Pearson: Uncorrected chi2(2) =	10.0313						
Design-based F(1.53, 907.38) =	5.5230	Pr =	0.009				
Hypertension							
Yes (n=181)	43.1	[34.7, 51.8]	56.9	[48.2, 65.3]	0.0		100.0
No (n=425)	31.4	[26.4, 36.9]	68.4	[62.9, 73.4]	0.2	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(2) =	7.6931						
Design-based F(1.54, 912.36) =	4.2982	Pr =	0.022				
Heart condition or heart disease							
Yes (n=47)	32.1	[18.3, 49.9]	66.8	[49.1, 80.8]	1.1	[0.2, 6.4]	100.0
No (n=556)	34.8	[30.2, 39.6]	65.1	[60.3, 69.7]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	2.3313						
Design-based F(1.59, 941.73) =	1.5031	Pr =	0.225				
Diabetes							
Yes (n=49)	53.4	[37.1, 69.0]	46.6	[31.0, 62.9]	0.0		100.0
No (n=556)	33.4	[28.8, 38.2]	66.5	[61.6, 71.0]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	6.9845						
Design-based F(1.61, 955.43) =	4.2792	Pr =	0.021				
Cancer							
Yes (n=29)	56.5	[34.6, 76.1]	43.5	[23.9, 65.4]	0.0		100.0
No (n=575)	33.9	[29.4, 38.6]	66.0	[61.2, 70.4]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	5.7240						
Design-based F(1.57, 929.42) =	3.1985	Pr =	0.053				
Mood disorder							
Yes (n=184)	40.3	[32.2, 48.9]	59.4	[50.8, 67.5]	0.3	[0.0, 1.7]	100.0
No (n=418)	31.8	[26.7, 37.3]	68.1	[62.6, 73.2]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	4.4968						
Design-based F(1.50, 887.09) =	2.5193	Pr =	0.096				
Stroke							
Yes (n=16)	25.2	[8.7, 54.4]	74.8	[45.6, 91.3]	0.0		100.0
No (n=591)	34.9	[30.5, 39.7]	64.9	[60.2, 69.4]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	0.5592						
Design-based F(1.73, 1028.71) =	0.3768	Pr =	0.655				
Asthma							
Yes (n=80)	38.4	[26.5, 51.8]	61.1	[47.7, 73.0]	0.5	[0.1, 3.1]	100.0
No (n=527)	34.2	[29.5, 39.2]	65.7	[60.7, 70.4]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	1.3314						
Design-based F(1.50, 894.54) =	0.7457	Pr =	0.439				
Chronic lung disease, COPD, or emphysema							
Yes (n=54)	40.8	[26.8, 56.4]	59.2	[43.6, 73.2]	0.0		100.0
No (n=550)	34.4	[29.8, 39.4]	65.4	[60.5, 70.0]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	0.7606						
Design-based F(1.66, 980.86) =	0.5022	Pr =	0.571				

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Substance use disorder							
Yes (n=24)	27.0	[12.9, 48.2]	73.0	[51.8, 87.1]	0.0		100.0
No (n=582)	34.9	[30.4, 39.7]	64.9	[60.1, 69.4]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	0.8391						
Design-based F(1.60, 949.97) =	0.4858	Pr =	0.573				
Arthritis or a related condition							
Yes (n=134)	43.9	[34.3, 54.0]	55.3	[45.2, 65.0]	0.7	[0.2, 2.6]	100.0
No (n=471)	32.1	[27.3, 37.4]	67.9	[62.6, 72.7]	0.0		100.0
Pearson: Uncorrected chi2(2) =	9.9945						
Design-based F(1.54, 911.90) =	5.6040	Pr =	0.008				
Other: cholesterol							
Yes (n=11)	16.5	[3.9, 49.1]	83.5	[50.9, 96.1]	100.0		
No (n=145)	40.0	[31.0, 49.7]	60.0	[50.3, 69.0]	100.0		
Pearson: Uncorrected chi2(1) =	1.9874						
Design-based F(1.00, 144.00) =	2.3721	Pr =	0.126				
Total (n=607)	34.7	[30.3, 39.4]	65.1	[60.5, 69.5]	0.2	[0.0, 0.6]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.2.3 Forgone health or dental care prior to HMP by insurance status in the 12 months prior to HMP enrollment and chronic conditions

	Forgone health or dental care prior to HMP				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	44.8	[37.9, 51.8]	55.2	[48.2, 62.1]	100.0
Uninsured some of the 12 months (n=153)	47.4	[37.9, 57.1]	52.6	[42.9, 62.1]	100.0
Insured all 12 months (n=169)	30.1	[22.5, 39.0]	69.9	[61.0, 77.5]	100.0
Pearson: Uncorrected chi2(2) =	12.2904				
Design-based F(2.00, 1179.91) =	4.2827	Pr =	0.014		
Any chronic condition					
Yes (n=421)	46.7	[41.0, 52.5]	53.3	[47.5, 59.0]	100.0
No (n=186)	30.8	[23.6, 39.1]	69.2	[60.9, 76.4]	100.0
Pearson: Uncorrected chi2(1) =	14.0045				
Design-based F(1.00, 595.00) =	9.5688	Pr =	0.002		
Hypertension					
Yes (n=181)	50.6	[41.9, 59.2]	49.4	[40.8, 58.1]	100.0
No (n=425)	37.9	[32.5, 43.6]	62.1	[56.4, 67.5]	100.0
Pearson: Uncorrected chi2(1) =	8.2054				
Design-based F(1.00, 594.00) =	5.9459	Pr =	0.015		
Heart condition or heart disease					
Yes (n=47)	33.5	[19.5, 51.2]	66.5	[48.8, 80.5]	100.0
No (n=556)	41.9	[37.0, 46.9]	58.1	[53.1, 63.0]	100.0
Pearson: Uncorrected chi2(1) =	0.9909				
Design-based F(1.00, 591.00) =	0.8611	Pr =	0.354		
Diabetes					
Yes (n=49)	66.5	[49.8, 79.9]	33.5	[20.1, 50.2]	100.0
No (n=556)	39.6	[34.8, 44.7]	60.4	[55.3, 65.2]	100.0
Pearson: Uncorrected chi2(1) =	11.6601				
Design-based F(1.00, 593.00) =	9.8529	Pr =	0.002		
Cancer					
Yes (n=29)	77.2	[53.4, 90.9]	22.8	[9.1, 46.6]	100.0
No (n=575)	40.0	[35.3, 44.9]	60.0	[55.1, 64.7]	100.0
Pearson: Uncorrected chi2(1) =	14.4427				
Design-based F(1.00, 592.00) =	10.1511	Pr =	0.002		
Mood disorder					
Yes (n=184)	48.0	[39.4, 56.7]	52.0	[43.3, 60.6]	100.0
No (n=418)	38.2	[32.7, 44.0]	61.8	[56.0, 67.3]	100.0
Pearson: Uncorrected chi2(1) =	5.1402				
Design-based F(1.00, 590.00) =	3.4994	Pr =	0.062		
Stroke					
Yes (n=16)	25.2	[8.7, 54.4]	74.8	[45.6, 91.3]	100.0
No (n=591)	41.8	[37.1, 46.7]	58.2	[53.3, 62.9]	100.0
Pearson: Uncorrected chi2(1) =	1.4544				
Design-based F(1.00, 595.00) =	1.4083	Pr =	0.236		
Asthma					
Yes (n=80)	46.5	[33.7, 59.9]	53.5	[40.1, 66.3]	100.0
No (n=527)	40.7	[35.7, 45.9]	59.3	[54.1, 64.3]	100.0
Pearson: Uncorrected chi2(1) =	0.9405				
Design-based F(1.00, 595.00) =	0.6508	Pr =	0.420		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	49.8	[34.5, 65.2]	50.2	[34.8, 65.5]	100.0
No (n=550)	40.9	[36.0, 46.0]	59.1	[54.0, 64.0]	100.0
Pearson: Uncorrected chi2(1) =	1.3112				
Design-based F(1.00, 592.00) =	1.1434	Pr =	0.285		

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Substance use disorder					
Yes (n=24)	38.2	[20.2, 60.1]	61.8	[39.9, 79.8]	100.0
No (n=582)	41.5	[36.7, 46.4]	58.5	[53.6, 63.3]	100.0
Pearson: Uncorrected chi2(1) =	0.1256				
Design-based F(1.00, 594.00) =	0.0865	Pr =	0.769		
Arthritis or a related condition					
Yes (n=134)	52.1	[42.1, 62.0]	47.9	[38.0, 57.9]	100.0
No (n=471)	38.1	[33.0, 43.5]	61.9	[56.5, 67.0]	100.0
Pearson: Uncorrected chi2(1) =	8.2519				
Design-based F(1.00, 593.00) =	5.9439	Pr =	0.015		
Other: cholesterol					
Yes (n=11)	27.3	[8.2, 61.1]	72.7	[38.9, 91.8]	100.0
No (n=145)	48.3	[38.5, 58.2]	51.7	[41.8, 61.5]	100.0
Pearson: Uncorrected chi2(1) =	1.5158				
Design-based F(1.00, 144.00) =	1.5383	Pr =	0.217		
Total (n=607)	41.4	[36.8, 46.3]	58.6	[53.7, 63.2]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.2.4 Forgone health care due to financial reasons prior to HMP by insurance status in the 12 months prior to HMP enrollment and chronic conditions

	Forgone health care due to financial reasons prior to HMP				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=140)	96.7	[91.3, 98.8]	3.3	[1.2, 8.7]	100.0
Uninsured some of the 12 months (n=64)	87.3	[71.6, 95.0]	12.7	[5.0, 28.4]	100.0
Insured all 12 months (n=56)	95.2	[80.5, 99.0]	4.8	[1.0, 19.5]	100.0
Pearson: Uncorrected chi2(2) =	7.2646				
Design-based F(1.96, 486.89) =	2.3633	Pr =	0.096		
Any chronic condition					
Yes (n=195)	92.6	[85.9, 96.3]	7.4	[3.7, 14.1]	100.0
No (n=67)	97.3	[84.0, 99.6]	2.7	[0.4, 16.0]	100.0
Pearson: Uncorrected chi2(1) =	1.8674				
Design-based F(1.00, 250.00) =	1.1142	Pr =	0.292		
Hypertension					
Yes (n=88)	91.7	[80.9, 96.6]	8.3	[3.4, 19.1]	100.0
No (n=174)	94.9	[87.9, 97.9]	5.1	[2.1, 12.1]	100.0
Pearson: Uncorrected chi2(1) =	1.0141				
Design-based F(1.00, 250.00) =	0.5885	Pr =	0.444		
Heart condition or heart disease					
Yes (n=18)	100.0		0.0		100.0
No (n=243)	93.4	[87.8, 96.5]	6.6	[3.5, 12.2]	100.0
Pearson: Uncorrected chi2(1) =	0.9348				
Design-based F(1.00, 249.00) =	0.6741	Pr =	0.412		
Diabetes					
Yes (n=29)	86.2	[62.0, 96.0]	13.8	[4.0, 38.0]	100.0
No (n=232)	94.8	[89.3, 97.5]	5.2	[2.5, 10.7]	100.0
Pearson: Uncorrected chi2(1) =	3.3213				
Design-based F(1.00, 249.00) =	2.0136	Pr =	0.157		
Cancer					
Yes (n=22)	100.0		0.0		100.0
No (n=239)	93.2	[87.5, 96.4]	6.8	[3.6, 12.5]	100.0
Pearson: Uncorrected chi2(1) =	1.6023				
Design-based F(1.00, 249.00) =	1.0525	Pr =	0.306		
Mood disorder					
Yes (n=92)	91.5	[81.0, 96.5]	8.5	[3.5, 19.0]	100.0
No (n=168)	94.9	[88.1, 97.9]	5.1	[2.1, 11.9]	100.0
Pearson: Uncorrected chi2(1) =	1.1454				
Design-based F(1.00, 248.00) =	0.7131	Pr =	0.399		
Stroke					
Yes (n=5)	100.0		0.0		100.0
No (n=257)	93.7	[88.4, 96.7]	6.3	[3.3, 11.6]	100.0
Pearson: Uncorrected chi2(1) =	0.2421				
Design-based F(1.00, 250.00) =	0.2069	Pr =	0.650		
Asthma					
Yes (n=38)	91.0	[62.2, 98.4]	9.0	[1.6, 37.8]	100.0
No (n=224)	94.2	[89.0, 97.1]	5.8	[2.9, 11.0]	100.0
Pearson: Uncorrected chi2(1) =	0.5601				
Design-based F(1.00, 250.00) =	0.2360	Pr =	0.628		
Chronic lung disease, COPD, or emphysema					
Yes (n=29)	97.3	[84.8, 99.6]	2.7	[0.4, 15.2]	100.0
No (n=232)	93.4	[87.7, 96.6]	6.6	[3.4, 12.3]	100.0
Pearson: Uncorrected chi2(1) =	0.5264				
Design-based F(1.00, 249.00) =	0.9112	Pr =	0.341		

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Substance use disorder					
Yes (n=12)	82.2	[37.4, 97.3]	17.8	[2.7, 62.6]	100.0
No (n=249)	94.3	[89.1, 97.1]	5.7	[2.9, 10.9]	100.0
Pearson: Uncorrected chi2(1) =	2.9621				
Design-based F(1.00, 249.00) =	1.5577	Pr =	0.213		
Arthritis or a related condition					
Yes (n=66)	92.5	[78.0, 97.7]	7.5	[2.3, 22.0]	100.0
No (n=194)	94.2	[88.0, 97.3]	5.8	[2.7, 12.0]	100.0
Pearson: Uncorrected chi2(1) =	0.2339				
Design-based F(1.00, 248.00) =	0.1226	Pr =	0.727		
Other: cholesterol					
Yes (n=4)	89.1	[51.5, 98.4]	10.9	[1.6, 48.5]	100.0
No (n=72)	90.9	[74.3, 97.2]	9.1	[2.8, 25.7]	100.0
Pearson: Uncorrected chi2(1) =	0.0095				
Design-based F(1.00, 64.00) =	0.0269	Pr =	0.870		
Total (n=262)	93.8	[88.6, 96.7]	6.2	[3.3, 11.4]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.2.5 Predictors of forgone health and dental care prior to HMP

	Forgone health care			Forgone dental care			Forgone health or dental care			Forgone health care due to financial reasons		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Any chronic condition												
No		Reference			Reference			Reference			Reference	
Yes	1.83	[0.99, 3.38]	0.053	1.96	[1.26, 3.07]	0.003	2.20	[1.41, 3.44]	0.001	0.41	[0.03, 5.50]	0.498
Insurance status in 12 months prior to HMP												
Uninsured all 12 months		Reference			Reference			Reference			Reference	
Uninsured some of the 12 months	0.87	[0.45, 1.67]	0.674	0.80	[0.47, 1.36]	0.413	1.13	[0.67, 1.91]	0.650	0.29	[0.06, 1.28]	0.101
Insured all 12 months	0.31	[0.16, 0.59]	0.000	0.55	[0.33, 0.92]	0.023	0.50	[0.31, 0.82]	0.007	0.79	[0.12, 5.10]	0.802
FPL category												
0-35%		Reference			Reference			Reference			Reference	
36-99%	1.10	[0.65, 1.86]	0.712	1.49	[0.98, 2.27]	0.065	1.36	[0.89, 2.08]	0.158	2.78	[0.60, 12.86]	0.190
100%+	1.46	[0.88, 2.42]	0.142	1.22	[0.80, 1.86]	0.361	1.24	[0.82, 1.88]	0.308		Reference	
Race/ethnicity												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	1.21	[0.65, 2.26]	0.553	1.71	[0.98, 2.97]	0.059	1.78	[1.03, 3.08]	0.039	0.94	[0.11, 8.35]	0.956
Hispanic	1.07	[0.29, 3.95]	0.921	1.28	[0.51, 3.19]	0.594	1.47	[0.58, 3.76]	0.419		Reference	
Other, non-Hispanic	1.06	[0.47, 2.38]	0.894	1.51	[0.74, 3.10]	0.261	1.53	[0.72, 3.27]	0.270	0.95	[0.11, 8.56]	0.964
Gender												
Male		Reference			Reference			Reference			Reference	
Female	1.82	[1.08, 3.06]	0.025	1.41	[0.91, 2.18]	0.120	1.30	[0.85, 1.99]	0.226	1.80	[0.42, 7.67]	0.422
Region												
UP/NW/NE		Reference			Reference			Reference			Reference	
W/E Central/E	0.69	[0.32, 1.49]	0.344	0.56	[0.29, 1.09]	0.089	0.62	[0.31, 1.21]	0.159	1.64	[0.13, 20.84]	0.700
S Central/SW/SE	0.73	[0.32, 1.68]	0.461	0.52	[0.26, 1.06]	0.073	0.58	[0.29, 1.17]	0.127	0.50	[0.04, 6.32]	0.591
Detroit Metro	0.63	[0.29, 1.39]	0.257	0.55	[0.28, 1.09]	0.088	0.55	[0.28, 1.09]	0.085	0.88	[0.07, 11.09]	0.921
Constant	0.22	[0.09, 0.56]	0.002	0.46	[0.22, 0.95]	0.035	0.53	[0.26, 1.08]	0.080	36.37	[1.33, 990.91]	0.033
N	592			595			597			172		
F-value	2.293			2.318			2.614			1.237		
Model degrees of freedom	12.000			12.000			12.000			10.000		
Residual degrees of freedom	580.000			583.000			585.000			164.000		
F-value significance	0.007			0.007			0.002			0.272		

Note: Adjusted logistic regression.

4.2.6 Predictors of forgone health and dental care prior to HMP (predicted values)

	Forgone health care		Forgone dental care		Forgone health or dental care		Forgone health care due to financial reasons	
	Predicted values(%)	95% CI	Predicted values(%)	95% CI	Predicted values(%)	95% CI	Predicted values(%)	95% CI
Any chronic condition								
No	14.4	[8.0, 20.7]	25.0	[18.2, 31.8]	29.4	[21.9, 36.8]	96.0	[87.3, 1.05]
Yes	23.1	[18.3, 27.8]	39.0	[33.2, 44.7]	46.9	[41.0, 52.7]	91.2	[85.3, 97.2]
Insurance status in 12 months prior to HMP								
Uninsured all 12 months	25.3	[19.5, 31.2]	38.9	[32.1, 45.8]	44.5	[37.6, 51.4]	95.5	[90.9, 1.00]
Uninsured some of the 12 months	22.9	[13.5, 32.2]	34.1	[24.8, 43.4]	47.4	[37.1, 57.6]	86.3	[74.9, 97.6]
Insured all 12 months	9.8	[5.0, 14.7]	26.4	[18.5, 34.2]	29.4	[21.4, 37.3]	94.4	[86.1, 1.03]
FPL category								
0-35%	19.1	[13.9, 24.2]	32.2	[26.1, 38.2]	39.1	[32.8, 45.4]	91.3	[85.3, 97.2]
36-99%	20.5	[14.8, 26.3]	40.9	[33.6, 48.2]	46.1	[38.6, 53.6]	96.5	[92.4, 1.01]
100%+	25.2	[18.7, 31.7]	36.4	[29.3, 43.4]	44.0	[36.7, 51.3]		
Race/ethnicity								
White, non-Hispanic	19.3	[14.8, 23.9]	30.4	[25.0, 35.9]	36.5	[30.8, 42.2]	92.4	[86.1, 98.8]
Black, non-Hispanic	22.3	[13.7, 30.9]	42.1	[31.3, 52.9]	49.7	[38.9, 60.5]	92.0	[79.6, 1.04]
Hispanic	20.3	[0.8, 39.8]	35.6	[16.5, 54.8]	45.2	[24.3, 66.2]		
Other, non-Hispanic	20.2	[8.6, 31.7]	39.3	[24.0, 54.6]	46.2	[29.5, 62.8]	92.1	[77.4, 1.07]
Gender								
Male	16.7	[12.1, 21.3]	31.4	[25.5, 37.3]	38.7	[32.5, 44.9]	90.7	[83.9, 97.4]
Female	26.2	[19.4, 32.9]	38.9	[31.6, 46.1]	44.6	[37.3, 52.0]	94.4	[88.3, 1.01]
Region								
UP/NW/NE	25.9	[13.9, 37.9]	46.5	[33.0, 60.0]	52.4	[39.0, 65.8]	93.4	[80.5, 1.06]
W/E Central/E	19.8	[12.7, 26.9]	33.4	[25.0, 41.7]	41.2	[32.1, 50.4]	95.8	[89.3, 1.02]
S Central/SW/SE	20.7	[12.8, 28.6]	32.0	[23.0, 41.0]	39.8	[30.3, 49.3]	88.0	[73.9, 1.02]
Detroit Metro	18.6	[12.6, 24.6]	33.1	[25.6, 40.7]	38.6	[30.9, 46.4]	92.6	[84.7, 1.00]
Observations	592		595		597		172	

Note: Predicted margins from adjusted logistic regression.

4.3 Financial consequences of health care

4.3.1 Out-of-pocket costs prior to HMP by FPL, insurance status in the 12 months prior to HMP enrollment, and chronic conditions

	Out of pocket costs prior to HMP								
	Less than $50		$51-500		More than $500		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category									
0-35% (n=239)	28.2	[22.6, 34.4]	20.2	[15.3, 26.1]	17.8	[13.4, 23.4]	33.8	[27.9, 40.3]	100.0
36-99% (n=192)	23.4	[17.9, 30.0]	17.1	[12.5, 23.0]	19.1	[14.2, 25.1]	40.4	[33.8, 47.5]	100.0
100%+ (n=176)	21.7	[16.1, 28.6]	21.2	[15.9, 27.7]	20.9	[15.2, 28.0]	36.2	[29.5, 43.4]	100.0
Pearson: Uncorrected chi2(6) =	3.3852								
Design-based F(5.45, 3242.25) =	0.8060	Pr =	0.555						
Insurance status in 12 months prior to HMP									
Uninsured all 12 months (n=280)	36.3	[29.8, 43.3]	20.1	[15.0, 26.5]	14.0	[9.8, 19.7]	29.6	[23.5, 36.4]	100.0
Uninsured some of the 12 months (n=153)	18.7	[12.2, 27.6]	17.8	[11.6, 26.4]	19.4	[13.1, 27.8]	44.1	[34.8, 53.9]	100.0
Insured all 12 months (n=169)	17.0	[10.8, 25.9]	21.0	[14.1, 30.2]	25.1	[18.0, 33.8]	36.9	[28.6, 46.0]	100.0
Pearson: Uncorrected chi2(6) =	32.9106								
Design-based F(5.95, 3512.56) =	3.6648	Pr =	0.001						
Any chronic condition									
Yes (n=421)	21.9	[17.4, 27.1]	17.5	[13.5, 22.4]	21.8	[17.4, 27.0]	38.8	[33.3, 44.6]	100.0
No (n=186)	35.9	[27.9, 44.7]	24.4	[17.4, 33.0]	11.6	[7.4, 17.9]	28.1	[21.0, 36.5]	100.0
Pearson: Uncorrected chi2(3) =	25.1453								
Design-based F(2.99, 1777.95) =	5.5370	Pr =	0.001						
Hypertension									
Yes (n=181)	22.2	[15.8, 30.2]	13.8	[8.9, 20.8]	19.9	[13.9, 27.7]	44.1	[35.5, 53.0]	100.0
No (n=425)	28.3	[23.3, 34.0]	22.2	[17.6, 27.6]	17.9	[13.9, 22.7]	31.6	[26.5, 37.2]	100.0
Pearson: Uncorrected chi2(3) =	11.9064								
Design-based F(3.00, 1780.92) =	2.8472	Pr =	0.036						
Heart condition or heart disease									
Yes (n=47)	28.8	[15.3, 47.4]	2.5	[0.9, 7.3]	22.6	[10.7, 41.6]	46.0	[29.4, 63.6]	100.0
No (n=556)	26.1	[21.9, 30.9]	21.1	[17.2, 25.6]	18.4	[14.8, 22.5]	34.4	[29.8, 39.3]	100.0
Pearson: Uncorrected chi2(3) =	7.6201								
Design-based F(2.42, 1430.43) =	2.6603	Pr =	0.059						
Diabetes									
Yes (n=49)	26.1	[14.3, 42.6]	13.1	[5.5, 28.0]	19.6	[9.5, 36.0]	41.3	[26.4, 58.0]	100.0
No (n=556)	26.4	[22.1, 31.2]	20.3	[16.5, 24.9]	18.4	[14.8, 22.6]	34.9	[30.2, 39.8]	100.0
Pearson: Uncorrected chi2(3) =	1.5394								
Design-based F(3.00, 1776.84) =	0.4280	Pr =	0.733						
Cancer									
Yes (n=29)	32.1	[15.3, 55.4]	12.8	[4.7, 30.0]	19.7	[6.9, 44.6]	35.5	[17.9, 58.0]	100.0
No (n=575)	25.7	[21.5, 30.4]	20.2	[16.4, 24.7]	18.5	[15.0, 22.6]	35.5	[30.9, 40.4]	100.0
Pearson: Uncorrected chi2(3) =	1.1306								
Design-based F(2.87, 1698.83) =	0.2941	Pr =	0.821						

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Mood disorder									
Yes (n=184)	24.0	[17.1, 32.5]	17.3	[11.7, 24.8]	21.9	[15.4, 30.2]	36.8	[28.9, 45.5]	100.0
No (n=418)	27.8	[22.8, 33.4]	21.3	[16.7, 26.7]	17.2	[13.3, 21.9]	33.8	[28.4, 39.5]	100.0
Pearson: Uncorrected chi2(3) =	3.5655								
Design-based F(3.00, 1768.23) =	0.7931	Pr =	0.498						
Stroke									
Yes (n=16)	36.6	[14.0, 67.2]	9.0	[2.1, 31.4]	6.6	[1.7, 22.4]	47.8	[21.9, 75.0]	100.0
No (n=591)	26.3	[22.1, 30.9]	20.0	[16.3, 24.4]	18.7	[15.2, 22.8]	35.0	[30.5, 39.8]	100.0
Pearson: Uncorrected chi2(3) =	2.9314								
Design-based F(2.45, 1456.39) =	1.1995	Pr =	0.306						
Asthma									
Yes (n=80)	14.0	[7.4, 24.7]	19.1	[10.1, 33.2]	26.3	[15.8, 40.4]	40.6	[28.5, 54.0]	100.0
No (n=527)	28.3	[23.8, 33.4]	19.9	[16.0, 24.4]	17.3	[13.8, 21.5]	34.5	[29.7, 39.6]	100.0
Pearson: Uncorrected chi2(3) =	8.8807								
Design-based F(2.94, 1749.00) =	2.0238	Pr =	0.110						
Chronic lung disease, COPD, or emphysema									
Yes (n=54)	19.9	[9.7, 36.5]	16.2	[8.0, 29.9]	24.7	[12.9, 42.1]	39.2	[25.4, 54.9]	100.0
No (n=550)	26.8	[22.4, 31.6]	20.2	[16.3, 24.7]	18.1	[14.5, 22.2]	35.0	[30.3, 40.0]	100.0
Pearson: Uncorrected chi2(3) =	2.1753								
Design-based F(2.95, 1744.15) =	0.6236	Pr =	0.597						
Substance use disorder									
Yes (n=24)	45.2	[24.4, 67.9]	6.9	[2.3, 19.1]	21.0	[7.7, 45.7]	26.9	[12.6, 48.5]	100.0
No (n=582)	25.4	[21.3, 30.0]	20.5	[16.7, 24.9]	18.4	[14.9, 22.4]	35.8	[31.2, 40.7]	100.0
Pearson: Uncorrected chi2(3) =	7.5852								
Design-based F(2.65, 1575.11) =	1.9783	Pr =	0.123						
Arthritis or a related condition									
Yes (n=134)	20.4	[13.2, 30.2]	22.8	[15.1, 32.7]	16.2	[10.2, 24.6]	40.7	[31.4, 50.7]	100.0
No (n=471)	28.1	[23.3, 33.4]	19.1	[15.0, 24.0]	19.2	[15.2, 23.9]	33.6	[28.6, 39.1]	100.0
Pearson: Uncorrected chi2(3) =	4.9298								
Design-based F(2.98, 1767.85) =	1.1535	Pr =	0.326						
Other: cholesterol									
Yes (n=11)	25.1	[7.0, 59.8]	48.9	[15.5, 83.3]	8.5	[1.3, 39.5]	17.5	[5.2, 44.7]	100.0
No (n=145)	21.9	[14.7, 31.4]	18.5	[12.0, 27.4]	20.1	[13.4, 29.0]	39.5	[30.0, 49.8]	100.0
Pearson: Uncorrected chi2(3) =	5.6243								
Design-based F(2.36, 339.97) =	2.0891	Pr =	0.116						
Total (n=607)	26.5	[22.4, 31.1]	19.8	[16.1, 24.0]	18.4	[15.0, 22.4]	35.3	[30.8, 40.0]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.3.2 Problems paying medical bills prior to HMP by FPL, insurance status in the 12 months prior to HMP enrollment, and chronic conditions

	Problems paying medical bills prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category							
0-35% (n=239)	42.6	[36.3, 49.2]	56.7	[50.1, 63.1]	0.7	[0.1, 4.3]	100.0
36-99% (n=192)	51.4	[44.5, 58.4]	48.6	[41.6, 55.5]	0.0		100.0
100%+ (n=176)	47.8	[40.6, 55.2]	52.2	[44.8, 59.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	3.9722						
Design-based F(2.10, 1252.18) =	0.9785	Pr =	0.380				
Insurance status in 12 months prior to HMP							
Uninsured all 12 months (n=280)	44.4	[37.6, 51.4]	54.7	[47.6, 61.5]	1.0	[0.1, 6.3]	100.0
Uninsured some of the 12 months (n=153)	54.2	[44.5, 63.6]	45.8	[36.4, 55.5]	0.0		100.0
Insured all 12 months (n=169)	37.9	[29.4, 47.2]	62.1	[52.8, 70.6]	0.0		100.0
Pearson: Uncorrected chi2(4) =	11.5899						
Design-based F(3.69, 2177.83) =	1.6617	Pr =	0.161				
Any chronic condition							
Yes (n=421)	51.0	[45.1, 56.8]	49.0	[43.2, 54.9]	0.0		100.0
No (n=186)	32.3	[24.8, 41.0]	66.2	[57.5, 74.0]	1.4	[0.2, 8.8]	100.0
Pearson: Uncorrected chi2(2) =	23.4961						
Design-based F(1.88, 1116.37) =	5.6410	Pr =	0.004				
Hypertension							
Yes (n=181)	54.6	[45.8, 63.1]	45.4	[36.9, 54.2]	0.0		100.0
No (n=425)	41.0	[35.4, 46.7]	58.4	[52.6, 64.0]	0.7	[0.1, 4.2]	100.0
Pearson: Uncorrected chi2(2) =	10.0985						
Design-based F(1.84, 1094.70) =	2.5090	Pr =	0.086				
Heart condition or heart disease							
Yes (n=47)	52.5	[34.9, 69.5]	47.5	[30.5, 65.1]	0.0		100.0
No (n=556)	43.9	[39.0, 49.0]	55.6	[50.5, 60.5]	0.5	[0.1, 3.3]	100.0
Pearson: Uncorrected chi2(2) =	1.1580						
Design-based F(1.79, 1058.90) =	0.3058	Pr =	0.712				
Diabetes							
Yes (n=49)	59.4	[42.4, 74.4]	40.6	[25.6, 57.6]	0.0		100.0
No (n=556)	43.9	[38.9, 48.9]	55.6	[50.6, 60.6]	0.5	[0.1, 3.3]	100.0
Pearson: Uncorrected chi2(2) =	3.9307						
Design-based F(1.79, 1062.92) =	1.0328	Pr =	0.350				
Cancer							
Yes (n=29)	51.0	[30.0, 71.7]	49.0	[28.3, 70.0]	0.0		100.0
No (n=575)	44.4	[39.5, 49.4]	55.1	[50.1, 60.0]	0.5	[0.1, 3.2]	100.0
Pearson: Uncorrected chi2(2) =	0.5577						
Design-based F(1.83, 1086.05) =	0.1445	Pr =	0.848				
Mood disorder							
Yes (n=184)	54.2	[45.4, 62.8]	45.8	[37.2, 54.6]	0.0		100.0
No (n=418)	40.6	[35.0, 46.4]	58.7	[52.9, 64.3]	0.7	[0.1, 4.4]	100.0
Pearson: Uncorrected chi2(2) =	10.5644						
Design-based F(1.86, 1096.31) =	2.5688	Pr =	0.081				
Stroke							
Yes (n=16)	56.0	[27.6, 80.9]	44.0	[19.1, 72.4]	0.0		100.0
No (n=591)	44.5	[39.7, 49.5]	55.0	[50.0, 59.8]	0.5	[0.1, 3.1]	100.0
Pearson: Uncorrected chi2(2) =	0.7255						
Design-based F(1.81, 1078.79) =	0.2011	Pr =	0.796				
Asthma							
Yes (n=80)	58.8	[44.9, 71.4]	41.2	[28.6, 55.1]	0.0		100.0
No (n=527)	42.8	[37.7, 48.0]	56.7	[51.5, 61.7]	0.5	[0.1, 3.5]	100.0
Pearson: Uncorrected chi2(2) =	7.1481						
Design-based F(1.87, 1110.59) =	1.7429	Pr =	0.178				

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Chronic lung disease, COPD, or emphysema							
Yes (n=54)	54.2	[38.0, 69.5]	45.8	[30.5, 62.0]	0.0		100.0
No (n=550)	44.0	[39.1, 49.2]	55.4	[50.3, 60.5]	0.5	[0.1, 3.3]	100.0
Pearson: Uncorrected chi2(2) =	1.7934						
Design-based F(1.77, 1048.81) =	0.4788	Pr =	0.597				
Substance use disorder							
Yes (n=24)	54.0	[31.7, 74.8]	46.0	[25.2, 68.3]	0.0		100.0
No (n=582)	44.4	[39.6, 49.4]	55.1	[50.1, 60.0]	0.5	[0.1, 3.2]	100.0
Pearson: Uncorrected chi2(2) =	1.1433						
Design-based F(1.91, 1133.47) =	0.2728	Pr =	0.751				
Arthritis or a related condition							
Yes (n=134)	55.0	[44.8, 64.9]	45.0	[35.1, 55.2]	0.0		100.0
No (n=471)	42.3	[37.0, 47.8]	57.1	[51.6, 62.5]	0.6	[0.1, 3.9]	100.0
Pearson: Uncorrected chi2(2) =	7.2016						
Design-based F(1.84, 1089.87) =	1.7896	Pr =	0.171				
Other: cholesterol							
Yes (n=11)	17.2	[4.7, 46.7]	82.8	[53.3, 95.3]	100.0		
No (n=145)	54.6	[44.4, 64.4]	45.4	[35.6, 55.6]	100.0		
Pearson: Uncorrected chi2(1) =	4.7891						
Design-based F(1.00, 144.00) =	6.6579	Pr =	0.011				
Total (n=607)	44.8	[40.0, 49.6]	54.7	[49.9, 59.5]	0.5	[0.1, 3.1]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.3.3 Contacted by a collections agency prior to HMP by FPL, insurance status in the 12 months prior to HMP enrollment, and chronic conditions

	Contacted by a collections agency prior to HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category							
0-35% (n=108)	73.4	[63.9, 81.2]	25.1	[17.6, 34.5]	1.4	[0.2, 9.1]	100.0
36-99% (n=99)	66.7	[56.9, 75.2]	32.7	[24.2, 42.6]	0.6	[0.1, 3.5]	100.0
100%+ (n=84)	75.3	[64.3, 83.8]	24.7	[16.2, 35.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	2.1549						
Design-based F(2.49, 695.42) =	0.4996	Pr =	0.648				
Insurance status in 12 months prior to HMP							
Uninsured all 12 months (n=143)	73.1	[64.1, 80.5]	26.9	[19.5, 35.9]	0.0		100.0
Uninsured some of the 12 months (n=78)	74.2	[60.7, 84.2]	25.5	[15.4, 38.9]	0.4	[0.1, 2.4]	100.0
Insured all 12 months (n=69)	68.6	[53.3, 80.7]	27.3	[16.3, 42.0]	4.1	[0.6, 22.7]	100.0
Pearson: Uncorrected chi2(4) =	7.8050						
Design-based F(3.06, 850.43) =	1.3681	Pr =	0.251				
Any chronic condition							
Yes (n=230)	74.0	[66.6, 80.2]	26.0	[19.8, 33.4]	0.0		100.0
No (n=61)	67.2	[51.9, 79.6]	28.3	[17.2, 42.8]	4.5	[0.8, 21.2]	100.0
Pearson: Uncorrected chi2(2) =	10.3147						
Design-based F(1.89, 528.30) =	2.7368	Pr =	0.069				
Hypertension							
Yes (n=101)	78.6	[67.8, 86.5]	21.4	[13.5, 32.2]	0.0		100.0
No (n=190)	69.1	[60.5, 76.5]	29.3	[22.1, 37.7]	1.6	[0.3, 8.6]	100.0
Pearson: Uncorrected chi2(2) =	4.0106						
Design-based F(1.88, 525.18) =	1.0867	Pr =	0.335				
Heart condition or heart disease							
Yes (n=26)	51.5	[28.8, 73.5]	48.5	[26.5, 71.2]	0.0		100.0
No (n=263)	73.4	[66.6, 79.3]	25.4	[19.7, 32.1]	1.2	[0.2, 6.3]	100.0
Pearson: Uncorrected chi2(2) =	5.3095						
Design-based F(1.85, 511.43) =	1.5335	Pr =	0.218				
Diabetes							
Yes (n=33)	85.3	[62.1, 95.3]	14.7	[4.7, 37.9]	0.0		100.0
No (n=258)	71.1	[64.0, 77.3]	27.8	[21.7, 34.7]	1.2	[0.2, 6.3]	100.0
Pearson: Uncorrected chi2(2) =	2.5498						
Design-based F(1.89, 527.54) =	0.7016	Pr =	0.489				
Cancer							
Yes (n=16)	82.9	[60.2, 94.0]	17.1	[6.0, 39.8]	0.0		100.0
No (n=273)	71.5	[64.6, 77.6]	27.3	[21.4, 34.2]	1.1	[0.2, 6.1]	100.0
Pearson: Uncorrected chi2(2) =	0.9488						
Design-based F(1.60, 444.58) =	0.3237	Pr =	0.675				
Mood disorder							
Yes (n=103)	73.4	[61.8, 82.5]	26.6	[17.5, 38.2]	0.0		100.0
No (n=186)	71.2	[62.9, 78.3]	27.1	[20.4, 35.0]	1.7	[0.3, 9.1]	100.0
Pearson: Uncorrected chi2(2) =	1.9207						
Design-based F(1.88, 520.73) =	0.5144	Pr =	0.587				
Stroke							
Yes (n=10)	38.9	[13.8, 71.7]	61.1	[28.3, 86.2]	0.0		100.0
No (n=281)	73.3	[66.7, 79.1]	25.6	[20.0, 32.1]	1.1	[0.2, 5.9]	100.0
Pearson: Uncorrected chi2(2) =	4.9783						
Design-based F(1.71, 476.21) =	1.6887	Pr =	0.190				
Asthma							
Yes (n=54)	76.4	[58.4, 88.2]	23.6	[11.8, 41.6]	0.0		100.0
No (n=237)	71.6	[64.3, 77.9]	27.1	[21.0, 34.3]	1.3	[0.2, 6.8]	100.0
Pearson: Uncorrected chi2(2) =	0.9402						
Design-based F(1.93, 537.54) =	0.2466	Pr =	0.773				

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Chronic lung disease, COPD, or emphysema							
Yes (n=36)	67.1	[49.1, 81.2]	32.9	[18.8, 50.9]	0.0		100.0
No (n=253)	73.0	[65.9, 79.1]	25.8	[19.9, 32.8]	1.2	[0.2, 6.3]	100.0
Pearson: Uncorrected chi2(2) =	0.8318						
Design-based F(1.68, 465.19) =	0.2763	Pr =	0.720				
Substance use disorder							
Yes (n=14)	83.5	[58.9, 94.7]	16.5	[5.3, 41.1]	0.0		100.0
No (n=277)	71.7	[64.8, 77.7]	27.2	[21.3, 34.0]	1.1	[0.2, 6.1]	100.0
Pearson: Uncorrected chi2(2) =	1.1959						
Design-based F(1.74, 486.29) =	0.3734	Pr =	0.659				
Arthritis or a related condition							
Yes (n=82)	79.5	[67.4, 87.9]	20.5	[12.1, 32.6]	0.0		100.0
No (n=209)	69.9	[61.8, 76.9]	28.7	[21.9, 36.6]	1.4	[0.3, 7.7]	100.0
Pearson: Uncorrected chi2(2) =	3.2376						
Design-based F(1.85, 517.51) =	0.8904	Pr =	0.404				
Other: cholesterol							
Yes (n=3)	100.0		0.0		100.0		
No (n=84)	66.2	[52.7, 77.6]	33.8	[22.4, 47.3]	100.0		
Pearson: Uncorrected chi2(1) =	0.8417						
Design-based F(1.00, 75.00) =	1.5083	Pr =	0.223				
Total (n=291)	72.4	[65.7, 78.2]	26.6	[20.9, 33.1]	1.1	[0.2, 5.8]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

4.3.4 Thought about filing for bankruptcy prior to HMP by FPL, insurance status in the 12 months prior to HMP enrollment, and chronic conditions

	Thought about filing for bankruptcy prior to HMP				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
FPL category					
0-35% (n=108)	31.5	[23.2, 41.2]	68.5	[58.8, 76.8]	100.0
36-99% (n=99)	23.9	[16.4, 33.4]	76.1	[66.6, 83.6]	100.0
100%+ (n=84)	27.3	[18.4, 38.4]	72.7	[61.6, 81.6]	100.0
Pearson: Uncorrected chi2(2) =	1.3322				
Design-based F(1.86, 517.90) =	0.8752	Pr =	0.410		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=143)	34.4	[25.5, 44.7]	65.6	[55.3, 74.5]	100.0
Uninsured some of the 12 months (n=78)	22.4	[13.3, 35.2]	77.6	[64.8, 86.7]	100.0
Insured all 12 months (n=69)	28.2	[16.7, 43.6]	71.8	[56.4, 83.3]	100.0
Pearson: Uncorrected chi2(2) =	3.7177				
Design-based F(2.00, 555.33) =	1.1823	Pr =	0.307		
Any chronic condition					
Yes (n=230)	31.8	[24.9, 39.6]	68.2	[60.4, 75.1]	100.0
No (n=61)	21.9	[11.8, 37.1]	78.1	[62.9, 88.2]	100.0
Pearson: Uncorrected chi2(1) =	2.4804				
Design-based F(1.00, 279.00) =	1.4760	Pr =	0.225		
Hypertension					
Yes (n=101)	32.9	[22.6, 45.1]	67.1	[54.9, 77.4]	100.0
No (n=190)	27.6	[20.5, 36.0]	72.4	[64.0, 79.5]	100.0
Pearson: Uncorrected chi2(1) =	0.9034				
Design-based F(1.00, 279.00) =	0.5858	Pr =	0.445		
Heart condition or heart disease					
Yes (n=26)	25.6	[10.8, 49.4]	74.4	[50.6, 89.2]	100.0
No (n=263)	29.2	[23.0, 36.3]	70.8	[63.7, 77.0]	100.0
Pearson: Uncorrected chi2(1) =	0.1220				
Design-based F(1.00, 277.00) =	0.1094	Pr =	0.741		
Diabetes					
Yes (n=33)	44.6	[25.7, 65.3]	55.4	[34.7, 74.3]	100.0
No (n=258)	27.9	[21.7, 35.0]	72.1	[65.0, 78.3]	100.0
Pearson: Uncorrected chi2(1) =	3.2896				
Design-based F(1.00, 279.00) =	2.6157	Pr =	0.107		
Cancer					
Yes (n=16)	16.5	[3.8, 49.6]	83.5	[50.4, 96.2]	100.0
No (n=273)	30.4	[24.1, 37.5]	69.6	[62.5, 75.9]	100.0
Pearson: Uncorrected chi2(1) =	1.2831				
Design-based F(1.00, 277.00) =	0.9601	Pr =	0.328		
Mood disorder					
Yes (n=103)	30.0	[20.7, 41.3]	70.0	[58.7, 79.3]	100.0
No (n=186)	27.6	[20.3, 36.4]	72.4	[63.6, 79.7]	100.0
Pearson: Uncorrected chi2(1) =	0.1843				
Design-based F(1.00, 277.00) =	0.1233	Pr =	0.726		
Stroke					
Yes (n=10)	3.8	[0.6, 21.4]	96.2	[78.6, 99.4]	100.0
No (n=281)	30.1	[24.0, 37.1]	69.9	[62.9, 76.0]	100.0
Pearson: Uncorrected chi2(1) =	2.5668				
Design-based F(1.00, 279.00) =	9.0576	Pr =	0.003		
Asthma					
Yes (n=54)	35.5	[21.6, 52.4]	64.5	[47.6, 78.4]	100.0
No (n=237)	28.2	[21.8, 35.7]	71.8	[64.3, 78.2]	100.0
Pearson: Uncorrected chi2(1) =	1.0324				
Design-based F(1.00, 279.00) =	0.7484	Pr =	0.388		

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Chronic lung disease, COPD, or emphysema					
Yes (n=36)	30.4	[16.8, 48.7]	69.6	[51.3, 83.2]	100.0
No (n=253)	29.5	[23.1, 36.9]	70.5	[63.1, 76.9]	100.0
Pearson: Uncorrected chi2(1) =	0.0090				
Design-based F(1.00, 277.00) =	0.0101	Pr =	0.920		
Substance use disorder					
Yes (n=14)	58.3	[30.9, 81.4]	41.7	[18.6, 69.1]	100.0
No (n=277)	27.6	[21.6, 34.6]	72.4	[65.4, 78.4]	100.0
Pearson: Uncorrected chi2(1) =	7.2940				
Design-based F(1.00, 279.00) =	5.0914	Pr =	0.025		
Arthritis or a related condition					
Yes (n=82)	40.9	[28.5, 54.5]	59.1	[45.5, 71.5]	100.0
No (n=209)	25.4	[18.9, 33.1]	74.6	[66.9, 81.1]	100.0
Pearson: Uncorrected chi2(1) =	6.5170				
Design-based F(1.00, 279.00) =	4.4044	Pr =	0.037		
Other: cholesterol					
Yes (n=3)	0.0		100.0		100.0
No (n=84)	26.7	[16.4, 40.4]	73.3	[59.6, 83.6]	100.0
Pearson: Uncorrected chi2(1) =	0.6037				
Design-based F(1.00, 75.00) =	0.9986	Pr =	0.321		
Total (n=291)	29.4	[23.4, 36.2]	70.6	[63.8, 76.6]	100.0

Note: χ^2 test of independence. Any chronic condition is defined as any of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

5 Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

5.1 Health Risk Assessment

5.1.1 Completing the HRA taught me something about my health by level of education, age, health status, and number of chronic conditions

	Completing the HRA taught me something about my health								
	Definitely yes		**Somewhat yes**		**No**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Highest level of education									
High school or less (n=114)	28.4	[19.5, 39.4]	37.1	[26.8, 48.7]	34.5	[24.6, 45.9]	0.0		100.0
Some college/Associate's (n=91)	29.0	[18.5, 42.3]	38.1	[26.5, 51.2]	32.7	[22.6, 44.7]	0.3	[0.0, 1.5]	100.0
Bachelor's degree or higher (n=29)	7.1	[2.7, 17.4]	42.9	[23.7, 64.5]	50.0	[29.6, 70.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	7.5920								
Design-based F(4.81, 1068.22) =	1.1043	Pr =	0.356						
Age									
19-34 (n=76)	26.8	[16.4, 40.8]	45.8	[32.6, 59.6]	27.3	[17.1, 40.8]	0.0		100.0
35-50 (n=56)	28.3	[16.8, 43.7]	32.5	[19.3, 49.4]	39.1	[25.0, 55.4]	0.0		100.0
51-64 (n=103)	23.0	[14.5, 34.5]	34.5	[24.2, 46.5]	42.2	[31.4, 53.8]	0.3	[0.0, 1.6]	100.0
Pearson: Uncorrected chi2(6) =	5.9321								
Design-based F(5.20, 1160.35) =	0.7668	Pr =	0.579						
Health status									
Excellent (n=20)	22.3	[7.1, 51.9]	42.3	[19.3, 69.2]	35.4	[15.1, 62.7]	0.0		100.0
Very good (n=62)	20.5	[9.6, 38.6]	39.7	[25.4, 56.1]	39.4	[25.4, 55.3]	0.4	[0.1, 2.3]	100.0
Good (n=93)	28.6	[19.0, 40.5]	41.5	[29.7, 54.3]	30.0	[19.8, 42.7]	0.0		100.0
Fair (n=44)	24.8	[12.7, 42.7]	27.5	[14.8, 45.2]	47.7	[31.2, 64.8]	0.0		100.0
Poor (n=15)	37.1	[16.2, 64.3]	40.3	[17.7, 67.9]	22.6	[7.4, 51.5]	0.0		100.0
Pearson: Uncorrected chi2(12) =	8.0995								
Design-based F(11.04, 2450.27) =	0.4806	Pr =	0.917						
Number of chronic conditions									
None (n=74)	23.6	[13.3, 38.3]	37.5	[24.7, 52.3]	38.6	[25.7, 53.4]	0.3	[0.1, 1.9]	100.0
One (n=50)	25.9	[13.2, 44.6]	32.2	[18.7, 49.6]	41.8	[27.0, 58.3]	0.0		100.0
Two or more (n=111)	27.2	[18.8, 37.5]	41.8	[31.1, 53.2]	31.1	[22.0, 41.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	2.9775								
Design-based F(5.15, 1148.08) =	0.3736	Pr =	0.872						
Total (n=235)	25.7	[19.5, 33.1]	38.2	[30.8, 46.2]	35.9	[28.9, 43.7]	0.1	[0.0, 0.6]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

6 Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Not applicable to the New Enrollee Survey

7 Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Not applicable to the New Enrollee Survey

8 Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

8.1 Insurance status in the 12 months prior to HMP

8.1.1 Predictors of insurance at any time in the 12 months prior to HMP, among enrollees surveyed in 2016 and new enrollees surveyed in 2017

	Insurance at any time in 12 months prior to HMP			
	aOR	95% CI	p-value	Predicted value
Survey year				
Enrollees surveyed in 2016		Reference		**55.1**
New enrollees surveyed in 2017	1.78	[1.42, 2.24]	0.000	**41.2**
Gender				
Male		Reference		
Female	1.44	[1.22, 1.70]	0.000	
Age				
19-34		Reference		
35-50	0.67	[0.55, 0.82]	0.000	
51-64	0.61	[0.50, 0.74]	0.000	
Race/ethnicity				
White, non-Hispanic		Reference		
Black, non-Hispanic	0.83	[0.68, 1.02]	0.070	
Hispanic	0.89	[0.61, 1.28]	0.519	
Other, non-Hispanic	1.26	[0.95, 1.68]	0.106	
FPL category				
0-35%		Reference		
36-99%	1.34	[1.11, 1.62]	0.002	
100%+	1.52	[1.25, 1.86]	0.000	
Health status				
Excellent		Reference		
Very good	0.97	[0.70, 1.34]	0.851	
Good	0.99	[0.72, 1.36]	0.930	
Fair	1.02	[0.72, 1.45]	0.895	
Poor	1.11	[0.72, 1.70]	0.640	
Number of chronic conditions				
None		Reference		
One	1.01	[0.81, 1.27]	0.920	
Two or more	1.10	[0.88, 1.37]	0.404	
Constant	0.63	[0.44, 0.88]	0.007	
N	4,584			
F-value	6.482			
Model degrees of freedom	15.000			
Residual degrees of freedom	4,572.000			
F-value significance	0.000			

Note: Adjusted logistic regression with predicted margins. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.1.2 Insurance status in the 12 months prior to HMP enrollment by FPL and employment status

	Insurance status in 12 months prior to HMP						
	Uninsured all 12 months		**Uninsured some of the 12 months**		**Insured all 12 months**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category							
0-35% (n=239)	47.2	[40.7, 53.8]	22.9	[17.8, 28.8]	29.9	[24.2, 36.3]	100.0
36-99% (n=191)	48.4	[41.5, 55.4]	29.2	[23.4, 35.9]	22.3	[17.3, 28.3]	100.0
100%+ (n=172)	50.8	[43.4, 58.2]	25.1	[19.2, 32.1]	24.1	[18.6, 30.6]	100.0
Pearson: Uncorrected chi2(4) =	3.7214						
Design-based F(3.58, 2113.77) =	1.3991	Pr =	0.236				
Employment status							
Full-time (n=178)	50.7	[41.5, 59.8]	26.1	[18.7, 35.1]	23.2	[16.4, 31.9]	100.0
Part-time (n=175)	48.8	[39.7, 58.0]	26.5	[19.6, 34.9]	24.6	[17.3, 33.8]	100.0
Not employed (n=241)	45.7	[38.4, 53.2]	21.1	[15.8, 27.7]	33.2	[26.6, 40.5]	100.0
Pearson: Uncorrected chi2(4) =	6.7984						
Design-based F(3.98, 2316.48) =	1.1688	Pr =	0.323				
Total (n=602)	47.9	[43.0, 52.8]	24.2	[20.4, 28.6]	27.9	[23.7, 32.5]	100.0

Note: χ^2 test of independence.

8.1.3 Reasons for no insurance, among those uninsured all 12 months prior to HMP enrollment

	Percent	95%CI
Have a job, but it does not offer insurance		
Yes (n=44)	15.8	[11.2, 21.7]
No (n=236)	84.2	[78.3, 88.8]
Have a job, but insurance is too expensive		
Yes (n=9)	1.8	[0.8, 4.3]
No (n=271)	98.2	[95.7, 99.2]
No job during that time		
Yes (n=59)	27.0	[20.9, 34.0]
No (n=221)	73.0	[66.0, 79.1]
Marketplace/individual plan too expensive		
Yes (n=17)	4.6	[2.5, 8.2]
No (n=263)	95.4	[91.8, 97.5]
Too expensive (non-specific)		
Yes (n=116)	32.8	[26.8, 39.5]
No (n=164)	67.2	[60.5, 73.2]
Time for HMP application to be completed/accepted		
Yes (n=4)	1.7	[0.6, 4.9]
No (n=276)	98.3	[95.1, 99.4]
Had problems with (re-)applying for Medicaid		
Yes (n=11)	4.9	[2.6, 9.1]
No (n=269)	95.1	[90.9, 97.4]
Had problems with (re-)applying for private insurance		
Yes (n=2)	0.9	[0.2, 3.8]
No (n=278)	99.1	[96.2, 99.8]
Do not need health insurance		
Yes (n=21)	10.7	[6.8, 16.5]
No (n=259)	89.3	[83.5, 93.2]
Did not get around to it		
Yes (n=21)	8.6	[5.2, 14.1]
No (n=259)	91.4	[85.9, 94.8]
Other		
Yes (n=30)	9.7	[6.4, 14.4]
No (n=250)	90.3	[85.6, 93.6]
Have job, waiting for open enrollment		
Yes (n=0)	0.0	
No (n=280)	100.0	
Tried to enroll, but redirected to Medicaid		
Yes (n=0)	0.0	
No (n=280)	100.0	
Do not know		
Yes (n=1)	0.2	[0.0, 1.2]
No (n=279)	99.8	[98.8, 100.0]
Refused		
Yes (n=2)	0.6	[0.1, 2.3]
No (n=278)	99.4	[97.7, 99.9]

Note: Weighted proportions.

8.1.4 Reasons for no insurance, among those uninsured some of the past 12 months prior to HMP enrollment

	Percent	95%CI
Have a job, but it does not offer insurance		
Yes (n=9)	8.1	[3.9, 16.1]
No (n=144)	91.9	[83.9, 96.1]
Have a job, but insurance is too expensive		
Yes (n=5)	4.5	[1.7, 11.4]
No (n=148)	95.5	[88.6, 98.3]
No job during that time		
Yes (n=60)	36.7	[28.0, 46.4]
No (n=93)	63.3	[53.6, 72.0]
Marketplace/individual plan too expensive		
Yes (n=10)	10.2	[5.3, 18.8]
No (n=143)	89.8	[81.2, 94.7]
Too expensive (non-specific)		
Yes (n=17)	7.5	[4.4, 12.5]
No (n=136)	92.5	[87.5, 95.6]
Time for HMP application to be completed/accepted		
Yes (n=25)	15.7	[9.8, 24.1]
No (n=128)	84.3	[75.9, 90.2]
Had problems with (re-)applying for Medicaid		
Yes (n=6)	3.1	[1.4, 6.8]
No (n=147)	96.9	[93.2, 98.6]
Had problems with (re-)applying for private insurance		
Yes (n=0)	0.0	
No (n=153)	100.0	
Do not need health insurance		
Yes (n=1)	0.5	[0.1, 2.7]
No (n=152)	99.5	[97.3, 99.9]
Did not get around to it		
Yes (n=2)	1.9	[0.4, 8.4]
No (n=151)	98.1	[91.6, 99.6]
Other		
Yes (n=36)	23.4	[16.3, 32.5]
No (n=117)	76.6	[67.5, 83.7]
Have job, waiting for open enrollment		
Yes (n=1)	0.2	[0.0, 0.9]
No (n=152)	99.8	[99.1, 100.0]
Tried to enroll, but redirected to Medicaid		
Yes (n=4)	3.6	[1.2, 10.1]
No (n=149)	96.4	[89.9, 98.8]
Do not know		
Yes (n=0)	0.0	
No (n=153)	100.0	
Refused		
Yes (n=0)	0.0	
No (n=153)	100.0	

Note: Weighted proportions.

8.1.5 Predictors of being uninsured all 12 months prior to HMP, among those uninsured at any time in the past 12 months prior to HMP enrollment

	Uninsured all 12 months prior to HMP		
	aOR	95% CI	p-value
No-insurance reason: Job, no insurance			
Did not select reason		Reference	
Selected reason	2.62	[0.91, 7.54]	0.073
No-insurance reason: Job, insurance expensive			
Did not select reason		Reference	
Selected reason	0.74	[0.14, 4.00]	0.727
No-insurance reason: No job			
Did not select reason		Reference	
Selected reason	1.07	[0.45, 2.54]	0.885
No-insurance reason: Ind. plan too expensive			
Did not select reason		Reference	
Selected reason	0.81	[0.29, 2.29]	0.696
No-insurance reason: Too expensive (non-spec)			
Did not select reason		Reference	
Selected reason	6.47	[2.48, 16.87]	0.000
No-insurance reason: Time for application			
Did not select reason		Reference	
Selected reason	0.36	[0.08, 1.59]	0.177
No-insurance reason: Problems reapplying for Medicaid			
Did not select reason		Reference	
Selected reason	4.45	[1.06, 18.70]	0.041
No-insurance reason: Do not need insurance			
Did not select reason		Reference	
Selected reason	32.66	[5.04, 211.69]	0.000
No-insurance reason: Did not get around to it			
Did not select reason		Reference	
Selected reason	6.54	[1.35, 31.70]	0.020
No-insurance reason: Other			
Did not select reason		Reference	
Selected reason	0.62	[0.24, 1.60]	0.319
Employment status			
Full-time		Reference	
Part-time	1.43	[0.68, 3.01]	0.346
Not employed	1.92	[0.91, 4.04]	0.086
FPL category			
0-35%		Reference	
36-99%	0.87	[0.48, 1.57]	0.636
100%+	1.09	[0.57, 2.07]	0.794
Age			
19-34		Reference	
35-50	1.24	[0.64, 2.40]	0.513
51-64	1.36	[0.66, 2.78]	0.403
Highest education level			
High school or less		Reference	
Some college/Associate's	0.63	[0.34, 1.15]	0.128
Bachelor's degree or higher	0.42	[0.18, 0.98]	0.044
Sex			
Male		Reference	
Female	0.45	[0.25, 0.80]	0.007
Race/Ethnicity			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.75	[0.82, 3.72]	0.148
Hispanic	1.71	[0.50, 5.80]	0.389
Other, non-Hispanic	1.22	[0.52, 2.86]	0.644
Constant	0.98	[0.34, 2.80]	0.963
N	423		
F-value	3.698		
Model degrees of freedom	22.000		
Residual degrees of freedom	411.000		
F-value significance	0.000		

Note: Adjusted logistic regression.

8.2 Reasons for not applying for HMP

8.2.1 Knew about HMP while uninsured but did not apply by number of chronic conditions, experience of homelessness, housing instability, and health literacy

	Knew about HMP while uninsured but did not apply				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=88)	31.3	[21.0, 43.9]	68.7	[56.1, 79.0]	100.0
One (n=68)	26.9	[15.8, 41.8]	73.1	[58.2, 84.2]	100.0
Two or more (n=105)	37.7	[27.7, 48.8]	62.3	[51.2, 72.3]	100.0
Pearson: Uncorrected chi2(2) =	2.2985				
Design-based F(1.98, 492.58) =	0.7791	Pr =	0.458		
Homeless in the past 12 months					
Yes (n=36)	22.5	[11.0, 40.6]	77.5	[59.4, 89.0]	100.0
No (n=225)	34.4	[27.3, 42.3]	65.6	[57.7, 72.7]	100.0
Pearson: Uncorrected chi2(1) =	2.3787				
Design-based F(1.00, 249.00) =	1.6265	Pr =	0.203		
Number of places lived in past 3 years					
One (n=119)	36.9	[27.1, 48.0]	63.1	[52.0, 72.9]	100.0
Two (n=82)	29.1	[18.8, 42.0]	70.9	[58.0, 81.2]	100.0
Three (n=29)	37.7	[18.6, 61.5]	62.3	[38.5, 81.4]	100.0
Four or more (n=28)	16.8	[6.8, 35.7]	83.2	[64.3, 93.2]	100.0
Pearson: Uncorrected chi2(3) =	5.1998				
Design-based F(2.94, 724.47) =	1.2418	Pr =	0.294		
How often do you need help with reading health materials?					
Never/rarely (n=207)	31.4	[24.4, 39.3]	68.6	[60.7, 75.6]	100.0
Sometimes/often/always (n=54)	36.5	[23.3, 52.0]	63.5	[48.0, 76.7]	100.0
Pearson: Uncorrected chi2(1) =	0.4901				
Design-based F(1.00, 249.00) =	0.3966	Pr =	0.529		
Total (n=261)	32.4	[26.0, 39.5]	67.6	[60.5, 74.0]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.2.2 Reasons for not applying to HMP: Didn't think I was eligible by number of chronic conditions, experience of homelessness, housing instability, and health literacy

	Did not think I was eligible				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=28)	23.3	[11.3, 42.0]	76.7	[58.0, 88.7]	100.0
One (n=19)	53.8	[27.5, 78.1]	46.2	[21.9, 72.5]	100.0
Two or more (n=44)	30.9	[16.9, 49.7]	69.1	[50.3, 83.1]	100.0
Pearson: Uncorrected chi2(2) =	5.4865				
Design-based F(1.90, 149.89) =	2.0323	Pr =	0.137		
Homeless in the past 12 months					
Yes (n=9)	36.0	[11.2, 71.4]	64.0	[28.6, 88.8]	100.0
No (n=82)	33.4	[21.8, 47.5]	66.6	[52.5, 78.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0272				
Design-based F(1.00, 79.00) =	0.0186	Pr =	0.892		
Number of places lived in past 3 years					
One (n=48)	36.0	[21.0, 54.4]	64.0	[45.6, 79.0]	100.0
Two (n=26)	35.7	[16.2, 61.5]	64.3	[38.5, 83.8]	100.0
Three (n=9)	38.6	[11.1, 76.1]	61.4	[23.9, 88.9]	100.0
Four or more (n=6)	9.4	[2.4, 30.4]	90.6	[69.6, 97.6]	100.0
Pearson: Uncorrected chi2(3) =	1.6681				
Design-based F(2.30, 177.22) =	0.4453	Pr =	0.669		
How often do you need help with reading health materials?					
Never/rarely (n=71)	35.5	[22.9, 50.4]	64.5	[49.6, 77.1]	100.0
Sometimes/often/always (n=20)	27.7	[10.6, 55.1]	72.3	[44.9, 89.4]	100.0
Pearson: Uncorrected chi2(1) =	0.4255				
Design-based F(1.00, 79.00) =	0.3042	Pr =	0.583		
Total (n=91)	33.7	[22.9, 46.6]	66.3	[53.4, 77.1]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.2.3 Reasons for not applying to HMP: Didn't get around to it by number of chronic conditions, experience of homelessness, housing instability, and health literacy

	Did not get around to it				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=28)	41.0	[20.9, 64.7]	59.0	[35.3, 79.1]	100.0
One (n=19)	28.3	[9.6, 59.3]	71.7	[40.7, 90.4]	100.0
Two or more (n=44)	29.7	[16.7, 47.2]	70.3	[52.8, 83.3]	100.0
Pearson: Uncorrected chi2(2) =	1.2887				
Design-based F(1.96, 155.13) =	0.3724	Pr =	0.686		
Homeless in the past 12 months					
Yes (n=9)	8.2	[1.0, 43.0]	91.8	[57.0, 99.0]	100.0
No (n=82)	36.6	[25.4, 49.4]	63.4	[50.6, 74.6]	100.0
Pearson: Uncorrected chi2(1) =	3.4527				
Design-based F(1.00, 79.00) =	3.7331	Pr =	0.057		
Number of places lived in past 3 years					
One (n=48)	32.6	[18.5, 50.9]	67.4	[49.1, 81.5]	100.0
Two (n=26)	38.0	[18.5, 62.4]	62.0	[37.6, 81.5]	100.0
Three (n=9)	27.9	[5.9, 70.6]	72.1	[29.4, 94.1]	100.0
Four or more (n=6)	21.3	[2.7, 72.6]	78.7	[27.4, 97.3]	100.0
Pearson: Uncorrected chi2(3) =	0.8002				
Design-based F(2.88, 221.60) =	0.1653	Pr =	0.913		
How often do you need help with reading health materials?					
Never/rarely (n=71)	34.0	[21.9, 48.6]	66.0	[51.4, 78.1]	100.0
Sometimes/often/always (n=20)	30.3	[12.0, 58.1]	69.7	[41.9, 88.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0994				
Design-based F(1.00, 79.00) =	0.0617	Pr =	0.805		
Total (n=91)	33.2	[23.0, 45.3]	66.8	[54.7, 77.0]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3 Applying for HMP

8.3.1 Reason for applying: Lost my other health insurance by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Lost my other health insurance				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	27.1	[20.0, 35.6]	72.9	[64.4, 80.0]	100.0
One (n=152)	28.0	[20.2, 37.3]	72.0	[62.7, 79.8]	100.0
Two or more (n=269)	32.6	[26.2, 39.7]	67.4	[60.3, 73.8]	100.0
Pearson: Uncorrected chi2(2) =	1.9165				
Design-based F(2.00, 1187.99) =	0.6388	Pr =	0.528		
Homeless in the past 12 months					
Yes (n=63)	16.2	[8.2, 29.6]	83.8	[70.4, 91.8]	100.0
No (n=542)	31.8	[27.2, 36.8]	68.2	[63.2, 72.8]	100.0
Pearson: Uncorrected chi2(1) =	8.1527				
Design-based F(1.00, 593.00) =	4.8093	Pr =	0.029		
Number of places lived in past 3 years					
One (n=293)	35.0	[28.5, 42.0]	65.0	[58.0, 71.5]	100.0
Two (n=188)	23.5	[17.3, 31.0]	76.5	[69.0, 82.7]	100.0
Three (n=73)	33.8	[22.1, 48.0]	66.2	[52.0, 77.9]	100.0
Four or more (n=48)	20.0	[8.9, 38.9]	80.0	[61.1, 91.1]	100.0
Pearson: Uncorrected chi2(3) =	10.2791				
Design-based F(2.95, 1737.85) =	2.1360	Pr =	0.095		
Need help reading written materials					
Never/rarely (n=508)	31.5	[26.7, 36.6]	68.5	[63.4, 73.3]	100.0
Sometimes/often/always (n=98)	20.1	[12.5, 30.9]	79.9	[69.1, 87.5]	100.0
Pearson: Uncorrected chi2(1) =	5.1164				
Design-based F(1.00, 594.00) =	3.7493	Pr =	0.053		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	2.7	[1.3, 5.7]	97.3	[94.3, 98.7]	100.0
Uninsured some of the 12 months (n=153)	45.5	[36.1, 55.3]	54.5	[44.7, 63.9]	100.0
Insured all 12 months (n=169)	62.3	[52.7, 71.1]	37.7	[28.9, 47.3]	100.0
Pearson: Uncorrected chi2(2) =	203.3244				
Design-based F(1.97, 1163.23) =	75.1670	Pr =	0.000		
Hypertension					
Yes (n=181)	28.7	[21.5, 37.1]	71.3	[62.9, 78.5]	100.0
No (n=425)	30.0	[24.9, 35.6]	70.0	[64.4, 75.1]	100.0
Pearson: Uncorrected chi2(1) =	0.1038				
Design-based F(1.00, 594.00) =	0.0741	Pr =	0.785		
Heart condition or heart disease					
Yes (n=47)	33.9	[18.9, 53.0]	66.1	[47.0, 81.1]	100.0
No (n=556)	29.1	[24.8, 33.9]	70.9	[66.1, 75.2]	100.0
Pearson: Uncorrected chi2(1) =	0.3735				
Design-based F(1.00, 591.00) =	0.2832	Pr =	0.595		
Diabetes					
Yes (n=49)	44.9	[29.5, 61.4]	55.1	[38.6, 70.5]	100.0
No (n=556)	28.5	[24.2, 33.3]	71.5	[66.7, 75.8]	100.0
Pearson: Uncorrected chi2(1) =	5.0285				
Design-based F(1.00, 593.00) =	4.0866	Pr =	0.044		
Cancer					
Yes (n=29)	26.9	[12.0, 49.8]	73.1	[50.2, 88.0]	100.0
No (n=575)	29.9	[25.6, 34.7]	70.1	[65.3, 74.4]	100.0
Pearson: Uncorrected chi2(1) =	0.1122				
Design-based F(1.00, 592.00) =	0.0837	Pr =	0.772		
Mood disorder					
Yes (n=184)	31.0	[23.7, 39.5]	69.0	[60.5, 76.3]	100.0
No (n=418)	29.2	[24.2, 34.9]	70.8	[65.1, 75.8]	100.0
Pearson: Uncorrected chi2(1) =	0.2020				
Design-based F(1.00, 590.00) =	0.1419	Pr =	0.707		

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Stroke					
Yes (n=16)	41.6	[18.2, 69.4]	58.4	[30.6, 81.8]	100.0
No (n=591)	29.3	[25.1, 34.0]	70.7	[66.0, 74.9]	100.0
Pearson: Uncorrected chi2(1) =	0.9275				
Design-based F(1.00, 595.00) =	0.8243	Pr =	0.364		
Asthma					
Yes (n=80)	26.2	[16.5, 38.9]	73.8	[61.1, 83.5]	100.0
No (n=527)	30.1	[25.5, 35.1]	69.9	[64.9, 74.5]	100.0
Pearson: Uncorrected chi2(1) =	0.4816				
Design-based F(1.00, 595.00) =	0.3626	Pr =	0.547		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	28.9	[17.3, 44.2]	71.1	[55.8, 82.7]	100.0
No (n=550)	29.8	[25.4, 34.7]	70.2	[65.3, 74.6]	100.0
Pearson: Uncorrected chi2(1) =	0.0150				
Design-based F(1.00, 592.00) =	0.0144	Pr =	0.905		
Substance use disorder					
Yes (n=24)	27.7	[12.1, 51.5]	72.3	[48.5, 87.9]	100.0
No (n=582)	29.8	[25.4, 34.5]	70.2	[65.5, 74.6]	100.0
Pearson: Uncorrected chi2(1) =	0.0564				
Design-based F(1.00, 594.00) =	0.0354	Pr =	0.851		
Arthritis or a related condition					
Yes (n=134)	38.6	[29.3, 48.9]	61.4	[51.1, 70.7]	100.0
No (n=471)	27.3	[22.7, 32.5]	72.7	[67.5, 77.3]	100.0
Pearson: Uncorrected chi2(1) =	6.2159				
Design-based F(1.00, 593.00) =	4.3749	Pr =	0.037		
Other: cholesterol					
Yes (n=11)	11.7	[3.1, 35.6]	88.3	[64.4, 96.9]	100.0
No (n=145)	30.4	[21.7, 40.6]	69.6	[59.4, 78.3]	100.0
Pearson: Uncorrected chi2(1) =	1.4419				
Design-based F(1.00, 144.00) =	2.7525	Pr =	0.099		
Total (n=607)	29.6	[25.4, 34.2]	70.4	[65.8, 74.6]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.2 Reason for applying: Had a medical condition that needed care by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Had a medical condition that needed care				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	14.1	[8.9, 21.7]	85.9	[78.3, 91.1]	100.0
One (n=152)	14.2	[8.4, 23.1]	85.8	[76.9, 91.6]	100.0
Two or more (n=269)	26.3	[20.4, 33.1]	73.7	[66.9, 79.6]	100.0
Pearson: Uncorrected chi2(2) =	13.9242				
Design-based F(2.00, 1187.18) =	4.2288	Pr =	0.015		
Homeless in the past 12 months					
Yes (n=63)	24.7	[14.7, 38.3]	75.3	[61.7, 85.3]	100.0
No (n=542)	18.1	[14.4, 22.5]	81.9	[77.5, 85.6]	100.0
Pearson: Uncorrected chi2(1) =	1.9564				
Design-based F(1.00, 593.00) =	1.2394	Pr =	0.266		
Number of places lived in past 3 years					
One (n=293)	17.6	[12.6, 24.0]	82.4	[76.0, 87.4]	100.0
Two (n=188)	17.3	[11.9, 24.6]	82.7	[75.4, 88.1]	100.0
Three (n=73)	18.7	[10.6, 30.8]	81.3	[69.2, 89.4]	100.0
Four or more (n=48)	34.6	[20.2, 52.5]	65.4	[47.5, 79.8]	100.0
Pearson: Uncorrected chi2(3) =	9.0183				
Design-based F(2.98, 1756.95) =	1.9989	Pr =	0.113		
Need help reading written materials					
Never/rarely (n=508)	16.1	[12.5, 20.5]	83.9	[79.5, 87.5]	100.0
Sometimes/often/always (n=98)	34.7	[24.4, 46.8]	65.3	[53.2, 75.6]	100.0
Pearson: Uncorrected chi2(1) =	18.5551				
Design-based F(1.00, 594.00) =	12.5373	Pr =	0.000		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	24.2	[18.7, 30.6]	75.8	[69.4, 81.3]	100.0
Uninsured some of the 12 months (n=153)	18.4	[11.7, 27.7]	81.6	[72.3, 88.3]	100.0
Insured all 12 months (n=169)	11.5	[6.5, 19.6]	88.5	[80.4, 93.5]	100.0
Pearson: Uncorrected chi2(2) =	11.0877				
Design-based F(1.99, 1176.93) =	3.4008	Pr =	0.034		
Hypertension					
Yes (n=181)	23.3	[16.4, 31.9]	76.7	[68.1, 83.6]	100.0
No (n=425)	17.5	[13.6, 22.4]	82.5	[77.6, 86.4]	100.0
Pearson: Uncorrected chi2(1) =	2.6304				
Design-based F(1.00, 594.00) =	1.7410	Pr =	0.188		
Heart condition or heart disease					
Yes (n=47)	37.6	[22.3, 56.0]	62.4	[44.0, 77.7]	100.0
No (n=556)	17.7	[14.1, 21.9]	82.3	[78.1, 85.9]	100.0
Pearson: Uncorrected chi2(1) =	8.8615				
Design-based F(1.00, 591.00) =	7.0419	Pr =	0.008		
Diabetes					
Yes (n=49)	38.8	[24.0, 56.0]	61.2	[44.0, 76.0]	100.0
No (n=556)	17.5	[13.9, 21.7]	82.5	[78.3, 86.1]	100.0
Pearson: Uncorrected chi2(1) =	11.6428				
Design-based F(1.00, 593.00) =	9.0191	Pr =	0.003		
Cancer					
Yes (n=29)	28.4	[13.7, 49.7]	71.6	[50.3, 86.3]	100.0
No (n=575)	18.5	[14.9, 22.8]	81.5	[77.2, 85.1]	100.0
Pearson: Uncorrected chi2(1) =	1.5982				
Design-based F(1.00, 592.00) =	1.3380	Pr =	0.248		
Mood disorder					
Yes (n=184)	28.2	[21.0, 36.8]	71.8	[63.2, 79.0]	100.0
No (n=418)	15.1	[11.3, 19.9]	84.9	[80.1, 88.7]	100.0
Pearson: Uncorrected chi2(1) =	14.3110				
Design-based F(1.00, 590.00) =	9.5623	Pr =	0.002		

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Stroke					
Yes (n=16)	16.0	[3.6, 49.1]	84.0	[50.9, 96.4]	100.0
No (n=591)	19.2	[15.6, 23.5]	80.8	[76.5, 84.4]	100.0
Pearson: Uncorrected chi2(1) =	0.0884				
Design-based F(1.00, 595.00) =	0.0730	Pr =	0.787		
Asthma					
Yes (n=80)	17.6	[9.5, 30.5]	82.4	[69.5, 90.5]	100.0
No (n=527)	19.4	[15.5, 23.9]	80.6	[76.1, 84.5]	100.0
Pearson: Uncorrected chi2(1) =	0.1288				
Design-based F(1.00, 595.00) =	0.0866	Pr =	0.769		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	26.7	[15.3, 42.3]	73.3	[57.7, 84.7]	100.0
No (n=550)	18.3	[14.6, 22.6]	81.7	[77.4, 85.4]	100.0
Pearson: Uncorrected chi2(1) =	1.8269				
Design-based F(1.00, 592.00) =	1.6551	Pr =	0.199		
Substance use disorder					
Yes (n=24)	52.3	[30.6, 73.2]	47.7	[26.8, 69.4]	100.0
No (n=582)	17.3	[13.8, 21.4]	82.7	[78.6, 86.2]	100.0
Pearson: Uncorrected chi2(1) =	22.4966				
Design-based F(1.00, 594.00) =	14.1734	Pr =	0.000		
Arthritis or a related condition					
Yes (n=134)	23.3	[15.9, 32.7]	76.7	[67.3, 84.1]	100.0
No (n=471)	17.9	[13.9, 22.7]	82.1	[77.3, 86.1]	100.0
Pearson: Uncorrected chi2(1) =	1.9261				
Design-based F(1.00, 593.00) =	1.3897	Pr =	0.239		
Other: cholesterol					
Yes (n=11)	16.3	[3.9, 48.5]	83.7	[51.5, 96.1]	100.0
No (n=145)	31.7	[23.1, 41.8]	68.3	[58.2, 76.9]	100.0
Pearson: Uncorrected chi2(1) =	0.9578				
Design-based F(1.00, 144.00) =	1.1785	Pr =	0.279		
Total (n=607)	19.2	[15.6, 23.3]	80.8	[76.7, 84.4]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.3 Reason for applying: Suggested/signed up at ER/hospital/other by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Suggested/signed up at ER/hospital/other				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	16.8	[10.9, 24.9]	83.2	[75.1, 89.1]	100.0
One (n=152)	16.7	[10.6, 25.3]	83.3	[74.7, 89.4]	100.0
Two or more (n=269)	13.0	[8.8, 18.7]	87.0	[81.3, 91.2]	100.0
Pearson: Uncorrected chi2(2) =	1.6013				
Design-based F(1.99, 1182.59) =	0.5060	Pr =	0.602		
Homeless in the past 12 months					
Yes (n=63)	21.8	[12.0, 36.2]	78.2	[63.8, 88.0]	100.0
No (n=542)	14.2	[10.9, 18.3]	85.8	[81.7, 89.1]	100.0
Pearson: Uncorrected chi2(1) =	3.0948				
Design-based F(1.00, 593.00) =	1.7664	Pr =	0.184		
Number of places lived in past 3 years					
One (n=293)	13.6	[9.4, 19.3]	86.4	[80.7, 90.6]	100.0
Two (n=188)	19.1	[12.8, 27.4]	80.9	[72.6, 87.2]	100.0
Three (n=73)	8.6	[3.4, 20.2]	91.4	[79.8, 96.6]	100.0
Four or more (n=48)	20.2	[10.0, 36.6]	79.8	[63.4, 90.0]	100.0
Pearson: Uncorrected chi2(3) =	6.3752				
Design-based F(2.99, 1767.02) =	1.3636	Pr =	0.252		
Need help reading written materials					
Never/rarely (n=508)	15.5	[11.9, 19.9]	84.5	[80.1, 88.1]	100.0
Sometimes/often/always (n=98)	13.7	[7.3, 24.2]	86.3	[75.8, 92.7]	100.0
Pearson: Uncorrected chi2(1) =	0.2147				
Design-based F(1.00, 594.00) =	0.1421	Pr =	0.706		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	22.2	[16.7, 28.8]	77.8	[71.2, 83.3]	100.0
Uninsured some of the 12 months (n=153)	14.2	[8.5, 22.8]	85.8	[77.2, 91.5]	100.0
Insured all 12 months (n=169)	3.9	[1.4, 10.7]	96.1	[89.3, 98.6]	100.0
Pearson: Uncorrected chi2(2) =	27.6038				
Design-based F(1.98, 1167.30) =	8.0732	Pr =	0.000		
Hypertension					
Yes (n=181)	19.2	[13.2, 27.0]	80.8	[73.0, 86.8]	100.0
No (n=425)	13.4	[9.8, 18.2]	86.6	[81.8, 90.2]	100.0
Pearson: Uncorrected chi2(1) =	3.1873				
Design-based F(1.00, 594.00) =	2.1206	Pr =	0.146		
Heart condition or heart disease					
Yes (n=47)	11.8	[4.5, 27.6]	88.2	[72.4, 95.5]	100.0
No (n=556)	15.2	[11.8, 19.3]	84.8	[80.7, 88.2]	100.0
Pearson: Uncorrected chi2(1) =	0.3061				
Design-based F(1.00, 591.00) =	0.2780	Pr =	0.598		
Diabetes					
Yes (n=49)	12.5	[4.8, 28.9]	87.5	[71.1, 95.2]	100.0
No (n=556)	15.4	[12.0, 19.6]	84.6	[80.4, 88.0]	100.0
Pearson: Uncorrected chi2(1) =	0.2659				
Design-based F(1.00, 593.00) =	0.1996	Pr =	0.655		
Cancer					
Yes (n=29)	15.4	[5.5, 36.4]	84.6	[63.6, 94.5]	100.0
No (n=575)	14.9	[11.6, 19.0]	85.1	[81.0, 88.4]	100.0
Pearson: Uncorrected chi2(1) =	0.0052				
Design-based F(1.00, 592.00) =	0.0043	Pr =	0.947		
Mood disorder					
Yes (n=184)	10.5	[6.2, 17.1]	89.5	[82.9, 93.8]	100.0
No (n=418)	17.6	[13.4, 22.7]	82.4	[77.3, 86.6]	100.0
Pearson: Uncorrected chi2(1) =	4.9186				
Design-based F(1.00, 590.00) =	3.2919	Pr =	0.070		

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Stroke					
Yes (n=16)	10.1	[3.6, 25.5]	89.9	[74.5, 96.4]	100.0
No (n=591)	15.3	[12.0, 19.3]	84.7	[80.7, 88.0]	100.0
Pearson: Uncorrected chi2(1) =	0.2675				
Design-based F(1.00, 595.00) =	0.6657	Pr =	0.415		
Asthma					
Yes (n=80)	14.6	[7.1, 27.7]	85.4	[72.3, 92.9]	100.0
No (n=527)	15.3	[11.8, 19.5]	84.7	[80.5, 88.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0249				
Design-based F(1.00, 595.00) =	0.0154	Pr =	0.901		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	18.4	[8.3, 35.7]	81.6	[64.3, 91.7]	100.0
No (n=550)	15.0	[11.7, 19.2]	85.0	[80.8, 88.3]	100.0
Pearson: Uncorrected chi2(1) =	0.3402				
Design-based F(1.00, 592.00) =	0.2467	Pr =	0.620		
Substance use disorder					
Yes (n=24)	28.0	[12.5, 51.3]	72.0	[48.7, 87.5]	100.0
No (n=582)	14.6	[11.3, 18.6]	85.4	[81.4, 88.7]	100.0
Pearson: Uncorrected chi2(1) =	3.9464				
Design-based F(1.00, 594.00) =	2.5425	Pr =	0.111		
Arthritis or a related condition					
Yes (n=134)	9.0	[4.5, 17.1]	91.0	[82.9, 95.5]	100.0
No (n=471)	16.6	[12.8, 21.2]	83.4	[78.8, 87.2]	100.0
Pearson: Uncorrected chi2(1) =	4.6211				
Design-based F(1.00, 593.00) =	3.0573	Pr =	0.081		
Other: cholesterol					
Yes (n=11)	4.0	[0.6, 23.5]	96.0	[76.5, 99.4]	100.0
No (n=145)	13.1	[7.8, 21.0]	86.9	[79.0, 92.2]	100.0
Pearson: Uncorrected chi2(1) =	0.6447				
Design-based F(1.00, 144.00) =	1.6882	Pr =	0.196		
Total (n=607)	15.2	[11.9, 19.1]	84.8	[80.9, 88.1]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.4 Reason for applying: Suggested/signed up by caseworker/social services agency by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Suggested/signed up by caseworker/social service agency				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	6.9	[3.5, 13.3]	93.1	[86.7, 96.5]	100.0
One (n=152)	5.1	[2.4, 10.6]	94.9	[89.4, 97.6]	100.0
Two or more (n=269)	4.9	[2.6, 8.9]	95.1	[91.1, 97.4]	100.0
Pearson: Uncorrected chi2(2) =	0.9726				
Design-based F(1.97, 1172.86) =	0.3494	Pr =	0.702		
Homeless in the past 12 months					
Yes (n=63)	8.8	[3.3, 21.5]	91.2	[78.5, 96.7]	100.0
No (n=542)	5.1	[3.3, 7.8]	94.9	[92.2, 96.7]	100.0
Pearson: Uncorrected chi2(1) =	1.8015				
Design-based F(1.00, 593.00) =	1.0397	Pr =	0.308		
Number of places lived in past 3 years					
One (n=293)	7.4	[4.5, 11.9]	92.6	[88.1, 95.5]	100.0
Two (n=188)	4.4	[1.7, 10.8]	95.6	[89.2, 98.3]	100.0
Three (n=73)	1.4	[0.5, 3.9]	98.6	[96.1, 99.5]	100.0
Four or more (n=48)	7.4	[2.6, 19.3]	92.6	[80.7, 97.4]	100.0
Pearson: Uncorrected chi2(3) =	5.2150				
Design-based F(2.33, 1371.97) =	1.5671	Pr =	0.205		
Need help reading written materials					
Never/rarely (n=508)	5.4	[3.5, 8.4]	94.6	[91.6, 96.5]	100.0
Sometimes/often/always (n=98)	6.7	[2.7, 15.7]	93.3	[84.3, 97.3]	100.0
Pearson: Uncorrected chi2(1) =	0.2541				
Design-based F(1.00, 594.00) =	0.1731	Pr =	0.677		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	8.0	[4.9, 12.9]	92.0	[87.1, 95.1]	100.0
Uninsured some of the 12 months (n=153)	3.7	[1.6, 8.8]	96.3	[91.2, 98.4]	100.0
Insured all 12 months (n=169)	3.2	[1.2, 8.4]	96.8	[91.6, 98.8]	100.0
Pearson: Uncorrected chi2(2) =	6.0148				
Design-based F(1.98, 1168.52) =	2.2886	Pr =	0.102		
Hypertension					
Yes (n=181)	6.3	[3.2, 12.0]	93.7	[88.0, 96.8]	100.0
No (n=425)	5.4	[3.3, 8.7]	94.6	[91.3, 96.7]	100.0
Pearson: Uncorrected chi2(1) =	0.2074				
Design-based F(1.00, 594.00) =	0.1511	Pr =	0.698		
Heart condition or heart disease					
Yes (n=47)	2.0	[0.5, 7.0]	98.0	[93.0, 99.5]	100.0
No (n=556)	5.9	[3.9, 8.8]	94.1	[91.2, 96.1]	100.0
Pearson: Uncorrected chi2(1) =	0.9952				
Design-based F(1.00, 591.00) =	2.9307	Pr =	0.087		
Diabetes					
Yes (n=49)	3.0	[1.2, 7.4]	97.0	[92.6, 98.8]	100.0
No (n=556)	5.8	[3.9, 8.7]	94.2	[91.3, 96.1]	100.0
Pearson: Uncorrected chi2(1) =	0.5832				
Design-based F(1.00, 593.00) =	1.7476	Pr =	0.187		
Cancer					
Yes (n=29)	0.0		100.0		100.0
No (n=575)	5.9	[4.0, 8.7]	94.1	[91.3, 96.0]	100.0
Pearson: Uncorrected chi2(1) =	1.6605				
Design-based F(1.00, 592.00) =	1.2294	Pr =	0.268		
Mood disorder					
Yes (n=184)	4.6	[2.1, 9.5]	95.4	[90.5, 97.9]	100.0
No (n=418)	6.2	[3.9, 9.7]	93.8	[90.3, 96.1]	100.0
Pearson: Uncorrected chi2(1) =	0.6330				
Design-based F(1.00, 590.00) =	0.4671	Pr =	0.495		

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Stroke					
Yes (n=16)	15.1	[2.3, 57.2]	84.9	[42.8, 97.7]	100.0
No (n=591)	5.4	[3.6, 8.0]	94.6	[92.0, 96.4]	100.0
Pearson: Uncorrected chi2(1) =	2.3021				
Design-based F(1.00, 595.00) =	1.3107	Pr =	0.253		
Asthma					
Yes (n=80)	7.1	[2.6, 17.8]	92.9	[82.2, 97.4]	100.0
No (n=527)	5.4	[3.5, 8.3]	94.6	[91.7, 96.5]	100.0
Pearson: Uncorrected chi2(1) =	0.3565				
Design-based F(1.00, 595.00) =	0.2514	Pr =	0.616		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	1.5	[0.4, 5.2]	98.5	[94.8, 99.6]	100.0
No (n=550)	6.0	[4.0, 8.9]	94.0	[91.1, 96.0]	100.0
Pearson: Uncorrected chi2(1) =	1.4989				
Design-based F(1.00, 592.00) =	5.1516	Pr =	0.024		
Substance use disorder					
Yes (n=24)	1.5	[0.3, 8.1]	98.5	[91.9, 99.7]	100.0
No (n=582)	5.8	[3.9, 8.7]	94.2	[91.3, 96.1]	100.0
Pearson: Uncorrected chi2(1) =	1.0183				
Design-based F(1.00, 594.00) =	2.7818	Pr =	0.096		
Arthritis or a related condition					
Yes (n=134)	5.8	[3.0, 10.8]	94.2	[89.2, 97.0]	100.0
No (n=471)	5.6	[3.5, 8.9]	94.4	[91.1, 96.5]	100.0
Pearson: Uncorrected chi2(1) =	0.0079				
Design-based F(1.00, 593.00) =	0.0079	Pr =	0.929		
Other: cholesterol					
Yes (n=11)	4.8	[0.7, 27.2]	95.2	[72.8, 99.3]	100.0
No (n=145)	2.9	[1.1, 7.6]	97.1	[92.4, 98.9]	100.0
Pearson: Uncorrected chi2(1) =	0.1061				
Design-based F(1.00, 144.00) =	0.2180	Pr =	0.641		
Total (n=607)	5.6	[3.8, 8.3]	94.4	[91.7, 96.2]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.5 Reason for applying: Needed some form of health insurance by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Needed some form of health insurance				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	16.5	[11.0, 23.9]	83.5	[76.1, 89.0]	100.0
One (n=152)	16.3	[10.2, 25.2]	83.7	[74.8, 89.8]	100.0
Two or more (n=269)	12.9	[8.7, 18.8]	87.1	[81.2, 91.3]	100.0
Pearson: Uncorrected chi2(2) =	1.4205				
Design-based F(2.00, 1188.54) =	0.4576	Pr =	0.633		
Homeless in the past 12 months					
Yes (n=63)	8.9	[3.9, 19.4]	91.1	[80.6, 96.1]	100.0
No (n=542)	15.9	[12.4, 20.2]	84.1	[79.8, 87.6]	100.0
Pearson: Uncorrected chi2(1) =	2.7003				
Design-based F(1.00, 593.00) =	1.9383	Pr =	0.164		
Number of places lived in past 3 years					
One (n=293)	12.8	[8.7, 18.4]	87.2	[81.6, 91.3]	100.0
Two (n=188)	17.0	[11.3, 24.8]	83.0	[75.2, 88.7]	100.0
Three (n=73)	22.1	[12.3, 36.3]	77.9	[63.7, 87.7]	100.0
Four or more (n=48)	7.4	[3.4, 15.4]	92.6	[84.6, 96.6]	100.0
Pearson: Uncorrected chi2(3) =	7.2074				
Design-based F(2.70, 1590.68) =	1.8341	Pr =	0.145		
Need help reading written materials					
Never/rarely (n=508)	15.2	[11.7, 19.6]	84.8	[80.4, 88.3]	100.0
Sometimes/often/always (n=98)	13.6	[7.8, 22.6]	86.4	[77.4, 92.2]	100.0
Pearson: Uncorrected chi2(1) =	0.1805				
Design-based F(1.00, 594.00) =	0.1467	Pr =	0.702		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	18.9	[13.6, 25.6]	81.1	[74.4, 86.4]	100.0
Uninsured some of the 12 months (n=153)	17.2	[11.6, 24.7]	82.8	[75.3, 88.4]	100.0
Insured all 12 months (n=169)	5.8	[2.8, 11.7]	94.2	[88.3, 97.2]	100.0
Pearson: Uncorrected chi2(2) =	15.0945				
Design-based F(1.99, 1173.02) =	5.5700	Pr =	0.004		
Hypertension					
Yes (n=181)	10.0	[5.6, 17.2]	90.0	[82.8, 94.4]	100.0
No (n=425)	17.0	[13.0, 21.8]	83.0	[78.2, 87.0]	100.0
Pearson: Uncorrected chi2(1) =	4.7131				
Design-based F(1.00, 594.00) =	3.0240	Pr =	0.083		
Heart condition or heart disease					
Yes (n=47)	18.8	[8.1, 37.8]	81.2	[62.2, 91.9]	100.0
No (n=556)	14.9	[11.6, 18.9]	85.1	[81.1, 88.4]	100.0
Pearson: Uncorrected chi2(1) =	0.4203				
Design-based F(1.00, 591.00) =	0.3112	Pr =	0.577		
Diabetes					
Yes (n=49)	4.5	[1.4, 13.5]	95.5	[86.5, 98.6]	100.0
No (n=556)	15.8	[12.4, 19.9]	84.2	[80.1, 87.6]	100.0
Pearson: Uncorrected chi2(1) =	3.9546				
Design-based F(1.00, 593.00) =	5.6715	Pr =	0.018		
Cancer					
Yes (n=29)	14.2	[3.7, 41.9]	85.8	[58.1, 96.3]	100.0
No (n=575)	15.1	[11.8, 19.1]	84.9	[80.9, 88.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0160				
Design-based F(1.00, 592.00) =	0.0089	Pr =	0.925		
Mood disorder					
Yes (n=184)	10.8	[6.7, 17.1]	89.2	[82.9, 93.3]	100.0
No (n=418)	16.2	[12.2, 21.2]	83.8	[78.8, 87.8]	100.0
Pearson: Uncorrected chi2(1) =	3.0060				
Design-based F(1.00, 590.00) =	2.1906	Pr =	0.139		

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Stroke					
Yes (n=16)	7.2	[1.9, 23.6]	92.8	[76.4, 98.1]	100.0
No (n=591)	15.1	[11.9, 19.1]	84.9	[80.9, 88.1]	100.0
Pearson: Uncorrected chi2(1) =	0.6399				
Design-based F(1.00, 595.00) =	1.4221	Pr =	0.234		
Asthma					
Yes (n=80)	20.8	[11.5, 34.6]	79.2	[65.4, 88.5]	100.0
No (n=527)	14.1	[10.8, 18.2]	85.9	[81.8, 89.2]	100.0
Pearson: Uncorrected chi2(1) =	2.3308				
Design-based F(1.00, 595.00) =	1.4618	Pr =	0.227		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	20.5	[9.8, 38.0]	79.5	[62.0, 90.2]	100.0
No (n=550)	14.6	[11.3, 18.7]	85.4	[81.3, 88.7]	100.0
Pearson: Uncorrected chi2(1) =	1.0560				
Design-based F(1.00, 592.00) =	0.7670	Pr =	0.381		
Substance use disorder					
Yes (n=24)	8.3	[1.2, 39.7]	91.7	[60.3, 98.8]	100.0
No (n=582)	15.3	[12.0, 19.3]	84.7	[80.7, 88.0]	100.0
Pearson: Uncorrected chi2(1) =	1.0836				
Design-based F(1.00, 594.00) =	0.4749	Pr =	0.491		
Arthritis or a related condition					
Yes (n=134)	12.4	[6.8, 21.7]	87.6	[78.3, 93.2]	100.0
No (n=471)	15.8	[12.1, 20.2]	84.2	[79.8, 87.9]	100.0
Pearson: Uncorrected chi2(1) =	0.8747				
Design-based F(1.00, 593.00) =	0.5380	Pr =	0.464		
Other: cholesterol					
Yes (n=11)	8.1	[1.2, 39.4]	91.9	[60.6, 98.8]	100.0
No (n=145)	13.8	[8.0, 22.7]	86.2	[77.3, 92.0]	100.0
Pearson: Uncorrected chi2(1) =	0.2412				
Design-based F(1.00, 144.00) =	0.3291	Pr =	0.567		
Total (n=607)	15.0	[11.8, 18.8]	85.0	[81.2, 88.2]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.6 Reason for applying: Wanted to avoid tax return garnishment/penalty by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Wanted to avoid tax return garnishment/penalty				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	2.8	[1.2, 6.1]	97.2	[93.9, 98.8]	100.0
One (n=152)	2.4	[0.6, 9.4]	97.6	[90.6, 99.4]	100.0
Two or more (n=269)	1.2	[0.4, 3.2]	98.8	[96.8, 99.6]	100.0
Pearson: Uncorrected chi2(2) =	1.5738				
Design-based F(1.81, 1074.02) =	0.6427	Pr =	0.511		
Homeless in the past 12 months					
Yes (n=63)	3.0	[0.4, 17.6]	97.0	[82.4, 99.6]	100.0
No (n=542)	1.9	[1.0, 3.4]	98.1	[96.6, 99.0]	100.0
Pearson: Uncorrected chi2(1) =	0.4151				
Design-based F(1.00, 593.00) =	0.2040	Pr =	0.652		
Number of places lived in past 3 years					
One (n=293)	2.1	[0.9, 4.6]	97.9	[95.4, 99.1]	100.0
Two (n=188)	2.0	[0.8, 5.1]	98.0	[94.9, 99.2]	100.0
Three (n=73)	3.6	[0.7, 16.8]	96.4	[83.2, 99.3]	100.0
Four or more (n=48)	0.0		100.0		100.0
Pearson: Uncorrected chi2(3) =	2.0044				
Design-based F(2.66, 1568.92) =	0.5024	Pr =	0.658		
Need help reading written materials					
Never/rarely (n=508)	2.2	[1.1, 4.2]	97.8	[95.8, 98.9]	100.0
Sometimes/often/always (n=98)	1.4	[0.5, 4.0]	98.6	[96.0, 99.5]	100.0
Pearson: Uncorrected chi2(1) =	0.2101				
Design-based F(1.00, 594.00) =	0.4095	Pr =	0.522		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	2.3	[1.0, 4.9]	97.7	[95.1, 99.0]	100.0
Uninsured some of the 12 months (n=153)	2.1	[0.5, 9.1]	97.9	[90.9, 99.5]	100.0
Insured all 12 months (n=169)	1.6	[0.5, 4.7]	98.4	[95.3, 99.5]	100.0
Pearson: Uncorrected chi2(2) =	0.2529				
Design-based F(1.85, 1092.76) =	0.0990	Pr =	0.892		
Hypertension					
Yes (n=181)	0.7	[0.1, 4.6]	99.3	[95.4, 99.9]	100.0
No (n=425)	2.6	[1.4, 4.8]	97.4	[95.2, 98.6]	100.0
Pearson: Uncorrected chi2(1) =	2.1850				
Design-based F(1.00, 594.00) =	1.8980	Pr =	0.169		
Heart condition or heart disease					
Yes (n=47)	0.0		100.0		100.0
No (n=556)	2.2	[1.2, 4.0]	97.8	[96.0, 98.8]	100.0
Pearson: Uncorrected chi2(1) =	0.8119				
Design-based F(1.00, 591.00) =	0.6752	Pr =	0.412		
Diabetes					
Yes (n=49)	0.0		100.0		100.0
No (n=556)	2.2	[1.2, 4.0]	97.8	[96.0, 98.8]	100.0
Pearson: Uncorrected chi2(1) =	0.9466				
Design-based F(1.00, 593.00) =	0.7883	Pr =	0.375		
Cancer					
Yes (n=29)	2.7	[0.4, 14.7]	97.3	[85.3, 99.6]	100.0
No (n=575)	2.0	[1.1, 3.8]	98.0	[96.2, 98.9]	100.0
Pearson: Uncorrected chi2(1) =	0.0588				
Design-based F(1.00, 592.00) =	0.0926	Pr =	0.761		
Mood disorder					
Yes (n=184)	0.7	[0.2, 2.3]	99.3	[97.7, 99.8]	100.0
No (n=418)	2.6	[1.3, 5.0]	97.4	[95.0, 98.7]	100.0
Pearson: Uncorrected chi2(1) =	2.3987				
Design-based F(1.00, 590.00) =	4.0690	Pr =	0.044		

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Stroke					
Yes (n=16)	0.0		100.0		100.0
No (n=591)	2.1	[1.1, 3.8]	97.9	[96.2, 98.9]	100.0
Pearson: Uncorrected chi2(1) =	0.2802				
Design-based F(1.00, 595.00) =	0.2370	Pr =	0.627		
Asthma					
Yes (n=80)	1.6	[0.2, 10.0]	98.4	[90.0, 99.8]	100.0
No (n=527)	2.1	[1.1, 4.0]	97.9	[96.0, 98.9]	100.0
Pearson: Uncorrected chi2(1) =	0.0906				
Design-based F(1.00, 595.00) =	0.0782	Pr =	0.780		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	0.0		100.0		100.0
No (n=550)	2.2	[1.2, 4.0]	97.8	[96.0, 98.8]	100.0
Pearson: Uncorrected chi2(1) =	0.9609				
Design-based F(1.00, 592.00) =	0.8211	Pr =	0.365		
Substance use disorder					
Yes (n=24)	0.0		100.0		100.0
No (n=582)	2.1	[1.2, 3.9]	97.9	[96.1, 98.8]	100.0
Pearson: Uncorrected chi2(1) =	0.6504				
Design-based F(1.00, 594.00) =	0.5015	Pr =	0.479		
Arthritis or a related condition					
Yes (n=134)	3.6	[1.2, 10.8]	96.4	[89.2, 98.8]	100.0
No (n=471)	1.6	[0.8, 3.2]	98.4	[96.8, 99.2]	100.0
Pearson: Uncorrected chi2(1) =	2.0417				
Design-based F(1.00, 593.00) =	1.4882	Pr =	0.223		
Other: cholesterol					
Yes (n=11)	0.0		100.0		100.0
No (n=145)	1.8	[0.5, 6.0]	98.2	[94.0, 99.5]	100.0
Pearson: Uncorrected chi2(1) =	0.1669				
Design-based F(1.00, 144.00) =	0.1465	Pr =	0.702		
Total (n=607)	2.0	[1.1, 3.7]	98.0	[96.3, 98.9]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.7 Reason for applying: Other by chronic conditions, experience of homelessness, housing instability, health literacy, and insurance status in the 12 months prior to HMP

	Other				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Number of chronic conditions					
None (n=186)	19.7	[14.3, 26.6]	80.3	[73.4, 85.7]	100.0
One (n=152)	25.6	[18.2, 34.8]	74.4	[65.2, 81.8]	100.0
Two or more (n=269)	20.4	[15.3, 26.7]	79.6	[73.3, 84.7]	100.0
Pearson: Uncorrected chi2(2) =	2.1136				
Design-based F(2.00, 1187.38) =	0.7768	Pr =	0.460		
Homeless in the past 12 months					
Yes (n=63)	24.4	[14.5, 38.1]	75.6	[61.9, 85.5]	100.0
No (n=542)	21.1	[17.4, 25.4]	78.9	[74.6, 82.6]	100.0
Pearson: Uncorrected chi2(1) =	0.4429				
Design-based F(1.00, 593.00) =	0.2815	Pr =	0.596		
Number of places lived in past 3 years					
One (n=293)	17.9	[13.5, 23.4]	82.1	[76.6, 86.5]	100.0
Two (n=188)	29.4	[22.2, 37.8]	70.6	[62.2, 77.8]	100.0
Three (n=73)	16.6	[8.9, 28.8]	83.4	[71.2, 91.1]	100.0
Four or more (n=48)	16.2	[8.1, 29.9]	83.8	[70.1, 91.9]	100.0
Pearson: Uncorrected chi2(3) =	11.2557				
Design-based F(2.98, 1759.35) =	2.8528	Pr =	0.036		
Need help reading written materials					
Never/rarely (n=508)	21.1	[17.3, 25.5]	78.9	[74.5, 82.7]	100.0
Sometimes/often/always (n=98)	23.6	[15.2, 34.8]	76.4	[65.2, 84.8]	100.0
Pearson: Uncorrected chi2(1) =	0.3081				
Design-based F(1.00, 594.00) =	0.2246	Pr =	0.636		
Insurance status in 12 months prior to HMP					
Uninsured all 12 months (n=280)	24.9	[19.6, 31.1]	75.1	[68.9, 80.4]	100.0
Uninsured some of the 12 months (n=153)	15.2	[9.7, 22.9]	84.8	[77.1, 90.3]	100.0
Insured all 12 months (n=169)	21.0	[14.5, 29.4]	79.0	[70.6, 85.5]	100.0
Pearson: Uncorrected chi2(2) =	5.4785				
Design-based F(1.99, 1176.51) =	2.0308	Pr =	0.132		
Hypertension					
Yes (n=181)	23.4	[16.8, 31.5]	76.6	[68.5, 83.2]	100.0
No (n=425)	20.8	[16.7, 25.6]	79.2	[74.4, 83.3]	100.0
Pearson: Uncorrected chi2(1) =	0.4804				
Design-based F(1.00, 594.00) =	0.3559	Pr =	0.551		
Heart condition or heart disease					
Yes (n=47)	17.1	[7.6, 34.2]	82.9	[65.8, 92.4]	100.0
No (n=556)	21.9	[18.1, 26.1]	78.1	[73.9, 81.9]	100.0
Pearson: Uncorrected chi2(1) =	0.4515				
Design-based F(1.00, 591.00) =	0.3942	Pr =	0.530		
Diabetes					
Yes (n=49)	20.3	[9.7, 37.8]	79.7	[62.2, 90.3]	100.0
No (n=556)	21.6	[17.9, 25.8]	78.4	[74.2, 82.1]	100.0
Pearson: Uncorrected chi2(1) =	0.0388				
Design-based F(1.00, 593.00) =	0.0292	Pr =	0.864		
Cancer					
Yes (n=29)	16.0	[5.0, 40.7]	84.0	[59.3, 95.0]	100.0
No (n=575)	21.9	[18.3, 26.1]	78.1	[73.9, 81.7]	100.0
Pearson: Uncorrected chi2(1) =	0.5297				
Design-based F(1.00, 592.00) =	0.3499	Pr =	0.554		
Mood disorder					
Yes (n=184)	23.2	[16.6, 31.4]	76.8	[68.6, 83.4]	100.0
No (n=418)	21.0	[16.9, 25.8]	79.0	[74.2, 83.1]	100.0
Pearson: Uncorrected chi2(1) =	0.3490				
Design-based F(1.00, 590.00) =	0.2436	Pr =	0.622		

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Stroke					
Yes (n=16)	22.6	[6.1, 56.9]	77.4	[43.1, 93.9]	100.0
No (n=591)	21.5	[17.9, 25.6]	78.5	[74.4, 82.1]	100.0
Pearson: Uncorrected chi2(1) =	0.0092				
Design-based F(1.00, 595.00) =	0.0068	Pr =	0.934		
Asthma					
Yes (n=80)	26.3	[16.8, 38.6]	73.7	[61.4, 83.2]	100.0
No (n=527)	20.8	[17.1, 25.2]	79.2	[74.8, 82.9]	100.0
Pearson: Uncorrected chi2(1) =	1.1637				
Design-based F(1.00, 595.00) =	0.9172	Pr =	0.339		
Chronic lung disease, COPD, or emphysema					
Yes (n=54)	19.2	[10.9, 31.5]	80.8	[68.5, 89.1]	100.0
No (n=550)	21.8	[18.1, 26.1]	78.2	[73.9, 81.9]	100.0
Pearson: Uncorrected chi2(1) =	0.1593				
Design-based F(1.00, 592.00) =	0.2013	Pr =	0.654		
Substance use disorder					
Yes (n=24)	0.0		100.0		100.0
No (n=582)	22.7	[18.9, 26.9]	77.3	[73.1, 81.1]	100.0
Pearson: Uncorrected chi2(1) =	8.5695				
Design-based F(1.00, 594.00) =	5.6749	Pr =	0.018		
Arthritis or a related condition					
Yes (n=134)	16.8	[11.0, 24.8]	83.2	[75.2, 89.0]	100.0
No (n=471)	22.9	[18.8, 27.7]	77.1	[72.3, 81.2]	100.0
Pearson: Uncorrected chi2(1) =	2.2283				
Design-based F(1.00, 593.00) =	1.8969	Pr =	0.169		
Other: cholesterol					
Yes (n=11)	17.8	[4.1, 52.2]	82.2	[47.8, 95.9]	100.0
No (n=145)	25.4	[17.8, 34.9]	74.6	[65.1, 82.2]	100.0
Pearson: Uncorrected chi2(1) =	0.2683				
Design-based F(1.00, 144.00) =	0.2978	Pr =	0.586		
Total (n=607)	21.5	[18.0, 25.5]	78.5	[74.5, 82.0]	100.0

Note: χ^2 test of independence. Number of chronic conditions is defined by the number of the following self-reported conditions: hypertension, heart disease, diabetes, cancer (non-skin), mood disorder, stroke, asthma, chronic lung condition, substance use disorder, arthritis, other ongoing health condition.

8.3.8 Reason for applying: Lost my other health insurance by specific age categories

	Lost my other health insurance				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age categories highlighting life changes					
19-21 (n=31)	30.7	[14.8, 53.1]	69.3	[46.9, 85.2]	100.0
26-28 (n=73)	27.2	[17.1, 40.3]	72.8	[59.7, 82.9]	100.0
All other ages (n=503)	29.9	[25.3, 35.0]	70.1	[65.0, 74.7]	100.0
Pearson: Uncorrected chi2(2) =	0.2799				
Design-based F(1.96, 1166.54) =	0.0807	Pr =	0.919		
Total (n=607)	29.6	[25.4, 34.2]	70.4	[65.8, 74.6]	100.0

Note: χ^2 test of independence.

8.3.9 Reason for applying: Needed some form of health insurance by specific age categories

	Needed some form of health insurance				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Age categories highlighting life changes					
19-21 (n=31)	10.1	[4.5, 21.3]	89.9	[78.7, 95.5]	100.0
26-28 (n=73)	23.0	[13.0, 37.4]	77.0	[62.6, 87.0]	100.0
All other ages (n=503)	14.0	[10.6, 18.2]	86.0	[81.8, 89.4]	100.0
Pearson: Uncorrected chi2(2) =	5.3418				
Design-based F(1.75, 1040.42) =	2.0895	Pr =	0.131		
Total (n=607)	15.0	[11.8, 18.8]	85.0	[81.2, 88.2]	100.0

Note: χ^2 test of independence.

2017 Healthy Michigan Voices New Enrollee Survey Instrument
Appendix C

INT00: Introduction*:*
Healthy Michigan Voices is a project at the University of Michigan – you might remember getting a letter and brochure about the project recently.

- We're speaking with people around the state who **recently enrolled** in the Healthy Michigan Plan, to learn more about their experiences with the program so far.
- The survey takes about 10 minutes, and includes questions about your insurance coverage before Healthy Michigan Plan, the process of enrolling and selecting a primary care provider, and your understanding of what the Healthy Michigan Plan covers.

INT10: Okay, just a couple of quick things for you to know before we start:

- The survey is confidential; your information will be stored at the University of Michigan in a computer file that does not include your name. We will not tell the state, your health plan, or your doctor any of the specific answers you give on the survey.
- Participating in the survey is voluntary -- if there are any questions you don't want to answer, you can skip them.
- For completing the survey, you get a $25 gift card that can be used anywhere that accepts MasterCard. And I'll tell you more about that at the end.

Do you have any questions before we begin?

RECORD_CALL: For quality assurance and training purposes, can we record this call? Yes/No [If respondent says no, verify that recorder is turned off]

CH_DOB: Ok, we have your ID listed as <$Q>.

And just to confirm that I'm talking with the right person, we show that you were born in <MONTH> <YEAROFB>. Is that correct? Yes/No [TEXT BOX if no]

CK_ENROL: And your first month of enrollment in the Healthy Michigan Plan in [HMP first month/year autofilled]. Does that sound about right? Yes/No [TEXT BOX OPTION]

For these first few questions, I am going to ask you to think back to the 12 months <u>before</u> you enrolled in the Healthy Michigan Plan.

Q1. In the 12 months BEFORE enrolling in the Healthy Michigan Plan, was there a place that you usually would go for a checkup, when you felt sick, or when you wanted advice about your health?

Yes / No / Don't know / NA-didn't need care

If Q1=YES: **Q1a**. What kind of a place was it? a clinic, doctor's office, urgent care or walk-in clinic, emergency room, or other place

Q2. In the 12 months BEFORE enrolling in the Healthy Michigan Plan, was there any time when you didn't get the health care you needed? Yes/No

If Q2=YES: **Q2a**. What type of care?

- Primary Care
- Vision Care
- Specialist Care
- Support Services (PT, OT, ST, DME, Lab)

- Prescription Medications
- Mental Health Care
- All
- Other [text box]

Interviewer Note: If respondent says "dental care," prompt them with "We'll get to dental care shortly. Was there any other time you didn't get the **health care you needed?"**

If Q2=YES: **Q2b**. Why didn't you get the care you needed? [open-ended; mark all mentioned]

- ☐ no insurance / cost
- ☐ services needed weren't covered under insurance plan / cost
- ☐ Couldn't find provider that took your insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Didn't get around to it
- ☐ Other [TEXT BOX]

Q3. In the 12 months BEFORE enrolling in the Healthy Michigan Plan, was there any time when you didn't get the dental care you needed? Yes/No

If Q3=YES: **Q3a**. Why didn't you get the care you needed? [open-ended; mark all mentioned]

- ☐ No dental insurance
- ☐ Dental plan wouldn't cover treatment/service
- ☐ Couldn't find provider that took your dental insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Afraid of going to dentist
- ☐ Didn't get around to it
- ☐ Other [TEXT BOX]

Q4. During the 12 months BEFORE you were enrolled in the Healthy Michigan Plan, about how much did you spend out-of-pocket for your own medical and dental care?

Record $_____ or Don't Know

If Q4=DON'T KNOW: **Q4a**. I'll read some categories, and you stop me when I get to the amount you think is about right.

less than $50
from $51-100
$101-500
$501 to $2,000
$2,001 to $3,000
$3,001 to $5,000
more than $5,000

Q5. In the 12 months BEFORE enrolling in the Healthy Michigan Plan, did you have problems paying medical bills? Y/N

If Q5=YES: Because of these problems paying medical bills, have you or your family…

Q5a. Been contacted by a collections agency? Yes/No

Q5b. Thought about filing for bankruptcy? Yes/No

If Q5b=YES: **Q5c.** Did you file for bankruptcy? Yes/ No

Q6. During the 12 months BEFORE you enrolled in the Healthy Michigan Plan, did you have any type of health insurance at any time? Yes (answer Q7-8) / No (answer Q9-10)

If Q6=YES:

Q7. What type of health insurance did you have? Was it insurance through a job or union, insurance purchased by you or someone else, or another type of insurance? [*can have >1 type*]

- ☐ Insurance provided through a job or union
  If YES: **Q7a** Whose job is it? (respondent/family member)
- ☐ Insurance purchased by you or someone else
  If YES: **Q7b** Who purchased it? (respondent/family member)
  Q7c Was this insurance purchased through the marketplace known as healthcare.gov? Y/N/DK
  Q7c1 If YES: Did you receive a subsidy? *A subsidy is a benefit from the government that can lower your monthly health insurance payments according to your income.* Y/N/DK
- ☐ Veterans Administration or VA care
- ☐ CHAMPUS, TRICARE
- ☐ Medicare
- ☐ County health plan
- ☐ Medicaid / MiChild / other state program
- ☐ Other [TEXT BOX]

Q8. Was there any time in the 12 months BEFORE you enrolled in the Healthy Michigan Plan that you didn't have any health insurance? Yes / No– skip to Q11

If YES: **Q8a** How long were you uninsured? [record response; offer categories if needed]

- ☐ One month or less
- ☐ Two or three months
- ☐ Four months to six months
- ☐ All 12 months
- ☐ Other [TEXT BOX] *record explanation*
- ☐ Don't know

Q8b What were the main reasons you were without health insurance for that time?
[open-ended, code all reasons mentioned]

- ☐ Was waiting to get insurance through a job
- ☐ Job didn't offer health insurance / offered but too expensive
- ☐ No job during that time
- ☐ Too expensive to buy own policy
- ☐ Tried to enroll in private insurance/Marketplace, redirected to Medicaid
- ☐ Took time for HMP application to be completed/accepted
- ☐ No medical problems/didn't need insurance
- ☐ Had problems with applying
- ☐ Just didn't get around to getting insurance
- ☐ Other [TEXT BOX]
- ☐ Don't know

If Q6=NO:

Q9a For how long did you have no health insurance? Would you say:

- ☐ One month or less
- ☐ 2-3 months
- ☐ 4-6 months
- ☐ 7-12 months
- ☐ Longer than 12 months
- ☐ Other [TEXT BOX]
- ☐ Don't know

Q9b What were the main reasons you were without health insurance for that time? [open/mark all]

- ☐ Was waiting to get insurance through a job
- ☐ Job didn't offer health insurance / offered but too expensive
- ☐ No job during that time
- ☐ Too expensive to buy own policy
- ☐ Tried to enroll in private insurance/Marketplace, redirected to Medicaid
- ☐ Took time for HMP application to be completed/accepted
- ☐ No medical problems/didn't need insurance
- ☐ Had problems with applying
- ☐ Just didn't get around to getting insurance
- ☐ Other [TEXT BOX]
- ☐ Don't know

If **Q6=NO or Q9a=** two months or more:

Q10. While you were without health insurance, was there a time when you knew about the Healthy Michigan Plan but did not apply? Yes / No

If YES: **Q10a:** Why did you not apply? [open ended; code all mentioned]

- ☐ Didn't want to be on a government program
- ☐ Didn't think I was eligible
- ☐ Didn't need medical care
- ☐ Paperwork/application process is too burdensome
- ☐ My doctors don't take Medicaid
- ☐ Didn't like a certain feature of HMP (cost, behavior change)
- ☐ Just didn't get around to doing it
- ☐ Other [TEXT BOX]

[All respondents]

Q11. What prompted you to apply for the Healthy Michigan Plan? [open-ended, code all reasons mentioned]

- ☐ Tried to buy individual plan / redirected from healthcare.gov application
- ☐ Lost my other health insurance
- ☐ Had a medical condition that needed care
- ☐ Suggested/signed up at ER/hospital/other health care facility
- ☐ Suggested/signed up by caseworker/social service agency
- ☐ Other [TEXT BOX]

Q12. Did you have any problems with the Healthy Michigan Plan application and enrollment process? Yes/No

If YES: **Q12a** And what happened?

- ☐ Told I wasn't eligible
- ☐ Told my application was incomplete
- ☐ Hard to reach caseworker
- ☐ Difficulty completing applicant/enrollment materials
- ☐ Respondent didn't complete all steps
- ☐ Other [TEXT BOX if yes]

Q13. When you were choosing your health plan and primary care provider, were you trying to keep your existing doctor or clinic? Yes/No

If YES: **Q13a** And were you able to keep your same doctor or clinic? Yes/No

If NO: **Q13b** Why not?

- ☐ Couldn't find a plan with that includes my doctor/clinic
- ☐ My doctor/clinic does not take Medicaid
- ☐ N/A - Hadn't picked a doctor yet
- ☐ Other [TEXT BOX]

People who enroll in the Healthy Michigan Plan should receive a Health Risk Assessment. *The HRA form has three parts: first, a set of questions about your eating, exercise and smoking habits; second, a section about choosing a healthy behavior to work on; and third, a section your provider's office should complete.*

Q14. How did you complete the first section of the HRA, which is answering the questions about your eating, exercise, and smoking behaviors? Did you answer those questions: [read options]

- ☐ On phone at enrollment
- ☐ With doctor or someone in the doctor's office/clinic
- ☐ By filling it out yourself
- ☐ Don't remember
- ☐ Have not completed it --- SKIP to Q17

Q15. Did you discuss the HRA with your doctor or someone at your primary care provider's office?

- ☐ Yes
- ☐ No
- ☐ Haven't had an appointment yet
- ☐ Don't remember

If YES: **15a** What healthy behavior did you choose to work on? [open-ended, code all mentioned]

Exercise/activity	Take medicine regularly
Nutrition/diet	Monitor my blood pressure/blood sugar
Lose weight	Go to the dentist
Reduce/quit tobacco use	Follow-up appointment for chronic disease
Flu shot	Other [TEXT BOX]
Reduce/quit alcohol use	None
Treatment for substance use	Don't remember

Q15b WHY did you choose this healthy behavior? [open-ended, code all mentioned]

Doctor suggested it
Something I wanted to do anyway
Easy to do
HMP would cover the cost
Other [TEXT BOX]:

If Q15=HRA completed, ask Q16a-c

Q16a Did completing the Health Risk Assessment teach you something you didn't know about your health? Would you say: Definitely yes; somewhat yes; no

Q16b Did completing the Health Risk Assessment help your primary care provider better understand your health needs? Would you say: Definitely yes; somewhat yes; no

Q16c Did completing the Health Risk Assessment motivate you to be more responsible for your health? Would you say: Definitely yes; somewhat yes; no

These next questions are about your knowledge of payment information through the Healthy Michigan Plan.

Q17. How did you receive information about how much you will need to pay to be in the Healthy Michigan Plan? [open ended; code all mentioned]

- ☐ On phone at enrollment
- ☐ Letter/enrollment packet from state/health plan
- ☐ Caseworker/other person helping enroll
- ☐ Other [TEXT BOX]
- ☐ None – did not get any cost info

Q18. Do you know about any ways to reduce the amount you might have to pay? [open; code all; ask "anything else?"]

- ☐ Use generic drugs
- ☐ Complete the HRA
- ☐ Don't go to the ER
- ☐ Use preventive care / do the healthy behavior
- ☐ Other [TEXT BOX]
- ☐ None mentioned

Q19. For the following statements, if you think the statement is correct, say "yes." If you think it is incorrect, say "no." If you don't know, say "don't know".

a. I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK
b. I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK
c. Some kinds of visits, tests and medicines have no copays. Y/N/DK

Q20. How much do you agree with the following statement: Getting discounts on copays and premiums as a reward for working on improving your health is a good idea. Would you say you: Strongly agree, agree, are neutral, disagree, or strongly disagree?

Q21. I'm going to read some different types of health care, and you tell me if you think it is covered under Healthy Michigan Plan, not covered, or if you don't know. Don't worry if you don't know the answer – the state is just trying to find out what people do and don't know about the Healthy Michigan Plan. The first one is eyeglasses: do you think those are covered, not covered or don't know?

a. Eyeglasses covered/not covered/don't know
b. Prescription medications
c. Routine dental care
d. Treatment to stop smoking
e. Birth control or family planning
f. Counseling for mental or emotional problems
g. Substance use treatment

Q22. In the time you've been enrolled in the Healthy Michigan Plan, have you had any questions or difficulties using your Healthy Michigan Plan insurance to get care? Yes/ No/NA- haven't tried to get care

If YES: **Q22a** What kind of questions or difficulties did you have? [open; code all]

- ☐ Difficulty/inability finding a provider
- ☐ Needed a service that wasn't covered
- ☐ Difficulty finding out information
- ☐ Problem with Medicaid/HMP ID card
- ☐ Other [TEXT BOX]

Next we have a few questions about you.

Q23. In general, would you say your health is: Excellent; Very Good; Good; Fair; OR Poor

Q24. Has a doctor or other health professional ever told you that you had any of the following?

a) Hypertension, also called high blood pressure? Yes/No
b) A heart condition or heart disease? Yes/No
c) Diabetes or sugar diabetes (other than during pregnancy)? Yes/No
d) Cancer, other than skin cancer? Yes/No
e) A mood disorder, (For example, depression, anxiety, bipolar disorder)? Yes/No
f) A stroke? Yes/No
g) Asthma? Yes/No
h) Chronic lung disease, such as chronic bronchitis, COPD or emphysema? Yes/No

i) A substance use disorder? Yes/No
j) Arthritis or a related condition (for example, rheumatoid arthritis, gout, lupus, or fibromyalgia)? Yes/No
k) Any other ongoing health condition? Yes/No
Q24k1 *If YES*: What is the condition? [TEXT BOX]

Q25. Are you currently in school? Yes/No
If YES: **Q25a** Are you a full-time or part-time student? Full-time/Part-time

Q26. Are you currently employed or self employed? Yes/No
If Q26=YES: **Q26a** Are you working full time or part time? Full-time/Part-time

If Q26=NO: **Q26b** Are you out of work, unable to work, retired, or not looking for work at this time?
1 Out of work
2 Unable to work
3 Retired
4 Not looking for work at this time

Q26c How long have you been [Autofill: Out of work/unable to work/retired]?
Less than one year / One year or more

[if unable] **Q26d** Why are you unable to work?
Disabled / Poor health / Old age / Caregiving responsibilities / Other [TEXT BOX]

Q27. What is the highest grade of school you have completed, or the highest degree you have received? [open-ended / mark correct category]
☐ Less than high school
☐ High school graduate (or equivalent)
☐ Some college (1-4 years, no degree)
☐ Associate's degree (including occupational or academic degrees)
☐ Bachelor's degree (BA, BS, AB, etc.)
☐ A post graduate degree (MS, MSW, MPH, MD, JD, etc.)

Q28. How often do you need to have someone help you read instructions, pamphlets, or other written material from a doctor, pharmacy or health plan? Never/Rarely/Sometimes/Often/Always

Q29. What race or races do you consider yourself to be? [open question, check all that they mention]
☐ White
☐ Black or African American
☐ American Indian or Alaska Native
☐ Asian: Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian
☐ Pacific Islander: Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander
☐ Other

Q29a Are you Hispanic or Latino? Yes/No

Q29b Are you of Arab or Chaldean or Middle Eastern descent? Yes/No

Q30. Are you:
☐ Married
☐ Divorced
☐ Widowed
☐ Separated
☐ Partnered

☐ Never Married

Q31a. In the past 3 years, how many places have you lived for one week or longer —including where you live now? Would you say: 1 / 2 / 3 / 4 or more

Q31b. Have you been homeless at any time in the last 12 months? Yes/no

Q32. Are you a veteran of the US military armed forces? Yes/No

Q33. Has anyone else in your household been enrolled in the Healthy Michigan Plan? Yes/No/Don't know

Q34. Would you like to add anything else about your experiences with the Healthy Michigan Plan?
[TEXT BOX]

End of Survey/Contact Information:
ADDRESS2 That's the end of the survey. Can you please confirm your address so we can send your gift card?
[AUTOFILL address]
You should receive the gift card in 1-3 weeks at that address.

FOLLOWUPSURV We may be conducting a follow-up survey. Would you be willing to have us recontact you for that? We're just asking for contact information – you can decide at that time if you'd like to participate. Yes/No

FOLLOWUPPHONE If YES: What is the best phone number to reach you? Use current number on file/Better number:

FOLLOWUPTEXT Can this number get text messages? Yes/No

FOLLOWUPEMAIL Is there an email address we can use to contact you?
1 Yes (record email and read it back)
2 No

INT99 Thanks so much for talking with me today! Look for your gift card in 1-3 weeks.

2017 Healthy Michigan Voices Follow-Up Survey Report

December 30, 2018

University of Michigan
Institute for Healthcare Policy & Innovation

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INSTITUTE FOR HEALTHCARE POLICY & INNOVATION
UNIVERSITY OF MICHIGAN

Table of Contents

Executive Summary

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). Domain IV of the evaluation includes a series of surveys called *Healthy Michigan Voices (HMV)*. This report presents findings from the 2017 *Healthy Michigan Voices* Follow-Up Survey. From March 2017 to January 2018, 3,104 individuals who participated in 2016 completed the 2017 survey. The 2018 *Healthy Michigan Voices* Follow-Up Survey is currently underway.

Methods

Individuals who completed the 2016 *Healthy Michigan Voices* Enrollee Survey and consented to be contacted for follow-up were the target population for the 2017 HMV Follow-Up Survey. Out of 4,106 respondents to the 2016 HMV Enrollee Survey, 3,957 (96.4%) consented to be recontacted. The 2017 HMV Follow-Up Survey (n=3,104) response rate was 83.4%.

Two survey instruments were developed, one for those who remained enrolled in HMP and one for those who were no longer enrolled in HMP at the time of the 2017 HMV Follow-Up Survey. Many items on each survey were drawn from established surveys. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about Health Risk Assessments, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees, cognitively tested, and used in the 2016 HMV Enrollee Survey. Surveys were conducted in English, Arabic and Spanish; those who could not speak one of those languages were excluded from participation. Responses were recorded using computer-assisted telephone interviewing software.

Descriptive statistics were generated for responses to all questions, with survey weights calculated and applied to adjust for the probability of selection, nonresponse, and other factors. Bivariate and multivariate analyses were also performed.

Results

Demographics

- Of the 2017 HMV Follow-Up Survey respondents, 76.8% were still enrolled in HMP ("current enrollees") at the time of the survey and 23.2% were no longer enrolled in HMP ("former enrollees") at the time of the survey.
- 19.9% of current and former enrollees had incomes 100-133% FPL, while 52.3% had incomes between 0-35% FPL. Former enrollees were more likely than current enrollees to have an income of 36-99% FPL (32.7% vs. 26.2%) and to have an income of 100-133% FPL (26.5% vs. 17.9%).
- 53.0% of current and former enrollees were women.
- 88.8% of current and former enrollees had at least a high school diploma or equivalent.

Employment

- 57.1% of current and former enrollees were employed. Those with a chronic condition (defined as those who reported any chronic condition in the 2016 HMV Enrollee Survey or the 2017 HMV Follow-Up Survey or those identified using claims data) were less likely than those without such a condition to be employed (53.1% vs. 70.5%). Those age 51-64 were less likely than younger age groups to be employed, and more likely, if they were working, to be working part-time.
- Current and former enrollees who were not employed most often reported being unable to work (41.3%) or out of work (33.6%); fewer reported being retired (8.5%), or not looking for work at this time (16.6%).
- The proportion of current and former enrollees who reported being employed/self-employed increased from 2016 to 2017 (from 48.7% to 57.1%).

Perspectives on the impact of HMP on employment-related outcomes

- Among those who were employed or retired for less than one year, and not currently a student, 64.8% reported that getting health insurance through HMP helped them do a better job at work.
- Among those who were employed and changed jobs in the last 12 months, 27.9% reported that having health insurance through HMP helped them get a better job.
- Among those who were out of work, 46.9% reported that having health insurance through HMP has made them better able to look for a job.

Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

Current health status

- 36.4% of current and former enrollees reported that their health was excellent or very good; 36.6% reported that their health was good, 20.9% reported that their health was fair, and 6.0% reported that their health was poor.

Chronic health conditions

- At the time of the 2017 survey, 74.7% of current and former enrollees reported having at least one chronic condition. The most commonly reported chronic conditions in 2017 were mood disorder (33.8%), hypertension (31.4%), and arthritis or a related condition (27.6%). Other conditions reported included asthma (16.9%), diabetes (10.3%), or a heart condition or heart disease (9.8%).
- Current enrollees were more likely than former enrollees to have at least one chronic condition (78.3% vs. 71.7%) and to have two or more chronic conditions (53.6% vs. 46.6%).

Self-reported change in health

- Most current and former enrollees reported that in the past year their physical health had improved (29.6%) or stayed the same (56.1%), their mental health had improved (28.4%) or stayed the same (58.6%), and their oral health had improved (21.0%) or stayed the same (60.7%).

- Former enrollees were more likely than current enrollees to report that their oral health got worse in 2017 (23.0% vs. 16.3%; adjusted odds ratio (aOR)=1.67).

Self-reported fair/poor health (change 2016-2017)

- The proportion of current and former enrollees who reported fair/poor health decreased from 2016 to 2017 (from 30.7% to 27.0%; aOR=0.66).
- Decreases in the proportion reporting fair/poor health were found in many subgroups of current and former enrollees including those with a chronic condition (from 36.7% to 32.6%), those with two or more chronic conditions (from 45.6% to 40.9%), those with a mental health condition and/or substance use disorder (from 39.9% to 35.6%), and those with a mental health condition (from 40.8% to 36.1%).
- The largest decreases in reports of fair/poor health from 2016 to 2017 were observed in current and former enrollees who were Hispanic (from 28.3% to 21.5%), non-Hispanic Black (from 31.5% to 26%), from the Detroit Metro area (from 30.7% to 24.9%), and with an income 0-35% FPL (from 37.6% to 32.3%).

Days poor physical health (change 2016-2017)

- The mean number of days of poor physical health among current and former enrollees decreased from 2016 to 2017.

Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

Knowledge of HMP covered benefits

- The majority of current enrollees knew that HMP covers prescription medications (95.1%), dental care (81.6%), eyeglasses (67.9%), and counseling for mental or emotional problems (58.8%). Nearly half knew that HMP covers birth control or family planning (48.1%). Less than half knew that HMP covers substance use treatment (41.4%) and treatment to stop smoking (39.7%).
- In 2017 compared to 2016, current enrollees were more likely to know that dental care is covered by HMP (81.6% vs. 77.0%) and that eyeglasses are covered by HMP (67.9% vs. 61.5%).

Experiences with MI Health Account

- 78.4% of current enrollees reported that they received a MI Health Account statement in the past year. Those with lower incomes were less likely to report receiving a MI Health Account statement.
- Among current enrollees who reported receiving a MI Health Account statement in the past year, 84.8% strongly agreed or agreed that they carefully review each statement to see how much they owe, 82.6% strongly agreed or agreed that the statements help them be more aware of the cost of health care, and 31.0% strongly agreed or agreed that the information in the statement led them to change some of their health care decisions.

Perspectives on cost-sharing

- The majority of current enrollees strongly agreed or agreed that the amount they have to pay for HMP overall seems fair (84.1%) and the amount they pay for HMP is affordable (86.7%).
- The majority of current and former enrollees strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea (91.0%) and that everyone should have to pay something for their health care (53.7%).

Perspectives on HMP coverage

- 97.3% of current and former enrollees strongly agreed or agreed that it is very important for them personally to have health insurance.
- Most current enrollees strongly agreed or agreed that having HMP has taken a lot of stress off them (91.4%) and that without HMP they would not be able to go to the doctor (88.5%) or the dentist (83.6%); those with a chronic condition were more likely than those without to strongly agree or agree with these statements.
- Current enrollees were more likely in 2017 than in 2016 to strongly agree or agree that having HMP has taken away a lot of stress (91.4% vs. 87.9%) and that without HMP they would not be able to go to the doctor (88.4% vs. 84.3%).

Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

Forgone health care

- Former enrollees were more likely than current enrollees to report forgone health care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (17.1% vs. 7.8%).
- Among current enrollees who reported not getting the health care they needed:
    - The most commonly reported types of forgone health care were primary care (43.2%) and specialty care (28.3%); prescription medications was mentioned by 20.5% and mental health care by 9.2%.
    - The most commonly reported reason for not getting the health care they needed, regardless of the type of care, was difficulty getting an appointment (25.7%).
- Among former enrollees who reported not getting the health care they needed:
    - The most commonly reported types of forgone health care were primary care (46.2%), prescription medications (25.0%), and specialty care (16.2%).
    - The most commonly reported reasons for not getting the health care they needed, regardless of the type of care, were no insurance coverage (45.5%) and cost (36.0%).

Forgone dental care

- 16.4% of current enrollees reported not getting the dental care they needed in the last 12 months.
- In multivariate analyses limited to current enrollees, individuals with a chronic condition (aOR=1.45) or a mental health condition (aOR=1.60) were more likely than individuals without these conditions to report forgone dental care in the last 12 months.

- HMP coverage ended.
- Former enrollees were more likely than current enrollees to report forgone dental care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (aOR=1.58).

Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

Health behaviors

- 6.6% of current enrollees reported binge drinking three or more days per week in the 2017 survey. Approximately half (52.6%) of current enrollees who reported any binge drinking in 2016 decreased their alcohol use between 2016 and 2017.
- Among current enrollees who reported smoking or using tobacco in 2016, 14.4% quit smoking or using tobacco from 2016 to 2017.

Health risk assessment

- Current enrollees were more likely than former enrollees to have a completed HRA with physician attestation recorded in the data warehouse (43.9% vs. 28.8%). Among current enrollees, those that had a PCP visit were much more likely than those who did not to have completed an HRA (46.6% vs. 8.2%).

Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Regular source of care

- 93.8% of current enrollees reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health in the last 12 months. Among those current enrollees, 69.7% reported a doctor's office, 20.5% a clinic, 6.1% an urgent care/walk-in clinic, and 2.6% reported the ER as their regular source of care.
- Current enrollees who reported a PCP visit in the past 12 months were much less likely than those who did not to report having the ER or urgent care as a regular source of care in the last 12 months (2.4% vs. 15.0%).
- 76.5% of former enrollees reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health since their HMP coverage ended. Among those former enrollees, 62.5% reported a doctor's office, 21.2% a clinic, 7.9% an urgent care/walk-in clinic, and 5.7% reported the ER as their regular source of care.

Primary care utilization

- 85.6% of current enrollees reported seeing their PCP in the past 12 months.
- Among those who reported not seeing their PCP in the past 12 months, the most common reason given was that they were healthy and did not need to see a provider (57.0%).
- 92.9% of current enrollees had a claim for at least one primary care visit.

Preventive services utilization

- 92.4% of current enrollees had a claim for at least one preventive service.
- 50.0% of current enrollees (not restricted by age or gender) had a claim for cancer screening.
    - 59.0% of women received cervical cancer screening
    - 75.4% of women over age 50 received breast cancer screening
    - 45.6% of current enrollees over age 50 had colorectal cancer screening
- In multivariate analysis, the number of preventive services received by current enrollees was greater for those who:
    - Reported having a PCP visit in the past 12 months compared to those who did not
    - Completed an HRA compared to those who did not
    - Reported discussing the HRA with a provider in the last year compared to those who did not
    - Had better knowledge of HMP covered benefits and costs
    - Had a greater number of primary care visits
- In multivariate analysis limited to current enrollees, there were no statistically significant associations between the number of preventive services received by current enrollees and their knowledge of fee reductions for completing an HRA or agreeing that MI Health Account statements led them to change health care decisions.

Dental care utilization

- 67.4% of current enrollees had a claim for at least one dental visit.

Self-reported emergency room use

- 33.3% of current enrollees reported going to the ER for care in the past 12 months.
- Current enrollees who reported a PCP visit in the past 12 months were more likely than those who did not to say they tried to contact their PCP before going to the ER (21.3% vs. 8.4%).

Perspectives on care seeking

- 83.8% of current enrollees strongly agreed or agreed that their preference is to go straight to a doctor and ask his or her opinion if they have a medical problem.
- 22.4% of former enrollees strongly agreed or agreed that sometimes they go to the ER because they know they cannot be turned away.
- 33.6% of former enrollees strongly agreed or agreed that sometimes they go to the ER because they do not have another place to get care.

Checking cost-sharing before seeking care

- 26.9% of current and former enrollees reported checking how much they would have to pay for a doctor's visit, medication, or other health service before they received care in the past 12 months.

Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Predictors of disenrollment

- In multivariate analysis, those with an income of 36-99% FPL (aOR=1.79) and those with an income of 100-133% FPL (aOR=2.07) were more likely than those with an income of 0-35% FPL to disenroll from HMP.
- There was no difference between those no longer enrolled and those still enrolled in HMP in their views in the 2016 survey of the affordability of HMP, the fairness of HMP costs, or the importance of health insurance.

Reasons for disenrollment

- Among all former enrollees, the most common reason for disenrollment was an income increase or getting other coverage (53.7%), with 13.8% saying they were [otherwise] ineligible to continue. Fewer former enrollees reported administrative problems (8.6%) or not taking action to re-enroll (7.7%).

Insurance status since HMP coverage ended

- At the time of the 2017 survey, 29.9% of former enrollees reported being uninsured, 26.6% reported Medicaid insurance, 21.5% reported private, employment-based insurance, 11.4% reported Medicare, VA or CHAMPUS insurance, and 4.0% reported private insurance purchased by themselves or someone else.

Cost of insurance since HMP coverage ended

- 47.0% of former enrollees reported that the amount they currently pay for their health insurance in a typical month is a little or a lot more than what they were paying with their HMP coverage, 39.4% said it is about the same, and 7.7% said it is less. Those with an income of 100-133% FPL were more likely to report that the amount they currently pay is a lot more than what they were paying with HMP.

Problems paying medical bills since HMP coverage ended

- 22.0% of former enrollees reported having problems paying medical bills since their HMP coverage ended.

Perspectives on cost-sharing and coverage since HMP coverage ended

- 49.0% of former enrollees strongly agreed or agreed that they worry more about something bad happening to their health since their HMP coverage ended.

Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

Not applicable to the 2017 HMV Follow-Up Survey.

Conclusions

Health improvement

Our findings from the 2017 HMV Follow-Up Survey show that Medicaid expansion in Michigan is associated with improvements in self-reported health and fewer days of poor physical health among both current and former enrollees and in many subgroups of current and former enrollees including those with a chronic condition and those with a mental health condition and/or substance use disorder.

These longitudinal results are noteworthy, since other evidence on the health impact of Medicaid expansion has been mixed and has been largely based on comparisons of expansion and non-expansion states using serial cross-sectional data for the U.S. population. One of the only other recent studies to examine longitudinal changes in health among enrollees was the Oregon Health Insurance Experiment, which found a decrease in symptomatic depression and mixed results related to changes in physical health.[1, 2]

Employment gains

Data from the 2017 HMV Follow-Up Survey show that the proportion of current and former enrollees who reported being employed/self-employed increased from 48.7% in the 2016 survey to 57.1% in the 2017 survey. Analysis of the 2016 HMV Enrollee Survey data showed that enrollees reported that HMP helped them in their work, look for work, and find a better job, and analysis of the 2017 survey now shows gains in employment.

Few other studies have examined the impact of Medicaid expansion on employment. While Ohio found their Medicaid expansion program was associated with improvements in ease of working or looking for work,[3] and another study found that people with disabilities were more likely to be employed after Medicaid expansion,[4] most studies have not seen changes in employment associated with Medicaid expansion.[5]

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Experiences of those no longer enrolled

About one in four 2017 HMV Follow-Up Survey respondents were no longer enrolled in HMP, and one third of these former enrollees reported being uninsured. Former enrollees, including those with and without insurance at the time of the survey, were more likely than current enrollees to report having recently forgone health care and dental care, usually due to cost or lack of coverage. Many former enrollees reported greater out of pocket costs and more difficulty with medical bills after their HMP coverage ended.

While former enrollees were less likely than those who remained enrolled to report having a regular source of care, and less likely to report that their regular source of care is a doctor's office or clinic, few named the ER as that source of care. More than three quarters of those who did report that their regular source of care is a doctor's office or clinic said they were still going to their HMP PCP. This suggests that even shorter-term HMP enrollment may promote a shift away from reliance on emergency rooms to primary care and may facilitate primary care continuity. However, one in three former enrollees agreed that sometimes they go to the ER because they don't have another place to get care; another substantial minority said that sometimes they go to the ER because they know they cannot be turned away.

There was no difference between those no longer enrolled and those still enrolled in HMP in their views in the 2016 survey of the affordability of HMP, the fairness of HMP costs, or the importance of health insurance.

Current enrollees' understanding of insurance and covered benefits

Current enrollees generally had a good overall understanding of HMP's covered benefits. In 2017 compared to 2016, current enrollees were more likely to know that dental care and eyeglasses are covered by HMP. Yet many current enrollees continued to be unaware in the 2017 survey that HMP provides coverage for smoking cessation and substance use disorder treatment. Understanding of the healthy behavior rewards associated with HRA completion also continued to remain low among current enrollees in 2017.

Current enrollees' access to care, primary care and prevention

Improved access to and use of preventive services can improve health in the short- and long-term. Current enrollees continued to report improvements in access to care in the 2017 survey. Nearly all current enrollees reported a regular source of care, the vast majority naming a doctor's office or clinic rather than an urgent care/walk-in clinic or an ER. Few current enrollees reported not getting the health care they needed in the last 12 months. Current enrollees also continued to report reductions in financial barriers to care. Current enrollees were even more likely in 2017 than in 2016 to strongly agree or agree that without HMP they wouldn't be able to go to the doctor.

Nearly all current enrollees had a claim for a primary care visit. Among those who reported not seeing their PCP in the past 12 months, more than half said that was because they were heathy and did not need to see a provider.

Current enrollees reported positive changes in health behaviors. For instance, among current enrollees who reported smoking or using tobacco in 2016, 14.4% did not report smoking or using tobacco in 2017. This is nearly twice the recent quit rate (7.4%) from 2015 national data.[6] Improved health behaviors can improve health immediately and, of course, in the longer term.

Previous studies have found that Medicaid expansion leads to increases in the number of preventive services received.[7,8] In this analysis, nearly all current enrollees had a claim for at least one preventive service. PCP visits, remembering discussions about the HRA, HRA completion with PCP attestation, and better knowledge of HMP coverage were all associated with more preventive services utilization. Other studies have shown mixed results in regards to the impact of Medicaid expansion on cancer screening.[9] Screening for colorectal cancer in this HMV survey cohort was comparable to or better than that found for low-income populations nationally, and the breast cancer screening rate was much higher.[10]

Recommendations

It is important to continue to assess the long-term impact of Medicaid expansion on health and functional outcomes, including employment. While short-term gains have been seen, the emphasis on prevention and health risk modification in HMP could have even greater impact over the long-term. While some of this information on health and functional outcomes can be ascertained from claims, surveys such as the *Healthy Michigan Voices* Survey provide a unique opportunity to understand changes in health behaviors and health status that are not readily evident in claims data.

Because primary care visits appear to have a large impact on health promotion and preventive services, and may decrease the use of emergency rooms, maintaining and improving access to primary care could be more important than emphasizing the completion of the HRA. We recommend that MDHHS work with Medicaid health plans and the provider community to maintain or improve timely access to appointments.

MDHHS or the evaluation team should continue to monitor the employment status of current HMP enrollees, including health-related barriers to gaining employment; and the health status of enrollees who lose HMP coverage if they are unable to satisfy community engagement requirements.

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[10] Sabatino, S. A., White, M. C., Thompson, T. D., & Klabunde, C. N. (2015, May 8). Cancer screening test use: United States, 2013. *Morbidity and Mortality Weekly Report*, *64*(17), 464-8.

MDHHS should continue to educate HMP enrollees about covered benefits, particularly coverage for smoking cessation and treatment for substance use disorders, and about financial incentives for healthy behaviors.

Introduction

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). Domain IV of the evaluation includes a series of surveys called *Healthy Michigan Voices (HMV)*. This report presents findings from the 2017 *Healthy Michigan Voices* Follow-Up Survey. From March 2017 to January 2018, 3,104 individuals who participated in 2016 completed the 2017 survey. The 2018 *Healthy Michigan Voices* Follow-Up Survey is currently underway.

Methods

Survey design

Two survey instruments were developed, one for those who remained enrolled in HMP and one for those who were no longer enrolled in HMP at the time of the survey. Each survey included established measures of demographics, health, access to care, and insurance status drawn from national surveys, including the National Health and Nutrition Exam Survey (NHANES),[11] the Health Tracking Household Survey (HTHS),[12] the National Health Interview Survey (NHIS),[13] the Behavioral Risk Factor Surveillance System (BRFSS[14] and MiBRFSS[15]), the Short Form Health Survey (SF-12),[16] the Food Attitudes and Behaviors Survey,[17] the Consumer Assessment of Healthcare Providers and Systems (CAHPS),[18] the Employee Benefit Research Institute Consumer Engagement in Healthcare Survey (CEHCS),[19] the Commonwealth Fund Health Care Quality Survey,[20] and the U.S. Census. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about Health Risk Assessments, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees from five target geographic regions across the state of Michigan (Detroit, Kent County, Midland/Bay/Saginaw Counties, Alcona/Alpena/Oscoda Counties, and Marquette/Baraga/Iron Counties) conducted by the evaluation team April to August 2015. New items underwent cognitive testing, and pre-testing for timing and clarity and many were used successfully in the 2016 *Healthy Michigan Voices* Enrollee Survey.[21] Items asking about experiences of and reasons for disenrollment were based

[11] NHANES (National Health and Nutrition Exam Survey, CDC)
[12] HTHS (Health Tracking Household Survey)
[13] NHIS (National Health Interview Survey, CDC)
[14] BRFSS (Behavioral Risk Factor Surveillance System, CDC)
[15] MiBRFSS (Michigan Behavioral Risk Factor Surveillance System, MDHHS)
[16] SF-12 (Short Form Health Survey, RAND)
[17] FAB (Food Attitudes and Behaviors Survey, NCI)
[18] CAHPS (Consumer Assessment of Healthcare Providers and Systems)
[19] Consumer Engagement in Health Care Survey (EBRI: CEHCS)
[20] Commonwealth Fund Health Care Quality Survey
[21] Report on the 2016 Healthy Michigan Voices Survey

responses to open-ended questions on the 2016 HMV survey of individuals no longer enrolled in 2016 (these individuals were not sampled during the 2016 HMV Enrollee Survey).

Survey administration

Individuals who completed the 2016 *Healthy Michigan Voices* Enrollee Survey and consented to be contacted for follow-up were the target population for the 2017 HMV Follow-Up Survey. Approximately 13-14 months after completion of the 2016 HMV Enrollee Survey, introductory packets were mailed to respondents at the address given during the 2016 survey; prior to mailing, the MDHHS Data Warehouse was queried to identify any respondents who were documented as deceased or incarcerated. The introductory packet contained a letter explaining the follow-up survey, a brochure about the project, and a postage-paid postcard that could be used to indicate a preferred time/day for interview or refusal to participate. The letter also provided a toll-free number and email address for enrollees and former enrollees who wished to indicate a preferred time/day for interview or refusal to participate. For introductory packets returned as undeliverable, the MDHHS Data Warehouse was queried for updated address information.

Approximately five business days after introductory packets were mailed, email and text messages were sent to respondents who indicated on their 2016 HMV Enrollee Survey that they preferred these contact methods; the emails and text messages restated key information from the introductory letter. For those who did not refuse using postcards, email or text response, *Healthy Michigan Voices* interviewers placed phone calls to sampled enrollees and former enrollees between the hours of 9 am and 9 pm. Surveys were conducted in English, Arabic and Spanish; those who could not speak one of those languages were excluded from participation. Responses were recorded using computer-assisted telephone interviewing software.

At the outset of the survey, current and former enrollees were informed that their individual responses would be kept confidential; only aggregate data would be reported. They were also informed that completing the survey was voluntary and that they could skip questions if they wished. Those who completed the survey were mailed a $25 gift card to compensate them for their time and phone minutes devoted to completing the survey. The median duration of time to complete the survey was 18 minutes; the amount of time to complete the survey ranged from 8 to 63 minutes.

Survey population and inclusion criteria

The 2017 HMV Follow-Up Survey was administered to those who consented to be followed up in the 2016 HMV Enrollee Survey. Out of 4,106 respondents in 2016, 3,957 (96.4%) consented as shown in Table 3. Our analysis of potential non-response bias indicated little difference between those who consented to be recontacted and those who did not (see Table 1).

Table 1. Comparison of characteristics of 2016 HMV Enrollee Survey respondents who consented to be recontacted and those who did not

Characteristics	Consented to be recontacted N=3,957 (%)	Did not consent to be recontacted N=149 (%)	*p* value
Age			
19-34	31.7%	36.2%	0.156
35-50	31.7%	34.9%	
51-64	36.6%	28.9%	
Gender			
Male	40.7%	53.3%	0.002
Female	59.3%	46.7%	
Race/Ethnicity			
Non-Hispanic White	33.8%	37.3%	0.374
Other	66.2%	62.7%	
Income (% FPL)			
0-35% FPL	39.2%	38.3%	0.620
36-99% FPL	35.3%	38.9%	
100-133% FPL	25.5%	22.8%	
Prosperity Region			
Northern Michigan	18.3%	14.8%	0.342
Central Michigan	31.0%	27.5%	
Southern Michigan	20.4%	21.5%	
Detroit Metro	30.2%	36.2%	
Interview language			
Arabic	1.5%	0.7%	0.473
English	97.9%	99.3%	
Spanish	0.5%	0%	

Sampling plan

There was no sampling plan implemented as all of those who consented to be recontacted were included in the 2017 HMV Follow-Up Survey call attempts.

Table 2. Characteristics of the 2017 HMV Follow-Up Survey Respondents (n=3,104)

	Prosperity Region[22]				
	UP/NW/NE	W/EC/E	SC/SW/SE	DET	Total
Federal Poverty Level					
0-35%	220	396	242	365	1,223
	7.1%	12.8%	7.8%	11.8%	39.4%
36-99%	182	361	238	305	1,086
	5.9%	11.6%	7.7%	9.8%	35.0%
≥100%	173	224	153	245	795
	5.6%	7.2%	4.9%	7.9%	25.6%
Total N complete	575	981	633	915	3,104
Total % complete	18.5%	31.6%	20.4%	29.5%	100.0%

Survey response characteristics

The results of the 2017 HMV Follow-Up Survey call attempts to these 3,957 consenters are shown in Table 3. For various reasons, not everyone who consented ultimately participated in the 2017 HMV Follow-Up Survey. In some cases there was attempted contact but no response and some 2016 respondents were no longer considered eligible to participate.

Table 3. 2017 HMV Follow-Up Survey call results

Call Results	n	(%)
Response	**3104**	**75.6**
Nonresponse	**608**	**14.8**
Partial complete	6	0.1
Refusal	166	4.0
Noncontact/Other nonresponse	436	10.6
Ineligible	**394**	**9.6**
Not the correct number	105	2.6
Deceased	50	1.2
Unable to complete in English, Spanish or Arabic	2	0.0
Non-working phone number	88	2.1
Did not consent in 2016 to follow-up contact	149	3.6
Total	**4,106**	**100.0**

The 2017 HMV Follow-Up Survey response rate was 83.4% as 3,104 of 3,712 eligible enrollees completed the survey. This is considered a very high response rate for surveys of this nature[23].

[22] Four grouped prosperity regions in the state (Upper Peninsula/North West/North East; West/East Central/East; South Central/South West/South East; Detroit)

[23] Holt, C. L., Le, D., Calvanelli, J., Huang, J., Clark, E. M., Roth, D. L., Williams, B., & Schulz, E. (2015). Participant retention in a longitudinal national telephone survey of African American men and women. *Ethnicity & Disease, 25*(2), 187-192.

We compare respondents and nonrespondents of the 2017 HMV Follow-Up Survey in Table 4 using weighted analysis with $fu\_w_{4,i}$, as described in Appendix D. They were different in age, FPL, and language. Older HMV respondents (ages 50-64 years old) were more likely to respond to the 2017 HMV Follow-Up Survey than younger HMV respondents. FPL was negatively related to response. Respondents who completed the survey in English were more likely to participate in 2017.

Table 4. Comparison of characteristics of 2017 HMV Follow-Up Survey respondents and nonrespondents using frame data

Characteristics	Respondents N=3,104 (%)	Nonrespondents N=608 (%)	*p* value
Age			
19-34	40.1%	49.7%	<0.001
35-50	29.5%	30.0%	
51-64	30.5%	20.3%	
Gender			
Male	47.2%	48.7%	0.612
Female	52.8%	51.3%	
Race/Ethnicity			
Non-Hispanic White	60.3%	60.8%	0.881
Other	39.7%	39.2%	
Income (% FPL)			
0-35% FPL	53.1%	45.6%	0.018
36-99% FPL	27.7%	32.1%	
100-133% FPL	19.1%	22.3%	
Prosperity Region			
Northern Michigan	8.9%	9.4%	0.249
Central Michigan	29.3%	24.8%	
Southern Michigan	18.1%	20.5%	
Detroit Metro	43.7%	45.3%	
Interview language (2016)			
Arabic	0.8%	5.3%	<0.001
English	98.7%	93.6%	
Spanish	0.5%	1.2%	

Weighting adjustment

Weights were calculated to adjust for the probability of selection (see Base Selection Weight, below), nonresponse bias (see Nonresponse Adjustment) and other adjustments (Nonworking Number adjustment, Unknown Eligibility adjustment, Known Eligibility adjustment) (see Appendix D for more detail).

Analyses

We generated descriptive statistics for responses to all questions in the survey, and present the weighted percentages with 95% confidence intervals (CIs) in Appendix A. Weights were applied to the data to adjust for the probability of selection, nonresponse bias and other adjustments (see Appendix D). The proportions included in this report reflect how the results we observed would apply to the eligible population of HMP enrollees as described in the 2016 HMV Enrollee Survey Report. The number of individuals who responded to each survey question is noted in the tables in Appendix A. When N is less than 3,104, either some respondents missed that question or the question was part of a skip pattern and was therefore only asked of a subset of respondents based on their previous responses or based on whether respondents were still enrolled or no longer enrolled in HMP.

We examined bivariate associations with age, gender, race/ethnicity, FPL group, region, presence of a chronic condition (defined as those who reported any chronic condition in the 2016 HMV Enrollee Survey or the 2017 HMV Follow-Up Survey or those identified using claims data), and HMP enrollment status (still enrolled vs. no longer enrolled at the time of the 2017 survey) for all single-response closed-ended questions (see Appendix A). Additional analyses were conducted to examine change over time by comparing 2016 to 2017 responses, and to test for relationships or differences between selected variables and groups of interest, including analyses using claims data (see Appendix B).

For all analyses of bivariate and multivariate relationships, the types of analysis, models, variables included and how they are defined or measured are included in Appendices A-C of this report. The specific tests are described in the table footnotes.

Claims data

Claims data were grouped into three 12-month periods, based on the enrollee's date of sampling for the 2016 HMV Enrollee Survey. Period 1 corresponds to the time period 12-24 months prior to sampling, Period 2 is 0-12 months prior to sampling, and Period 3 is 0-12 months post-sampling (see Appendix C). All claims-based variables combine data for all three periods unless otherwise noted.

Results

This section includes key findings from descriptive and multivariate analyses. Many results are not reported in text; see Appendix A and B for detailed tables presenting results from all analyses.

Current and former enrollee characteristics

Demographics

Of the 2017 HMV Follow-Up Survey respondents, 76.8% were still enrolled in HMP ("current enrollees") at the time of the survey and 23.2% were no longer enrolled in HMP ("former enrollees") at the time of the survey (Appendix A Table 0.1).

The vast majority of current enrollees (91%) had been enrolled all 12 months since they were sampled in 2016; the remaining 8% had experienced at least one month not enrolled in HMP during that time. Among former enrollees at the time of the 2017 survey, the number of months not enrolled ranged from less than 1 to 12. The distribution of months enrolled was even across these former enrollees.

Nearly one in five current and former enrollees (19.9%) had incomes 100-133% FPL, while more than half (52.3%) had incomes between 0-35% FPL (Appendix A Table 0.1). Former enrollees were more likely than current enrollees to have an income, in their last month of HMP enrollment, of 36-99% FPL (32.7% vs. 26.2%) and to have an income of 100-133% FPL (26.5% vs. 17.9%) (Appendix A Table 0.2).

Over half of current and former enrollees (53.0%) were women (Appendix A Table 0.1). The majority of current and former enrollees (88.8%) had at least a high school diploma or equivalent (Appendix A Table 0.1).

More than one in ten current and former enrollees (12.2%) had housing insecurity (i.e., they had lived three or more places in the past 3 years) while 7.9% had been homeless in the last 12 months (Appendix A Table 0.1). Current and former enrollees age 19-34 were more likely than older age groups and former enrollees were more likely than current enrollees to have had housing insecurity (17.7% vs. 10.5%) (Appendix A Table 0.11).

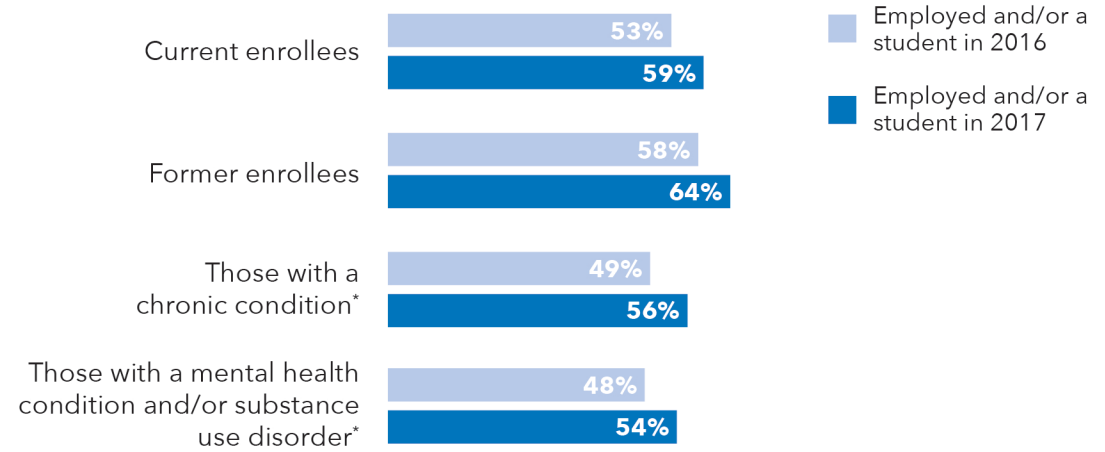
Employment

Over half of current and former enrollees (57.1%) were employed (Appendix A Table 0.4). Those with a chronic condition (defined as those who reported any chronic condition in the 2016 HMV Enrollee Survey or the 2017 HMV Follow-Up Survey or those identified using claims data) were less likely than those without such a condition to be employed (53.1% vs. 70.5%) (Appendix A Table 0.4). Those age 51-64 were less likely than younger age groups to be employed, and more likely, if they were working, to be working part-time (Appendix A Tables 0.4-0.4.1). Former enrollees were more likely than current enrollees to be employed (62.9% vs.

55.4%) and more likely, if employed, to be working full-time (69.2% vs. 41.6%) (Appendix A Tables 0.4-0.4.1).

The proportion of current and former enrollees who reported being employed/self-employed and/or a student increased from 2016 to 2017 (from 54.3% to 60.0%) (Appendix B Table 0.3.2). Increases were found in many subgroups, including current enrollees (from 53.1% to 58.7%), former enrollees (from 58.2% to 64.1%), current and former enrollees with a chronic condition (from 49.3% to 55.8%), and current and former enrollees with a mental health condition and/or substance use disorder (from 48.1% to 54.2%) (Appendix B Table 0.3.2).

A greater percentage of current and former enrollees were employed and/or a student in 2017 compared to 2016.



Note: *Includes current and former enrollees

There was no statistically significant relationship between being employed in 2017 or reporting a positive employment-related outcome in 2017 (reporting that HMP "helped me do a better job at work", "helped me get a better job", or " has made me better able to look for a job") and indicating improved health from 2016 to 2017 (Appendix B Tables 0.2.1, 0.5.1).

About one in five employed current and former enrollees (22.3%) reported changing jobs in the last 12 months (Appendix A Table 0.4.2). Those age 19-34 were more likely than older age groups and former enrollees were more likely than current enrollees to report changing jobs in the last 12 months (28.5% vs. 20.2%) (Appendix A Table 0.4.2).

Current and former enrollees who were not employed most often reported being unable to work (41.3%) or out of work (33.6%); fewer reported being retired (8.5%), or not looking for work at this time (16.6%) (Appendix A Table 0.4.3). Women were less likely than men to report being out of work (27.0% vs. 40.9%) and more likely to report not looking for work at this time (24.6% vs. 7.9%) (Appendix A Table 0.4.3). Those age 35-50 and age 50-64 were more likely than those age 19-34 to report being unable to work (Appendix A Table 0.4.3). Those with a chronic condition were more likely than those without to report being unable to work (45.5% vs. 19.0%) or retired (9.6% vs. 2.5%) and less likely to report being out of work (30.3% vs. 51.3%) or not

looking for work (14.6% vs. 27.3%) (Appendix A Table 0.4.3). Former enrollees were more likely than current enrollees to report being unable to work (49.2% vs. 39.3%) or retired (12.9% vs. 7.4%) and less likely to report being out of work (26.2% vs. 35.5%) or not looking for work (11.7% vs. 17.9%) (Appendix A Table 0.4.3).

About half (47.5%) of current and former enrollees out of work had been out of work for less than a year, while most of those who reported being unable to work (87.4%) had been unable to work for one year or more (Appendix A Tables 0.4.3.1-0.4.3.2). Most who reported being unable to work said that was due to poor health (52.9%) or disability (41.0%) (Appendix A Table 0.4.3.3).

Use of HMP to avoid insurance gaps

Among employed current and former enrollees who had not changed jobs in the past 12 months, 80.1% indicated that HMP gave them insurance when they could not get insurance through their job (Appendix A Table 0.5).

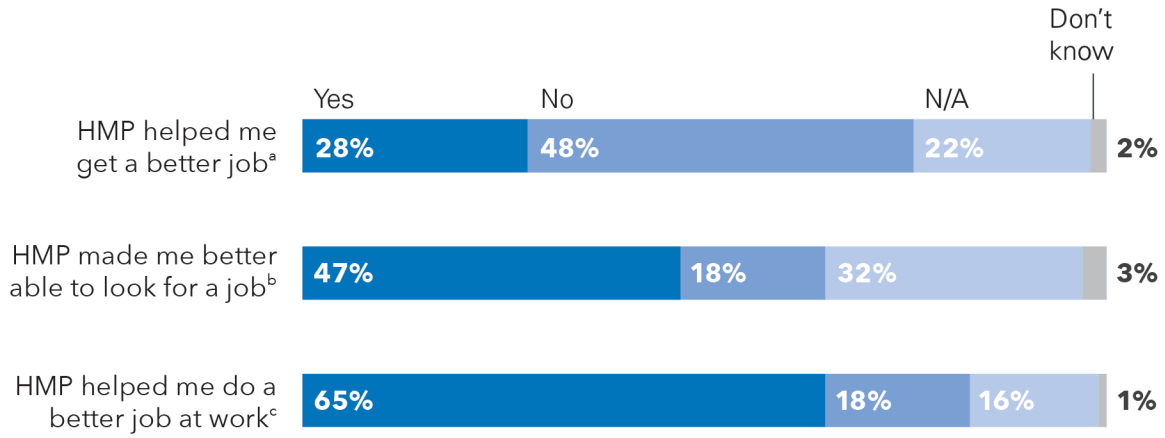
Among current and former enrollees in school, employed with a job change in the past 12 months, or not looking for work at this time, 77.4% reported that having HMP helped them stay insured between jobs or between school and a job (Appendix A Table 0.6).

Perspectives on the impact of HMP on employment-related outcomes

Current and former enrollees reported that HMP had a positive impact on their employment and job seeking ability:

- Among those who were employed or retired for less than one year, and not currently a student, 64.8% reported that getting health insurance through HMP helped them do a better job at work (Appendix A Table 0.7). Current enrollees were more likely than former enrollees to report this (67.8% vs 56.0%) (Appendix A Table 0.7).
- Among those who were employed and changed jobs in the last 12 months, 27.9% reported that having health insurance through HMP helped them get a better job (Appendix A Table 0.8).
- Among those who were out of work, 46.9% reported that having health insurance through HMP has made them better able to look for a job (Appendix A Table 0.9).

Current and former enrollees reported that HMP had a **positive impact on their employment and job seeking ability.**



Notes: [a]Among those employed/self-employed who changed jobs in the last 12 months ; [b]Among those out of work; [c]Among those employed/self-employed or retired for less than one year and not currently a student

Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

Current health status

About one in three current and former enrollees (36.4%) reported that their health was excellent or very good; 36.6% reported that their health was good, 20.9% reported that their health was fair, and 6.0% reported that their health was poor (Appendix A Table 1.1).

Chronic health conditions

At the time of the 2017 HMV Follow-Up Survey, three in four current and former enrollees (74.7%) reported having at least one chronic condition (Appendix A Table 1.10.1). The most commonly reported chronic conditions* in 2017 were mood disorder (33.8%), hypertension (31.4%), and arthritis or a related condition (27.6%) (Appendix A Table 1.10.1). Other conditions reported included asthma (16.9%), diabetes (10.3%), or a heart condition or heart disease (9.8%) (Appendix A Table 1.10.1).

Current enrollees were more likely than former enrollees to have at least one chronic condition (78.3% vs. 71.7%) and to have two or more chronic conditions (53.6% vs. 46.6%) (Appendix B Tables 1.1.2-1.1.3).

*Respondents were able to provide multiple responses to the survey question.

Self-reported change in health

Most current and former enrollees reported that in the past year their physical health had improved (29.6%) or stayed the same (56.1%), their mental health had improved (28.4%) or stayed the same (58.6%), and their oral health had improved (21.0%) or stayed the same (60.7%) (Appendix A Tables 1.3, 1.5, 1.7). Those with a chronic condition were more likely than those without to report that their physical health got worse (17.4% vs. 2.9%), their mental health got worse (14.5% vs. 6.3%), and their oral health got worse (19.3% vs. 13.1%) (Appendix A Tables 1.3, 1.5, 1.7). Current enrollees were more likely than former enrollees to report improved physical health (31.4% vs. 23.8%) and improved oral health (22.8% vs. 15.1%) in the past year (Appendix A Tables 1.3, 1.7).

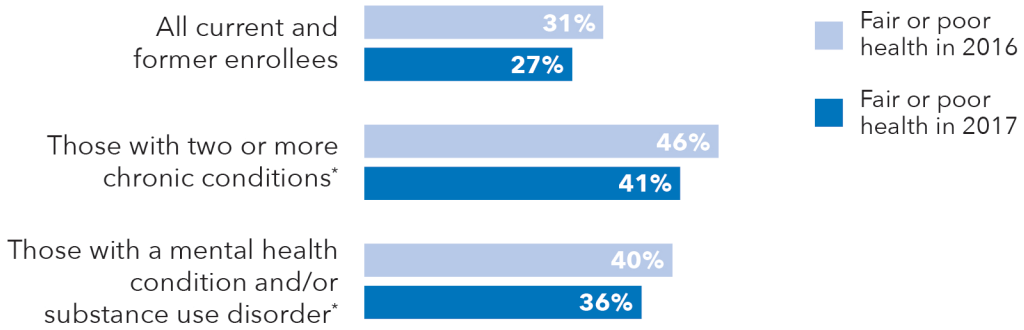
In multivariate analysis, current and former enrollees were less likely to report improved oral health in 2017 than they were in 2016 (adjusted odds ratio (aOR)=0.29) (Appendix B Table 1.8.2).

There was no statistically significant difference in the likelihood of reporting improved oral health in 2016 or 2017 between current enrollees and former enrollees (Appendix B Table 1.8.1). Former enrollees were more likely than current enrollees to report that their oral health got worse in 2017 (23.0% vs. 16.3%; aOR=1.67) (Appendix B Tables 1.8.6-1.8.7).

Self-reported fair/poor health (change 2016-2017)

The proportion of current and former enrollees who reported fair/poor health decreased from 2016 to 2017 (from 30.7% to 27.0%; aOR=0.66) (Appendix B Tables 1.3.2-1.3.3). Decreases in the proportion reporting fair/poor health were found in many subgroups of current and former enrollees including those with a chronic condition (from 36.7% to 32.6%), those with two or more chronic conditions (from 45.6% to 40.9%), those with a mental health condition and/or substance use disorder (from 39.9% to 35.6%), and those with a mental health condition (from 40.8% to 36.1%) (Appendix B Table 1.3.2).

Fewer current and former enrollees reported fair or poor health in 2017 compared to 2016.



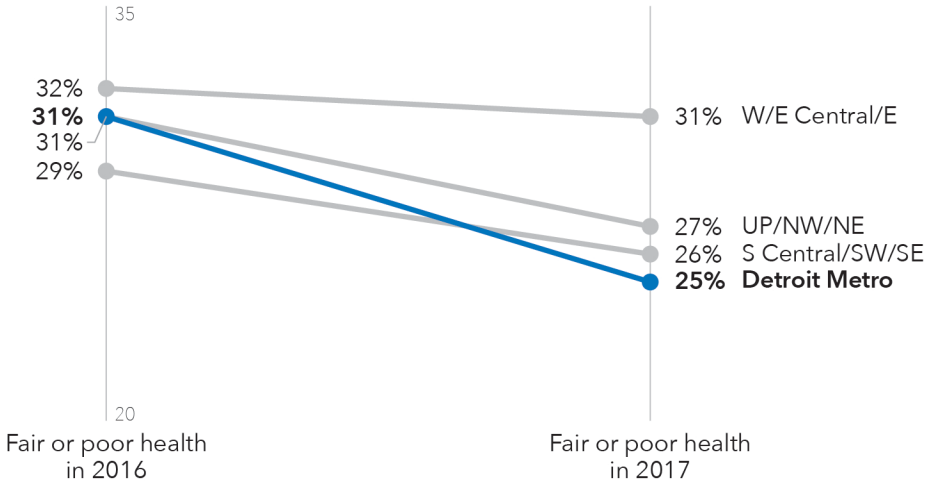
Note: *Includes current and former enrollees

Current and former enrollees with a mental health condition and/or substance use disorder were more likely than those without (12.7% vs. 9.0%) to have reported fair/poor health in 2016 but not in 2017 (Appendix B Table 1.4.1).

The proportion of current and former enrollees who reported fair/poor health decreased from 2016 to 2017 in subgroups with various chronic disease subgroups including: asthma (from 43.2% to 37.0%), diabetes (from 46.8% to 44.6%), and hypertension (from 43.0% to 38.0%) (Appendix B Table 1.3.6).

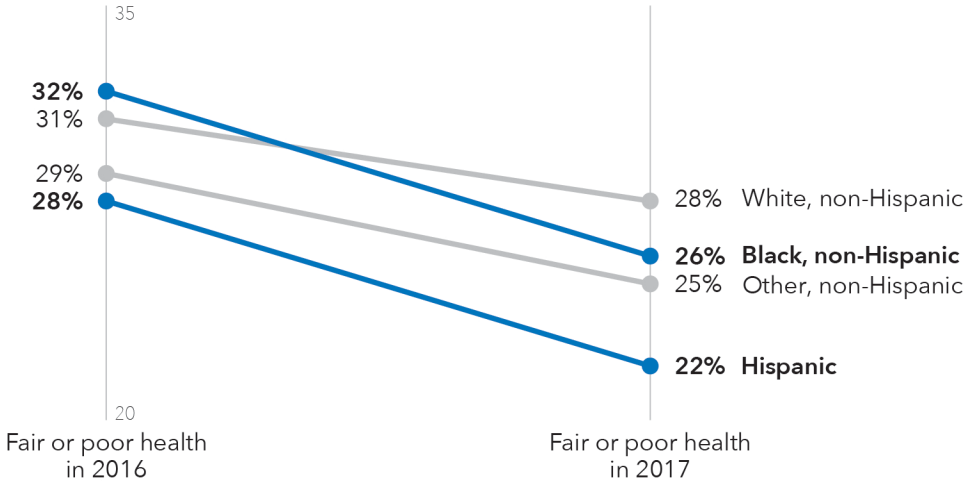
The proportion of former enrollees who reported fair/poor health increased from 2016 to 2017 in subgroups with various chronic disease subgroups including: arthritis (from 42.9% to 45.4%), cancer (from 52.7% to 56.6%), COPD (from 49.8% to 52.0%), and heart disease (from 48.3% to 50.7%) (Appendix B Table 1.3.6).

The change in the percentage of current and former enrollees reporting fair or poor health **varied by region with the biggest decrease in the Detroit Metro area.**



The largest decreases in reports of fair/poor health from 2016 to 2017 were observed in current and former enrollees who were Hispanic (from 28.3% to 21.5%), non-Hispanic Black (from 31.5% to 26.0%), from the Detroit Metro area (from 30.7% to 24.9%), and with an income 0-35% FPL (from 37.6% to 32.3%) (Appendix B Table 1.3.1).

The change in the percentage of current and former enrollees reporting fair or poor health **varied by race/ethnicity with the biggest decrease among those who were Black and Hispanic.**



Days poor physical health (change 2016-2017)

The mean number of days of poor physical health in the month prior to survey completion among current and former enrollees decreased from 2016 to 2017 (from 6.9 to 5.7) (Appendix B Table 1.5.2).

This decrease in days of poor physical health was also seen in various subgroups including both current enrollees (from 7.0 to 5.6) and former enrollees (from 6.8 to 5.8), those with a chronic condition (from 8.2 to 6.8), those with two or more chronic conditions (from 9.9 to 8.5), those with a mental health condition and/or substance use disorder (from 9.1 to 7.6), those with a mental health condition (from 9.5 to 8.0), and those with a substance abuse disorder (from 10.0 to 8.1) (Appendix B Table 1.5.2).

The mean number of days of poor physical health for current and former enrollees decreased from 2016 to 2017 among all chronic disease subgroups including: asthma, arthritis, cancer, COPD, diabetes, hypertension, and heart disease (Appendix B Table 1.5.6).

Days poor mental health (change 2016-2017)

There was no statistically significant decrease in the mean number of days of poor mental health in the month prior to survey completion among current and former enrollees from 2016 to 2017 (Appendix B Tables 1.6.2-1.6.3).

Days missed due to poor physical/mental health (change 2016-2017)

There was no statistically significant decrease, from 2016 to 2017, in the mean number of days, in the month prior to the survey, during which poor physical/mental health kept them from doing usual activities (Appendix B Tables 1.7.2-1.7.3).

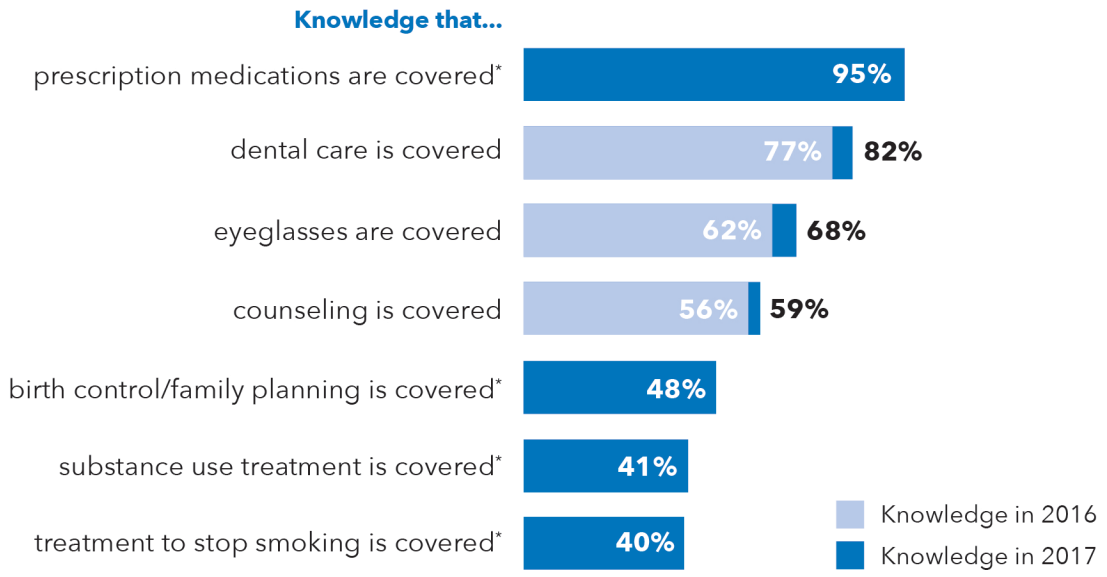
Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

Knowledge of HMP covered benefits

The majority of current enrollees knew that HMP covers prescription medications (95.1%), dental care (81.6%), eyeglasses (67.9%), and counseling for mental or emotional problems (58.8%) (Appendix A Tables 2.1-2.3, 2.6). Nearly half knew that HMP covers birth control or family planning (48.1%) (Appendix A Table 2.5). Less than half knew that HMP covers substance use treatment (41.4%) and treatment to stop smoking (39.7%) (Appendix A Tables 2.4, 2.7).

In 2017 compared to 2016, current enrollees were more likely to know that dental care is covered by HMP (81.6% vs. 77.0%; aOR=1.51) and that eyeglasses are covered by HMP (67.9% vs. 61.5%) (Appendix B Tables 2.1.1-2.1.2).

There is room for improvement in current enrollees' **knowledge of some HMP covered benefits.**



Note: *Question was not asked in 2016

Knowledge of HMP cost-sharing requirements and healthy behavior rewards

Nearly one in three current enrollees (31.3%) were aware that there is a limit or maximum on the amount they might have to pay each year for HMP while more than half (52.2%) were unsure (Appendix A Table 2.14). Those with an income 0-35% FPL were less likely than those with higher incomes to know that there is limit on the amount they might have to pay (Appendix A Table 2.14).

When asked whether they could get a reduction in the amount they have to pay if they complete a health risk assessment, 27.5% of current enrollees said yes, while 60.4% said they did not know (Appendix A Table 2.9). Awareness of getting a payment reduction for completing the HRA was greater among men compared to women (31.1% vs. 24.3%) and among those with an income 100-133% FPL compared to those with lower incomes (Appendix A Table 2.9).

The majority of current enrollees (72.4%) were aware that some kinds of visits, tests, and medicines have no copays (Appendix A Table 2.10). However, current enrollees were slightly less likely in 2017 than in 2016 to know that some visits, tests, and medicines have no copays (72.4% vs. 76.5%) (Appendix B Table 2.3.1).

Nearly one in three current enrollees (32.6%) erroneously thought they could be disenrolled from HMP for not paying their bill and half (50.8%) were unsure (Appendix A Table 2.8). Those with an income 100-133% were more likely than those with lower incomes to believe they could be disenrolled for this reason (Appendix A Table 2.8). Current enrollees were more likely in 2017 than in 2016 to know that they cannot be dropped from HMP for not paying (16.6% vs. 13.3%) (Appendix B Table 2.3.1).

Experiences with MI Health Account

Most current enrollees (78.4%) reported that they received a MI Health Account statement in the past year (Appendix A Table 2.11). Those with lower incomes were less likely to report receiving a MI Health Account statement (Appendix A Table 2.11). Among current enrollees who reported receiving a MI Health Account statement in the past year, 84.8% strongly agreed or agreed that they carefully review each statement to see how much they owe, 82.6% strongly agreed or agreed that the statements help them be more aware of the cost of health care, and 31.0% strongly agreed or agreed that the information in the statement led them to change some of their health care decisions (Appendix A Tables 2.11.1-2.11.3). Enrollees age 19-34 were less likely than older enrollees to agree with these views (Appendix A Tables 2.11.1-2.11.3). Current enrollees who were non-Hispanic White and those with an income 36-99% FPL were the least likely to agree that the information in the statement led them to change some of their health care decisions (Appendix A Table 2.11.3).

Current enrollees were more likely to recall having received a MI Health Account statement in 2017 compared to 2016 (78.4% vs. 72.3%) (Appendix B Table 2.4.1). However, current enrollees who received a statement were less likely in 2017 compared to 2016 to strongly agree or agree that they carefully review MI Health Account statements (84.8% vs. 89.3%) and that MI Health Account statements help them be aware of health care costs (82.6% vs. 88.3%) (Appendix B Table 2.4.1).

Perspectives on cost-sharing

The majority of current enrollees strongly agreed or agreed that the amount they have to pay for HMP overall seems fair (84.1%) and the amount they pay for HMP is affordable (86.7%) (Appendix A Tables 2.12-2.13).

The majority of current and former enrollees strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea (91.0%) and that everyone should have to pay something for their health care (53.7%) (Appendix A Tables 2.20-2.21).

In 2017 compared to 2016, current enrollees were less likely to strongly agree or agree that the amount they have to pay overall for HMP seems fair (84.1% vs. 88.7%) and that the amount they have to pay for HMP is affordable (86.7% vs. 90.1%) (Appendix B Table 2.6.1).

Perspectives on HMP coverage

The majority of all current and former enrollees (97.3%) strongly agreed or agreed that it is very important for them personally to have health insurance (Appendix A Table 2.19).

Most current enrollees strongly agreed or agreed that having HMP has taken a lot of stress off them (91.4%) and that without HMP they would not be able to go to the doctor (88.5%) or the dentist (83.6%); those with a chronic condition were more likely than those without to strongly agree or agree with these statements (Appendix A Tables 2.15-2.17).

Current enrollees were more likely in 2017 than in 2016 to strongly agree or agree that having HMP has taken away a lot of stress (91.4% vs. 87.9%) and that without HMP they would not be able to go to the doctor (88.4% vs. 84.3%) (Appendix B Table 2.8.1).

Questions or problems using HMP

Few current enrollees (11.0%) reported that they had questions or problems using their HMP coverage in the last 12 months (Appendix A Table 2.18). Among those who had questions or problems, the most commonly reported challenges* included: needing a service that was not covered (34.0%), difficulty/inability finding a provider (30.5%), and difficulty finding out information about HMP (24.7%) (Appendix A Table 2.18.1).

Current enrollees were less likely to report any questions or problems using HMP in 2017 compared to 2016 (11.0% vs. 15.6%) (Appendix B Table 2.9.1).

Perspectives on the Medicaid program

About half of all current and former enrollees (51.6%) strongly agreed or agreed that doctors treat people on Medicaid the same as people with private insurance, while 27.7% disagreed or strongly disagreed (Appendix A Table 2.22). Former enrollees were more likely than current enrollees to disagree or strongly disagree with this statement (34.7% vs. 25.7%) (Appendix A Table 2.22).

Most current and former enrollees (87.7%) strongly agreed or agreed that Medicaid helps people get a "leg-up" when they really need it (Appendix A Table 2.23). Current and former

*Respondents were able to provide multiple responses to the survey question.

enrollees who were non-Hispanic Black and those who were Hispanic agreed less with this statement (Appendix A Table 2.23).

Less than half of all current and former enrollees (41.9%) strongly agreed or agreed that many people on Medicaid do not want other people to know (Appendix A Table 2.24). Those who were older, non-Hispanic White, live in the UP/NW/NE region, and those who had higher incomes were more likely to agree with this statement, while those living in the Detroit Metro region agreed less (Appendix A Table 2.24).

Nearly half of all current and former enrollees (49.5%) strongly agreed or agreed that a lot of people in this country do not respect those on Medicaid (Appendix A Table 2.25). Those who were older, female, non-Hispanic White, live in the UP/NW/NE region, and those who have a chronic condition were more likely to agree with this statement, while those living in the Detroit Metro region agreed less (Appendix A Table 2.25). Former enrollees agreed more with this statement than current enrollees (Appendix A Table 2.25).

Most current and former enrollees (69.6%) disagreed or strongly disagreed that there should be a limit on how long someone can be covered by Medicaid (Appendix A Table 2.26). Those who were Hispanic were less likely to disagree with this statement (Appendix A Table 2.26).

Two in five former enrollees (40.6%) strongly agreed or agreed that many people are treated poorly when they are applying for Medicaid (Appendix A Table 2.27). Those living in the UP/NW/NE region were less likely to agree with this statement (Appendix A Table 2.27).

Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

Change in providers since HMP coverage ended

Among former enrollees, approximately one in six (15.5%) reported having to change one or more of their providers since their HMP coverage ended (Appendix A Table 3.4). Those who had to change one or more providers most commonly reported having to change their primary care provider (69.6%) (Appendix A Table 3.4.1).

Forgone health care

Current Enrollees

Few current enrollees (7.8%) reported not getting the health care they needed in the last 12 months (Appendix A Table 3.1). Among current enrollees who reported not getting the health care they needed:

- The most commonly reported types of forgone health care* were primary care (43.2%) and specialty care (28.3%); prescription medications was mentioned by 20.5% and mental health care by 9.2% (Appendix A Table 3.1.1).

*Respondents were able to provide multiple responses to the survey question.

- The most commonly reported reason for not getting the health care they needed*, regardless of the type of health care, was difficulty getting an appointment (25.7%); 15.5% reported needing a service that was not covered and 36.3% reported other reasons (Appendix A Table 3.1.1.1).

Individuals with a chronic condition were more likely than those without to report forgone health care in the last 12 months (9.1% vs. 2.8%; aOR=4.07) (Appendix B Tables 3.1.1, 3.1.5).

Individuals with a mental health condition were more likely than those without to report forgone health care in the last 12 months (10.7% vs. 4.9%; aOR=2.37) (Appendix B Tables 3.1.3, 3.1.5).

Individuals with a substance use disorder were more likely than those without to report forgone health care in the last 12 months (13.6% vs. 6.2%; aOR=2.53) (Appendix B Tables 3.1.4-3.1.5).

Former Enrollees

About one in six former enrollees (17.1%) reported not getting the health care they needed since their HMP coverage ended (Appendix A Table 3.5). Among former enrollees who reported not getting the health care they needed:

- The most commonly reported types of forgone health care* were primary care (46.2%), prescription medications (25.0%), and specialty care (16.2%) (Appendix A Table 3.5.1).
- The most commonly reported reasons for not getting the health care they needed*, regardless of the type of health care, were no insurance coverage (45.5%) and cost (36.0%) (Appendix A Table 3.5.1.1).

In multivariate analysis limited to former enrollees, individuals with Medicaid coverage (aOR=0.25) or private insurance from an employer (aOR=0.12) were much less likely than individuals who were uninsured to report forgone health care since their HMP coverage ended (Appendix B Table 3.1.7).

Comparing Current and Former Enrollees

Former enrollees were more likely than current enrollees to report forgone health care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (17.1% vs. 7.8%) (Appendix B Table 3.1.8).

Current enrollees were less likely than former enrollees to report forgone health care due to financial reasons (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (1.6% vs. 13.5%; aOR=0.09) (Appendix B Tables 3.2.1-3.2.2).

*Respondents were able to provide multiple responses to the survey question.

Current enrollees were less likely than former enrollees with private insurance to report forgone health care due to financial reasons (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (1.6% vs. 4.9%; aOR=0.25) (Appendix B Tables 3.2.3-3.2.4).

Forgone dental care

Current Enrollees

One in six current enrollees (16.4%) reported not getting the dental care they needed in the last 12 months (Appendix A Table 3.2). Those with a mental health condition were more likely than those without to report forgone dental care in the last 12 months (19.6% vs. 13.3%) (Appendix B Table 3.3.1). Among current enrollees who reported not getting the dental care they needed, the most commonly reported reasons for not getting the dental care they needed* were needing a service that was not covered (30.7%) and difficulty/inability finding a provider (21.5%); 13.1% reported cost as a reason (Appendix A Table 3.2.1). Among current enrollees, individuals who knew that HMP covers dental care were less likely than others to report forgone dental care in the last 12 months (15.0% vs. 23.0%; aOR=0.57) (Appendix B Tables 3.3.3-3.3.4).

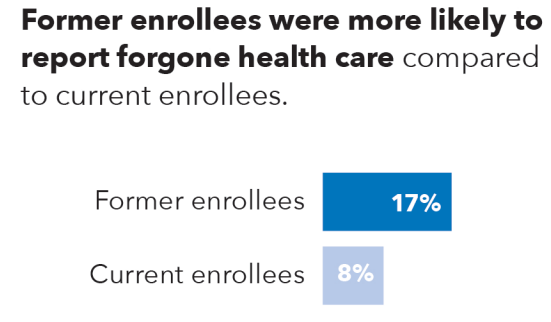
In multivariate analyses limited to current enrollees, individuals with a chronic condition (aOR=1.45) or a mental health condition (aOR=1.60) were more likely than individuals without these conditions to report forgone dental care in the last 12 months (Appendix B Table 3.3.5).

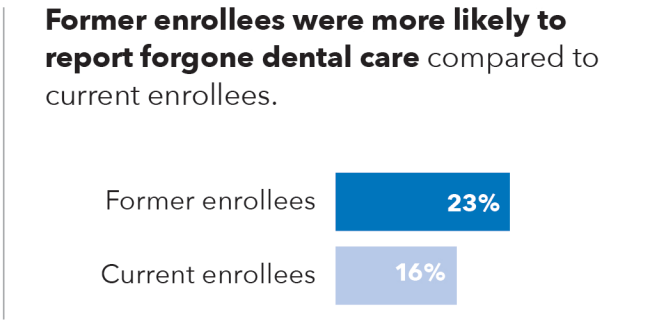
Former Enrollees

Nearly one in four former enrollees (23.3%) reported not getting the dental care they needed since their HMP coverage ended (Appendix A Table 3.6). Among former enrollees who reported not getting the dental care they needed, the most commonly reported reasons for not getting the dental care they needed* were no insurance coverage (46.1%) and cost (23.8%) (Appendix A Table 3.6.1).

Comparing Current and Former Enrollees

Former enrollees were more likely than current enrollees to report forgone dental care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (23.3% vs. 16.4%; aOR=1.58) (Appendix B Tables 3.3.6-3.3.7).





*Respondents were able to provide multiple responses to the survey question.

Out-of-pocket costs

In the last 12 months, 65.7% of current enrollees spent less than $50 out-of-pocket for their own medical and dental care (Appendix A Table 3.3).

Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

Health behaviors and health education

Exercise

More than one in four current enrollees (28.4%) reported exercising for at least 20 minutes every day in the last 7 days, and another 34.3% reported exercising for at least 20 minutes for 3-6 of the last 7 days (Appendix A Table 4.1). Those age 51-64 were more likely than younger enrollees to report exercising every day while those age 19-34 were more likely than older enrollees to report exercising 3-6 of the last 7 days (Appendix A Table 4.1).

About half of current enrollees (46.2%) reported talking with a health professional about exercise (Appendix A Table 4.4). Current enrollees with a chronic condition were more likely than those without to report this (50.5% vs. 30.5%) (Appendix A Table 4.4).

Among current enrollees, there was no statistically significant relationship between increased or maintained exercise frequency from 2016 to 2017 and completion of an HRA (Appendix B Table 4.2.2). This was also true for current enrollees with a chronic condition and those with a mental health condition and/or substance use disorder (Appendix B Tables 4.2.3, 4.2.5-4.2.7).

Diet/nutrition

About half of current enrollees (46.4%) reported talking with a health professional about diet/nutrition (Appendix A Table 4.5). Women were more likely than men (50.1% vs. 42.0%) and current enrollees with a chronic condition were more likely than those without to report this (51.0% vs. 29.4%) (Appendix A Table 4.5).

Over half of current enrollees (54.0%) reported drinking sugary drinks two or fewer days in the last 7 days (Appendix A Table 4.2). Those age 51-64 were the most likely (43.4%) to report 0 days of sugary drink consumption in the last 7 days (Appendix A Table 4.2).

From 2016 to 2017, sugary drink consumption decreased for more than one in three current enrollees (35.0%), increased for 25.1% of current enrollees, and stayed the same for 39.9% (Appendix B Table 4.3.1).

Among current enrollees, there was no statistically significant relationship between a change in sugary drink consumption from 2016 to 2017 and discussing diet/nutrition with a health professional in 2016 or 2017 or having an outpatient visit (Appendix B Table 4.3.1).

Among current enrollees, there was no statistically significant relationship between decreased or maintained sugary drink consumption from 2016 to 2017 and completion of an HRA (Appendix B Table 4.3.2). This was also true for current enrollees with a chronic condition and those with a mental health condition and/or a substance use disorder (Appendix B Tables 4.3.3, 4.3.5-4.3.7).

One in three current enrollees (33.9%) reported eating 3 or more servings of fruit and vegetables every day in the last 7 days (Appendix A Table 4.3). Men were more likely than women to report 0 days of eating 3 or more servings of fruit and vegetables (17.3% vs. 8.6%) (Appendix A Table 4.3).

Among current enrollees, those who completed an HRA were more likely than those who did not to have increased or maintained fruit and vegetable consumption from 2016 to 2017 (48.2% vs. 42.3%); this was also true among various subgroups including current enrollees with a chronic condition (48.3% vs. 42.3%) and current enrollees with a substance use disorder (54.9% vs. 41.8%) (Appendix B Tables 4.4.1-4.4.2, 4.4.6).

Alcohol use

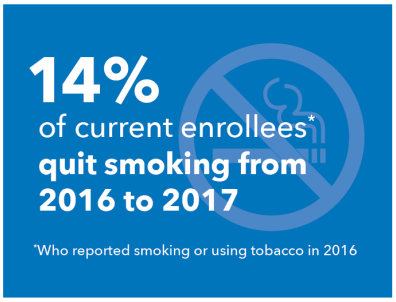
Few current enrollees (6.6%) reported binge drinking three or more days in the last 7 days (Appendix A Table 4.6). Among those who reported any binge drinking in the last 7 days, 33.1% reported talking with a health professional about safe alcohol use (Appendix A Table 4.6.1).

About half of current enrollees (52.6%) who reported binge drinking in 2016 decreased their frequency of binge drinking between 2016 and 2017 (Appendix B Table 4.5.1). This was more likely if they had an outpatient visit (55.3% vs. 23.4%) (Appendix B Table 4.5.1). There was no statistically significant relationship between decreasing frequency of binge drinking and completion of an HRA (Appendix B Tables 4.5.2-4.5.7).

Tobacco use

About one in three current enrollees (36.4%) reported smoking or using tobacco in the last 30 days (Appendix A Table 4.7). Those with an income 0-35% FPL were more likely than those with higher incomes and current enrollees with a chronic condition were more likely than those without to report smoking or using tobacco in the last 30 days (Appendix A Table 4.7). Among those who reported smoking or using tobacco in the last 30 days, 71.9% reported wanting to quit (Appendix A Table 4.7.1). Of those who said they would like to quit smoking or using tobacco, 91.0% reported working on quitting or cutting back (Appendix A Table 4.7.1.1). Among those who reported smoking or using tobacco in the last 30 days and wanting to quit, over half (52.2%) reported receiving advice or assistance from a health professional or their health plan on how to quit or cut back in the last 12 months (Appendix A Table 4.7.2).

Among current enrollees who reported smoking or using tobacco in 2016, 14.4% quit smoking or using tobacco from 2016 to 2017 (Appendix B Table 4.6.1). There was no statistically significant relationship between quitting smoking or using tobacco from 2016 to 2017 and completion of an HRA (Appendix B Table 4.6.1).



Drug use

Few current enrollees (5.4%) reported using drugs or medications in the last 30 days to affect mood or aid in relaxation (Appendix A Table 4.8). This proportion was not statistically different from the proportion in 2016 (6.1%) (Appendix B Table 4.8.1). Among those who reported using drugs or medications to affect mood or aid in relaxation, 49.9% used these drugs or medications almost every day (Appendix A Table 4.8.1). Among those who used drugs sometimes or almost every day, 43.8% reported speaking with a health professional about the use of these drugs or medications (Appendix A Table 4.8.1.1).

Among all current enrollees, those who completed an HRA were less likely than those who did not complete an HRA to report using drugs in the last 30 days (3.9% vs. 6.5%); this was also true among various subgroups including current enrollees with a chronic condition (4.4% vs. 7.3%), current enrollees with a mental health condition and/or substance use disorder (5.2% vs. 8.5%), and current enrollees with a mental health condition (4.9% vs. 8.1%) (Appendix B Tables 4.7.1-4.7.2, 4.7.4-4.7.5).

Health risk assessment

Self-reported HRA discussion

Nearly half of current enrollees (45.9%) said they discussed the HRA with their doctor or someone at their primary care provider's office in the last year (Appendix A Table 4.9).

Among current enrollees who reported discussing the HRA with their doctor or someone at their primary care provider's office, 88.5% chose to work on at least one health behavior (Appendix A Table 4.9.1). The most common behaviors* that current enrollees chose to work on were related to nutrition/diet (38.6%), exercise/activity (33.9%), reducing/quitting tobacco use (14.4%), and losing weight (13.3%) (Appendix A Table 4.9.1). Current enrollees were asked why they chose the healthy behavior they did and were able to provide multiple reasons. For these chosen health behaviors, the majority (between 71.2% and 82.7%) said they chose this behavior because it was something that they wanted to do anyway (Appendix A Table 4.9.1.1). Other reasons they reported were because the doctor suggested it (25.4% to 31.4%) or because it would help them improve their condition (4.6% to 16.1%) (Appendix A Table 4.9.1.1).

*Respondents were able to provide multiple responses to the survey question.

HRA completion with physician attestation

Current enrollees were more likely than former enrollees to have a completed HRA with physician attestation recorded in the data warehouse (43.9% vs. 28.8%) (Appendix B Table 4.9.1). Among current enrollees, those that had a PCP visit were much more likely than those who did not to have completed an HRA (46.6% vs. 8.2%) (Appendix B Table 4.9.2).

Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

Regular source of care

Current enrollees

Nearly all current enrollees (93.8%) reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health in the last 12 months (Appendix A Table 5.1). Those with a chronic condition were more likely than those without to report having a regular source of care in the last 12 months (95.7% vs. 86.8%) (Appendix A Table 5.1). Among current enrollees who reported having a place they would go for health care in the last 12 months, 69.7% reported a doctor's office, 20.5% a clinic, 6.1% an urgent care/walk-in clinic, and 2.6% reported the emergency room (ER) as their regular source of care (Appendix A Table 5.1.1).

Current enrollees who reported a PCP visit in the past 12 months were much less likely than those who did not to report having the ER or urgent care as a regular source of care in the last 12 months (2.4% vs. 15.0%) (Appendix B Table 5.2.5).

Among current enrollees who reported going to a doctor's office or clinic for their health care, 96.7% said this was their primary care provider (PCP) through their HMP coverage (Appendix A Table 5.1.2.1). Among all current enrollees, 93.9% reported having a PCP (Appendix A Table 5.1.3).

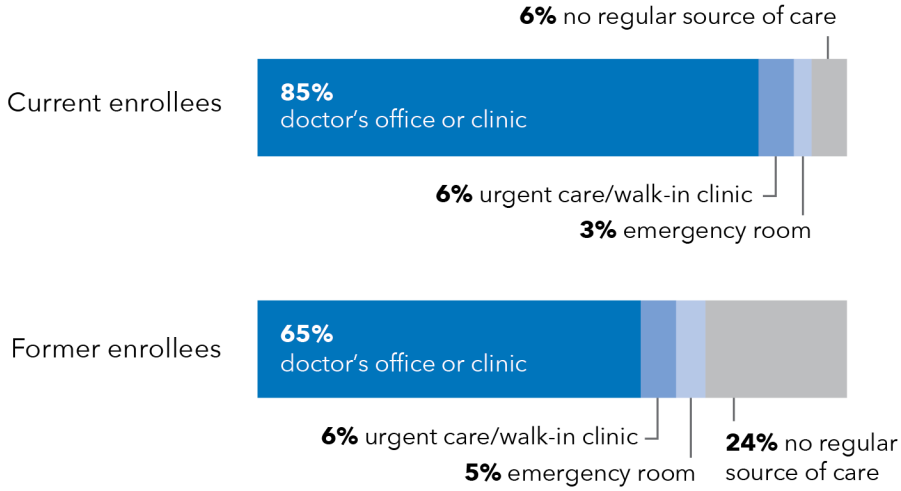
Among current enrollees who indicated they have a PCP, 82.6% reported that they had the same PCP as when they were surveyed last year (Appendix A Table 5.2). Among those who did not have the same PCP as last year, the most common reason current enrollees reported for changing their PCP were wanting a new PCP (32.5%), their PCP office moved or closed (19.0%), and their PCP retired (10.2%); 7.3% reported that the reason was because their PCP no longer accepted Medicaid (Appendix A Table 5.2.1).

Former enrollees

Three fourths of former enrollees (76.5%) reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health since their HMP coverage ended (Appendix A Table 5.4). Those with a chronic condition were more likely than those without to report having a regular source of care in the last 12 months (80.6% vs. 66.0%) (Appendix A Table 5.4). Among former enrollees who reported having a place they would go

for health care since their HMP coverage ended, 62.5% reported a doctor's office, 21.2% a clinic, 7.9% an urgent care/walk-in clinic, and 5.7% reported the ER as their regular source of care (Appendix A Table 5.4.1). Former enrollees who were non-Hispanic White were the most likely to report a doctor's office as their regular source of care (Appendix A Table 5.4.1). Men were more likely than women to report the ER as their regular source of care (8.8% vs. 2.6%) (Appendix A Table 5.4.1). Among former enrollees who reported going to a doctor's office or clinic for their primary health care, 78.7% reported still going to their HMP PCP (Appendix A Table 5.4.2.1).

Current enrollees were more likely than former enrollees **to have a regular source of care** and to report that it was a doctor's office or clinic.



Primary care utilization

The majority of current enrollees (85.6%) reported seeing their PCP in the past 12 months (Appendix A Table 5.3). Those with a chronic condition were more likely than those without to report seeing their PCP (88.9% vs. 73.2%) (Appendix A Table 5.3). Among those who reported not seeing their PCP in the past 12 months, the most common reason* given was that they were healthy and did not need to see a provider (57.0%) (Appendix A Table 5.3.1).

Most current enrollees (70.8%) said it was very easy or easy to get an appointment to see their PCP in the past 12 months (Appendix A Table 5.6). Among those who said it was difficult or very difficult to get an appointment, the most common reason* was difficulty getting an appointment soon enough (77.2%) (Appendix A Table 5.6.1).

Nearly all current enrollees had a claim for a primary care visit (92.9%) (Appendix B Table 5.1.1). In multivariate analysis limited to current enrollees, current enrollees with a mental health condition and/or substance use disorder had a greater number of primary care visits than those without such disorders (Appendix B Table 5.2.4).

*Respondents were able to provide multiple responses to the survey question.

Preventive services utilization

Nearly all current enrollees had a claim for at least one preventive service (92.4%) (Appendix B Table 5.1.1). Half of current enrollees (50.0%) (not restricted by age or gender) had a claim for cancer screening (Appendix B Table 5.1.1).

- 59.0% of women received cervical cancer screening
- 75.4% of women over age 50 received breast cancer screening
- 45.6% of current enrollees over age 50 had colorectal cancer screening

Among current enrollees with diabetes and/or heart disease, 42.0% had a prescription for a statin (Appendix B Table 5.1.2).

Among current enrollees who reported using tobacco in 2016 or 2017, 28.1% had a prescription for nicotine replacement and/or varenicline (Appendix B Table 5.1.3).

In multivariate analysis, the number of preventive services received by current enrollees was greater for those who:

- Reported having a PCP visit in the past 12 months compared to those who did not
- Completed an HRA compared to those who did not
- Reported discussing the HRA with a provider in the last year compared to those who did not
- Had better knowledge of HMP covered benefits and costs
- Had a greater number of primary care visits
  (Appendix B Tables 5.1.10-5.1.12)

In multivariate analysis limited to current enrollees, there were no statistically significant associations between the number of preventive services received by current enrollees and their knowledge of fee reductions for completing an HRA or agreeing that MI Health Account statements led them to change health care decisions (Appendix B Tables 5.1.10, 5.1.12).

Dental care utilization

Over half of current enrollees (54.4%) reported getting dental care in the last 12 months (Appendix A Table 5.5). Women were more likely than men to report getting dental care (59.2% vs. 48.9%) (Appendix A Table 5.5). Those with a chronic condition were less likely than those without (52.8% vs. 60.3%) and those age 51-64 less likely than younger enrollees to report getting dental care (Appendix A Table 5.5).

Two in three current enrollees (67.4%) had a claim for at least one dental visit (Appendix B Table 5.1.1). Among current enrollees, those who knew that dental care is covered by HMP were much more likely than those who did not know dental care is covered to have had a dental visit (74.7% vs. 35.1%; aOR=5.46) (Appendix B Tables 5.3.2-5.3.3). There was no statistically significant relationship between having a dental visit and remaining enrolled in HMP coverage in 2017 (Appendix B Table 5.3.1).

Self-reported emergency room use

One in three current enrollees (33.3%) reported going to the ER for care in the past 12 months (Appendix A Table 5.8). Women were more likely than men (37.4% vs. 28.5%) and those with a chronic condition were more likely than those without to report going to the ER in the past 12 months (37.9% vs. 16.6%) (Appendix A Table 5.8). Among current enrollees who reported going to the ER in the past 12 months, they could report multiple reasons for doing so; 70.9% reported that they went to the ER because it is the closest place to receive care, 66.3% reported that their doctor's office or clinic was not open, 55.6% reported that the problem was too serious for a doctor's office or clinic, 40.3% reported that they needed to get care at a time when they would not miss work or school, 23.5% reported that they went to the ER because they get most of their care at the ER, and 15.0% reported arriving to the ER by ambulance (Appendix A Tables 5.8.3.1-5.8.3.6).

About one in five former enrollees (21.0%) reported going to the ER for care since their HMP coverage ended (Appendix A Table 5.7). Former enrollees with a chronic condition were more likely than those without to report going to the ER since their HMP coverage ended (24.0% vs. 13.4%) (Appendix A Table 5.7).

Among those who reported an ER visit, nearly one in five current and former enrollees (19.1%) tried to contact their usual provider's office before going to the ER (Appendix A Table 5.8.1). Women were more likely than men to report this (23.5% vs. 12.5%) (Appendix A Table 5.8.1). Of those current and former enrollees who tried to contact their usual provider's office before going to the ER, 76.5% reported talking to someone (Appendix A Table 5.8.1.1). Among those who talked to someone from their provider's office before going to the ER, the most common reason* for going to the ER was because they were told to go to the ER (63.2%) (Appendix A Table 5.8.2).

Among current enrollees, those who reported a PCP visit in the past 12 months were more likely than those who did not to say they tried to contact their PCP before going to the ER (21.3% vs. 8.4%) (Appendix B Table 5.4.1).

Current enrollees were more likely than former enrollees to report an ER visit in 2016 or 2017 (50.2% vs. 44.1%); this was also true among those with a chronic condition (54.8% vs. 46.9%), those with a mental health condition and/or substance use disorder (63.2 vs 52.8%), and those with a chronic condition and a mental health condition and/or substance use disorder (65.3% vs. 55.1%) (Appendix B Tables 5.5.1-5.5.4).

In multivariate analysis, there was no statistically significant difference between reporting an ER visit in 2016 or 2017 and HMP enrollment status in 2017 (Appendix B Table 5.5.5). However, former enrollees were less likely than current enrollees to report an ER visit in 2016 or 2017 when limited to those with a chronic condition (aOR=0.74), those with a mental health condition and/or substance use disorder (aOR=0.64), and those with a chronic condition and a mental health condition and/or substance use disorder (aOR=0.64) (Appendix B Table 5.5.5).

*Respondents were able to provide multiple responses to the survey question.

Emergency room utilization

Among current enrollees, claims data indicated that 63.3% had no ER visits in period 3 (0-12 months post-sampling for the 2016 HMV Enrollee Survey), 32.9% had 1-4 ER visits, and 3.9% had 5 or more ER visits (Appendix B Table 5.6.1). Those with an income of 0-35% FPL were more likely than those with higher incomes to have 5 or more ER visits in period 3 (Appendix B Table 5.6.1). Those who were age 51-64, male, had a bachelor's or post graduate degree, who were employed, and who did not report difficulty getting an appointment with their PCP were more likely to have no ER visits in period 3 (Appendix B Tables 5.6.1-5.6.2). Those who were non-Hispanic Black, in fair/poor health, who reported health literacy challenges in 2016, and who reported forgone health care in the last 12 months were more likely to have 1-4 ER visits in period 3 (Appendix B Tables 5.6.1-5.6.2).

Most current enrollees (97.5%) did not have any low complexity ER visits in period 3 (Appendix B Table 5.6.10).

Care needs after hours

One in four current enrollees (24.4%) reported that there was a time when they needed help or advice when their usual clinic or doctor's office was closed (Appendix A Table 5.9). Women were more likely than men (29.0% vs. 18.9%) and those with a chronic condition were more likely than those without to report this (26.3% vs. 17.3%) (Appendix A Table 5.9). Current enrollees who reported needing help or advice when their usual clinic or doctor's office was closed were asked what they did to get the health care help or advice they needed and the most common responses* were that they went to the ER (36.4%), they went to urgent care or a walk-in clinic (29.1%), and that they got advice elsewhere (16.2%) (Appendix A Table 5.9.1).

Perspectives on care seeking

Most current enrollees (83.8%) strongly agreed or agreed that their preference is to go straight to a doctor and ask his or her opinion if they have a medical problem (Appendix A Table 5.10).

Few former enrollees (11.6%) strongly agreed or agreed that they are often embarrassed to go see a doctor (Appendix A Table 5.11). Few former enrollees (12.6%) strongly agreed or agreed that getting regular check-ups is not very important when you are healthy (Appendix A Table 5.12). More than two in three former enrollees (68.5%) strongly agreed or agreed that going to public or free clinics is just fine with them (Appendix A Table 5.13). More than one in five former enrollees (22.4%) strongly agreed or agreed that sometimes they go to the ER because they know they cannot be turned away (Appendix A Table 5.14). About one in three former enrollees (33.6%) strongly agreed or agreed that sometimes they go to the ER because they do not have another place to get care (Appendix A Table 5.15).

*Respondents were able to provide multiple responses to the survey question.

Checking cost-sharing before seeking care

One in four current and former enrollees (26.9%) reported checking how much they would have to pay for a doctor's visit, medication, or other health service before they received care in the past 12 months (Appendix A Table 5.16). Former enrollees were more likely than current enrollees to report checking cost before they received care (37.4% vs. 23.7%) (Appendix A Table 5.16). Current and former enrollees most commonly reported checking the cost before receiving* primary care (46.0%) and prescription medications (29.6%) (Appendix A Table 5.16.1).

Seeking out and using quality information in health care decisions

Few current and former enrollees (14.8%) reported comparing quality ratings for health care services at different places in the past 12 months (Appendix A Table 5.17). Former enrollees were more likely than current enrollees to report comparing quality ratings (18.9% vs. 13.6%) (Appendix A Table 5.17). Current and former enrollees most commonly reported comparing quality ratings for* primary care (49.4%) (Appendix A Table 5.17.1).

Talking with doctor about treatment options and costs

About one in four current and former enrollees (24.1%) reported asking a provider to recommend a less costly prescription drug in the past 12 months (Appendix A Table 5.18). Women were more likely than men (30.1% vs. 17.4%) and those with a chronic condition more likely than those without (26.2% vs. 17.2%) to report this (Appendix A Table 5.18). Former enrollees were more likely than current enrollees to report asking for a less costly prescription drug (30.3% vs. 22.2%) (Appendix A Table 5.18).

Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

Predictors of disenrollment

There was a relationship between the number of places lived in the past three years and HMP coverage in 2017. As the number of places lived increased, so did the likelihood that a respondent would no longer be enrolled in HMP (Appendix B Table 6.1.2). In multivariate analysis, those who lived in two (aOR=1.55), three (aOR=1.86), or four or more places in the past three years (aOR=2.56) were more likely than those who lived in one place to be no longer enrolled in HMP (Appendix B Table 6.1.4). However, there was no statistically significant relationship between HMP coverage in 2017 and experience of homelessness in the last 12 months (Appendix B Table 6.1.1).

In multivariate analysis, those with an income of 36-99% FPL (aOR=1.79) and those with an income of 100-133% FPL (aOR=2.07) were more likely than those with an income of 0-35% FPL to disenroll from HMP (Appendix B Table 6.1.4).

*Respondents were able to provide multiple responses to the survey question.

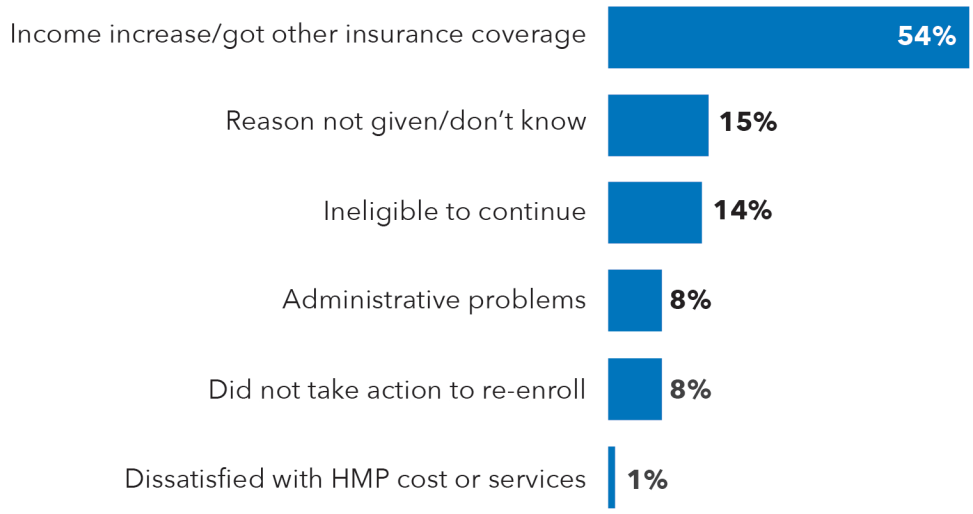
In multivariate analysis, there was no statistically significant relationship between marital status, employment status in 2017, or employment gain from 2016 to 2017 and whether they remained enrolled in HMP (Appendix B Table 6.1.4).

There was no difference between those no longer enrolled and those still enrolled in HMP in their views in the 2016 survey of the affordability of HMP, the fairness of HMP costs, or the importance of health insurance (Appendix B Table 6.1.3).

Reasons for disenrollment

Among all former enrollees, the most common reason for disenrollment was an income increase or getting other coverage (53.7%), with 13.8% saying they were [otherwise] ineligible to continue (Appendix B Table 6.2.1). Fewer former enrollees reported administrative problems (8.6%) or not taking action to re-enroll (7.7%) (Appendix B Table 6.2.1).

Former enrollees most commonly reported that their HMP coverage ended as a result of **an income increase** or **getting other insurance coverage**.



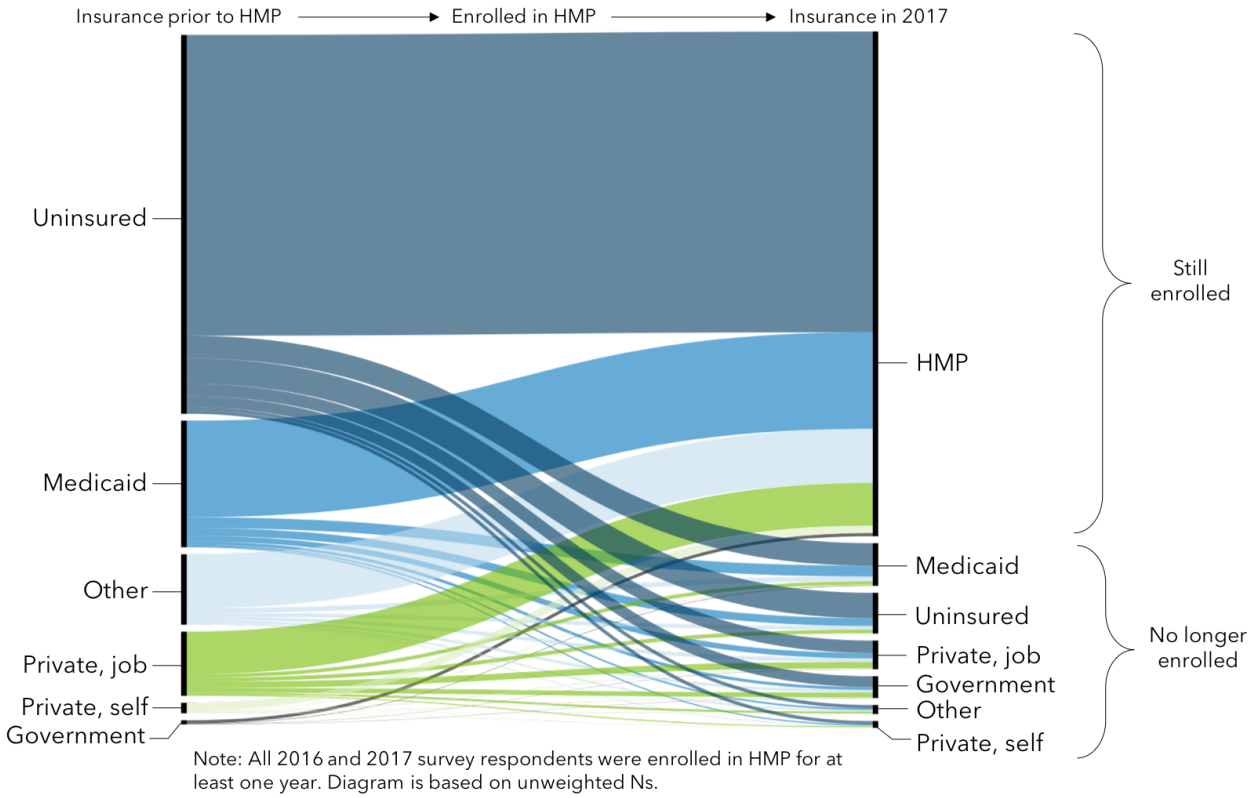
Most former enrollees (68.2%) said it was not their choice to end their HMP enrollment (Appendix A Table 6.2). Among those who said it was not their choice to end their HMP enrollment, 16.1% said they did not know why their HMP coverage ended (Appendix A Table 6.2.2). The most commonly reported reasons for why their HMP coverage ended* included experiencing an increase in income (25.0%) and getting other coverage (22.2%) (Appendix A Table 6.2.2). Among those who reported choosing to end their HMP enrollment, 77.1% said they decided to end it because they got other insurance coverage, 6.2% said they decided to end it because they were not satisfied with HMP, and 28.3% said they decided to end it for some other reason (Appendix A Table 6.2.1).

*Respondents were able to provide multiple responses to the survey question.

Insurance status since HMP coverage ended

Among current and former enrollees who reported on the 2016 survey that they were uninsured prior to HMP enrollment (57.3%), a majority (79.1%) were still enrolled in HMP at the time of the 2017 survey, 6.9% reported being uninsured, 5.9% reported Medicaid insurance, 3.6% reported private, employment-based insurance, 2.5% reported government (Medicare, VA or CHAMPUS) insurance, 1.1% reported some other, unknown, or unspecified type of insurance, and 0.8% reported private insurance purchased by themselves or someone else (includes Marketplace coverage) (Appendix B Table 6.5.4).

Change in insurance status for HMP enrollees who participated in the 2016 and 2017 HMV surveys.



At the time of the 2017 survey, 29.9% of former enrollees reported being uninsured, 26.6% reported Medicaid insurance, 21.5% reported private, employment-based insurance, 11.4% reported Medicare, VA or CHAMPUS insurance, and 4.0% reported private insurance purchased by themselves or someone else (Appendix B Table 6.5.1).

Over half of former enrollees (54.0%) reported being insured every month since their HMP coverage ended, 16.1% reported being insured for some of the months since their HMP coverage ended, and 27.7% reported being uninsured every month since their HMP coverage ended (Appendix A Table 6.1).

Among former enrollees, there was no statistically significant relationship between experiencing a gain in employment and being insured (Appendix B Table 6.3.1).

In multivariate analysis, former enrollees were more likely to have:

- private, job- or union-provided insurance if they were employed than if they were not employed (aOR=13.07)
- private insurance purchased by themselves or another if they were employed than if they were not employed (aOR=5.48)
- Medicaid (non-HMP) if they were women (aOR=2.89)
- Medicare, VA or CHAMPUS if they were age 51-64 compared to age 19-34 (aOR=9.94) or had an income of 100-133% FPL compared to an income of 0-35% FPL (aOR=3.31) (Appendix B Tables 6.5.2-6.5.3)

Among those covered by insurance purchased by themselves or someone else, 69.8% said the insurance was purchased through the marketplace known as Healthcare.gov (Appendix A Table 6.3.6.3). Half of those who said the insurance was purchased through the marketplace (52.3%) said they or their family member received a subsidy (Appendix A Table 6.3.6.4).

Among former enrollees currently covered by a private health insurance plan that is in their own name:

- 18.8% reported that at least one other family member is covered under their current health insurance plan (Appendix A Table 6.3.11).
- 77.3% reported that the health plan has a deductible; 50.6% of those with a deductible for an individual plan said the annual deductible is less than $1,300 and 51.0% of those with a deductible for a plan covering two or more people said the annual deductible is less than $2,600 (Appendix A Tables 6.3.12-6.3.12.2).

Cost of insurance since HMP coverage ended

Among former enrollees who reported being insured at the time of the survey, 43.7% reported that their current health insurance premiums are $0 (Appendix A Table 6.3.9).

Nearly half of former enrollees (47.0%) reported that the amount they currently pay for their health insurance in a typical month is a little or a lot more than what they were paying with their HMP coverage, 39.4% said it is about the same, and 7.7% said it is less (Appendix A Table 6.8). Those with an income of 100-133% FPL were more likely to report that the amount they currently pay is a lot more than what they were paying with HMP (Appendix A Table 6.8).

Among former enrollees who reported being insured at the time of the survey, a majority strongly agreed or agreed that the amount they pay now for their health insurance seems fair (69.9%) and is affordable (72.4%) (Appendix A Tables 6.5, 6.7).

Problems paying medical bills since HMP coverage ended

More than one in five former enrollees (22.0%) reported having problems paying medical bills since their HMP coverage ended (Appendix A Table 6.9). Among those who reported having problems paying medical bills, 80.7% said their problems paying medical bills have gotten worse since their HMP coverage ended; those from the Detroit Metro region were more likely

than other regions to report that their problems paying medical bills have gotten worse (Appendix A Table 6.9.1).

Perspectives on HMP cost-sharing and coverage since HMP coverage ended

Nearly all former enrollees strongly agreed or agreed that the amount they paid for HMP seemed fair (91.9%) and was affordable (94.4%) (Appendix A Tables 6.4, 6.6). Most former enrollees (81.5) strongly agreed or agreed that people without health insurance need to worry a lot about being wiped out financially (Appendix A Table 6.10). Nearly half of former enrollees (49.0%) strongly agreed or agreed that they worry more about something bad happening to their health since their HMP coverage ended (Appendix A Table 6.11).

Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

Not applicable to the 2017 HMV Follow-Up Survey.

Limitations

The 2017 HMV Follow-Up Survey was administered with those who consented to be recontacted in the 2016 HMV Enrollee Survey. Out of 4,106 respondents in 2016, 3,957 (96.4%) consented. While our analysis of non-response bias indicated little difference between those who consented to be recontacted compared to those who did not, there may be some bias due to sampling only those who consented to follow-up.

While the survey was available in three languages, it was not available in all languages spoken by HMP enrollees; however, only 2 sampled enrollees were deemed ineligible because the survey was not available in their language.

As with any survey, HMV survey responses may reflect social desirability or recall bias. While many measures were based on those used in large national surveys, some questions were newly developed specifically to assess reasons for and experiences related to disenrollment. A few longitudinal analyses included in this report included survey items that were worded slightly differently on the 2017 HMV Follow-Up Survey compared to the 2016 HMV Enrollee Survey. These differences are noted in the table footnotes of Appendix B.

Survey responses were supplemented with claims data from Medicaid records. These data are limited to services enrollees received while actively enrolled in HMP and other Medicaid programs. We did not distinguish between services received during enrollment in HMP and during enrollment in other Medicaid programs. Data for former HMP enrollees is therefore limited to their time enrolled in Medicaid programs, and thus we do not have information on claims for those with private or no insurance coverage after they left HMP.

Bivariate analyses should be interpreted with caution as they may identify relationships between variables that are due to confounding, and small sample sizes may limit the ability to detect statistical associations.

Lessons Learned

Several lessons were learned in the process of conducting outreach to current and former enrollees for participation in this survey:

In the 2016 HMV Enrollee Survey, many early respondents offered descriptions and anecdotes not captured by fixed-choice or brief response items used with the computer-assisted telephone interviewing system. For subsequent survey waves, including the 2017 HMV Follow-Up Survey, respondents were asked if their interview could be recorded and nearly all agreed. These recordings allow cross-checking responses and provide the opportunity to learn additional details about current and former enrollees' experiences in a more open-ended fashion.

We queried the MDHHS Data Warehouse prior to sending the introductory packet to identify individuals who were deceased or incarcerated. This process helped us avoid making calls to about 30 households in which a potential respondent had died or had been incarcerated.

We reviewed call notes to identify respondents who had challenges during their initial 2016 HMV Enrollee Survey. We assigned those respondents to shift supervisors who were proactive in trying to avoid repeated issues; for example, if respondents had problems with their gift card in 2016, we reiterated the instructions that would be included with their 2017 gift card.

We used the email and text message information supplied by respondents during their initial 2016 HMV Enrollee Survey to send reminders for the 2017 HMV Follow-Up Survey; a sizable number of individuals responded to these messages by contacting the HMV office immediately or by responding with a message indicating their preferred time for a call. These responses facilitated the scheduling of follow-up surveys.

Conclusions

Health improvement

Our findings from the 2017 HMV Follow-Up Survey show that Medicaid expansion in Michigan is associated with improvements in self-reported health and fewer days of poor physical health among both current and former enrollees and in many subgroups of current and former enrollees including those with a chronic condition and those with a mental health condition and/or substance use disorder.

These longitudinal results are noteworthy, since other evidence on the health impact of Medicaid expansion has been mixed and has been largely based on comparisons of expansion and non-expansion states using serial cross-sectional data for the U.S. population. One of the

only other recent studies to examine longitudinal changes in health among enrollees was the Oregon Health Insurance Experiment, which found a decrease in symptomatic depression and mixed results related to changes in physical health.[1, 2]

Employment gains

Data from the 2017 HMV Follow-Up Survey show that the proportion of current and former enrollees who reported being employed/self-employed increased from 48.7% in the 2016 survey to 57.1% in the 2017 survey. Analysis of the 2016 HMV Enrollee Survey data showed that enrollees reported that HMP helped them in their work, look for work, and find a better job, and analysis of the 2017 survey now shows gains in employment.

Few other studies have examined the impact of Medicaid expansion on employment. While Ohio found their Medicaid expansion program was associated with improvements in ease of working or looking for work,[3] and another study found that people with disabilities were more likely to be employed after Medicaid expansion,[4] most studies have not seen changes in employment associated with Medicaid expansion.[5]

Experiences of those no longer enrolled

About one in four 2017 HMV Follow-Up Survey respondents were no longer enrolled in HMP, and one third of these former enrollees reported being uninsured. Former enrollees, including those with and without insurance at the time of the survey, were more likely than current enrollees to report having recently forgone health care and dental care, usually due to cost or lack of coverage. Many former enrollees reported greater out of pocket costs and more difficulty with medical bills after their HMP coverage ended.

While former enrollees were less likely than those who remained enrolled to report having a regular source of care, and less likely to report that their regular source of care is a doctor's office or clinic, few named the ER as that source of care. More than three quarters of those who did report that their regular source of care is a doctor's office or clinic said they were still going to their HMP PCP. This suggests that even shorter-term HMP enrollment may promote a shift away from reliance on emergency rooms to primary care and may facilitate primary care continuity. However, one in three former enrollees agreed that sometimes they go to the ER

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[1] Baicker, K., Taubman, S. L., Allen, H.L., Bernstein, M., Gruber, J. H., Newhouse, J. P., Schneider, E. C., Wright, B. J., Zaslavsky, A. M., & Finkelstein, A. N. (2013). The Oregon experiment: Effects of Medicaid on clinical outcomes. *New England Journal of Medicine, 368*(18), 1713-1722.

[2] Finkelstein, A., Taubman, S., Wright, B., Bernstein, M., Gruber, J., Newhouse, J. P., Allen, H., & Baicker, K. (2012). The Oregon health insurance experiment: Evidence from the first year. *Quarterly Journal of Economics, 127*(3), 1057-1106.

[3] The Ohio Department of Medicaid. (2018, August 20). *2018 Ohio Medicaid Group VII Assessment: A Follow-Up to the 2016 Ohio Medicaid Group VII Assessment.* Retrieved from https://www.medicaid.ohio.gov/Portals/0/Resources/Reports/Annual/Group-VIII-Final-Report.pdf

[4] Hall, J. P., Shartzer, A., Kurth, N. K., & Thomas, K. C. (2017). Effect of Medicaid expansion on workforce participation for people with disabilities. *American Journal of Public Health, 107*(2), 262-264.

[5] Antonisse, L., Garfield, R., Rudowitz, R., & Artiga, S. (2018, March 28). *The effects of Medicaid expansion under the ACA: Updated findings from a literature review.* Retrieved from https://www.kff.org/medicaid/issue-brief/the-effects-of-medicaid-expansion-under-the-aca-updated-findings-from-a-literature-review-march-2018/

because they don't have another place to get care; another substantial minority said that sometimes they go to the ER because they know they cannot be turned away.

There was no difference between those no longer enrolled and those still enrolled in HMP in their views in the 2016 survey of the affordability of HMP, the fairness of HMP costs, or the importance of health insurance.

Current enrollees' understanding of insurance and covered benefits

Current enrollees generally had a good overall understanding of HMP's covered benefits. In 2017 compared to 2016, current enrollees were more likely to know that dental care and eyeglasses are covered by HMP. Yet many current enrollees continued to be unaware in the 2017 survey that HMP provides coverage for smoking cessation and substance use disorder treatment. Understanding of the healthy behavior rewards associated with HRA completion also continued to remain low among current enrollees in 2017.

Current enrollees' access to care, primary care and prevention

Improved access to and use of preventive services can improve health in the short- and long-term. Current enrollees continued to report improvements in access to care in the 2017 survey. Nearly all current enrollees reported a regular source of care, the vast majority naming a doctor's office or clinic rather than an urgent care/walk-in clinic or an ER. Few current enrollees reported not getting the health care they needed in the last 12 months. Current enrollees also continued to report reductions in financial barriers to care. Current enrollees were even more likely in 2017 than in 2016 to strongly agree or agree that without HMP they wouldn't be able to go to the doctor.

Nearly all current enrollees had a claim for a primary care visit. Among those who reported not seeing their PCP in the past 12 months, more than half said that was because they were heathy and did not need to see a provider.

Current enrollees reported positive changes in health behaviors. For instance, among current enrollees who reported smoking or using tobacco in 2016, 14.4% did not report smoking or using tobacco in 2017. This is nearly twice the recent quit rate (7.4%) from 2015 national data.[6] Improved health behaviors can improve health immediately and, of course, in the longer term.

Previous studies have found that Medicaid expansion leads to increases in the number of preventive services received.[7, 8] In this analysis, nearly all current enrollees had a claim for at least one preventive service. PCP visits, remembering discussions about the HRA, HRA completion with PCP attestation, and better knowledge of HMP coverage were all associated

[6] Babb, S., Malarcher, A., Schauer, G., Asman, K., & Jamal, A. (2017, January 6). Quitting smoking among adults: United States, 2000–2015. *Morbidity and Mortality Weekly Report, 65*(52),1457–1464.
[7] Sabik, L. M., Tarazi, W. W., & Bradley, C. J. (2015). State Medicaid expansion decisions and disparities in women's cancer screening. *American Journal of Preventive Medicine, 48*(1), 98–103.
[8] Simon, K., Soni, A., & Cawley, J. (2017). The impact of health insurance on preventive care and health behaviors: Evidence from the first two years of the ACA Medicaid expansions. *Journal of Policy Analysis and Management, 36*(2), 390–417.

with more preventive services utilization. Other studies have shown mixed results in regards to the impact of Medicaid expansion on cancer screening.[9] Screening for colorectal cancer in this HMV survey cohort was comparable to or better than that found for low-income populations nationally, and the breast cancer screening rate was much higher.[10]

Recommendations

It is important to continue to assess the long-term impact of Medicaid expansion on health and functional outcomes, including employment. While short-term gains have been seen, the emphasis on prevention and health risk modification in HMP could have even greater impact over the long-term. While some of this information on health and functional outcomes can be ascertained from claims, surveys such as the *Healthy Michigan Voices* Survey provide a unique opportunity to understand changes in health behaviors and health status that are not readily evident in claims data.

Because primary care visits appear to have a large impact on health promotion and preventive services, and may decrease the use of emergency rooms, maintaining and improving access to primary care could be more important than emphasizing the completion of the HRA. We recommend that MDHHS work with Medicaid health plans and the provider community to maintain or improve timely access to appointments.

MDHHS or the evaluation team should continue to monitor the employment status of current HMP enrollees, including health-related barriers to gaining employment; and the health status of enrollees who lose HMP coverage if they are unable to satisfy community engagement requirements.

MDHHS should continue to educate HMP enrollees about covered benefits, particularly coverage for smoking cessation and treatment for substance use disorders, and about financial incentives for healthy behaviors.

[9] Mahal, B. A., Chavez, J., Mahal, A. N., Yang, D. D., Kim, D. W., Sanford, N. N., Sethi, R., Hu, J. C., Trinh, Q. D., & Nguyen, P. L. (2018). Early impact of the Affordable Care Act and Medicaid expansion on racial and socioeconomic disparities in cancer care. *International Journal of Radiation Oncology, 102*(3), e418-e419.
[10] Sabatino, S. A., White, M. C., Thompson, T. D., & Klabunde, C. N. (2015, May 8). Cancer screening test use: United States, 2013. *Morbidity and Mortality Weekly Report*, *64*(17), 464-8.

2017 Healthy Michigan Voices Follow-Up Survey
Appendix A: Descriptive Tables

Contents

How to read the tables

Question asked for the corresponding table will be shown here

Follow-up group: 'Follow-up group' is those who are still enrolled and/or those no longer enrolled in HMP at the time of the survey
Universe: The 'universe' tells you which respondents answered the question.

	Variable of Interest				
	Response Option 1		**Response Option 2**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,387)	11.4	[9.7, 13.4]	88.6	[86.6, 90.3]	100.0
No longer enrolled (n=709)	10.5	[7.6, 14.2]	89.5	[85.8, 92.4]	100.0
Pearson: Uncorrected chi2(1) =	0.4582				
Design-based F(1.00, 3084.00) =	0.2150	Pr =	0.643		
Age					
19-34 (n=908)	23.9	[20.5, 27.7]	76.1	[72.3, 79.5]	100.0
35-50 (n=969)	5.6	[3.8, 8.0]	94.4	[92.0, 96.2]	100.0
51-64 (n=1,219)	1.1	[0.6, 2.2]	98.9	[97.8, 99.4]	100.0
Pearson: Uncorrected chi2(2) =	312.3618				
Design-based F(1.84, 5660.07) =	92.8398	Pr =	0.000		
Gender					
Male (n=1,230)	11.2	[8.9, 14.0]	88.8	[86.0, 91.1]	100.0
Female (n=1,866)	11.2	[9.3, 13.4]	88.8	[86.6, 90.7]	100.0
Pearson: Uncorrected chi2(1) =	0.0002				
Design-based F(1.00, 3084.00) =	0.0001	Pr =	0.992		
Race					
White (n=2,106)	9.4	[7.7, 11.4]	90.6	[88.6, 92.3]	100.0
Black or African American (n=639)	11.2	[8.4, 14.7]	88.8	[85.3, 91.6]	100.0
Other (n=203)	24.4	[16.9, 34.0]	75.6	[66.0, 83.1]	100.0
More than one (n=108)	13.3	[6.4, 25.6]	86.7	[74.4, 93.6]	100.0
Pearson: Uncorrected chi2(3) =	47.7784				
Design-based F(2.99, 9091.31) =	6.9587	Pr =	0.000		
FPL category					
0-35% (n=1,218)	10.4	[8.1, 13.1]	89.6	[86.9, 91.9]	100.0
36-99% (n=1,084)	11.0	[8.7, 13.7]	89.0	[86.3, 91.3]	100.0
100%+ (n=794)	13.6	[10.6, 17.3]	86.4	[82.7, 89.4]	100.0
Pearson: Uncorrected chi2(2) =	4.8637				
Design-based F(1.93, 5950.44) =	1.3454	Pr =	0.260		
Region					
UP/NW/NE (n=574)	5.1	[3.4, 7.5]	94.9	[92.5, 96.6]	100.0
W/E Central/E (n=980)	8.8	[6.7, 11.6]	91.2	[88.4, 93.3]	100.0
S Central/SW/SE (n=633)	11.3	[8.6, 14.9]	88.7	[85.1, 91.4]	100.0
Detroit Metro (n=909)	14.1	[11.3, 17.4]	85.9	[82.6, 88.7]	100.0
Pearson: Uncorrected chi2(3) =	26.6380				
Design-based F(2.57, 7925.84) =	6.1057	Pr =	0.001		
Total (n=3,096)	11.2	[9.7, 12.9]	88.8	[87.1, 90.3]	100.0

[1] Each table will show a variable of interest and the response options at the top. Where 'Variable of Interest' is currently, the variable name or description will replace it and the 'Response Option' will be replaced with the response options for that question. The variable of interest is analyzed in a cross-tabulation format against other variables. These variables are on the left side of the table. The name of the variable is in bold on top of the categories that correspond to that variable. Each variable on the left side of the table is separated by horizontal black lines. The statistical analysis information is between two variables; the analysis information corresponds to the variable above it.

[2] 'Row%' is the weighted percentage of Respondents who answered that response option in the survey. The '95%CI' is the range of values that one can be 95% confident contains the true mean. The 'Total Column' shows that the row adds up to 100%. The value in 'Pr= value' indicates if there is a significant relationship between the two variables. If 'value' is less than 0.05, it can be interpreted that there is a significant relationship between the two variables.

[3] The 'Total' row is at the bottom of the table. This row displays the weighted proportions for the populaion as a whole, i.e. not run against another variable.

[4] Some questions have greater or fewer response options than the table presented here.

0 Demographics

0.1 Main demographics table

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

Demographic characteristics	Weighted Proportion	95%CI
Follow-up group		
Still enrolled (n=2,388)	76.8	[74.9, 78.6]
No longer enrolled (n=709)	23.2	[21.4, 25.1]
FPL category		
0-35% (n=1,218)	52.3	[51.2, 53.5]
36-99% (n=1,084)	27.7	[26.8, 28.7]
100%+ (n=795)	19.9	[19.2, 20.7]
Region		
UP/NW/NE (n=574)	9.1	[8.7, 9.5]
W/E Central/E (n=980)	29.6	[28.6, 30.6]
S Central/SW/SE (n=633)	18.4	[17.6, 19.3]
Detroit Metro (n=910)	42.9	[41.7, 44.1]
Age		
19-34 (n=909)	37.5	[35.3, 39.9]
35-50 (n=969)	34.0	[31.8, 36.2]
51-64 (n=1,219)	28.5	[26.7, 30.3]
Gender		
Male (n=1,230)	47.0	[44.7, 49.2]
Female (n=1,867)	53.0	[50.8, 55.3]
Race/ethnicity		
White, non-Hispanic (n=2,058)	59.6	[57.4, 61.7]
Black, non-Hispanic (n=634)	26.8	[24.8, 28.9]
Hispanic (n=138)	5.0	[4.1, 6.0]
Other, non-Hispanic (n=228)	8.7	[7.4, 10.1]
Race		
White (n=2,106)	61.3	[59.1, 63.4]
Black or African American (n=639)	27.0	[25.0, 29.1]
Other (n=204)	7.7	[6.5, 9.1]
More than one (n=108)	4.0	[3.2, 5.1]
Hispanic/Latino		
Yes (n=138)	4.9	[4.0, 6.0]
No (n=2,925)	94.6	[93.5, 95.6]
Don't know (n=7)	0.4	[0.2, 1.0]
Arab/Chaldean/Middle Eastern		
Yes (n=124)	4.9	[4.0, 6.1]
No (n=2,937)	94.7	[93.6, 95.7]
Don't know (n=8)	0.3	[0.2, 0.7]
Urbanicity		
Urban (n=2,179)	80.9	[79.7, 82.0]
Suburban (n=307)	8.9	[7.9, 10.0]
Rural (n=611)	10.2	[9.6, 10.8]
Highest level of education		
Less than high school (n=355)	11.2	[9.9, 12.6]
High school graduate (n=1,266)	40.5	[38.3, 42.8]
Some college (n=665)	22.8	[20.9, 24.9]
Associate's degree (n=408)	12.9	[11.5, 14.5]
Bachelor's degree (n=308)	9.9	[8.6, 11.3]
Post graduate degree (n=88)	2.7	[2.0, 3.5]
Employed/self-employed		
Yes (n=1,742)	57.1	[55.0, 59.3]
No (n=1,351)	42.9	[40.7, 45.0]

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Employment status–detailed		
Full-time employment (n=857)	27.9	[25.9, 29.9]
Part-time employment (n=870)	29.4	[27.3, 31.5]
Out of work (n=374)	14.4	[12.8, 16.1]
Unable to work (n=569)	17.6	[16.1, 19.3]
Retired (n=183)	3.6	[3.0, 4.3]
Not looking for work at this time (n=211)	7.1	[6.0, 8.4]
In school		
Yes (n=253)	11.2	[9.7, 12.9]
No (n=2,843)	88.8	[87.1, 90.3]
Veteran		
Yes (n=101)	3.7	[3.0, 4.7]
No (n=2,991)	96.1	[95.1, 96.9]
Don't know (n=2)	0.2	[0.0, 0.7]
Marital status		
Married (n=750)	19.4	[17.9, 20.9]
Partnered (n=120)	3.6	[2.9, 4.4]
Divorced (n=683)	19.2	[17.5, 20.9]
Widowed (n=113)	2.6	[2.1, 3.2]
Separated (n=101)	3.3	[2.6, 4.2]
Never Married (n=1,317)	52.0	[49.8, 54.2]
Number of places lived in past 3 years		
One (n=2,175)	67.3	[65.1, 69.4]
Two (n=611)	20.5	[18.7, 22.4]
Three (n=186)	7.4	[6.2, 8.8]
Four or more (n=120)	4.8	[3.8, 5.9]
Don't know (n=2)	0.1	[0.0, 0.2]
Homeless in the last 12 months		
Yes (n=195)	7.9	[6.7, 9.3]
No (n=2,894)	92.1	[90.7, 93.3]

0.2 Demographics table by follow-up group

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Follow-up group					
	Still enrolled		No longer enrolled		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
FPL category						
0-35% (n=1,218)	55.8	[54.2, 57.4]	40.8	[36.5, 45.3]	52.3	[51.2, 53.5]
36-99% (n=1,084)	26.2	[24.9, 27.6]	32.7	[29.1, 36.5]	27.7	[26.8, 28.7]
100%+ (n=795)	17.9	[16.9, 19.1]	26.5	[23.3, 30.0]	19.9	[19.2, 20.7]
Total (n=3,097)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	52.2401					
Design-based F(1.92, 5934.79) =	17.9981	Pr =	0.000			
Region						
UP/NW/NE (n=574)	9.1	[8.5, 9.8]	9.0	[7.5, 10.8]	9.1	[8.7, 9.5]
W/E Central/E (n=980)	29.8	[28.5, 31.2]	28.8	[25.2, 32.6]	29.6	[28.6, 30.6]
S Central/SW/SE (n=633)	17.0	[16.0, 18.2]	23.0	[19.7, 26.7]	18.4	[17.6, 19.3]
Detroit Metro (n=910)	44.0	[42.3, 45.7]	39.2	[34.9, 43.7]	42.9	[41.7, 44.1]
Total (n=3,097)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(3) =	13.8762					
Design-based F(2.69, 8292.00) =	3.5711	Pr =	0.017			
Age						
19-34 (n=909)	36.1	[33.5, 38.7]	42.4	[37.8, 47.2]	37.5	[35.3, 39.9]
35-50 (n=969)	35.0	[32.6, 37.6]	30.5	[26.5, 34.8]	34.0	[31.8, 36.2]
51-64 (n=1,219)	28.9	[26.9, 31.0]	27.1	[23.5, 31.0]	28.5	[26.7, 30.3]
Total (n=3,097)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	9.9458					
Design-based F(1.95, 6015.00) =	3.2383	Pr =	0.041			
Gender						
Male (n=1,230)	46.1	[43.5, 48.7]	50.0	[45.4, 54.6]	47.0	[44.7, 49.2]
Female (n=1,867)	53.9	[51.3, 56.5]	50.0	[45.4, 54.6]	53.0	[50.8, 55.3]
Total (n=3,097)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(1) =	3.4164					
Design-based F(1.00, 3085.00) =	2.0865	Pr =	0.149			
Race/ethnicity						
White, non-Hispanic (n=2,058)	59.8	[57.2, 62.3]	59.0	[54.3, 63.6]	59.6	[57.4, 61.7]
Black, non-Hispanic (n=634)	26.7	[24.4, 29.1]	27.1	[23.0, 31.7]	26.8	[24.8, 28.9]
Hispanic (n=138)	4.8	[3.8, 6.0]	5.5	[3.8, 8.0]	5.0	[4.1, 6.0]
Other, non-Hispanic (n=228)	8.8	[7.3, 10.4]	8.3	[6.1, 11.3]	8.7	[7.4, 10.1]
Total (n=3,058)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(3) =	0.8400					
Design-based F(2.98, 9086.10) =	0.1662	Pr =	0.918			
Race						
White (n=2,106)	61.5	[59.0, 64.0]	60.5	[55.8, 65.0]	61.3	[59.1, 63.4]
Black or African American (n=639)	26.8	[24.5, 29.2]	27.5	[23.4, 32.1]	27.0	[25.0, 29.1]
Other (n=204)	7.6	[6.3, 9.2]	7.9	[5.7, 11.0]	7.7	[6.5, 9.1]
More than one (n=108)	4.0	[3.1, 5.3]	4.0	[2.6, 6.2]	4.0	[3.2, 5.1]
Total (n=3,057)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(3) =	0.2585					
Design-based F(2.98, 9078.43) =	0.0506	Pr =	0.985			
Hispanic/Latino						
Yes (n=138)	4.8	[3.8, 6.0]	5.5	[3.8, 8.0]	4.9	[4.0, 6.0]
No (n=2,925)	94.9	[93.5, 95.9]	93.8	[91.1, 95.8]	94.6	[93.5, 95.6]
Don't know (n=7)	0.4	[0.1, 1.0]	0.7	[0.1, 3.2]	0.4	[0.2, 1.0]
Total (n=3,070)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	1.5363					
Design-based F(1.85, 5647.57) =	0.3527	Pr =	0.686			

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Arab/Chaldean/Middle Eastern						
Yes (n=124)	5.4	[4.3, 6.9]	3.2	[2.0, 5.2]	4.9	[4.0, 6.1]
No (n=2,937)	94.2	[92.7, 95.3]	96.7	[94.7, 97.9]	94.7	[93.6, 95.7]
Don't know (n=8)	0.4	[0.2, 0.9]	0.1	[0.0, 1.0]	0.3	[0.2, 0.7]
Total (n=3,069)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	7.0298					
Design-based F(1.93, 5905.67) =	2.6956	Pr =	0.070			
Urbanicity						
Urban (n=2,179)	81.1	[79.7, 82.5]	80.1	[76.9, 82.9]	80.9	[79.7, 82.0]
Suburban (n=307)	8.7	[7.6, 9.9]	9.7	[7.5, 12.4]	8.9	[7.9, 10.0]
Rural (n=611)	10.2	[9.5, 11.0]	10.2	[8.5, 12.3]	10.2	[9.6, 10.8]
Total (n=3,097)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	0.7782					
Design-based F(1.91, 5894.41) =	0.3665	Pr =	0.683			
Highest level of education						
Less than high school (n=355)	10.8	[9.4, 12.3]	12.4	[9.5, 16.0]	11.2	[9.9, 12.6]
High school graduate (n=1,266)	41.3	[38.7, 43.9]	37.9	[33.6, 42.5]	40.5	[38.3, 42.8]
Some college (n=665)	23.4	[21.1, 25.8]	21.1	[17.6, 25.0]	22.8	[20.9, 24.9]
Associate's degree (n=408)	13.2	[11.6, 15.0]	12.0	[9.3, 15.2]	12.9	[11.5, 14.5]
Bachelor's degree (n=308)	9.5	[8.0, 11.1]	11.3	[8.9, 14.3]	9.9	[8.6, 11.3]
Post graduate degree (n=88)	1.9	[1.4, 2.5]	5.3	[3.2, 8.6]	2.7	[2.0, 3.5]
Total (n=3,090)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(5) =	30.4602					
Design-based F(4.95, 15232.77) =	3.7251	Pr =	0.002			
Employed/self-employed						
Yes (n=1,742)	55.4	[52.8, 57.9]	62.9	[58.5, 67.2]	57.1	[55.0, 59.3]
No (n=1,351)	44.6	[42.1, 47.2]	37.1	[32.8, 41.5]	42.9	[40.7, 45.0]
Total (n=3,093)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(1) =	12.7472					
Design-based F(1.00, 3081.00) =	8.1366	Pr =	0.004			
Employment status–detailed						
Full-time employment (n=857)	23.1	[21.0, 25.3]	43.8	[39.2, 48.5]	27.9	[25.9, 29.9]
Part-time employment (n=870)	32.4	[29.9, 34.9]	19.5	[16.2, 23.4]	29.4	[27.3, 31.5]
Out of work (n=374)	15.8	[13.9, 17.9]	9.6	[7.2, 12.7]	14.4	[12.8, 16.1]
Unable to work (n=569)	17.5	[15.7, 19.5]	18.0	[14.9, 21.7]	17.6	[16.1, 19.3]
Retired (n=183)	3.3	[2.7, 4.0]	4.7	[3.3, 6.8]	3.6	[3.0, 4.3]
Not looking for work at this time (n=211)	8.0	[6.6, 9.6]	4.3	[2.9, 6.2]	7.1	[6.0, 8.4]
Total (n=3,064)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(5) =	143.1804					
Design-based F(4.89, 14934.15) =	20.0251	Pr =	0.000			
In school						
Yes (n=253)	11.4	[9.7, 13.4]	10.5	[7.6, 14.2]	11.2	[9.7, 12.9]
No (n=2,843)	88.6	[86.6, 90.3]	89.5	[85.8, 92.4]	88.8	[87.1, 90.3]
Total (n=3,096)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(1) =	0.4582					
Design-based F(1.00, 3084.00) =	0.2150	Pr =	0.643			
Veteran						
Yes (n=101)	3.8	[2.9, 4.9]	3.6	[2.1, 5.9]	3.7	[3.0, 4.7]
No (n=2,991)	96.0	[94.8, 96.9]	96.4	[94.1, 97.9]	96.1	[95.1, 96.9]
Don't know (n=2)	0.2	[0.0, 0.9]	0.0		0.2	[0.0, 0.7]
Total (n=3,094)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(2) =	1.5668					
Design-based F(1.89, 5812.27) =	0.3336	Pr =	0.704			
Marital status						
Married (n=750)	18.1	[16.5, 19.8]	23.7	[20.2, 27.5]	19.4	[17.9, 20.9]
Partnered (n=120)	3.4	[2.6, 4.4]	4.2	[2.8, 6.1]	3.6	[2.9, 4.4]
Divorced (n=683)	20.6	[18.6, 22.6]	14.5	[11.9, 17.6]	19.2	[17.5, 20.9]
Widowed (n=113)	2.8	[2.2, 3.5]	1.9	[1.1, 3.3]	2.6	[2.1, 3.2]
Separated (n=101)	3.1	[2.4, 4.0]	4.0	[2.5, 6.4]	3.3	[2.6, 4.2]
Never Married (n=1,317)	52.1	[49.5, 54.6]	51.7	[47.1, 56.3]	52.0	[49.8, 54.2]
Total (n=3,084)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(5) =	23.2186					
Design-based F(4.87, 14953.07) =	3.4731	Pr =	0.004			

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Number of places lived in past 3 years						
One (n=2,175)	70.1	[67.7, 72.4]	58.1	[53.4, 62.7]	67.3	[65.1, 69.4]
Two (n=611)	19.3	[17.4, 21.4]	24.2	[20.4, 28.5]	20.5	[18.7, 22.4]
Three (n=186)	6.5	[5.3, 8.0]	10.3	[7.5, 14.0]	7.4	[6.2, 8.8]
Four or more (n=120)	4.0	[3.0, 5.2]	7.4	[5.0, 10.6]	4.8	[3.8, 5.9]
Don't know (n=2)	0.1	[0.0, 0.3]	0.0		0.1	[0.0, 0.2]
Total (n=3,094)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(4) =	42.7068					
Design-based F(3.73, 11498.82) =	6.4671	Pr =	0.000			
Homeless in the last 12 months						
Yes (n=195)	7.6	[6.2, 9.2]	8.8	[6.3, 12.2]	7.9	[6.7, 9.3]
No (n=2,894)	92.4	[90.8, 93.8]	91.2	[87.8, 93.7]	92.1	[90.7, 93.3]
Total (n=3,089)	100.0		100.0		100.0	
Pearson: Uncorrected chi2(1) =	1.1505					
Design-based F(1.00, 3077.00) =	0.5876	Pr =	0.443			

0.3 Q: Are you currently in school?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	In school				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,387)	11.4	[9.7, 13.4]	88.6	[86.6, 90.3]	100.0
No longer enrolled (n=709)	10.5	[7.6, 14.2]	89.5	[85.8, 92.4]	100.0
Pearson: Uncorrected chi2(1) =	0.4582				
Design-based F(1.00, 3084.00) =	0.2150	Pr =	0.643		
Age					
19-34 (n=908)	23.9	[20.5, 27.7]	76.1	[72.3, 79.5]	100.0
35-50 (n=969)	5.6	[3.8, 8.0]	94.4	[92.0, 96.2]	100.0
51-64 (n=1,219)	1.1	[0.6, 2.2]	98.9	[97.8, 99.4]	100.0
Pearson: Uncorrected chi2(2) =	312.3618				
Design-based F(1.84, 5660.07) =	92.8398	Pr =	0.000		
Gender					
Male (n=1,230)	11.2	[8.9, 14.0]	88.8	[86.0, 91.1]	100.0
Female (n=1,866)	11.2	[9.3, 13.4]	88.8	[86.6, 90.7]	100.0
Pearson: Uncorrected chi2(1) =	0.0002				
Design-based F(1.00, 3084.00) =	0.0001	Pr =	0.992		
Race/ethnicity					
White, non-Hispanic (n=2,058)	9.5	[7.8, 11.6]	90.5	[88.4, 92.2]	100.0
Black, non-Hispanic (n=634)	11.2	[8.4, 14.8]	88.8	[85.2, 91.6]	100.0
Hispanic (n=138)	14.5	[7.3, 26.8]	85.5	[73.2, 92.7]	100.0
Other, non-Hispanic (n=227)	21.0	[14.6, 29.3]	79.0	[70.7, 85.4]	100.0
Pearson: Uncorrected chi2(3) =	32.5265				
Design-based F(2.94, 8960.36) =	4.5625	Pr =	0.004		
FPL category					
0-35% (n=1,218)	10.4	[8.1, 13.1]	89.6	[86.9, 91.9]	100.0
36-99% (n=1,084)	11.0	[8.7, 13.7]	89.0	[86.3, 91.3]	100.0
100%+ (n=794)	13.6	[10.6, 17.3]	86.4	[82.7, 89.4]	100.0
Pearson: Uncorrected chi2(2) =	4.8637				
Design-based F(1.93, 5950.44) =	1.3454	Pr =	0.260		
Region					
UP/NW/NE (n=574)	5.1	[3.4, 7.5]	94.9	[92.5, 96.6]	100.0
W/E Central/E (n=980)	8.8	[6.7, 11.6]	91.2	[88.4, 93.3]	100.0
S Central/SW/SE (n=633)	11.3	[8.6, 14.9]	88.7	[85.1, 91.4]	100.0
Detroit Metro (n=909)	14.1	[11.3, 17.4]	85.9	[82.6, 88.7]	100.0
Pearson: Uncorrected chi2(3) =	26.6380				
Design-based F(2.57, 7925.84) =	6.1057	Pr =	0.001		
Chronic condition (2016/2017 survey or DW)					
Yes (n=2,468)	7.7	[6.3, 9.4]	92.3	[90.6, 93.7]	100.0
No (n=628)	22.6	[18.5, 27.4]	77.4	[72.6, 81.5]	100.0
Pearson: Uncorrected chi2(1) =	123.0861				
Design-based F(1.00, 3084.00) =	58.2181	Pr =	0.000		
Total (n=3,096)	11.2	[9.7, 12.9]	88.8	[87.1, 90.3]	100.0

Note: Total count is less than universe count due to item non-response.

0.3.1 Q: Are you a full-time or part-time student?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are in school (n = 255)

	Student status						
	Full-time		Part-time		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=199)	62.0	[53.3, 70.1]	38.0	[29.9, 46.7]	0.0		100.0
No longer enrolled (n=55)	59.5	[42.7, 74.3]	39.6	[24.9, 56.5]	0.9	[0.1, 6.0]	100.0
Pearson: Uncorrected chi2(2) =	1.7799						
Design-based F(1.56, 378.22) =	0.8452	Pr =	0.405				
Age							
19-34 (n=195)	66.0	[57.3, 73.7]	33.8	[26.0, 42.5]	0.2	[0.0, 1.7]	100.0
35-50 (n=48)	41.8	[24.5, 61.4]	58.2	[38.6, 75.5]	0.0		100.0
51-64 (n=11)	54.2	[23.4, 82.1]	45.8	[17.9, 76.6]	0.0		100.0
Pearson: Uncorrected chi2(4) =	9.3380						
Design-based F(3.33, 805.77) =	2.3199	Pr =	0.067				
Gender							
Male (n=96)	65.3	[52.5, 76.1]	34.3	[23.5, 47.1]	0.4	[0.1, 2.9]	100.0
Female (n=158)	58.1	[48.4, 67.3]	41.9	[32.7, 51.6]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.9968						
Design-based F(1.54, 372.91) =	0.9262	Pr =	0.375				
Race/ethnicity							
White, non-Hispanic (n=148)	58.7	[48.2, 68.5]	40.9	[31.2, 51.4]	0.4	[0.1, 2.7]	100.0
Black, non-Hispanic (n=60)	69.3	[55.1, 80.7]	30.7	[19.3, 44.9]	0.0		100.0
Hispanic (n=11)	65.4	[26.9, 90.7]	34.6	[9.3, 73.1]	0.0		100.0
Other, non-Hispanic (n=33)	57.1	[36.4, 75.7]	42.9	[24.3, 63.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	3.0054						
Design-based F(5.19, 1245.92) =	0.2993	Pr =	0.919				
FPL category							
0-35% (n=90)	59.8	[46.6, 71.6]	40.2	[28.4, 53.4]	0.0		100.0
36-99% (n=87)	55.5	[43.3, 67.1]	44.5	[32.9, 56.7]	0.0		100.0
100%+ (n=77)	71.4	[59.5, 81.0]	27.8	[18.3, 39.8]	0.8	[0.1, 5.4]	100.0
Pearson: Uncorrected chi2(4) =	5.5460						
Design-based F(2.96, 716.26) =	1.6502	Pr =	0.177				
Region							
UP/NW/NE (n=27)	50.2	[29.8, 70.6]	45.2	[25.6, 66.4]	4.6	[0.6, 27.2]	100.0
W/E Central/E (n=67)	70.1	[56.8, 80.6]	29.9	[19.4, 43.2]	0.0		100.0
S Central/SW/SE (n=57)	55.4	[41.0, 69.1]	44.6	[30.9, 59.0]	0.0		100.0
Detroit Metro (n=103)	60.6	[48.5, 71.6]	39.4	[28.4, 51.5]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.1521						
Design-based F(4.25, 1029.61) =	3.3475	Pr =	0.008				
Chronic condition (2016/2017 survey or DW)							
Yes (n=144)	61.2	[51.1, 70.5]	38.4	[29.1, 48.6]	0.4	[0.0, 2.5]	100.0
No (n=110)	61.7	[49.7, 72.5]	38.3	[27.5, 50.3]	0.0		100.0
Pearson: Uncorrected chi2(2) =	0.4257						
Design-based F(1.56, 378.01) =	0.2045	Pr =	0.760				
Total (n=254)	61.5	[53.7, 68.7]	38.3	[31.1, 46.1]	0.2	[0.0, 1.3]	100.0

Note: Total count is less than universe count due to item non-response.

0.4 Q: Are you currently employed or self-employed?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Employed/self-employed				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,385)	55.4	[52.8, 57.9]	44.6	[42.1, 47.2]	100.0
No longer enrolled (n=708)	62.9	[58.5, 67.2]	37.1	[32.8, 41.5]	100.0
Pearson: Uncorrected chi2(1) =	12.7472				
Design-based F(1.00, 3081.00) =	8.1366	Pr =	0.004		
Age					
19-34 (n=907)	67.5	[63.5, 71.2]	32.5	[28.8, 36.5]	100.0
35-50 (n=968)	56.8	[52.9, 60.7]	43.2	[39.3, 47.1]	100.0
51-64 (n=1,218)	43.9	[40.6, 47.3]	56.1	[52.7, 59.4]	100.0
Pearson: Uncorrected chi2(2) =	113.3858				
Design-based F(1.93, 5953.22) =	34.9793	Pr =	0.000		
Gender					
Male (n=1,229)	56.6	[53.1, 60.1]	43.4	[39.9, 46.9]	100.0
Female (n=1,864)	57.6	[54.8, 60.4]	42.4	[39.6, 45.2]	100.0
Pearson: Uncorrected chi2(1) =	0.2732				
Design-based F(1.00, 3081.00) =	0.1629	Pr =	0.687		
Race/ethnicity					
White, non-Hispanic (n=2,058)	54.9	[52.2, 57.7]	45.1	[42.3, 47.8]	100.0
Black, non-Hispanic (n=630)	58.6	[53.8, 63.2]	41.4	[36.8, 46.2]	100.0
Hispanic (n=138)	71.1	[62.1, 78.7]	28.9	[21.3, 37.9]	100.0
Other, non-Hispanic (n=228)	61.8	[53.8, 69.2]	38.2	[30.8, 46.2]	100.0
Pearson: Uncorrected chi2(3) =	18.6156				
Design-based F(2.95, 8972.69) =	3.7810	Pr =	0.010		
FPL category					
0-35% (n=1,216)	43.9	[40.3, 47.6]	56.1	[52.4, 59.7]	100.0
36-99% (n=1,082)	70.8	[67.7, 73.8]	29.2	[26.2, 32.3]	100.0
100%+ (n=795)	72.8	[69.1, 76.1]	27.2	[23.9, 30.9]	100.0
Pearson: Uncorrected chi2(2) =	242.7716				
Design-based F(1.92, 5901.35) =	96.2913	Pr =	0.000		
Region					
UP/NW/NE (n=574)	56.2	[51.7, 60.5]	43.8	[39.5, 48.3]	100.0
W/E Central/E (n=979)	54.9	[51.4, 58.3]	45.1	[41.7, 48.6]	100.0
S Central/SW/SE (n=633)	60.1	[55.7, 64.4]	39.9	[35.6, 44.3]	100.0
Detroit Metro (n=907)	57.6	[53.6, 61.5]	42.4	[38.5, 46.4]	100.0
Pearson: Uncorrected chi2(3) =	4.1749				
Design-based F(2.64, 8118.94) =	1.1697	Pr =	0.317		
Chronic condition (2016/2017 survey or DW)					
Yes (n=2,467)	53.1	[50.6, 55.6]	46.9	[44.4, 49.4]	100.0
No (n=626)	70.5	[65.6, 75.0]	29.5	[25.0, 34.4]	100.0
Pearson: Uncorrected chi2(1) =	67.4404				
Design-based F(1.00, 3081.00) =	35.1421	Pr =	0.000		
Total (n=3,093)	57.1	[55.0, 59.3]	42.9	[40.7, 45.0]	100.0

Note: Total count is less than universe count due to item non-response.

0.4.1 Q: Are you working full time or part time?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed (n = 1,746)

	Employment status				
	Full-time		Part-time		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=1,309)	41.6	[38.2, 45.1]	58.4	[54.9, 61.8]	100.0
No longer enrolled (n=422)	69.2	[63.5, 74.3]	30.8	[25.7, 36.5]	100.0
Pearson: Uncorrected chi2(1) =	100.1657				
Design-based F(1.00, 1719.00) =	62.3638	Pr =	0.000		
Age					
19-34 (n=639)	53.0	[48.1, 58.0]	47.0	[42.0, 51.9]	100.0
35-50 (n=562)	49.8	[44.6, 55.1]	50.2	[44.9, 55.4]	100.0
51-64 (n=530)	38.1	[33.1, 43.3]	61.9	[56.7, 66.9]	100.0
Pearson: Uncorrected chi2(2) =	23.1741				
Design-based F(1.93, 3314.41) =	7.5250	Pr =	0.001		
Gender					
Male (n=685)	51.6	[46.7, 56.4]	48.4	[43.6, 53.3]	100.0
Female (n=1,046)	46.1	[42.4, 50.0]	53.9	[50.0, 57.6]	100.0
Pearson: Uncorrected chi2(1) =	5.1189				
Design-based F(1.00, 1719.00) =	2.9619	Pr =	0.085		
Race/ethnicity					
White, non-Hispanic (n=1,126)	46.1	[42.4, 49.8]	53.9	[50.2, 57.6]	100.0
Black, non-Hispanic (n=367)	53.5	[46.8, 60.1]	46.5	[39.9, 53.2]	100.0
Hispanic (n=88)	55.2	[42.4, 67.4]	44.8	[32.6, 57.6]	100.0
Other, non-Hispanic (n=131)	47.5	[37.3, 57.9]	52.5	[42.1, 62.7]	100.0
Pearson: Uncorrected chi2(3) =	8.9128				
Design-based F(2.99, 5074.86) =	1.6003	Pr =	0.187		
FPL category					
0-35% (n=477)	40.3	[34.7, 46.2]	59.7	[53.8, 65.3]	100.0
36-99% (n=714)	50.2	[45.7, 54.6]	49.8	[45.4, 54.3]	100.0
100%+ (n=540)	60.1	[55.2, 64.8]	39.9	[35.2, 44.8]	100.0
Pearson: Uncorrected chi2(2) =	42.9402				
Design-based F(1.87, 3216.73) =	13.7404	Pr =	0.000		
Region					
UP/NW/NE (n=317)	53.3	[47.2, 59.3]	46.7	[40.7, 52.8]	100.0
W/E Central/E (n=519)	46.4	[41.5, 51.3]	53.6	[48.7, 58.5]	100.0
S Central/SW/SE (n=361)	51.8	[45.7, 57.8]	48.2	[42.2, 54.3]	100.0
Detroit Metro (n=534)	47.8	[42.4, 53.3]	52.2	[46.7, 57.6]	100.0
Pearson: Uncorrected chi2(3) =	3.8550				
Design-based F(2.64, 4536.32) =	1.0113	Pr =	0.380		
Chronic condition (2016/2017 survey or DW)					
Yes (n=1,272)	47.5	[43.9, 51.2]	52.5	[48.8, 56.1]	100.0
No (n=459)	51.6	[45.9, 57.2]	48.4	[42.8, 54.1]	100.0
Pearson: Uncorrected chi2(1) =	2.2964				
Design-based F(1.00, 1719.00) =	1.3804	Pr =	0.240		
Total (n=1,731)	48.7	[45.7, 51.7]	51.3	[48.3, 54.3]	100.0

Note: Total count is less than universe count due to item non-response.

0.4.2 Q: Have you changed jobs in the last 12 months?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed (n = 1,746)

	Job change in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=1,318)	20.2	[17.5, 23.2]	79.8	[76.8, 82.5]	0.0	[0.0, 0.2]	100.0
No longer enrolled (n=423)	28.5	[23.6, 34.0]	71.5	[66.0, 76.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	13.3741						
Design-based F(1.48, 2550.43) =	6.6929	Pr =	0.004				
Age							
19-34 (n=641)	29.4	[25.3, 34.0]	70.6	[66.0, 74.7]	0.0		100.0
35-50 (n=566)	18.6	[14.9, 23.0]	81.4	[77.0, 85.1]	0.0		100.0
51-64 (n=534)	13.6	[10.1, 18.0]	86.3	[81.9, 89.8]	0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(4) =	45.4996						
Design-based F(3.39, 5855.06) =	8.5319	Pr =	0.000				
Gender							
Male (n=686)	22.2	[18.5, 26.3]	77.8	[73.7, 81.5]	0.0		100.0
Female (n=1,055)	22.4	[19.3, 25.8]	77.5	[74.1, 80.6]	0.0	[0.0, 0.3]	100.0
Pearson: Uncorrected chi2(2) =	0.3667						
Design-based F(1.45, 2511.67) =	0.1758	Pr =	0.767				
Race/ethnicity							
White, non-Hispanic (n=1,135)	21.7	[18.8, 24.9]	78.2	[75.1, 81.1]	0.0	[0.0, 0.3]	100.0
Black, non-Hispanic (n=367)	21.1	[16.5, 26.7]	78.9	[73.3, 83.5]	0.0		100.0
Hispanic (n=88)	25.9	[15.2, 40.4]	74.1	[59.6, 84.8]	0.0		100.0
Other, non-Hispanic (n=131)	27.8	[19.1, 38.4]	72.2	[61.6, 80.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.3826						
Design-based F(5.21, 8910.97) =	0.4370	Pr =	0.830				
FPL category							
0-35% (n=478)	22.2	[17.8, 27.4]	77.8	[72.6, 82.2]	0.0		100.0
36-99% (n=716)	22.5	[19.1, 26.3]	77.4	[73.6, 80.9]	0.1	[0.0, 0.5]	100.0
100%+ (n=547)	22.1	[18.3, 26.5]	77.9	[73.5, 81.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	0.7888						
Design-based F(2.83, 4900.69) =	0.2040	Pr =	0.884				
Region							
UP/NW/NE (n=316)	21.7	[17.0, 27.3]	78.3	[72.7, 83.0]	0.0		100.0
W/E Central/E (n=528)	21.4	[17.7, 25.7]	78.6	[74.3, 82.3]	0.0		100.0
S Central/SW/SE (n=363)	29.3	[23.8, 35.4]	70.6	[64.5, 76.0]	0.1	[0.0, 0.8]	100.0
Detroit Metro (n=534)	19.9	[15.9, 24.6]	80.1	[75.4, 84.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.0456						
Design-based F(3.89, 6727.60) =	2.8355	Pr =	0.024				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,280)	22.4	[19.6, 25.6]	77.5	[74.4, 80.4]	0.0	[0.0, 0.2]	100.0
No (n=461)	22.0	[17.8, 26.8]	78.0	[73.2, 82.2]	0.0		100.0
Pearson: Uncorrected chi2(2) =	0.2114						
Design-based F(1.48, 2552.49) =	0.1061	Pr =	0.839				
Total (n=1,741)	22.3	[19.9, 24.9]	77.7	[75.1, 80.1]	0.0	[0.0, 0.2]	100.0

Note: Total count is less than universe count due to item non-response.

0.4.3 Q: Are you out of work, unable to work, retired, or not looking for work at this time?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are not employed/self-employed (n = 1,354)

	Unemployed status								
	Out of work		Unable to work		Retired		Not looking for work		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=1,056)	35.5	[31.8, 39.4]	39.3	[35.6, 43.0]	7.4	[6.0, 9.0]	17.9	[15.0, 21.2]	100.0
No longer enrolled (n=281)	26.2	[20.1, 33.3]	49.2	[42.1, 56.4]	12.9	[9.0, 18.1]	11.7	[8.1, 16.7]	100.0
Pearson: Uncorrected chi2(3) =	23.2630								
Design-based F(2.95, 3902.85) =	5.7215	Pr =	0.001						
Age									
19-34 (n=266)	49.1	[41.7, 56.5]	22.7	[17.0, 29.7]	0.0		28.2	[22.1, 35.2]	100.0
35-50 (n=395)	34.9	[29.3, 41.1]	50.4	[44.3, 56.4]	1.1	[0.5, 2.6]	13.6	[9.9, 18.3]	100.0
51-64 (n=676)	20.4	[16.8, 24.4]	47.3	[42.8, 51.8]	21.9	[18.5, 25.7]	10.4	[8.0, 13.5]	100.0
Pearson: Uncorrected chi2(6) =	311.8039								
Design-based F(5.52, 7312.29) =	35.3011	Pr =	0.000						
Gender									
Male (n=540)	40.9	[35.7, 46.3]	41.8	[36.7, 47.1]	9.4	[7.1, 12.3]	7.9	[5.4, 11.5]	100.0
Female (n=797)	27.0	[23.2, 31.2]	40.7	[36.6, 45.0]	7.7	[6.2, 9.5]	24.6	[20.8, 28.8]	100.0
Pearson: Uncorrected chi2(3) =	75.7995								
Design-based F(2.82, 3741.35) =	16.4974	Pr =	0.000						
Race/ethnicity									
White, non-Hispanic (n=914)	31.4	[27.4, 35.7]	42.1	[38.0, 46.3]	9.9	[8.2, 11.9]	16.7	[13.6, 20.3]	100.0
Black, non-Hispanic (n=260)	43.7	[36.8, 51.0]	38.3	[31.6, 45.4]	5.9	[3.4, 10.1]	12.1	[8.3, 17.2]	100.0
Hispanic (n=49)	30.8	[18.3, 47.0]	44.4	[29.5, 60.4]	5.0	[2.0, 12.3]	19.7	[10.0, 35.1]	100.0
Other, non-Hispanic (n=97)	24.0	[14.8, 36.4]	38.8	[27.8, 51.1]	8.2	[3.5, 17.9]	29.0	[18.2, 42.8]	100.0
Pearson: Uncorrected chi2(9) =	34.5426								
Design-based F(8.32, 10884.55) =	2.6551	Pr =	0.006						
FPL category									
0-35% (n=731)	36.2	[31.9, 40.7]	45.9	[41.5, 50.4]	4.9	[3.4, 7.0]	13.0	[10.1, 16.7]	100.0
36-99% (n=362)	27.6	[22.4, 33.6]	32.3	[27.2, 37.9]	13.8	[10.8, 17.6]	26.3	[21.2, 32.0]	100.0
100%+ (n=244)	28.7	[22.1, 36.2]	29.4	[23.6, 36.1]	20.0	[15.3, 25.5]	22.0	[15.9, 29.5]	100.0
Pearson: Uncorrected chi2(6) =	94.1544								
Design-based F(5.62, 7451.74) =	14.0143	Pr =	0.000						
Region									
UP/NW/NE (n=252)	24.3	[18.4, 31.3]	42.0	[35.3, 49.0]	14.7	[11.0, 19.3]	19.0	[13.8, 25.7]	100.0
W/E Central/E (n=451)	30.8	[25.9, 36.1]	45.9	[40.6, 51.3]	8.9	[6.8, 11.7]	14.4	[11.0, 18.7]	100.0
S Central/SW/SE (n=267)	32.1	[26.0, 39.0]	40.1	[33.6, 47.1]	10.3	[7.4, 14.1]	17.4	[12.6, 23.5]	100.0
Detroit Metro (n=367)	38.4	[32.4, 44.8]	38.1	[32.3, 44.2]	6.0	[3.9, 9.2]	17.5	[13.1, 22.9]	100.0
Pearson: Uncorrected chi2(9) =	24.3417								
Design-based F(7.74, 10257.64) =	2.3291	Pr =	0.018						
Chronic condition (2016/2017 survey or DW)									
Yes (n=1,175)	30.3	[26.9, 33.8]	45.5	[42.0, 49.1]	9.6	[8.0, 11.5]	14.6	[12.2, 17.4]	100.0
No (n=162)	51.3	[41.4, 61.0]	19.0	[11.8, 29.0]	2.5	[1.2, 5.1]	27.3	[19.5, 36.8]	100.0
Pearson: Uncorrected chi2(3) =	82.3016								
Design-based F(2.56, 3387.09) =	15.4685	Pr =	0.000						
Total (n=1,337)	33.6	[30.4, 37.0]	41.3	[38.0, 44.6]	8.5	[7.1, 10.1]	16.6	[14.2, 19.4]	100.0

Note: Total count is less than universe count due to item non-response.

0.4.3.1 Q: How long have you been out of work?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are out of work (n = 375)

	Time out of work				
	Less than one year		One year or more		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=313)	46.0	[39.1, 53.1]	54.0	[46.9, 60.9]	100.0
No longer enrolled (n=60)	55.5	[40.5, 69.5]	44.5	[30.5, 59.5]	100.0
Pearson: Uncorrected chi2(1) =	1.7679				
Design-based F(1.00, 361.00) =	1.2617	Pr =	0.262		
Age					
19-34 (n=128)	61.6	[51.0, 71.1]	38.4	[28.9, 49.0]	100.0
35-50 (n=128)	38.8	[28.8, 49.9]	61.2	[50.1, 71.2]	100.0
51-64 (n=117)	34.8	[25.1, 46.1]	65.2	[53.9, 74.9]	100.0
Pearson: Uncorrected chi2(2) =	21.7851				
Design-based F(1.94, 699.13) =	7.4051	Pr =	0.001		
Gender					
Male (n=186)	46.3	[37.6, 55.1]	53.7	[44.9, 62.4]	100.0
Female (n=187)	49.2	[40.4, 58.1]	50.8	[41.9, 59.6]	100.0
Pearson: Uncorrected chi2(1) =	0.3158				
Design-based F(1.00, 361.00) =	0.2102	Pr =	0.647		
Race/ethnicity					
White, non-Hispanic (n=232)	48.0	[39.8, 56.4]	52.0	[43.6, 60.2]	100.0
Black, non-Hispanic (n=104)	45.5	[34.8, 56.5]	54.5	[43.5, 65.2]	100.0
Hispanic (n=14)	74.7	[47.0, 90.8]	25.3	[9.2, 53.0]	100.0
Other, non-Hispanic (n=21)	42.5	[20.8, 67.6]	57.5	[32.4, 79.2]	100.0
Pearson: Uncorrected chi2(3) =	3.7863				
Design-based F(2.82, 1013.26) =	1.0013	Pr =	0.388		
FPL category					
0-35% (n=231)	42.9	[35.1, 51.0]	57.1	[49.0, 64.9]	100.0
36-99% (n=86)	52.8	[40.5, 64.7]	47.2	[35.3, 59.5]	100.0
100%+ (n=56)	71.5	[57.6, 82.3]	28.5	[17.7, 42.4]	100.0
Pearson: Uncorrected chi2(2) =	12.3100				
Design-based F(1.96, 705.79) =	6.2464	Pr =	0.002		
Region					
UP/NW/NE (n=53)	38.4	[23.9, 55.3]	61.6	[44.7, 76.1]	100.0
W/E Central/E (n=123)	48.9	[38.9, 59.1]	51.1	[40.9, 61.1]	100.0
S Central/SW/SE (n=76)	50.1	[37.9, 62.2]	49.9	[37.8, 62.1]	100.0
Detroit Metro (n=121)	47.1	[36.7, 57.7]	52.9	[42.3, 63.3]	100.0
Pearson: Uncorrected chi2(3) =	1.0917				
Design-based F(2.73, 985.04) =	0.3211	Pr =	0.791		
Chronic condition (2016/2017 survey or DW)					
Yes (n=296)	43.2	[36.2, 50.5]	56.8	[49.5, 63.8]	100.0
No (n=77)	61.0	[47.2, 73.2]	39.0	[26.8, 52.8]	100.0
Pearson: Uncorrected chi2(1) =	8.6584				
Design-based F(1.00, 361.00) =	5.1129	Pr =	0.024		
Total (n=373)	47.5	[41.2, 53.9]	52.5	[46.1, 58.8]	100.0

Note: Total count is less than universe count due to item non-response.

0.4.3.2 Q: How long have you been unable to work?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are unable to work (n = 570)

	Time unable to work				
	Less than one year		One year or more		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=433)	12.2	[8.4, 17.4]	87.8	[82.6, 91.6]	100.0
No longer enrolled (n=137)	13.6	[8.0, 22.3]	86.4	[77.7, 92.0]	100.0
Pearson: Uncorrected chi2(1) =	0.1837				
Design-based F(1.00, 558.00) =	0.1120	Pr =	0.738		
Age					
19-34 (n=55)	25.5	[13.1, 43.7]	74.5	[56.3, 86.9]	100.0
35-50 (n=202)	13.5	[8.9, 20.0]	86.5	[80.0, 91.1]	100.0
51-64 (n=313)	6.8	[4.3, 10.5]	93.2	[89.5, 95.7]	100.0
Pearson: Uncorrected chi2(2) =	21.5054				
Design-based F(1.74, 971.07) =	5.8412	Pr =	0.005		
Gender					
Male (n=232)	12.2	[7.4, 19.3]	87.8	[80.7, 92.6]	100.0
Female (n=338)	13.0	[8.8, 18.6]	87.0	[81.4, 91.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0826				
Design-based F(1.00, 558.00) =	0.0424	Pr =	0.837		
Race/ethnicity					
White, non-Hispanic (n=394)	12.1	[8.4, 17.1]	87.9	[82.9, 91.6]	100.0
Black, non-Hispanic (n=102)	16.5	[8.9, 28.7]	83.5	[71.3, 91.1]	100.0
Hispanic (n=20)	0.0		100.0		100.0
Other, non-Hispanic (n=44)	7.5	[1.4, 31.3]	92.5	[68.7, 98.6]	100.0
Pearson: Uncorrected chi2(3) =	5.9410				
Design-based F(2.88, 1578.62) =	1.0234	Pr =	0.379		
FPL category					
0-35% (n=365)	11.8	[7.9, 17.4]	88.2	[82.6, 92.1]	100.0
36-99% (n=125)	17.5	[11.3, 26.2]	82.5	[73.8, 88.7]	100.0
100%+ (n=80)	10.9	[5.8, 19.4]	89.1	[80.6, 94.2]	100.0
Pearson: Uncorrected chi2(2) =	2.2495				
Design-based F(1.82, 1017.21) =	1.1955	Pr =	0.300		
Region					
UP/NW/NE (n=109)	14.0	[7.7, 24.1]	86.0	[75.9, 92.3]	100.0
W/E Central/E (n=203)	13.5	[8.5, 20.8]	86.5	[79.2, 91.5]	100.0
S Central/SW/SE (n=112)	8.4	[3.8, 17.5]	91.6	[82.5, 96.2]	100.0
Detroit Metro (n=146)	13.2	[7.4, 22.3]	86.8	[77.7, 92.6]	100.0
Pearson: Uncorrected chi2(3) =	1.8407				
Design-based F(2.64, 1470.44) =	0.4134	Pr =	0.718		
Chronic condition (2016/2017 survey or DW)					
Yes (n=546)	10.8	[7.9, 14.5]	89.2	[85.5, 92.1]	100.0
No (n=24)	35.0	[14.8, 62.6]	65.0	[37.4, 85.2]	100.0
Pearson: Uncorrected chi2(1) =	21.2026				
Design-based F(1.00, 558.00) =	7.1949	Pr =	0.008		
Total (n=570)	12.6	[9.2, 16.9]	87.4	[83.1, 90.8]	100.0

0.4.3.3 Q: Why are you unable to work?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are unable to work (n = 570)

Why are you unable to work?	Weighted Proportion	95%CI
Poor health (n=324)	52.9	[47.7, 58.0]
Disability (n=212)	41.0	[36.0, 46.2]
Other (n=24)	4.8	[2.8, 8.2]
Caregiving responsibilities (n=18)	2.7	[1.5, 4.6]
Don't know (n=3)	1.2	[0.4, 3.6]
Age (n=3)	0.5	[0.1, 1.6]

0.4.3.4 Q: How long have you been retired?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are retired (n = 184)

	Time retired				
	Less than one year		One year or more		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=133)	15.9	[8.7, 27.4]	84.1	[72.6, 91.3]	100.0
No longer enrolled (n=50)	15.8	[7.0, 31.8]	84.2	[68.2, 93.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0004				
Design-based F(1.00, 171.00) =	0.0002	Pr =	0.988		
Age					
35-50 (n=7)	48.4	[13.8, 84.6]	51.6	[15.4, 86.2]	100.0
51-64 (n=176)	14.4	[8.4, 23.8]	85.6	[76.2, 91.6]	100.0
Pearson: Uncorrected chi2(1) =	6.5689				
Design-based F(1.00, 171.00) =	3.9759	Pr =	0.048		
Gender					
Male (n=80)	18.1	[8.7, 33.9]	81.9	[66.1, 91.3]	100.0
Female (n=103)	13.4	[7.1, 24.0]	86.6	[76.0, 92.9]	100.0
Pearson: Uncorrected chi2(1) =	0.7646				
Design-based F(1.00, 171.00) =	0.4224	Pr =	0.517		
Race/ethnicity					
White, non-Hispanic (n=146)	15.8	[8.9, 26.5]	84.2	[73.5, 91.1]	100.0
Black, non-Hispanic (n=21)	16.0	[4.6, 43.0]	84.0	[57.0, 95.4]	100.0
Hispanic (n=5)	0.0		100.0		100.0
Other, non-Hispanic (n=10)	21.6	[6.1, 53.8]	78.4	[46.2, 93.9]	100.0
Pearson: Uncorrected chi2(3) =	1.0080				
Design-based F(2.69, 457.29) =	0.2459	Pr =	0.844		
FPL category					
0-35% (n=49)	21.8	[9.6, 42.2]	78.2	[57.8, 90.4]	100.0
36-99% (n=70)	14.6	[6.5, 29.6]	85.4	[70.4, 93.5]	100.0
100%+ (n=64)	9.5	[4.1, 20.3]	90.5	[79.7, 95.9]	100.0
Pearson: Uncorrected chi2(2) =	3.6577				
Design-based F(1.83, 313.29) =	1.1332	Pr =	0.320		
Region					
UP/NW/NE (n=50)	15.8	[7.2, 31.0]	84.2	[69.0, 92.8]	100.0
W/E Central/E (n=61)	12.2	[5.1, 26.5]	87.8	[73.5, 94.9]	100.0
S Central/SW/SE (n=38)	10.6	[4.2, 24.5]	89.4	[75.5, 95.8]	100.0
Detroit Metro (n=34)	23.7	[9.0, 49.6]	76.3	[50.4, 91.0]	100.0
Pearson: Uncorrected chi2(3) =	3.9516				
Design-based F(2.45, 418.47) =	0.8736	Pr =	0.437		
Chronic condition (2016/2017 survey or DW)					
Yes (n=175)	15.9	[9.5, 25.6]	84.1	[74.4, 90.5]	100.0
No (n=8)	15.3	[3.4, 48.2]	84.7	[51.8, 96.6]	100.0
Pearson: Uncorrected chi2(1) =	0.0022				
Design-based F(1.00, 171.00) =	0.0027	Pr =	0.959		
Total (n=183)	15.9	[9.6, 25.1]	84.1	[74.9, 90.4]	100.0

Note: Total count is less than universe count due to item non-response.

0.5 Q: The Healthy Michigan Plan gave me insurance when I couldn't get insurance at my job.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed and have not changed jobs in the past 12 months (n = 1,378)

	HMP gave me insurance when I couldn't get it through my job								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=1,069)	80.4	[76.9, 83.5]	7.0	[5.1, 9.4]	12.0	[9.5, 15.0]	0.6	[0.2, 1.6]	100.0
No longer enrolled (n=304)	79.2	[72.7, 84.6]	8.3	[5.5, 12.4]	10.9	[6.9, 16.9]	1.5	[0.4, 5.7]	100.0
Pearson: Uncorrected chi2(3) =	3.2613								
Design-based F(2.93, 3983.21) =	0.5904	Pr =	0.617						
Age									
19-34 (n=445)	78.1	[72.9, 82.6]	7.8	[5.3, 11.3]	14.1	[10.5, 18.8]	0.0		100.0
35-50 (n=458)	81.3	[75.6, 85.9]	8.3	[5.3, 12.6]	9.2	[5.9, 14.1]	1.3	[0.5, 3.5]	100.0
51-64 (n=470)	81.8	[76.6, 86.0]	5.1	[3.4, 7.6]	11.6	[8.0, 16.3]	1.5	[0.4, 5.4]	100.0
Pearson: Uncorrected chi2(6) =	16.6497								
Design-based F(5.64, 7682.03) =	1.5621	Pr =	0.158						
Gender									
Male (n=537)	78.2	[73.0, 82.7]	6.8	[4.5, 10.2]	14.1	[10.4, 18.8]	0.9	[0.3, 2.6]	100.0
Female (n=836)	81.8	[78.2, 85.0]	7.7	[5.7, 10.4]	9.7	[7.4, 12.6]	0.8	[0.2, 2.5]	100.0
Pearson: Uncorrected chi2(3) =	6.6958								
Design-based F(3.00, 4080.13) =	1.1943	Pr =	0.310						
Race/ethnicity									
White, non-Hispanic (n=893)	81.2	[77.5, 84.4]	6.5	[4.8, 8.8]	11.7	[9.1, 15.0]	0.6	[0.1, 2.4]	100.0
Black, non-Hispanic (n=290)	80.5	[73.6, 86.0]	5.7	[3.3, 9.7]	12.6	[8.0, 19.3]	1.2	[0.3, 4.4]	100.0
Hispanic (n=71)	76.9	[64.5, 86.0]	12.1	[6.0, 22.7]	8.9	[3.6, 20.3]	2.1	[0.6, 6.7]	100.0
Other, non-Hispanic (n=102)	76.9	[62.8, 86.8]	12.0	[4.8, 27.0]	11.0	[5.1, 22.3]	0.0		100.0
Pearson: Uncorrected chi2(9) =	13.4873								
Design-based F(8.00, 10755.12) =	0.7938	Pr =	0.608						
FPL category									
0-35% (n=371)	77.1	[70.9, 82.3]	7.8	[4.8, 12.3]	14.6	[10.4, 20.2]	0.5	[0.1, 3.5]	100.0
36-99% (n=566)	82.2	[77.9, 85.9]	5.7	[4.0, 8.1]	10.5	[7.5, 14.3]	1.6	[0.6, 4.0]	100.0
100%+ (n=436)	82.1	[77.4, 85.9]	8.6	[6.0, 12.3]	9.0	[6.3, 12.6]	0.4	[0.1, 1.6]	100.0
Pearson: Uncorrected chi2(6) =	15.1322								
Design-based F(5.26, 7159.56) =	1.5686	Pr =	0.162						
Region									
UP/NW/NE (n=253)	80.1	[73.8, 85.2]	9.8	[6.0, 15.6]	9.9	[6.7, 14.3]	0.2	[0.0, 1.6]	100.0
W/E Central/E (n=422)	82.0	[77.4, 85.9]	7.7	[5.1, 11.3]	9.5	[6.8, 13.1]	0.8	[0.3, 2.2]	100.0
S Central/SW/SE (n=269)	82.2	[76.0, 87.0]	5.4	[3.1, 9.1]	12.1	[8.0, 17.9]	0.4	[0.1, 2.7]	100.0
Detroit Metro (n=429)	78.1	[72.3, 83.0]	7.3	[4.7, 11.2]	13.4	[9.5, 18.7]	1.1	[0.3, 3.7]	100.0
Pearson: Uncorrected chi2(9) =	8.4676								
Design-based F(7.46, 10146.42) =	0.8007	Pr =	0.594						
Chronic condition (2016/2017 survey or DW)									
Yes (n=1,014)	82.2	[78.6, 85.3]	7.5	[5.6, 10.1]	9.6	[7.2, 12.6]	0.7	[0.3, 1.8]	100.0
No (n=359)	75.0	[68.9, 80.2]	6.6	[4.3, 10.2]	17.2	[12.7, 22.9]	1.2	[0.3, 4.7]	100.0
Pearson: Uncorrected chi2(3) =	16.7774								
Design-based F(2.94, 4007.70) =	3.0440	Pr =	0.029						
Total (n=1,373)	80.1	[77.1, 82.9]	7.3	[5.7, 9.3]	11.7	[9.5, 14.4]	0.8	[0.4, 1.8]	100.0

Note: Total count is less than universe count due to item non-response.

0.6 Q: Having the Healthy Michigan Plan helped me stay insured between jobs or between school and a job.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are in school, employed/self-employed and have changed jobs in the past 12 months, or not employed/self-employed and are not looking for work at this time (n = 749)

	HMP helped me stay insured								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=551)	78.3	[73.9, 82.2]	6.6	[4.3, 10.0]	12.5	[9.9, 15.8]	2.5	[1.2, 5.1]	100.0
No longer enrolled (n=192)	74.6	[66.0, 81.7]	10.6	[5.6, 19.2]	14.8	[10.0, 21.4]	0.0		100.0
Pearson: Uncorrected chi2(3) =	8.6026								
Design-based F(2.86, 2091.81) =	1.6592	Pr =	0.176						
Age									
19-34 (n=402)	78.4	[72.8, 83.1]	8.1	[4.9, 13.0]	11.7	[8.7, 15.6]	1.8	[0.7, 5.0]	100.0
35-50 (n=199)	79.0	[72.1, 84.6]	7.2	[4.1, 12.4]	13.2	[8.9, 19.1]	0.5	[0.1, 2.2]	100.0
51-64 (n=142)	69.4	[59.7, 77.6]	6.3	[3.2, 12.2]	19.4	[13.2, 27.7]	4.8	[1.6, 13.8]	100.0
Pearson: Uncorrected chi2(6) =	11.3645								
Design-based F(5.35, 3910.37) =	1.6032	Pr =	0.151						
Gender									
Male (n=255)	77.0	[69.8, 82.9]	8.2	[4.4, 14.9]	13.0	[9.1, 18.2]	1.8	[0.4, 6.7]	100.0
Female (n=488)	77.6	[73.0, 81.7]	7.2	[4.8, 10.7]	13.2	[10.3, 16.8]	2.0	[0.9, 4.3]	100.0
Pearson: Uncorrected chi2(3) =	0.3127								
Design-based F(2.85, 2081.90) =	0.0558	Pr =	0.979						
Race/ethnicity									
White, non-Hispanic (n=477)	79.8	[75.1, 83.9]	5.7	[3.3, 9.7]	13.5	[10.5, 17.1]	1.0	[0.3, 2.8]	100.0
Black, non-Hispanic (n=151)	79.5	[71.3, 85.9]	6.6	[3.3, 12.7]	10.4	[6.2, 17.2]	3.4	[1.2, 9.2]	100.0
Hispanic (n=33)	58.7	[35.9, 78.3]	20.1	[5.8, 50.8]	20.3	[9.0, 39.6]	0.9	[0.1, 6.1]	100.0
Other, non-Hispanic (n=74)	74.0	[61.1, 83.8]	11.8	[5.8, 22.3]	10.9	[5.5, 20.2]	3.4	[0.5, 20.2]	100.0
Pearson: Uncorrected chi2(9) =	24.1956								
Design-based F(7.32, 5295.83) =	1.5856	Pr =	0.131						
FPL category									
0-35% (n=254)	76.7	[69.6, 82.5]	9.0	[5.2, 15.2]	10.9	[7.4, 15.8]	3.4	[1.5, 7.7]	100.0
36-99% (n=285)	75.0	[69.0, 80.2]	8.6	[5.4, 13.7]	15.6	[11.7, 20.6]	0.8	[0.3, 2.2]	100.0
100%+ (n=204)	81.9	[75.2, 87.1]	3.5	[1.3, 8.9]	14.4	[9.9, 20.4]	0.2	[0.0, 1.5]	100.0
Pearson: Uncorrected chi2(6) =	16.6212								
Design-based F(5.03, 3680.32) =	2.4821	Pr =	0.029						
Region									
UP/NW/NE (n=119)	79.4	[70.4, 86.1]	6.1	[2.8, 12.8]	13.4	[8.1, 21.3]	1.1	[0.3, 4.6]	100.0
W/E Central/E (n=210)	79.9	[73.3, 85.2]	4.3	[2.0, 8.7]	13.5	[9.3, 19.1]	2.3	[0.7, 7.5]	100.0
S Central/SW/SE (n=170)	75.2	[66.8, 82.1]	6.7	[3.5, 12.7]	17.5	[11.6, 25.4]	0.6	[0.1, 2.3]	100.0
Detroit Metro (n=244)	76.6	[69.6, 82.5]	10.2	[6.1, 16.8]	10.7	[7.5, 15.1]	2.4	[0.8, 6.7]	100.0
Pearson: Uncorrected chi2(9) =	12.5629								
Design-based F(7.28, 5324.88) =	1.3124	Pr =	0.238						
Chronic condition (2016/2017 survey or DW)									
Yes (n=513)	77.4	[72.7, 81.5]	7.4	[4.8, 11.0]	12.8	[10.0, 16.2]	2.4	[1.1, 5.2]	100.0
No (n=230)	77.4	[69.8, 83.5]	8.1	[4.2, 15.3]	13.7	[9.4, 19.5]	0.8	[0.1, 5.3]	100.0
Pearson: Uncorrected chi2(3) =	2.6948								
Design-based F(2.86, 2091.64) =	0.4959	Pr =	0.676						
Total (n=743)	77.4	[73.4, 80.9]	7.6	[5.3, 10.8]	13.1	[10.7, 16.0]	1.9	[0.9, 3.8]	100.0

Note: Total count is less than universe count due to item non-response.

0.7 Q: The Healthy Michigan Plan helped me do a better job at work.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed, or retired for less than one year and not currently a student (n = 1,762)

	HMP helped me do a better job at work								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=1,330)	67.8	[64.4, 71.1]	16.2	[13.6, 19.1]	15.1	[12.7, 17.9]	0.8	[0.5, 1.5]	100.0
No longer enrolled (n=432)	56.0	[49.9, 61.8]	24.7	[19.9, 30.1]	18.5	[14.2, 23.8]	0.8	[0.2, 4.2]	100.0
Pearson: Uncorrected chi2(3) =	22.9409								
Design-based F(2.96, 5181.51) =	4.0198	Pr =	0.007						
Age									
19-34 (n=641)	60.3	[55.3, 65.0]	20.9	[17.1, 25.4]	17.9	[14.5, 22.0]	0.8	[0.4, 1.8]	100.0
35-50 (n=567)	65.9	[60.6, 70.8]	20.6	[16.6, 25.2]	13.1	[9.7, 17.5]	0.4	[0.1, 1.4]	100.0
51-64 (n=554)	72.0	[67.0, 76.5]	10.0	[7.6, 13.1]	16.5	[12.8, 21.2]	1.5	[0.5, 4.4]	100.0
Pearson: Uncorrected chi2(6) =	33.3957								
Design-based F(5.60, 9807.17) =	3.8095	Pr =	0.001						
Gender									
Male (n=695)	64.4	[59.6, 69.0]	17.3	[14.0, 21.2]	17.9	[14.2, 22.2]	0.4	[0.2, 1.1]	100.0
Female (n=1,067)	65.1	[61.3, 68.7]	19.3	[16.2, 22.8]	14.4	[12.1, 17.1]	1.2	[0.6, 2.4]	100.0
Pearson: Uncorrected chi2(3) =	7.2333								
Design-based F(2.84, 4970.91) =	1.5749	Pr =	0.196						
Race/ethnicity									
White, non-Hispanic (n=1,149)	63.6	[60.0, 67.2]	17.5	[14.8, 20.7]	17.8	[15.2, 20.8]	1.0	[0.5, 2.1]	100.0
Black, non-Hispanic (n=370)	67.9	[61.2, 74.0]	16.6	[12.5, 21.8]	14.9	[10.2, 21.3]	0.6	[0.2, 1.8]	100.0
Hispanic (n=88)	54.9	[41.8, 67.4]	32.1	[20.2, 46.8]	13.0	[7.1, 22.6]	0.0		100.0
Other, non-Hispanic (n=135)	70.6	[60.9, 78.7]	18.8	[12.4, 27.5]	9.4	[5.0, 16.7]	1.3	[0.3, 5.2]	100.0
Pearson: Uncorrected chi2(9) =	25.0294								
Design-based F(8.24, 14254.33) =	1.6985	Pr =	0.091						
FPL category									
0-35% (n=485)	66.5	[60.6, 71.9]	18.2	[13.9, 23.4]	14.8	[11.0, 19.7]	0.5	[0.2, 1.3]	100.0
36-99% (n=723)	66.1	[61.8, 70.2]	15.2	[12.5, 18.5]	17.3	[14.1, 21.0]	1.4	[0.6, 3.3]	100.0
100%+ (n=554)	60.3	[55.4, 65.0]	22.8	[18.9, 27.3]	16.2	[12.9, 20.1]	0.7	[0.2, 1.9]	100.0
Pearson: Uncorrected chi2(6) =	14.2342								
Design-based F(5.35, 9362.72) =	1.6427	Pr =	0.140						
Region									
UP/NW/NE (n=323)	67.7	[61.7, 73.1]	15.6	[11.7, 20.6]	15.9	[11.9, 20.9]	0.8	[0.2, 2.8]	100.0
W/E Central/E (n=533)	62.8	[57.9, 67.5]	19.0	[15.5, 23.1]	17.6	[14.0, 22.0]	0.5	[0.2, 1.4]	100.0
S Central/SW/SE (n=366)	66.7	[60.9, 72.1]	17.5	[13.5, 22.3]	14.5	[10.7, 19.2]	1.3	[0.5, 3.3]	100.0
Detroit Metro (n=540)	64.6	[59.0, 69.8]	18.9	[14.8, 23.8]	15.7	[12.0, 20.2]	0.8	[0.3, 2.5]	100.0
Pearson: Uncorrected chi2(9) =	4.6849								
Design-based F(7.59, 13283.17) =	0.4321	Pr =	0.895						
Chronic condition (2016/2017 survey or DW)									
Yes (n=1,299)	67.8	[64.2, 71.2]	17.3	[14.6, 20.3]	14.2	[11.7, 17.1]	0.7	[0.4, 1.3]	100.0
No (n=463)	57.1	[51.5, 62.5]	21.1	[16.9, 26.0]	20.6	[16.6, 25.3]	1.3	[0.4, 3.7]	100.0
Pearson: Uncorrected chi2(3) =	19.7834								
Design-based F(2.99, 5235.38) =	4.0413	Pr =	0.007						
Total (n=1,762)	64.8	[61.8, 67.7]	18.4	[16.1, 20.9]	16.0	[13.9, 18.4]	0.8	[0.5, 1.5]	100.0

0.8 Q: The Healthy Michigan Plan helped me get a better job.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed and have changed jobs in the last 12 months (n = 366)

	HMP helped me get a better job								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=246)	31.9	[24.7, 40.0]	45.8	[37.9, 53.9]	19.0	[14.0, 25.2]	3.3	[1.3, 8.2]	100.0
No longer enrolled (n=118)	19.6	[12.1, 30.0]	51.5	[41.0, 61.9]	28.9	[20.5, 39.1]	0.0		100.0
Pearson: Uncorrected chi2(3) =	12.4528								
Design-based F(2.94, 1036.53) =	2.6384	Pr =	0.049						
Age									
19-34 (n=195)	24.1	[17.4, 32.5]	44.4	[36.0, 53.0]	28.6	[22.1, 36.2]	2.9	[0.9, 8.7]	100.0
35-50 (n=106)	32.5	[21.9, 45.3]	54.6	[42.4, 66.2]	10.9	[6.5, 17.8]	2.0	[0.4, 8.7]	100.0
51-64 (n=63)	34.5	[20.6, 51.7]	47.5	[32.3, 63.1]	18.0	[8.3, 34.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	15.8234								
Design-based F(5.68, 1998.15) =	1.8117	Pr =	0.097						
Gender									
Male (n=146)	34.1	[25.3, 44.3]	36.3	[27.4, 46.2]	26.0	[18.6, 35.1]	3.6	[1.1, 10.8]	100.0
Female (n=218)	22.5	[16.0, 30.6]	57.4	[49.1, 65.3]	19.0	[14.0, 25.2]	1.1	[0.3, 4.4]	100.0
Pearson: Uncorrected chi2(3) =	17.2728								
Design-based F(2.96, 1042.93) =	3.9569	Pr =	0.008						
Race/ethnicity									
White, non-Hispanic (n=239)	27.6	[20.6, 35.8]	45.1	[37.4, 53.1]	26.1	[20.0, 33.1]	1.3	[0.4, 4.1]	100.0
Black, non-Hispanic (n=76)	26.0	[15.8, 39.5]	52.9	[39.7, 65.8]	18.4	[10.1, 30.9]	2.7	[0.7, 10.6]	100.0
Hispanic (n=17)	25.4	[8.6, 55.1]	50.0	[23.1, 76.9]	24.6	[9.1, 51.4]	0.0		100.0
Other, non-Hispanic (n=29)	36.7	[19.3, 58.3]	45.6	[26.4, 66.3]	10.3	[3.7, 25.7]	7.4	[1.0, 37.5]	100.0
Pearson: Uncorrected chi2(9) =	13.2548								
Design-based F(8.11, 2830.50) =	0.8452	Pr =	0.564						
FPL category									
0-35% (n=104)	31.5	[21.0, 44.3]	49.6	[37.4, 61.7]	15.8	[9.7, 24.7]	3.1	[0.7, 12.7]	100.0
36-99% (n=149)	24.4	[17.6, 32.7]	49.2	[40.1, 58.3]	25.6	[18.2, 34.7]	0.9	[0.1, 5.9]	100.0
100%+ (n=111)	26.9	[18.2, 37.8]	42.5	[32.5, 53.1]	27.8	[19.4, 38.2]	2.8	[0.9, 8.6]	100.0
Pearson: Uncorrected chi2(6) =	8.2773								
Design-based F(5.68, 2000.03) =	1.0048	Pr =	0.418						
Region									
UP/NW/NE (n=62)	35.5	[23.2, 50.1]	41.5	[28.9, 55.4]	22.9	[13.7, 35.8]	0.0		100.0
W/E Central/E (n=105)	25.5	[17.3, 35.9]	44.8	[34.6, 55.5]	29.1	[20.6, 39.4]	0.6	[0.1, 4.3]	100.0
S Central/SW/SE (n=93)	32.1	[21.4, 45.0]	46.5	[35.0, 58.4]	20.2	[12.8, 30.4]	1.2	[0.2, 8.0]	100.0
Detroit Metro (n=104)	25.1	[15.6, 37.7]	51.8	[39.6, 63.8]	18.5	[11.4, 28.6]	4.7	[1.5, 13.4]	100.0
Pearson: Uncorrected chi2(9) =	11.9355								
Design-based F(7.74, 2722.82) =	1.0880	Pr =	0.368						
Chronic condition (2016/2017 survey or DW)									
Yes (n=263)	29.2	[22.4, 37.0]	48.3	[40.6, 56.0]	19.4	[14.6, 25.4]	3.1	[1.2, 7.7]	100.0
No (n=101)	24.5	[15.9, 35.9]	46.0	[35.0, 57.4]	29.5	[20.2, 40.8]	0.0		100.0
Pearson: Uncorrected chi2(3) =	7.1822								
Design-based F(2.96, 1040.31) =	1.5349	Pr =	0.204						
Total (n=364)	27.9	[22.3, 34.2]	47.6	[41.2, 54.1]	22.2	[17.8, 27.5]	2.3	[0.9, 5.6]	100.0

Note: Total count is less than universe count due to item non-response.

0.9 Q: The Healthy Michigan Plan has made me better able to look for a job.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are out of work (n = 374)

	HMP made me better able to look for a job								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=315)	48.6	[41.8, 55.5]	16.8	[12.0, 23.1]	32.2	[25.7, 39.5]	2.4	[1.0, 5.5]	100.0
No longer enrolled (n=59)	37.8	[24.7, 53.1]	26.0	[14.7, 41.7]	32.6	[20.8, 47.1]	3.5	[0.5, 21.2]	100.0
Pearson: Uncorrected chi2(3) =	3.7483								
Design-based F(2.92, 1058.41) =	0.7927	Pr =	0.495						
Age									
19-34 (n=129)	42.0	[32.3, 52.3]	19.7	[11.9, 30.8]	36.8	[27.3, 47.5]	1.5	[0.3, 6.3]	100.0
35-50 (n=128)	47.5	[37.1, 58.0]	15.6	[9.7, 24.1]	33.8	[23.7, 45.8]	3.1	[0.9, 10.3]	100.0
51-64 (n=117)	55.4	[44.6, 65.7]	19.7	[12.1, 30.4]	21.2	[14.2, 30.4]	3.7	[0.9, 13.7]	100.0
Pearson: Uncorrected chi2(6) =	8.3743								
Design-based F(5.73, 2074.84) =	0.9498	Pr =	0.455						
Gender									
Male (n=188)	48.5	[39.9, 57.1]	20.0	[13.3, 28.8]	28.2	[20.7, 37.2]	3.3	[1.3, 8.2]	100.0
Female (n=186)	44.8	[36.2, 53.7]	15.8	[10.9, 22.4]	37.9	[29.3, 47.4]	1.5	[0.3, 6.2]	100.0
Pearson: Uncorrected chi2(3) =	5.0265								
Design-based F(2.97, 1075.04) =	1.1580	Pr =	0.325						
Race/ethnicity									
White, non-Hispanic (n=233)	42.4	[34.9, 50.3]	20.9	[14.6, 29.0]	34.0	[26.1, 42.9]	2.7	[1.1, 6.9]	100.0
Black, non-Hispanic (n=104)	52.8	[41.6, 63.8]	11.8	[6.2, 21.3]	32.4	[22.8, 43.8]	2.9	[0.7, 11.2]	100.0
Hispanic (n=14)	63.9	[35.3, 85.2]	4.1	[0.5, 24.7]	32.0	[12.1, 61.7]	0.0		100.0
Other, non-Hispanic (n=21)	53.3	[28.5, 76.6]	35.2	[14.6, 63.2]	11.5	[3.4, 32.5]	0.0		100.0
Pearson: Uncorrected chi2(9) =	14.6783								
Design-based F(8.10, 2914.61) =	1.2640	Pr =	0.257						
FPL category									
0-35% (n=233)	48.4	[40.8, 56.2]	18.4	[12.8, 25.7]	30.8	[23.7, 39.1]	2.3	[0.8, 6.4]	100.0
36-99% (n=85)	46.0	[34.2, 58.3]	16.7	[9.6, 27.3]	35.4	[24.0, 48.8]	1.9	[0.4, 8.5]	100.0
100%+ (n=56)	38.0	[25.1, 52.9]	19.4	[8.8, 37.5]	37.5	[24.3, 52.8]	5.1	[1.0, 21.5]	100.0
Pearson: Uncorrected chi2(6) =	2.8093								
Design-based F(5.67, 2052.33) =	0.4162	Pr =	0.859						
Region									
UP/NW/NE (n=52)	66.8	[51.6, 79.2]	9.8	[4.5, 20.2]	22.2	[12.2, 37.0]	1.1	[0.2, 7.9]	100.0
W/E Central/E (n=125)	52.9	[42.7, 62.9]	12.1	[7.2, 19.6]	32.8	[23.3, 43.9]	2.2	[0.5, 9.0]	100.0
S Central/SW/SE (n=77)	39.8	[28.5, 52.2]	25.1	[15.3, 38.5]	33.1	[22.4, 45.8]	2.0	[0.5, 8.2]	100.0
Detroit Metro (n=120)	43.1	[33.2, 53.5]	20.7	[13.0, 31.2]	33.1	[23.6, 44.2]	3.1	[1.0, 9.5]	100.0
Pearson: Uncorrected chi2(9) =	10.8637								
Design-based F(7.31, 2646.50) =	1.1825	Pr =	0.308						
Chronic condition (2016/2017 survey or DW)									
Yes (n=296)	48.2	[41.2, 55.3]	17.8	[12.7, 24.4]	31.1	[24.7, 38.4]	2.8	[1.2, 6.6]	100.0
No (n=78)	43.0	[30.6, 56.3]	19.4	[10.7, 32.8]	35.8	[23.4, 50.5]	1.7	[0.2, 11.4]	100.0
Pearson: Uncorrected chi2(3) =	1.3000								
Design-based F(2.97, 1075.23) =	0.2533	Pr =	0.857						
Total (n=374)	46.9	[40.8, 53.2]	18.2	[13.6, 24.0]	32.3	[26.4, 38.8]	2.6	[1.2, 5.6]	100.0

0.10 Q: What is the highest grade of school you have completed, or the highest degree you have received?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Highest level of education												
	Less than high school		High school graduate		Some college		Associate's degree		Bachelor's degree		Post graduate degree		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,383)	10.8	[9.4, 12.3]	41.3	[38.7, 43.9]	23.4	[21.1, 25.8]	13.2	[11.6, 15.0]	9.5	[8.0, 11.1]	1.9	[1.4, 2.5]	100.0
No longer enrolled (n=707)	12.4	[9.5, 16.0]	37.9	[33.6, 42.5]	21.1	[17.6, 25.0]	12.0	[9.3, 15.2]	11.3	[8.9, 14.3]	5.3	[3.2, 8.6]	100.0
Pearson: Uncorrected chi2(5) =	30.4602												
Design-based F(4.95, 15232.77) =	3.7251	Pr =	0.002										
Age													
19-34 (n=909)	7.8	[5.9, 10.2]	36.3	[32.4, 40.4]	27.7	[24.1, 31.6]	14.9	[12.4, 17.8]	10.5	[8.3, 13.3]	2.8	[1.7, 4.8]	100.0
35-50 (n=964)	13.1	[10.9, 15.8]	41.1	[37.2, 45.1]	20.9	[17.8, 24.4]	12.6	[10.1, 15.6]	9.6	[7.5, 12.2]	2.7	[1.7, 4.4]	100.0
51-64 (n=1,217)	13.3	[11.2, 15.8]	45.4	[42.0, 48.8]	18.8	[16.3, 21.7]	10.6	[8.6, 13.0]	9.5	[7.7, 11.6]	2.4	[1.6, 3.5]	100.0
Pearson: Uncorrected chi2(10) =	57.7904												
Design-based F(9.54, 29352.76) =	3.6883	Pr =	0.000										
Gender													
Male (n=1,226)	12.7	[10.6, 15.1]	41.6	[38.1, 45.2]	22.8	[19.9, 26.1]	10.7	[8.8, 13.0]	9.3	[7.5, 11.5]	2.9	[1.8, 4.7]	100.0
Female (n=1,864)	9.8	[8.4, 11.5]	39.6	[36.8, 42.4]	22.9	[20.4, 25.5]	14.9	[12.9, 17.1]	10.4	[8.8, 12.4]	2.4	[1.8, 3.3]	100.0
Pearson: Uncorrected chi2(5) =	18.5199												
Design-based F(4.96, 15277.41) =	2.2391	Pr =	0.048										
Race/ethnicity													
White, non-Hispanic (n=2,056)	9.0	[7.6, 10.5]	41.6	[38.8, 44.3]	22.2	[19.9, 24.6]	13.8	[11.9, 15.8]	11.0	[9.3, 12.9]	2.5	[1.7, 3.7]	100.0
Black, non-Hispanic (n=633)	13.5	[10.5, 17.1]	43.2	[38.5, 48.2]	20.9	[17.1, 25.3]	11.4	[8.8, 14.6]	8.3	[6.0, 11.4]	2.7	[1.5, 4.8]	100.0
Hispanic (n=136)	21.5	[14.8, 30.1]	23.0	[16.1, 31.9]	35.5	[25.6, 46.8]	9.3	[5.3, 15.9]	7.8	[4.5, 13.3]	2.9	[1.1, 7.7]	100.0
Other, non-Hispanic (n=226)	13.7	[9.7, 19.1]	36.8	[29.3, 45.0]	24.9	[18.2, 33.2]	13.8	[9.0, 20.5]	7.2	[4.4, 11.5]	3.5	[1.5, 7.9]	100.0
Pearson: Uncorrected chi2(15) =	66.5880												
Design-based F(14.32, 43512.20) =	2.7761	Pr =	0.000										
FPL category													
0-35% (n=1,215)	12.8	[10.8, 15.1]	43.9	[40.3, 47.4]	20.6	[17.8, 23.8]	12.0	[9.8, 14.5]	8.3	[6.5, 10.5]	2.5	[1.5, 4.1]	100.0
36-99% (n=1,082)	10.6	[8.7, 13.0]	36.4	[33.1, 39.8]	25.0	[21.8, 28.5]	13.5	[11.4, 16.0]	11.5	[9.4, 14.1]	2.9	[1.9, 4.3]	100.0
100%+ (n=793)	7.6	[5.8, 10.0]	37.5	[33.7, 41.4]	25.7	[22.0, 29.7]	14.6	[12.0, 17.6]	11.9	[9.5, 14.7]	2.8	[1.8, 4.3]	100.0
Pearson: Uncorrected chi2(10) =	39.8241												
Design-based F(9.43, 29016.40) =	2.9216	Pr =	0.002										
Region													
UP/NW/NE (n=574)	10.0	[7.5, 13.1]	46.3	[41.7, 51.0]	19.2	[15.8, 23.1]	12.5	[9.8, 15.8]	9.6	[7.2, 12.7]	2.4	[1.5, 3.9]	100.0
W/E Central/E (n=979)	11.8	[9.8, 14.2]	39.6	[36.2, 43.2]	24.1	[20.9, 27.6]	13.4	[11.2, 16.0]	8.8	[7.0, 11.0]	2.3	[1.4, 3.7]	100.0
S Central/SW/SE (n=630)	10.1	[7.8, 13.0]	36.9	[32.6, 41.4]	24.3	[20.5, 28.5]	13.4	[10.5, 17.0]	10.9	[8.5, 13.8]	4.5	[2.4, 8.1]	100.0
Detroit Metro (n=907)	11.4	[9.2, 14.0]	41.5	[37.4, 45.6]	22.2	[18.9, 25.9]	12.4	[10.0, 15.3]	10.3	[8.1, 13.1]	2.2	[1.4, 3.6]	100.0
Pearson: Uncorrected chi2(15) =	20.1581												
Design-based F(12.80, 39401.44) =	1.0597	Pr =	0.390										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,463)	12.6	[11.1, 14.3]	41.8	[39.3, 44.3]	21.9	[19.8, 24.2]	12.7	[11.1, 14.5]	8.8	[7.5, 10.4]	2.1	[1.5, 2.9]	100.0
No (n=627)	6.3	[4.5, 8.8]	36.4	[31.8, 41.2]	25.9	[21.7, 30.6]	13.5	[10.6, 17.1]	13.4	[10.6, 16.8]	4.5	[2.6, 7.5]	100.0
Pearson: Uncorrected chi2(5) =	50.9026												
Design-based F(4.91, 15125.22) =	5.9068	Pr =	0.000										
Total (n=3,090)	11.2	[9.9, 12.6]	40.5	[38.3, 42.8]	22.8	[20.9, 24.9]	12.9	[11.5, 14.5]	9.9	[8.6, 11.3]	2.7	[2.0, 3.5]	100.0

Note: Total count is less than universe count due to item non-response.

0.11 Q: In the past 3 years, how many places have you lived for one week or longer (including where you live now)?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Number of places lived in past 3 years										
	One		Two		Three		Four or more		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
Still enrolled (n=2,385)	70.1	[67.7, 72.4]	19.3	[17.4, 21.4]	6.5	[5.3, 8.0]	4.0	[3.0, 5.2]	0.1	[0.0, 0.3]	100.0
No longer enrolled (n=709)	58.1	[53.4, 62.7]	24.2	[20.4, 28.5]	10.3	[7.5, 14.0]	7.4	[5.0, 10.6]	0.0		100.0
Pearson: Uncorrected chi2(4) =	42.7068										
Design-based F(3.73, 11498.82) =	6.4671	Pr =	0.000								
Age											
19-34 (n=909)	57.5	[53.4, 61.5]	25.5	[22.1, 29.1]	10.0	[7.7, 12.8]	7.1	[5.1, 9.7]	0.0		100.0
35-50 (n=966)	70.9	[67.2, 74.4]	18.2	[15.4, 21.3]	6.7	[4.8, 9.3]	4.1	[2.8, 6.0]	0.1	[0.0, 0.7]	100.0
51-64 (n=1,219)	76.0	[72.9, 78.9]	16.6	[14.1, 19.4]	4.7	[3.3, 6.7]	2.5	[1.7, 3.8]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(8) =	95.7932										
Design-based F(7.29, 22468.11) =	8.2791	Pr =	0.000								
Gender											
Male (n=1,227)	66.6	[63.1, 69.9]	20.4	[17.7, 23.4]	8.2	[6.3, 10.7]	4.8	[3.4, 6.8]	0.0		100.0
Female (n=1,867)	68.0	[65.2, 70.6]	20.5	[18.3, 23.0]	6.7	[5.3, 8.3]	4.7	[3.6, 6.2]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(4) =	4.2815										
Design-based F(3.75, 11553.66) =	0.6551	Pr =	0.613								
Race/ethnicity											
White, non-Hispanic (n=2,057)	68.0	[65.2, 70.6]	20.8	[18.5, 23.2]	7.2	[5.7, 9.1]	3.9	[2.9, 5.3]	0.1	[0.0, 0.4]	100.0
Black, non-Hispanic (n=632)	67.1	[62.3, 71.5]	20.4	[16.9, 24.4]	6.5	[4.4, 9.5]	5.9	[3.8, 9.0]	0.1	[0.0, 0.6]	100.0
Hispanic (n=138)	66.9	[56.7, 75.6]	17.8	[11.3, 26.7]	7.4	[3.9, 13.8]	8.0	[3.6, 16.8]	0.0		100.0
Other, non-Hispanic (n=228)	64.5	[56.6, 71.7]	20.9	[15.3, 27.8]	10.3	[6.2, 16.5]	4.3	[2.0, 9.0]	0.0		100.0
Pearson: Uncorrected chi2(12) =	13.5293										
Design-based F(11.23, 34185.59) =	0.6860	Pr =	0.757								
FPL category											
0-35% (n=1,216)	65.5	[62.0, 68.9]	21.3	[18.5, 24.4]	7.4	[5.6, 9.6]	5.7	[4.2, 7.6]	0.1	[0.0, 0.5]	100.0
36-99% (n=1,084)	69.6	[66.2, 72.7]	19.1	[16.6, 22.0]	8.5	[6.5, 11.1]	2.7	[1.9, 4.1]	0.0		100.0
100%+ (n=794)	68.9	[64.8, 72.7]	20.2	[17.2, 23.5]	5.8	[4.0, 8.4]	5.2	[3.1, 8.4]	0.0		100.0
Pearson: Uncorrected chi2(8) =	18.6679										
Design-based F(6.74, 20782.80) =	1.7950	Pr =	0.086								
Region											
UP/NW/NE (n=574)	71.9	[67.5, 75.9]	18.7	[15.4, 22.5]	5.9	[4.0, 8.8]	3.5	[2.2, 5.5]	0.0		100.0
W/E Central/E (n=980)	70.0	[66.4, 73.3]	19.2	[16.5, 22.2]	6.5	[4.8, 8.8]	4.2	[2.7, 6.4]	0.2	[0.0, 0.8]	100.0
S Central/SW/SE (n=632)	60.3	[55.6, 64.8]	25.8	[21.9, 30.1]	8.6	[5.9, 12.5]	5.3	[3.5, 7.8]	0.0		100.0
Detroit Metro (n=908)	67.5	[63.5, 71.3]	19.5	[16.4, 22.9]	7.8	[5.8, 10.3]	5.2	[3.6, 7.5]	0.0		100.0
Pearson: Uncorrected chi2(12) =	25.6785										
Design-based F(9.26, 28543.46) =	1.7919	Pr =	0.062								
Chronic condition (2016/2017 survey or DW)											
Yes (n=2,467)	68.6	[66.2, 70.9]	19.6	[17.7, 21.7]	6.7	[5.5, 8.2]	5.0	[3.9, 6.4]	0.1	[0.0, 0.3]	100.0
No (n=627)	63.1	[58.1, 67.9]	23.4	[19.4, 27.9]	9.6	[6.7, 13.6]	3.9	[2.2, 6.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	14.4924										
Design-based F(3.68, 11354.47) =	2.0247	Pr =	0.094								
Total (n=3,094)	67.3	[65.1, 69.4]	20.5	[18.7, 22.4]	7.4	[6.2, 8.8]	4.8	[3.8, 5.9]	0.1	[0.0, 0.2]	100.0

Note: Total count is less than universe count due to item non-response.

0.12 Q: Have you been homeless at any time in the last 12 months?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Homeless in the last 12 months				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,382)	7.6	[6.2, 9.2]	92.4	[90.8, 93.8]	100.0
No longer enrolled (n=707)	8.8	[6.3, 12.2]	91.2	[87.8, 93.7]	100.0
Pearson: Uncorrected chi2(1) =	1.1505				
Design-based F(1.00, 3077.00) =	0.5876	Pr =	0.443		
Age					
19-34 (n=909)	7.3	[5.4, 9.9]	92.7	[90.1, 94.6]	100.0
35-50 (n=964)	8.9	[6.7, 11.7]	91.1	[88.3, 93.3]	100.0
51-64 (n=1,216)	7.4	[5.6, 9.7]	92.6	[90.3, 94.4]	100.0
Pearson: Uncorrected chi2(2) =	2.3372				
Design-based F(1.96, 6044.49) =	0.6193	Pr =	0.536		
Gender					
Male (n=1,226)	9.6	[7.6, 12.0]	90.4	[88.0, 92.4]	100.0
Female (n=1,863)	6.4	[5.0, 8.1]	93.6	[91.9, 95.0]	100.0
Pearson: Uncorrected chi2(1) =	11.1062				
Design-based F(1.00, 3077.00) =	5.8073	Pr =	0.016		
Race/ethnicity					
White, non-Hispanic (n=2,052)	5.5	[4.3, 7.1]	94.5	[92.9, 95.7]	100.0
Black, non-Hispanic (n=633)	11.5	[8.7, 15.1]	88.5	[84.9, 91.3]	100.0
Hispanic (n=137)	11.0	[5.5, 20.8]	89.0	[79.2, 94.5]	100.0
Other, non-Hispanic (n=228)	10.5	[6.4, 16.9]	89.5	[83.1, 93.6]	100.0
Pearson: Uncorrected chi2(3) =	33.9750				
Design-based F(2.99, 9085.14) =	5.5657	Pr =	0.001		
FPL category					
0-35% (n=1,211)	10.8	[8.7, 13.2]	89.2	[86.8, 91.3]	100.0
36-99% (n=1,083)	5.1	[3.7, 7.0]	94.9	[93.0, 96.3]	100.0
100%+ (n=795)	4.3	[2.7, 6.8]	95.7	[93.2, 97.3]	100.0
Pearson: Uncorrected chi2(2) =	38.8194				
Design-based F(1.98, 6095.77) =	12.5329	Pr =	0.000		
Region					
UP/NW/NE (n=573)	3.9	[2.5, 6.0]	96.1	[94.0, 97.5]	100.0
W/E Central/E (n=978)	6.1	[4.5, 8.2]	93.9	[91.8, 95.5]	100.0
S Central/SW/SE (n=632)	9.7	[7.3, 12.9]	90.3	[87.1, 92.7]	100.0
Detroit Metro (n=906)	9.2	[7.0, 12.0]	90.8	[88.0, 93.0]	100.0
Pearson: Uncorrected chi2(3) =	15.9165				
Design-based F(2.55, 7852.87) =	4.0228	Pr =	0.011		
Chronic condition (2016/2017 survey or DW)					
Yes (n=2,462)	8.3	[6.9, 9.9]	91.7	[90.1, 93.1]	100.0
No (n=627)	6.6	[4.2, 10.2]	93.4	[89.8, 95.8]	100.0
Pearson: Uncorrected chi2(1) =	2.1785				
Design-based F(1.00, 3077.00) =	0.8716	Pr =	0.351		
Total (n=3,089)	7.9	[6.7, 9.3]	92.1	[90.7, 93.3]	100.0

Note: Total count is less than universe count due to item non-response.

1 Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.

1.1 Q: In general, would you say your health is...

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Health status												
	Excellent		Very good		Good		Fair		Poor		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,388)	9.8	[8.2, 11.6]	25.9	[23.6, 28.3]	37.2	[34.7, 39.7]	21.3	[19.3, 23.5]	5.8	[4.8, 7.0]	0.0		100.0
No longer enrolled (n=709)	10.3	[7.7, 13.8]	28.4	[24.2, 33.0]	34.7	[30.6, 39.0]	19.6	[16.3, 23.4]	6.8	[4.7, 9.7]	0.2	[0.0, 1.4]	100.0
Pearson: Uncorrected chi2(5) =	8.9170												
Design-based F(4.94, 15240.44) =	1.0928	Pr =	0.362										
Age													
19-34 (n=909)	13.9	[11.2, 17.2]	34.3	[30.4, 38.4]	35.8	[32.0, 39.7]	13.4	[10.9, 16.3]	2.5	[1.4, 4.3]	0.1	[0.0, 0.9]	100.0
35-50 (n=969)	7.5	[5.5, 10.2]	21.7	[18.5, 25.2]	38.7	[34.9, 42.6]	24.8	[21.6, 28.4]	7.3	[5.6, 9.4]	0.0		100.0
51-64 (n=1,219)	7.5	[5.6, 9.8]	21.8	[19.1, 24.8]	35.2	[32.1, 38.5]	26.2	[23.3, 29.4]	9.2	[7.5, 11.4]	0.0		100.0
Pearson: Uncorrected chi2(10) =	170.8935												
Design-based F(9.55, 29458.68) =	10.4867	Pr =	0.000										
Gender													
Male (n=1,230)	11.4	[9.1, 14.1]	25.1	[22.0, 28.5]	34.9	[31.6, 38.3]	22.7	[19.9, 25.8]	5.8	[4.6, 7.5]	0.1	[0.0, 0.7]	100.0
Female (n=1,867)	8.6	[7.0, 10.5]	27.7	[25.1, 30.4]	38.1	[35.4, 40.9]	19.4	[17.3, 21.6]	6.2	[5.0, 7.7]	0.0		100.0
Pearson: Uncorrected chi2(5) =	16.1943												
Design-based F(4.90, 15128.04) =	1.9755	Pr =	0.080										
Race/ethnicity													
White, non-Hispanic (n=2,058)	8.0	[6.4, 9.8]	26.8	[24.3, 29.4]	37.3	[34.7, 40.0]	21.7	[19.5, 24.0]	6.2	[5.0, 7.6]	0.1	[0.0, 0.6]	100.0
Black, non-Hispanic (n=634)	13.7	[10.5, 17.7]	26.3	[21.9, 31.1]	34.0	[29.6, 38.6]	21.6	[18.0, 25.7]	4.5	[2.9, 6.7]	0.0		100.0
Hispanic (n=138)	8.8	[4.7, 15.6]	21.2	[14.7, 29.6]	48.5	[38.5, 58.7]	13.4	[8.6, 20.2]	8.1	[3.8, 16.7]	0.0		100.0
Other, non-Hispanic (n=228)	13.1	[8.0, 20.6]	27.9	[21.2, 35.7]	34.2	[27.0, 42.2]	16.4	[11.5, 22.9]	8.4	[5.5, 12.8]	0.0		100.0
Pearson: Uncorrected chi2(15) =	46.9753												
Design-based F(14.24, 43372.96) =	1.8645	Pr =	0.024										
FPL category													
0-35% (n=1,218)	10.3	[8.1, 13.0]	22.0	[19.0, 25.4]	35.2	[31.9, 38.7]	24.4	[21.6, 27.4]	7.9	[6.4, 9.8]	0.1	[0.0, 0.6]	100.0
36-99% (n=1,084)	9.7	[7.7, 12.1]	29.7	[26.3, 33.4]	37.5	[34.2, 41.0]	19.1	[16.6, 22.0]	3.9	[2.9, 5.2]	0.0		100.0
100%+ (n=795)	9.1	[6.9, 11.9]	33.5	[29.8, 37.5]	38.9	[35.0, 43.0]	14.3	[11.7, 17.4]	4.1	[2.9, 5.8]	0.0		100.0
Pearson: Uncorrected chi2(10) =	74.6929												
Design-based F(8.78, 27090.95) =	6.1038	Pr =	0.000										
Region													
UP/NW/NE (n=574)	7.5	[5.3, 10.5]	24.9	[21.2, 29.0]	40.5	[36.0, 45.2]	20.1	[16.7, 24.0]	7.0	[5.0, 9.6]	0.0		100.0
W/E Central/E (n=980)	6.4	[4.9, 8.4]	24.0	[21.0, 27.2]	38.8	[35.4, 42.4]	24.1	[21.1, 27.4]	6.7	[5.2, 8.6]	0.0		100.0
S Central/SW/SE (n=633)	7.4	[5.2, 10.4]	27.2	[23.1, 31.6]	39.6	[35.2, 44.2]	19.3	[16.1, 22.9]	6.3	[4.4, 9.0]	0.3	[0.0, 1.8]	100.0
Detroit Metro (n=910)	13.9	[11.2, 17.2]	28.2	[24.6, 32.2]	32.9	[29.2, 36.9]	19.6	[16.7, 22.9]	5.3	[3.8, 7.2]	0.0		100.0
Pearson: Uncorrected chi2(15) =	66.0116												
Design-based F(12.35, 38114.45) =	3.8778	Pr =	0.000										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,469)	6.3	[5.0, 7.8]	22.2	[20.0, 24.5]	38.9	[36.5, 41.4]	25.1	[23.0, 27.3]	7.5	[6.3, 8.7]	0.1	[0.0, 0.4]	100.0
No (n=628)	21.9	[18.0, 26.5]	40.5	[35.8, 45.4]	29.0	[25.0, 33.4]	7.1	[5.0, 10.0]	1.4	[0.4, 4.2]	0.0		100.0
Pearson: Uncorrected chi2(5) =	341.4838												
Design-based F(4.56, 14081.56) =	33.7512	Pr =	0.000										
Total (n=3,097)	9.9	[8.5, 11.5]	26.5	[24.4, 28.6]	36.6	[34.5, 38.8]	20.9	[19.2, 22.8]	6.0	[5.1, 7.1]	0.0	[0.0, 0.3]	100.0

1.2 Q: For how many days during the past 30 days was your physical health not good?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Number of days physical health not good			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	5.6	0.23	[5.1, 6.0]	2,375
No longer enrolled	5.8	0.43	[5.0, 6.7]	702
Age				
19-34	3.0	0.25	[2.5, 3.5]	902
35-50	6.9	0.41	[6.1, 7.7]	964
51-64	7.6	0.36	[6.9, 8.3]	1,211
Gender				
Male	5.3	0.31	[4.7, 5.9]	1,223
Female	6.0	0.27	[5.4, 6.5]	1,854
Race/ethnicity				
White, non-Hispanic	6.1	0.26	[5.6, 6.6]	2,042
Black, non-Hispanic	4.4	0.37	[3.6, 5.1]	633
Hispanic	5.5	0.98	[3.6, 7.4]	136
Other, non-Hispanic	6.3	0.80	[4.7, 7.9]	227
FPL category				
0-35%	6.3	0.33	[5.7, 7.0]	1,212
36-9%	5.0	0.30	[4.4, 5.6]	1,077
$\geq$ 100%	4.8	0.35	[4.1, 5.4]	788
Region				
UP/NW/NE	7.0	0.49	[6.1, 8.0]	571
W/E Central/E	6.6	0.36	[5.9, 7.3]	972
S Central/SW/SE	5.9	0.43	[5.1, 6.8]	629
Detroit Metro	4.6	0.33	[3.9, 5.2]	905
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	6.8	0.25	[6.3, 7.3]	2450
No	1.9	0.29	[1.3, 2.5]	627
Total	5.7	0.20	[5.3, 6.0]	3,077

Note: Total count is less than universe count due to item non-response.

1.3 Q: In the past year, would you say your physical health has gotten better, stayed the same, or gotten worse?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Change in physical health status in the past year								
	Gotten better		Stayed the same		Gotten worse		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=2,388)	31.4	[29.0, 34.0]	54.5	[51.9, 57.1]	13.9	[12.4, 15.5]	0.2	[0.1, 0.5]	100.0
No longer enrolled (n=709)	23.8	[19.9, 28.1]	61.5	[56.8, 65.9]	14.7	[11.9, 18.2]	0.0		100.0
Pearson: Uncorrected chi2(3) =	17.2758								
Design-based F(2.95, 9116.09) =	3.8134	Pr =	0.010						
Age									
19-34 (n=909)	34.7	[30.8, 38.8]	58.9	[54.8, 62.9]	6.4	[4.8, 8.4]	0.0	[0.0, 0.2]	100.0
35-50 (n=969)	27.4	[23.9, 31.2]	55.4	[51.4, 59.3]	17.0	[14.4, 19.9]	0.2	[0.1, 1.0]	100.0
51-64 (n=1,219)	25.7	[22.7, 28.9]	53.4	[50.0, 56.8]	20.7	[18.1, 23.6]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(6) =	104.5408								
Design-based F(5.31, 16366.65) =	13.0798	Pr =	0.000						
Gender									
Male (n=1,230)	33.0	[29.6, 36.6]	54.8	[51.2, 58.3]	12.2	[10.3, 14.4]	0.0		100.0
Female (n=1,867)	26.7	[24.2, 29.3]	57.4	[54.5, 60.1]	15.7	[13.9, 17.7]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(3) =	22.0070								
Design-based F(2.94, 9084.92) =	4.8728	Pr =	0.002						
Race/ethnicity									
White, non-Hispanic (n=2,058)	27.1	[24.7, 29.7]	57.1	[54.3, 59.8]	15.6	[13.9, 17.6]	0.2	[0.0, 0.6]	100.0
Black, non-Hispanic (n=634)	35.2	[30.5, 40.3]	54.0	[49.0, 58.8]	10.6	[8.3, 13.6]	0.2	[0.0, 1.3]	100.0
Hispanic (n=138)	24.4	[16.2, 35.0]	61.4	[51.0, 70.8]	14.2	[9.0, 21.8]	0.0		100.0
Other, non-Hispanic (n=228)	33.8	[26.2, 42.5]	52.7	[44.5, 60.7]	13.5	[9.3, 19.2]	0.0		100.0
Pearson: Uncorrected chi2(9) =	28.7859								
Design-based F(8.65, 26334.87) =	1.9747	Pr =	0.040						
FPL category									
0-35% (n=1,218)	30.2	[26.9, 33.8]	54.4	[50.8, 57.9]	15.2	[13.1, 17.5]	0.3	[0.1, 0.8]	100.0
36-99% (n=1,084)	28.7	[25.5, 32.1]	58.1	[54.6, 61.6]	13.2	[11.1, 15.5]	0.0		100.0
100%+ (n=795)	29.5	[25.9, 33.4]	58.0	[53.9, 62.0]	12.4	[10.0, 15.3]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(6) =	8.4180								
Design-based F(5.24, 16167.25) =	1.2177	Pr =	0.297						
Region									
UP/NW/NE (n=574)	26.3	[22.3, 30.7]	54.6	[49.9, 59.1]	19.0	[15.7, 22.9]	0.1	[0.0, 0.8]	100.0
W/E Central/E (n=980)	24.6	[21.7, 27.8]	59.3	[55.8, 62.8]	15.9	[13.4, 18.7]	0.2	[0.0, 1.2]	100.0
S Central/SW/SE (n=633)	30.9	[26.6, 35.5]	50.8	[46.2, 55.4]	18.1	[15.0, 21.8]	0.2	[0.0, 1.1]	100.0
Detroit Metro (n=910)	33.3	[29.4, 37.4]	56.5	[52.4, 60.6]	10.0	[8.1, 12.4]	0.1	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(9) =	49.3468								
Design-based F(7.77, 23980.01) =	4.7207	Pr =	0.000						
Chronic condition (2016/2017 survey or DW)									
Yes (n=2,469)	28.8	[26.5, 31.3]	53.5	[51.0, 56.1]	17.4	[15.8, 19.2]	0.2	[0.1, 0.5]	100.0
No (n=628)	32.3	[27.6, 37.3]	64.8	[59.7, 69.5]	2.9	[1.8, 4.9]	0.0		100.0
Pearson: Uncorrected chi2(3) =	98.2125								
Design-based F(2.92, 9018.58) =	20.4726	Pr =	0.000						
Total (n=3,097)	29.6	[27.5, 31.9]	56.1	[53.9, 58.4]	14.1	[12.7, 15.5]	0.1	[0.0, 0.4]	100.0

1.4 Q: For how many days during the past 30 days was your mental health not good?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Number of days mental health not good			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	5.8	0.25	[5.3, 6.3]	2,364
No longer enrolled	6.0	0.48	[5.0, 6.9]	704
Age				
19-34	5.2	0.36	[4.5, 6.0]	898
35-50	6.8	0.43	[6.0, 7.7]	963
51-64	5.4	0.34	[4.7, 6.0]	1,207
Gender				
Male	5.1	0.33	[4.5, 5.8]	1,218
Female	6.4	0.29	[5.8, 7.0]	1,850
Race/ethnicity				
White, non-Hispanic	6.2	0.29	[5.6, 6.8]	2,038
Black, non-Hispanic	4.7	0.44	[3.9, 5.6]	631
Hispanic	5.0	0.82	[3.4, 6.6]	135
Other, non-Hispanic	6.7	0.85	[5.1, 8.4]	226
FPL category				
0-35%	6.7	0.36	[5.9, 7.4]	1,205
36-99%	5.1	0.32	[4.5, 5.8]	1,070
$\geq$ 100%	4.6	0.38	[3.8, 5.3]	793
Region				
UP/NW/NE	5.5	0.45	[4.6, 6.4]	568
W/E Central/E	6.5	0.40	[5.7, 7.3]	963
S Central/SW/SE	6.8	0.43	[6.0, 7.7]	630
Detroit Metro	5.0	0.38	[4.2, 5.7]	907
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	6.5	0.26	[6.0, 7.1]	2449
No	3.4	0.36	[2.7, 4.1]	619
Total	5.8	0.22	[5.4, 6.3]	3,068

Note: Total count is less than universe count due to item non-response.

1.5 Q: In the past year, would you say your mental and emotional health has gotten better, stayed the same, or gotten worse?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Change in mental health status in the past year								
	Gotten better		Stayed the same		Gotten worse		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=2,386)	28.3	[25.9, 30.8]	58.8	[56.1, 61.3]	12.6	[10.9, 14.4]	0.4	[0.2, 0.9]	100.0
No longer enrolled (n=709)	28.9	[24.6, 33.6]	58.0	[53.2, 62.6]	12.8	[10.0, 16.3]	0.4	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(3) =	0.1992								
Design-based F(2.91, 8964.61) =	0.0430	Pr =	0.987						
Age									
19-34 (n=909)	34.2	[30.3, 38.3]	55.1	[51.0, 59.2]	10.4	[8.3, 13.1]	0.3	[0.1, 0.8]	100.0
35-50 (n=968)	26.4	[23.0, 30.2]	56.9	[52.9, 60.8]	16.1	[13.3, 19.4]	0.5	[0.2, 1.6]	100.0
51-64 (n=1,218)	23.2	[20.4, 26.2]	65.1	[61.8, 68.3]	11.3	[9.3, 13.5]	0.4	[0.2, 1.1]	100.0
Pearson: Uncorrected chi2(6) =	49.4762								
Design-based F(5.67, 17476.03) =	5.6755	Pr =	0.000						
Gender									
Male (n=1,230)	29.5	[26.1, 33.0]	58.6	[55.0, 62.2]	11.3	[9.2, 13.9]	0.6	[0.3, 1.3]	100.0
Female (n=1,865)	27.5	[24.9, 30.2]	58.5	[55.7, 61.3]	13.8	[11.9, 15.8]	0.2	[0.1, 0.7]	100.0
Pearson: Uncorrected chi2(3) =	7.1282								
Design-based F(2.91, 8963.53) =	1.5019	Pr =	0.213						
Race/ethnicity									
White, non-Hispanic (n=2,058)	26.9	[24.4, 29.6]	59.8	[57.0, 62.6]	12.9	[11.1, 14.8]	0.4	[0.2, 1.0]	100.0
Black, non-Hispanic (n=632)	32.2	[27.6, 37.1]	55.1	[50.1, 59.9]	12.3	[9.5, 15.9]	0.4	[0.1, 1.4]	100.0
Hispanic (n=138)	31.5	[22.7, 41.7]	56.5	[46.2, 66.4]	12.0	[6.3, 21.6]	0.0		100.0
Other, non-Hispanic (n=228)	26.2	[19.8, 33.8]	60.7	[52.7, 68.2]	12.3	[7.9, 18.7]	0.7	[0.2, 2.4]	100.0
Pearson: Uncorrected chi2(9) =	10.4897								
Design-based F(8.50, 25889.17) =	0.7176	Pr =	0.685						
FPL category									
0-35% (n=1,218)	29.8	[26.5, 33.3]	55.8	[52.2, 59.3]	13.8	[11.6, 16.4]	0.7	[0.3, 1.3]	100.0
36-99% (n=1,082)	26.2	[23.1, 29.6]	60.4	[56.8, 63.8]	13.2	[11.0, 15.9]	0.2	[0.0, 0.6]	100.0
100%+ (n=795)	27.8	[24.1, 31.8]	63.5	[59.3, 67.4]	8.6	[6.6, 11.3]	0.1	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(6) =	22.3066								
Design-based F(5.46, 16823.56) =	3.1731	Pr =	0.006						
Region									
UP/NW/NE (n=574)	25.7	[21.7, 30.0]	62.4	[57.8, 66.8]	11.3	[8.8, 14.3]	0.6	[0.2, 1.7]	100.0
W/E Central/E (n=980)	25.7	[22.7, 29.0]	60.0	[56.4, 63.5]	13.5	[11.1, 16.3]	0.8	[0.3, 2.0]	100.0
S Central/SW/SE (n=633)	29.1	[24.9, 33.7]	55.8	[51.1, 60.4]	15.0	[12.0, 18.6]	0.1	[0.0, 0.4]	100.0
Detroit Metro (n=908)	30.5	[26.8, 34.6]	58.0	[53.8, 62.0]	11.2	[8.9, 14.1]	0.2	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(9) =	19.4191								
Design-based F(7.32, 22582.31) =	1.9155	Pr =	0.059						
Chronic condition (2016/2017 survey or DW)									
Yes (n=2,467)	27.0	[24.7, 29.4]	58.0	[55.5, 60.6]	14.5	[12.8, 16.4]	0.4	[0.2, 0.9]	100.0
No (n=628)	33.1	[28.5, 38.0]	60.3	[55.3, 65.0]	6.3	[4.4, 9.0]	0.3	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(3) =	37.1067								
Design-based F(2.92, 8994.56) =	7.9079	Pr =	0.000						
Total (n=3,095)	28.4	[26.3, 30.6]	58.6	[56.3, 60.8]	12.6	[11.2, 14.2]	0.4	[0.2, 0.8]	100.0

Note: Total count is less than universe count due to item non-response.

1.6 Q: During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Number of days missed due to poor physical or mental health			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	5.0	0.21	[4.6, 5.4]	2,366
No longer enrolled	5.2	0.45	[4.3, 6.0]	702
Age				
19-34	3.0	0.26	[2.5, 3.5]	900
35-50	6.0	0.37	[5.2, 6.7]	962
51-64	6.5	0.37	[5.8, 7.3]	1,206
Gender				
Male	5.1	0.31	[4.5, 5.7]	1,216
Female	5.0	0.24	[4.5, 5.5]	1,852
Race/ethnicity				
White, non-Hispanic	5.2	0.24	[4.7, 5.7]	2,037
Black, non-Hispanic	4.6	0.40	[3.8, 5.4]	633
Hispanic	4.7	0.87	[3.0, 6.4]	136
Other, non-Hispanic	5.1	0.70	[3.7, 6.5]	224
FPL category				
0-35%	6.1	0.33	[5.5, 6.8]	1,202
36-99%	4.1	0.26	[3.6, 4.6]	1,076
$\geq$ 100%	3.5	0.33	[2.9, 4.1]	790
Region				
UP/NW/NE	5.2	0.42	[4.4, 6.0]	567
W/E Central/E	5.6	0.34	[4.9, 6.3]	968
S Central/SW/SE	5.3	0.42	[4.5, 6.1]	630
Detroit Metro	4.5	0.32	[3.9, 5.1]	903
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	6.0	0.24	[5.5, 6.5]	2445
No	1.9	0.25	[1.4, 2.4]	623
Total	5.0	0.19	[4.7, 5.4]	3,068

Note: Total count is less than universe count due to item non-response.

1.6.1 Q: In the past 12 months, about how many days did you miss work because of illness or injury?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who are employed/self-employed (n = 1,746)

	Number of days missed work due to illness or injury			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	5.8	1.03	[3.8, 7.8]	1,310
No longer enrolled	4.3	0.96	[2.5, 6.2]	422
Age				
19-34	4.0	0.55	[2.9, 5.1]	638
35-50	5.8	1.08	[3.7, 7.9]	564
51-64	7.8	3.08	[1.7, 13.8]	530
Gender				
Male	6.2	1.62	[3.0, 9.3]	684
Female	4.8	0.54	[3.7, 5.8]	1,048
Race/ethnicity				
White, non-Hispanic	6.8	1.37	[4.1, 9.5]	1,130
Black, non-Hispanic	2.7	0.48	[1.8, 3.7]	366
Hispanic	4.9	2.05	[0.9, 8.9]	88
Other, non-Hispanic	5.6	1.37	[2.9, 8.2]	128
FPL category				
0-35%	4.1	0.91	[2.3, 5.8]	474
36-99%	6.4	0.91	[4.6, 8.2]	713
$\geq$ 100%	6.3	2.55	[1.3, 11.3]	545
Region				
UP/NW/NE	5.8	1.00	[3.9, 7.8]	314
W/E Central/E	6.4	2.33	[1.8, 10.9]	525
S Central/SW/SE	6.8	1.76	[3.3, 10.3]	361
Detroit Metro	4.1	0.69	[2.7, 5.4]	532
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	7.0	1.12	[4.8, 9.2]	1271
No	1.4	0.20	[1.0, 1.8]	461
Total	5.4	0.81	[3.8, 7.0]	1,732

Note: Total count is less than universe count due to item non-response.

1.7 Q: In the past year, has the health of your teeth and gums gotten better, stayed the same, or gotten worse?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Change in dental health status in the past year								
	Gotten better		Stayed the same		Gotten worse		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=2,381)	22.8	[20.6, 25.1]	60.4	[57.9, 62.9]	16.3	[14.5, 18.2]	0.5	[0.3, 0.9]	100.0
No longer enrolled (n=709)	15.1	[11.8, 19.0]	61.6	[57.0, 66.1]	23.0	[19.3, 27.2]	0.3	[0.1, 1.0]	100.0
Pearson: Uncorrected chi2(3) =	30.1309								
Design-based F(2.74, 8447.13) =	7.1350	Pr =	0.000						
Age									
19-34 (n=907)	24.6	[21.2, 28.4]	60.5	[56.4, 64.4]	14.5	[11.8, 17.5]	0.5	[0.2, 1.2]	100.0
35-50 (n=968)	19.9	[16.9, 23.3]	59.5	[55.6, 63.4]	20.2	[17.3, 23.6]	0.3	[0.1, 1.0]	100.0
51-64 (n=1,215)	17.5	[15.0, 20.3]	62.4	[59.1, 65.7]	19.5	[16.9, 22.3]	0.6	[0.3, 1.2]	100.0
Pearson: Uncorrected chi2(6) =	26.8144								
Design-based F(5.64, 17364.55) =	3.1424	Pr =	0.005						
Gender									
Male (n=1,225)	22.6	[19.7, 25.9]	60.1	[56.6, 63.6]	17.0	[14.6, 19.8]	0.3	[0.1, 0.7]	100.0
Female (n=1,865)	19.6	[17.3, 22.0]	61.2	[58.4, 64.0]	18.6	[16.5, 20.9]	0.6	[0.3, 1.2]	100.0
Pearson: Uncorrected chi2(3) =	6.8390								
Design-based F(2.82, 8691.57) =	1.5763	Pr =	0.195						
Race/ethnicity									
White, non-Hispanic (n=2,052)	18.0	[15.9, 20.2]	62.9	[60.2, 65.6]	18.4	[16.5, 20.6]	0.7	[0.4, 1.2]	100.0
Black, non-Hispanic (n=633)	25.2	[21.1, 29.9]	56.7	[51.8, 61.6]	18.0	[14.5, 22.2]	0.0		100.0
Hispanic (n=138)	22.6	[14.7, 33.0]	59.9	[49.3, 69.7]	17.5	[10.7, 27.3]	0.0		100.0
Other, non-Hispanic (n=228)	27.1	[20.6, 34.7]	57.0	[49.0, 64.7]	15.3	[10.9, 21.1]	0.6	[0.1, 2.5]	100.0
Pearson: Uncorrected chi2(9) =	31.8172								
Design-based F(8.47, 25728.75) =	2.2282	Pr =	0.020						
FPL category									
0-35% (n=1,214)	23.7	[20.8, 27.0]	57.2	[53.6, 60.7]	18.7	[16.2, 21.6]	0.3	[0.1, 0.8]	100.0
36-99% (n=1,082)	18.4	[15.8, 21.3]	64.3	[60.8, 67.6]	16.6	[14.2, 19.4]	0.7	[0.3, 1.5]	100.0
100%+ (n=794)	17.4	[14.5, 20.7]	64.9	[61.0, 68.7]	17.3	[14.5, 20.5]	0.4	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(6) =	22.3109								
Design-based F(5.69, 17510.14) =	3.1223	Pr =	0.006						
Region									
UP/NW/NE (n=573)	20.4	[16.8, 24.5]	62.6	[58.0, 67.0]	16.9	[13.7, 20.7]	0.1	[0.0, 1.0]	100.0
W/E Central/E (n=976)	18.5	[16.0, 21.4]	63.5	[60.0, 66.9]	17.5	[15.0, 20.4]	0.5	[0.2, 1.2]	100.0
S Central/SW/SE (n=631)	21.3	[17.7, 25.5]	56.8	[52.1, 61.3]	20.5	[17.2, 24.3]	1.4	[0.7, 2.8]	100.0
Detroit Metro (n=910)	22.7	[19.3, 26.4]	60.1	[56.0, 64.0]	17.2	[14.3, 20.4]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(9) =	25.9261								
Design-based F(7.71, 23727.03) =	2.5598	Pr =	0.010						
Chronic condition (2016/2017 survey or DW)									
Yes (n=2,462)	21.3	[19.2, 23.5]	58.9	[56.3, 61.4]	19.3	[17.4, 21.3]	0.6	[0.3, 1.0]	100.0
No (n=628)	20.1	[16.5, 24.2]	66.7	[62.0, 71.2]	13.1	[10.1, 16.9]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(3) =	20.6901								
Design-based F(2.52, 7746.68) =	5.0793	Pr =	0.003						
Total (n=3,090)	21.0	[19.2, 23.0]	60.7	[58.5, 62.9]	17.9	[16.2, 19.6]	0.4	[0.3, 0.8]	100.0

Note: Total count is less than universe count due to item non-response.

1.8 Q: How tall are you in inches?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Height (inches)			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	67.0	0.11	[66.7, 67.2]	2,381
No longer enrolled	67.6	0.20	[67.3, 68.0]	709
Age				
19-34	67.1	0.17	[66.8, 67.5]	909
35-50	67.4	0.17	[67.1, 67.7]	966
51-64	66.8	0.15	[66.5, 67.1]	1,215
Gender				
Male	70.2	0.11	[70.0, 70.4]	1,226
Female	64.4	0.08	[64.2, 64.5]	1,864
Race/ethnicity				
White, non-Hispanic	67.1	0.12	[66.9, 67.3]	2,056
Black, non-Hispanic	67.4	0.21	[67.0, 67.8]	633
Hispanic	65.5	0.40	[64.7, 66.3]	137
Other, non-Hispanic	67.2	0.34	[66.5, 67.9]	227
FPL category				
0-35%	67.6	0.15	[67.3, 67.9]	1,215
36-99%	66.4	0.14	[66.2, 66.7]	1,081
$\geq$ 100%	66.7	0.17	[66.4, 67.1]	794
Region				
UP/NW/NE	67.0	0.19	[66.6, 67.4]	573
W/E Central/E	67.1	0.16	[66.8, 67.5]	978
S Central/SW/SE	66.9	0.19	[66.5, 67.3]	631
Detroit Metro	67.2	0.17	[66.9, 67.6]	908
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	67.1	0.11	[66.8, 67.3]	2463
No	67.3	0.21	[66.9, 67.7]	627
Total	67.1	0.10	[66.9, 67.3]	3,090

Note: Total count is less than universe count due to item non-response.

1.9 Q: How much do you weigh in pounds?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Weight (pounds)			
	Mean	SE	95%CI	N
Follow-up group				
Stil enrolled	191.9	1.56	[188.8, 195.0]	2,327
No longer enrolled	193.0	2.34	[188.5, 197.6]	696
Age				
19-34	190.3	2.29	[185.8, 194.8]	892
35-50	199.4	2.52	[194.4, 204.3]	943
51-64	186.0	1.71	[182.7, 189.4]	1,188
Gender				
Male	206.0	2.12	[201.8, 210.2]	1,223
Female	179.6	1.52	[176.6, 182.6]	1,800
Race/ethnicity				
White, non-Hispanic	192.0	1.68	[188.7, 195.3]	2,007
Black, non-Hispanic	198.5	2.77	[193.0, 203.9]	617
Hispanic	181.9	5.82	[170.5, 193.3]	137
Other, non-Hispanic	181.2	3.75	[173.8, 188.5]	227
FPL category				
0-35%	194.1	2.11	[190.0, 198.3]	1,194
36-99%	187.6	1.89	[183.9, 191.3]	1,057
$\geq$ 100%	193.3	2.46	[188.5, 198.2]	772
Region				
UP/NW/NE	194.2	2.78	[188.8, 199.7]	560
W/E Central/E	192.2	2.01	[188.2, 196.1]	952
S Central/SW/SE	190.5	2.52	[185.5, 195.4]	618
Detroit Metro	192.5	2.44	[187.7, 197.3]	893
Chronic condition (2016 or 2017 survey and/or DW)				
Yes	196.4	1.55	[193.3, 199.4]	2408
No	178.4	2.34	[173.8, 182.9]	615
Total	192.2	1.32	[189.6, 194.7]	3,023

Note: Total count is less than universe count due to item non-response.

1.10 Q: Has a doctor or other health professional ever told you that you had any of the following...

1.10.1 Self-reported chronic conditions

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Weighted Proportion	95%CI
Any self-reported chronic condition		
Yes (n=2,413)	74.7	[72.6, 76.7]
No (n=684)	25.3	[23.3, 27.4]
Mood disorder		
Yes (n=1,060)	33.8	[31.7, 36.0]
No (n=2,028)	66.1	[63.9, 68.2]
Don't know (n=6)	0.1	[0.0, 0.3]
Hypertension		
Yes (n=1,094)	31.4	[29.4, 33.5]
No (n=1,998)	68.4	[66.3, 70.4]
Don't know (n=5)	0.2	[0.1, 0.5]
Other chronic condition		
Yes (n=992)	29.8	[27.9, 31.9]
No (n=2,101)	70.2	[68.1, 72.1]
Arthritis or a related condition		
Yes (n=1,015)	27.6	[25.8, 29.5]
No (n=2,065)	71.9	[70.0, 73.7]
Don't know (n=15)	0.5	[0.3, 0.8]
Asthma		
Yes (n=528)	16.9	[15.3, 18.7]
No (n=2,564)	83.0	[81.2, 84.6]
Don't know (n=4)	0.1	[0.0, 0.5]
Chronic bronchitis, COPD, or emphysema		
Yes (n=372)	10.4	[9.2, 11.7]
No (n=2,715)	89.3	[87.9, 90.5]
Don't know (n=10)	0.4	[0.2, 0.8]
Diabetes		
Yes (n=382)	10.3	[9.1, 11.5]
No (n=2,710)	89.6	[88.4, 90.8]
Don't know (n=5)	0.1	[0.0, 0.2]
Heart condition or heart disease		
Yes (n=319)	9.8	[8.5, 11.3]
No (n=2,758)	89.7	[88.3, 91.1]
Don't know (n=20)	0.5	[0.3, 0.7]
Substance use disorder		
Yes (n=125)	4.2	[3.3, 5.2]
No (n=2,967)	95.7	[94.7, 96.6]
Don't know (n=3)	0.1	[0.0, 0.3]
Cancer		
Yes (n=129)	2.9	[2.4, 3.6]
No (n=2,956)	96.8	[96.1, 97.4]
Don't know (n=11)	0.3	[0.1, 0.5]
Stroke		
Yes (n=76)	2.5	[1.9, 3.3]
No (n=3,016)	97.3	[96.5, 98.0]
Don't know (n=4)	0.1	[0.0, 0.4]

Note: Respondents were able to provide multiple responses

1.10.2 Any self-reported chronic condition

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Any self-reported chronic condition				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	75.0	[72.6, 77.3]	25.0	[22.7, 27.4]	100.0
No longer enrolled (n=709)	73.8	[69.4, 77.8]	26.2	[22.2, 30.6]	100.0
Pearson: Uncorrected chi2(1) =	0.4323				
Design-based F(1.00, 3085.00) =	0.2489	Pr =	0.618		
Age					
19-34 (n=909)	61.6	[57.5, 65.5]	38.4	[34.5, 42.5]	100.0
35-50 (n=969)	79.7	[76.3, 82.8]	20.3	[17.2, 23.7]	100.0
51-64 (n=1,219)	86.1	[83.3, 88.4]	13.9	[11.6, 16.7]	100.0
Pearson: Uncorrected chi2(2) =	179.9696				
Design-based F(1.95, 6024.02) =	54.9056	Pr =	0.000		
Gender					
Male (n=1,230)	72.0	[68.5, 75.2]	28.0	[24.8, 31.5]	100.0
Female (n=1,867)	77.2	[74.6, 79.5]	22.8	[20.5, 25.4]	100.0
Pearson: Uncorrected chi2(1) =	10.9234				
Design-based F(1.00, 3085.00) =	6.1686	Pr =	0.013		
Race/ethnicity					
White, non-Hispanic (n=2,058)	79.1	[76.7, 81.4]	20.9	[18.6, 23.3]	100.0
Black, non-Hispanic (n=634)	68.5	[63.7, 73.0]	31.5	[27.0, 36.3]	100.0
Hispanic (n=138)	68.3	[57.7, 77.3]	31.7	[22.7, 42.3]	100.0
Other, non-Hispanic (n=228)	65.8	[57.6, 73.1]	34.2	[26.9, 42.4]	100.0
Pearson: Uncorrected chi2(3) =	49.9763				
Design-based F(2.99, 9104.45) =	8.9980	Pr =	0.000		
FPL category					
0-35% (n=1,218)	77.1	[73.7, 80.1]	22.9	[19.9, 26.3]	100.0
36-99% (n=1,084)	71.8	[68.4, 75.0]	28.2	[25.0, 31.6]	100.0
100%+ (n=795)	72.6	[68.9, 76.1]	27.4	[23.9, 31.1]	100.0
Pearson: Uncorrected chi2(2) =	9.9260				
Design-based F(1.89, 5832.47) =	3.4102	Pr =	0.036		
Region					
UP/NW/NE (n=574)	79.4	[75.2, 83.0]	20.6	[17.0, 24.8]	100.0
W/E Central/E (n=980)	79.6	[76.4, 82.4]	20.4	[17.6, 23.6]	100.0
S Central/SW/SE (n=633)	75.2	[70.6, 79.3]	24.8	[20.7, 29.4]	100.0
Detroit Metro (n=910)	70.2	[66.3, 73.8]	29.8	[26.2, 33.7]	100.0
Pearson: Uncorrected chi2(3) =	29.4898				
Design-based F(2.70, 8328.93) =	7.2863	Pr =	0.000		
Total (n=3,097)	74.7	[72.6, 76.7]	25.3	[23.3, 27.4]	100.0

1.10.3 Q: Has a doctor or other health professional ever told you that you had a mood disorder (for example, depression, anxiety, bipolar disorder)?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Mood disorder						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,385)	34.6	[32.2, 37.2]	65.2	[62.7, 67.6]	0.2	[0.1, 0.4]	100.0
No longer enrolled (n=709)	31.1	[27.0, 35.4]	68.9	[64.6, 73.0]	0.0		100.0
Pearson: Uncorrected chi2(2) =	4.3729						
Design-based F(1.79, 5514.73) =	1.8410	Pr =	0.163				
Age							
19-34 (n=909)	35.1	[31.2, 39.1]	64.9	[60.9, 68.8]	0.0		100.0
35-50 (n=968)	36.0	[32.3, 39.8]	64.0	[60.2, 67.6]	0.1	[0.0, 0.3]	100.0
51-64 (n=1,217)	29.6	[26.5, 32.8]	70.1	[66.8, 73.1]	0.3	[0.1, 1.0]	100.0
Pearson: Uncorrected chi2(4) =	14.8470						
Design-based F(3.18, 9810.69) =	3.3911	Pr =	0.015				
Gender							
Male (n=1,228)	28.4	[25.3, 31.7]	71.6	[68.3, 74.7]	0.0		100.0
Female (n=1,866)	38.6	[35.8, 41.4]	61.2	[58.3, 63.9]	0.2	[0.1, 0.5]	100.0
Pearson: Uncorrected chi2(2) =	39.6776						
Design-based F(1.75, 5390.53) =	15.8681	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=2,055)	41.0	[38.2, 43.8]	58.8	[56.0, 61.6]	0.2	[0.1, 0.5]	100.0
Black, non-Hispanic (n=634)	19.0	[15.7, 22.9]	81.0	[77.1, 84.3]	0.0		100.0
Hispanic (n=138)	25.1	[16.9, 35.4]	74.7	[64.3, 82.8]	0.3	[0.0, 1.9]	100.0
Other, non-Hispanic (n=228)	34.2	[27.0, 42.2]	65.8	[57.8, 73.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	130.0006						
Design-based F(5.15, 15685.99) =	15.5026	Pr =	0.000				
FPL category							
0-35% (n=1,217)	38.2	[34.8, 41.7]	61.6	[58.1, 65.0]	0.2	[0.1, 0.5]	100.0
36-99% (n=1,083)	28.8	[25.8, 32.1]	71.2	[67.9, 74.2]	0.0		100.0
100%+ (n=794)	29.2	[25.7, 32.9]	70.7	[67.0, 74.2]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(4) =	31.1550						
Design-based F(3.42, 10545.99) =	8.0572	Pr =	0.000				
Region							
UP/NW/NE (n=573)	39.2	[34.8, 43.9]	60.5	[55.9, 65.0]	0.2	[0.1, 1.0]	100.0
W/E Central/E (n=979)	37.9	[34.4, 41.5]	62.0	[58.4, 65.5]	0.1	[0.0, 0.9]	100.0
S Central/SW/SE (n=632)	39.2	[34.8, 43.7]	60.7	[56.2, 65.1]	0.1	[0.0, 0.6]	100.0
Detroit Metro (n=910)	27.5	[23.9, 31.4]	72.4	[68.4, 76.0]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(6) =	41.9149						
Design-based F(4.70, 14481.99) =	7.0913	Pr =	0.000				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,466)	37.2	[34.7, 39.7]	62.7	[60.2, 65.1]	0.2	[0.1, 0.4]	100.0
No (n=628)	22.7	[18.8, 27.1]	77.3	[72.9, 81.2]	0.0		100.0
Pearson: Uncorrected chi2(2) =	53.0229						
Design-based F(1.73, 5317.66) =	20.4211	Pr =	0.000				
Total (n=3,094)	33.8	[31.7, 36.0]	66.1	[63.9, 68.2]	0.1	[0.0, 0.3]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.4 Q: Has a doctor or other health professional ever told you that you had hypertension, also called high blood pressure?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Hypertension						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	31.5	[29.2, 33.9]	68.3	[65.9, 70.6]	0.2	[0.1, 0.6]	100.0
No longer enrolled (n=709)	31.2	[27.2, 35.5]	68.7	[64.4, 72.7]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	0.4204						
Design-based F(1.78, 5483.26) =	0.1879	Pr =	0.803				
Age							
19-34 (n=909)	12.4	[9.9, 15.3]	87.4	[84.5, 89.9]	0.2	[0.0, 1.0]	100.0
35-50 (n=969)	35.8	[32.1, 39.7]	64.0	[60.0, 67.7]	0.3	[0.1, 0.9]	100.0
51-64 (n=1,219)	51.4	[48.0, 54.8]	48.6	[45.2, 52.0]	0.0		100.0
Pearson: Uncorrected chi2(4) =	370.0580						
Design-based F(3.86, 11912.87) =	62.0011	Pr =	0.000				
Gender							
Male (n=1,230)	34.7	[31.5, 38.1]	65.0	[61.6, 68.3]	0.3	[0.1, 0.8]	100.0
Female (n=1,867)	28.5	[26.1, 31.1]	71.4	[68.8, 73.8]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	15.4385						
Design-based F(1.99, 6153.88) =	5.1814	Pr =	0.006				
Race/ethnicity							
White, non-Hispanic (n=2,058)	29.8	[27.5, 32.3]	70.0	[67.6, 72.4]	0.1	[0.0, 0.4]	100.0
Black, non-Hispanic (n=634)	37.5	[32.9, 42.3]	62.3	[57.5, 66.8]	0.2	[0.0, 1.6]	100.0
Hispanic (n=138)	26.7	[19.3, 35.8]	73.3	[64.2, 80.7]	0.0		100.0
Other, non-Hispanic (n=228)	26.1	[19.8, 33.6]	73.9	[66.4, 80.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	22.5769						
Design-based F(5.64, 17166.01) =	2.4618	Pr =	0.025				
FPL category							
0-35% (n=1,218)	33.4	[30.2, 36.7]	66.4	[63.1, 69.6]	0.2	[0.1, 0.6]	100.0
36-99% (n=1,084)	29.8	[26.6, 33.1]	70.2	[66.8, 73.3]	0.1	[0.0, 0.5]	100.0
100%+ (n=795)	28.7	[25.2, 32.4]	71.0	[67.3, 74.5]	0.3	[0.0, 2.1]	100.0
Pearson: Uncorrected chi2(4) =	7.2889						
Design-based F(3.68, 11366.51) =	1.4978	Pr =	0.204				
Region							
UP/NW/NE (n=574)	34.1	[30.0, 38.5]	65.7	[61.3, 69.9]	0.1	[0.0, 1.0]	100.0
W/E Central/E (n=980)	32.2	[29.0, 35.6]	67.7	[64.3, 70.9]	0.1	[0.0, 0.8]	100.0
S Central/SW/SE (n=633)	30.1	[26.3, 34.2]	69.5	[65.4, 73.4]	0.4	[0.1, 1.6]	100.0
Detroit Metro (n=910)	30.9	[27.3, 34.7]	68.9	[65.1, 72.5]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(6) =	3.3525						
Design-based F(5.15, 15881.58) =	0.5001	Pr =	0.782				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,469)	41.0	[38.5, 43.5]	58.9	[56.4, 61.4]	0.1	[0.0, 0.4]	100.0
No (n=628)	0.0		99.7	[98.2, 100.0]	0.3	[0.0, 1.8]	100.0
Pearson: Uncorrected chi2(2) =	429.4886						
Design-based F(2.00, 6168.46) =	138.2445	Pr =	0.000				
Total (n=3,097)	31.4	[29.4, 33.5]	68.4	[66.3, 70.4]	0.2	[0.1, 0.5]	100.0

1.10.5 Q: Has a doctor or other health professional ever told you that you had arthritis or a related condition (for example, rheumatoid arthritis, gout, lupus, or fibromyalgia)?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Arthritis or a related condition						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,386)	28.1	[26.0, 30.3]	71.5	[69.3, 73.6]	0.4	[0.2, 0.9]	100.0
No longer enrolled (n=709)	26.1	[22.5, 30.1]	73.3	[69.3, 77.0]	0.6	[0.2, 1.5]	100.0
Pearson: Uncorrected chi2(2) =	1.1520						
Design-based F(1.98, 6107.76) =	0.4495	Pr =	0.636				
Age							
19-34 (n=909)	10.5	[8.4, 13.1]	89.1	[86.6, 91.3]	0.3	[0.1, 1.1]	100.0
35-50 (n=967)	30.2	[26.9, 33.7]	69.3	[65.8, 72.7]	0.5	[0.2, 1.1]	100.0
51-64 (n=1,219)	47.1	[43.7, 50.5]	52.2	[48.8, 55.7]	0.7	[0.2, 1.7]	100.0
Pearson: Uncorrected chi2(4) =	344.2076						
Design-based F(3.91, 12060.95) =	62.4963	Pr =	0.000				
Gender							
Male (n=1,229)	24.3	[21.6, 27.2]	75.3	[72.4, 78.0]	0.4	[0.2, 0.9]	100.0
Female (n=1,866)	30.6	[28.2, 33.2]	68.9	[66.3, 71.3]	0.5	[0.2, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	15.9287						
Design-based F(1.98, 6105.42) =	6.0234	Pr =	0.003				
Race/ethnicity							
White, non-Hispanic (n=2,057)	30.5	[28.1, 32.9]	69.0	[66.5, 71.3]	0.6	[0.3, 1.2]	100.0
Black, non-Hispanic (n=634)	23.0	[19.4, 27.0]	76.9	[72.9, 80.5]	0.1	[0.0, 0.6]	100.0
Hispanic (n=137)	21.2	[14.7, 29.6]	77.5	[69.0, 84.2]	1.3	[0.3, 5.3]	100.0
Other, non-Hispanic (n=228)	23.9	[18.2, 30.6]	75.7	[69.0, 81.4]	0.4	[0.1, 3.0]	100.0
Pearson: Uncorrected chi2(6) =	26.8569						
Design-based F(5.65, 17203.74) =	3.6716	Pr =	0.002				
FPL category							
0-35% (n=1,218)	29.5	[26.6, 32.6]	70.1	[67.0, 73.0]	0.4	[0.2, 0.9]	100.0
36-99% (n=1,082)	27.3	[24.4, 30.4]	72.4	[69.3, 75.3]	0.3	[0.1, 1.7]	100.0
100%+ (n=795)	23.1	[20.1, 26.4]	75.9	[72.6, 78.9]	1.0	[0.4, 2.1]	100.0
Pearson: Uncorrected chi2(4) =	13.0518						
Design-based F(3.72, 11474.27) =	2.4914	Pr =	0.045				
Region							
UP/NW/NE (n=574)	34.6	[30.5, 39.0]	64.6	[60.1, 68.7]	0.8	[0.3, 2.4]	100.0
W/E Central/E (n=978)	30.9	[27.9, 34.2]	68.3	[65.0, 71.5]	0.7	[0.3, 1.8]	100.0
S Central/SW/SE (n=633)	28.3	[24.6, 32.4]	71.3	[67.3, 75.1]	0.3	[0.1, 1.4]	100.0
Detroit Metro (n=910)	23.5	[20.5, 26.9]	76.2	[72.8, 79.2]	0.3	[0.1, 1.0]	100.0
Pearson: Uncorrected chi2(6) =	27.0756						
Design-based F(5.51, 16996.75) =	4.0012	Pr =	0.001				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,467)	36.0	[33.7, 38.3]	63.5	[61.1, 65.8]	0.6	[0.3, 1.0]	100.0
No (n=628)	0.0		99.8	[98.8, 100.0]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	361.8586						
Design-based F(1.98, 6112.80) =	129.9470	Pr =	0.000				
Total (n=3,095)	27.6	[25.8, 29.5]	71.9	[70.0, 73.7]	0.5	[0.3, 0.8]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.6 Q: Has a doctor or other health professional ever told you that you had asthma?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Asthma						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	16.8	[15.0, 18.8]	83.0	[81.0, 84.9]	0.2	[0.1, 0.6]	100.0
No longer enrolled (n=709)	17.3	[13.9, 21.3]	82.7	[78.7, 86.1]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.3744						
Design-based F(2.00, 6156.04) =	0.4132	Pr =	0.661				
Age							
19-34 (n=909)	18.3	[15.3, 21.8]	81.7	[78.2, 84.7]	0.0		100.0
35-50 (n=969)	17.3	[14.7, 20.3]	82.6	[79.6, 85.2]	0.1	[0.0, 0.8]	100.0
51-64 (n=1,218)	14.6	[12.4, 17.1]	85.0	[82.5, 87.3]	0.4	[0.1, 1.5]	100.0
Pearson: Uncorrected chi2(4) =	9.5684						
Design-based F(3.81, 11763.68) =	1.6145	Pr =	0.170				
Gender							
Male (n=1,230)	14.5	[12.0, 17.4]	85.5	[82.6, 88.0]	0.0	[0.0, 0.1]	100.0
Female (n=1,866)	19.0	[17.0, 21.2]	80.7	[78.5, 82.8]	0.2	[0.1, 0.9]	100.0
Pearson: Uncorrected chi2(2) =	14.3199						
Design-based F(1.34, 4132.69) =	6.6794	Pr =	0.005				
Race/ethnicity							
White, non-Hispanic (n=2,057)	17.8	[15.8, 20.0]	82.0	[79.7, 84.0]	0.2	[0.1, 0.8]	100.0
Black, non-Hispanic (n=634)	16.5	[13.1, 20.6]	83.5	[79.4, 86.9]	0.0		100.0
Hispanic (n=138)	15.7	[9.9, 23.9]	84.3	[76.1, 90.1]	0.0		100.0
Other, non-Hispanic (n=228)	13.2	[8.8, 19.5]	86.8	[80.5, 91.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	6.7453						
Design-based F(5.93, 18055.89) =	0.6689	Pr =	0.673				
FPL category							
0-35% (n=1,217)	17.9	[15.4, 20.7]	82.1	[79.3, 84.6]	0.0	[0.0, 0.1]	100.0
36-99% (n=1,084)	15.9	[13.3, 19.0]	83.7	[80.6, 86.3]	0.4	[0.1, 1.7]	100.0
100%+ (n=795)	15.6	[12.8, 19.0]	84.3	[80.9, 87.1]	0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(4) =	8.2602						
Design-based F(3.24, 10003.28) =	2.0830	Pr =	0.095				
Region							
UP/NW/NE (n=574)	16.1	[13.1, 19.8]	83.8	[80.1, 86.8]	0.1	[0.0, 0.6]	100.0
W/E Central/E (n=979)	17.7	[15.1, 20.8]	81.8	[78.8, 84.5]	0.4	[0.1, 1.5]	100.0
S Central/SW/SE (n=633)	17.6	[14.5, 21.2]	82.4	[78.8, 85.5]	0.0		100.0
Detroit Metro (n=910)	16.2	[13.4, 19.4]	83.8	[80.6, 86.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	10.0715						
Design-based F(4.39, 13526.24) =	1.6516	Pr =	0.152				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,468)	22.0	[20.0, 24.2]	77.8	[75.6, 79.9]	0.2	[0.1, 0.6]	100.0
No (n=628)	0.0		100.0		0.0		100.0
Pearson: Uncorrected chi2(2) =	192.3189						
Design-based F(2.00, 6165.02) =	61.6985	Pr =	0.000				
Total (n=3,096)	16.9	[15.3, 18.7]	83.0	[81.2, 84.6]	0.1	[0.0, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.7 Q: Has a doctor or other health professional ever told you that you had chronic bronchitis, COPD or emphysema?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Chronic bronchitis, COPD, or emphysema						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	10.8	[9.4, 12.4]	88.7	[87.1, 90.2]	0.5	[0.2, 1.0]	100.0
No longer enrolled (n=709)	9.0	[7.0, 11.6]	91.0	[88.4, 93.0]	0.0		100.0
Pearson: Uncorrected chi2(2) =	5.2561						
Design-based F(1.96, 6054.89) =	1.8350	Pr =	0.160				
Age							
19-34 (n=909)	4.3	[3.1, 6.1]	95.2	[93.4, 96.6]	0.4	[0.1, 1.6]	100.0
35-50 (n=969)	11.7	[9.4, 14.3]	88.3	[85.6, 90.5]	0.1	[0.0, 0.6]	100.0
51-64 (n=1,219)	16.8	[14.5, 19.5]	82.6	[79.9, 85.0]	0.6	[0.2, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	90.5214						
Design-based F(3.82, 11790.28) =	16.1561	Pr =	0.000				
Gender							
Male (n=1,230)	8.4	[6.8, 10.3]	91.2	[89.2, 92.8]	0.4	[0.1, 1.4]	100.0
Female (n=1,867)	12.2	[10.5, 14.0]	87.6	[85.7, 89.2]	0.3	[0.1, 0.7]	100.0
Pearson: Uncorrected chi2(2) =	12.2504						
Design-based F(2.00, 6168.60) =	4.3007	Pr =	0.014				
Race/ethnicity							
White, non-Hispanic (n=2,058)	11.0	[9.6, 12.6]	88.7	[87.1, 90.1]	0.3	[0.1, 0.7]	100.0
Black, non-Hispanic (n=634)	9.8	[7.4, 12.8]	89.7	[86.6, 92.2]	0.5	[0.1, 2.3]	100.0
Hispanic (n=138)	5.6	[2.6, 11.5]	93.4	[87.2, 96.7]	1.0	[0.1, 6.7]	100.0
Other, non-Hispanic (n=228)	9.0	[4.9, 16.2]	91.0	[83.8, 95.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	8.7872						
Design-based F(5.42, 16523.54) =	0.8543	Pr =	0.518				
FPL category							
0-35% (n=1,218)	11.9	[10.0, 14.1]	87.7	[85.4, 89.6]	0.5	[0.2, 1.3]	100.0
36-99% (n=1,084)	8.8	[7.1, 10.7]	91.1	[89.1, 92.7]	0.1	[0.0, 0.7]	100.0
100%+ (n=795)	8.8	[6.8, 11.2]	90.9	[88.4, 92.9]	0.4	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(4) =	9.6795						
Design-based F(3.89, 11987.29) =	2.3093	Pr =	0.057				
Region							
UP/NW/NE (n=574)	13.7	[10.7, 17.3]	86.1	[82.5, 89.0]	0.2	[0.1, 1.0]	100.0
W/E Central/E (n=980)	12.3	[10.2, 14.8]	87.4	[84.9, 89.5]	0.3	[0.1, 1.1]	100.0
S Central/SW/SE (n=633)	9.2	[7.2, 11.8]	90.5	[87.9, 92.6]	0.3	[0.1, 1.1]	100.0
Detroit Metro (n=910)	8.9	[7.0, 11.2]	90.7	[88.3, 92.7]	0.4	[0.1, 1.5]	100.0
Pearson: Uncorrected chi2(6) =	11.5470						
Design-based F(5.11, 15758.03) =	1.8454	Pr =	0.099				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,469)	13.5	[12.0, 15.2]	86.0	[84.3, 87.6]	0.5	[0.2, 1.0]	100.0
No (n=628)	0.0		100.0		0.0		100.0
Pearson: Uncorrected chi2(2) =	112.6630						
Design-based F(1.99, 6135.80) =	37.1272	Pr =	0.000				
Total (n=3,097)	10.4	[9.2, 11.7]	89.3	[87.9, 90.5]	0.4	[0.2, 0.8]	100.0

1.10.8 Q: Has a doctor or other health professional ever told you that you had diabetes or sugar diabetes (other than during pregnancy)?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Diabetes						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	10.6	[9.3, 12.1]	89.3	[87.8, 90.6]	0.0	[0.0, 0.2]	100.0
No longer enrolled (n=709)	9.1	[7.0, 11.7]	90.7	[88.0, 92.8]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(2) =	4.6092						
Design-based F(1.71, 5283.24) =	2.5473	Pr =	0.087				
Age							
19-34 (n=909)	4.1	[2.9, 5.6]	95.8	[94.3, 97.0]	0.1	[0.0, 0.5]	100.0
35-50 (n=969)	11.8	[9.6, 14.4]	88.1	[85.6, 90.3]	0.1	[0.0, 0.4]	100.0
51-64 (n=1,219)	16.7	[14.4, 19.3]	83.2	[80.6, 85.5]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(4) =	90.4885						
Design-based F(3.48, 10724.30) =	24.0398	Pr =	0.000				
Gender							
Male (n=1,230)	10.2	[8.5, 12.3]	89.8	[87.7, 91.5]	0.0	[0.0, 0.3]	100.0
Female (n=1,867)	10.3	[8.9, 12.0]	89.5	[87.9, 90.9]	0.1	[0.1, 0.4]	100.0
Pearson: Uncorrected chi2(2) =	0.9057						
Design-based F(1.73, 5348.49) =	0.4932	Pr =	0.584				
Race/ethnicity							
White, non-Hispanic (n=2,058)	10.0	[8.6, 11.6]	89.8	[88.2, 91.2]	0.1	[0.0, 0.3]	100.0
Black, non-Hispanic (n=634)	11.0	[8.6, 13.8]	89.0	[86.1, 91.3]	0.1	[0.0, 0.5]	100.0
Hispanic (n=138)	13.7	[8.9, 20.5]	86.3	[79.5, 91.1]	0.0		100.0
Other, non-Hispanic (n=228)	7.7	[5.0, 11.8]	92.3	[88.2, 95.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.9955						
Design-based F(5.19, 15804.14) =	0.7763	Pr =	0.571				
FPL category							
0-35% (n=1,218)	10.7	[9.0, 12.8]	89.2	[87.2, 91.0]	0.0	[0.0, 0.3]	100.0
36-99% (n=1,084)	9.9	[8.2, 11.9]	90.0	[88.0, 91.7]	0.1	[0.0, 0.6]	100.0
100%+ (n=795)	9.6	[7.6, 12.1]	90.1	[87.6, 92.2]	0.2	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(4) =	2.7998						
Design-based F(3.71, 11459.01) =	0.8307	Pr =	0.498				
Region							
UP/NW/NE (n=574)	11.5	[8.9, 14.6]	88.3	[85.1, 90.9]	0.2	[0.0, 1.6]	100.0
W/E Central/E (n=980)	10.3	[8.5, 12.4]	89.6	[87.5, 91.5]	0.0	[0.0, 0.3]	100.0
S Central/SW/SE (n=633)	10.2	[7.9, 13.1]	89.5	[86.6, 91.8]	0.3	[0.1, 1.0]	100.0
Detroit Metro (n=910)	10.0	[8.1, 12.3]	90.0	[87.7, 91.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.8803						
Design-based F(5.07, 15649.83) =	1.2542	Pr =	0.280				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,469)	13.4	[11.9, 15.0]	86.5	[84.9, 88.0]	0.1	[0.0, 0.3]	100.0
No (n=628)	0.0		100.0		0.0		100.0
Pearson: Uncorrected chi2(2) =	108.3877						
Design-based F(1.74, 5360.47) =	55.6219	Pr =	0.000				
Total (n=3,097)	10.3	[9.1, 11.5]	89.6	[88.4, 90.8]	0.1	[0.0, 0.2]	100.0

1.10.9 Q: Has a doctor or other health professional ever told you that you had a heart condition or heart disease?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Heart condition or heart disease						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	10.0	[8.5, 11.7]	89.5	[87.7, 91.0]	0.5	[0.3, 0.9]	100.0
No longer enrolled (n=709)	9.2	[7.0, 12.1]	90.6	[87.7, 92.8]	0.2	[0.1, 0.7]	100.0
Pearson: Uncorrected chi2(2) =	1.7077						
Design-based F(1.69, 5207.28) =	0.7959	Pr =	0.432				
Age							
19-34 (n=909)	4.7	[3.3, 6.6]	95.0	[93.1, 96.4]	0.3	[0.1, 0.8]	100.0
35-50 (n=969)	11.1	[8.5, 14.3]	88.5	[85.2, 91.1]	0.5	[0.2, 1.1]	100.0
51-64 (n=1,219)	15.0	[12.7, 17.7]	84.3	[81.6, 86.7]	0.7	[0.4, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	65.8747						
Design-based F(3.57, 11008.33) =	12.4518	Pr =	0.000				
Gender							
Male (n=1,230)	12.2	[10.0, 14.9]	87.3	[84.6, 89.5]	0.5	[0.2, 1.0]	100.0
Female (n=1,867)	7.6	[6.4, 9.1]	91.9	[90.4, 93.2]	0.4	[0.2, 0.8]	100.0
Pearson: Uncorrected chi2(2) =	18.5670						
Design-based F(1.84, 5672.30) =	7.6455	Pr =	0.001				
Race/ethnicity							
White, non-Hispanic (n=2,058)	11.0	[9.4, 12.8]	88.4	[86.5, 90.0]	0.7	[0.4, 1.1]	100.0
Black, non-Hispanic (n=634)	9.1	[6.5, 12.6]	90.7	[87.3, 93.3]	0.1	[0.0, 0.6]	100.0
Hispanic (n=138)	2.1	[0.7, 6.0]	97.9	[94.0, 99.3]	0.0		100.0
Other, non-Hispanic (n=228)	8.0	[4.0, 15.2]	91.9	[84.8, 95.9]	0.1	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(6) =	19.7941						
Design-based F(4.21, 12808.64) =	2.6564	Pr =	0.029				
FPL category							
0-35% (n=1,218)	10.6	[8.6, 13.1]	89.1	[86.7, 91.2]	0.2	[0.1, 0.7]	100.0
36-99% (n=1,084)	7.5	[5.9, 9.5]	91.6	[89.5, 93.2]	1.0	[0.5, 1.8]	100.0
100%+ (n=795)	10.9	[8.4, 13.9]	88.8	[85.8, 91.3]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(4) =	13.5178						
Design-based F(3.56, 10970.29) =	3.1817	Pr =	0.016				
Region							
UP/NW/NE (n=574)	12.5	[9.8, 15.8]	86.9	[83.6, 89.7]	0.6	[0.2, 1.7]	100.0
W/E Central/E (n=980)	11.2	[9.1, 13.7]	88.0	[85.5, 90.2]	0.7	[0.4, 1.6]	100.0
S Central/SW/SE (n=633)	8.7	[6.5, 11.6]	90.7	[87.8, 92.9]	0.6	[0.2, 1.6]	100.0
Detroit Metro (n=910)	8.7	[6.5, 11.6]	91.1	[88.3, 93.3]	0.2	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(6) =	11.9115						
Design-based F(4.76, 14697.34) =	1.9209	Pr =	0.091				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,469)	12.8	[11.1, 14.6]	86.6	[84.8, 88.3]	0.6	[0.4, 1.0]	100.0
No (n=628)	0.0		100.0		0.0		100.0
Pearson: Uncorrected chi2(2) =	106.9827						
Design-based F(1.84, 5670.53) =	43.1468	Pr =	0.000				
Total (n=3,097)	9.8	[8.5, 11.3]	89.7	[88.3, 91.1]	0.5	[0.3, 0.7]	100.0

1.10.10 Q: Has a doctor or other health professional ever told you that you had a substance use disorder?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Substance use disorder						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	4.4	[3.5, 5.7]	95.5	[94.3, 96.5]	0.0	[0.0, 0.2]	100.0
No longer enrolled (n=708)	3.3	[2.0, 5.6]	96.5	[94.2, 97.9]	0.2	[0.0, 1.4]	100.0
Pearson: Uncorrected chi2(2) =	3.1122						
Design-based F(1.85, 5712.12) =	1.1262	Pr =	0.321				
Age							
19-34 (n=909)	2.4	[1.5, 3.8]	97.5	[96.1, 98.4]	0.1	[0.0, 0.9]	100.0
35-50 (n=968)	5.8	[4.0, 8.4]	94.1	[91.5, 95.9]	0.1	[0.0, 0.5]	100.0
51-64 (n=1,218)	4.6	[3.3, 6.4]	95.4	[93.6, 96.7]	0.0		100.0
Pearson: Uncorrected chi2(4) =	17.7792						
Design-based F(3.61, 11131.70) =	3.3830	Pr =	0.012				
Gender							
Male (n=1,229)	6.0	[4.6, 7.8]	93.9	[92.1, 95.4]	0.1	[0.0, 0.4]	100.0
Female (n=1,866)	2.6	[1.7, 3.9]	97.3	[96.0, 98.2]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(2) =	22.6207						
Design-based F(1.79, 5506.81) =	8.3552	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=2,057)	4.9	[3.7, 6.3]	95.0	[93.6, 96.2]	0.1	[0.0, 0.5]	100.0
Black, non-Hispanic (n=633)	3.3	[2.0, 5.6]	96.7	[94.4, 98.0]	0.0		100.0
Hispanic (n=138)	1.7	[0.4, 7.7]	98.0	[92.6, 99.5]	0.3	[0.0, 1.9]	100.0
Other, non-Hispanic (n=228)	4.0	[1.7, 9.1]	96.0	[90.9, 98.3]	0.0		100.0
Pearson: Uncorrected chi2(6) =	7.6354						
Design-based F(5.27, 16028.42) =	0.8450	Pr =	0.522				
FPL category							
0-35% (n=1,216)	5.0	[3.7, 6.8]	94.9	[93.1, 96.3]	0.0	[0.0, 0.3]	100.0
36-99% (n=1,084)	3.5	[2.4, 5.3]	96.5	[94.7, 97.6]	0.0		100.0
100%+ (n=795)	2.8	[1.8, 4.4]	96.9	[95.2, 97.9]	0.3	[0.1, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	10.9360						
Design-based F(3.73, 11502.18) =	2.4035	Pr =	0.052				
Region							
UP/NW/NE (n=574)	4.2	[2.8, 6.3]	95.8	[93.7, 97.2]	0.0		100.0
W/E Central/E (n=980)	4.8	[3.5, 6.5]	95.1	[93.4, 96.4]	0.1	[0.0, 0.6]	100.0
S Central/SW/SE (n=632)	4.2	[2.5, 6.9]	95.8	[93.1, 97.5]	0.0		100.0
Detroit Metro (n=909)	3.8	[2.4, 5.8]	96.1	[94.0, 97.5]	0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(6) =	2.6501						
Design-based F(4.41, 13600.29) =	0.4160	Pr =	0.815				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,467)	4.6	[3.6, 5.8]	95.3	[94.1, 96.3]	0.1	[0.0, 0.4]	100.0
No (n=628)	3.0	[1.7, 5.3]	97.0	[94.7, 98.3]	0.0		100.0
Pearson: Uncorrected chi2(2) =	4.0783						
Design-based F(1.86, 5733.11) =	1.3867	Pr =	0.250				
Total (n=3,095)	4.2	[3.3, 5.2]	95.7	[94.7, 96.6]	0.1	[0.0, 0.3]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.11 Q: Has a doctor or other health professional ever told you that you had cancer, other than skin cancer?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Cancer						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	2.9	[2.3, 3.7]	96.8	[96.1, 97.5]	0.3	[0.1, 0.5]	100.0
No longer enrolled (n=709)	3.1	[2.2, 4.4]	96.6	[95.3, 97.6]	0.3	[0.1, 1.1]	100.0
Pearson: Uncorrected chi2(2) =	0.0839						
Design-based F(1.99, 6127.68) =	0.0462	Pr =	0.954				
Age							
19-34 (n=908)	0.5	[0.2, 1.0]	99.5	[99.0, 99.8]	0.0		100.0
35-50 (n=969)	2.9	[2.0, 4.2]	96.9	[95.5, 97.9]	0.2	[0.1, 0.8]	100.0
51-64 (n=1,219)	6.3	[4.9, 7.9]	93.1	[91.4, 94.5]	0.6	[0.3, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	67.9220						
Design-based F(3.96, 12221.72) =	18.0860	Pr =	0.000				
Gender							
Male (n=1,229)	1.9	[1.3, 2.8]	97.8	[96.9, 98.5]	0.3	[0.1, 0.7]	100.0
Female (n=1,867)	3.9	[3.1, 4.9]	95.9	[94.9, 96.7]	0.2	[0.1, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	11.2015						
Design-based F(1.98, 6094.95) =	5.7804	Pr =	0.003				
Race/ethnicity							
White, non-Hispanic (n=2,058)	3.5	[2.8, 4.4]	96.1	[95.2, 96.9]	0.4	[0.2, 0.7]	100.0
Black, non-Hispanic (n=634)	1.8	[1.0, 3.1]	98.2	[96.9, 99.0]	0.0		100.0
Hispanic (n=138)	0.6	[0.1, 2.4]	98.6	[95.0, 99.6]	0.8	[0.1, 5.6]	100.0
Other, non-Hispanic (n=227)	3.8	[1.9, 7.5]	96.2	[92.5, 98.1]	0.0		100.0
Pearson: Uncorrected chi2(6) =	15.2959						
Design-based F(5.26, 16022.22) =	2.2594	Pr =	0.043				
FPL category							
0-35% (n=1,218)	2.6	[1.9, 3.6]	97.1	[96.1, 97.9]	0.2	[0.1, 0.6]	100.0
36-99% (n=1,083)	3.0	[2.1, 4.1]	96.7	[95.5, 97.6]	0.3	[0.1, 1.0]	100.0
100%+ (n=795)	3.7	[2.6, 5.3]	96.1	[94.5, 97.2]	0.2	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(4) =	2.2019						
Design-based F(3.91, 12052.36) =	0.6577	Pr =	0.618				
Region							
UP/NW/NE (n=574)	5.0	[3.3, 7.5]	94.7	[92.2, 96.5]	0.3	[0.1, 1.1]	100.0
W/E Central/E (n=979)	3.1	[2.2, 4.3]	96.4	[95.1, 97.4]	0.5	[0.2, 1.3]	100.0
S Central/SW/SE (n=633)	3.0	[2.0, 4.6]	96.6	[95.0, 97.7]	0.4	[0.2, 1.1]	100.0
Detroit Metro (n=910)	2.4	[1.6, 3.5]	97.6	[96.5, 98.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	12.4614						
Design-based F(5.42, 16717.41) =	2.6257	Pr =	0.019				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,468)	3.8	[3.1, 4.7]	95.9	[95.0, 96.6]	0.3	[0.2, 0.6]	100.0
No (n=628)	0.0		99.9	[99.5, 100.0]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(2) =	29.7802						
Design-based F(1.79, 5531.56) =	18.8496	Pr =	0.000				
Total (n=3,096)	2.9	[2.4, 3.6]	96.8	[96.1, 97.4]	0.3	[0.1, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.12 Q: Has a doctor or other health professional ever told you that you had a stroke?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Stroke						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	2.4	[1.7, 3.3]	97.5	[96.5, 98.1]	0.1	[0.0, 0.5]	100.0
No longer enrolled (n=709)	2.8	[1.6, 5.1]	97.0	[94.7, 98.3]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	0.4435						
Design-based F(1.93, 5947.98) =	0.1456	Pr =	0.857				
Age							
19-34 (n=909)	0.1	[0.0, 0.4]	99.9	[99.5, 100.0]	0.1	[0.0, 0.5]	100.0
35-50 (n=969)	3.9	[2.5, 6.0]	95.8	[93.6, 97.2]	0.3	[0.1, 1.2]	100.0
51-64 (n=1,218)	4.0	[2.9, 5.7]	95.9	[94.2, 97.1]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(4) =	48.2613						
Design-based F(3.45, 10632.51) =	12.2839	Pr =	0.000				
Gender							
Male (n=1,229)	3.6	[2.5, 5.2]	96.2	[94.6, 97.4]	0.2	[0.0, 0.8]	100.0
Female (n=1,867)	1.6	[1.1, 2.3]	98.3	[97.6, 98.9]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(2) =	13.6050						
Design-based F(1.99, 6150.35) =	5.3842	Pr =	0.005				
Race/ethnicity							
White, non-Hispanic (n=2,058)	2.2	[1.5, 3.3]	97.5	[96.4, 98.3]	0.2	[0.1, 0.7]	100.0
Black, non-Hispanic (n=634)	2.4	[1.3, 4.4]	97.6	[95.6, 98.7]	0.0		100.0
Hispanic (n=138)	2.1	[0.5, 8.3]	97.9	[91.7, 99.5]	0.0		100.0
Other, non-Hispanic (n=227)	5.1	[2.6, 9.6]	94.9	[90.4, 97.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	10.6415						
Design-based F(5.94, 18089.51) =	1.0816	Pr =	0.371				
FPL category							
0-35% (n=1,218)	3.5	[2.4, 5.0]	96.5	[95.0, 97.6]	0.0		100.0
36-99% (n=1,084)	1.5	[0.9, 2.5]	98.2	[97.1, 98.9]	0.3	[0.1, 1.4]	100.0
100%+ (n=794)	1.3	[0.8, 2.3]	98.4	[97.3, 99.0]	0.3	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(4) =	18.8032						
Design-based F(3.73, 11491.52) =	4.2555	Pr =	0.003				
Region							
UP/NW/NE (n=574)	1.9	[1.1, 3.4]	97.9	[96.4, 98.8]	0.2	[0.0, 1.3]	100.0
W/E Central/E (n=979)	2.3	[1.4, 3.5]	97.7	[96.4, 98.5]	0.1	[0.0, 0.7]	100.0
S Central/SW/SE (n=633)	3.2	[1.9, 5.2]	96.6	[94.6, 97.9]	0.2	[0.0, 1.4]	100.0
Detroit Metro (n=910)	2.5	[1.5, 4.2]	97.3	[95.6, 98.4]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(6) =	2.0796						
Design-based F(5.08, 15651.63) =	0.3120	Pr =	0.908				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,468)	3.3	[2.5, 4.3]	96.5	[95.5, 97.4]	0.2	[0.1, 0.5]	100.0
No (n=628)	0.0		100.0		0.0		100.0
Pearson: Uncorrected chi2(2) =	25.5329						
Design-based F(1.98, 6104.63) =	8.6102	Pr =	0.000				
Total (n=3,096)	2.5	[1.9, 3.3]	97.3	[96.5, 98.0]	0.1	[0.0, 0.4]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.13 Q: Has a doctor or other health professional ever told you that you had any other ongoing health condition?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Other chronic condition				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,384)	30.7	[28.4, 33.1]	69.3	[66.9, 71.6]	100.0
No longer enrolled (n=709)	27.1	[23.3, 31.2]	72.9	[68.8, 76.7]	100.0
Pearson: Uncorrected chi2(1) =	3.3967				
Design-based F(1.00, 3081.00) =	2.2684	Pr =	0.132		
Age					
19-34 (n=906)	21.9	[18.7, 25.4]	78.1	[74.6, 81.3]	100.0
35-50 (n=969)	34.7	[31.1, 38.5]	65.3	[61.5, 68.9]	100.0
51-64 (n=1,218)	34.5	[31.3, 37.8]	65.5	[62.2, 68.7]	100.0
Pearson: Uncorrected chi2(2) =	55.6038				
Design-based F(1.94, 5966.15) =	17.7823	Pr =	0.000		
Gender					
Male (n=1,228)	26.6	[23.7, 29.7]	73.4	[70.3, 76.3]	100.0
Female (n=1,865)	32.7	[30.1, 35.5]	67.3	[64.5, 69.9]	100.0
Pearson: Uncorrected chi2(1) =	13.8087				
Design-based F(1.00, 3081.00) =	8.6422	Pr =	0.003		
Race/ethnicity					
White, non-Hispanic (n=2,054)	34.4	[31.7, 37.1]	65.6	[62.9, 68.3]	100.0
Black, non-Hispanic (n=634)	18.2	[15.1, 21.9]	81.8	[78.1, 84.9]	100.0
Hispanic (n=138)	25.9	[18.7, 34.8]	74.1	[65.2, 81.3]	100.0
Other, non-Hispanic (n=228)	34.8	[27.8, 42.6]	65.2	[57.4, 72.2]	100.0
Pearson: Uncorrected chi2(3) =	74.7623				
Design-based F(2.98, 9053.50) =	16.1944	Pr =	0.000		
FPL category					
0-35% (n=1,215)	31.3	[28.1, 34.5]	68.7	[65.5, 71.9]	100.0
36-99% (n=1,084)	28.4	[25.3, 31.6]	71.6	[68.4, 74.7]	100.0
100%+ (n=794)	28.2	[24.8, 31.9]	71.8	[68.1, 75.2]	100.0
Pearson: Uncorrected chi2(2) =	3.2531				
Design-based F(1.94, 5967.43) =	1.2887	Pr =	0.275		
Region					
UP/NW/NE (n=573)	32.2	[28.1, 36.6]	67.8	[63.4, 71.9]	100.0
W/E Central/E (n=979)	34.5	[31.2, 38.1]	65.5	[61.9, 68.8]	100.0
S Central/SW/SE (n=632)	33.1	[29.0, 37.5]	66.9	[62.5, 71.0]	100.0
Detroit Metro (n=909)	24.7	[21.4, 28.3]	75.3	[71.7, 78.6]	100.0
Pearson: Uncorrected chi2(3) =	30.0202				
Design-based F(2.63, 8107.47) =	8.0049	Pr =	0.000		
Chronic condition (2016/2017 survey or DW)					
Yes (n=2,467)	33.8	[31.5, 36.1]	66.2	[63.9, 68.5]	100.0
No (n=626)	16.9	[13.4, 21.0]	83.1	[79.0, 86.6]	100.0
Pearson: Uncorrected chi2(1) =	74.9782				
Design-based F(1.00, 3081.00) =	40.6498	Pr =	0.000		
Total (n=3,093)	29.8	[27.9, 31.9]	70.2	[68.1, 72.1]	100.0

Note: Total count is less than universe count due to item non-response.

1.10.13.1 Q: What is the condition?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respodents who indicated other chronic condition (n = 993)

Other conditions	Weighted Proportion	95%CI
Other (n=745)	76.2	[72.5, 79.5]
Back pain (n=161)	15.1	[12.6, 18.0]
Thyroid/hypo-thyroid (n=100)	10.5	[7.9, 13.7]
Cholesterol (n=82)	8.0	[6.2, 10.4]
Allergies (n=24)	2.0	[1.3, 3.2]
Don't know (n=2)	0.3	[0.1, 1.1]

Note: Respondents were able to provide multiple responses

2 Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

2.1 Q: Do you think eyeglasses are covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that eyeglasses are covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	67.9	[65.4, 70.3]	7.3	[6.1, 8.7]	24.9	[22.6, 27.3]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	66.3	[61.6, 70.7]	6.9	[5.0, 9.3]	26.8	[22.7, 31.4]	100.0
35-50 (n=760)	67.6	[63.0, 71.8]	7.9	[5.8, 10.8]	24.5	[20.6, 28.8]	100.0
51-64 (n=964)	70.2	[66.6, 73.6]	6.9	[5.2, 9.2]	22.9	[19.8, 26.2]	100.0
Pearson: Uncorrected chi2(4) =	4.1483						
Design-based F(3.83, 9107.13) =	0.6487	Pr =	0.621				
Gender							
Male (n=933)	59.9	[55.7, 63.9]	9.5	[7.4, 12.1]	30.6	[26.8, 34.7]	100.0
Female (n=1,455)	74.7	[71.8, 77.4]	5.3	[4.1, 6.8]	20.0	[17.4, 22.8]	100.0
Pearson: Uncorrected chi2(2) =	60.7863						
Design-based F(1.98, 4702.36) =	19.0850	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	69.9	[66.9, 72.7]	8.2	[6.7, 10.0]	21.9	[19.4, 24.6]	100.0
Black, non-Hispanic (n=479)	64.0	[58.2, 69.4]	5.6	[3.5, 8.9]	30.4	[25.2, 36.1]	100.0
Hispanic (n=100)	74.1	[63.0, 82.7]	4.4	[1.7, 10.6]	21.6	[13.6, 32.4]	100.0
Other, non-Hispanic (n=176)	60.6	[50.9, 69.6]	7.4	[3.7, 14.0]	32.0	[23.5, 41.9]	100.0
Pearson: Uncorrected chi2(6) =	27.3111						
Design-based F(5.77, 13544.97) =	2.5864	Pr =	0.018				
FPL category							
0-35% (n=1,001)	67.3	[63.4, 71.0]	7.3	[5.5, 9.5]	25.4	[22.0, 29.2]	100.0
36-99% (n=824)	71.6	[67.8, 75.1]	6.2	[4.5, 8.6]	22.2	[19.1, 25.7]	100.0
100%+ (n=563)	64.2	[59.4, 68.7]	8.8	[6.5, 11.7]	27.0	[22.9, 31.6]	100.0
Pearson: Uncorrected chi2(4) =	7.3812						
Design-based F(3.84, 9133.61) =	1.4301	Pr =	0.223				
Region							
UP/NW/NE (n=450)	72.7	[67.6, 77.2]	7.7	[5.3, 11.0]	19.6	[15.6, 24.4]	100.0
W/E Central/E (n=777)	69.2	[65.3, 72.8]	8.1	[6.2, 10.6]	22.7	[19.4, 26.3]	100.0
S Central/SW/SE (n=464)	66.6	[61.6, 71.3]	9.0	[6.5, 12.3]	24.4	[20.2, 29.1]	100.0
Detroit Metro (n=697)	66.5	[61.8, 70.8]	5.9	[4.0, 8.6]	27.6	[23.5, 32.2]	100.0
Pearson: Uncorrected chi2(6) =	13.5452						
Design-based F(5.19, 12339.01) =	1.7889	Pr =	0.108				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	68.7	[65.8, 71.4]	6.8	[5.6, 8.4]	24.5	[22.0, 27.2]	100.0
No (n=457)	65.1	[59.4, 70.3]	8.8	[5.9, 12.7]	26.2	[21.4, 31.6]	100.0
Pearson: Uncorrected chi2(2) =	3.2600						
Design-based F(2.00, 4751.46) =	0.9138	Pr =	0.401				
Total (n=2,388)	67.9	[65.4, 70.3]	7.3	[6.1, 8.7]	24.9	[22.6, 27.3]	100.0

2.2 Q: Do you think prescription medications are covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that prescription medications are covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	95.1	[93.8, 96.1]	1.1	[0.6, 2.1]	3.8	[2.9, 4.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	93.1	[89.9, 95.3]	1.8	[0.7, 4.4]	5.1	[3.3, 7.8]	100.0
35-50 (n=760)	96.2	[94.3, 97.5]	0.5	[0.2, 1.5]	3.3	[2.1, 5.1]	100.0
51-64 (n=964)	96.2	[94.4, 97.4]	1.1	[0.4, 2.6]	2.7	[1.8, 4.1]	100.0
Pearson: Uncorrected chi2(4) =	13.5917						
Design-based F(3.70, 8788.01) =	2.0934	Pr =	0.084				
Gender							
Male (n=933)	94.0	[91.6, 95.8]	1.2	[0.4, 3.3]	4.7	[3.3, 6.8]	100.0
Female (n=1,455)	96.0	[94.5, 97.1]	1.1	[0.6, 2.1]	2.9	[2.0, 4.2]	100.0
Pearson: Uncorrected chi2(2) =	5.3707						
Design-based F(1.90, 4504.60) =	1.2804	Pr =	0.277				
Race/ethnicity							
White, non-Hispanic (n=1,603)	96.2	[94.9, 97.2]	0.4	[0.2, 1.0]	3.3	[2.4, 4.6]	100.0
Black, non-Hispanic (n=479)	93.8	[90.2, 96.1]	2.4	[0.9, 6.0]	3.8	[2.3, 6.3]	100.0
Hispanic (n=100)	95.8	[89.6, 98.4]	1.7	[0.3, 7.7]	2.6	[0.8, 7.9]	100.0
Other, non-Hispanic (n=176)	92.4	[83.4, 96.7]	1.8	[0.4, 7.4]	5.8	[2.1, 15.1]	100.0
Pearson: Uncorrected chi2(6) =	19.4188						
Design-based F(5.19, 12168.34) =	1.7843	Pr =	0.109				
FPL category							
0-35% (n=1,001)	94.5	[92.2, 96.1]	1.4	[0.6, 3.1]	4.2	[2.8, 6.1]	100.0
36-99% (n=824)	96.5	[94.8, 97.7]	0.8	[0.3, 1.6]	2.7	[1.7, 4.3]	100.0
100%+ (n=563)	94.9	[92.5, 96.5]	1.1	[0.4, 2.9]	4.1	[2.7, 6.1]	100.0
Pearson: Uncorrected chi2(4) =	3.9133						
Design-based F(3.66, 8706.18) =	0.7769	Pr =	0.530				
Region							
UP/NW/NE (n=450)	97.0	[94.8, 98.3]	0.4	[0.1, 1.7]	2.5	[1.4, 4.7]	100.0
W/E Central/E (n=777)	96.2	[94.4, 97.5]	0.2	[0.0, 0.7]	3.6	[2.4, 5.5]	100.0
S Central/SW/SE (n=464)	95.5	[92.7, 97.3]	1.4	[0.6, 3.3]	3.1	[1.7, 5.6]	100.0
Detroit Metro (n=697)	93.7	[91.0, 95.7]	1.9	[0.9, 4.0]	4.4	[2.9, 6.7]	100.0
Pearson: Uncorrected chi2(6) =	14.7855						
Design-based F(4.96, 11788.74) =	2.3109	Pr =	0.042				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	95.8	[94.4, 96.9]	1.3	[0.7, 2.5]	2.9	[2.1, 4.0]	100.0
No (n=457)	92.5	[88.7, 95.1]	0.5	[0.1, 2.1]	7.1	[4.6, 10.8]	100.0
Pearson: Uncorrected chi2(2) =	22.4020						
Design-based F(1.99, 4730.46) =	6.7562	Pr =	0.001				
Total (n=2,388)	95.1	[93.8, 96.1]	1.1	[0.6, 2.1]	3.8	[2.9, 4.9]	100.0

2.3 Q: Do you think routine dental care is covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that routine dental care is covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	81.6	[79.5, 83.5]	4.5	[3.5, 5.6]	14.0	[12.2, 15.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	82.4	[78.4, 85.8]	5.2	[3.4, 7.8]	12.4	[9.5, 16.0]	100.0
35-50 (n=760)	82.3	[78.6, 85.5]	3.1	[1.9, 4.9]	14.6	[11.7, 18.1]	100.0
51-64 (n=964)	79.6	[76.4, 82.5]	5.3	[3.8, 7.3]	15.1	[12.6, 18.0]	100.0
Pearson: Uncorrected chi2(4) =	8.5984						
Design-based F(3.84, 9130.04) =	1.3533	Pr =	0.249				
Gender							
Male (n=933)	79.7	[76.2, 82.9]	4.5	[3.1, 6.5]	15.7	[12.9, 19.0]	100.0
Female (n=1,455)	83.1	[80.6, 85.4]	4.4	[3.3, 5.9]	12.4	[10.5, 14.7]	100.0
Pearson: Uncorrected chi2(2) =	5.5201						
Design-based F(2.00, 4750.14) =	1.6754	Pr =	0.187				
Race/ethnicity							
White, non-Hispanic (n=1,603)	82.7	[80.2, 85.0]	3.6	[2.6, 4.8]	13.7	[11.6, 16.1]	100.0
Black, non-Hispanic (n=479)	80.1	[75.3, 84.2]	4.3	[2.7, 6.9]	15.6	[11.9, 20.1]	100.0
Hispanic (n=100)	79.3	[68.3, 87.1]	7.4	[2.8, 18.3]	13.3	[7.7, 22.1]	100.0
Other, non-Hispanic (n=176)	79.4	[71.0, 85.8]	9.1	[4.8, 16.4]	11.5	[7.1, 18.2]	100.0
Pearson: Uncorrected chi2(6) =	17.5050						
Design-based F(5.84, 13710.01) =	1.6915	Pr =	0.121				
FPL category							
0-35% (n=1,001)	82.7	[79.5, 85.5]	3.7	[2.5, 5.4]	13.6	[11.1, 16.5]	100.0
36-99% (n=824)	81.3	[77.9, 84.3]	4.6	[3.2, 6.7]	14.1	[11.4, 17.2]	100.0
100%+ (n=563)	78.4	[74.0, 82.3]	6.6	[4.4, 10.0]	14.9	[11.8, 18.8]	100.0
Pearson: Uncorrected chi2(4) =	7.4923						
Design-based F(3.89, 9234.52) =	1.3525	Pr =	0.249				
Region							
UP/NW/NE (n=450)	87.1	[83.2, 90.3]	2.3	[1.3, 4.1]	10.6	[7.7, 14.4]	100.0
W/E Central/E (n=777)	79.9	[76.3, 83.1]	4.7	[3.1, 7.1]	15.4	[12.6, 18.7]	100.0
S Central/SW/SE (n=464)	81.5	[77.3, 85.1]	4.9	[3.1, 7.5]	13.6	[10.6, 17.4]	100.0
Detroit Metro (n=697)	81.6	[77.7, 84.9]	4.6	[3.1, 6.7]	13.8	[10.9, 17.4]	100.0
Pearson: Uncorrected chi2(6) =	6.5214						
Design-based F(5.14, 12212.39) =	0.9123	Pr =	0.474				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	81.0	[78.6, 83.2]	4.8	[3.7, 6.2]	14.3	[12.3, 16.4]	100.0
No (n=457)	83.7	[79.2, 87.5]	3.4	[2.1, 5.5]	12.8	[9.4, 17.3]	100.0
Pearson: Uncorrected chi2(2) =	2.6388						
Design-based F(1.93, 4583.82) =	0.8730	Pr =	0.414				
Total (n=2,388)	81.6	[79.5, 83.5]	4.5	[3.5, 5.6]	14.0	[12.2, 15.9]	100.0

2.4 Q: Do you think treatment to stop smoking is covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that treatment to stop smoking is covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,386)	39.7	[37.2, 42.2]	5.4	[4.3, 6.6]	55.0	[52.4, 57.5]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	36.9	[32.5, 41.6]	5.6	[3.9, 8.1]	57.5	[52.7, 62.1]	100.0
35-50 (n=759)	37.7	[33.6, 42.0]	6.2	[4.4, 8.7]	56.1	[51.6, 60.4]	100.0
51-64 (n=964)	45.5	[41.7, 49.4]	4.0	[2.9, 5.6]	50.5	[46.7, 54.4]	100.0
Pearson: Uncorrected chi2(4) =	15.6045						
Design-based F(3.80, 9015.10) =	2.6192	Pr =	0.036				
Gender							
Male (n=932)	41.1	[37.2, 45.2]	5.9	[4.3, 8.1]	53.0	[48.9, 57.0]	100.0
Female (n=1,454)	38.4	[35.4, 41.6]	4.9	[3.7, 6.4]	56.7	[53.4, 59.8]	100.0
Pearson: Uncorrected chi2(2) =	3.7041						
Design-based F(2.00, 4737.16) =	1.1496	Pr =	0.317				
Race/ethnicity							
White, non-Hispanic (n=1,601)	44.3	[41.1, 47.4]	4.5	[3.3, 6.0]	51.3	[48.1, 54.4]	100.0
Black, non-Hispanic (n=479)	34.0	[29.0, 39.4]	8.3	[5.8, 11.7]	57.7	[52.2, 63.1]	100.0
Hispanic (n=100)	30.9	[21.6, 42.2]	4.7	[1.9, 11.3]	64.3	[52.9, 74.4]	100.0
Other, non-Hispanic (n=176)	29.4	[22.1, 38.0]	2.8	[1.3, 6.1]	67.8	[59.1, 75.3]	100.0
Pearson: Uncorrected chi2(6) =	47.2484						
Design-based F(5.75, 13475.53) =	5.3120	Pr =	0.000				
FPL category							
0-35% (n=1,000)	42.0	[38.3, 45.9]	5.8	[4.3, 7.9]	52.1	[48.2, 56.0]	100.0
36-99% (n=823)	36.2	[32.3, 40.3]	3.9	[2.8, 5.5]	59.9	[55.8, 63.9]	100.0
100%+ (n=563)	37.4	[32.9, 42.1]	6.1	[4.3, 8.5]	56.5	[51.8, 61.1]	100.0
Pearson: Uncorrected chi2(4) =	12.6113						
Design-based F(3.80, 9012.43) =	2.6882	Pr =	0.032				
Region							
UP/NW/NE (n=449)	41.6	[36.6, 46.8]	6.8	[4.5, 10.3]	51.5	[46.3, 56.8]	100.0
W/E Central/E (n=776)	43.7	[39.7, 47.8]	5.7	[4.0, 7.9]	50.6	[46.6, 54.7]	100.0
S Central/SW/SE (n=464)	42.4	[37.3, 47.6]	4.1	[2.7, 6.3]	53.5	[48.3, 58.7]	100.0
Detroit Metro (n=697)	35.5	[31.2, 40.0]	5.4	[3.7, 7.8]	59.2	[54.6, 63.6]	100.0
Pearson: Uncorrected chi2(6) =	17.0958						
Design-based F(5.28, 12541.35) =	2.3893	Pr =	0.033				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,929)	41.1	[38.3, 43.9]	5.4	[4.3, 6.8]	53.5	[50.6, 56.4]	100.0
No (n=457)	34.7	[29.6, 40.2]	5.1	[3.1, 8.3]	60.2	[54.5, 65.6]	100.0
Pearson: Uncorrected chi2(2) =	7.4697						
Design-based F(2.00, 4746.32) =	2.1855	Pr =	0.113				
Total (n=2,386)	39.7	[37.2, 42.2]	5.4	[4.3, 6.6]	55.0	[52.4, 57.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.5 Q: Do you think birth control or family planning is covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that birth control/family planning is covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	48.1	[45.5, 50.7]	4.2	[3.2, 5.5]	47.7	[45.1, 50.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	57.9	[52.9, 62.6]	4.8	[2.9, 7.8]	37.4	[32.7, 42.3]	100.0
35-50 (n=760)	48.6	[44.1, 53.2]	3.4	[2.2, 5.4]	47.9	[43.4, 52.5]	100.0
51-64 (n=964)	35.2	[31.6, 38.9]	4.4	[2.9, 6.5]	60.5	[56.6, 64.2]	100.0
Pearson: Uncorrected chi2(4) =	85.6716						
Design-based F(3.80, 9031.67) =	12.2140	Pr =	0.000				
Gender							
Male (n=933)	32.8	[29.1, 36.7]	6.2	[4.5, 8.4]	61.0	[57.0, 64.9]	100.0
Female (n=1,455)	61.1	[57.8, 64.3]	2.5	[1.4, 4.2]	36.4	[33.3, 39.6]	100.0
Pearson: Uncorrected chi2(2) =	193.8768						
Design-based F(1.96, 4656.78) =	48.8699	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	48.5	[45.3, 51.6]	3.3	[2.2, 5.0]	48.2	[45.0, 51.4]	100.0
Black, non-Hispanic (n=479)	52.4	[46.8, 58.0]	5.7	[3.7, 8.9]	41.8	[36.3, 47.5]	100.0
Hispanic (n=100)	43.9	[32.8, 55.7]	0.0		56.1	[44.3, 67.2]	100.0
Other, non-Hispanic (n=176)	34.5	[26.6, 43.4]	6.9	[3.3, 13.8]	58.6	[49.4, 67.2]	100.0
Pearson: Uncorrected chi2(6) =	36.6662						
Design-based F(5.92, 13892.24) =	3.2825	Pr =	0.003				
FPL category							
0-35% (n=1,001)	43.7	[39.9, 47.7]	4.9	[3.3, 7.1]	51.4	[47.5, 55.3]	100.0
36-99% (n=824)	53.0	[48.8, 57.1]	3.2	[2.1, 4.9]	43.8	[39.7, 47.9]	100.0
100%+ (n=563)	54.4	[49.6, 59.2]	3.5	[2.0, 6.0]	42.1	[37.4, 46.9]	100.0
Pearson: Uncorrected chi2(4) =	23.8386						
Design-based F(3.85, 9154.64) =	4.4803	Pr =	0.002				
Region							
UP/NW/NE (n=450)	52.0	[46.8, 57.2]	1.2	[0.5, 3.0]	46.8	[41.6, 52.0]	100.0
W/E Central/E (n=777)	48.6	[44.5, 52.6]	3.8	[2.5, 5.9]	47.6	[43.5, 51.7]	100.0
S Central/SW/SE (n=464)	50.5	[45.2, 55.7]	4.0	[2.3, 7.0]	45.5	[40.4, 50.7]	100.0
Detroit Metro (n=697)	46.0	[41.4, 50.7]	5.1	[3.3, 7.7]	48.9	[44.2, 53.6]	100.0
Pearson: Uncorrected chi2(6) =	9.8928						
Design-based F(5.16, 12257.87) =	1.2883	Pr =	0.265				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	47.6	[44.7, 50.5]	4.6	[3.4, 6.2]	47.8	[44.9, 50.7]	100.0
No (n=457)	49.9	[44.2, 55.6]	2.5	[1.3, 5.0]	47.6	[41.9, 53.3]	100.0
Pearson: Uncorrected chi2(2) =	4.7909						
Design-based F(2.00, 4749.79) =	1.3705	Pr =	0.254				
Total (n=2,388)	48.1	[45.5, 50.7]	4.2	[3.2, 5.5]	47.7	[45.1, 50.4]	100.0

2.6 Q: Do you think counseling for mental or emotional problems is covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that counseling is covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	58.8	[56.2, 61.4]	4.2	[3.2, 5.4]	37.0	[34.5, 39.6]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	59.2	[54.3, 63.8]	5.0	[3.3, 7.5]	35.8	[31.3, 40.7]	100.0
35-50 (n=760)	58.5	[53.8, 63.0]	4.1	[2.5, 6.6]	37.4	[33.0, 42.0]	100.0
51-64 (n=964)	58.7	[54.9, 62.4]	3.3	[2.2, 4.9]	38.0	[34.4, 41.8]	100.0
Pearson: Uncorrected chi2(4) =	3.2475						
Design-based F(3.80, 9035.42) =	0.4851	Pr =	0.737				
Gender							
Male (n=933)	54.1	[49.9, 58.2]	5.9	[4.2, 8.3]	40.0	[35.9, 44.1]	100.0
Female (n=1,455)	62.8	[59.6, 66.0]	2.7	[1.8, 4.0]	34.5	[31.4, 37.7]	100.0
Pearson: Uncorrected chi2(2) =	27.5418						
Design-based F(2.00, 4750.11) =	8.0642	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	63.6	[60.5, 66.6]	3.1	[2.2, 4.4]	33.3	[30.3, 36.4]	100.0
Black, non-Hispanic (n=479)	52.5	[46.8, 58.1]	6.4	[4.1, 9.8]	41.2	[35.6, 46.9]	100.0
Hispanic (n=100)	58.0	[45.9, 69.1]	0.0		42.0	[30.9, 54.1]	100.0
Other, non-Hispanic (n=176)	45.2	[36.4, 54.3]	6.2	[2.7, 13.7]	48.6	[39.4, 57.8]	100.0
Pearson: Uncorrected chi2(6) =	50.7849						
Design-based F(5.86, 13736.17) =	4.5405	Pr =	0.000				
FPL category							
0-35% (n=1,001)	59.0	[55.0, 62.9]	5.3	[3.8, 7.4]	35.7	[31.9, 39.7]	100.0
36-99% (n=824)	57.8	[53.7, 61.8]	2.8	[1.7, 4.6]	39.4	[35.5, 43.4]	100.0
100%+ (n=563)	59.7	[54.9, 64.3]	2.6	[1.5, 4.4]	37.7	[33.1, 42.5]	100.0
Pearson: Uncorrected chi2(4) =	11.3902						
Design-based F(3.82, 9070.12) =	2.2732	Pr =	0.062				
Region							
UP/NW/NE (n=450)	61.0	[55.8, 66.0]	2.2	[1.1, 4.6]	36.7	[31.8, 41.9]	100.0
W/E Central/E (n=777)	63.2	[59.3, 67.0]	3.4	[2.2, 5.3]	33.3	[29.6, 37.2]	100.0
S Central/SW/SE (n=464)	63.8	[58.6, 68.7]	4.7	[2.6, 8.3]	31.5	[26.9, 36.5]	100.0
Detroit Metro (n=697)	53.4	[48.6, 58.1]	4.9	[3.3, 7.3]	41.7	[37.1, 46.5]	100.0
Pearson: Uncorrected chi2(6) =	26.2027						
Design-based F(5.28, 12546.25) =	3.3262	Pr =	0.004				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	60.2	[57.3, 63.1]	4.0	[3.0, 5.3]	35.8	[33.0, 38.7]	100.0
No (n=457)	53.7	[48.0, 59.3]	4.8	[2.6, 8.7]	41.5	[36.0, 47.2]	100.0
Pearson: Uncorrected chi2(2) =	7.1064						
Design-based F(1.96, 4660.46) =	1.7640	Pr =	0.172				
Total (n=2,388)	58.8	[56.2, 61.4]	4.2	[3.2, 5.4]	37.0	[34.5, 39.6]	100.0

2.7 Q: Do you think substance use treatment is covered, not covered, or don't know?

Follow-up group(s): Still enrolled
Universe: All respondents

	Knowledge that substance use treatment is covered						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	41.4	[38.8, 43.9]	4.7	[3.7, 5.9]	54.0	[51.4, 56.5]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	36.2	[31.8, 40.9]	4.6	[3.1, 6.8]	59.2	[54.5, 63.8]	100.0
35-50 (n=760)	43.4	[39.0, 48.0]	5.8	[4.0, 8.4]	50.8	[46.2, 55.3]	100.0
51-64 (n=964)	45.3	[41.5, 49.1]	3.4	[2.3, 5.1]	51.3	[47.4, 55.1]	100.0
Pearson: Uncorrected chi2(4) =	20.4732						
Design-based F(3.84, 9112.40) =	3.3265	Pr =	0.011				
Gender							
Male (n=933)	42.4	[38.4, 46.5]	6.6	[4.9, 8.9]	51.0	[46.8, 55.1]	100.0
Female (n=1,455)	40.5	[37.3, 43.7]	3.0	[2.2, 4.3]	56.5	[53.2, 59.7]	100.0
Pearson: Uncorrected chi2(2) =	20.1864						
Design-based F(1.98, 4711.14) =	6.4061	Pr =	0.002				
Race/ethnicity							
White, non-Hispanic (n=1,603)	42.4	[39.2, 45.5]	3.5	[2.6, 4.6]	54.2	[51.0, 57.3]	100.0
Black, non-Hispanic (n=479)	43.1	[37.7, 48.8]	6.3	[4.1, 9.5]	50.6	[44.9, 56.2]	100.0
Hispanic (n=100)	43.0	[31.7, 55.1]	4.3	[1.2, 14.2]	52.7	[40.8, 64.4]	100.0
Other, non-Hispanic (n=176)	29.6	[22.2, 38.3]	8.1	[4.0, 15.7]	62.3	[53.2, 70.7]	100.0
Pearson: Uncorrected chi2(6) =	25.0977						
Design-based F(5.89, 13809.02) =	2.2831	Pr =	0.034				
FPL category							
0-35% (n=1,001)	43.4	[39.6, 47.4]	5.5	[4.0, 7.5]	51.1	[47.1, 55.0]	100.0
36-99% (n=824)	38.4	[34.4, 42.5]	3.7	[2.5, 5.5]	57.9	[53.8, 62.0]	100.0
100%+ (n=563)	39.2	[34.7, 44.0]	3.7	[2.4, 5.7]	57.1	[52.3, 61.7]	100.0
Pearson: Uncorrected chi2(4) =	11.8603						
Design-based F(3.82, 9075.40) =	2.4794	Pr =	0.045				
Region							
UP/NW/NE (n=450)	40.5	[35.5, 45.7]	3.1	[1.7, 5.7]	56.4	[51.1, 61.5]	100.0
W/E Central/E (n=777)	40.4	[36.5, 44.4]	4.7	[3.3, 6.5]	55.0	[50.9, 59.0]	100.0
S Central/SW/SE (n=464)	41.1	[36.1, 46.3]	5.0	[3.1, 7.8]	53.9	[48.7, 59.0]	100.0
Detroit Metro (n=697)	42.3	[37.7, 47.0]	4.9	[3.3, 7.3]	52.8	[48.1, 57.4]	100.0
Pearson: Uncorrected chi2(6) =	2.3992						
Design-based F(5.30, 12595.90) =	0.3311	Pr =	0.903				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	43.4	[40.6, 46.4]	5.0	[4.0, 6.4]	51.5	[48.6, 54.4]	100.0
No (n=457)	33.8	[28.7, 39.3]	3.4	[1.7, 6.7]	62.8	[57.2, 68.1]	100.0
Pearson: Uncorrected chi2(2) =	21.1557						
Design-based F(1.97, 4689.97) =	5.5564	Pr =	0.004				
Total (n=2,388)	41.4	[38.8, 43.9]	4.7	[3.7, 5.9]	54.0	[51.4, 56.5]	100.0

2.8 Q: I could be dropped from the Healthy Michigan Plan for not paying my bill.

Follow-up group(s): Still enrolled
Universe: All respondents

	Could be dropped from HMP for not paying my bill						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	32.6	[30.2, 35.1]	16.6	[14.9, 18.6]	50.8	[48.2, 53.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	38.3	[33.7, 43.1]	15.4	[12.4, 18.9]	46.3	[41.6, 51.2]	100.0
35-50 (n=760)	27.7	[23.9, 31.8]	18.2	[15.0, 21.9]	54.1	[49.6, 58.6]	100.0
51-64 (n=964)	31.4	[27.9, 35.1]	16.3	[13.7, 19.2]	52.3	[48.4, 56.1]	100.0
Pearson: Uncorrected chi2(4) =	22.5498						
Design-based F(3.85, 9154.59) =	3.6252	Pr =	0.007				
Gender							
Male (n=932)	33.8	[30.0, 37.8]	15.8	[13.2, 18.8]	50.4	[46.3, 54.5]	100.0
Female (n=1,455)	31.5	[28.6, 34.7]	17.3	[15.0, 20.0]	51.1	[47.8, 54.4]	100.0
Pearson: Uncorrected chi2(2) =	1.8170						
Design-based F(1.99, 4735.63) =	0.5474	Pr =	0.578				
Race/ethnicity							
White, non-Hispanic (n=1,603)	35.3	[32.3, 38.4]	16.4	[14.3, 18.8]	48.3	[45.1, 51.5]	100.0
Black, non-Hispanic (n=479)	27.9	[23.0, 33.3]	16.5	[12.8, 21.1]	55.6	[49.9, 61.2]	100.0
Hispanic (n=100)	33.9	[23.5, 46.1]	15.4	[9.0, 25.2]	50.7	[38.9, 62.4]	100.0
Other, non-Hispanic (n=175)	26.2	[19.0, 34.8]	20.5	[14.4, 28.5]	53.3	[44.2, 62.1]	100.0
Pearson: Uncorrected chi2(6) =	17.0134						
Design-based F(5.92, 13885.31) =	1.6474	Pr =	0.131				
FPL category							
0-35% (n=1,000)	28.6	[25.1, 32.4]	18.2	[15.4, 21.2]	53.2	[49.2, 57.1]	100.0
36-99% (n=824)	33.3	[29.5, 37.4]	15.3	[12.7, 18.3]	51.4	[47.2, 55.5]	100.0
100%+ (n=563)	43.7	[38.9, 48.5]	13.9	[11.0, 17.4]	42.5	[37.8, 47.3]	100.0
Pearson: Uncorrected chi2(4) =	34.4780						
Design-based F(3.82, 9082.58) =	6.7951	Pr =	0.000				
Region							
UP/NW/NE (n=450)	35.1	[30.2, 40.2]	14.8	[11.6, 18.7]	50.1	[45.0, 55.3]	100.0
W/E Central/E (n=777)	34.4	[30.7, 38.3]	17.7	[14.8, 20.9]	47.9	[43.9, 52.0]	100.0
S Central/SW/SE (n=464)	29.3	[24.9, 34.2]	17.0	[13.5, 21.2]	53.7	[48.4, 58.8]	100.0
Detroit Metro (n=696)	32.1	[27.8, 36.7]	16.2	[13.1, 19.7]	51.8	[47.1, 56.4]	100.0
Pearson: Uncorrected chi2(6) =	5.6979						
Design-based F(5.22, 12391.54) =	0.7823	Pr =	0.567				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	31.8	[29.1, 34.5]	16.8	[14.8, 19.0]	51.4	[48.5, 54.3]	100.0
No (n=456)	35.5	[30.2, 41.2]	15.9	[12.4, 20.3]	48.6	[43.0, 54.2]	100.0
Pearson: Uncorrected chi2(2) =	2.5335						
Design-based F(1.99, 4726.99) =	0.7654	Pr =	0.465				
Total (n=2,387)	32.6	[30.2, 35.1]	16.6	[14.9, 18.6]	50.8	[48.2, 53.4]	100.0

Note: Total count is less than universe count due to item non-response.

2.9 Q: I may get a reduction in the amount I might have to pay if I complete a health risk assessment.

Follow-up group(s): Still enrolled
Universe: All respondents

	May get reduction by completing HRA						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	27.5	[25.2, 29.8]	12.2	[10.6, 13.9]	60.4	[57.8, 62.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	28.4	[24.3, 32.9]	13.3	[10.4, 16.8]	58.3	[53.5, 62.9]	100.0
35-50 (n=760)	25.2	[21.5, 29.3]	13.0	[10.3, 16.2]	61.8	[57.4, 66.1]	100.0
51-64 (n=964)	29.0	[25.6, 32.6]	9.8	[7.8, 12.1]	61.3	[57.5, 64.9]	100.0
Pearson: Uncorrected chi2(4) =	8.0503						
Design-based F(3.83, 9086.51) =	1.3022	Pr =	0.268				
Gender							
Male (n=932)	31.1	[27.4, 35.0]	11.7	[9.3, 14.5]	57.2	[53.1, 61.3]	100.0
Female (n=1,455)	24.3	[21.7, 27.2]	12.6	[10.6, 14.9]	63.1	[59.9, 66.1]	100.0
Pearson: Uncorrected chi2(2) =	13.6225						
Design-based F(2.00, 4748.71) =	4.1078	Pr =	0.017				
Race/ethnicity							
White, non-Hispanic (n=1,603)	31.0	[28.1, 34.0]	11.4	[9.6, 13.5]	57.6	[54.4, 60.7]	100.0
Black, non-Hispanic (n=479)	23.9	[19.4, 29.1]	14.1	[10.7, 18.4]	62.0	[56.4, 67.3]	100.0
Hispanic (n=100)	20.4	[12.9, 30.6]	10.9	[5.8, 19.4]	68.7	[57.5, 78.1]	100.0
Other, non-Hispanic (n=175)	19.0	[12.9, 27.0]	11.9	[7.1, 19.4]	69.1	[60.2, 76.8]	100.0
Pearson: Uncorrected chi2(6) =	25.3622						
Design-based F(5.89, 13804.13) =	2.5401	Pr =	0.019				
FPL category							
0-35% (n=1,000)	25.2	[22.0, 28.8]	13.6	[11.2, 16.4]	61.2	[57.4, 65.0]	100.0
36-99% (n=824)	28.0	[24.4, 31.9]	11.2	[8.9, 14.0]	60.8	[56.7, 64.8]	100.0
100%+ (n=563)	33.6	[29.2, 38.3]	9.2	[6.9, 12.1]	57.2	[52.4, 61.8]	100.0
Pearson: Uncorrected chi2(4) =	15.0256						
Design-based F(3.84, 9111.46) =	3.0006	Pr =	0.019				
Region							
UP/NW/NE (n=450)	30.3	[25.8, 35.2]	12.8	[9.6, 17.0]	56.9	[51.6, 61.9]	100.0
W/E Central/E (n=777)	30.6	[27.0, 34.4]	9.9	[7.8, 12.6]	59.5	[55.4, 63.4]	100.0
S Central/SW/SE (n=464)	25.4	[21.1, 30.2]	12.7	[9.7, 16.4]	61.9	[56.8, 66.8]	100.0
Detroit Metro (n=696)	25.5	[21.6, 29.8]	13.3	[10.6, 16.7]	61.2	[56.5, 65.6]	100.0
Pearson: Uncorrected chi2(6) =	10.4528						
Design-based F(5.28, 12550.41) =	1.4320	Pr =	0.206				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	27.1	[24.6, 29.7]	12.6	[10.8, 14.7]	60.3	[57.4, 63.1]	100.0
No (n=456)	28.8	[23.8, 34.3]	10.5	[7.6, 14.2]	60.7	[55.1, 66.1]	100.0
Pearson: Uncorrected chi2(2) =	1.9644						
Design-based F(1.99, 4727.65) =	0.5992	Pr =	0.549				
Total (n=2,387)	27.5	[25.2, 29.8]	12.2	[10.6, 13.9]	60.4	[57.8, 62.9]	100.0

Note: Total count is less than universe count due to item non-response.

2.10 Q: Some kinds of visits, tests and medicines have no copays.

Follow-up group(s): Still enrolled
Universe: All respondents

	Some kinds of visits, tests, and medicines have no copays						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	72.4	[70.0, 74.6]	5.8	[4.7, 7.2]	21.8	[19.7, 24.0]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	75.7	[71.3, 79.7]	5.2	[3.6, 7.4]	19.1	[15.4, 23.3]	100.0
35-50 (n=760)	71.5	[67.2, 75.4]	6.6	[4.6, 9.3]	22.0	[18.5, 25.9]	100.0
51-64 (n=964)	69.3	[65.6, 72.8]	5.8	[4.1, 8.0]	24.9	[21.7, 28.4]	100.0
Pearson: Uncorrected chi2(4) =	9.7347						
Design-based F(3.87, 9194.33) =	1.4990	Pr =	0.201				
Gender							
Male (n=932)	69.4	[65.5, 73.0]	6.8	[5.0, 9.3]	23.8	[20.5, 27.4]	100.0
Female (n=1,455)	74.9	[71.9, 77.7]	5.0	[3.9, 6.5]	20.1	[17.5, 23.0]	100.0
Pearson: Uncorrected chi2(2) =	9.4873						
Design-based F(2.00, 4741.62) =	2.8987	Pr =	0.055				
Race/ethnicity							
White, non-Hispanic (n=1,603)	75.0	[72.1, 77.6]	4.6	[3.5, 6.0]	20.4	[18.0, 23.1]	100.0
Black, non-Hispanic (n=479)	67.0	[61.4, 72.1]	7.5	[5.1, 11.1]	25.5	[20.8, 30.8]	100.0
Hispanic (n=100)	68.9	[57.8, 78.3]	11.4	[6.0, 20.7]	19.6	[12.5, 29.5]	100.0
Other, non-Hispanic (n=175)	72.9	[64.3, 80.0]	5.8	[2.8, 11.8]	21.3	[15.0, 29.3]	100.0
Pearson: Uncorrected chi2(6) =	22.3877						
Design-based F(5.90, 13833.48) =	2.2711	Pr =	0.035				
FPL category							
0-35% (n=1,000)	71.8	[68.1, 75.2]	5.9	[4.3, 8.1]	22.2	[19.1, 25.7]	100.0
36-99% (n=824)	70.8	[66.9, 74.3]	6.6	[4.8, 8.9]	22.7	[19.4, 26.2]	100.0
100%+ (n=563)	76.4	[72.2, 80.1]	4.4	[2.9, 6.7]	19.2	[15.8, 23.1]	100.0
Pearson: Uncorrected chi2(4) =	5.0696						
Design-based F(3.82, 9081.96) =	1.0110	Pr =	0.398				
Region							
UP/NW/NE (n=450)	76.4	[71.5, 80.8]	5.7	[3.5, 8.9]	17.9	[14.1, 22.5]	100.0
W/E Central/E (n=777)	73.6	[69.8, 77.0]	5.8	[4.0, 8.4]	20.6	[17.6, 24.0]	100.0
S Central/SW/SE (n=464)	74.4	[69.7, 78.7]	4.2	[2.6, 6.6]	21.4	[17.4, 25.9]	100.0
Detroit Metro (n=696)	69.9	[65.5, 74.0]	6.5	[4.7, 9.0]	23.6	[19.8, 27.8]	100.0
Pearson: Uncorrected chi2(6) =	8.1343						
Design-based F(5.37, 12761.32) =	1.1082	Pr =	0.354				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	72.9	[70.2, 75.5]	5.7	[4.5, 7.3]	21.3	[19.0, 23.9]	100.0
No (n=456)	70.4	[65.1, 75.1]	6.2	[4.2, 9.2]	23.4	[19.1, 28.4]	100.0
Pearson: Uncorrected chi2(2) =	1.3258						
Design-based F(1.99, 4731.36) =	0.4278	Pr =	0.651				
Total (n=2,387)	72.4	[70.0, 74.6]	5.8	[4.7, 7.2]	21.8	[19.7, 24.0]	100.0

Note: Total count is less than universe count due to item non-response.

2.11 Q: In the past year, have you received a statement from the state that showed the services you received through the Healthy Michigan Plan and how much you owe, if anything?

Follow-up group(s): Still enrolled
Universe: All respondents

	Received MIHA Statement in the past year						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	78.4	[76.0, 80.6]	16.2	[14.2, 18.3]	5.4	[4.3, 6.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	73.2	[68.5, 77.4]	19.9	[16.3, 24.1]	6.9	[4.5, 10.4]	100.0
35-50 (n=760)	78.9	[74.8, 82.6]	16.9	[13.6, 20.9]	4.1	[2.7, 6.3]	100.0
51-64 (n=964)	84.1	[80.9, 86.9]	10.6	[8.3, 13.5]	5.2	[3.7, 7.3]	100.0
Pearson: Uncorrected chi2(4) =	32.5819						
Design-based F(3.80, 9026.19) =	4.5847	Pr =	0.001				
Gender							
Male (n=933)	75.0	[71.1, 78.5]	16.8	[13.9, 20.2]	8.2	[6.0, 11.2]	100.0
Female (n=1,455)	81.3	[78.3, 83.9]	15.6	[13.1, 18.5]	3.1	[2.2, 4.3]	100.0
Pearson: Uncorrected chi2(2) =	32.0924						
Design-based F(1.98, 4693.93) =	9.1448	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	81.4	[78.4, 84.0]	13.4	[11.0, 16.1]	5.3	[4.0, 7.0]	100.0
Black, non-Hispanic (n=479)	74.2	[68.9, 78.9]	18.5	[14.6, 23.1]	7.3	[4.5, 11.6]	100.0
Hispanic (n=100)	76.1	[63.8, 85.2]	21.1	[12.3, 33.7]	2.8	[1.2, 6.2]	100.0
Other, non-Hispanic (n=176)	70.4	[61.3, 78.1]	27.4	[19.9, 36.6]	2.2	[1.0, 4.6]	100.0
Pearson: Uncorrected chi2(6) =	40.8688						
Design-based F(5.05, 11843.02) =	4.2110	Pr =	0.001				
FPL category							
0-35% (n=1,001)	75.8	[72.1, 79.2]	17.6	[14.6, 21.0]	6.6	[4.7, 9.0]	100.0
36-99% (n=824)	79.6	[75.9, 82.9]	15.1	[12.2, 18.5]	5.3	[3.7, 7.6]	100.0
100%+ (n=563)	84.5	[80.6, 87.7]	13.4	[10.3, 17.1]	2.2	[1.3, 3.6]	100.0
Pearson: Uncorrected chi2(4) =	18.9208						
Design-based F(3.65, 8678.81) =	3.6631	Pr =	0.007				
Region							
UP/NW/NE (n=450)	84.8	[80.3, 88.5]	11.8	[8.6, 16.0]	3.4	[1.8, 6.3]	100.0
W/E Central/E (n=777)	81.6	[78.1, 84.7]	12.7	[10.1, 15.9]	5.6	[4.1, 7.7]	100.0
S Central/SW/SE (n=464)	80.2	[75.3, 84.4]	15.3	[11.7, 19.7]	4.5	[2.4, 8.1]	100.0
Detroit Metro (n=697)	74.1	[69.6, 78.1]	19.8	[16.2, 23.9]	6.1	[4.1, 9.1]	100.0
Pearson: Uncorrected chi2(6) =	24.5593						
Design-based F(5.30, 12592.89) =	2.8629	Pr =	0.012				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	79.9	[77.2, 82.3]	15.5	[13.3, 18.0]	4.6	[3.5, 6.1]	100.0
No (n=457)	73.0	[67.4, 77.9]	18.5	[14.5, 23.4]	8.5	[5.4, 13.1]	100.0
Pearson: Uncorrected chi2(2) =	15.9795						
Design-based F(1.97, 4689.06) =	3.9407	Pr =	0.020				
Total (n=2,388)	78.4	[76.0, 80.6]	16.2	[14.2, 18.3]	5.4	[4.3, 6.9]	100.0

2.11.1 Q: I carefully review each MI Health Account Statement to see how much I owe.

Follow-up group(s): Still enrolled
Universe: Respondents who received a MI Health Account Statement in the past year (n = 1,957)

	Carefully review MIHA Statement												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=1,954)	22.8	[20.6, 25.2]	62.0	[59.2, 64.7]	6.2	[4.9, 7.7]	7.7	[6.3, 9.5]	0.8	[0.4, 1.5]	0.6	[0.3, 1.0]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=510)	21.1	[17.3, 25.5]	60.7	[55.3, 65.8]	6.6	[4.3, 9.9]	10.8	[7.9, 14.7]	0.6	[0.2, 2.2]	0.2	[0.0, 0.8]	100.0
35-50 (n=619)	23.6	[19.8, 28.0]	59.3	[54.3, 64.1]	7.0	[4.8, 10.0]	7.8	[5.4, 11.1]	1.3	[0.5, 3.4]	1.0	[0.4, 2.3]	100.0
51-64 (n=825)	23.7	[20.4, 27.3]	66.5	[62.5, 70.3]	4.7	[3.3, 6.8]	4.2	[2.8, 6.5]	0.4	[0.1, 1.1]	0.4	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(10) =	33.2313												
Design-based F(9.11, 17689.36) =	2.3522	Pr =	0.012										
Gender													
Male (n=734)	20.2	[16.9, 23.9]	62.7	[58.1, 67.0]	6.5	[4.6, 9.1]	8.7	[6.3, 12.0]	1.3	[0.5, 3.0]	0.6	[0.2, 1.6]	100.0
Female (n=1,220)	24.9	[22.0, 28.0]	61.5	[58.0, 64.9]	5.9	[4.4, 7.9]	6.9	[5.3, 8.9]	0.4	[0.1, 1.1]	0.5	[0.2, 1.1]	100.0
Pearson: Uncorrected chi2(5) =	12.7447												
Design-based F(4.86, 9434.91) =	1.6459	Pr =	0.146										
Race/ethnicity													
White, non-Hispanic (n=1,353)	24.2	[21.5, 27.1]	61.6	[58.3, 64.8]	6.7	[5.1, 8.7]	6.4	[4.9, 8.3]	0.8	[0.3, 2.0]	0.4	[0.2, 0.9]	100.0
Black, non-Hispanic (n=370)	19.8	[15.3, 25.2]	62.6	[56.2, 68.6]	5.4	[3.1, 9.5]	10.4	[7.0, 15.3]	0.7	[0.2, 2.5]	1.0	[0.4, 2.8]	100.0
Hispanic (n=77)	24.5	[15.1, 37.4]	50.1	[36.9, 63.2]	9.3	[4.1, 19.8]	13.8	[6.5, 27.2]	2.3	[0.3, 14.4]	0.0		100.0
Other, non-Hispanic (n=128)	20.7	[13.8, 29.9]	69.7	[59.5, 78.2]	2.9	[1.2, 7.0]	5.9	[2.3, 14.2]	0.0		0.9	[0.2, 3.6]	100.0
Pearson: Uncorrected chi2(15) =	31.5459												
Design-based F(13.94, 26706.10) =	1.3058	Pr =	0.195										
FPL category													
0-35% (n=799)	23.1	[19.7, 26.8]	62.8	[58.5, 66.9]	5.9	[4.1, 8.5]	7.0	[5.0, 9.8]	0.6	[0.2, 1.7]	0.5	[0.2, 1.4]	100.0
36-99% (n=674)	24.3	[20.7, 28.2]	60.8	[56.4, 65.1]	5.8	[4.1, 8.1]	7.6	[5.6, 10.2]	0.8	[0.2, 3.2]	0.7	[0.3, 1.7]	100.0
100%+ (n=481)	19.9	[16.2, 24.1]	61.4	[56.0, 66.4]	7.3	[4.9, 10.8]	9.8	[6.5, 14.5]	1.1	[0.3, 3.9]	0.6	[0.2, 1.8]	100.0
Pearson: Uncorrected chi2(10) =	6.9822												
Design-based F(9.19, 17852.61) =	0.4954	Pr =	0.882										
Region													
UP/NW/NE (n=389)	23.0	[18.5, 28.1]	65.5	[59.9, 70.6]	5.1	[3.0, 8.6]	6.2	[4.0, 9.6]	0.0		0.2	[0.0, 1.6]	100.0
W/E Central/E (n=645)	24.1	[20.6, 28.1]	59.8	[55.3, 64.2]	6.6	[4.5, 9.7]	8.0	[5.6, 11.3]	0.7	[0.2, 2.4]	0.7	[0.3, 1.8]	100.0
S Central/SW/SE (n=384)	21.1	[17.0, 26.0]	62.6	[56.9, 67.8]	7.4	[5.0, 10.9]	7.6	[4.9, 11.5]	1.3	[0.4, 4.4]	0.0		100.0
Detroit Metro (n=536)	22.4	[18.5, 26.9]	62.6	[57.4, 67.5]	5.5	[3.6, 8.5]	7.9	[5.4, 11.3]	0.8	[0.3, 2.4]	0.7	[0.3, 1.8]	100.0
Pearson: Uncorrected chi2(15) =	10.3587												
Design-based F(12.99, 25231.37) =	0.5197	Pr =	0.914										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,600)	22.6	[20.2, 25.3]	62.6	[59.5, 65.6]	6.0	[4.7, 7.7]	7.3	[5.7, 9.4]	0.8	[0.3, 1.7]	0.6	[0.3, 1.2]	100.0
No (n=354)	23.4	[18.5, 29.1]	59.5	[53.1, 65.7]	6.9	[4.0, 11.5]	9.2	[6.2, 13.5]	0.7	[0.2, 3.1]	0.2	[0.0, 1.3]	100.0
Pearson: Uncorrected chi2(5) =	3.6584												
Design-based F(4.67, 9062.68) =	0.4763	Pr =	0.782										
Total (n=1,954)	22.8	[20.6, 25.2]	62.0	[59.2, 64.7]	6.2	[4.9, 7.7]	7.7	[6.3, 9.5]	0.8	[0.4, 1.5]	0.6	[0.3, 1.0]	100.0

Note: Total count is less than universe count due to item non-response.

2.11.2 Q: The MI Health Account Statements help me be more aware of the cost of health care.

Follow-up group(s): Still enrolled
Universe: Respondents who received a MI Health Account Statement in the past year (n = 1,957)

	MIHA Statements help me be aware of health care costs												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=1,954)	18.2	[16.1, 20.5]	64.4	[61.7, 67.2]	6.3	[5.1, 7.9]	7.3	[5.9, 9.0]	0.9	[0.4, 2.0]	2.8	[2.1, 3.7]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=510)	18.1	[14.4, 22.4]	60.6	[55.2, 65.8]	8.9	[6.3, 12.3]	9.3	[6.3, 13.4]	0.9	[0.3, 2.6]	2.3	[1.2, 4.2]	100.0
35-50 (n=619)	19.5	[15.7, 23.9]	63.1	[58.2, 67.9]	6.2	[4.2, 9.1]	7.0	[5.0, 9.5]	1.5	[0.4, 4.8]	2.8	[1.7, 4.4]	100.0
51-64 (n=825)	16.9	[14.0, 20.3]	70.1	[66.2, 73.8]	3.8	[2.6, 5.5]	5.6	[3.9, 8.0]	0.3	[0.1, 0.8]	3.3	[2.1, 5.3]	100.0
Pearson: Uncorrected chi2(10) =	31.2470												
Design-based F(8.97, 17424.45) =	2.0423	Pr =	0.031										
Gender													
Male (n=734)	17.9	[14.7, 21.7]	64.0	[59.4, 68.3]	6.4	[4.6, 8.9]	7.0	[4.9, 10.0]	1.7	[0.6, 4.2]	3.0	[1.9, 4.7]	100.0
Female (n=1,220)	18.4	[15.8, 21.4]	64.8	[61.3, 68.2]	6.3	[4.7, 8.4]	7.5	[5.8, 9.7]	0.3	[0.1, 0.9]	2.6	[1.8, 3.8]	100.0
Pearson: Uncorrected chi2(5) =	10.1645												
Design-based F(4.92, 9549.19) =	1.2710	Pr =	0.274										
Race/ethnicity													
White, non-Hispanic (n=1,353)	19.1	[16.5, 22.1]	64.2	[60.8, 67.4]	6.7	[5.2, 8.6]	6.6	[5.0, 8.6]	0.8	[0.3, 1.9]	2.6	[1.8, 3.6]	100.0
Black, non-Hispanic (n=370)	16.5	[12.4, 21.6]	69.1	[63.0, 74.6]	4.3	[2.5, 7.3]	6.0	[4.0, 9.0]	1.6	[0.4, 6.3]	2.5	[1.2, 5.4]	100.0
Hispanic (n=77)	17.3	[9.7, 28.9]	50.5	[37.3, 63.6]	12.9	[4.6, 31.3]	16.0	[7.9, 29.6]	0.0		3.3	[0.9, 11.4]	100.0
Other, non-Hispanic (n=128)	19.5	[12.8, 28.6]	56.8	[45.6, 67.2]	6.0	[2.7, 12.5]	12.4	[5.8, 24.5]	0.0		5.4	[2.3, 12.0]	100.0
Pearson: Uncorrected chi2(15) =	42.7578												
Design-based F(12.94, 24792.05) =	1.4698	Pr =	0.120										
FPL category													
0-35% (n=799)	19.3	[16.2, 22.9]	66.1	[61.8, 70.2]	5.3	[3.5, 7.9]	6.6	[4.7, 9.3]	0.7	[0.1, 3.1]	1.9	[1.2, 3.2]	100.0
36-99% (n=674)	18.3	[14.7, 22.6]	61.3	[56.6, 65.7]	9.1	[6.9, 11.8]	6.4	[4.6, 8.9]	1.3	[0.4, 3.5]	3.6	[2.2, 5.8]	100.0
100%+ (n=481)	14.9	[11.6, 18.9]	64.1	[58.9, 69.1]	5.5	[3.6, 8.3]	10.4	[7.2, 14.8]	1.0	[0.3, 3.9]	4.0	[2.3, 6.9]	100.0
Pearson: Uncorrected chi2(10) =	26.2582												
Design-based F(8.62, 16745.45) =	1.6180	Pr =	0.107										
Region													
UP/NW/NE (n=389)	16.7	[12.8, 21.4]	66.8	[61.2, 71.9]	6.0	[3.9, 9.2]	5.6	[3.6, 8.4]	1.5	[0.4, 5.0]	3.5	[1.8, 6.6]	100.0
W/E Central/E (n=645)	19.4	[16.0, 23.2]	63.5	[59.0, 67.8]	7.2	[5.2, 9.7]	6.6	[4.4, 9.6]	0.6	[0.1, 2.5]	2.8	[1.6, 4.7]	100.0
S Central/SW/SE (n=384)	15.6	[12.0, 20.2]	65.0	[59.5, 70.2]	7.2	[4.8, 10.7]	8.3	[5.5, 12.4]	0.0		3.8	[2.3, 6.2]	100.0
Detroit Metro (n=536)	18.7	[15.0, 23.2]	64.3	[59.1, 69.3]	5.4	[3.4, 8.6]	7.9	[5.5, 11.2]	1.4	[0.5, 4.1]	2.2	[1.2, 4.0]	100.0
Pearson: Uncorrected chi2(15) =	15.8026												
Design-based F(11.97, 23254.28) =	0.7268	Pr =	0.726										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,600)	18.2	[15.8, 20.8]	65.3	[62.3, 68.3]	6.1	[4.8, 7.8]	6.8	[5.4, 8.5]	0.9	[0.3, 2.3]	2.7	[1.9, 3.8]	100.0
No (n=354)	18.4	[13.9, 23.9]	60.9	[54.3, 67.2]	7.1	[4.2, 11.8]	9.4	[5.7, 15.2]	1.1	[0.3, 3.4]	3.1	[1.6, 5.9]	100.0
Pearson: Uncorrected chi2(5) =	4.7959												
Design-based F(4.87, 9453.84) =	0.5205	Pr =	0.756										
Total (n=1,954)	18.2	[16.1, 20.5]	64.4	[61.7, 67.2]	6.3	[5.1, 7.9]	7.3	[5.9, 9.0]	0.9	[0.4, 2.0]	2.8	[2.1, 3.7]	100.0

Note: Total count is less than universe count due to item non-response.

2.11.3 Q: Information I saw in a MI Health Account Statement led me to change some of my decisions about health care.

Follow-up group(s): Still enrolled
Universe: Respondents who received a MI Health Account Statement in the past year (n = 1,957)

	MIHA Statements led me to change health care decisions												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=1,952)	3.9	[2.9, 5.2]	27.1	[24.7, 29.7]	15.7	[13.9, 17.8]	45.7	[42.9, 48.6]	3.1	[2.3, 4.1]	4.5	[3.4, 5.9]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=509)	4.5	[2.8, 7.2]	24.3	[19.9, 29.3]	21.1	[17.2, 25.7]	42.7	[37.4, 48.2]	4.0	[2.5, 6.5]	3.3	[2.0, 5.6]	100.0
35-50 (n=619)	3.8	[2.2, 6.5]	27.4	[23.4, 31.7]	13.9	[11.0, 17.4]	46.6	[41.6, 51.6]	3.1	[1.9, 5.0]	5.2	[3.2, 8.5]	100.0
51-64 (n=824)	3.4	[2.1, 5.3]	29.8	[25.9, 34.0]	12.0	[9.8, 14.7]	48.1	[44.0, 52.2]	2.0	[1.1, 3.4]	4.8	[3.3, 6.8]	100.0
Pearson: Uncorrected chi2(10) =	32.8718												
Design-based F(9.50, 18433.70) =	2.1302	Pr =	0.021										
Gender													
Male (n=733)	4.5	[2.9, 6.9]	28.7	[24.9, 32.8]	16.9	[13.7, 20.6]	42.1	[37.6, 46.8]	2.7	[1.6, 4.4]	5.1	[3.3, 7.9]	100.0
Female (n=1,219)	3.4	[2.3, 5.0]	25.9	[22.8, 29.2]	14.8	[12.7, 17.3]	48.6	[45.1, 52.2]	3.3	[2.3, 4.8]	3.9	[2.8, 5.4]	100.0
Pearson: Uncorrected chi2(5) =	10.7867												
Design-based F(4.97, 9642.02) =	1.3084	Pr =	0.257										
Race/ethnicity													
White, non-Hispanic (n=1,352)	3.0	[2.1, 4.4]	24.5	[21.8, 27.4]	19.5	[16.9, 22.3]	46.3	[42.9, 49.7]	3.0	[2.1, 4.3]	3.7	[2.7, 5.1]	100.0
Black, non-Hispanic (n=370)	5.4	[3.1, 9.5]	32.9	[27.0, 39.3]	7.4	[4.9, 11.0]	46.5	[40.2, 53.0]	3.0	[1.5, 5.8]	4.7	[2.3, 9.5]	100.0
Hispanic (n=77)	3.8	[1.1, 12.6]	30.3	[20.5, 42.5]	12.0	[6.3, 21.7]	41.4	[28.6, 55.6]	6.1	[1.9, 17.6]	6.2	[2.4, 15.2]	100.0
Other, non-Hispanic (n=127)	6.6	[2.8, 14.8]	26.3	[18.1, 36.4]	16.7	[10.3, 26.1]	42.2	[31.9, 53.3]	1.5	[0.4, 6.0]	6.6	[3.3, 12.8]	100.0
Pearson: Uncorrected chi2(15) =	59.0036												
Design-based F(14.21, 27204.22) =	2.3648	Pr =	0.003										
FPL category													
0-35% (n=797)	4.2	[2.8, 6.4]	27.6	[24.0, 31.5]	12.8	[10.3, 15.9]	48.4	[44.0, 52.8]	2.1	[1.3, 3.6]	4.8	[3.2, 7.3]	100.0
36-99% (n=674)	3.9	[2.4, 6.2]	25.0	[21.1, 29.5]	18.5	[14.9, 22.6]	42.5	[38.3, 46.9]	5.2	[3.4, 7.9]	4.8	[3.3, 7.0]	100.0
100%+ (n=481)	2.9	[1.5, 5.5]	28.6	[24.1, 33.6]	20.0	[16.2, 24.4]	42.8	[37.8, 48.0]	2.7	[1.5, 5.0]	2.9	[1.7, 4.9]	100.0
Pearson: Uncorrected chi2(10) =	31.7810												
Design-based F(9.65, 18725.45) =	2.4054	Pr =	0.008										
Region													
UP/NW/NE (n=389)	4.1	[2.1, 7.6]	25.2	[20.8, 30.3]	18.0	[14.1, 22.6]	46.6	[41.1, 52.3]	3.2	[1.8, 5.7]	2.8	[1.5, 5.1]	100.0
W/E Central/E (n=644)	3.0	[1.9, 4.9]	26.8	[23.0, 30.9]	19.7	[16.3, 23.6]	43.5	[39.2, 48.0]	3.0	[1.8, 5.0]	4.0	[2.5, 6.2]	100.0
S Central/SW/SE (n=384)	3.0	[1.6, 5.3]	29.5	[24.5, 35.1]	16.6	[12.9, 21.2]	43.8	[38.3, 49.5]	2.4	[1.3, 4.6]	4.6	[2.9, 7.4]	100.0
Detroit Metro (n=535)	4.9	[3.0, 7.8]	26.8	[22.4, 31.6]	11.9	[8.9, 15.6]	48.0	[42.7, 53.3]	3.4	[2.0, 5.5]	5.2	[3.2, 8.2]	100.0
Pearson: Uncorrected chi2(15) =	24.6319												
Design-based F(13.10, 25422.52) =	1.3707	Pr =	0.164										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,599)	3.7	[2.7, 5.1]	27.9	[25.2, 30.8]	14.8	[12.8, 17.1]	46.0	[42.8, 49.2]	2.9	[2.1, 4.0]	4.7	[3.5, 6.4]	100.0
No (n=353)	4.6	[2.3, 9.1]	23.8	[19.0, 29.3]	19.4	[14.9, 24.9]	44.8	[38.5, 51.3]	3.8	[1.9, 7.4]	3.5	[1.9, 6.4]	100.0
Pearson: Uncorrected chi2(5) =	9.0564												
Design-based F(4.89, 9479.15) =	1.0731	Pr =	0.373										
Total (n=1,952)	3.9	[2.9, 5.2]	27.1	[24.7, 29.7]	15.7	[13.9, 17.8]	45.7	[42.9, 48.6]	3.1	[2.3, 4.1]	4.5	[3.4, 5.9]	100.0

Note: Total count is less than universe count due to item non-response.

2.12 Q: The amount I have to pay overall for the Healthy Michigan Plan seems fair.

Follow-up group(s): Still enrolled
Universe: All respondents

	Amount I have to pay for HMP seems fair												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,386)	24.5	[22.4, 26.8]	59.6	[57.0, 62.1]	6.2	[5.0, 7.7]	5.7	[4.6, 7.1]	1.4	[0.9, 2.1]	2.5	[1.8, 3.5]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=664)	24.7	[20.7, 29.1]	59.5	[54.6, 64.1]	8.5	[6.1, 11.8]	4.9	[3.1, 7.6]	0.4	[0.1, 1.3]	2.1	[1.0, 4.2]	100.0
35-50 (n=758)	25.7	[22.0, 29.8]	56.5	[52.0, 61.0]	5.9	[4.1, 8.4]	7.0	[5.0, 9.8]	2.2	[1.2, 4.1]	2.6	[1.6, 4.3]	100.0
51-64 (n=964)	23.0	[20.0, 26.2]	63.4	[59.6, 67.1]	3.8	[2.5, 5.7]	5.1	[3.6, 7.3]	1.7	[1.0, 3.1]	3.0	[1.8, 4.9]	100.0
Pearson: Uncorrected chi2(10) =	34.1249												
Design-based F(9.59, 22755.73) =	2.0887	Pr =	0.024										
Gender													
Male (n=931)	24.3	[21.0, 28.0]	58.9	[54.7, 62.9]	7.5	[5.4, 10.3]	5.3	[3.6, 7.9]	1.3	[0.7, 2.6]	2.6	[1.5, 4.4]	100.0
Female (n=1,455)	24.7	[21.9, 27.7]	60.2	[56.9, 63.4]	5.2	[4.0, 6.7]	6.0	[4.7, 7.7]	1.5	[0.9, 2.5]	2.5	[1.6, 3.7]	100.0
Pearson: Uncorrected chi2(5) =	6.1408												
Design-based F(4.97, 11802.13) =	0.6970	Pr =	0.625										
Race/ethnicity													
White, non-Hispanic (n=1,601)	28.3	[25.5, 31.3]	61.5	[58.3, 64.6]	4.5	[3.4, 6.1]	3.0	[2.2, 4.1]	1.2	[0.7, 2.2]	1.4	[0.9, 2.4]	100.0
Black, non-Hispanic (n=479)	20.5	[16.4, 25.2]	55.9	[50.3, 61.3]	6.8	[4.5, 10.4]	11.1	[8.0, 15.1]	1.8	[0.9, 3.6]	3.9	[2.3, 6.6]	100.0
Hispanic (n=100)	16.7	[10.1, 26.3]	56.8	[44.5, 68.2]	14.5	[6.8, 28.5]	5.0	[2.1, 11.7]	0.5	[0.1, 3.4]	6.5	[2.3, 17.5]	100.0
Other, non-Hispanic (n=176)	16.9	[11.4, 24.3]	58.9	[49.4, 67.7]	11.7	[7.0, 18.9]	7.8	[3.3, 17.2]	2.0	[0.5, 7.5]	2.8	[0.8, 8.9]	100.0
Pearson: Uncorrected chi2(15) =	124.4630												
Design-based F(13.65, 31984.60) =	4.6885	Pr =	0.000										
FPL category													
0-35% (n=1,001)	24.6	[21.4, 28.2]	59.6	[55.6, 63.4]	6.6	[4.8, 9.0]	5.1	[3.6, 7.2]	1.3	[0.7, 2.5]	2.8	[1.8, 4.3]	100.0
36-99% (n=822)	26.1	[22.6, 30.0]	60.2	[56.0, 64.2]	5.0	[3.4, 7.2]	5.8	[4.0, 8.4]	1.3	[0.6, 3.0]	1.6	[0.8, 3.1]	100.0
100%+ (n=563)	21.8	[18.2, 26.0]	58.8	[54.0, 63.5]	7.1	[4.9, 10.1]	7.5	[5.1, 10.7]	1.7	[0.8, 3.5]	3.1	[1.6, 6.0]	100.0
Pearson: Uncorrected chi2(10) =	11.0218												
Design-based F(9.67, 22959.75) =	0.7725	Pr =	0.651										
Region													
UP/NW/NE (n=450)	31.0	[26.2, 36.1]	60.2	[54.8, 65.3]	5.8	[3.4, 9.5]	1.8	[0.9, 3.8]	0.9	[0.3, 2.8]	0.3	[0.0, 2.1]	100.0
W/E Central/E (n=777)	23.5	[20.2, 27.2]	63.3	[59.2, 67.1]	6.0	[4.3, 8.3]	4.6	[3.2, 6.6]	1.3	[0.6, 2.7]	1.3	[0.7, 2.4]	100.0
S Central/SW/SE (n=462)	20.6	[16.9, 24.9]	64.3	[59.1, 69.1]	5.0	[3.1, 7.9]	5.7	[3.6, 8.9]	1.6	[0.7, 3.5]	2.8	[1.3, 6.1]	100.0
Detroit Metro (n=697)	25.4	[21.6, 29.7]	55.1	[50.4, 59.8]	7.0	[4.9, 9.9]	7.2	[5.2, 10.0]	1.5	[0.7, 3.0]	3.7	[2.4, 5.7]	100.0
Pearson: Uncorrected chi2(15) =	42.0455												
Design-based F(13.19, 31311.25) =	2.2747	Pr =	0.005										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,931)	24.9	[22.5, 27.5]	60.1	[57.2, 62.9]	5.7	[4.4, 7.3]	5.3	[4.1, 6.8]	1.6	[1.0, 2.5]	2.5	[1.7, 3.6]	100.0
No (n=455)	23.3	[18.7, 28.6]	57.8	[52.0, 63.4]	8.2	[5.5, 12.1]	7.2	[4.5, 11.4]	0.8	[0.3, 2.3]	2.7	[1.4, 5.2]	100.0
Pearson: Uncorrected chi2(5) =	9.5150												
Design-based F(4.88, 11586.88) =	1.0904	Pr =	0.363										
Total (n=2,386)	24.5	[22.4, 26.8]	59.6	[57.0, 62.1]	6.2	[5.0, 7.7]	5.7	[4.6, 7.1]	1.4	[0.9, 2.1]	2.5	[1.8, 3.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.13 Q: The amount I pay for the Healthy Michigan Plan is affordable.

Follow-up group(s): Still enrolled
Universe: All respondents

	Amount I pay for HMP is affordable												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,385)	24.7	[22.5, 27.0]	62.0	[59.4, 64.5]	4.6	[3.6, 5.9]	5.1	[4.1, 6.5]	1.0	[0.6, 1.6]	2.5	[1.8, 3.5]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=664)	24.8	[20.7, 29.3]	62.3	[57.5, 66.9]	6.1	[4.2, 8.7]	4.3	[2.6, 7.0]	0.4	[0.1, 1.3]	2.1	[1.1, 4.3]	100.0
35-50 (n=758)	25.9	[22.1, 30.1]	58.2	[53.6, 62.6]	4.0	[2.6, 6.2]	6.7	[4.7, 9.5]	1.7	[0.8, 3.4]	3.5	[2.2, 5.5]	100.0
51-64 (n=963)	23.1	[20.1, 26.5]	66.3	[62.6, 69.8]	3.5	[2.1, 5.8]	4.3	[3.1, 5.9]	0.9	[0.5, 1.8]	1.8	[1.1, 3.0]	100.0
Pearson: Uncorrected chi2(10) =	29.7571												
Design-based F(9.26, 21967.08) =	1.8917	Pr =	0.046										
Gender													
Male (n=931)	25.1	[21.7, 28.8]	62.0	[57.9, 66.0]	5.3	[3.6, 7.7]	4.6	[3.0, 7.1]	0.7	[0.3, 1.9]	2.2	[1.3, 3.9]	100.0
Female (n=1,454)	24.4	[21.6, 27.4]	62.0	[58.7, 65.2]	4.0	[2.9, 5.4]	5.6	[4.4, 7.2]	1.2	[0.7, 2.2]	2.8	[1.9, 4.1]	100.0
Pearson: Uncorrected chi2(5) =	5.7696												
Design-based F(4.97, 11802.43) =	0.6408	Pr =	0.668										
Race/ethnicity													
White, non-Hispanic (n=1,600)	29.4	[26.4, 32.5]	61.1	[57.9, 64.2]	3.3	[2.4, 4.5]	3.8	[2.8, 5.1]	0.8	[0.4, 1.7]	1.7	[1.0, 2.7]	100.0
Black, non-Hispanic (n=479)	16.2	[12.6, 20.5]	65.5	[60.0, 70.6]	6.2	[3.8, 10.0]	6.8	[4.5, 10.2]	1.3	[0.7, 2.7]	4.0	[2.3, 6.8]	100.0
Hispanic (n=100)	21.0	[12.4, 33.3]	59.2	[47.0, 70.4]	5.8	[2.5, 12.9]	7.0	[3.1, 15.4]	0.0		7.0	[2.6, 17.3]	100.0
Other, non-Hispanic (n=176)	21.8	[15.3, 30.2]	58.4	[49.0, 67.3]	8.0	[4.2, 14.6]	8.5	[3.9, 17.6]	1.9	[0.5, 7.5]	1.4	[0.5, 3.7]	100.0
Pearson: Uncorrected chi2(15) =	85.4812												
Design-based F(14.04, 32892.23) =	3.3257	Pr =	0.000										
FPL category													
0-35% (n=1,000)	26.1	[22.7, 29.7]	62.1	[58.2, 65.9]	4.2	[2.9, 6.2]	4.3	[2.8, 6.4]	0.5	[0.2, 1.6]	2.8	[1.8, 4.3]	100.0
36-99% (n=822)	25.6	[22.1, 29.5]	60.4	[56.2, 64.4]	4.9	[3.1, 7.5]	5.9	[4.2, 8.2]	1.6	[0.8, 3.3]	1.7	[1.0, 2.9]	100.0
100%+ (n=563)	19.1	[15.6, 23.2]	64.1	[59.3, 68.7]	5.4	[3.6, 7.8]	6.8	[4.6, 9.8]	1.6	[0.8, 3.5]	3.0	[1.5, 5.9]	100.0
Pearson: Uncorrected chi2(10) =	22.9549												
Design-based F(9.40, 22310.47) =	1.5888	Pr =	0.108										
Region													
UP/NW/NE (n=450)	29.1	[24.5, 34.2]	62.2	[56.9, 67.2]	4.5	[2.8, 7.1]	2.9	[1.5, 5.3]	0.3	[0.1, 1.4]	1.0	[0.4, 2.5]	100.0
W/E Central/E (n=776)	25.1	[21.7, 28.9]	62.4	[58.3, 66.4]	4.1	[2.8, 6.0]	5.6	[3.9, 7.9]	0.8	[0.3, 1.9]	1.9	[1.1, 3.5]	100.0
S Central/SW/SE (n=462)	21.5	[17.6, 26.0]	64.3	[59.1, 69.3]	5.8	[3.6, 9.3]	4.3	[2.6, 7.0]	0.9	[0.3, 2.8]	3.1	[1.6, 6.2]	100.0
Detroit Metro (n=697)	24.7	[20.8, 29.0]	60.8	[56.1, 65.3]	4.5	[2.8, 7.0]	5.7	[3.8, 8.3]	1.3	[0.6, 2.6]	3.0	[1.9, 4.9]	100.0
Pearson: Uncorrected chi2(15) =	16.1173												
Design-based F(12.76, 30274.75) =	0.8802	Pr =	0.572										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,930)	25.3	[22.8, 28.0]	61.8	[58.9, 64.7]	4.4	[3.3, 5.8]	5.0	[3.8, 6.4]	1.1	[0.6, 1.9]	2.4	[1.7, 3.5]	100.0
No (n=455)	22.5	[18.1, 27.7]	62.7	[57.0, 68.1]	5.4	[3.4, 8.6]	5.8	[3.4, 9.7]	0.7	[0.2, 2.2]	2.9	[1.5, 5.4]	100.0
Pearson: Uncorrected chi2(5) =	3.6555												
Design-based F(4.86, 11544.12) =	0.4291	Pr =	0.824										
Total (n=2,385)	24.7	[22.5, 27.0]	62.0	[59.4, 64.5]	4.6	[3.6, 5.9]	5.1	[4.1, 6.5]	1.0	[0.6, 1.6]	2.5	[1.8, 3.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.14 Q: There is a limit on the total amount I have to pay each year for Healthy Michigan Plan insurance.

Follow-up group(s): Still enrolled
Universe: All respondents

	Limit on total amount I have to pay						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,348)	31.3	[29.0, 33.6]	16.5	[14.6, 18.7]	52.2	[49.6, 54.8]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=656)	30.4	[26.2, 34.9]	17.5	[14.0, 21.6]	52.1	[47.3, 56.9]	100.0
35-50 (n=745)	31.9	[28.0, 36.1]	17.3	[14.0, 21.2]	50.8	[46.3, 55.4]	100.0
51-64 (n=947)	31.6	[28.2, 35.1]	14.5	[11.8, 17.6]	54.0	[50.1, 57.8]	100.0
Pearson: Uncorrected chi2(4) =	3.4861						
Design-based F(3.83, 8940.73) =	0.5348	Pr =	0.702				
Gender							
Male (n=918)	33.6	[29.8, 37.6]	15.6	[12.8, 18.8]	50.8	[46.7, 54.9]	100.0
Female (n=1,430)	29.2	[26.5, 32.1]	17.3	[14.7, 20.3]	53.4	[50.1, 56.7]	100.0
Pearson: Uncorrected chi2(2) =	5.3879						
Design-based F(1.99, 4639.92) =	1.5590	Pr =	0.211				
Race/ethnicity							
White, non-Hispanic (n=1,578)	31.5	[28.8, 34.5]	15.0	[12.6, 17.7]	53.4	[50.2, 56.6]	100.0
Black, non-Hispanic (n=472)	30.2	[25.4, 35.5]	20.1	[16.0, 24.8]	49.7	[44.1, 55.4]	100.0
Hispanic (n=98)	22.1	[14.7, 31.9]	16.3	[9.3, 27.0]	61.5	[49.8, 72.1]	100.0
Other, non-Hispanic (n=170)	38.4	[30.0, 47.6]	17.9	[11.9, 26.1]	43.7	[35.2, 52.7]	100.0
Pearson: Uncorrected chi2(6) =	18.6859						
Design-based F(5.89, 13574.04) =	1.8636	Pr =	0.084				
FPL category							
0-35% (n=987)	25.7	[22.4, 29.2]	20.1	[17.0, 23.6]	54.2	[50.3, 58.2]	100.0
36-99% (n=810)	36.8	[32.9, 40.9]	13.6	[11.0, 16.6]	49.6	[45.4, 53.8]	100.0
100%+ (n=551)	40.4	[35.8, 45.3]	9.8	[7.4, 12.9]	49.7	[44.9, 54.6]	100.0
Pearson: Uncorrected chi2(4) =	57.7369						
Design-based F(3.84, 8980.85) =	11.3758	Pr =	0.000				
Region							
UP/NW/NE (n=443)	35.5	[30.6, 40.7]	15.1	[11.6, 19.5]	49.4	[44.1, 54.6]	100.0
W/E Central/E (n=766)	32.0	[28.4, 35.8]	15.7	[12.7, 19.2]	52.3	[48.2, 56.4]	100.0
S Central/SW/SE (n=461)	33.7	[29.0, 38.8]	14.3	[10.9, 18.4]	52.0	[46.8, 57.2]	100.0
Detroit Metro (n=678)	28.9	[24.9, 33.2]	18.3	[14.9, 22.4]	52.8	[48.1, 57.5]	100.0
Pearson: Uncorrected chi2(6) =	8.2379						
Design-based F(5.27, 12301.96) =	1.0835	Pr =	0.368				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,898)	30.9	[28.3, 33.6]	16.3	[14.2, 18.7]	52.8	[49.8, 55.7]	100.0
No (n=450)	32.6	[27.5, 38.0]	17.3	[13.1, 22.4]	50.1	[44.5, 55.8]	100.0
Pearson: Uncorrected chi2(2) =	1.0977						
Design-based F(1.98, 4636.71) =	0.3097	Pr =	0.732				
Total (n=2,348)	31.3	[29.0, 33.6]	16.5	[14.6, 18.7]	52.2	[49.6, 54.8]	100.0

Note: Total count is less than universe count due to item non-response.

2.15 Q: Having the Healthy Michigan Plan has taken a lot of stress off me.

Follow-up group(s): Still enrolled
Universe: All respondents

	HMP has taken a lot of stress off me												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,387)	37.2	[34.8, 39.7]	54.2	[51.6, 56.8]	4.7	[3.7, 6.0]	2.8	[2.0, 3.8]	0.8	[0.4, 1.6]	0.2	[0.1, 0.5]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=664)	33.7	[29.4, 38.4]	54.0	[49.2, 58.8]	7.9	[5.6, 11.0]	4.0	[2.4, 6.6]	0.3	[0.1, 1.4]	0.0		100.0
35-50 (n=759)	40.1	[35.8, 44.7]	51.6	[47.1, 56.2]	3.8	[2.4, 6.0]	2.6	[1.6, 4.2]	1.5	[0.6, 3.5]	0.3	[0.1, 1.0]	100.0
51-64 (n=964)	38.0	[34.4, 41.7]	57.6	[53.8, 61.3]	1.9	[1.2, 2.9]	1.5	[0.8, 2.6]	0.6	[0.2, 2.0]	0.4	[0.2, 1.2]	100.0
Pearson: Uncorrected chi2(10) =	59.9771												
Design-based F(9.06, 21521.50) =	4.2596	Pr =	0.000										
Gender													
Male (n=932)	35.4	[31.6, 39.4]	53.8	[49.7, 57.9]	6.4	[4.5, 9.0]	3.1	[1.8, 5.2]	1.1	[0.5, 2.6]	0.1	[0.0, 0.6]	100.0
Female (n=1,455)	38.7	[35.6, 42.0]	54.6	[51.3, 57.8]	3.3	[2.4, 4.5]	2.5	[1.8, 3.5]	0.5	[0.2, 1.5]	0.4	[0.2, 0.9]	100.0
Pearson: Uncorrected chi2(5) =	19.1514												
Design-based F(4.77, 11326.56) =	2.3699	Pr =	0.040										
Race/ethnicity													
White, non-Hispanic (n=1,602)	41.2	[38.1, 44.3]	51.9	[48.7, 55.1]	3.8	[2.8, 5.0]	2.0	[1.3, 3.0]	1.0	[0.4, 2.2]	0.2	[0.1, 0.7]	100.0
Black, non-Hispanic (n=479)	31.8	[26.9, 37.1]	60.3	[54.8, 65.7]	5.2	[3.0, 8.9]	1.9	[0.9, 4.0]	0.5	[0.1, 2.1]	0.3	[0.1, 1.0]	100.0
Hispanic (n=100)	28.9	[19.0, 41.3]	56.8	[44.5, 68.4]	3.1	[1.1, 8.4]	8.2	[2.6, 23.1]	2.4	[0.5, 10.2]	0.6	[0.1, 4.4]	100.0
Other, non-Hispanic (n=176)	33.1	[25.3, 41.9]	48.7	[39.6, 58.0]	10.5	[5.4, 19.5]	7.4	[3.8, 13.9]	0.0		0.3	[0.0, 2.1]	100.0
Pearson: Uncorrected chi2(15) =	79.9514												
Design-based F(13.04, 30567.51) =	3.1863	Pr =	0.000										
FPL category													
0-35% (n=1,001)	38.9	[35.2, 42.8]	54.0	[50.1, 57.9]	4.3	[2.8, 6.5]	1.5	[0.8, 3.1]	1.0	[0.5, 2.3]	0.2	[0.0, 0.7]	100.0
36-99% (n=823)	36.3	[32.5, 40.4]	54.0	[49.8, 58.1]	5.0	[3.4, 7.2]	3.6	[2.2, 6.0]	0.6	[0.1, 2.7]	0.5	[0.2, 1.3]	100.0
100%+ (n=563)	33.2	[28.9, 37.9]	55.1	[50.3, 59.9]	5.6	[3.8, 8.2]	5.4	[3.4, 8.3]	0.5	[0.1, 1.8]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(10) =	26.6930												
Design-based F(8.81, 20935.02) =	1.8735	Pr =	0.052										
Region													
UP/NW/NE (n=450)	40.0	[35.0, 45.2]	53.6	[48.3, 58.8]	4.1	[2.5, 6.8]	1.9	[1.0, 3.7]	0.1	[0.0, 0.8]	0.3	[0.0, 2.0]	100.0
W/E Central/E (n=777)	38.4	[34.5, 42.4]	54.2	[50.1, 58.2]	4.6	[3.2, 6.7]	2.3	[1.3, 4.0]	0.3	[0.0, 2.3]	0.2	[0.0, 0.7]	100.0
S Central/SW/SE (n=463)	35.2	[30.4, 40.3]	55.6	[50.4, 60.7]	4.0	[2.5, 6.5]	3.1	[1.7, 5.6]	1.7	[0.6, 4.5]	0.3	[0.0, 2.3]	100.0
Detroit Metro (n=697)	36.6	[32.2, 41.2]	53.9	[49.2, 58.5]	5.2	[3.3, 7.9]	3.1	[1.9, 5.3]	0.9	[0.4, 2.5]	0.2	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(15) =	12.1022												
Design-based F(11.98, 28449.86) =	0.6621	Pr =	0.789										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,931)	38.1	[35.4, 41.0]	54.7	[51.8, 57.6]	3.6	[2.7, 4.9]	2.2	[1.4, 3.2]	1.0	[0.5, 2.0]	0.3	[0.1, 0.7]	100.0
No (n=456)	33.9	[28.8, 39.3]	52.4	[46.7, 58.1]	8.7	[5.8, 12.9]	5.0	[2.9, 8.3]	0.0		0.0		100.0
Pearson: Uncorrected chi2(5) =	43.0127												
Design-based F(4.71, 11190.86) =	5.0812	Pr =	0.000										
Total (n=2,387)	37.2	[34.8, 39.7]	54.2	[51.6, 56.8]	4.7	[3.7, 6.0]	2.8	[2.0, 3.8]	0.8	[0.4, 1.6]	0.2	[0.1, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.16 Q: Without the Healthy Michigan Plan, I wouldn't be able to go to the doctor.

Follow-up group(s): Still enrolled
Universe: All respondents

	Wouldn't be able to go to doctor without HMP												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,388)	37.1	[34.6, 39.6]	51.4	[48.7, 54.0]	3.9	[3.0, 5.2]	6.3	[5.1, 7.8]	0.6	[0.3, 1.1]	0.8	[0.4, 1.5]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=664)	33.0	[28.6, 37.6]	51.3	[46.5, 56.1]	6.5	[4.4, 9.3]	7.2	[5.2, 9.9]	0.7	[0.3, 2.1]	1.3	[0.5, 3.7]	100.0
35-50 (n=760)	41.6	[37.2, 46.1]	48.5	[44.0, 53.1]	2.3	[1.2, 4.3]	6.7	[4.4, 10.1]	0.7	[0.2, 2.2]	0.2	[0.0, 0.7]	100.0
51-64 (n=964)	36.7	[33.1, 40.4]	54.8	[51.0, 58.6]	2.7	[1.7, 4.3]	4.7	[3.4, 6.4]	0.2	[0.0, 0.7]	0.9	[0.5, 1.6]	100.0
Pearson: Uncorrected chi2(10) =	47.6248												
Design-based F(8.92, 21195.53) =	3.1628	Pr =	0.001										
Gender													
Male (n=933)	32.0	[28.3, 35.9]	52.3	[48.2, 56.4]	5.9	[4.1, 8.3]	8.3	[6.3, 11.0]	0.8	[0.3, 2.1]	0.7	[0.3, 1.6]	100.0
Female (n=1,455)	41.4	[38.2, 44.7]	50.5	[47.2, 53.8]	2.3	[1.6, 3.3]	4.6	[3.3, 6.4]	0.3	[0.1, 0.9]	0.9	[0.4, 2.3]	100.0
Pearson: Uncorrected chi2(5) =	50.7909												
Design-based F(4.94, 11743.47) =	6.0337	Pr =	0.000										
Race/ethnicity													
White, non-Hispanic (n=1,603)	38.7	[35.6, 41.8]	49.7	[46.5, 52.9]	4.7	[3.4, 6.3]	5.8	[4.4, 7.7]	0.4	[0.1, 1.2]	0.7	[0.3, 2.0]	100.0
Black, non-Hispanic (n=479)	35.7	[30.6, 41.2]	54.2	[48.6, 59.8]	2.4	[1.0, 5.5]	6.4	[4.0, 9.9]	0.5	[0.2, 1.8]	0.8	[0.3, 2.1]	100.0
Hispanic (n=100)	33.3	[23.1, 45.4]	48.9	[37.3, 60.7]	0.5	[0.1, 3.4]	13.0	[5.7, 27.0]	1.7	[0.2, 11.2]	2.5	[0.5, 11.4]	100.0
Other, non-Hispanic (n=176)	33.8	[26.0, 42.6]	53.8	[44.6, 62.7]	5.4	[2.3, 12.0]	5.5	[3.0, 9.9]	1.1	[0.2, 7.5]	0.4	[0.1, 1.7]	100.0
Pearson: Uncorrected chi2(15) =	32.7660												
Design-based F(13.32, 31243.81) =	1.2533	Pr =	0.232										
FPL category													
0-35% (n=1,001)	37.5	[33.8, 41.3]	51.6	[47.6, 55.5]	4.0	[2.6, 6.1]	6.0	[4.2, 8.5]	0.3	[0.1, 1.0]	0.7	[0.2, 2.1]	100.0
36-99% (n=824)	39.0	[35.0, 43.1]	50.5	[46.3, 54.6]	3.1	[2.0, 4.8]	5.7	[4.1, 7.8]	0.8	[0.2, 2.6]	0.9	[0.4, 2.2]	100.0
100%+ (n=563)	32.8	[28.5, 37.5]	52.0	[47.2, 56.8]	4.8	[3.2, 7.2]	8.2	[5.9, 11.1]	1.1	[0.3, 3.7]	1.1	[0.4, 2.9]	100.0
Pearson: Uncorrected chi2(10) =	13.6364												
Design-based F(9.31, 22129.59) =	0.9024	Pr =	0.525										
Region													
UP/NW/NE (n=450)	39.2	[34.2, 44.5]	51.2	[45.9, 56.4]	2.6	[1.4, 4.8]	6.1	[3.8, 9.4]	0.0		0.9	[0.4, 2.3]	100.0
W/E Central/E (n=777)	38.7	[34.7, 42.7]	50.8	[46.8, 54.9]	4.4	[2.9, 6.8]	5.0	[3.6, 7.1]	0.2	[0.0, 1.4]	0.8	[0.2, 4.1]	100.0
S Central/SW/SE (n=464)	35.2	[30.5, 40.2]	51.4	[46.2, 56.6]	3.3	[1.9, 5.8]	7.8	[5.4, 11.1]	1.3	[0.4, 3.7]	1.0	[0.3, 3.3]	100.0
Detroit Metro (n=697)	36.2	[31.9, 40.8]	51.7	[47.0, 56.4]	4.1	[2.6, 6.5]	6.6	[4.5, 9.7]	0.6	[0.2, 1.9]	0.7	[0.3, 1.6]	100.0
Pearson: Uncorrected chi2(15) =	13.9358												
Design-based F(12.35, 29335.72) =	0.6315	Pr =	0.822										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,931)	38.5	[35.7, 41.3]	51.2	[48.3, 54.1]	3.3	[2.4, 4.7]	5.9	[4.6, 7.7]	0.4	[0.2, 1.1]	0.6	[0.3, 1.1]	100.0
No (n=457)	31.9	[26.9, 37.4]	51.9	[46.2, 57.6]	6.0	[3.7, 9.6]	7.7	[5.3, 11.0]	1.1	[0.3, 3.3]	1.4	[0.4, 5.6]	100.0
Pearson: Uncorrected chi2(5) =	20.3955												
Design-based F(4.81, 11420.92) =	2.0663	Pr =	0.069										
Total (n=2,388)	37.1	[34.6, 39.6]	51.4	[48.7, 54.0]	3.9	[3.0, 5.2]	6.3	[5.1, 7.8]	0.6	[0.3, 1.1]	0.8	[0.4, 1.5]	100.0

2.17 Q: Without the Healthy Michigan Plan, I wouldn't be able to go to the dentist.

Follow-up group(s): Still enrolled
Universe: All respondents

	Wouldn't be able to go to dentist without HMP												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,388)	33.7	[31.3, 36.2]	49.9	[47.3, 52.5]	5.0	[3.9, 6.3]	7.7	[6.3, 9.3]	0.6	[0.4, 1.1]	3.0	[2.2, 4.3]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=664)	32.2	[27.8, 36.8]	47.8	[43.0, 52.6]	6.6	[4.6, 9.5]	9.6	[7.4, 12.5]	0.5	[0.2, 1.6]	3.3	[1.8, 5.8]	100.0
35-50 (n=760)	37.1	[32.8, 41.5]	47.3	[42.8, 51.8]	4.3	[2.6, 6.8]	8.0	[5.5, 11.5]	0.7	[0.3, 1.8]	2.7	[1.3, 5.5]	100.0
51-64 (n=964)	31.6	[28.2, 35.2]	55.8	[52.0, 59.6]	3.8	[2.6, 5.4]	4.9	[3.5, 6.8]	0.7	[0.3, 1.8]	3.2	[2.2, 4.6]	100.0
Pearson: Uncorrected chi2(10) =	30.8576												
Design-based F(9.05, 21499.93) =	1.8235	Pr =	0.058										
Gender													
Male (n=933)	30.2	[26.5, 34.1]	49.8	[45.7, 54.0]	6.6	[4.7, 9.1]	9.5	[7.3, 12.2]	0.3	[0.1, 1.1]	3.6	[2.1, 6.1]	100.0
Female (n=1,455)	36.8	[33.6, 40.0]	50.0	[46.7, 53.3]	3.6	[2.6, 5.1]	6.2	[4.6, 8.3]	0.9	[0.5, 1.7]	2.6	[1.8, 3.7]	100.0
Pearson: Uncorrected chi2(5) =	31.8097												
Design-based F(4.91, 11677.09) =	3.6356	Pr =	0.003										
Race/ethnicity													
White, non-Hispanic (n=1,603)	34.2	[31.3, 37.3]	49.2	[46.1, 52.4]	5.7	[4.3, 7.6]	7.8	[6.0, 9.9]	0.8	[0.4, 1.5]	2.3	[1.5, 3.6]	100.0
Black, non-Hispanic (n=479)	34.1	[29.0, 39.6]	50.3	[44.7, 55.9]	3.5	[1.8, 6.5]	7.3	[4.8, 11.0]	0.5	[0.1, 1.9]	4.3	[2.3, 8.0]	100.0
Hispanic (n=100)	29.3	[19.5, 41.4]	52.9	[41.0, 64.5]	4.6	[1.6, 12.8]	8.0	[3.6, 16.8]	0.0		5.2	[1.5, 16.6]	100.0
Other, non-Hispanic (n=176)	34.0	[25.7, 43.4]	49.4	[40.2, 58.6]	4.5	[2.1, 9.6]	8.7	[5.0, 14.7]	0.5	[0.1, 3.5]	2.9	[1.1, 7.1]	100.0
Pearson: Uncorrected chi2(15) =	14.8563												
Design-based F(14.25, 33426.17) =	0.5679	Pr =	0.894										
FPL category													
0-35% (n=1,001)	35.3	[31.6, 39.1]	48.9	[45.0, 52.9]	4.9	[3.3, 7.2]	6.9	[5.0, 9.5]	0.6	[0.3, 1.4]	3.4	[2.1, 5.4]	100.0
36-99% (n=824)	33.8	[30.0, 37.8]	50.9	[46.8, 55.1]	5.6	[4.0, 7.7]	7.2	[5.3, 9.8]	0.5	[0.2, 1.3]	2.0	[1.3, 3.3]	100.0
100%+ (n=563)	28.9	[24.7, 33.4]	51.6	[46.8, 56.3]	4.4	[2.9, 6.7]	10.8	[8.2, 14.1]	0.9	[0.3, 2.8]	3.5	[1.9, 6.4]	100.0
Pearson: Uncorrected chi2(10) =	15.4588												
Design-based F(9.29, 22081.99) =	1.1469	Pr =	0.324										
Region													
UP/NW/NE (n=450)	35.0	[30.1, 40.3]	48.0	[42.8, 53.3]	5.0	[3.2, 7.7]	9.8	[6.8, 13.9]	0.1	[0.0, 0.9]	2.1	[1.1, 4.1]	100.0
W/E Central/E (n=777)	34.6	[30.9, 38.6]	50.7	[46.6, 54.8]	4.2	[2.5, 7.0]	7.2	[5.2, 10.0]	1.1	[0.5, 2.5]	2.1	[1.3, 3.5]	100.0
S Central/SW/SE (n=464)	30.8	[26.3, 35.7]	53.0	[47.7, 58.1]	5.3	[3.4, 8.0]	7.3	[5.0, 10.5]	1.1	[0.4, 3.2]	2.6	[1.3, 5.3]	100.0
Detroit Metro (n=697)	34.0	[29.7, 38.6]	48.6	[44.0, 53.3]	5.4	[3.6, 7.9]	7.8	[5.5, 10.9]	0.2	[0.1, 0.9]	4.0	[2.4, 6.7]	100.0
Pearson: Uncorrected chi2(15) =	19.5601												
Design-based F(12.55, 29822.83) =	1.0346	Pr =	0.413										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,931)	34.8	[32.1, 37.7]	49.8	[46.9, 52.7]	4.3	[3.2, 5.8]	7.3	[5.8, 9.1]	0.4	[0.2, 0.9]	3.4	[2.4, 4.9]	100.0
No (n=457)	29.7	[24.6, 35.3]	50.4	[44.7, 56.1]	7.4	[4.9, 11.0]	9.3	[6.4, 13.1]	1.5	[0.7, 3.4]	1.7	[0.7, 4.3]	100.0
Pearson: Uncorrected chi2(5) =	25.1046												
Design-based F(4.91, 11672.33) =	2.8726	Pr =	0.014										
Total (n=2,388)	33.7	[31.3, 36.2]	49.9	[47.3, 52.5]	5.0	[3.9, 6.3]	7.7	[6.3, 9.3]	0.6	[0.4, 1.1]	3.0	[2.2, 4.3]	100.0

2.18 Q: In the last 12 months, have you had any questions or problems using your Healthy Michigan Plan insurance?

Follow-up group(s): Still enrolled
Universe: All respondents

	Questions/problems using HMP in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	11.0	[9.5, 12.7]	88.5	[86.8, 90.0]	0.5	[0.2, 0.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	12.8	[9.9, 16.3]	87.1	[83.5, 89.9]	0.2	[0.0, 1.1]	100.0
35-50 (n=760)	9.4	[7.1, 12.3]	90.0	[87.0, 92.3]	0.6	[0.2, 1.6]	100.0
51-64 (n=964)	10.8	[8.6, 13.5]	88.5	[85.7, 90.8]	0.7	[0.2, 2.0]	100.0
Pearson: Uncorrected chi2(4) =	7.7544						
Design-based F(3.92, 9312.35) =	1.3176	Pr =	0.261				
Gender							
Male (n=933)	10.1	[7.9, 12.7]	89.7	[87.0, 91.9]	0.2	[0.0, 1.1]	100.0
Female (n=1,455)	11.9	[9.9, 14.2]	87.4	[85.1, 89.5]	0.7	[0.3, 1.5]	100.0
Pearson: Uncorrected chi2(2) =	5.2805						
Design-based F(2.00, 4744.85) =	1.6144	Pr =	0.199				
Race/ethnicity							
White, non-Hispanic (n=1,603)	11.6	[9.7, 13.9]	88.0	[85.7, 90.0]	0.4	[0.2, 1.1]	100.0
Black, non-Hispanic (n=479)	8.4	[5.8, 12.0]	91.0	[87.4, 93.7]	0.6	[0.2, 1.9]	100.0
Hispanic (n=100)	13.4	[7.8, 22.1]	85.4	[76.4, 91.3]	1.2	[0.2, 8.1]	100.0
Other, non-Hispanic (n=176)	11.6	[7.2, 18.3]	88.4	[81.7, 92.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	8.2354						
Design-based F(5.88, 13790.50) =	0.9328	Pr =	0.469				
FPL category							
0-35% (n=1,001)	10.3	[8.1, 12.9]	89.4	[86.7, 91.6]	0.4	[0.1, 1.0]	100.0
36-99% (n=824)	10.7	[8.4, 13.5]	88.6	[85.7, 91.0]	0.7	[0.2, 2.3]	100.0
100%+ (n=563)	13.9	[10.9, 17.6]	85.6	[81.9, 88.7]	0.4	[0.1, 2.1]	100.0
Pearson: Uncorrected chi2(4) =	5.8619						
Design-based F(3.90, 9273.36) =	1.1033	Pr =	0.353				
Region							
UP/NW/NE (n=450)	12.8	[9.7, 16.7]	87.1	[83.1, 90.2]	0.2	[0.0, 1.1]	100.0
W/E Central/E (n=777)	10.5	[8.1, 13.4]	89.1	[86.1, 91.5]	0.4	[0.1, 2.0]	100.0
S Central/SW/SE (n=464)	13.7	[10.5, 17.8]	86.1	[82.1, 89.4]	0.1	[0.0, 0.9]	100.0
Detroit Metro (n=697)	10.0	[7.5, 13.1]	89.3	[86.1, 91.8]	0.7	[0.3, 1.6]	100.0
Pearson: Uncorrected chi2(6) =	7.6995						
Design-based F(4.66, 11070.40) =	1.1814	Pr =	0.316				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	11.5	[9.7, 13.5]	88.2	[86.1, 89.9]	0.3	[0.1, 0.8]	100.0
No (n=457)	9.3	[6.7, 12.9]	89.7	[86.0, 92.5]	1.0	[0.3, 2.8]	100.0
Pearson: Uncorrected chi2(2) =	5.6368						
Design-based F(2.00, 4741.11) =	1.9232	Pr =	0.146				
Total (n=2,388)	11.0	[9.5, 12.7]	88.5	[86.8, 90.0]	0.5	[0.2, 0.9]	100.0

2.18.1 Q: What kind of questions or difficulties did you have?

Follow-up group(s): Still enrolled
Universe: Respondents who had questions or problems using their Healthy Michigan Plan insurance in the last 12 months (n = 263)

Kind of questions or difficulties with HMP	Weighted Proportion	95%CI
Needed a service that wasn't covered (n=90)	34.0	[27.0, 41.7]
Difficulty/inability finding a provider (n=74)	30.5	[23.5, 38.5]
Difficulty finding out information (n=67)	24.7	[18.8, 31.6]
Payment issue- charged incorrectly (n=27)	9.0	[5.7, 13.9]
Payment issue- trouble making payments (n=21)	7.1	[4.2, 11.7]
Other (n=11)	5.7	[2.8, 11.5]
Admin problem- disenrolled/declared ineligible but don't know why (n=7)	4.0	[1.7, 9.2]
Admin problem- problem with Medicaid/HMP ID card (n=8)	2.3	[1.1, 4.9]
Transportation/logistics (n=7)	2.3	[0.9, 5.3]
Admin problem- case worker difficulties (n=5)	2.2	[0.9, 5.7]
Difficulty getting appointment (n=3)	1.7	[0.5, 5.5]
Don't know (n=3)	1.2	[0.4, 4.1]
Difficulty completing re-enrollment materials (n=3)	0.8	[0.2, 2.8]
Admin problem- inaccurate information from/problem with Medicaid Health Plan (n=2)	0.8	[0.2, 3.4]
Admin problem- eligibility/administrative error by DHHS (n=4)	0.8	[0.3, 2.3]

Note: Respondents were able to provide multiple responses

2.19 Q: It is very important to me personally to have health insurance.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Having health insurance is important to me												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,388)	43.7	[41.1, 46.2]	53.9	[51.3, 56.5]	1.2	[0.8, 1.8]	0.9	[0.5, 1.5]	0.2	[0.1, 0.6]	0.1	[0.1, 0.3]	100.0
No longer enrolled (n=709)	44.3	[39.7, 48.9]	52.2	[47.5, 56.8]	2.0	[1.2, 3.5]	1.4	[0.7, 2.6]	0.0		0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(5) =	6.2528												
Design-based F(4.89, 15085.61) =	0.9501	Pr =	0.446										
Age													
19-34 (n=909)	43.7	[39.7, 47.8]	53.1	[48.9, 57.1]	1.7	[1.0, 2.7]	1.3	[0.7, 2.6]	0.2	[0.1, 1.0]	0.0		100.0
35-50 (n=969)	43.2	[39.3, 47.1]	54.1	[50.1, 58.0]	1.2	[0.6, 2.3]	1.1	[0.6, 2.1]	0.2	[0.0, 1.1]	0.3	[0.1, 0.7]	100.0
51-64 (n=1,219)	44.7	[41.3, 48.1]	53.5	[50.0, 56.9]	1.2	[0.6, 2.3]	0.4	[0.2, 0.9]	0.1	[0.0, 0.6]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(10) =	9.9124												
Design-based F(9.13, 28176.36) =	0.8042	Pr =	0.614										
Gender													
Male (n=1,230)	40.8	[37.4, 44.4]	56.1	[52.5, 59.6]	1.4	[0.8, 2.3]	1.3	[0.7, 2.4]	0.3	[0.1, 0.9]	0.2	[0.0, 0.6]	100.0
Female (n=1,867)	46.4	[43.6, 49.3]	51.3	[48.4, 54.1]	1.4	[0.9, 2.1]	0.7	[0.4, 1.3]	0.1	[0.0, 0.6]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(5) =	13.4985												
Design-based F(4.74, 14627.76) =	2.1145	Pr =	0.064										
Race/ethnicity													
White, non-Hispanic (n=2,058)	47.3	[44.5, 50.1]	49.8	[47.0, 52.6]	1.6	[1.0, 2.4]	1.0	[0.6, 1.6]	0.3	[0.1, 0.8]	0.1	[0.0, 0.3]	100.0
Black, non-Hispanic (n=634)	38.5	[33.9, 43.2]	59.6	[54.9, 64.2]	0.6	[0.3, 1.2]	1.1	[0.5, 2.6]	0.0		0.2	[0.0, 0.6]	100.0
Hispanic (n=138)	36.7	[27.5, 46.8]	61.0	[50.9, 70.3]	2.1	[0.6, 6.4]	0.3	[0.0, 1.9]	0.0		0.0		100.0
Other, non-Hispanic (n=228)	42.2	[34.5, 50.3]	53.8	[45.8, 61.7]	2.1	[0.8, 5.7]	1.4	[0.4, 4.5]	0.0		0.5	[0.1, 3.3]	100.0
Pearson: Uncorrected chi2(15) =	37.1765												
Design-based F(13.27, 40434.04) =	1.9187	Pr =	0.023										
FPL category													
0-35% (n=1,218)	44.5	[40.9, 48.0]	53.5	[49.9, 57.0]	0.9	[0.5, 1.7]	0.8	[0.4, 1.5]	0.2	[0.1, 0.8]	0.1	[0.0, 0.5]	100.0
36-99% (n=1,084)	44.7	[41.2, 48.3]	52.4	[48.8, 56.0]	1.7	[0.9, 3.0]	0.9	[0.4, 1.9]	0.2	[0.0, 1.1]	0.2	[0.1, 0.6]	100.0
100%+ (n=795)	40.7	[36.8, 44.8]	55.3	[51.2, 59.3]	2.2	[1.3, 3.7]	1.7	[0.8, 3.6]	0.0		0.1	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(10) =	13.9254												
Design-based F(9.45, 29144.43) =	1.1384	Pr =	0.330										
Region													
UP/NW/NE (n=574)	44.5	[39.9, 49.1]	52.4	[47.7, 57.0]	2.0	[1.0, 3.9]	0.9	[0.3, 3.2]	0.0		0.2	[0.0, 1.3]	100.0
W/E Central/E (n=980)	41.6	[38.1, 45.2]	55.6	[52.0, 59.2]	1.3	[0.7, 2.3]	0.9	[0.4, 1.7]	0.4	[0.1, 1.2]	0.2	[0.1, 0.7]	100.0
S Central/SW/SE (n=633)	44.1	[39.6, 48.7]	52.4	[47.8, 56.9]	2.0	[1.0, 3.9]	1.1	[0.5, 2.6]	0.3	[0.0, 2.1]	0.1	[0.0, 0.6]	100.0
Detroit Metro (n=910)	45.0	[41.0, 49.1]	52.8	[48.7, 56.9]	1.0	[0.5, 2.0]	1.0	[0.5, 2.1]	0.0		0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(15) =	13.1283												
Design-based F(12.80, 39489.35) =	0.8030	Pr =	0.656										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,469)	43.0	[40.5, 45.5]	55.0	[52.5, 57.6]	1.1	[0.7, 1.7]	0.7	[0.4, 1.1]	0.0	[0.0, 0.2]	0.2	[0.1, 0.4]	100.0
No (n=628)	46.4	[41.6, 51.4]	48.5	[43.6, 53.4]	2.3	[1.3, 3.8]	2.1	[1.1, 4.1]	0.6	[0.2, 1.9]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(5) =	34.4551												
Design-based F(4.40, 13586.19) =	5.8192	Pr =	0.000										
Total (n=3,097)	43.8	[41.6, 46.1]	53.5	[51.3, 55.8]	1.4	[1.0, 1.9]	1.0	[0.6, 1.5]	0.2	[0.1, 0.5]	0.1	[0.1, 0.3]	100.0

2.20 Q: Getting discounts on copays and premiums as a reward for working on improving your health is a good idea.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Getting discounts for improving health is a good idea												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,387)	25.1	[22.9, 27.4]	65.9	[63.4, 68.3]	4.5	[3.5, 5.8]	2.5	[1.9, 3.4]	0.6	[0.3, 1.2]	1.5	[0.9, 2.3]	100.0
No longer enrolled (n=707)	29.4	[25.4, 33.8]	61.8	[57.1, 66.3]	3.8	[2.4, 6.2]	3.7	[1.9, 6.9]	0.4	[0.1, 1.4]	0.9	[0.2, 3.2]	100.0
Pearson: Uncorrected chi2(5) =	10.2740												
Design-based F(4.68, 14434.13) =	1.0417	Pr =	0.389										
Age													
19-34 (n=907)	25.4	[22.0, 29.1]	64.3	[60.2, 68.1]	5.7	[4.1, 7.8]	2.4	[1.3, 4.4]	0.9	[0.4, 1.9]	1.4	[0.6, 3.1]	100.0
35-50 (n=969)	28.0	[24.5, 31.7]	63.1	[59.1, 66.8]	4.2	[2.8, 6.4]	3.2	[2.2, 4.7]	0.3	[0.0, 2.1]	1.2	[0.6, 2.5]	100.0
51-64 (n=1,218)	24.7	[21.9, 27.7]	68.0	[64.8, 71.1]	2.8	[1.9, 4.0]	2.9	[1.8, 4.5]	0.4	[0.1, 1.6]	1.3	[0.6, 2.6]	100.0
Pearson: Uncorrected chi2(10) =	19.2820												
Design-based F(9.20, 28363.10) =	1.0347	Pr =	0.409										
Gender													
Male (n=1,229)	26.5	[23.5, 29.8]	66.2	[62.7, 69.5]	2.8	[1.9, 3.9]	2.3	[1.3, 4.0]	0.7	[0.3, 1.8]	1.5	[0.8, 2.9]	100.0
Female (n=1,865)	25.6	[23.2, 28.2]	63.8	[61.0, 66.5]	5.8	[4.4, 7.6]	3.3	[2.4, 4.4]	0.4	[0.1, 1.0]	1.1	[0.6, 2.1]	100.0
Pearson: Uncorrected chi2(5) =	22.5928												
Design-based F(4.91, 15122.56) =	2.4325	Pr =	0.034										
Race/ethnicity													
White, non-Hispanic (n=2,058)	26.9	[24.5, 29.5]	63.7	[61.0, 66.4]	5.8	[4.5, 7.4]	2.1	[1.5, 3.0]	0.7	[0.3, 1.6]	0.8	[0.4, 1.5]	100.0
Black, non-Hispanic (n=633)	26.8	[22.9, 31.1]	64.8	[60.1, 69.2]	2.2	[1.3, 3.7]	4.3	[2.5, 7.2]	0.4	[0.1, 1.4]	1.5	[0.7, 3.3]	100.0
Hispanic (n=138)	22.9	[14.5, 34.2]	64.1	[53.1, 73.7]	4.0	[1.7, 9.2]	4.7	[2.2, 10.1]	0.0		4.3	[1.2, 14.3]	100.0
Other, non-Hispanic (n=226)	19.8	[14.4, 26.5]	73.4	[66.1, 79.7]	1.5	[0.6, 3.8]	2.2	[1.0, 4.9]	0.0		3.0	[1.0, 8.6]	100.0
Pearson: Uncorrected chi2(15) =	65.0900												
Design-based F(13.67, 41596.00) =	2.5544	Pr =	0.001										
FPL category													
0-35% (n=1,217)	25.9	[22.9, 29.1]	63.2	[59.7, 66.6]	4.8	[3.4, 6.7]	3.2	[2.1, 4.8]	0.9	[0.4, 1.9]	2.0	[1.2, 3.4]	100.0
36-99% (n=1,083)	25.6	[22.6, 28.9]	67.0	[63.5, 70.2]	4.6	[3.4, 6.2]	2.1	[1.4, 3.2]	0.1	[0.0, 0.4]	0.6	[0.3, 1.5]	100.0
100%+ (n=794)	27.2	[23.7, 31.0]	66.5	[62.6, 70.2]	2.9	[2.0, 4.4]	2.7	[1.7, 4.3]	0.2	[0.0, 0.7]	0.4	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(10) =	29.5399												
Design-based F(9.01, 27771.27) =	2.6719	Pr =	0.004										
Region													
UP/NW/NE (n=574)	24.7	[21.1, 28.6]	67.7	[63.3, 71.8]	5.4	[3.6, 8.1]	2.0	[1.0, 4.0]	0.0		0.2	[0.1, 0.9]	100.0
W/E Central/E (n=980)	28.4	[25.2, 31.9]	63.0	[59.4, 66.5]	5.2	[3.7, 7.2]	2.1	[1.4, 3.4]	0.4	[0.1, 1.5]	0.8	[0.3, 1.8]	100.0
S Central/SW/SE (n=631)	24.6	[21.0, 28.6]	66.3	[61.9, 70.5]	4.6	[3.1, 6.8]	3.7	[2.2, 6.0]	0.3	[0.1, 0.9]	0.6	[0.2, 2.1]	100.0
Detroit Metro (n=909)	25.4	[22.0, 29.1]	65.1	[61.0, 68.9]	3.5	[2.1, 5.5]	3.0	[1.9, 4.9]	0.8	[0.3, 2.1]	2.2	[1.3, 3.9]	100.0
Pearson: Uncorrected chi2(15) =	33.0351												
Design-based F(12.47, 38445.67) =	1.6612	Pr =	0.065										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,467)	25.8	[23.6, 28.0]	65.3	[62.9, 67.7]	4.3	[3.4, 5.5]	3.0	[2.2, 4.1]	0.5	[0.2, 1.2]	1.1	[0.6, 1.8]	100.0
No (n=627)	27.0	[22.8, 31.7]	63.5	[58.6, 68.2]	4.5	[2.7, 7.4]	2.2	[1.2, 3.8]	0.6	[0.2, 1.9]	2.2	[1.0, 4.5]	100.0
Pearson: Uncorrected chi2(5) =	7.0366												
Design-based F(4.89, 15062.65) =	0.7642	Pr =	0.573										
Total (n=3,094)	26.1	[24.1, 28.1]	64.9	[62.7, 67.1]	4.4	[3.5, 5.4]	2.8	[2.1, 3.7]	0.5	[0.3, 1.1]	1.3	[0.8, 2.1]	100.0

Note: Total count is less than universe count due to item non-response.

2.21 Q: Everyone should have to pay something for their health care.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Everyone should pay something for their healthcare												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,387)	7.7	[6.4, 9.1]	46.5	[43.9, 49.1]	14.7	[13.1, 16.6]	24.1	[21.9, 26.4]	4.8	[3.7, 6.2]	2.2	[1.6, 3.1]	100.0
No longer enrolled (n=708)	10.1	[7.6, 13.2]	42.3	[37.8, 46.9]	10.0	[7.7, 12.8]	29.3	[25.2, 33.8]	7.8	[5.3, 11.3]	0.5	[0.2, 1.5]	100.0
Pearson: Uncorrected chi2(5) =	39.1134												
Design-based F(4.75, 14645.56) =	4.9664	Pr =	0.000										
Age													
19-34 (n=908)	6.9	[5.2, 9.0]	44.5	[40.5, 48.7]	15.1	[12.6, 17.9]	26.3	[22.9, 30.1]	6.1	[4.1, 8.8]	1.1	[0.5, 2.5]	100.0
35-50 (n=968)	9.6	[7.5, 12.3]	45.9	[42.0, 49.9]	12.3	[9.9, 15.2]	25.2	[21.8, 28.9]	4.6	[3.1, 6.8]	2.3	[1.4, 3.8]	100.0
51-64 (n=1,219)	8.4	[6.7, 10.4]	46.4	[43.0, 49.8]	13.3	[11.1, 15.9]	24.1	[21.2, 27.2]	5.7	[4.3, 7.6]	2.1	[1.3, 3.4]	100.0
Pearson: Uncorrected chi2(10) =	16.7759												
Design-based F(9.49, 29272.39) =	1.0203	Pr =	0.422										
Gender													
Male (n=1,230)	8.0	[6.4, 10.1]	50.1	[46.5, 53.7]	11.4	[9.4, 13.9]	22.4	[19.5, 25.6]	6.3	[4.5, 8.7]	1.8	[1.0, 2.9]	100.0
Female (n=1,865)	8.4	[7.0, 10.1]	41.5	[38.7, 44.3]	15.6	[13.7, 17.7]	27.9	[25.3, 30.5]	4.8	[3.7, 6.1]	1.9	[1.2, 2.8]	100.0
Pearson: Uncorrected chi2(5) =	34.6680												
Design-based F(4.95, 15273.72) =	4.0407	Pr =	0.001										
Race/ethnicity													
White, non-Hispanic (n=2,057)	9.2	[7.8, 10.9]	48.2	[45.5, 51.0]	14.8	[13.0, 16.8]	21.2	[19.0, 23.6]	5.3	[4.0, 7.0]	1.2	[0.8, 2.0]	100.0
Black, non-Hispanic (n=634)	7.2	[5.2, 9.9]	38.5	[33.8, 43.4]	11.6	[8.8, 15.1]	33.6	[29.1, 38.3]	6.4	[4.4, 9.2]	2.7	[1.6, 4.7]	100.0
Hispanic (n=137)	9.3	[4.2, 19.4]	51.0	[40.9, 61.0]	15.1	[9.6, 23.0]	21.7	[14.9, 30.6]	1.3	[0.3, 5.1]	1.6	[0.4, 6.3]	100.0
Other, non-Hispanic (n=228)	4.5	[2.2, 8.9]	46.3	[38.4, 54.3]	11.8	[7.9, 17.4]	27.2	[20.4, 35.3]	6.9	[3.2, 14.4]	3.4	[1.3, 8.2]	100.0
Pearson: Uncorrected chi2(15) =	79.3291												
Design-based F(14.04, 42737.00) =	3.0423	Pr =	0.000										
FPL category													
0-35% (n=1,217)	6.9	[5.3, 8.9]	42.0	[38.5, 45.6]	13.7	[11.6, 16.1]	28.6	[25.5, 31.9]	6.2	[4.6, 8.4]	2.6	[1.7, 3.9]	100.0
36-99% (n=1,083)	8.9	[7.1, 11.1]	51.0	[47.4, 54.6]	14.9	[12.4, 17.8]	19.8	[17.1, 22.8]	4.4	[2.9, 6.8]	1.0	[0.6, 1.7]	100.0
100%+ (n=795)	10.8	[8.4, 13.9]	47.2	[43.2, 51.3]	11.8	[9.5, 14.6]	24.3	[20.9, 28.0]	4.9	[3.3, 7.2]	0.9	[0.4, 2.0]	100.0
Pearson: Uncorrected chi2(10) =	54.1247												
Design-based F(9.29, 28641.75) =	4.0616	Pr =	0.000										
Region													
UP/NW/NE (n=574)	9.1	[6.9, 12.0]	52.0	[47.3, 56.5]	13.4	[10.5, 17.0]	20.2	[16.8, 24.2]	4.0	[2.5, 6.4]	1.2	[0.5, 2.6]	100.0
W/E Central/E (n=978)	8.6	[6.7, 11.1]	49.4	[45.8, 53.0]	14.6	[12.3, 17.3]	21.1	[18.4, 24.2]	4.7	[3.3, 6.6]	1.5	[0.8, 2.6]	100.0
S Central/SW/SE (n=633)	6.1	[4.5, 8.2]	45.1	[40.7, 49.7]	14.3	[11.5, 17.7]	26.2	[22.3, 30.5]	6.8	[4.3, 10.6]	1.5	[0.7, 3.1]	100.0
Detroit Metro (n=910)	8.7	[6.7, 11.1]	41.7	[37.7, 45.8]	12.7	[10.3, 15.5]	28.8	[25.3, 32.7]	5.7	[4.0, 8.2]	2.3	[1.5, 3.8]	100.0
Pearson: Uncorrected chi2(15) =	39.0419												
Design-based F(12.81, 39505.36) =	2.0568	Pr =	0.014										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,469)	7.7	[6.5, 9.1]	46.9	[44.4, 49.5]	12.1	[10.6, 13.7]	26.1	[23.9, 28.4]	5.4	[4.3, 6.7]	1.9	[1.3, 2.7]	100.0
No (n=626)	9.9	[7.3, 13.3]	40.9	[36.3, 45.7]	18.8	[15.4, 22.8]	22.8	[18.8, 27.3]	5.9	[3.4, 9.9]	1.7	[0.8, 3.3]	100.0
Pearson: Uncorrected chi2(5) =	28.7878												
Design-based F(4.68, 14414.05) =	3.0147	Pr =	0.012										
Total (n=3,095)	8.2	[7.1, 9.5]	45.5	[43.3, 47.8]	13.6	[12.2, 15.2]	25.3	[23.4, 27.3]	5.5	[4.4, 6.8]	1.8	[1.3, 2.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.22 Q: Doctors treat people on Medicaid the same as people with private insurance.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Doctor's treat Medicaid and private insurance people the same												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,386)	10.8	[9.3, 12.5]	41.9	[39.4, 44.5]	13.0	[11.3, 14.9]	19.4	[17.5, 21.4]	6.3	[5.1, 7.7]	8.6	[7.3, 10.1]	100.0
No longer enrolled (n=708)	7.1	[5.2, 9.7]	40.8	[36.4, 45.4]	13.6	[10.4, 17.6]	27.3	[23.3, 31.6]	7.4	[5.4, 10.1]	3.8	[2.4, 6.0]	100.0
Pearson: Uncorrected chi2(5) =	41.4814												
Design-based F(4.94, 15234.64) =	5.1235	Pr =	0.000										
Age													
19-34 (n=909)	9.7	[7.5, 12.5]	43.5	[39.4, 47.7]	16.3	[13.5, 19.5]	20.8	[17.9, 24.1]	5.8	[4.3, 7.9]	3.8	[2.8, 5.3]	100.0
35-50 (n=968)	9.8	[7.8, 12.4]	37.4	[33.7, 41.2]	11.0	[8.6, 14.0]	24.5	[21.3, 28.0]	7.9	[5.9, 10.5]	9.4	[7.2, 12.3]	100.0
51-64 (n=1,217)	10.4	[8.5, 12.6]	44.4	[41.0, 47.8]	11.6	[9.5, 14.1]	17.9	[15.4, 20.6]	5.8	[4.4, 7.7]	9.9	[8.0, 12.2]	100.0
Pearson: Uncorrected chi2(10) =	68.9179												
Design-based F(9.65, 29746.49) =	4.4136	Pr =	0.000										
Gender													
Male (n=1,230)	9.2	[7.4, 11.4]	41.2	[37.7, 44.8]	14.3	[11.8, 17.1]	20.6	[17.9, 23.5]	6.3	[4.8, 8.2]	8.5	[6.7, 10.6]	100.0
Female (n=1,864)	10.6	[8.9, 12.6]	42.1	[39.2, 44.9]	12.2	[10.4, 14.2]	21.8	[19.6, 24.2]	6.7	[5.4, 8.4]	6.6	[5.3, 8.1]	100.0
Pearson: Uncorrected chi2(5) =	8.7003												
Design-based F(4.99, 15364.60) =	1.0442	Pr =	0.389										
Race/ethnicity													
White, non-Hispanic (n=2,057)	11.2	[9.5, 13.1]	42.4	[39.7, 45.2]	14.7	[12.7, 17.0]	19.1	[17.1, 21.3]	6.3	[5.0, 7.8]	6.4	[5.2, 7.8]	100.0
Black, non-Hispanic (n=633)	8.2	[5.9, 11.1]	39.7	[34.9, 44.7]	9.6	[7.1, 12.9]	26.9	[23.0, 31.3]	6.9	[4.8, 9.7]	8.7	[6.6, 11.6]	100.0
Hispanic (n=137)	4.3	[1.8, 10.3]	46.8	[36.9, 56.9]	14.4	[9.0, 22.3]	13.0	[8.2, 20.0]	10.9	[5.5, 20.3]	10.6	[5.1, 20.6]	100.0
Other, non-Hispanic (n=228)	10.8	[7.1, 16.0]	40.3	[32.6, 48.5]	13.3	[9.0, 19.3]	22.4	[16.6, 29.6]	4.1	[1.8, 9.1]	9.1	[4.9, 16.1]	100.0
Pearson: Uncorrected chi2(15) =	59.7383												
Design-based F(14.47, 44020.03) =	2.2853	Pr =	0.004										
FPL category													
0-35% (n=1,217)	10.8	[8.8, 13.1]	40.8	[37.3, 44.4]	12.7	[10.4, 15.3]	20.2	[17.6, 23.1]	6.9	[5.3, 8.9]	8.6	[6.9, 10.8]	100.0
36-99% (n=1,083)	8.9	[7.2, 10.9]	42.4	[38.9, 45.9]	13.3	[10.8, 16.3]	24.1	[21.2, 27.3]	5.7	[4.2, 7.6]	5.6	[4.3, 7.4]	100.0
100%+ (n=794)	9.3	[7.1, 12.0]	42.9	[38.9, 47.0]	14.2	[11.4, 17.6]	19.9	[16.9, 23.2]	6.8	[4.9, 9.3]	6.9	[5.1, 9.3]	100.0
Pearson: Uncorrected chi2(10) =	16.8595												
Design-based F(9.64, 29704.64) =	1.2532	Pr =	0.253										
Region													
UP/NW/NE (n=574)	11.6	[9.0, 14.9]	42.7	[38.2, 47.3]	13.4	[10.6, 16.7]	19.5	[15.9, 23.7]	5.1	[3.4, 7.6]	7.8	[5.7, 10.5]	100.0
W/E Central/E (n=978)	10.1	[8.2, 12.5]	42.9	[39.4, 46.6]	13.8	[11.3, 16.7]	20.9	[18.2, 23.9]	5.8	[4.3, 7.7]	6.5	[5.0, 8.4]	100.0
S Central/SW/SE (n=632)	10.4	[7.9, 13.6]	39.5	[35.1, 44.0]	12.6	[10.0, 15.8]	23.7	[19.8, 28.2]	7.0	[5.0, 9.5]	6.8	[4.9, 9.5]	100.0
Detroit Metro (n=910)	9.3	[7.1, 11.9]	41.5	[37.5, 45.7]	12.9	[10.2, 16.1]	20.8	[17.9, 24.1]	7.1	[5.3, 9.6]	8.4	[6.4, 10.8]	100.0
Pearson: Uncorrected chi2(15) =	10.9840												
Design-based F(13.17, 40593.87) =	0.5841	Pr =	0.871										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,467)	10.2	[8.7, 11.8]	41.8	[39.3, 44.4]	11.8	[10.2, 13.6]	21.6	[19.7, 23.7]	6.3	[5.2, 7.6]	8.3	[7.0, 9.8]	100.0
No (n=627)	9.2	[6.8, 12.3]	41.1	[36.4, 46.0]	17.6	[14.0, 21.8]	19.9	[16.3, 24.1]	7.4	[5.1, 10.6]	4.8	[3.2, 7.2]	100.0
Pearson: Uncorrected chi2(5) =	25.0302												
Design-based F(4.97, 15306.20) =	2.8755	Pr =	0.014										
Total (n=3,094)	9.9	[8.7, 11.4]	41.7	[39.4, 43.9]	13.2	[11.6, 14.8]	21.2	[19.5, 23.1]	6.5	[5.5, 7.7]	7.5	[6.4, 8.7]	100.0

Note: Total count is less than universe count due to item non-response.

2.23 Q: Medicaid helps people get a "leg-up" when they really need it.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Medicaid helps people when they really need it												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,386)	23.4	[21.2, 25.7]	63.4	[60.8, 65.9]	5.8	[4.7, 7.2]	3.7	[2.8, 4.9]	0.9	[0.5, 1.8]	2.8	[2.1, 3.6]	100.0
No longer enrolled (n=707)	23.2	[19.5, 27.5]	67.3	[62.7, 71.5]	4.1	[2.8, 6.1]	4.3	[2.8, 6.7]	0.3	[0.1, 1.2]	0.7	[0.2, 3.2]	100.0
Pearson: Uncorrected chi2(5) =	17.6072												
Design-based F(4.45, 13703.32) =	1.9913	Pr =	0.085										
Age													
19-34 (n=907)	21.9	[18.6, 25.7]	65.4	[61.4, 69.2]	8.0	[6.2, 10.3]	2.8	[1.9, 4.3]	0.5	[0.2, 1.5]	1.3	[0.6, 2.5]	100.0
35-50 (n=967)	23.1	[19.8, 26.7]	62.4	[58.4, 66.2]	4.7	[3.2, 7.0]	5.8	[4.1, 8.2]	1.3	[0.5, 3.4]	2.6	[1.7, 4.1]	100.0
51-64 (n=1,219)	25.6	[22.7, 28.7]	65.1	[61.7, 68.3]	2.9	[2.0, 4.2]	2.8	[1.9, 4.3]	0.5	[0.1, 1.6]	3.2	[2.2, 4.6]	100.0
Pearson: Uncorrected chi2(10) =	60.9050												
Design-based F(9.47, 29170.51) =	3.6807	Pr =	0.000										
Gender													
Male (n=1,227)	23.6	[20.7, 26.8]	65.1	[61.6, 68.4]	4.5	[3.4, 6.1]	3.4	[2.3, 5.0]	1.2	[0.5, 2.7]	2.2	[1.5, 3.4]	100.0
Female (n=1,866)	23.2	[20.8, 25.8]	63.6	[60.7, 66.4]	6.2	[4.8, 8.0]	4.2	[3.2, 5.6]	0.4	[0.2, 1.0]	2.3	[1.6, 3.3]	100.0
Pearson: Uncorrected chi2(5) =	11.0816												
Design-based F(4.94, 15218.75) =	1.2986	Pr =	0.262										
Race/ethnicity													
White, non-Hispanic (n=2,056)	26.4	[23.9, 29.1]	62.4	[59.6, 65.2]	5.9	[4.6, 7.5]	2.7	[1.9, 3.8]	0.6	[0.2, 1.5]	2.0	[1.4, 2.7]	100.0
Black, non-Hispanic (n=634)	18.0	[14.6, 21.9]	67.2	[62.5, 71.6]	4.6	[3.0, 6.8]	6.8	[4.7, 9.9]	1.2	[0.4, 3.8]	2.2	[1.3, 3.8]	100.0
Hispanic (n=137)	19.3	[12.2, 29.0]	65.4	[55.0, 74.5]	6.0	[2.7, 12.6]	2.6	[1.1, 5.8]	0.9	[0.2, 3.7]	5.9	[2.2, 15.0]	100.0
Other, non-Hispanic (n=227)	22.3	[16.5, 29.4]	67.3	[59.6, 74.1]	5.2	[2.7, 9.8]	3.6	[1.8, 7.1]	0.0		1.7	[0.8, 3.6]	100.0
Pearson: Uncorrected chi2(15) =	64.5738												
Design-based F(12.86, 39131.00) =	2.6301	Pr =	0.001										
FPL category													
0-35% (n=1,215)	24.7	[21.7, 27.9]	62.1	[58.6, 65.5]	5.6	[4.1, 7.5]	3.9	[2.7, 5.6]	1.0	[0.4, 2.4]	2.7	[1.8, 4.0]	100.0
36-99% (n=1,083)	22.3	[19.5, 25.5]	65.8	[62.3, 69.1]	5.4	[4.1, 7.2]	3.6	[2.5, 5.2]	0.7	[0.3, 2.0]	2.1	[1.4, 3.2]	100.0
100%+ (n=795)	21.4	[18.1, 25.2]	67.9	[63.9, 71.7]	5.1	[3.6, 7.1]	4.1	[2.8, 6.0]	0.1	[0.0, 0.9]	1.4	[0.8, 2.6]	100.0
Pearson: Uncorrected chi2(10) =	13.9504												
Design-based F(9.12, 28091.37) =	1.0694	Pr =	0.382										
Region													
UP/NW/NE (n=574)	25.3	[21.4, 29.6]	65.3	[60.7, 69.5]	4.1	[2.7, 6.1]	2.7	[1.6, 4.6]	0.0		2.6	[1.6, 4.3]	100.0
W/E Central/E (n=978)	22.3	[19.3, 25.6]	64.7	[61.1, 68.2]	6.5	[4.8, 8.7]	3.5	[2.4, 5.1]	0.7	[0.3, 1.7]	2.3	[1.5, 3.5]	100.0
S Central/SW/SE (n=631)	24.1	[20.6, 28.1]	65.9	[61.5, 70.0]	3.9	[2.6, 5.9]	3.3	[1.9, 5.5]	0.2	[0.1, 0.9]	2.6	[1.5, 4.2]	100.0
Detroit Metro (n=910)	23.4	[20.0, 27.2]	63.1	[59.0, 67.0]	5.7	[4.1, 7.9]	4.5	[3.1, 6.6]	1.2	[0.5, 2.9]	2.1	[1.2, 3.5]	100.0
Pearson: Uncorrected chi2(15) =	18.9476												
Design-based F(11.88, 36613.96) =	0.9719	Pr =	0.473										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,467)	23.7	[21.5, 26.0]	64.3	[61.8, 66.8]	4.8	[3.8, 6.1]	3.9	[3.0, 5.0]	1.0	[0.5, 1.9]	2.3	[1.7, 3.0]	100.0
No (n=626)	22.3	[18.5, 26.7]	64.2	[59.3, 68.8]	7.5	[5.3, 10.4]	3.6	[2.0, 6.5]	0.1	[0.0, 0.6]	2.3	[1.2, 4.3]	100.0
Pearson: Uncorrected chi2(5) =	13.0988												
Design-based F(4.57, 14072.44) =	1.6195	Pr =	0.157										
Total (n=3,093)	23.4	[21.5, 25.4]	64.3	[62.1, 66.5]	5.4	[4.5, 6.6]	3.8	[3.0, 4.9]	0.8	[0.4, 1.5]	2.3	[1.7, 3.0]	100.0

Note: Total count is less than universe count due to item non-response.

2.24 Q: Many people on Medicaid do not want other people to know.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	People on Medicaid don't want others to know												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,386)	8.0	[6.7, 9.5]	33.2	[30.9, 35.7]	18.0	[16.0, 20.1]	25.1	[22.8, 27.5]	1.9	[1.3, 2.8]	13.8	[12.0, 15.8]	100.0
No longer enrolled (n=706)	6.5	[4.7, 9.0]	37.8	[33.3, 42.4]	17.8	[14.6, 21.4]	30.2	[26.2, 34.6]	4.3	[2.5, 7.4]	3.4	[2.1, 5.4]	100.0
Pearson: Uncorrected chi2(5) =	75.3384												
Design-based F(4.86, 14974.37) =	9.1644	Pr =	0.000										
Age													
19-34 (n=907)	5.5	[4.0, 7.5]	30.8	[27.1, 34.8]	22.7	[19.5, 26.2]	30.0	[26.3, 33.9]	3.6	[2.3, 5.6]	7.4	[5.5, 10.1]	100.0
35-50 (n=967)	8.9	[6.9, 11.6]	32.5	[29.1, 36.2]	15.0	[12.3, 18.1]	27.5	[24.1, 31.2]	2.4	[1.4, 4.2]	13.6	[10.9, 16.8]	100.0
51-64 (n=1,218)	8.9	[7.2, 11.1]	41.0	[37.6, 44.4]	15.1	[12.8, 17.8]	19.9	[17.3, 22.8]	1.1	[0.6, 2.1]	13.9	[11.6, 16.5]	100.0
Pearson: Uncorrected chi2(10) =	108.1219												
Design-based F(9.51, 29303.03) =	6.6766	Pr =	0.000										
Gender													
Male (n=1,227)	7.1	[5.6, 9.0]	33.4	[30.2, 36.9]	19.3	[16.7, 22.3]	25.1	[22.0, 28.3]	2.4	[1.5, 3.9]	12.7	[10.4, 15.4]	100.0
Female (n=1,865)	8.1	[6.6, 9.9]	35.1	[32.4, 37.7]	16.7	[14.6, 18.9]	27.4	[24.8, 30.1]	2.6	[1.7, 3.9]	10.2	[8.6, 12.1]	100.0
Pearson: Uncorrected chi2(5) =	10.2767												
Design-based F(4.96, 15272.53) =	1.1779	Pr =	0.317										
Race/ethnicity													
White, non-Hispanic (n=2,056)	9.9	[8.3, 11.7]	39.8	[37.1, 42.5]	20.3	[18.1, 22.8]	20.1	[17.9, 22.5]	1.5	[0.9, 2.4]	8.5	[7.1, 10.0]	100.0
Black, non-Hispanic (n=633)	4.4	[2.8, 7.0]	24.7	[20.7, 29.2]	12.7	[10.0, 16.0]	37.9	[33.3, 42.7]	4.7	[3.0, 7.4]	15.6	[12.1, 19.7]	100.0
Hispanic (n=137)	4.7	[2.4, 9.2]	26.8	[19.2, 36.2]	15.6	[10.0, 23.5]	36.4	[26.8, 47.3]	3.9	[1.0, 14.2]	12.5	[7.6, 19.9]	100.0
Other, non-Hispanic (n=227)	5.0	[2.6, 9.3]	29.7	[23.1, 37.2]	19.0	[13.5, 26.2]	26.1	[19.7, 33.8]	1.4	[0.5, 3.7]	18.7	[12.6, 26.9]	100.0
Pearson: Uncorrected chi2(15) =	226.8797												
Design-based F(13.91, 42309.93) =	8.8742	Pr =	0.000										
FPL category													
0-35% (n=1,216)	7.8	[6.2, 9.9]	31.7	[28.5, 35.1]	16.3	[13.9, 19.2]	28.2	[25.1, 31.6]	3.1	[2.1, 4.7]	12.8	[10.5, 15.4]	100.0
36-99% (n=1,082)	7.4	[5.9, 9.4]	36.1	[32.9, 39.5]	21.5	[18.5, 24.8]	23.6	[20.7, 26.8]	1.6	[0.9, 2.9]	9.7	[7.6, 12.2]	100.0
100%+ (n=794)	7.4	[5.5, 10.0]	38.6	[34.7, 42.6]	17.0	[14.3, 20.2]	24.9	[21.4, 28.7]	2.0	[1.0, 3.9]	10.1	[7.9, 12.8]	100.0
Pearson: Uncorrected chi2(10) =	32.8872												
Design-based F(9.65, 29717.89) =	2.3708	Pr =	0.009										
Region													
UP/NW/NE (n=574)	6.4	[4.5, 9.0]	48.0	[43.4, 52.7]	18.7	[15.4, 22.6]	17.4	[14.0, 21.5]	0.8	[0.3, 2.0]	8.7	[6.4, 11.6]	100.0
W/E Central/E (n=979)	7.7	[6.0, 9.9]	38.6	[35.1, 42.2]	20.2	[17.4, 23.4]	23.7	[20.7, 26.9]	0.8	[0.4, 1.9]	8.9	[7.2, 11.1]	100.0
S Central/SW/SE (n=633)	9.0	[6.9, 11.7]	35.3	[30.9, 40.0]	18.9	[15.6, 22.7]	23.6	[20.0, 27.6]	2.3	[1.2, 4.5]	10.9	[8.4, 14.0]	100.0
Detroit Metro (n=906)	7.3	[5.4, 9.7]	27.9	[24.4, 31.7]	15.7	[12.9, 19.0]	31.1	[27.4, 35.1]	4.1	[2.8, 6.1]	13.8	[11.2, 17.1]	100.0
Pearson: Uncorrected chi2(15) =	110.8329												
Design-based F(13.05, 40204.10) =	5.9557	Pr =	0.000										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,466)	7.8	[6.6, 9.2]	34.7	[32.4, 37.1]	16.0	[14.2, 18.0]	27.0	[24.7, 29.3]	2.4	[1.7, 3.5]	12.1	[10.4, 13.9]	100.0
No (n=626)	7.2	[5.0, 10.2]	32.8	[28.4, 37.6]	24.2	[20.3, 28.5]	24.0	[20.0, 28.6]	2.8	[1.5, 5.1]	9.0	[6.6, 12.2]	100.0
Pearson: Uncorrected chi2(5) =	27.8323												
Design-based F(4.98, 15338.16) =	3.0719	Pr =	0.009										
Total (n=3,092)	7.6	[6.6, 8.9]	34.3	[32.2, 36.4]	17.9	[16.2, 19.7]	26.3	[24.3, 28.4]	2.5	[1.8, 3.4]	11.4	[10.0, 13.0]	100.0

Note: Total count is less than universe count due to item non-response.

2.25 Q: A lot of people in this country don't respect those on Medicaid.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	People don't respect those on Medicaid												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,384)	10.6	[9.1, 12.3]	37.8	[35.3, 40.3]	16.0	[14.1, 18.0]	22.8	[20.7, 25.1]	2.6	[1.8, 3.7]	10.2	[8.7, 12.0]	100.0
No longer enrolled (n=708)	9.1	[7.0, 11.8]	44.0	[39.4, 48.6]	17.1	[13.8, 20.8]	23.3	[19.7, 27.3]	2.8	[1.1, 6.7]	3.8	[2.4, 5.9]	100.0
Pearson: Uncorrected chi2(5) =	33.3869												
Design-based F(4.10, 12641.14) =	3.4137	Pr =	0.008										
Age													
19-34 (n=908)	10.4	[8.1, 13.1]	33.8	[30.1, 37.8]	18.8	[16.0, 21.9]	26.8	[23.3, 30.6]	3.9	[2.3, 6.5]	6.3	[4.4, 9.1]	100.0
35-50 (n=966)	9.8	[7.9, 12.1]	40.2	[36.4, 44.1]	15.3	[12.4, 18.6]	23.6	[20.4, 27.1]	2.3	[1.3, 3.9]	8.9	[6.6, 11.7]	100.0
51-64 (n=1,218)	10.7	[8.7, 13.0]	45.2	[41.8, 48.6]	14.0	[11.7, 16.5]	17.0	[14.6, 19.7]	1.5	[0.7, 3.0]	11.7	[9.7, 14.1]	100.0
Pearson: Uncorrected chi2(10) =	75.2982												
Design-based F(9.39, 28919.11) =	4.2699	Pr =	0.000										
Gender													
Male (n=1,229)	8.7	[7.1, 10.7]	36.3	[32.9, 39.8]	17.2	[14.7, 20.1]	24.6	[21.7, 27.8]	3.4	[2.1, 5.5]	9.8	[7.8, 12.3]	100.0
Female (n=1,863)	11.6	[9.9, 13.6]	41.8	[39.1, 44.7]	15.4	[13.4, 17.5]	21.4	[19.1, 23.9]	2.0	[1.2, 3.3]	7.8	[6.3, 9.6]	100.0
Pearson: Uncorrected chi2(5) =	26.2224												
Design-based F(4.83, 14884.60) =	2.8390	Pr =	0.016										
Race/ethnicity													
White, non-Hispanic (n=2,056)	12.9	[11.1, 14.9]	44.1	[41.3, 46.9]	18.0	[15.9, 20.4]	17.5	[15.5, 19.7]	1.5	[0.9, 2.6]	6.0	[4.9, 7.2]	100.0
Black, non-Hispanic (n=633)	6.8	[4.9, 9.3]	30.0	[25.8, 34.5]	12.4	[9.7, 15.8]	33.2	[28.7, 38.0]	5.0	[2.9, 8.3]	12.6	[9.4, 16.7]	100.0
Hispanic (n=137)	6.3	[3.1, 12.4]	41.6	[32.1, 51.9]	13.8	[8.7, 21.2]	25.5	[17.3, 35.9]	1.5	[0.3, 7.1]	11.2	[6.0, 20.1]	100.0
Other, non-Hispanic (n=227)	5.5	[3.0, 9.9]	33.2	[26.3, 41.0]	16.3	[11.1, 23.3]	27.2	[21.0, 34.4]	3.8	[1.2, 11.8]	13.9	[8.6, 21.8]	100.0
Pearson: Uncorrected chi2(15) =	203.7631												
Design-based F(13.68, 41605.08) =	7.3842	Pr =	0.000										
FPL category													
0-35% (n=1,217)	10.7	[8.8, 13.0]	37.0	[33.7, 40.5]	15.5	[13.0, 18.4]	23.2	[20.3, 26.3]	3.4	[2.1, 5.5]	10.1	[8.1, 12.5]	100.0
36-99% (n=1,081)	10.1	[8.2, 12.2]	41.4	[37.9, 44.9]	16.7	[14.2, 19.5]	22.8	[19.9, 26.0]	1.8	[1.1, 3.0]	7.2	[5.3, 9.8]	100.0
100%+ (n=794)	9.4	[7.3, 11.9]	42.0	[38.0, 46.0]	17.4	[14.6, 20.6]	22.4	[19.1, 26.1]	1.8	[0.9, 3.3]	7.1	[5.3, 9.4]	100.0
Pearson: Uncorrected chi2(10) =	21.9595												
Design-based F(9.50, 29267.24) =	1.5964	Pr =	0.105										
Region													
UP/NW/NE (n=574)	10.6	[8.0, 14.0]	47.8	[43.2, 52.5]	16.1	[13.1, 19.6]	17.0	[13.7, 20.9]	0.8	[0.3, 2.3]	7.7	[5.5, 10.7]	100.0
W/E Central/E (n=978)	9.9	[8.0, 12.2]	44.3	[40.7, 47.9]	17.9	[15.3, 20.9]	19.7	[16.9, 22.7]	1.8	[1.0, 3.0]	6.5	[5.0, 8.3]	100.0
S Central/SW/SE (n=633)	10.6	[8.3, 13.4]	43.1	[38.6, 47.7]	17.3	[14.0, 21.3]	18.7	[15.5, 22.3]	2.5	[1.2, 5.2]	7.9	[5.7, 10.8]	100.0
Detroit Metro (n=907)	10.3	[8.1, 13.0]	32.2	[28.5, 36.2]	14.6	[11.9, 17.8]	28.3	[24.8, 32.1]	3.7	[2.2, 6.2]	10.9	[8.4, 13.9]	100.0
Pearson: Uncorrected chi2(15) =	89.8225												
Design-based F(12.87, 39642.04) =	4.5653	Pr =	0.000										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,467)	11.0	[9.6, 12.7]	39.5	[37.1, 42.0]	14.9	[13.1, 16.8]	23.3	[21.2, 25.6]	2.3	[1.5, 3.4]	8.9	[7.5, 10.6]	100.0
No (n=625)	7.7	[5.6, 10.3]	38.2	[33.5, 43.1]	20.6	[17.1, 24.7]	21.6	[18.0, 25.8]	3.9	[2.0, 7.6]	8.0	[5.5, 11.4]	100.0
Pearson: Uncorrected chi2(5) =	24.0349												
Design-based F(4.61, 14190.55) =	2.4237	Pr =	0.038										
Total (n=3,092)	10.3	[9.0, 11.7]	39.2	[37.1, 41.4]	16.2	[14.6, 18.0]	22.9	[21.0, 24.9]	2.7	[1.9, 3.8]	8.7	[7.5, 10.2]	100.0

Note: Total count is less than universe count due to item non-response.

2.26 Q: There should be a limit on how long someone can be covered by Medicaid.

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	There should be a limit on the length of Medicaid coverage												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,386)	1.1	[0.7, 1.7]	12.2	[10.6, 14.1]	12.8	[11.2, 14.6]	53.3	[50.7, 55.9]	15.6	[13.7, 17.8]	4.9	[3.8, 6.3]	100.0
No longer enrolled (n=708)	1.3	[0.7, 2.5]	13.8	[11.0, 17.1]	11.3	[8.7, 14.5]	58.6	[53.9, 63.1]	12.7	[9.4, 16.8]	2.4	[1.2, 4.6]	100.0
Pearson: Uncorrected chi2(5) =	16.9123												
Design-based F(4.70, 14496.71) =	2.0050	Pr =	0.079										
Age													
19-34 (n=909)	1.3	[0.7, 2.3]	12.1	[9.6, 15.1]	13.5	[11.1, 16.3]	53.6	[49.4, 57.7]	16.6	[13.6, 20.3]	2.9	[1.6, 5.2]	100.0
35-50 (n=968)	0.9	[0.4, 2.0]	12.1	[9.8, 15.0]	12.1	[9.8, 14.9]	55.7	[51.6, 59.6]	14.4	[11.6, 17.7]	4.8	[3.2, 7.2]	100.0
51-64 (n=1,217)	1.2	[0.7, 2.1]	13.8	[11.5, 16.5]	11.4	[9.5, 13.8]	54.5	[51.1, 57.9]	13.4	[11.3, 15.9]	5.6	[4.2, 7.4]	100.0
Pearson: Uncorrected chi2(10) =	17.6274												
Design-based F(9.10, 28046.56) =	1.0474	Pr =	0.399										
Gender													
Male (n=1,229)	1.5	[0.9, 2.4]	12.8	[10.7, 15.3]	12.7	[10.5, 15.2]	51.4	[47.8, 55.0]	16.6	[13.9, 19.9]	5.0	[3.6, 7.0]	100.0
Female (n=1,865)	0.8	[0.5, 1.4]	12.4	[10.5, 14.6]	12.3	[10.6, 14.1]	57.3	[54.5, 60.2]	13.5	[11.6, 15.6]	3.7	[2.6, 5.2]	100.0
Pearson: Uncorrected chi2(5) =	15.9389												
Design-based F(4.82, 14868.15) =	1.9018	Pr =	0.093										
Race/ethnicity													
White, non-Hispanic (n=2,056)	1.2	[0.7, 1.9]	12.6	[10.8, 14.6]	15.5	[13.6, 17.6]	53.9	[51.1, 56.7]	13.8	[11.9, 15.9]	3.0	[2.2, 4.1]	100.0
Black, non-Hispanic (n=634)	1.1	[0.6, 2.0]	11.5	[8.6, 15.4]	5.9	[4.1, 8.3]	58.0	[53.0, 62.9]	17.9	[14.0, 22.6]	5.6	[3.6, 8.7]	100.0
Hispanic (n=137)	2.0	[0.5, 6.9]	17.4	[11.6, 25.2]	13.2	[7.0, 23.4]	47.9	[37.9, 58.0]	12.5	[7.3, 20.6]	7.1	[2.9, 16.5]	100.0
Other, non-Hispanic (n=228)	0.3	[0.0, 2.3]	13.1	[8.7, 19.1]	9.8	[6.1, 15.3]	52.5	[44.3, 60.4]	16.7	[11.2, 24.3]	7.7	[3.7, 15.3]	100.0
Pearson: Uncorrected chi2(15) =	80.9748												
Design-based F(13.76, 41871.61) =	3.0637	Pr =	0.000										
FPL category													
0-35% (n=1,218)	1.1	[0.7, 1.9]	12.5	[10.2, 15.1]	10.9	[8.9, 13.2]	53.1	[49.5, 56.6]	17.4	[14.7, 20.5]	5.1	[3.7, 7.0]	100.0
36-99% (n=1,082)	1.4	[0.7, 2.8]	13.5	[11.3, 16.1]	12.7	[10.6, 15.2]	55.5	[51.9, 59.1]	12.4	[10.1, 15.1]	4.4	[2.8, 6.9]	100.0
100%+ (n=794)	0.7	[0.3, 1.7]	11.6	[9.3, 14.4]	16.3	[13.3, 19.7]	57.2	[53.1, 61.2]	12.1	[9.7, 14.9]	2.2	[1.4, 3.5]	100.0
Pearson: Uncorrected chi2(10) =	37.2359												
Design-based F(9.26, 28536.21) =	2.7483	Pr =	0.003										
Region													
UP/NW/NE (n=574)	1.0	[0.2, 4.2]	13.5	[10.6, 17.0]	13.5	[10.7, 16.8]	55.8	[51.2, 60.3]	12.4	[9.7, 15.7]	3.9	[2.5, 5.9]	100.0
W/E Central/E (n=979)	1.3	[0.7, 2.4]	11.6	[9.4, 14.2]	15.4	[13.0, 18.2]	56.9	[53.3, 60.4]	11.7	[9.6, 14.1]	3.1	[2.1, 4.6]	100.0
S Central/SW/SE (n=631)	1.1	[0.5, 2.3]	12.6	[9.9, 16.0]	12.8	[10.1, 16.2]	54.6	[50.0, 59.1]	15.6	[12.5, 19.3]	3.2	[2.1, 4.9]	100.0
Detroit Metro (n=910)	1.0	[0.5, 1.9]	13.1	[10.5, 16.2]	10.0	[7.9, 12.7]	52.7	[48.5, 56.8]	17.5	[14.3, 21.2]	5.7	[3.9, 8.3]	100.0
Pearson: Uncorrected chi2(15) =	41.4029												
Design-based F(13.16, 40558.68) =	2.2164	Pr =	0.007										
Chronic condition (2016/2017 survey or DW)													
Yes (n=2,467)	0.9	[0.6, 1.5]	12.9	[11.2, 14.8]	12.0	[10.5, 13.7]	54.9	[52.3, 57.4]	14.7	[12.9, 16.8]	4.5	[3.5, 5.9]	100.0
No (n=627)	1.7	[1.0, 3.2]	11.5	[8.9, 14.8]	13.9	[11.0, 17.2]	53.6	[48.6, 58.4]	15.7	[12.0, 20.2]	3.6	[2.1, 6.0]	100.0
Pearson: Uncorrected chi2(5) =	7.0975												
Design-based F(4.79, 14765.84) =	0.8368	Pr =	0.519										
Total (n=3,094)	1.1	[0.8, 1.6]	12.6	[11.1, 14.2]	12.5	[11.1, 14.0]	54.6	[52.3, 56.8]	15.0	[13.3, 16.8]	4.3	[3.4, 5.5]	100.0

Note: Total count is less than universe count due to item non-response.

2.27 Q: Many people are treated poorly when they are applying for Medicaid.

Follow-up group(s): No longer enrolled
Universe: All respondents

	People are treated poorly when applying for Medicaid												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=708)	7.5	[5.6, 10.2]	33.1	[28.8, 37.8]	15.6	[12.6, 19.2]	33.4	[29.2, 37.9]	6.3	[4.3, 9.1]	4.0	[2.7, 6.0]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	9.0	[5.6, 14.3]	27.7	[20.8, 35.9]	17.9	[13.0, 24.1]	35.1	[27.9, 43.0]	8.4	[4.7, 14.5]	1.9	[0.8, 4.4]	100.0
35-50 (n=208)	6.9	[4.0, 11.6]	40.6	[32.9, 48.7]	12.5	[7.7, 19.7]	30.3	[23.9, 37.6]	3.5	[1.6, 7.2]	6.3	[3.1, 12.3]	100.0
51-64 (n=255)	6.0	[3.6, 9.9]	33.2	[26.3, 41.0]	15.5	[11.0, 21.4]	34.4	[27.4, 42.1]	6.1	[3.3, 11.1]	4.8	[2.8, 8.0]	100.0
Pearson: Uncorrected chi2(10) =	22.6074												
Design-based F(9.50, 6610.52) =	1.6634	Pr =	0.087										
Gender													
Male (n=297)	7.3	[4.7, 11.1]	34.4	[27.6, 41.9]	15.2	[10.9, 20.7]	31.8	[25.5, 38.9]	7.0	[4.0, 11.9]	4.3	[2.3, 7.8]	100.0
Female (n=411)	7.8	[5.1, 11.8]	31.9	[26.8, 37.4]	16.0	[12.1, 20.9]	35.0	[29.8, 40.7]	5.6	[3.3, 9.3]	3.7	[2.2, 6.3]	100.0
Pearson: Uncorrected chi2(5) =	1.7433												
Design-based F(4.93, 3434.58) =	0.2320	Pr =	0.947										
Race/ethnicity													
White, non-Hispanic (n=455)	8.2	[5.7, 11.4]	32.0	[26.5, 38.0]	16.9	[13.1, 21.6]	31.6	[26.6, 37.0]	6.3	[3.9, 10.1]	5.1	[3.2, 8.0]	100.0
Black, non-Hispanic (n=155)	5.3	[2.7, 10.2]	35.8	[27.0, 45.6]	12.2	[7.4, 19.5]	37.7	[28.6, 47.8]	6.1	[2.6, 13.5]	2.9	[1.0, 8.4]	100.0
Hispanic (n=37)	12.1	[2.5, 42.8]	28.6	[15.4, 46.8]	9.6	[3.2, 25.3]	37.6	[21.7, 56.8]	8.9	[2.1, 31.0]	3.2	[1.0, 9.9]	100.0
Other, non-Hispanic (n=52)	8.7	[3.0, 22.5]	36.8	[22.8, 53.3]	21.9	[10.5, 40.1]	27.5	[15.8, 43.4]	3.9	[0.9, 16.3]	1.2	[0.3, 4.8]	100.0
Pearson: Uncorrected chi2(15) =	13.9484												
Design-based F(12.98, 8919.91) =	0.6189	Pr =	0.840										
FPL category													
0-35% (n=217)	6.0	[3.2, 11.0]	37.4	[29.5, 46.1]	14.0	[9.0, 21.3]	29.6	[22.6, 37.7]	9.9	[5.9, 16.3]	3.0	[1.3, 6.7]	100.0
36-99% (n=259)	8.4	[5.3, 13.1]	29.6	[23.6, 36.5]	16.8	[12.4, 22.2]	36.2	[29.6, 43.3]	4.7	[2.4, 8.9]	4.3	[2.1, 8.7]	100.0
100%+ (n=232)	8.8	[5.4, 14.1]	30.8	[23.9, 38.7]	16.6	[11.9, 22.6]	36.0	[28.9, 43.8]	2.6	[1.1, 6.0]	5.2	[2.8, 9.3]	100.0
Pearson: Uncorrected chi2(10) =	19.7012												
Design-based F(9.56, 6651.37) =	1.4268	Pr =	0.165										
Region													
UP/NW/NE (n=124)	3.1	[1.1, 8.3]	21.6	[14.8, 30.4]	21.6	[14.6, 30.7]	36.9	[27.8, 46.9]	7.8	[3.5, 16.3]	9.1	[4.9, 16.1]	100.0
W/E Central/E (n=202)	5.6	[2.9, 10.4]	29.5	[22.6, 37.5]	15.5	[10.7, 22.0]	38.8	[31.4, 46.9]	3.5	[1.8, 6.9]	7.0	[3.7, 12.7]	100.0
S Central/SW/SE (n=169)	12.0	[7.7, 18.3]	30.4	[21.9, 40.5]	18.2	[12.0, 26.5]	30.5	[22.8, 39.4]	6.3	[3.1, 12.4]	2.6	[1.0, 6.5]	100.0
Detroit Metro (n=213)	7.4	[4.2, 12.7]	40.0	[32.1, 48.5]	12.8	[8.1, 19.5]	30.4	[23.2, 38.7]	7.9	[4.1, 14.6]	1.5	[0.4, 5.4]	100.0
Pearson: Uncorrected chi2(15) =	38.9119												
Design-based F(13.26, 9229.23) =	2.0801	Pr =	0.012										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	6.9	[4.8, 9.7]	34.3	[29.4, 39.5]	13.5	[10.5, 17.1]	34.8	[30.0, 40.1]	6.7	[4.4, 10.1]	3.8	[2.4, 6.2]	100.0
No (n=170)	9.2	[5.1, 16.1]	30.2	[21.6, 40.6]	21.0	[14.2, 29.9]	29.9	[22.3, 38.7]	5.3	[2.2, 12.3]	4.4	[2.0, 9.5]	100.0
Pearson: Uncorrected chi2(5) =	8.6170												
Design-based F(4.87, 3391.54) =	0.9971	Pr =	0.417										
Total (n=708)	7.5	[5.6, 10.2]	33.1	[28.8, 37.8]	15.6	[12.6, 19.2]	33.4	[29.2, 37.9]	6.3	[4.3, 9.1]	4.0	[2.7, 6.0]	100.0

Note: Total count is less than universe count due to item non-response.

3 Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

3.1 Q: In the last 12 months, was there any time when you didn't get the health care you needed?

Follow-up group(s): Still enrolled
Universe: All respondents

	Forgone health care in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	7.8	[6.5, 9.2]	92.1	[90.6, 93.4]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	6.7	[4.7, 9.5]	93.2	[90.4, 95.2]	0.1	[0.0, 0.6]	100.0
35-50 (n=760)	8.2	[6.1, 10.9]	91.8	[89.1, 93.8]	0.0	[0.0, 0.3]	100.0
51-64 (n=964)	8.6	[6.6, 11.0]	91.1	[88.6, 93.1]	0.3	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(4) =	4.0482						
Design-based F(3.31, 7852.03) =	0.9018	Pr =	0.447				
Gender							
Male (n=933)	7.7	[5.9, 10.0]	92.1	[89.8, 94.0]	0.1	[0.0, 0.9]	100.0
Female (n=1,454)	7.8	[6.2, 9.8]	92.1	[90.1, 93.7]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(2) =	0.0075						
Design-based F(1.91, 4545.25) =	0.0028	Pr =	0.996				
Race/ethnicity							
White, non-Hispanic (n=1,603)	7.9	[6.4, 9.8]	91.9	[90.1, 93.5]	0.1	[0.0, 0.6]	100.0
Black, non-Hispanic (n=478)	7.4	[5.0, 11.0]	92.5	[88.9, 95.0]	0.1	[0.0, 0.7]	100.0
Hispanic (n=100)	6.0	[2.5, 14.1]	93.6	[85.7, 97.3]	0.4	[0.1, 2.6]	100.0
Other, non-Hispanic (n=176)	8.1	[4.7, 13.7]	91.9	[86.3, 95.3]	0.0		100.0
Pearson: Uncorrected chi2(6) =	1.4664						
Design-based F(5.01, 11753.32) =	0.2116	Pr =	0.958				
FPL category							
0-35% (n=1,001)	9.3	[7.4, 11.7]	90.6	[88.2, 92.5]	0.1	[0.0, 0.7]	100.0
36-99% (n=823)	5.0	[3.6, 6.9]	95.0	[93.1, 96.4]	0.0		100.0
100%+ (n=563)	7.0	[4.7, 10.2]	92.6	[89.4, 94.9]	0.4	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(4) =	15.0294						
Design-based F(3.69, 8752.25) =	3.4049	Pr =	0.011				
Region							
UP/NW/NE (n=450)	9.4	[6.6, 13.1]	90.6	[86.9, 93.4]	0.0		100.0
W/E Central/E (n=777)	7.3	[5.3, 9.9]	92.4	[89.8, 94.4]	0.3	[0.1, 1.3]	100.0
S Central/SW/SE (n=463)	10.0	[7.3, 13.6]	90.0	[86.4, 92.7]	0.0		100.0
Detroit Metro (n=697)	6.9	[4.9, 9.5]	93.0	[90.4, 95.0]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(6) =	7.4515						
Design-based F(4.57, 10861.76) =	1.3061	Pr =	0.261				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	9.1	[7.6, 10.9]	90.7	[88.9, 92.2]	0.2	[0.1, 0.5]	100.0
No (n=456)	2.8	[1.6, 4.8]	97.2	[95.2, 98.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	24.0505						
Design-based F(1.97, 4667.64) =	10.8654	Pr =	0.000				
Total (n=2,387)	7.8	[6.5, 9.2]	92.1	[90.6, 93.4]	0.1	[0.0, 0.4]	100.0

Note: Total count is less than universe count due to item non-response.

3.1.1 Q: What type of care?

Follow-up group(s): Still enrolled
Universe: Respondents who did not receive health care they needed in the last 12 months (n = 184)

Type of foregone care	Weighted Proportion	95%CI
Primary care (n=74)	43.2	[34.6, 52.2]
Specialty care (n=54)	28.3	[20.7, 37.2]
Prescription medication (n=34)	20.5	[14.1, 28.8]
Mental health care (n=13)	9.2	[4.8, 17.0]
Lab/imaging test (n=8)	4.3	[2.0, 8.8]
Support services (n=6)	3.2	[1.3, 8.1]
Surgery or procedure (n=7)	2.3	[1.0, 5.0]
Other (n=5)	2.2	[0.9, 5.3]
Don't know (n=1)	0.3	[0.0, 1.8]

Note: Respondents were able to provide multiple responses

3.1.1.1 Q: Why didn't you get the care you needed?

Follow-up group(s): Still enrolled
Universe: Respondents who did not receive health care they needed in the last 12 months (n = 184)

	Reasons for forgone health care in last 12 months					
	Other		**Difficulty getting appointment**		**Needed a service that wasn't covered**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=184)	36.3	[28.0, 45.5]	25.7	[18.7, 34.2]	15.5	[10.2, 22.8]
Primary care (n=74)	38.6	[25.2, 53.9]	37.6	[25.6, 51.3]	2.6	[0.6, 10.4]
Specialty care (n=54)	29.1		16.8		13.8	
Prescription medications (n=34)	37.2		16.3		31.1	
Mental health care (n=13)	58.9		0.0		35.4	

Note: Respondents were able to provide multiple responses

	Reasons for forgone health care in last 12 months							
	Transportation/logistics		**Difficulty/inability finding a provider**		**No insurance coverage**		**Cost**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=184)	10.1	[5.4, 18.0]	9.3	[5.4, 15.7]	3.5	[1.5, 8.2]	0.7	[0.2, 2.2]
Primary care (n=74)	11.6	[4.3, 27.4]	8.4	[3.3, 19.8]	2.6	[0.5, 13.0]	0.0	
Specialty care (n=54)	17.3		16.8		1.5		1.7	
Prescription medications (n=34)	3.7		6.1		7.7		1.1	
Mental health care (n=13)	2.8		7.4		14.3	0.0		

Note: Respondents were able to provide multiple responses

3.2 Q: In the last 12 months, was there any time when you didn't get the dental care you needed?

Follow-up group(s): Still enrolled
Universe: All respondents

	Forgone dental care in the last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,386)	16.4	[14.7, 18.3]	83.3	[81.4, 85.1]	0.2	[0.1, 0.5]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	17.0	[13.9, 20.7]	82.6	[78.9, 85.8]	0.3	[0.1, 1.0]	100.0
35-50 (n=758)	16.4	[13.5, 19.7]	83.4	[80.0, 86.2]	0.3	[0.1, 1.1]	100.0
51-64 (n=964)	15.8	[13.2, 18.8]	84.2	[81.2, 86.8]	0.0		100.0
Pearson: Uncorrected chi2(4) =	2.5582						
Design-based F(3.82, 9068.10) =	0.5138	Pr =	0.717				
Gender							
Male (n=932)	12.8	[10.5, 15.4]	87.0	[84.4, 89.3]	0.2	[0.0, 0.8]	100.0
Female (n=1,454)	19.6	[17.1, 22.3]	80.2	[77.4, 82.7]	0.2	[0.1, 0.7]	100.0
Pearson: Uncorrected chi2(2) =	19.9782						
Design-based F(1.94, 4595.32) =	7.8476	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,601)	17.4	[15.2, 19.9]	82.4	[79.9, 84.6]	0.2	[0.1, 0.6]	100.0
Black, non-Hispanic (n=479)	15.1	[11.8, 19.1]	84.6	[80.5, 87.9]	0.3	[0.1, 1.4]	100.0
Hispanic (n=100)	10.8	[5.8, 19.3]	89.2	[80.7, 94.2]	0.0		100.0
Other, non-Hispanic (n=176)	18.3	[12.5, 25.8]	81.7	[74.2, 87.5]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.9099						
Design-based F(5.74, 13462.39) =	0.7080	Pr =	0.637				
FPL category							
0-35% (n=999)	15.1	[12.6, 18.0]	84.6	[81.8, 87.1]	0.2	[0.1, 0.8]	100.0
36-99% (n=824)	17.4	[14.5, 20.6]	82.4	[79.1, 85.2]	0.3	[0.1, 1.2]	100.0
100%+ (n=563)	19.2	[15.8, 23.2]	80.8	[76.8, 84.2]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.5375						
Design-based F(3.87, 9181.39) =	1.2364	Pr =	0.293				
Region							
UP/NW/NE (n=450)	16.4	[12.5, 21.2]	83.3	[78.5, 87.2]	0.4	[0.0, 2.5]	100.0
W/E Central/E (n=776)	16.8	[13.8, 20.3]	83.2	[79.7, 86.2]	0.0		100.0
S Central/SW/SE (n=464)	19.5	[15.7, 23.9]	80.0	[75.5, 83.9]	0.5	[0.1, 2.1]	100.0
Detroit Metro (n=696)	15.0	[12.3, 18.3]	84.8	[81.5, 87.5]	0.2	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(6) =	7.9284						
Design-based F(5.62, 13337.71) =	1.1929	Pr =	0.308				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,929)	17.2	[15.2, 19.4]	82.6	[80.4, 84.6]	0.2	[0.1, 0.6]	100.0
No (n=457)	13.7	[10.4, 17.9]	86.1	[82.0, 89.5]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(2) =	3.6988						
Design-based F(1.82, 4323.93) =	1.5546	Pr =	0.213				
Total (n=2,386)	16.4	[14.7, 18.3]	83.3	[81.4, 85.1]	0.2	[0.1, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

3.2.1 Q: Why didn't you get the dental care you needed?

Follow-up group(s): Still enrolled
Universe: Respondents who did not receive dental care they needed in the last 12 months (n = 399)

Reasons for forgone dental care	Weighted Proportion	95%CI
Needed a service that wasn't covered (n=108)	30.7	[25.2, 36.8]
Difficulty/inability finding a provider (n=93)	21.5	[17.2, 26.4]
Other (n=64)	16.8	[12.8, 21.7]
Cost (n=50)	13.1	[9.5, 17.9]
Difficulty getting appointment (n=34)	7.4	[5.2, 10.5]
Afraid of going to the dentist/dislike dentists (n=28)	7.4	[4.5, 11.9]
Transportation/logistics (n=36)	7.0	[4.9, 9.8]
No insurance coverage (n=27)	6.6	[4.3, 10.0]
Didn't realize HMP covered dental (n=10)	2.3	[1.2, 4.6]
Don't know (n=3)	0.4	[0.1, 1.4]

Note: Respondents were able to provide multiple responses

3.3 Q: In the last 12 months, about how much did you spend out-of-pocket for your own medical and dental care?

Follow-up group(s): Still enrolled
Universe: All respondents

	Out-of-pocket costs in last 12 months																
	Less than $50		**$51-100**		**$101-500**		**$501-2,000**		**$2,001-3,000**		**$3,001-5,000**		**More than $5,000**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group																	
Still enrolled (n=2,380)	65.7	[63.3, 68.1]	10.9	[9.5, 12.6]	16.6	[14.7, 18.6]	4.9	[3.9, 6.1]	0.4	[0.1, 1.2]	0.3	[0.1, 0.9]	0.4	[0.2, 1.0]	0.8	[0.5, 1.4]	100.0
Pearson: Uncorrected chi2(0) =	.																
Design-based F(., .) =	.	Pr =	.														
Age																	
19-34 (n=662)	66.2	[61.4, 70.6]	11.6	[8.9, 14.9]	15.0	[11.6, 19.2]	5.2	[3.7, 7.3]	0.2	[0.0, 0.8]	0.5	[0.1, 2.6]	0.1	[0.0, 0.4]	1.3	[0.6, 2.8]	100.0
35-50 (n=759)	65.0	[60.6, 69.1]	11.3	[8.8, 14.3]	16.0	[13.1, 19.5]	4.8	[3.1, 7.3]	0.8	[0.2, 3.4]	0.2	[0.1, 0.7]	1.0	[0.3, 2.7]	0.9	[0.4, 2.0]	100.0
51-64 (n=959)	66.0	[62.6, 69.3]	9.7	[7.8, 11.8]	19.1	[16.5, 22.0]	4.6	[3.3, 6.4]	0.2	[0.1, 0.6]	0.1	[0.0, 0.5]	0.1	[0.0, 0.6]	0.2	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(14) =	31.2292																
Design-based F(11.73, 27787.45) =	1.8602	Pr =	0.035														
Gender																	
Male (n=931)	68.1	[64.2, 71.7]	11.3	[9.0, 14.0]	13.6	[11.1, 16.6]	5.1	[3.6, 7.3]	0.2	[0.1, 0.7]	0.4	[0.1, 2.0]	0.5	[0.2, 1.7]	0.8	[0.4, 1.7]	100.0
Female (n=1,449)	63.7	[60.5, 66.8]	10.6	[8.9, 12.7]	19.1	[16.5, 21.9]	4.7	[3.6, 6.1]	0.6	[0.2, 2.2]	0.2	[0.1, 0.5]	0.3	[0.1, 1.2]	0.8	[0.4, 1.8]	100.0
Pearson: Uncorrected chi2(7) =	16.3451																
Design-based F(6.87, 16271.27) =	1.4489	Pr =	0.182														
Race/ethnicity																	
White, non-Hispanic (n=1,598)	59.8	[56.7, 62.8]	12.2	[10.4, 14.4]	20.3	[17.8, 23.0]	6.4	[5.0, 8.2]	0.1	[0.0, 0.4]	0.2	[0.1, 0.4]	0.3	[0.1, 1.1]	0.6	[0.3, 1.3]	100.0
Black, non-Hispanic (n=478)	80.1	[75.2, 84.3]	9.1	[6.3, 13.0]	8.5	[5.6, 12.6]	1.7	[0.9, 3.0]	0.2	[0.1, 0.9]	0.0		0.0		0.4	[0.1, 1.8]	100.0
Hispanic (n=100)	66.7	[54.6, 77.0]	9.1	[4.8, 16.7]	12.9	[7.5, 21.1]	2.6	[0.8, 8.1]	4.3	[0.6, 24.6]	0.0		1.7	[0.2, 11.2]	2.6	[0.5, 12.5]	100.0
Other, non-Hispanic (n=175)	61.1	[51.7, 69.7]	9.5	[5.5, 15.8]	18.2	[11.9, 26.8]	5.7	[2.8, 11.0]	0.8	[0.2, 3.4]	2.2	[0.4, 10.1]	1.3	[0.2, 8.6]	1.4	[0.4, 4.8]	100.0
Pearson: Uncorrected chi2(21) =	185.2278																
Design-based F(18.02, 42143.39) =	5.3648	Pr =	0.000														
FPL category																	
0-35% (n=996)	76.4	[72.7, 79.8]	7.4	[5.5, 9.9]	11.6	[9.1, 14.6]	3.4	[2.2, 5.3]	0.4	[0.1, 2.3]	0.0		0.2	[0.0, 0.9]	0.6	[0.2, 1.5]	100.0
36-99% (n=822)	56.7	[52.6, 60.8]	15.8	[13.2, 18.9]	19.3	[16.0, 23.0]	4.8	[3.4, 6.7]	0.5	[0.2, 1.4]	1.0	[0.3, 3.2]	1.0	[0.3, 3.3]	0.8	[0.4, 2.0]	100.0
100%+ (n=562)	45.5	[40.7, 50.4]	14.8	[11.7, 18.5]	28.1	[24.2, 32.4]	9.6	[7.2, 12.7]	0.1	[0.0, 1.0]	0.2	[0.0, 1.3]	0.1	[0.0, 0.8]	1.5	[0.6, 3.9]	100.0
Pearson: Uncorrected chi2(14) =	202.2087																
Design-based F(12.07, 28581.63) =	10.1917	Pr =	0.000														
Region																	
UP/NW/NE (n=447)	56.7	[51.5, 61.8]	13.6	[10.4, 17.8]	22.2	[18.2, 26.8]	4.7	[2.9, 7.7]	0.2	[0.1, 0.9]	0.5	[0.1, 1.5]	0.6	[0.2, 1.9]	1.4	[0.4, 5.0]	100.0
W/E Central/E (n=775)	65.3	[61.5, 68.9]	12.5	[10.3, 15.1]	17.5	[14.5, 20.8]	3.6	[2.5, 5.2]	0.1	[0.0, 0.5]	0.0		0.0		1.1	[0.4, 2.6]	100.0
S Central/SW/SE (n=462)	63.4	[58.5, 68.1]	11.4	[8.6, 14.9]	16.4	[13.1, 20.4]	6.5	[4.2, 10.1]	0.8	[0.3, 2.3]	0.4	[0.1, 1.5]	0.6	[0.1, 3.0]	0.4	[0.1, 1.3]	100.0
Detroit Metro (n=696)	68.8	[64.3, 72.9]	9.1	[6.7, 12.3]	14.8	[11.7, 18.6]	5.2	[3.6, 7.4]	0.5	[0.1, 3.0]	0.4	[0.1, 2.1]	0.5	[0.1, 2.0]	0.6	[0.2, 1.8]	100.0
Pearson: Uncorrected chi2(21) =	36.0227																
Design-based F(15.47, 36625.95) =	1.3368	Pr =	0.167														
Chronic condition (2016/2017 survey or DW)																	
Yes (n=1,923)	67.2	[64.5, 69.8]	10.4	[8.9, 12.2]	16.1	[14.2, 18.3]	4.8	[3.8, 6.2]	0.4	[0.1, 1.5]	0.1	[0.0, 0.2]	0.5	[0.2, 1.3]	0.4	[0.2, 0.9]	100.0
No (n=457)	60.3	[54.5, 65.8]	12.8	[9.4, 17.0]	18.2	[13.8, 23.5]	5.1	[3.2, 8.0]	0.4	[0.1, 1.5]	1.0	[0.2, 4.0]	0.0		2.3	[1.1, 4.7]	100.0
Pearson: Uncorrected chi2(7) =	37.9860																
Design-based F(6.70, 15859.76) =	3.4294	Pr =	0.001														
Total (n=2,380)	65.7	[63.3, 68.1]	10.9	[9.5, 12.6]	16.6	[14.7, 18.6]	4.9	[3.9, 6.1]	0.4	[0.1, 1.2]	0.3	[0.1, 0.9]	0.4	[0.2, 1.0]	0.8	[0.5, 1.4]	100.0

Note: Total count is less than universe count due to item non-response.

3.4 Q: Since your Healthy Michigan Plan insurance ended, have you had to change any of your providers?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Changed providers since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	15.5	[12.6, 19.0]	83.1	[79.5, 86.2]	1.4	[0.6, 3.2]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	15.5	[11.0, 21.3]	82.4	[76.2, 87.3]	2.1	[0.6, 6.5]	100.0
35-50 (n=209)	15.9	[10.8, 22.6]	83.2	[76.4, 88.3]	1.0	[0.2, 3.9]	100.0
51-64 (n=255)	15.1	[10.2, 21.8]	84.0	[77.3, 89.0]	0.9	[0.3, 2.5]	100.0
Pearson: Uncorrected chi2(4) =	1.5898						
Design-based F(3.72, 2588.08) =	0.3205	Pr =	0.851				
Gender							
Male (n=297)	12.6	[8.8, 17.9]	85.6	[80.1, 89.7]	1.8	[0.6, 4.8]	100.0
Female (n=411)	18.4	[14.3, 23.3]	80.6	[75.5, 84.8]	1.0	[0.3, 3.9]	100.0
Pearson: Uncorrected chi2(2) =	4.9624						
Design-based F(1.99, 1386.19) =	1.5390	Pr =	0.215				
Race/ethnicity							
White, non-Hispanic (n=455)	16.2	[12.6, 20.6]	82.1	[77.5, 85.9]	1.7	[0.6, 4.4]	100.0
Black, non-Hispanic (n=154)	14.2	[8.7, 22.3]	85.8	[77.7, 91.3]	0.0		100.0
Hispanic (n=38)	17.2	[5.4, 42.8]	76.0	[52.1, 90.2]	6.8	[1.3, 28.6]	100.0
Other, non-Hispanic (n=52)	11.1	[4.9, 23.1]	88.1	[76.1, 94.5]	0.9	[0.1, 6.0]	100.0
Pearson: Uncorrected chi2(6) =	12.6527						
Design-based F(5.28, 3628.54) =	1.3874	Pr =	0.223				
FPL category							
0-35% (n=217)	12.8	[8.3, 19.2]	85.8	[79.2, 90.6]	1.4	[0.3, 5.7]	100.0
36-99% (n=259)	19.9	[14.8, 26.4]	78.8	[72.2, 84.1]	1.3	[0.4, 4.2]	100.0
100%+ (n=232)	14.2	[9.9, 19.9]	84.1	[78.0, 88.8]	1.7	[0.4, 6.7]	100.0
Pearson: Uncorrected chi2(4) =	5.4171						
Design-based F(3.82, 2658.32) =	0.8980	Pr =	0.461				
Region							
UP/NW/NE (n=124)	9.5	[5.0, 17.5]	90.1	[82.1, 94.7]	0.4	[0.1, 2.9]	100.0
W/E Central/E (n=203)	16.1	[11.1, 22.9]	83.2	[76.4, 88.3]	0.7	[0.2, 2.8]	100.0
S Central/SW/SE (n=169)	17.2	[12.0, 24.0]	81.5	[74.3, 87.0]	1.3	[0.2, 8.9]	100.0
Detroit Metro (n=212)	15.4	[10.4, 22.3]	82.3	[75.2, 87.7]	2.2	[0.8, 6.3]	100.0
Pearson: Uncorrected chi2(6) =	4.8583						
Design-based F(4.75, 3304.90) =	0.7075	Pr =	0.610				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	14.7	[11.5, 18.7]	83.6	[79.4, 87.1]	1.6	[0.6, 4.1]	100.0
No (n=170)	17.4	[11.6, 25.3]	81.7	[73.8, 87.6]	0.9	[0.2, 3.9]	100.0
Pearson: Uncorrected chi2(2) =	1.3113						
Design-based F(1.96, 1362.68) =	0.4749	Pr =	0.618				
Total (n=708)	15.5	[12.6, 19.0]	83.1	[79.5, 86.2]	1.4	[0.6, 3.2]	100.0

Note: Total count is less than universe count due to item non-response.

3.4.1 Q: Which providers did you have to change?

Follow-up group(s): No longer enrolled
Universe: Respondents who had to change providers since HMP coverage ended (n = 109)

Which providers did you have to change?	Weighted Proportion	95%CI
Primary care provider (n=76)	69.6	[57.8, 79.3]
Dentist (n=31)	28.1	[19.2, 39.1]
Specialist (n=23)	21.7	[13.7, 32.8]
Other (n=10)	11.2	[5.0, 23.2]
Mental health provider (n=9)	7.5	[3.5, 15.2]
Don't know (n=1)	1.1	[0.2, 7.9]

Note: Respondents were able to provide multiple responses

3.5 Q: Since your Healthy Michigan Plan insurance ended, was there any time when you didn't get the health care you needed?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Forgone health care since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	17.1	[13.7, 21.2]	82.3	[78.2, 85.7]	0.6	[0.1, 2.5]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	18.1	[12.2, 26.0]	81.0	[73.0, 87.0]	0.9	[0.1, 6.3]	100.0
35-50 (n=209)	18.0	[12.8, 24.8]	82.0	[75.2, 87.2]	0.0		100.0
51-64 (n=255)	14.6	[9.9, 20.9]	84.6	[78.2, 89.4]	0.8	[0.1, 5.3]	100.0
Pearson: Uncorrected chi2(4) =	3.1001						
Design-based F(3.65, 2542.85) =	0.4162	Pr =	0.780				
Gender							
Male (n=297)	15.7	[10.9, 21.9]	83.6	[77.2, 88.4]	0.8	[0.1, 5.4]	100.0
Female (n=411)	18.6	[14.0, 24.2]	81.0	[75.3, 85.6]	0.4	[0.1, 2.9]	100.0
Pearson: Uncorrected chi2(2) =	1.4256						
Design-based F(2.00, 1390.85) =	0.3783	Pr =	0.685				
Race/ethnicity							
White, non-Hispanic (n=455)	21.9	[17.0, 27.7]	77.1	[71.3, 82.1]	1.0	[0.2, 4.3]	100.0
Black, non-Hispanic (n=154)	8.7	[4.8, 15.4]	91.3	[84.6, 95.2]	0.0		100.0
Hispanic (n=38)	17.3	[5.6, 42.6]	82.7	[57.4, 94.4]	0.0		100.0
Other, non-Hispanic (n=52)	11.5	[5.3, 23.1]	88.5	[76.9, 94.7]	0.0		100.0
Pearson: Uncorrected chi2(6) =	20.6198						
Design-based F(5.53, 3797.52) =	1.9662	Pr =	0.073				
FPL category							
0-35% (n=217)	17.7	[11.7, 25.8]	80.9	[72.7, 87.1]	1.5	[0.3, 6.1]	100.0
36-99% (n=259)	13.0	[8.8, 18.8]	87.0	[81.2, 91.2]	0.0		100.0
100%+ (n=232)	21.4	[15.5, 28.7]	78.6	[71.3, 84.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	11.4393						
Design-based F(3.14, 2183.34) =	1.9271	Pr =	0.120				
Region							
UP/NW/NE (n=124)	12.5	[7.4, 20.3]	87.5	[79.7, 92.6]	0.0		100.0
W/E Central/E (n=203)	14.4	[9.6, 21.1]	85.6	[78.9, 90.4]	0.0		100.0
S Central/SW/SE (n=169)	17.5	[11.8, 25.2]	81.5	[73.7, 87.4]	0.9	[0.1, 6.2]	100.0
Detroit Metro (n=212)	20.0	[13.5, 28.4]	79.0	[70.5, 85.6]	1.0	[0.1, 6.8]	100.0
Pearson: Uncorrected chi2(6) =	6.4597						
Design-based F(4.42, 3077.17) =	0.7669	Pr =	0.559				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	16.5	[13.0, 20.7]	82.6	[78.3, 86.3]	0.8	[0.2, 3.5]	100.0
No (n=170)	18.7	[11.4, 29.1]	81.3	[70.9, 88.6]	0.0		100.0
Pearson: Uncorrected chi2(2) =	2.1054						
Design-based F(2.00, 1391.74) =	0.4633	Pr =	0.629				
Total (n=708)	17.1	[13.7, 21.2]	82.3	[78.2, 85.7]	0.6	[0.1, 2.5]	100.0

Note: Total count is less than universe count due to item non-response.

3.5.1 Q: What type of health care was it?

Follow-up group(s): No longer enrolled
Universe: Respondents who did not receive health care they needed since HMP coverage ended (n = 111)

Type of foregone health care	Weighted Proportion	95%CI
Primary care (n=49)	46.2	[34.2, 58.7]
Prescription medication (n=20)	25.0	[15.5, 37.7]
Specialty care (n=25)	16.2	[10.3, 24.7]
Lab/imaging test (n=7)	10.8	[4.0, 25.8]
Mental health care (n=10)	6.9	[3.2, 14.2]
Surgery or procedure (n=5)	4.1	[1.5, 10.2]
Other (n=4)	4.1	[1.2, 13.4]
Support services (n=4)	2.3	[0.8, 6.4]
Don't know (n=1)	1.0	[0.1, 7.0]

Note: Respondents were able to provide multiple responses

3.5.1.1 Q: Why didn't you get the care you needed?

Follow-up group(s): No longer enrolled
Universe: Respondents who did not receive health care they needed since HMP coverage ended (n = 111)

	Reasons for forgone health care since HMP coverage ended							
	No insurance coverage		**Cost**		**Difficulty/inability finding a provider**		**Needed a service that wasn't covered**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=111)	45.5	[33.6, 57.9]	36.0	[24.9, 49.0]	15.2	[9.0, 24.7]	11.5	[5.7, 21.8]
Primary care (n=49)	65.5		41.1		2.5		1.1	
Prescription medications (n=20)	31.4		58.5		15.6		19.6	
Specialty care (n=25)	39.5		29.7		35.5		3.0	
Mental health care (n=10)	25.3		3.9		26.2		41.2	

Note: Respondents were able to provide multiple responses

	Reasons for forgone health care since HMP coverage ended					
	Other		**Difficulty getting appointment**		**Transportation/logistics**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI
Any missed care (n=111)	8.3	[4.2, 15.7]	3.0	[1.1, 7.6]	2.5	[0.6, 10.1]
Primary care (n=49)	12.6		5.3		3.6	
Prescription medications (n=20)	6.4		0.0		0.0	
Specialty care (n=25)	3.9		3.4		1.2	
Mental health care (n=10)	3.5		0.0		10.2	

Note: Respondents were able to provide multiple responses

3.6 Q: Since your Healthy Michigan Plan insurance ended, was there any time when you didn't get the dental care you needed?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Forgone dental care since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	23.3	[19.7, 27.3]	76.4	[72.4, 80.0]	0.3	[0.1, 1.1]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	19.6	[14.4, 26.0]	80.4	[74.0, 85.6]	0.0		100.0
35-50 (n=209)	29.1	[22.2, 37.0]	70.4	[62.5, 77.3]	0.5	[0.1, 3.8]	100.0
51-64 (n=255)	22.6	[17.1, 29.3]	76.9	[70.2, 82.5]	0.5	[0.1, 2.1]	100.0
Pearson: Uncorrected chi2(4) =	8.1459						
Design-based F(3.59, 2501.73) =	1.8284	Pr =	0.128				
Gender							
Male (n=297)	18.9	[14.1, 24.7]	80.6	[74.7, 85.4]	0.5	[0.1, 2.1]	100.0
Female (n=411)	27.7	[22.8, 33.3]	72.2	[66.7, 77.1]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	8.6588						
Design-based F(1.52, 1060.44) =	4.5005	Pr =	0.019				
Race/ethnicity							
White, non-Hispanic (n=455)	26.5	[21.9, 31.8]	73.0	[67.8, 77.7]	0.4	[0.1, 1.8]	100.0
Black, non-Hispanic (n=154)	20.0	[13.3, 29.0]	79.8	[70.8, 86.6]	0.2	[0.0, 1.2]	100.0
Hispanic (n=38)	13.0	[5.7, 26.9]	87.0	[73.1, 94.3]	0.0		100.0
Other, non-Hispanic (n=52)	20.6	[11.4, 34.3]	79.4	[65.7, 88.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	6.7896						
Design-based F(5.06, 3478.56) =	0.9983	Pr =	0.418				
FPL category							
0-35% (n=217)	20.3	[14.5, 27.6]	79.5	[72.2, 85.3]	0.2	[0.0, 1.5]	100.0
36-99% (n=259)	24.7	[19.2, 31.3]	75.1	[68.5, 80.7]	0.1	[0.0, 1.0]	100.0
100%+ (n=232)	26.1	[20.1, 33.2]	73.3	[66.1, 79.3]	0.6	[0.1, 4.3]	100.0
Pearson: Uncorrected chi2(4) =	3.5802						
Design-based F(3.30, 2298.62) =	0.8838	Pr =	0.457				
Region							
UP/NW/NE (n=124)	27.2	[19.3, 36.9]	71.8	[62.2, 79.8]	1.0	[0.1, 6.6]	100.0
W/E Central/E (n=203)	22.6	[16.7, 29.9]	77.4	[70.1, 83.3]	0.0		100.0
S Central/SW/SE (n=169)	22.3	[16.2, 29.8]	76.8	[69.2, 83.0]	0.9	[0.2, 4.4]	100.0
Detroit Metro (n=212)	23.5	[17.2, 31.1]	76.5	[68.9, 82.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.2222						
Design-based F(5.02, 3497.13) =	0.9289	Pr =	0.461				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	25.1	[21.0, 29.7]	74.5	[69.9, 78.6]	0.4	[0.1, 1.5]	100.0
No (n=170)	18.7	[12.4, 27.2]	81.3	[72.8, 87.6]	0.0		100.0
Pearson: Uncorrected chi2(2) =	4.2551						
Design-based F(1.81, 1260.92) =	1.6170	Pr =	0.201				
Total (n=708)	23.3	[19.7, 27.3]	76.4	[72.4, 80.0]	0.3	[0.1, 1.1]	100.0

Note: Total count is less than universe count due to item non-response.

3.6.1 Q: Why didn't you get the dental care you needed?

Follow-up group(s): No longer enrolled
Universe: Respondents who did not receive dental care they needed since HMP coverage ended (n = 179)

Reasons for forgone dental care	Weighted Proportion	95%CI
No insurance coverage (n=75)	46.1	[36.9, 55.5]
Cost (n=53)	23.8	[18.0, 30.9]
Difficulty/inability finding a provider (n=27)	16.4	[10.8, 24.0]
Needed a services that wasn't covered (n=27)	14.6	[9.1, 22.7]
Other (n=13)	5.5	[3.0, 9.7]
Difficulty getting appointment (n=5)	4.4	[1.6, 11.5]
Afraid of going to dentist/dislike dentist (n=1)	0.4	[0.1, 3.1]
Transportation/logistics (n=1)	0.3	[0.0, 1.8]

Note: Respondents were able to provide multiple responses

4 Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

4.1 Q: In the last 7 days, how many days did you exercise for at least 20 minutes?

Follow-up group(s): Still enrolled
Universe: All respondents

	Exercise frequency in last 7 days										
	Every day		**3-6 days**		**1-2 days**		**0 days**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
Still enrolled (n=2,388)	28.4	[26.2, 30.8]	34.3	[31.9, 36.9]	19.4	[17.3, 21.7]	17.8	[16.0, 19.7]	0.0	[0.0, 0.2]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=664)	20.9	[17.5, 24.8]	42.4	[37.6, 47.2]	20.8	[17.1, 25.2]	15.9	[12.8, 19.5]	0.0		100.0
35-50 (n=760)	27.9	[23.8, 32.3]	30.6	[26.7, 34.9]	22.8	[19.0, 27.0]	18.7	[15.7, 22.1]	0.1	[0.0, 0.5]	100.0
51-64 (n=964)	38.4	[34.7, 42.2]	28.8	[25.5, 32.4]	13.6	[11.0, 16.8]	19.1	[16.3, 22.1]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(8) =	88.0212										
Design-based F(6.80, 16147.44) =	8.2699	Pr =	0.000								
Gender											
Male (n=933)	30.1	[26.5, 34.0]	33.8	[30.0, 37.8]	19.5	[16.4, 23.1]	16.6	[13.9, 19.7]	0.0		100.0
Female (n=1,455)	26.9	[24.2, 29.8]	34.8	[31.7, 38.1]	19.4	[16.6, 22.4]	18.8	[16.5, 21.3]	0.1	[0.0, 0.3]	100.0
Pearson: Uncorrected chi2(4) =	4.7567										
Design-based F(3.47, 8248.74) =	0.8413	Pr =	0.485								
Race/ethnicity											
White, non-Hispanic (n=1,603)	30.2	[27.5, 33.1]	33.8	[30.9, 36.9]	19.2	[16.5, 22.2]	16.7	[14.6, 19.0]	0.1	[0.0, 0.3]	100.0
Black, non-Hispanic (n=479)	22.1	[17.7, 27.1]	37.1	[31.8, 42.9]	21.6	[17.4, 26.5]	19.1	[15.3, 23.7]	0.0		100.0
Hispanic (n=100)	26.1	[17.5, 37.2]	39.1	[27.6, 51.9]	14.2	[8.2, 23.4]	20.6	[13.2, 30.6]	0.0		100.0
Other, non-Hispanic (n=176)	36.0	[27.1, 45.9]	25.8	[18.9, 34.1]	17.8	[12.1, 25.4]	20.4	[14.3, 28.3]	0.0		100.0
Pearson: Uncorrected chi2(12) =	28.6639										
Design-based F(11.02, 25858.84) =	1.4826	Pr =	0.130								
FPL category											
0-35% (n=1,001)	28.0	[24.6, 31.5]	31.4	[27.8, 35.2]	21.1	[17.8, 24.7]	19.6	[16.9, 22.6]	0.0	[0.0, 0.2]	100.0
36-99% (n=824)	28.9	[25.3, 32.7]	36.9	[32.8, 41.1]	17.5	[14.7, 20.7]	16.8	[14.1, 19.8]	0.0		100.0
100%+ (n=563)	29.2	[25.0, 33.7]	39.8	[35.2, 44.6]	17.3	[13.9, 21.2]	13.7	[10.8, 17.2]	0.1	[0.0, 0.9]	100.0
Pearson: Uncorrected chi2(8) =	20.4326										
Design-based F(6.99, 16597.05) =	2.3674	Pr =	0.021								
Region											
UP/NW/NE (n=450)	31.8	[27.2, 36.8]	36.4	[31.4, 41.6]	15.3	[11.9, 19.6]	16.5	[13.0, 20.6]	0.0		100.0
W/E Central/E (n=777)	28.3	[24.8, 32.0]	34.6	[30.7, 38.7]	17.4	[14.5, 20.7]	19.7	[16.7, 23.0]	0.1	[0.0, 0.5]	100.0
S Central/SW/SE (n=464)	33.7	[29.0, 38.8]	31.5	[26.9, 36.6]	15.7	[12.2, 20.1]	18.9	[15.2, 23.4]	0.1	[0.0, 0.8]	100.0
Detroit Metro (n=697)	25.7	[21.8, 30.0]	34.8	[30.5, 39.5]	23.1	[19.2, 27.5]	16.3	[13.4, 19.7]	0.0		100.0
Pearson: Uncorrected chi2(12) =	26.8850										
Design-based F(9.38, 22284.52) =	2.1764	Pr =	0.019								
Chronic condition (2016/2017 survey or DW)											
Yes (n=1,931)	29.3	[26.8, 32.0]	31.9	[29.2, 34.7]	19.9	[17.5, 22.6]	18.8	[16.8, 21.0]	0.1	[0.0, 0.2]	100.0
No (n=457)	25.1	[20.7, 30.1]	43.1	[37.5, 48.9]	17.6	[13.5, 22.5]	14.2	[10.8, 18.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	23.6662										
Design-based F(3.49, 8298.20) =	4.2179	Pr =	0.003								
Total (n=2,388)	28.4	[26.2, 30.8]	34.3	[31.9, 36.9]	19.4	[17.3, 21.7]	17.8	[16.0, 19.7]	0.0	[0.0, 0.2]	100.0

4.2 Q: In the last 7 days, how many days did you drink soda or pop that contains sugar, sweetened fruit drinks, sports drinks, or energy drinks?

Follow-up group(s): Still enrolled
Universe: All respondents

	Sugary drink consumption in last 7 days										
	Every day		3-6 days		1-2 days		0 days		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
Still enrolled (n=2,387)	24.8	[22.6, 27.2]	21.0	[18.9, 23.3]	24.2	[22.1, 26.5]	29.8	[27.5, 32.3]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=663)	27.4	[23.2, 32.0]	24.3	[20.3, 28.7]	27.6	[23.6, 31.9]	20.6	[16.9, 24.8]	0.2	[0.0, 1.4]	100.0
35-50 (n=760)	26.7	[22.9, 30.9]	22.3	[18.6, 26.5]	22.7	[19.2, 26.7]	28.2	[24.3, 32.5]	0.1	[0.0, 0.7]	100.0
51-64 (n=964)	19.3	[16.7, 22.3]	15.4	[12.9, 18.3]	21.9	[18.8, 25.2]	43.4	[39.6, 47.3]	0.0		100.0
Pearson: Uncorrected chi2(8) =	103.3507										
Design-based F(7.44, 17672.38) =	8.4583	Pr =	0.000								
Gender											
Male (n=933)	25.9	[22.5, 29.7]	24.1	[20.7, 27.9]	23.7	[20.4, 27.4]	26.2	[22.7, 30.1]	0.0		100.0
Female (n=1,454)	23.9	[21.1, 26.8]	18.4	[15.8, 21.2]	24.6	[21.9, 27.5]	32.9	[30.0, 36.1]	0.2	[0.0, 0.9]	100.0
Pearson: Uncorrected chi2(4) =	21.6946										
Design-based F(3.97, 9430.50) =	3.2535	Pr =	0.011								
Race/ethnicity											
White, non-Hispanic (n=1,603)	27.8	[25.0, 30.8]	18.0	[15.7, 20.7]	21.2	[18.8, 23.8]	32.8	[29.9, 35.8]	0.2	[0.0, 0.8]	100.0
Black, non-Hispanic (n=478)	18.5	[14.4, 23.4]	28.7	[23.6, 34.2]	25.6	[21.3, 30.4]	27.2	[22.4, 32.7]	0.0		100.0
Hispanic (n=100)	19.5	[12.3, 29.5]	24.8	[15.4, 37.4]	41.3	[30.0, 53.7]	14.3	[9.0, 22.2]	0.0		100.0
Other, non-Hispanic (n=176)	26.1	[18.8, 34.9]	17.7	[12.1, 25.0]	29.9	[21.6, 39.8]	26.3	[19.4, 34.8]	0.0		100.0
Pearson: Uncorrected chi2(12) =	81.0473										
Design-based F(11.43, 26800.05) =	3.9649	Pr =	0.000								
FPL category											
0-35% (n=1,001)	24.1	[20.9, 27.7]	22.6	[19.4, 26.1]	24.0	[20.8, 27.4]	29.1	[25.7, 32.9]	0.2	[0.0, 0.8]	100.0
36-99% (n=823)	23.9	[20.5, 27.7]	22.2	[18.7, 26.1]	22.9	[19.7, 26.4]	31.0	[27.4, 34.9]	0.0		100.0
100%+ (n=563)	28.4	[24.2, 32.9]	14.4	[11.5, 17.8]	27.0	[22.9, 31.5]	30.3	[26.2, 34.8]	0.0		100.0
Pearson: Uncorrected chi2(8) =	18.0628										
Design-based F(7.09, 16834.93) =	1.8907	Pr =	0.066								
Region											
UP/NW/NE (n=450)	25.7	[21.4, 30.5]	15.2	[11.7, 19.6]	22.2	[18.1, 26.9]	36.9	[32.0, 42.1]	0.0		100.0
W/E Central/E (n=777)	28.2	[24.7, 32.0]	19.1	[16.2, 22.4]	23.9	[20.5, 27.6]	28.5	[24.9, 32.4]	0.4	[0.1, 1.5]	100.0
S Central/SW/SE (n=463)	28.0	[23.5, 32.8]	21.1	[17.0, 25.9]	21.1	[17.1, 25.6]	29.8	[25.3, 34.8]	0.0		100.0
Detroit Metro (n=697)	21.1	[17.4, 25.5]	23.5	[19.6, 27.8]	26.1	[22.3, 30.2]	29.3	[25.3, 33.7]	0.0		100.0
Pearson: Uncorrected chi2(12) =	32.2608										
Design-based F(9.53, 22632.46) =	2.4085	Pr =	0.009								
Chronic condition (2016/2017 survey or DW)											
Yes (n=1,931)	25.4	[22.8, 28.1]	20.5	[18.1, 23.0]	22.1	[19.8, 24.5]	32.1	[29.4, 34.8]	0.0	[0.0, 0.3]	100.0
No (n=456)	22.8	[18.7, 27.5]	23.0	[18.3, 28.6]	32.0	[26.9, 37.5]	21.8	[17.4, 27.1]	0.3	[0.0, 2.3]	100.0
Pearson: Uncorrected chi2(4) =	36.0857										
Design-based F(3.85, 9138.68) =	5.6852	Pr =	0.000								
Total (n=2,387)	24.8	[22.6, 27.2]	21.0	[18.9, 23.3]	24.2	[22.1, 26.5]	29.8	[27.5, 32.3]	0.1	[0.0, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

4.3 Q: In the last 7 days, how many days did you eat 3 or more servings of fruits or vegetables in a day?

Follow-up group(s): Still enrolled
Universe: All respondents

	Days eating 3+ fruits or vegetables in last 7 days										
	Every day		3-6 days		1-2 days		0 days		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
Still enrolled (n=2,386)	33.9	[31.5, 36.3]	37.7	[35.2, 40.3]	15.6	[13.8, 17.6]	12.6	[10.9, 14.6]	0.2	[0.1, 0.5]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=662)	30.3	[26.1, 34.8]	41.2	[36.6, 46.0]	15.9	[12.5, 19.9]	12.5	[9.6, 16.2]	0.1	[0.0, 0.7]	100.0
35-50 (n=760)	32.3	[28.4, 36.5]	38.1	[33.7, 42.6]	14.5	[11.7, 17.8]	14.9	[11.7, 18.8]	0.3	[0.1, 0.8]	100.0
51-64 (n=964)	40.1	[36.4, 44.0]	32.9	[29.5, 36.5]	16.7	[13.9, 19.9]	10.0	[8.1, 12.4]	0.3	[0.1, 1.0]	100.0
Pearson: Uncorrected chi2(8) =	28.0121										
Design-based F(7.20, 17086.49) =	2.4247	Pr =	0.017								
Gender											
Male (n=933)	28.6	[25.0, 32.4]	38.1	[34.2, 42.1]	16.0	[13.2, 19.4]	17.3	[14.3, 20.8]	0.1	[0.0, 0.6]	100.0
Female (n=1,453)	38.4	[35.3, 41.6]	37.4	[34.2, 40.7]	15.2	[13.1, 17.7]	8.6	[6.9, 10.8]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(4) =	54.0894										
Design-based F(3.76, 8932.09) =	8.8634	Pr =	0.000								
Race/ethnicity											
White, non-Hispanic (n=1,602)	35.1	[32.2, 38.2]	37.6	[34.5, 40.7]	14.9	[12.8, 17.3]	12.2	[10.3, 14.4]	0.2	[0.1, 0.6]	100.0
Black, non-Hispanic (n=478)	28.1	[23.6, 33.0]	40.7	[35.2, 46.3]	17.6	[13.6, 22.5]	13.5	[9.7, 18.5]	0.1	[0.0, 0.8]	100.0
Hispanic (n=100)	25.3	[17.2, 35.7]	41.8	[30.8, 53.7]	18.5	[10.1, 31.3]	14.0	[6.8, 26.6]	0.5	[0.1, 3.2]	100.0
Other, non-Hispanic (n=176)	46.2	[37.1, 55.5]	28.3	[21.1, 36.9]	12.1	[7.6, 18.8]	13.0	[7.4, 21.7]	0.4	[0.1, 3.0]	100.0
Pearson: Uncorrected chi2(12) =	31.3307										
Design-based F(10.51, 24632.79) =	1.6233	Pr =	0.089								
FPL category											
0-35% (n=1,000)	33.1	[29.5, 36.8]	36.4	[32.6, 40.3]	15.5	[12.9, 18.6]	14.7	[12.0, 17.9]	0.3	[0.1, 0.7]	100.0
36-99% (n=823)	35.3	[31.5, 39.3]	37.3	[33.4, 41.4]	17.2	[14.0, 20.8]	10.0	[7.7, 12.8]	0.2	[0.1, 0.8]	100.0
100%+ (n=563)	34.2	[29.8, 38.8]	42.5	[37.7, 47.3]	13.5	[10.7, 16.9]	9.9	[7.5, 13.0]	0.0		100.0
Pearson: Uncorrected chi2(8) =	18.0201										
Design-based F(7.33, 17403.69) =	1.9408	Pr =	0.056								
Region											
UP/NW/NE (n=450)	37.3	[32.4, 42.4]	38.0	[33.0, 43.3]	13.6	[10.5, 17.4]	11.1	[8.2, 15.0]	0.0		100.0
W/E Central/E (n=776)	34.6	[30.8, 38.6]	36.9	[33.1, 40.8]	14.9	[12.3, 18.0]	13.1	[10.6, 16.1]	0.5	[0.2, 1.3]	100.0
S Central/SW/SE (n=463)	36.1	[31.2, 41.3]	35.8	[30.8, 41.0]	14.5	[11.3, 18.3]	13.4	[10.4, 17.3]	0.2	[0.0, 1.5]	100.0
Detroit Metro (n=697)	31.8	[27.7, 36.1]	38.9	[34.4, 43.6]	16.9	[13.6, 20.8]	12.3	[9.3, 16.2]	0.1	[0.0, 0.5]	100.0
Pearson: Uncorrected chi2(12) =	11.0214										
Design-based F(10.13, 24038.57) =	0.8033	Pr =	0.627								
Chronic condition (2016/2017 survey or DW)											
Yes (n=1,931)	34.2	[31.5, 36.9]	36.8	[34.0, 39.7]	15.7	[13.7, 18.0]	13.0	[11.0, 15.2]	0.2	[0.1, 0.6]	100.0
No (n=455)	32.7	[27.5, 38.2]	40.8	[35.4, 46.5]	15.1	[11.5, 19.4]	11.4	[7.9, 16.0]	0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(4) =	3.3154										
Design-based F(3.49, 8289.97) =	0.5585	Pr =	0.669								
Total (n=2,386)	33.9	[31.5, 36.3]	37.7	[35.2, 40.3]	15.6	[13.8, 17.6]	12.6	[10.9, 14.6]	0.2	[0.1, 0.5]	100.0

Note: Total count is less than universe count due to item non-response.

4.4 Q: In the last 12 months, has a doctor, nurse, or other health professional talked with you about exercise?

Follow-up group(s): Still enrolled
Universe: All respondents

	Health professional discussed exercise in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	46.2	[43.6, 48.8]	53.3	[50.7, 55.9]	0.5	[0.3, 1.0]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	41.5	[36.9, 46.3]	58.1	[53.3, 62.7]	0.4	[0.1, 1.1]	100.0
35-50 (n=760)	47.5	[43.0, 52.1]	52.0	[47.4, 56.5]	0.5	[0.2, 1.4]	100.0
51-64 (n=964)	50.3	[46.5, 54.2]	48.9	[45.1, 52.8]	0.7	[0.3, 2.0]	100.0
Pearson: Uncorrected chi2(4) =	14.2962						
Design-based F(3.75, 8902.38) =	2.6194	Pr =	0.037				
Gender							
Male (n=932)	42.9	[38.9, 46.9]	56.9	[52.8, 60.9]	0.2	[0.1, 0.7]	100.0
Female (n=1,455)	49.0	[45.7, 52.3]	50.2	[46.9, 53.5]	0.8	[0.4, 1.5]	100.0
Pearson: Uncorrected chi2(2) =	13.3174						
Design-based F(1.85, 4386.03) =	5.0551	Pr =	0.008				
Race/ethnicity							
White, non-Hispanic (n=1,603)	44.2	[41.0, 47.3]	55.2	[52.0, 58.3]	0.7	[0.3, 1.4]	100.0
Black, non-Hispanic (n=479)	51.5	[45.9, 57.2]	48.4	[42.7, 54.0]	0.1	[0.0, 0.8]	100.0
Hispanic (n=100)	42.0	[31.1, 53.7]	57.2	[45.5, 68.1]	0.8	[0.1, 5.6]	100.0
Other, non-Hispanic (n=175)	46.0	[37.0, 55.1]	53.4	[44.2, 62.3]	0.7	[0.2, 2.8]	100.0
Pearson: Uncorrected chi2(6) =	12.7022						
Design-based F(5.23, 12269.05) =	1.6359	Pr =	0.143				
FPL category							
0-35% (n=1,001)	45.8	[41.9, 49.7]	53.9	[50.0, 57.8]	0.3	[0.1, 0.7]	100.0
36-99% (n=823)	45.7	[41.6, 49.8]	53.2	[49.0, 57.3]	1.1	[0.5, 2.7]	100.0
100%+ (n=563)	48.0	[43.2, 52.8]	51.6	[46.8, 56.3]	0.4	[0.1, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	6.4318						
Design-based F(3.73, 8852.86) =	1.4616	Pr =	0.214				
Region							
UP/NW/NE (n=450)	43.2	[38.1, 48.4]	56.6	[51.4, 61.7]	0.2	[0.0, 1.4]	100.0
W/E Central/E (n=777)	48.6	[44.5, 52.7]	49.9	[45.9, 54.0]	1.5	[0.8, 2.8]	100.0
S Central/SW/SE (n=464)	43.9	[38.9, 49.1]	55.8	[50.6, 60.9]	0.2	[0.0, 1.7]	100.0
Detroit Metro (n=696)	46.0	[41.4, 50.7]	53.9	[49.2, 58.5]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(6) =	21.1404						
Design-based F(5.05, 11985.30) =	3.5089	Pr =	0.003				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,930)	50.5	[47.6, 53.4]	48.9	[46.0, 51.8]	0.6	[0.3, 1.1]	100.0
No (n=457)	30.5	[25.8, 35.7]	69.2	[64.0, 73.9]	0.3	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	66.8593						
Design-based F(1.84, 4375.11) =	26.9514	Pr =	0.000				
Total (n=2,387)	46.2	[43.6, 48.8]	53.3	[50.7, 55.9]	0.5	[0.3, 1.0]	100.0

Note: Total count is less than universe count due to item non-response.

4.5 Q: In the last 12 months has a doctor, nurse or other health professional talked with you about diet and nutrition?

Follow-up group(s): Still enrolled
Universe: All respondents

	Health professional discussed diet/nutrition in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	46.4	[43.8, 48.9]	53.3	[50.7, 55.8]	0.4	[0.2, 0.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	41.3	[36.7, 46.1]	58.3	[53.5, 62.9]	0.4	[0.1, 1.8]	100.0
35-50 (n=760)	48.6	[44.1, 53.1]	51.1	[46.5, 55.6]	0.3	[0.1, 1.2]	100.0
51-64 (n=964)	49.9	[46.0, 53.7]	49.6	[45.8, 53.5]	0.5	[0.1, 1.9]	100.0
Pearson: Uncorrected chi2(4) =	14.2901						
Design-based F(3.87, 9196.01) =	2.1853	Pr =	0.070				
Gender							
Male (n=932)	42.0	[38.1, 46.0]	57.6	[53.6, 61.6]	0.4	[0.1, 1.4]	100.0
Female (n=1,455)	50.1	[46.8, 53.4]	49.5	[46.2, 52.8]	0.4	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	15.7367						
Design-based F(2.00, 4747.74) =	4.5743	Pr =	0.010				
Race/ethnicity							
White, non-Hispanic (n=1,603)	43.3	[40.2, 46.4]	56.2	[53.0, 59.3]	0.5	[0.2, 1.4]	100.0
Black, non-Hispanic (n=479)	54.5	[48.8, 60.1]	45.4	[39.8, 51.1]	0.1	[0.0, 0.8]	100.0
Hispanic (n=100)	40.6	[30.0, 52.2]	59.4	[47.8, 70.0]	0.0		100.0
Other, non-Hispanic (n=175)	45.5	[36.6, 54.7]	53.8	[44.6, 62.7]	0.7	[0.2, 2.9]	100.0
Pearson: Uncorrected chi2(6) =	25.9849						
Design-based F(5.28, 12370.22) =	2.9872	Pr =	0.009				
FPL category							
0-35% (n=1,001)	46.5	[42.6, 50.4]	53.2	[49.2, 57.1]	0.4	[0.1, 1.3]	100.0
36-99% (n=823)	44.4	[40.3, 48.5]	55.1	[50.9, 59.2]	0.5	[0.1, 2.1]	100.0
100%+ (n=563)	48.9	[44.1, 53.7]	50.8	[46.0, 55.5]	0.3	[0.1, 1.4]	100.0
Pearson: Uncorrected chi2(4) =	2.4322						
Design-based F(3.72, 8838.73) =	0.4528	Pr =	0.757				
Region							
UP/NW/NE (n=450)	43.6	[38.5, 48.8]	56.2	[51.0, 61.3]	0.2	[0.0, 1.4]	100.0
W/E Central/E (n=777)	47.7	[43.7, 51.8]	51.5	[47.4, 55.5]	0.8	[0.3, 2.2]	100.0
S Central/SW/SE (n=464)	44.5	[39.4, 49.7]	55.5	[50.3, 60.6]	0.0		100.0
Detroit Metro (n=696)	46.7	[42.1, 51.4]	53.0	[48.3, 57.6]	0.3	[0.1, 1.5]	100.0
Pearson: Uncorrected chi2(6) =	7.0600						
Design-based F(4.94, 11737.57) =	0.9054	Pr =	0.475				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,930)	51.0	[48.1, 54.0]	48.7	[45.7, 51.6]	0.3	[0.1, 0.8]	100.0
No (n=457)	29.4	[24.7, 34.6]	69.9	[64.6, 74.6]	0.7	[0.2, 2.9]	100.0
Pearson: Uncorrected chi2(2) =	77.1231						
Design-based F(1.99, 4737.55) =	22.7434	Pr =	0.000				
Total (n=2,387)	46.4	[43.8, 48.9]	53.3	[50.7, 55.8]	0.4	[0.2, 0.9]	100.0

Note: Total count is less than universe count due to item non-response.

4.6 Q: In the last 7 days, how many days did you have [5 or more for men, 4 or more for women] alcoholic drinks?

Follow-up group(s): Still enrolled
Universe: All respondents

	Binge drinking frequency in last 7 days								
	Every day		3-6 days		1-2 days		0 days		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=2,386)	1.4	[0.9, 2.3]	5.2	[4.0, 6.7]	12.0	[10.4, 13.9]	81.4	[79.1, 83.4]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=663)	0.9	[0.4, 2.4]	4.6	[3.1, 6.9]	13.6	[10.4, 17.7]	80.8	[76.5, 84.5]	100.0
35-50 (n=760)	1.4	[0.6, 3.7]	6.6	[4.2, 10.2]	10.9	[8.6, 13.8]	81.0	[76.9, 84.6]	100.0
51-64 (n=963)	2.0	[1.2, 3.5]	4.2	[2.9, 5.9]	11.4	[9.2, 14.0]	82.4	[79.4, 85.1]	100.0
Pearson: Uncorrected chi2(6) =	11.1356								
Design-based F(5.57, 13230.39) =	1.0264	Pr =	0.404						
Gender									
Male (n=932)	1.9	[1.0, 3.6]	5.8	[4.2, 8.0]	13.0	[10.4, 16.1]	79.3	[75.7, 82.4]	100.0
Female (n=1,454)	1.0	[0.5, 1.9]	4.6	[3.1, 6.8]	11.2	[9.2, 13.5]	83.2	[80.3, 85.7]	100.0
Pearson: Uncorrected chi2(3) =	7.8102								
Design-based F(2.97, 7051.62) =	1.3670	Pr =	0.251						
Race/ethnicity									
White, non-Hispanic (n=1,602)	1.3	[0.7, 2.2]	4.8	[3.4, 6.7]	11.1	[9.2, 13.3]	82.9	[80.2, 85.3]	100.0
Black, non-Hispanic (n=478)	2.0	[0.8, 5.0]	6.7	[4.4, 10.0]	15.6	[11.8, 20.4]	75.7	[70.4, 80.3]	100.0
Hispanic (n=100)	1.3	[0.3, 5.6]	8.3	[2.7, 22.8]	5.8	[2.6, 12.7]	84.6	[72.1, 92.1]	100.0
Other, non-Hispanic (n=176)	0.6	[0.1, 3.9]	2.2	[0.7, 6.7]	11.6	[6.9, 18.9]	85.6	[78.0, 90.9]	100.0
Pearson: Uncorrected chi2(9) =	26.4518								
Design-based F(7.98, 18693.63) =	1.6484	Pr =	0.106						
FPL category									
0-35% (n=1,001)	1.7	[0.9, 3.3]	6.6	[4.8, 9.2]	12.9	[10.4, 15.9]	78.7	[75.1, 81.9]	100.0
36-99% (n=823)	0.7	[0.3, 1.3]	3.3	[2.2, 5.2]	10.0	[7.9, 12.5]	86.0	[83.1, 88.4]	100.0
100%+ (n=562)	1.5	[0.7, 3.1]	3.3	[2.0, 5.4]	12.3	[9.4, 15.9]	82.9	[79.0, 86.3]	100.0
Pearson: Uncorrected chi2(6) =	21.8669								
Design-based F(5.56, 13210.74) =	3.1467	Pr =	0.006						
Region									
UP/NW/NE (n=449)	1.2	[0.5, 2.5]	3.5	[2.1, 5.8]	13.4	[10.0, 17.7]	81.9	[77.3, 85.7]	100.0
W/E Central/E (n=776)	1.9	[1.1, 3.5]	4.3	[2.8, 6.4]	11.3	[8.9, 14.3]	82.5	[79.0, 85.4]	100.0
S Central/SW/SE (n=464)	1.0	[0.5, 2.1]	5.7	[3.6, 8.8]	12.1	[9.0, 16.0]	81.3	[76.8, 85.1]	100.0
Detroit Metro (n=697)	1.3	[0.5, 3.3]	6.0	[3.9, 9.0]	12.2	[9.3, 15.7]	80.5	[76.3, 84.2]	100.0
Pearson: Uncorrected chi2(9) =	6.7797								
Design-based F(7.10, 16856.17) =	0.5810	Pr =	0.774						
Chronic condition (2016/2017 survey or DW)									
Yes (n=1,929)	1.7	[1.0, 2.7]	5.1	[3.8, 6.9]	11.6	[9.8, 13.6]	81.6	[79.1, 83.9]	100.0
No (n=457)	0.6	[0.2, 1.5]	5.3	[3.4, 8.3]	13.5	[9.8, 18.3]	80.6	[75.5, 84.8]	100.0
Pearson: Uncorrected chi2(3) =	4.6297								
Design-based F(2.74, 6509.83) =	1.0170	Pr =	0.379						
Total (n=2,386)	1.4	[0.9, 2.3]	5.2	[4.0, 6.7]	12.0	[10.4, 13.9]	81.4	[79.1, 83.4]	100.0

Note: Total count is less than universe count due to item non-response.

4.6.1 Q: In the last 12 months, has a doctor, nurse, or other health professional talked with you about safe alcohol use?

Follow-up group(s): Still enrolled
Universe: Respondents who had [5 or more for men, 4 or more for women] alcoholic drinks on any day in the last 7 days (n = 411)

	Health professional discussed safe alcohol use in last 12 months				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=411)	33.1	[27.4, 39.3]	66.9	[60.7, 72.6]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=112)	31.2	[21.7, 42.5]	68.8	[57.5, 78.3]	100.0
35-50 (n=132)	31.9	[22.3, 43.3]	68.1	[56.7, 77.7]	100.0
51-64 (n=167)	37.4	[29.0, 46.6]	62.6	[53.4, 71.0]	100.0
Pearson: Uncorrected chi2(2) =	1.2648				
Design-based F(1.91, 760.34) =	0.3847	Pr =	0.671		
Gender					
Male (n=189)	37.4	[29.0, 46.7]	62.6	[53.3, 71.0]	100.0
Female (n=222)	28.6	[21.5, 36.9]	71.4	[63.1, 78.5]	100.0
Pearson: Uncorrected chi2(1) =	3.6136				
Design-based F(1.00, 399.00) =	2.1692	Pr =	0.142		
Race/ethnicity					
White, non-Hispanic (n=257)	30.7	[23.6, 38.8]	69.3	[61.2, 76.4]	100.0
Black, non-Hispanic (n=109)	35.4	[25.2, 47.0]	64.6	[53.0, 74.8]	100.0
Hispanic (n=14)	38.6	[14.6, 69.9]	61.4	[30.1, 85.4]	100.0
Other, non-Hispanic (n=25)	39.5	[19.2, 64.0]	60.5	[36.0, 80.8]	100.0
Pearson: Uncorrected chi2(3) =	1.6273				
Design-based F(3.00, 1177.04) =	0.3155	Pr =	0.814		
FPL category					
0-35% (n=193)	35.8	[27.8, 44.7]	64.2	[55.3, 72.2]	100.0
36-99% (n=120)	29.8	[21.8, 39.2]	70.2	[60.8, 78.2]	100.0
100%+ (n=98)	26.8	[17.5, 38.8]	73.2	[61.2, 82.5]	100.0
Pearson: Uncorrected chi2(2) =	2.4656				
Design-based F(1.92, 767.70) =	1.1063	Pr =	0.330		
Region					
UP/NW/NE (n=81)	17.4	[10.6, 27.1]	82.6	[72.9, 89.4]	100.0
W/E Central/E (n=127)	41.0	[31.4, 51.3]	59.0	[48.7, 68.6]	100.0
S Central/SW/SE (n=82)	37.7	[26.8, 50.1]	62.3	[49.9, 73.2]	100.0
Detroit Metro (n=121)	29.7	[20.5, 40.9]	70.3	[59.1, 79.5]	100.0
Pearson: Uncorrected chi2(3) =	8.9913				
Design-based F(2.44, 972.81) =	2.5277	Pr =	0.069		
Chronic condition (2016/2017 survey or DW)					
Yes (n=326)	36.4	[29.7, 43.6]	63.6	[56.4, 70.3]	100.0
No (n=85)	22.0	[13.3, 34.2]	78.0	[65.8, 86.7]	100.0
Pearson: Uncorrected chi2(1) =	6.6742				
Design-based F(1.00, 399.00) =	4.2320	Pr =	0.040		
Total (n=411)	33.1	[27.4, 39.3]	66.9	[60.7, 72.6]	100.0

4.7 Q: In the last 30 days have you smoked or used tobacco?

Follow-up group(s): Still enrolled
Universe: All respondents

	Smoked or used tobacco in last 30 days				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	36.4	[33.9, 38.9]	63.6	[61.1, 66.1]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=664)	31.3	[27.0, 35.9]	68.7	[64.1, 73.0]	100.0
35-50 (n=760)	39.5	[35.2, 44.0]	60.5	[56.0, 64.8]	100.0
51-64 (n=964)	38.9	[35.2, 42.6]	61.1	[57.4, 64.8]	100.0
Pearson: Uncorrected chi2(2) =	15.1531				
Design-based F(1.93, 4574.61) =	4.6514	Pr =	0.010		
Gender					
Male (n=933)	39.9	[36.0, 44.0]	60.1	[56.0, 64.0]	100.0
Female (n=1,455)	33.3	[30.3, 36.5]	66.7	[63.5, 69.7]	100.0
Pearson: Uncorrected chi2(1) =	11.2663				
Design-based F(1.00, 2376.00) =	6.6474	Pr =	0.010		
Race/ethnicity					
White, non-Hispanic (n=1,603)	38.5	[35.5, 41.7]	61.5	[58.3, 64.5]	100.0
Black, non-Hispanic (n=479)	35.7	[30.6, 41.2]	64.3	[58.8, 69.4]	100.0
Hispanic (n=100)	29.8	[19.8, 42.2]	70.2	[57.8, 80.2]	100.0
Other, non-Hispanic (n=176)	28.6	[21.5, 36.8]	71.4	[63.2, 78.5]	100.0
Pearson: Uncorrected chi2(3) =	10.4658				
Design-based F(2.98, 6988.05) =	1.9978	Pr =	0.113		
FPL category					
0-35% (n=1,001)	42.1	[38.3, 46.0]	57.9	[54.0, 61.7]	100.0
36-99% (n=824)	30.4	[26.9, 34.1]	69.6	[65.9, 73.1]	100.0
100%+ (n=563)	27.2	[23.2, 31.6]	72.8	[68.4, 76.8]	100.0
Pearson: Uncorrected chi2(2) =	44.4989				
Design-based F(1.93, 4591.14) =	18.2597	Pr =	0.000		
Region					
UP/NW/NE (n=450)	36.3	[31.6, 41.4]	63.7	[58.6, 68.4]	100.0
W/E Central/E (n=777)	40.3	[36.4, 44.4]	59.7	[55.6, 63.6]	100.0
S Central/SW/SE (n=464)	36.5	[31.6, 41.5]	63.5	[58.5, 68.4]	100.0
Detroit Metro (n=697)	33.6	[29.4, 38.2]	66.4	[61.8, 70.6]	100.0
Pearson: Uncorrected chi2(3) =	8.3116				
Design-based F(2.59, 6164.56) =	2.2504	Pr =	0.090		
Chronic condition (2016/2017 survey or DW)					
Yes (n=1,931)	39.1	[36.3, 41.9]	60.9	[58.1, 63.7]	100.0
No (n=457)	26.6	[21.8, 32.0]	73.4	[68.0, 78.2]	100.0
Pearson: Uncorrected chi2(1) =	27.3401				
Design-based F(1.00, 2376.00) =	15.2385	Pr =	0.000		
Total (n=2,388)	36.4	[33.9, 38.9]	63.6	[61.1, 66.1]	100.0

4.7.1 Q: Do you want to quit smoking or using tobacco?

Follow-up group(s): Still enrolled
Universe: Respondents who smoked or used tobacco in the last 30 days (n = 882)

	Want to quit smoking or using tobacco						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=879)	71.9	[67.8, 75.7]	26.4	[22.7, 30.4]	1.7	[0.8, 3.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=201)	64.3	[55.6, 72.2]	33.0	[25.4, 41.6]	2.7	[0.8, 8.5]	100.0
35-50 (n=308)	73.2	[65.9, 79.4]	25.5	[19.4, 32.6]	1.4	[0.2, 7.5]	100.0
51-64 (n=370)	78.0	[72.9, 82.4]	20.8	[16.6, 25.8]	1.2	[0.3, 3.9]	100.0
Pearson: Uncorrected chi2(4) =	13.6597						
Design-based F(3.48, 3015.83) =	1.6700	Pr =	0.163				
Gender							
Male (n=398)	70.6	[64.6, 76.0]	27.3	[22.1, 33.1]	2.1	[0.8, 5.7]	100.0
Female (n=481)	73.3	[67.3, 78.5]	25.4	[20.3, 31.2]	1.3	[0.3, 5.3]	100.0
Pearson: Uncorrected chi2(2) =	1.2915						
Design-based F(1.90, 1646.36) =	0.2817	Pr =	0.743				
Race/ethnicity							
White, non-Hispanic (n=612)	67.6	[62.2, 72.6]	31.2	[26.3, 36.6]	1.1	[0.3, 4.2]	100.0
Black, non-Hispanic (n=172)	82.8	[75.2, 88.4]	15.2	[10.2, 22.0]	2.1	[0.4, 10.8]	100.0
Hispanic (n=27)	64.3	[42.5, 81.4]	28.2	[13.6, 49.4]	7.5	[1.8, 26.2]	100.0
Other, non-Hispanic (n=57)	73.3	[59.0, 83.9]	24.1	[14.1, 37.9]	2.7	[0.4, 16.6]	100.0
Pearson: Uncorrected chi2(6) =	29.2812						
Design-based F(5.25, 4495.64) =	2.6486	Pr =	0.019				
FPL category							
0-35% (n=448)	71.7	[65.8, 76.9]	26.4	[21.4, 32.2]	1.9	[0.6, 5.5]	100.0
36-99% (n=271)	74.6	[68.4, 79.9]	24.6	[19.4, 30.7]	0.8	[0.1, 5.7]	100.0
100%+ (n=160)	68.8	[60.1, 76.3]	28.9	[21.6, 37.5]	2.3	[0.8, 6.8]	100.0
Pearson: Uncorrected chi2(4) =	2.1297						
Design-based F(3.72, 3222.82) =	0.3967	Pr =	0.797				
Region							
UP/NW/NE (n=172)	71.9	[64.1, 78.5]	27.7	[21.1, 35.4]	0.5	[0.1, 3.4]	100.0
W/E Central/E (n=309)	69.8	[63.5, 75.5]	27.3	[22.0, 33.4]	2.8	[0.9, 8.2]	100.0
S Central/SW/SE (n=173)	70.1	[62.1, 77.1]	28.2	[21.5, 36.1]	1.6	[0.5, 5.5]	100.0
Detroit Metro (n=225)	74.4	[65.9, 81.3]	24.5	[17.7, 32.8]	1.1	[0.2, 7.7]	100.0
Pearson: Uncorrected chi2(6) =	4.7974						
Design-based F(4.01, 3474.08) =	0.5147	Pr =	0.725				
Chronic condition (2016/2017 survey or DW)							
Yes (n=759)	74.7	[70.2, 78.6]	23.4	[19.6, 27.6]	2.0	[0.9, 4.6]	100.0
No (n=120)	57.4	[45.9, 68.2]	42.3	[31.6, 53.8]	0.3	[0.0, 2.0]	100.0
Pearson: Uncorrected chi2(2) =	22.8058						
Design-based F(1.46, 1265.26) =	9.8372	Pr =	0.000				
Total (n=879)	71.9	[67.8, 75.7]	26.4	[22.7, 30.4]	1.7	[0.8, 3.9]	100.0

Note: Total count is less than universe count due to item non-response.

4.7.1.1 Q: Are you working on cutting back or quitting right now?

Follow-up group(s): Still enrolled
Universe: Respondents who smoked or used tobacco in the last 30 days and want to quit smoking/using tobacco (Yes or DK) (n = 643)

	Attempting to quit smoking or using tobacco						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=641)	91.0	[87.6, 93.6]	8.7	[6.2, 12.1]	0.3	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=136)	89.2	[80.1, 94.4]	9.8	[4.8, 19.0]	1.0	[0.2, 4.3]	100.0
35-50 (n=227)	89.7	[83.0, 94.0]	10.3	[6.0, 17.0]	0.0		100.0
51-64 (n=278)	94.1	[91.1, 96.1]	5.9	[3.9, 8.9]	0.0		100.0
Pearson: Uncorrected chi2(4) =	7.8204						
Design-based F(3.49, 2196.42) =	1.3826	Pr =	0.242				
Gender							
Male (n=283)	90.0	[83.9, 94.0]	10.0	[6.0, 16.1]	0.0		100.0
Female (n=358)	92.0	[88.0, 94.8]	7.4	[4.7, 11.4]	0.6	[0.1, 2.4]	100.0
Pearson: Uncorrected chi2(2) =	3.0905						
Design-based F(1.88, 1184.63) =	1.1374	Pr =	0.319				
Race/ethnicity							
White, non-Hispanic (n=431)	92.8	[88.6, 95.6]	7.2	[4.4, 11.4]	0.0		100.0
Black, non-Hispanic (n=142)	89.8	[81.4, 94.7]	9.9	[5.1, 18.4]	0.3	[0.0, 2.1]	100.0
Hispanic (n=18)	76.7	[48.6, 92.0]	18.3	[5.3, 47.2]	5.0	[0.7, 29.4]	100.0
Other, non-Hispanic (n=41)	88.0	[72.5, 95.3]	12.0	[4.7, 27.5]	0.0		100.0
Pearson: Uncorrected chi2(6) =	25.5468						
Design-based F(5.41, 3354.17) =	3.0172	Pr =	0.008				
FPL category							
0-35% (n=330)	91.9	[86.9, 95.2]	8.1	[4.8, 13.1]	0.0		100.0
36-99% (n=201)	90.6	[84.6, 94.4]	9.4	[5.6, 15.4]	0.0		100.0
100%+ (n=110)	87.3	[77.6, 93.1]	10.5	[5.3, 19.8]	2.2	[0.5, 9.2]	100.0
Pearson: Uncorrected chi2(4) =	13.0728						
Design-based F(3.24, 2035.05) =	3.3488	Pr =	0.016				
Region							
UP/NW/NE (n=120)	91.9	[85.2, 95.7]	8.1	[4.3, 14.8]	0.0		100.0
W/E Central/E (n=224)	94.2	[90.2, 96.6]	5.3	[3.0, 9.0]	0.6	[0.1, 4.1]	100.0
S Central/SW/SE (n=120)	89.8	[82.0, 94.4]	9.7	[5.2, 17.4]	0.5	[0.1, 3.8]	100.0
Detroit Metro (n=177)	88.9	[81.1, 93.7]	11.1	[6.3, 18.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	6.9901						
Design-based F(4.54, 2854.99) =	1.2989	Pr =	0.265				
Chronic condition (2016/2017 survey or DW)							
Yes (n=573)	91.7	[87.9, 94.4]	7.9	[5.3, 11.7]	0.3	[0.1, 1.4]	100.0
No (n=68)	86.1	[74.7, 92.8]	13.9	[7.2, 25.3]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.4004						
Design-based F(1.94, 1219.88) =	1.3533	Pr =	0.259				
Total (n=641)	91.0	[87.6, 93.6]	8.7	[6.2, 12.1]	0.3	[0.1, 1.2]	100.0

Note: Total count is less than universe count due to item non-response.

4.7.2 Q: In the last 12 months, did you receive any advice or assistance from a health professional or your health plan on how to quit or cut back?

Follow-up group(s): Still enrolled
Universe: Respondents who have smoked or used tobacco in the last 30 days and want to quit smoking or using tobacco (Yes or DK) (n = 643)

	Got help with reducing/quitting tobacco in last 12 months				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=639)	52.2	[47.2, 57.0]	47.8	[43.0, 52.8]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=136)	45.1	[35.0, 55.5]	54.9	[44.5, 65.0]	100.0
35-50 (n=226)	49.0	[41.0, 57.0]	51.0	[43.0, 59.0]	100.0
51-64 (n=277)	61.9	[55.0, 68.5]	38.1	[31.5, 45.0]	100.0
Pearson: Uncorrected chi2(2) =	12.7478				
Design-based F(1.93, 1207.94) =	4.0079	Pr =	0.020		
Gender					
Male (n=282)	42.9	[35.9, 50.1]	57.1	[49.9, 64.1]	100.0
Female (n=357)	61.4	[55.0, 67.4]	38.6	[32.6, 45.0]	100.0
Pearson: Uncorrected chi2(1) =	21.9768				
Design-based F(1.00, 627.00) =	14.2956	Pr =	0.000		
Race/ethnicity					
White, non-Hispanic (n=430)	54.6	[48.7, 60.4]	45.4	[39.6, 51.3]	100.0
Black, non-Hispanic (n=141)	51.0	[40.7, 61.1]	49.0	[38.9, 59.3]	100.0
Hispanic (n=18)	24.8	[10.2, 49.0]	75.2	[51.0, 89.8]	100.0
Other, non-Hispanic (n=41)	51.9	[34.8, 68.6]	48.1	[31.4, 65.2]	100.0
Pearson: Uncorrected chi2(3) =	8.2497				
Design-based F(2.93, 1812.58) =	1.7806	Pr =	0.150		
FPL category					
0-35% (n=328)	56.4	[49.5, 63.1]	43.6	[36.9, 50.5]	100.0
36-99% (n=201)	44.0	[36.6, 51.7]	56.0	[48.3, 63.4]	100.0
100%+ (n=110)	45.1	[34.8, 55.9]	54.9	[44.1, 65.2]	100.0
Pearson: Uncorrected chi2(2) =	8.5090				
Design-based F(1.95, 1219.82) =	3.7684	Pr =	0.024		
Region					
UP/NW/NE (n=119)	56.8	[46.4, 66.6]	43.2	[33.4, 53.6]	100.0
W/E Central/E (n=224)	53.0	[45.5, 60.5]	47.0	[39.5, 54.5]	100.0
S Central/SW/SE (n=120)	58.0	[47.3, 68.0]	42.0	[32.0, 52.7]	100.0
Detroit Metro (n=176)	48.1	[39.4, 57.0]	51.9	[43.0, 60.6]	100.0
Pearson: Uncorrected chi2(3) =	3.7385				
Design-based F(2.67, 1672.43) =	0.9997	Pr =	0.386		
Chronic condition (2016/2017 survey or DW)					
Yes (n=571)	53.5	[48.3, 58.7]	46.5	[41.3, 51.7]	100.0
No (n=68)	42.6	[29.1, 57.4]	57.4	[42.6, 70.9]	100.0
Pearson: Uncorrected chi2(1) =	3.3063				
Design-based F(1.00, 627.00) =	1.8737	Pr =	0.172		
Total (n=639)	52.2	[47.2, 57.0]	47.8	[43.0, 52.8]	100.0

Note: Total count is less than universe count due to item non-response.

4.8 Q: In the last 30 days, have you used drugs or medications to affect your mood or help you relax?

Follow-up group(s): Still enrolled
Universe: All respondents

	Drug use in last 30 days				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,386)	5.4	[4.3, 6.7]	94.6	[93.3, 95.7]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=663)	5.8	[3.8, 8.7]	94.2	[91.3, 96.2]	100.0
35-50 (n=759)	5.7	[3.9, 8.2]	94.3	[91.8, 96.1]	100.0
51-64 (n=964)	4.5	[3.2, 6.3]	95.5	[93.7, 96.8]	100.0
Pearson: Uncorrected chi2(2) =	1.5097				
Design-based F(1.88, 4461.17) =	0.4594	Pr =	0.620		
Gender					
Male (n=932)	6.1	[4.4, 8.3]	93.9	[91.7, 95.6]	100.0
Female (n=1,454)	4.8	[3.5, 6.6]	95.2	[93.4, 96.5]	100.0
Pearson: Uncorrected chi2(1) =	1.8255				
Design-based F(1.00, 2374.00) =	1.0176	Pr =	0.313		
Race/ethnicity					
White, non-Hispanic (n=1,602)	4.8	[3.7, 6.2]	95.2	[93.8, 96.3]	100.0
Black, non-Hispanic (n=479)	6.4	[3.8, 10.6]	93.6	[89.4, 96.2]	100.0
Hispanic (n=100)	7.2	[3.1, 15.8]	92.8	[84.2, 96.9]	100.0
Other, non-Hispanic (n=175)	5.5	[2.7, 10.8]	94.5	[89.2, 97.3]	100.0
Pearson: Uncorrected chi2(3) =	3.0466				
Design-based F(2.83, 6641.51) =	0.5690	Pr =	0.626		
FPL category					
0-35% (n=1,000)	6.1	[4.4, 8.4]	93.9	[91.6, 95.6]	100.0
36-99% (n=823)	5.1	[3.6, 7.2]	94.9	[92.8, 96.4]	100.0
100%+ (n=563)	3.5	[2.2, 5.4]	96.5	[94.6, 97.8]	100.0
Pearson: Uncorrected chi2(2) =	4.6060				
Design-based F(1.88, 4461.63) =	1.9699	Pr =	0.143		
Region					
UP/NW/NE (n=450)	4.2	[2.4, 7.4]	95.8	[92.6, 97.6]	100.0
W/E Central/E (n=775)	4.3	[3.0, 6.2]	95.7	[93.8, 97.0]	100.0
S Central/SW/SE (n=464)	7.8	[5.4, 11.1]	92.2	[88.9, 94.6]	100.0
Detroit Metro (n=697)	5.4	[3.5, 8.1]	94.6	[91.9, 96.5]	100.0
Pearson: Uncorrected chi2(3) =	6.5814				
Design-based F(2.63, 6234.59) =	1.6679	Pr =	0.178		
Chronic condition (2016/2017 survey or DW)					
Yes (n=1,930)	6.0	[4.6, 7.6]	94.0	[92.4, 95.4]	100.0
No (n=456)	3.3	[1.9, 5.5]	96.7	[94.5, 98.1]	100.0
Pearson: Uncorrected chi2(1) =	5.6868				
Design-based F(1.00, 2374.00) =	4.2773	Pr =	0.039		
Total (n=2,386)	5.4	[4.3, 6.7]	94.6	[93.3, 95.7]	100.0

Note: Total count is less than universe count due to item non-response.

4.8.1 Q: How often?

Follow-up group(s): Still enrolled
Universe: Respondents who used drugs in the last 30 days (n = 131)

	Drug use frequency								
	Almost every day		Sometimes		Rarely		Never		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=131)	49.9	[38.6, 61.2]	26.7	[17.7, 38.1]	21.6	[12.8, 34.0]	1.9	[0.3, 12.3]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=38)	43.0	[24.4, 63.7]	27.8	[14.6, 46.5]	29.2	[12.8, 53.8]	0.0		100.0
35-50 (n=45)	51.1	[33.3, 68.6]	24.7	[11.2, 46.2]	19.3	[9.1, 36.5]	4.8	[0.7, 27.9]	100.0
51-64 (n=48)	59.3	[40.8, 75.6]	28.0	[13.7, 48.7]	12.7	[5.0, 28.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	7.6467								
Design-based F(5.51, 655.99) =	0.7522	Pr =	0.597						
Gender									
Male (n=60)	56.8	[40.2, 72.0]	28.0	[15.2, 45.9]	15.1	[7.1, 29.4]	0.0		100.0
Female (n=71)	42.4	[28.4, 57.7]	25.2	[14.6, 39.8]	28.5	[14.7, 48.1]	3.9	[0.5, 23.1]	100.0
Pearson: Uncorrected chi2(3) =	6.8241								
Design-based F(2.92, 346.95) =	1.1935	Pr =	0.312						
Race/ethnicity									
White, non-Hispanic (n=84)	47.6	[34.9, 60.6]	25.8	[16.0, 38.8]	23.0	[13.6, 36.3]	3.5	[0.5, 21.4]	100.0
Black, non-Hispanic (n=28)	46.8	[23.4, 71.8]	22.6	[7.1, 52.5]	30.6	[11.2, 60.5]	0.0		100.0
Hispanic (n=7)	48.6	[16.2, 82.2]	51.4	[17.8, 83.8]	0.0		0.0		100.0
Other, non-Hispanic (n=11)	70.7	[31.8, 92.6]	29.3	[7.4, 68.2]	0.0		0.0		100.0
Pearson: Uncorrected chi2(9) =	11.5902								
Design-based F(7.01, 826.76) =	0.7544	Pr =	0.626						
FPL category									
0-35% (n=63)	50.2	[34.5, 65.9]	27.2	[15.2, 43.7]	19.7	[8.9, 38.2]	2.9	[0.4, 18.2]	100.0
36-99% (n=45)	45.4	[29.9, 61.8]	27.0	[14.0, 45.7]	27.7	[13.9, 47.5]	0.0		100.0
100%+ (n=23)	58.0	[36.1, 77.2]	22.9	[10.5, 42.8]	19.1	[5.9, 47.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	2.4849								
Design-based F(4.41, 524.53) =	0.3384	Pr =	0.869						
Region									
UP/NW/NE (n=19)	54.2	[26.4, 79.7]	21.8	[8.2, 46.3]	24.0	[8.4, 52.3]	0.0		100.0
W/E Central/E (n=38)	54.7	[37.5, 70.9]	25.8	[13.7, 43.2]	19.5	[8.7, 38.2]	0.0		100.0
S Central/SW/SE (n=37)	51.0	[32.7, 69.1]	23.5	[11.5, 42.1]	17.9	[8.0, 35.2]	7.6	[1.1, 38.8]	100.0
Detroit Metro (n=37)	45.9	[26.8, 66.2]	29.7	[14.0, 52.2]	24.4	[9.5, 49.9]	0.0		100.0
Pearson: Uncorrected chi2(9) =	8.7950								
Design-based F(6.25, 743.62) =	0.8430	Pr =	0.541						
Chronic condition (2016/2017 survey or DW)									
Yes (n=114)	53.0	[40.3, 65.4]	26.0	[16.4, 38.6]	18.9	[9.9, 33.0]	2.1	[0.3, 13.9]	100.0
No (n=17)	28.0	[10.2, 57.0]	31.6	[13.0, 58.7]	40.4	[18.4, 67.1]	0.0		100.0
Pearson: Uncorrected chi2(3) =	5.3950								
Design-based F(2.80, 333.17) =	1.0842	Pr =	0.353						
Total (n=131)	49.9	[38.6, 61.2]	26.7	[17.7, 38.1]	21.6	[12.8, 34.0]	1.9	[0.3, 12.3]	100.0

4.8.1.1 Q: In the last 12 months, has a doctor, nurse, or other health professional talked with you about your use of these drugs or medications?

Follow-up group(s): Still enrolled
Universe: Respondents who used drugs almost every day/sometimes in the last 30 days (n = 104)

	Health professional discussed drug use in last 12 months				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=99)	43.8	[32.5, 55.8]	56.2	[44.2, 67.5]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=27)	39.7	[22.2, 60.4]	60.3	[39.6, 77.8]	100.0
35-50 (n=31)	37.3	[20.6, 57.8]	62.7	[42.2, 79.4]	100.0
51-64 (n=41)	57.7	[40.5, 73.2]	42.3	[26.8, 59.5]	100.0
Pearson: Uncorrected chi2(2) =	2.9706				
Design-based F(1.85, 160.71) =	1.1822	Pr =	0.307		
Gender					
Male (n=47)	46.8	[29.8, 64.6]	53.2	[35.4, 70.2]	100.0
Female (n=52)	39.9	[25.7, 56.0]	60.1	[44.0, 74.3]	100.0
Pearson: Uncorrected chi2(1) =	0.4786				
Design-based F(1.00, 87.00) =	0.3130	Pr =	0.577		
Race/ethnicity					
White, non-Hispanic (n=63)	46.5	[32.4, 61.2]	53.5	[38.8, 67.6]	100.0
Black, non-Hispanic (n=19)	31.9	[12.2, 61.1]	68.1	[38.9, 87.8]	100.0
Hispanic (n=6)	35.8	[9.6, 74.4]	64.2	[25.6, 90.4]	100.0
Other, non-Hispanic (n=10)	62.5	[26.4, 88.5]	37.5	[11.5, 73.6]	100.0
Pearson: Uncorrected chi2(3) =	3.5946				
Design-based F(2.92, 251.25) =	0.7342	Pr =	0.529		
FPL category					
0-35% (n=47)	49.0	[32.8, 65.5]	51.0	[34.5, 67.2]	100.0
36-99% (n=32)	26.3	[13.3, 45.4]	73.7	[54.6, 86.7]	100.0
100%+ (n=20)	49.3	[27.2, 71.6]	50.7	[28.4, 72.8]	100.0
Pearson: Uncorrected chi2(2) =	3.7050				
Design-based F(1.92, 166.98) =	2.0059	Pr =	0.140		
Region					
UP/NW/NE (n=14)	58.3	[25.7, 85.0]	41.7	[15.0, 74.3]	100.0
W/E Central/E (n=28)	77.3	[59.0, 89.0]	22.7	[11.0, 41.0]	100.0
S Central/SW/SE (n=27)	29.8	[14.1, 52.2]	70.2	[47.8, 85.9]	100.0
Detroit Metro (n=30)	30.3	[14.2, 53.2]	69.7	[46.8, 85.8]	100.0
Pearson: Uncorrected chi2(3) =	16.9365				
Design-based F(2.75, 238.91) =	4.9319	Pr =	0.003		
Chronic condition (2016/2017 survey or DW)					
Yes (n=89)	43.8	[31.6, 56.8]	56.2	[43.2, 68.4]	100.0
No (n=10)	44.1	[16.0, 76.6]	55.9	[23.4, 84.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0003				
Design-based F(1.00, 87.00) =	0.0002	Pr =	0.988		
Total (n=99)	43.8	[32.5, 55.8]	56.2	[44.2, 67.5]	100.0

Note: Total count is less than universe count due to item non-response.

4.9 Q: In the last year, did you discuss the Health Risk Assessment with your doctor or someone at your primary care provider's office?

Follow-up group(s): Still enrolled
Universe: All respondents

	Discussed HRA with provider in the last year						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,385)	45.9	[43.3, 48.5]	44.8	[42.2, 47.4]	9.3	[7.9, 10.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=661)	41.0	[36.4, 45.7]	48.1	[43.3, 52.9]	11.0	[8.2, 14.6]	100.0
35-50 (n=760)	45.5	[41.1, 50.0]	46.1	[41.6, 50.7]	8.4	[6.4, 10.8]	100.0
51-64 (n=964)	52.5	[48.6, 56.3]	39.1	[35.4, 42.9]	8.4	[6.5, 10.8]	100.0
Pearson: Uncorrected chi2(4) =	22.4303						
Design-based F(3.82, 9076.16) =	3.5663	Pr =	0.007				
Gender							
Male (n=932)	41.4	[37.5, 45.4]	48.9	[44.8, 53.1]	9.7	[7.5, 12.4]	100.0
Female (n=1,453)	49.8	[46.4, 53.1]	41.2	[38.0, 44.6]	9.0	[7.3, 11.1]	100.0
Pearson: Uncorrected chi2(2) =	17.1227						
Design-based F(2.00, 4741.69) =	5.0284	Pr =	0.007				
Race/ethnicity							
White, non-Hispanic (n=1,601)	44.4	[41.3, 47.5]	44.5	[41.3, 47.7]	11.1	[9.2, 13.4]	100.0
Black, non-Hispanic (n=478)	52.3	[46.6, 57.9]	43.8	[38.2, 49.6]	3.9	[2.5, 6.2]	100.0
Hispanic (n=100)	43.8	[32.7, 55.6]	48.0	[36.2, 59.9]	8.2	[4.0, 16.0]	100.0
Other, non-Hispanic (n=176)	37.8	[29.6, 46.9]	46.9	[37.9, 56.2]	15.2	[9.1, 24.5]	100.0
Pearson: Uncorrected chi2(6) =	41.9822						
Design-based F(5.77, 13507.44) =	4.0513	Pr =	0.001				
FPL category							
0-35% (n=999)	46.7	[42.9, 50.7]	43.8	[39.8, 47.8]	9.5	[7.4, 12.1]	100.0
36-99% (n=823)	46.0	[41.8, 50.1]	45.1	[41.0, 49.3]	8.9	[6.9, 11.4]	100.0
100%+ (n=563)	43.2	[38.6, 48.0]	47.4	[42.6, 52.3]	9.3	[7.0, 12.4]	100.0
Pearson: Uncorrected chi2(4) =	1.9934						
Design-based F(3.83, 9080.02) =	0.3887	Pr =	0.809				
Region							
UP/NW/NE (n=450)	43.3	[38.3, 48.5]	47.5	[42.2, 52.8]	9.2	[6.6, 12.7]	100.0
W/E Central/E (n=777)	49.6	[45.5, 53.7]	39.5	[35.5, 43.7]	10.9	[8.7, 13.6]	100.0
S Central/SW/SE (n=462)	44.2	[39.1, 49.5]	49.3	[44.1, 54.6]	6.5	[4.4, 9.4]	100.0
Detroit Metro (n=696)	44.6	[40.0, 49.3]	46.0	[41.3, 50.8]	9.4	[6.9, 12.6]	100.0
Pearson: Uncorrected chi2(6) =	15.4665						
Design-based F(5.18, 12298.55) =	2.0936	Pr =	0.061				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,930)	48.9	[46.0, 51.8]	41.8	[38.9, 44.8]	9.3	[7.8, 11.1]	100.0
No (n=455)	35.1	[30.1, 40.5]	55.5	[49.8, 61.0]	9.4	[6.4, 13.5]	100.0
Pearson: Uncorrected chi2(2) =	33.4759						
Design-based F(1.99, 4715.47) =	9.4755	Pr =	0.000				
Total (n=2,385)	45.9	[43.3, 48.5]	44.8	[42.2, 47.4]	9.3	[7.9, 10.9]	100.0

Note: Total count is less than universe count due to item non-response.

4.9.1 Q: What healthy behavior did you choose to work on?

Follow-up group(s): Still enrolled
Universe: Respondents who discussed the Health Risk Assessment with a doctor or someone at their primary care provider's office in the last year (n = 1,163)

HRA healthy behavior	Weighted Proportion	95%CI
At least one healthy behavior (n=1,042)	88.5	[85.8, 90.8]
Nutrition/diet (n=418)	38.6	[35.0, 42.2]
Exercise/activity (n=387)	33.9	[30.6, 37.4]
Reduce/quit tobacco use (n=188)	14.4	[12.2, 16.8]
Lose weight (n=178)	13.3	[11.2, 15.8]
Don't remember (n=110)	10.5	[8.3, 13.1]
Reduce stress/mental health care (n=48)	4.5	[3.1, 6.6]
Other (n=41)	2.9	[2.1, 4.1]
Monitor my blood pressure/sugar (n=30)	2.7	[1.8, 4.1]
Reduce/quit alcohol use (n=16)	1.4	[0.8, 2.5]
Return to doctor (n=6)	0.7	[0.2, 2.2]
Take medicine regularly (n=7)	0.5	[0.2, 1.1]
Treatment for substance use (n=4)	0.3	[0.1, 0.8]
Flu shot (n=1)	0.2	[0.0, 1.3]

Note: Respondents were able to provide multiple responses

4.9.1.1 Q: Why did you choose to work on this healthy behavior?

Follow-up group(s): Still enrolled
Universe: Respondents who chose to work on at least one healthy behavior (n = 1,042)

	Reasons for choosing healthy behavior											
	Wanted to do anyway		**Doctor suggested**		**Improve condition**		**Other**		**Easy to do**		**HMP covers cost**	
	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI	Percent	95%CI
Nutrition/diet (n=418)	71.2	[65.4, 76.3]	30.5	[25.3, 36.2]	14.7	[11.1, 19.2]	2.9	[1.3, 6.1]	0.9	[0.3, 2.2]	0.1	[0.0, 0.8]
Exercise/activity (n=387)	77.6	[72.3, 82.2]	31.4	[26.1, 37.2]	12.4	[8.8, 17.0]	2.0	[0.9, 4.6]	3.8	[2.0, 7.0]		
Reduce/quit tobacco use (n=188)	82.7	[75.5, 88.0]	25.4	[19.0, 33.1]	4.6	[2.0, 10.1]	1.7	[0.5, 5.4]			0.6	[0.1, 2.4]
Lose weight (n=178)	76.0	[66.9, 83.2]	25.7	[19.0, 33.8]	16.1	[10.1, 24.7]	0.5	[0.1, 2.2]	0.7	[0.2, 2.7]	0.3	[0.0, 2.3]
Reduce stress/mental health care (n=48)	83.7	[83.7, 83.7]	19.5	[19.5, 19.5]	8.1	[8.1, 8.1]	2.6	[2.6, 2.6]				
Other (n=41)	57.8	[57.8, 57.8]	16.8	[16.8, 16.8]	5.6	[5.6, 5.6]	9.2	[9.2, 9.2]				
Monitor blood pressure/sugar (n=30)	63.9	[63.9, 63.9]	50.4	[50.4, 50.4]	8.3	[8.3, 8.3]						
Reduce/quit alcohol use (n=16)	65.7	[65.7, 65.7]	17.8	[17.8, 17.8]	3.9	[3.9, 3.9]	12.6	[12.6, 12.6]				

Note: Respondents were able to provide multiple responses

5 Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about emergency department utilization.

5.1 Q: In the last 12 months, is there a place you usually go when you need a checkup, feel sick, or want advice about your health?

Follow-up group(s): Still enrolled
Universe: All respondents

	Regular source of care in last 12 months						
	Yes		No		NA		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,386)	93.8	[92.4, 95.0]	4.1	[3.2, 5.3]	2.1	[1.4, 3.0]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	92.3	[89.4, 94.4]	4.9	[3.3, 7.2]	2.8	[1.6, 5.1]	100.0
35-50 (n=760)	93.6	[91.0, 95.6]	4.7	[3.0, 7.3]	1.6	[0.9, 2.9]	100.0
51-64 (n=962)	95.9	[94.2, 97.2]	2.4	[1.6, 3.7]	1.7	[0.9, 3.2]	100.0
Pearson: Uncorrected chi2(4) =	11.3533						
Design-based F(3.76, 8915.29) =	1.8965	Pr =	0.113				
Gender							
Male (n=932)	90.8	[88.2, 92.9]	5.8	[4.2, 8.0]	3.4	[2.1, 5.3]	100.0
Female (n=1,454)	96.4	[94.9, 97.4]	2.7	[1.7, 4.1]	0.9	[0.6, 1.6]	100.0
Pearson: Uncorrected chi2(2) =	33.4893						
Design-based F(1.92, 4551.54) =	11.5537	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,601)	93.8	[92.0, 95.2]	3.9	[2.8, 5.3]	2.3	[1.5, 3.5]	100.0
Black, non-Hispanic (n=479)	95.1	[91.7, 97.2]	3.5	[1.8, 6.6]	1.4	[0.5, 3.9]	100.0
Hispanic (n=100)	90.8	[81.6, 95.7]	9.2	[4.3, 18.4]	0.0		100.0
Other, non-Hispanic (n=176)	90.6	[83.7, 94.8]	5.6	[2.6, 11.4]	3.8	[1.5, 9.7]	100.0
Pearson: Uncorrected chi2(6) =	16.0560						
Design-based F(5.83, 13669.62) =	1.4155	Pr =	0.206				
FPL category							
0-35% (n=999)	93.6	[91.5, 95.3]	4.7	[3.4, 6.6]	1.7	[0.9, 3.1]	100.0
36-99% (n=824)	94.6	[92.1, 96.3]	3.1	[1.9, 4.9]	2.4	[1.3, 4.5]	100.0
100%+ (n=563)	93.3	[89.9, 95.6]	3.9	[2.1, 7.2]	2.8	[1.6, 4.8]	100.0
Pearson: Uncorrected chi2(4) =	5.2640						
Design-based F(3.86, 9169.98) =	0.8456	Pr =	0.493				
Region							
UP/NW/NE (n=450)	94.0	[90.9, 96.1]	2.9	[1.6, 5.3]	3.0	[1.6, 5.6]	100.0
W/E Central/E (n=777)	94.3	[92.0, 96.0]	4.1	[2.7, 6.1]	1.6	[0.8, 3.0]	100.0
S Central/SW/SE (n=463)	92.5	[88.8, 95.0]	5.1	[3.0, 8.6]	2.4	[1.3, 4.5]	100.0
Detroit Metro (n=696)	93.9	[91.2, 95.8]	4.0	[2.6, 6.3]	2.0	[1.0, 4.1]	100.0
Pearson: Uncorrected chi2(6) =	3.8307						
Design-based F(5.20, 12334.31) =	0.4817	Pr =	0.797				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,930)	95.7	[94.4, 96.8]	3.0	[2.2, 4.2]	1.2	[0.7, 2.2]	100.0
No (n=456)	86.8	[82.3, 90.3]	8.2	[5.4, 12.1]	5.0	[3.1, 8.1]	100.0
Pearson: Uncorrected chi2(2) =	57.5040						
Design-based F(2.00, 4747.98) =	16.1040	Pr =	0.000				
Total (n=2,386)	93.8	[92.4, 95.0]	4.1	[3.2, 5.3]	2.1	[1.4, 3.0]	100.0

Note: Total count is less than universe count due to item non-response.

5.1.1 Q: What kind of a place was it?

Follow-up group(s): Still enrolled
Universe: Respondents who had a regular source of care in last 12 months (n = 2,261)

	Regular source of care in last 12 months												
	Clinic		Doctor's office		Urgent care/Walk-in clinic		Emergency room		Other		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,226)	20.5	[18.5, 22.7]	69.7	[67.2, 72.1]	6.1	[4.9, 7.7]	2.6	[1.7, 4.0]	1.0	[0.6, 1.5]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=601)	19.4	[15.7, 23.9]	68.2	[63.2, 72.8]	7.1	[5.1, 9.9]	4.4	[2.5, 7.7]	0.8	[0.4, 1.8]	0.0		100.0
35-50 (n=715)	17.5	[14.5, 21.0]	72.6	[68.3, 76.6]	6.7	[4.4, 10.1]	2.5	[1.3, 4.9]	0.6	[0.2, 1.7]	0.0		100.0
51-64 (n=910)	25.3	[22.2, 28.8]	68.0	[64.3, 71.5]	4.2	[2.7, 6.4]	0.7	[0.2, 1.9]	1.7	[0.9, 3.0]	0.2	[0.0, 1.3]	100.0
Pearson: Uncorrected chi2(10) =	45.0215												
Design-based F(9.14, 20240.25) =	2.7714	Pr =	0.003										
Gender													
Male (n=837)	22.9	[19.5, 26.7]	65.1	[60.8, 69.2]	6.7	[4.7, 9.4]	4.0	[2.3, 6.8]	1.3	[0.7, 2.4]	0.0		100.0
Female (n=1,389)	18.6	[16.3, 21.1]	73.4	[70.4, 76.2]	5.7	[4.2, 7.6]	1.5	[0.8, 2.8]	0.7	[0.4, 1.4]	0.1	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(5) =	27.1240												
Design-based F(4.65, 10284.09) =	3.3642	Pr =	0.006										
Race/ethnicity													
White, non-Hispanic (n=1,496)	19.1	[16.7, 21.7]	73.6	[70.6, 76.3]	5.0	[3.8, 6.6]	1.4	[0.7, 2.7]	0.9	[0.5, 1.6]	0.1	[0.0, 0.7]	100.0
Black, non-Hispanic (n=455)	22.3	[18.2, 27.1]	61.4	[55.7, 66.9]	9.0	[5.9, 13.5]	5.7	[3.2, 10.1]	1.5	[0.7, 3.0]	0.0		100.0
Hispanic (n=90)	33.9	[22.6, 47.4]	58.7	[45.4, 70.8]	3.3	[0.5, 19.9]	4.0	[1.2, 12.4]	0.0		0.0		100.0
Other, non-Hispanic (n=155)	15.7	[9.9, 24.0]	77.4	[68.6, 84.3]	5.6	[2.7, 11.1]	1.1	[0.3, 4.4]	0.2	[0.0, 1.6]	0.0		100.0
Pearson: Uncorrected chi2(15) =	73.9574												
Design-based F(12.84, 28045.24) =	2.9949	Pr =	0.000										
FPL category													
0-35% (n=923)	19.6	[16.7, 22.8]	70.1	[66.2, 73.6]	5.9	[4.1, 8.5]	3.4	[2.0, 5.7]	1.1	[0.6, 2.0]	0.0		100.0
36-99% (n=773)	21.7	[18.1, 25.7]	70.5	[66.3, 74.4]	6.0	[4.3, 8.2]	0.9	[0.4, 2.2]	0.9	[0.4, 1.9]	0.0		100.0
100%+ (n=530)	21.7	[18.1, 25.7]	67.5	[62.6, 71.9]	6.9	[4.6, 10.3]	2.9	[1.3, 6.4]	0.8	[0.3, 2.1]	0.3	[0.0, 2.1]	100.0
Pearson: Uncorrected chi2(10) =	17.3500												
Design-based F(8.62, 19091.97) =	1.3917	Pr =	0.189										
Region													
UP/NW/NE (n=420)	31.6	[26.7, 36.9]	62.2	[56.8, 67.3]	4.0	[2.4, 6.6]	0.8	[0.3, 2.4]	1.4	[0.6, 3.3]	0.0		100.0
W/E Central/E (n=727)	18.5	[15.5, 21.8]	73.6	[69.7, 77.2]	3.8	[2.6, 5.6]	3.4	[1.8, 6.1]	0.8	[0.4, 1.7]	0.0		100.0
S Central/SW/SE (n=429)	26.5	[22.0, 31.6]	61.7	[56.2, 66.9]	9.4	[6.4, 13.6]	2.0	[0.7, 5.1]	0.4	[0.1, 1.4]	0.0		100.0
Detroit Metro (n=650)	17.3	[13.9, 21.2]	71.7	[67.0, 75.9]	6.9	[4.7, 10.0]	2.8	[1.4, 5.5]	1.3	[0.7, 2.4]	0.1	[0.0, 0.9]	100.0
Pearson: Uncorrected chi2(15) =	56.4459												
Design-based F(10.67, 23631.89) =	3.3436	Pr =	0.000										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,830)	20.6	[18.3, 23.0]	70.4	[67.6, 73.1]	5.2	[4.0, 6.8]	2.6	[1.6, 4.2]	1.1	[0.7, 1.8]	0.1	[0.0, 0.5]	100.0
No (n=396)	20.2	[15.8, 25.3]	66.8	[60.8, 72.4]	9.6	[6.2, 14.7]	2.8	[1.3, 5.8]	0.6	[0.2, 1.6]	0.0		100.0
Pearson: Uncorrected chi2(5) =	13.3402												
Design-based F(4.48, 9920.86) =	1.7080	Pr =	0.137										
Total (n=2,226)	20.5	[18.5, 22.7]	69.7	[67.2, 72.1]	6.1	[4.9, 7.7]	2.6	[1.7, 4.0]	1.0	[0.6, 1.5]	0.1	[0.0, 0.4]	100.0

Note: Total count is less than universe count due to item non-response.

5.1.2 Regular source of care in last 12 months, detailed

Follow-up group(s): Still enrolled
Universe: All respondents

	Regular source of care in last 12 months, detailed								
	Doctor/Clinic		Urgent care/Walk-in clinic		Emergency room		None		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=2,329)	85.4	[83.3, 87.3]	5.8	[4.6, 7.2]	2.5	[1.6, 3.8]	6.3	[5.2, 7.8]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=641)	81.3	[77.2, 84.8]	6.6	[4.7, 9.2]	4.1	[2.3, 7.2]	8.0	[5.8, 11.0]	100.0
35-50 (n=750)	84.9	[80.9, 88.1]	6.3	[4.2, 9.5]	2.4	[1.2, 4.6]	6.4	[4.5, 9.1]	100.0
51-64 (n=938)	91.1	[88.4, 93.2]	4.1	[2.6, 6.3]	0.6	[0.2, 1.8]	4.2	[2.9, 6.0]	100.0
Pearson: Uncorrected chi2(6) =	35.2145								
Design-based F(5.57, 12900.10) =	3.2927	Pr =	0.004						
Gender									
Male (n=905)	80.7	[77.0, 84.0]	6.1	[4.3, 8.6]	3.7	[2.1, 6.3]	9.5	[7.3, 12.2]	100.0
Female (n=1,424)	89.3	[86.9, 91.3]	5.5	[4.1, 7.4]	1.5	[0.8, 2.7]	3.7	[2.6, 5.2]	100.0
Pearson: Uncorrected chi2(3) =	46.8337								
Design-based F(2.95, 6842.14) =	8.0648	Pr =	0.000						
Race/ethnicity									
White, non-Hispanic (n=1,569)	87.7	[85.4, 89.7]	4.7	[3.6, 6.2]	1.3	[0.7, 2.6]	6.3	[4.9, 8.1]	100.0
Black, non-Hispanic (n=466)	80.8	[75.2, 85.3]	8.7	[5.7, 13.0]	5.5	[3.0, 9.8]	5.0	[2.9, 8.5]	100.0
Hispanic (n=98)	83.9	[72.4, 91.2]	3.0	[0.4, 18.3]	3.7	[1.1, 11.3]	9.4	[4.4, 18.8]	100.0
Other, non-Hispanic (n=168)	84.2	[76.6, 89.7]	5.1	[2.5, 10.1]	1.0	[0.2, 4.0]	9.7	[5.4, 16.8]	100.0
Pearson: Uncorrected chi2(9) =	55.1321								
Design-based F(8.14, 18634.72) =	3.1502	Pr =	0.001						
FPL category									
0-35% (n=973)	84.7	[81.4, 87.5]	5.6	[3.9, 8.0]	3.2	[1.9, 5.4]	6.5	[4.9, 8.7]	100.0
36-99% (n=802)	87.9	[84.7, 90.4]	5.7	[4.1, 7.9]	0.9	[0.3, 2.1]	5.6	[3.8, 8.2]	100.0
100%+ (n=554)	83.9	[79.4, 87.6]	6.5	[4.3, 9.7]	2.7	[1.2, 6.0]	6.8	[4.5, 10.3]	100.0
Pearson: Uncorrected chi2(6) =	10.9039								
Design-based F(5.70, 13209.20) =	1.1465	Pr =	0.333						
Region									
UP/NW/NE (n=439)	89.3	[85.6, 92.2]	3.8	[2.3, 6.3]	0.8	[0.2, 2.3]	6.2	[4.0, 9.3]	100.0
W/E Central/E (n=758)	87.4	[84.2, 90.1]	3.6	[2.4, 5.3]	3.2	[1.7, 5.8]	5.8	[4.1, 8.1]	100.0
S Central/SW/SE (n=457)	81.8	[76.9, 85.9]	8.7	[5.9, 12.7]	1.8	[0.7, 4.7]	7.6	[5.1, 11.3]	100.0
Detroit Metro (n=675)	84.6	[80.6, 87.9]	6.5	[4.4, 9.5]	2.6	[1.3, 5.3]	6.2	[4.3, 9.0]	100.0
Pearson: Uncorrected chi2(9) =	21.7452								
Design-based F(7.25, 16806.90) =	1.6611	Pr =	0.111						
Chronic condition (2016/2017 survey or DW)									
Yes (n=1,882)	88.0	[85.8, 90.0]	5.1	[3.9, 6.6]	2.5	[1.5, 4.1]	4.4	[3.3, 5.8]	100.0
No (n=447)	75.8	[70.2, 80.6]	8.4	[5.4, 12.9]	2.4	[1.1, 5.1]	13.4	[9.9, 17.9]	100.0
Pearson: Uncorrected chi2(3) =	65.8187								
Design-based F(2.98, 6901.25) =	11.0397	Pr =	0.000						
Total (n=2,329)	85.4	[83.3, 87.3]	5.8	[4.6, 7.2]	2.5	[1.6, 3.8]	6.3	[5.2, 7.8]	100.0

Note: Respondents were coded as "none" if they reported no regular source of care or "NA."

5.1.2.1 Q: Is this your primary care provider for your Healthy Michigan Plan coverage?

Follow-up group(s): Still enrolled
Universe: Respondents who had a regular source of care that was a clinic/doctor's office in last 12 months (n = 2,083)

	Regular source of care is HMP PCP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,083)	96.7	[95.4, 97.6]	3.0	[2.1, 4.3]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=543)	94.8	[91.5, 96.9]	4.6	[2.7, 7.9]	0.6	[0.2, 2.1]	100.0
35-50 (n=663)	97.8	[96.1, 98.7]	2.0	[1.1, 3.6]	0.2	[0.0, 1.4]	100.0
51-64 (n=877)	97.5	[95.7, 98.5]	2.4	[1.4, 4.2]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(4) =	12.4809						
Design-based F(3.40, 7051.08) =	2.3689	Pr =	0.061				
Gender							
Male (n=768)	96.8	[94.2, 98.2]	2.9	[1.6, 5.5]	0.3	[0.0, 1.9]	100.0
Female (n=1,315)	96.6	[95.1, 97.6]	3.1	[2.1, 4.5]	0.3	[0.1, 0.9]	100.0
Pearson: Uncorrected chi2(2) =	0.0913						
Design-based F(1.99, 4116.32) =	0.0220	Pr =	0.978				
Race/ethnicity							
White, non-Hispanic (n=1,415)	96.4	[94.5, 97.7]	3.2	[2.0, 5.1]	0.4	[0.1, 1.3]	100.0
Black, non-Hispanic (n=405)	97.0	[94.6, 98.4]	2.8	[1.5, 5.3]	0.1	[0.0, 0.8]	100.0
Hispanic (n=88)	97.9	[91.6, 99.5]	2.1	[0.5, 8.4]	0.0		100.0
Other, non-Hispanic (n=150)	97.6	[93.3, 99.2]	1.8	[0.5, 6.0]	0.6	[0.1, 4.2]	100.0
Pearson: Uncorrected chi2(6) =	3.0192						
Design-based F(5.43, 11108.04) =	0.3881	Pr =	0.871				
FPL category							
0-35% (n=858)	97.1	[95.4, 98.2]	2.6	[1.6, 4.1]	0.3	[0.1, 1.4]	100.0
36-99% (n=733)	97.0	[93.1, 98.7]	2.9	[1.2, 6.8]	0.1	[0.0, 0.4]	100.0
100%+ (n=492)	94.9	[91.8, 96.9]	4.6	[2.8, 7.7]	0.5	[0.1, 2.0]	100.0
Pearson: Uncorrected chi2(4) =	5.1635						
Design-based F(3.01, 6227.05) =	0.8636	Pr =	0.459				
Region							
UP/NW/NE (n=401)	96.9	[93.8, 98.4]	3.0	[1.5, 6.1]	0.1	[0.0, 1.0]	100.0
W/E Central/E (n=692)	96.9	[94.9, 98.1]	2.5	[1.5, 4.2]	0.6	[0.1, 2.5]	100.0
S Central/SW/SE (n=392)	96.6	[93.7, 98.2]	3.1	[1.6, 6.1]	0.3	[0.1, 1.2]	100.0
Detroit Metro (n=598)	96.5	[93.8, 98.1]	3.4	[1.8, 6.1]	0.1	[0.0, 0.9]	100.0
Pearson: Uncorrected chi2(6) =	4.1272						
Design-based F(4.76, 9849.89) =	0.6233	Pr =	0.674				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,723)	96.8	[95.4, 97.8]	2.8	[1.9, 4.2]	0.4	[0.1, 1.0]	100.0
No (n=360)	96.0	[92.5, 97.9]	4.0	[2.1, 7.5]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.1177						
Design-based F(1.99, 4119.84) =	0.9056	Pr =	0.404				
Total (n=2,083)	96.7	[95.4, 97.6]	3.0	[2.1, 4.3]	0.3	[0.1, 0.8]	100.0

5.1.3 Has a primary care provider for Healthy Michigan Plan

Follow-up group(s): Still enrolled
Universe: All respondents

	Have a PCP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	93.9	[92.3, 95.1]	6.0	[4.8, 7.6]	0.1	[0.0, 0.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	91.9	[88.5, 94.3]	8.1	[5.6, 11.4]	0.1	[0.0, 0.5]	100.0
35-50 (n=760)	94.0	[91.0, 96.0]	5.9	[3.8, 8.9]	0.2	[0.0, 1.2]	100.0
51-64 (n=964)	96.3	[94.7, 97.4]	3.6	[2.5, 5.2]	0.0	[0.0, 0.3]	100.0
Pearson: Uncorrected chi2(4) =	13.9345						
Design-based F(2.92, 6931.39) =	2.8684	Pr =	0.037				
Gender							
Male (n=933)	91.2	[88.2, 93.5]	8.8	[6.5, 11.8]	0.0		100.0
Female (n=1,455)	96.1	[94.7, 97.2]	3.7	[2.6, 5.1]	0.2	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(2) =	28.9371						
Design-based F(1.87, 4444.14) =	10.1805	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	95.1	[93.4, 96.3]	4.8	[3.5, 6.4]	0.1	[0.0, 0.6]	100.0
Black, non-Hispanic (n=479)	90.9	[86.2, 94.1]	9.0	[5.8, 13.7]	0.1	[0.0, 0.7]	100.0
Hispanic (n=100)	94.6	[87.0, 97.9]	5.4	[2.1, 13.0]	0.0		100.0
Other, non-Hispanic (n=176)	93.9	[88.2, 96.9]	6.1	[3.1, 11.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.2985						
Design-based F(5.26, 12342.10) =	1.5964	Pr =	0.154				
FPL category							
0-35% (n=1,001)	93.0	[90.4, 95.0]	6.9	[4.9, 9.5]	0.1	[0.0, 0.7]	100.0
36-99% (n=824)	95.1	[93.0, 96.6]	4.9	[3.4, 7.0]	0.1	[0.0, 0.4]	100.0
100%+ (n=563)	94.8	[92.0, 96.7]	5.0	[3.2, 7.9]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(4) =	4.1217						
Design-based F(3.30, 7842.07) =	0.9859	Pr =	0.404				
Region							
UP/NW/NE (n=450)	96.3	[93.4, 97.9]	3.7	[2.1, 6.6]	0.0		100.0
W/E Central/E (n=777)	95.5	[93.2, 97.1]	4.3	[2.7, 6.6]	0.2	[0.0, 1.4]	100.0
S Central/SW/SE (n=464)	91.1	[87.4, 93.8]	8.7	[6.0, 12.4]	0.2	[0.1, 0.9]	100.0
Detroit Metro (n=697)	93.4	[90.2, 95.5]	6.6	[4.5, 9.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.4025						
Design-based F(4.37, 10380.05) =	2.1803	Pr =	0.063				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	94.8	[93.1, 96.1]	5.0	[3.8, 6.8]	0.1	[0.0, 0.5]	100.0
No (n=457)	90.5	[86.3, 93.5]	9.5	[6.5, 13.7]	0.0		100.0
Pearson: Uncorrected chi2(2) =	14.9109						
Design-based F(1.81, 4305.76) =	4.8199	Pr =	0.010				
Total (n=2,388)	93.9	[92.3, 95.1]	6.0	[4.8, 7.6]	0.1	[0.0, 0.4]	100.0

5.2 Q: Is this the same primary care provider you had when we talked with you last year?

Follow-up group(s): Still enrolled
Universe: Respondents who indicated they have a PCP (n = 2,276)

	Same PCP as last year						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,274)	82.6	[80.5, 84.5]	15.6	[13.8, 17.6]	1.8	[1.3, 2.6]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=621)	79.0	[74.8, 82.6]	18.2	[14.8, 22.3]	2.8	[1.7, 4.7]	100.0
35-50 (n=724)	84.1	[80.7, 87.1]	14.2	[11.3, 17.5]	1.7	[0.9, 3.1]	100.0
51-64 (n=929)	85.0	[81.9, 87.7]	14.1	[11.5, 17.2]	0.9	[0.4, 1.9]	100.0
Pearson: Uncorrected chi2(4) =	15.3821						
Design-based F(3.85, 8700.52) =	2.7713	Pr =	0.027				
Gender							
Male (n=872)	81.8	[78.2, 84.9]	16.4	[13.4, 19.9]	1.9	[1.1, 3.1]	100.0
Female (n=1,402)	83.2	[80.8, 85.5]	14.9	[12.8, 17.3]	1.8	[1.1, 3.0]	100.0
Pearson: Uncorrected chi2(2) =	0.9020						
Design-based F(1.98, 4477.93) =	0.2957	Pr =	0.742				
Race/ethnicity							
White, non-Hispanic (n=1,539)	81.3	[78.7, 83.7]	16.5	[14.2, 19.1]	2.2	[1.4, 3.3]	100.0
Black, non-Hispanic (n=446)	85.0	[80.2, 88.8]	14.5	[10.8, 19.3]	0.4	[0.1, 1.5]	100.0
Hispanic (n=95)	82.4	[72.5, 89.2]	15.3	[9.1, 24.8]	2.3	[0.6, 9.2]	100.0
Other, non-Hispanic (n=165)	85.1	[78.3, 90.0]	11.4	[7.3, 17.3]	3.5	[1.3, 8.9]	100.0
Pearson: Uncorrected chi2(6) =	14.2349						
Design-based F(5.73, 12797.87) =	1.6552	Pr =	0.131				
FPL category							
0-35% (n=945)	83.1	[79.9, 85.8]	15.2	[12.6, 18.2]	1.7	[1.0, 3.0]	100.0
36-99% (n=791)	82.8	[79.3, 85.8]	15.6	[12.7, 19.1]	1.6	[0.9, 2.9]	100.0
100%+ (n=538)	80.7	[76.5, 84.3]	16.7	[13.3, 20.7]	2.6	[1.4, 4.7]	100.0
Pearson: Uncorrected chi2(4) =	2.3464						
Design-based F(3.87, 8757.81) =	0.4676	Pr =	0.753				
Region							
UP/NW/NE (n=436)	79.2	[74.4, 83.4]	18.7	[14.8, 23.5]	2.0	[1.0, 4.2]	100.0
W/E Central/E (n=748)	80.2	[76.7, 83.4]	17.0	[14.1, 20.4]	2.8	[1.7, 4.6]	100.0
S Central/SW/SE (n=427)	83.6	[79.1, 87.2]	15.0	[11.6, 19.3]	1.4	[0.6, 3.6]	100.0
Detroit Metro (n=663)	84.6	[80.8, 87.7]	14.1	[11.1, 17.8]	1.3	[0.6, 2.8]	100.0
Pearson: Uncorrected chi2(6) =	10.0790						
Design-based F(5.33, 12060.37) =	1.3550	Pr =	0.235				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,854)	83.0	[80.7, 85.0]	15.5	[13.5, 17.7]	1.6	[1.0, 2.4]	100.0
No (n=420)	81.1	[75.9, 85.4]	15.9	[11.9, 21.0]	2.9	[1.6, 5.2]	100.0
Pearson: Uncorrected chi2(2) =	4.1346						
Design-based F(1.95, 4401.83) =	1.3081	Pr =	0.270				
Total (n=2,274)	82.6	[80.5, 84.5]	15.6	[13.8, 17.6]	1.8	[1.3, 2.6]	100.0

Note: Total count is less than universe count due to item non-response.

5.2.1 Q: Why did you change?

Follow-up group(s): Still enrolled
Universe:Respondents who do not have the same PCP as last year (n = 349)

	Reason for changing PCP														
	Wanted new PCP		Office closed/moved		PCP retired		No longer accepts Medicaid		Switched plans		Other		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group															
Still enrolled (n=348)	32.5	[26.5, 39.1]	19.0	[14.8, 24.1]	10.2	[6.7, 15.2]	7.3	[4.4, 11.6]	7.1	[4.3, 11.5]	22.7	[17.4, 29.0]	1.2	[0.5, 3.2]	100.0
Pearson: Uncorrected chi2(0) =	.														
Design-based F(., .) =	.	Pr =	.												
Age															
19-34 (n=115)	32.5	[22.7, 44.1]	16.9	[10.4, 26.2]	5.8	[3.0, 10.9]	9.2	[4.6, 17.6]	10.0	[5.0, 19.2]	25.5	[16.6, 37.2]	0.0		100.0
35-50 (n=111)	33.8	[24.0, 45.4]	17.5	[10.9, 27.0]	16.1	[8.0, 29.8]	3.9	[1.2, 12.4]	3.8	[1.0, 12.8]	22.8	[15.3, 32.7]	2.0	[0.6, 6.3]	100.0
51-64 (n=122)	30.9	[21.5, 42.2]	24.0	[16.6, 33.2]	10.0	[5.9, 16.5]	8.2	[3.5, 18.0]	6.7	[3.0, 14.2]	18.0	[10.2, 29.9]	2.2	[0.5, 9.8]	100.0
Pearson: Uncorrected chi2(12) =	18.7211														
Design-based F(11.33, 3806.29) =	1.1211	Pr =	0.339												
Gender															
Male (n=135)	30.0	[20.7, 41.4]	14.5	[9.4, 21.7]	8.2	[3.7, 17.4]	8.9	[4.4, 17.2]	7.1	[3.1, 15.5]	29.9	[20.6, 41.2]	1.3	[0.3, 5.8]	100.0
Female (n=213)	34.6	[27.4, 42.6]	23.0	[17.0, 30.3]	12.0	[7.5, 18.6]	5.8	[3.0, 11.0]	7.2	[3.9, 12.7]	16.3	[11.4, 22.6]	1.2	[0.4, 3.8]	100.0
Pearson: Uncorrected chi2(6) =	13.3512														
Design-based F(5.76, 1936.11) =	1.4453	Pr =	0.196												
Race/ethnicity															
White, non-Hispanic (n=238)	27.5	[21.1, 35.0]	24.3	[18.4, 31.4]	8.7	[5.7, 12.9]	9.4	[5.4, 15.8]	6.3	[3.2, 11.9]	23.1	[16.3, 31.5]	0.8	[0.2, 3.1]	100.0
Black, non-Hispanic (n=61)	38.9	[24.4, 55.7]	10.3	[4.9, 20.2]	14.8	[5.5, 33.9]	5.4	[1.9, 14.9]	7.7	[2.8, 19.5]	19.8	[10.8, 33.5]	3.1	[0.8, 10.8]	100.0
Hispanic (n=16)	43.8	[20.6, 70.1]	3.5	[0.5, 22.0]	18.0	[5.2, 46.6]	0.0		8.4	[1.2, 41.2]	26.3	[11.1, 50.5]	0.0		100.0
Other, non-Hispanic (n=26)	56.2	[35.3, 75.1]	5.9	[1.4, 22.1]	3.6	[0.8, 14.2]	0.0		14.7	[3.9, 42.7]	19.5	[8.2, 39.8]	0.0		100.0
Pearson: Uncorrected chi2(18) =	31.9279														
Design-based F(14.60, 4804.27) =	1.5087	Pr =	0.095												
FPL category															
0-35% (n=147)	36.0	[26.8, 46.4]	18.4	[12.4, 26.3]	10.2	[5.1, 19.6]	8.2	[4.1, 15.9]	5.1	[2.3, 11.3]	21.2	[13.8, 31.2]	0.8	[0.1, 5.7]	100.0
36-99% (n=116)	31.1	[21.8, 42.2]	25.2	[17.2, 35.3]	7.6	[4.4, 12.8]	3.7	[1.0, 12.6]	5.6	[2.1, 13.9]	25.3	[16.0, 37.4]	1.5	[0.3, 6.4]	100.0
100%+ (n=85)	24.7	[15.8, 36.5]	12.3	[6.7, 21.5]	13.9	[7.8, 23.5]	9.5	[4.6, 18.3]	14.7	[6.6, 29.5]	23.0	[14.5, 34.5]	1.9	[0.5, 7.3]	100.0
Pearson: Uncorrected chi2(12) =	17.2055														
Design-based F(11.09, 3727.30) =	1.1365	Pr =	0.327												
Region															
UP/NW/NE (n=75)	26.8	[16.7, 40.0]	33.2	[21.8, 47.0]	17.5	[9.6, 29.8]	1.9	[0.4, 7.9]	0.0		18.2	[10.9, 28.8]	2.4	[0.3, 15.3]	100.0
W/E Central/E (n=119)	23.6	[16.1, 33.2]	21.6	[14.4, 31.1]	12.6	[7.7, 20.0]	4.4	[1.3, 13.6]	14.1	[7.6, 24.6]	22.4	[15.1, 31.9]	1.3	[0.2, 9.1]	100.0
S Central/SW/SE (n=61)	37.0	[24.6, 51.2]	22.5	[12.9, 36.2]	3.6	[1.1, 11.2]	8.2	[2.5, 23.3]	2.8	[0.6, 11.8]	23.6	[13.9, 37.2]	2.3	[0.6, 8.8]	100.0
Detroit Metro (n=93)	39.6	[27.9, 52.6]	11.4	[6.1, 20.4]	8.9	[3.2, 22.1]	10.8	[5.6, 19.7]	5.2	[2.0, 12.7]	23.8	[14.0, 37.3]	0.3	[0.0, 2.5]	100.0
Pearson: Uncorrected chi2(18) =	40.3714														
Design-based F(14.95, 5021.53) =	1.8668	Pr =	0.022												
Chronic condition (2016/2017 survey or DW)															
Yes (n=289)	34.2	[27.5, 41.5]	18.8	[14.1, 24.6]	10.2	[6.6, 15.5]	8.2	[4.8, 13.6]	7.7	[4.5, 12.8]	19.6	[14.6, 25.8]	1.4	[0.5, 3.9]	100.0
No (n=59)	26.2	[15.1, 41.6]	19.9	[11.3, 32.7]	10.4	[3.4, 27.6]	3.6	[1.2, 10.8]	5.1	[1.3, 18.3]	34.1	[20.0, 51.6]	0.7	[0.1, 4.6]	100.0
Pearson: Uncorrected chi2(6) =	8.9986														
Design-based F(5.17, 1737.36) =	1.0124	Pr =	0.410												
Total (n=348)	32.5	[26.5, 39.1]	19.0	[14.8, 24.1]	10.2	[6.7, 15.2]	7.3	[4.4, 11.6]	7.1	[4.3, 11.5]	22.7	[17.4, 29.0]	1.2	[0.5, 3.2]	100.0

Note: Total count is less than universe count due to item non-response.

5.3 Q: Have you seen your primary care provider in the past 12 months?

Follow-up group(s): Still enrolled
Universe: All respondents

	PCP visit in past 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,272)	85.6	[83.4, 87.5]	13.8	[11.9, 15.9]	0.6	[0.2, 1.7]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=618)	80.6	[76.2, 84.3]	17.9	[14.4, 22.1]	1.5	[0.5, 4.6]	100.0
35-50 (n=724)	87.5	[83.4, 90.7]	12.4	[9.3, 16.5]	0.1	[0.0, 0.6]	100.0
51-64 (n=930)	89.3	[86.3, 91.7]	10.5	[8.1, 13.4]	0.2	[0.0, 1.1]	100.0
Pearson: Uncorrected chi2(4) =	35.5572						
Design-based F(3.49, 7879.43) =	5.9709	Pr =	0.000				
Gender							
Male (n=870)	82.5	[78.6, 85.8]	16.7	[13.5, 20.4]	0.8	[0.2, 3.9]	100.0
Female (n=1,402)	88.1	[85.6, 90.2]	11.5	[9.4, 13.9]	0.4	[0.2, 1.0]	100.0
Pearson: Uncorrected chi2(2) =	14.4879						
Design-based F(1.96, 4419.45) =	3.1401	Pr =	0.045				
Race/ethnicity							
White, non-Hispanic (n=1,535)	87.0	[84.3, 89.3]	12.1	[10.0, 14.6]	0.9	[0.3, 2.7]	100.0
Black, non-Hispanic (n=447)	86.1	[81.5, 89.7]	13.9	[10.3, 18.5]	0.0		100.0
Hispanic (n=95)	77.7	[62.1, 88.1]	21.5	[11.2, 37.3]	0.8	[0.1, 5.5]	100.0
Other, non-Hispanic (n=166)	80.7	[71.2, 87.7]	19.3	[12.3, 28.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	20.4406						
Design-based F(5.13, 11438.61) =	1.4994	Pr =	0.185				
FPL category							
0-35% (n=947)	86.4	[83.0, 89.2]	13.3	[10.6, 16.7]	0.3	[0.1, 0.7]	100.0
36-99% (n=790)	85.7	[82.0, 88.8]	12.9	[10.4, 16.1]	1.3	[0.3, 6.5]	100.0
100%+ (n=535)	82.9	[78.1, 86.8]	16.4	[12.6, 21.2]	0.7	[0.2, 2.0]	100.0
Pearson: Uncorrected chi2(4) =	10.7863						
Design-based F(3.39, 7656.05) =	1.5394	Pr =	0.197				
Region							
UP/NW/NE (n=435)	88.8	[84.9, 91.8]	11.0	[8.0, 15.0]	0.1	[0.0, 0.9]	100.0
W/E Central/E (n=750)	87.3	[83.6, 90.2]	12.1	[9.2, 15.8]	0.6	[0.2, 1.6]	100.0
S Central/SW/SE (n=425)	83.8	[78.7, 87.9]	16.0	[11.9, 21.1]	0.2	[0.0, 1.6]	100.0
Detroit Metro (n=662)	84.4	[80.3, 87.8]	14.7	[11.5, 18.6]	0.9	[0.2, 3.9]	100.0
Pearson: Uncorrected chi2(6) =	8.2316						
Design-based F(4.53, 10233.46) =	1.0017	Pr =	0.411				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,856)	88.9	[86.6, 90.8]	10.6	[8.7, 12.7]	0.6	[0.2, 2.1]	100.0
No (n=416)	73.2	[67.2, 78.4]	26.1	[20.8, 32.0]	0.8	[0.3, 2.0]	100.0
Pearson: Uncorrected chi2(2) =	76.1571						
Design-based F(2.00, 4510.58) =	19.8781	Pr =	0.000				
Total (n=2,272)	85.6	[83.4, 87.5]	13.8	[11.9, 15.9]	0.6	[0.2, 1.7]	100.0

Note: Total count is less than universe count due to item non-response.

5.3.1 Q: Why haven't you seen your primary care provider in the past 12 months?

Follow-up group(s): Still enrolled
Universe: Respondents who have not seen their PCP in the past 12 months (n = 264)

Reasons for not seeing PCP	Weighted Proportion	95%CI
Healthy/didn't need care (n=146)	57.0	[49.1, 64.6]
Other (n=50)	16.1	[11.6, 21.8]
Transportation/logistics (n=26)	11.7	[7.0, 18.9]
Difficulty getting appointment (n=18)	6.9	[4.0, 11.9]
See a specialist instead (n=18)	6.0	[3.5, 10.3]
Didn't like PCP/wanted a new doctor (n=10)	2.9	[1.4, 5.6]
Inconvenient hours (n=8)	2.5	[1.1, 5.5]
Don't know (n=1)	0.6	[0.1, 4.3]
Don't like doctors in general (n=1)	0.2	[0.0, 1.6]

Note: Respondents were able to provide multiple responses

5.4 Q: Since your Healthy Michigan Plan insurance ended, is there a place you usually go when you need a checkup, feel sick, or want advice about your health?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Regular source of care since HMP coverage ended						
	Yes		No		NA		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	76.5	[72.1, 80.3]	15.6	[12.3, 19.5]	7.9	[5.7, 10.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	69.4	[61.6, 76.3]	21.7	[15.6, 29.3]	8.9	[5.6, 13.8]	100.0
35-50 (n=209)	80.4	[73.3, 86.0]	13.4	[8.7, 20.1]	6.2	[3.4, 11.0]	100.0
51-64 (n=255)	83.0	[75.7, 88.4]	8.6	[5.5, 13.1]	8.5	[4.3, 16.0]	100.0
Pearson: Uncorrected chi2(4) =	18.6054						
Design-based F(3.83, 2663.22) =	3.0878	Pr =	0.017				
Gender							
Male (n=297)	77.3	[70.5, 82.9]	14.8	[10.1, 21.2]	7.9	[5.0, 12.3]	100.0
Female (n=411)	75.7	[69.9, 80.6]	16.4	[12.2, 21.5]	8.0	[5.0, 12.4]	100.0
Pearson: Uncorrected chi2(2) =	0.3246						
Design-based F(1.99, 1386.33) =	0.0934	Pr =	0.910				
Race/ethnicity							
White, non-Hispanic (n=455)	74.6	[68.9, 79.6]	16.1	[11.9, 21.5]	9.3	[6.3, 13.3]	100.0
Black, non-Hispanic (n=154)	85.8	[78.6, 90.8]	7.0	[4.1, 11.8]	7.2	[3.5, 14.1]	100.0
Hispanic (n=38)	68.1	[48.9, 82.6]	26.3	[13.7, 44.5]	5.6	[0.8, 30.5]	100.0
Other, non-Hispanic (n=52)	64.4	[46.4, 79.1]	32.7	[18.3, 51.3]	2.8	[0.4, 17.6]	100.0
Pearson: Uncorrected chi2(6) =	29.8013						
Design-based F(5.73, 3936.47) =	3.0158	Pr =	0.007				
FPL category							
0-35% (n=217)	76.1	[67.7, 82.9]	17.9	[11.8, 26.4]	5.9	[3.2, 10.8]	100.0
36-99% (n=259)	79.2	[72.5, 84.6]	11.7	[8.1, 16.8]	9.1	[5.3, 15.3]	100.0
100%+ (n=232)	73.7	[66.4, 79.8]	16.7	[12.0, 22.7]	9.6	[5.8, 15.6]	100.0
Pearson: Uncorrected chi2(4) =	6.3247						
Design-based F(3.81, 2653.71) =	1.0263	Pr =	0.390				
Region							
UP/NW/NE (n=124)	85.3	[77.1, 90.9]	6.7	[3.3, 13.0]	8.0	[4.0, 15.4]	100.0
W/E Central/E (n=203)	79.0	[72.0, 84.7]	14.8	[10.2, 21.0]	6.2	[3.1, 11.8]	100.0
S Central/SW/SE (n=169)	75.8	[66.7, 83.1]	14.2	[8.6, 22.5]	10.0	[5.6, 17.2]	100.0
Detroit Metro (n=212)	72.9	[64.4, 80.0]	19.1	[12.9, 27.2]	8.0	[4.5, 13.8]	100.0
Pearson: Uncorrected chi2(6) =	8.6350						
Design-based F(5.28, 3672.62) =	1.0761	Pr =	0.372				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	80.6	[76.1, 84.4]	11.4	[8.6, 14.9]	8.1	[5.5, 11.7]	100.0
No (n=170)	66.0	[56.0, 74.8]	26.4	[18.2, 36.5]	7.6	[4.0, 13.8]	100.0
Pearson: Uncorrected chi2(2) =	24.7480						
Design-based F(1.99, 1385.75) =	7.1371	Pr =	0.001				
Total (n=708)	76.5	[72.1, 80.3]	15.6	[12.3, 19.5]	7.9	[5.7, 10.9]	100.0

Note: Total count is less than universe count due to item non-response.

5.4.1 Q: What kind of a place is it?

Follow-up group(s): No longer enrolled
Universe: Respondents who have a regular source of care since HMP coverage ended (n = 565)

	Regular source of care since HMP coverage ended										
	Clinic		Doctor's office		Urgent care/Walk-in clinic		Emergency room		Other		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
No longer enrolled (n=565)	21.2	[17.0, 26.3]	62.5	[57.3, 67.5]	7.9	[5.4, 11.3]	5.7	[3.8, 8.5]	2.6	[1.3, 5.1]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=174)	24.0	[16.4, 33.6]	56.8	[47.3, 65.8]	8.2	[4.6, 14.2]	8.7	[5.2, 14.3]	2.4	[0.6, 8.7]	100.0
35-50 (n=171)	20.0	[13.3, 28.9]	62.3	[52.9, 70.8]	11.0	[5.9, 19.5]	4.1	[1.6, 9.6]	2.7	[0.9, 7.4]	100.0
51-64 (n=220)	19.1	[13.1, 27.0]	70.3	[62.0, 77.4]	4.0	[2.2, 7.3]	3.7	[1.5, 8.9]	2.9	[1.0, 8.6]	100.0
Pearson: Uncorrected chi2(8) =	15.0294										
Design-based F(7.56, 4178.41) =	1.1877	Pr =	0.304								
Gender											
Male (n=236)	23.3	[16.6, 31.7]	55.3	[47.1, 63.2]	7.7	[4.3, 13.5]	8.8	[5.5, 13.8]	4.9	[2.4, 9.8]	100.0
Female (n=329)	19.2	[14.4, 25.1]	69.9	[63.5, 75.6]	8.0	[5.1, 12.6]	2.6	[1.2, 5.3]	0.3	[0.0, 2.0]	100.0
Pearson: Uncorrected chi2(4) =	27.0664										
Design-based F(3.69, 2038.19) =	4.9382	Pr =	0.001								
Race/ethnicity											
White, non-Hispanic (n=363)	17.5	[13.1, 22.8]	71.7	[65.8, 77.0]	4.8	[3.1, 7.3]	3.8	[2.1, 6.8]	2.2	[0.8, 6.2]	100.0
Black, non-Hispanic (n=129)	27.1	[17.5, 39.5]	49.4	[38.6, 60.2]	10.6	[5.3, 20.1]	8.9	[4.7, 16.2]	4.0	[1.5, 10.2]	100.0
Hispanic (n=27)	41.5	[21.7, 64.5]	31.9	[15.5, 54.4]	26.7	[9.4, 55.9]	0.0		0.0		100.0
Other, non-Hispanic (n=39)	15.8	[6.4, 34.0]	68.6	[50.6, 82.4]	7.1	[2.5, 18.4]	8.5	[2.6, 24.5]	0.0		100.0
Pearson: Uncorrected chi2(12) =	52.7812										
Design-based F(11.00, 6005.83) =	2.8714	Pr =	0.001								
FPL category											
0-35% (n=177)	24.7	[16.9, 34.8]	56.9	[47.3, 66.1]	7.5	[3.3, 16.0]	6.7	[3.6, 12.3]	4.1	[1.8, 8.7]	100.0
36-99% (n=211)	21.9	[15.8, 29.4]	64.3	[56.5, 71.4]	8.8	[5.7, 13.4]	4.4	[2.0, 9.2]	0.7	[0.1, 4.7]	100.0
100%+ (n=177)	14.9	[9.6, 22.4]	69.0	[60.2, 76.7]	7.2	[4.3, 12.0]	5.9	[3.0, 11.4]	2.9	[0.6, 13.0]	100.0
Pearson: Uncorrected chi2(8) =	12.2801										
Design-based F(7.22, 3994.55) =	0.9826	Pr =	0.443								
Region											
UP/NW/NE (n=106)	26.4	[18.1, 36.9]	61.4	[50.6, 71.2]	11.1	[6.0, 19.4]	0.0		1.1	[0.2, 7.7]	100.0
W/E Central/E (n=162)	18.1	[12.1, 26.1]	68.9	[60.0, 76.6]	5.1	[2.5, 10.1]	5.0	[2.2, 10.9]	3.0	[0.7, 11.0]	100.0
S Central/SW/SE (n=137)	16.9	[11.0, 25.0]	65.6	[55.7, 74.2]	5.5	[2.8, 10.6]	9.2	[4.9, 16.5]	2.8	[1.0, 7.7]	100.0
Detroit Metro (n=160)	25.0	[16.6, 35.9]	55.9	[45.9, 65.4]	10.7	[5.7, 19.2]	5.7	[2.9, 11.2]	2.6	[0.8, 8.1]	100.0
Pearson: Uncorrected chi2(12) =	18.9699										
Design-based F(10.48, 5796.56) =	1.2107	Pr =	0.276								
Chronic condition (2016/2017 survey or DW)											
Yes (n=447)	21.1	[16.3, 27.0]	64.2	[58.2, 69.9]	7.2	[4.7, 11.1]	4.1	[2.5, 6.9]	3.2	[1.6, 6.5]	100.0
No (n=118)	21.6	[13.7, 32.3]	57.2	[46.0, 67.7]	9.9	[4.9, 18.9]	10.7	[5.7, 19.2]	0.7	[0.1, 4.8]	100.0
Pearson: Uncorrected chi2(4) =	12.1110										
Design-based F(3.82, 2113.64) =	1.9900	Pr =	0.097								
Total (n=565)	21.2	[17.0, 26.3]	62.5	[57.3, 67.5]	7.9	[5.4, 11.3]	5.7	[3.8, 8.5]	2.6	[1.3, 5.1]	100.0

5.4.2 Regular source of care since HMP coverage ended, detailed

Follow-up group(s): No longer enrolled
Universe: All respondents

	Regular source of care since HMP coverage ended, detailed								
	Doctor/Clinic		Urgent care/Walk-in clinic		Emergency room		None		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
No longer enrolled (n=697)	65.4	[60.8, 69.8]	6.1	[4.2, 8.8]	4.5	[3.0, 6.6]	24.0	[20.1, 28.4]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=241)	57.0	[49.0, 64.6]	5.8	[3.3, 10.1]	6.1	[3.6, 10.2]	31.1	[24.1, 39.0]	100.0
35-50 (n=205)	67.8	[59.5, 75.2]	8.8	[4.7, 16.0]	3.3	[1.4, 8.0]	20.0	[14.3, 27.3]	100.0
51-64 (n=251)	76.0	[68.4, 82.2]	3.4	[1.8, 6.2]	3.2	[1.3, 7.6]	17.4	[11.9, 24.9]	100.0
Pearson: Uncorrected chi2(6) =	25.6249								
Design-based F(5.69, 3900.91) =	3.0077	Pr =	0.007						
Gender									
Male (n=287)	63.1	[55.7, 69.9]	6.2	[3.4, 11.0]	7.1	[4.4, 11.2]	23.6	[17.8, 30.6]	100.0
Female (n=410)	67.7	[61.8, 73.1]	5.9	[3.7, 9.5]	2.0	[0.9, 4.0]	24.4	[19.4, 30.2]	100.0
Pearson: Uncorrected chi2(3) =	10.8126								
Design-based F(2.89, 1980.69) =	2.4029	Pr =	0.068						
Race/ethnicity									
White, non-Hispanic (n=450)	67.8	[62.0, 73.1]	3.5	[2.3, 5.4]	2.9	[1.6, 5.2]	25.8	[20.7, 31.6]	100.0
Black, non-Hispanic (n=149)	67.9	[58.2, 76.3]	9.4	[4.7, 18.0]	7.9	[4.2, 14.4]	14.7	[9.5, 22.1]	100.0
Hispanic (n=38)	49.9	[31.6, 68.2]	18.1	[6.2, 42.6]	0.0		31.9	[17.4, 51.1]	100.0
Other, non-Hispanic (n=52)	54.4	[38.0, 69.9]	4.5	[1.6, 12.2]	5.5	[1.6, 16.7]	35.6	[20.9, 53.6]	100.0
Pearson: Uncorrected chi2(9) =	41.3492								
Design-based F(8.29, 5610.15) =	3.1981	Pr =	0.001						
FPL category									
0-35% (n=209)	64.2	[55.3, 72.2]	5.9	[2.6, 12.8]	5.3	[2.8, 9.7]	24.6	[17.6, 33.3]	100.0
36-99% (n=258)	68.6	[61.5, 74.8]	7.0	[4.5, 10.7]	3.5	[1.6, 7.3]	20.9	[15.5, 27.7]	100.0
100%+ (n=230)	63.4	[55.9, 70.4]	5.2	[3.0, 8.8]	4.5	[2.2, 8.8]	26.9	[20.7, 34.2]	100.0
Pearson: Uncorrected chi2(6) =	3.6592								
Design-based F(5.45, 3731.19) =	0.4264	Pr =	0.845						
Region									
UP/NW/NE (n=123)	75.6	[66.3, 83.0]	9.5	[5.2, 16.8]	0.0		14.8	[9.2, 23.1]	100.0
W/E Central/E (n=200)	70.7	[63.0, 77.3]	3.8	[1.8, 8.0]	4.0	[1.8, 8.9]	21.5	[15.7, 28.6]	100.0
S Central/SW/SE (n=165)	63.9	[54.4, 72.4]	4.3	[2.2, 8.2]	7.1	[3.8, 12.9]	24.7	[17.3, 34.0]	100.0
Detroit Metro (n=209)	60.1	[51.4, 68.3]	8.0	[4.2, 14.5]	4.3	[2.1, 8.4]	27.6	[20.4, 36.2]	100.0
Pearson: Uncorrected chi2(9) =	18.1481								
Design-based F(8.13, 5569.55) =	1.6375	Pr =	0.107						
Chronic condition (2016/2017 survey or DW)									
Yes (n=528)	70.7	[65.7, 75.3]	5.9	[3.8, 9.1]	3.4	[2.0, 5.7]	20.0	[16.1, 24.5]	100.0
No (n=169)	52.3	[42.7, 61.7]	6.5	[3.2, 12.8]	7.1	[3.7, 13.0]	34.1	[25.3, 44.2]	100.0
Pearson: Uncorrected chi2(3) =	23.6728								
Design-based F(2.96, 2027.96) =	4.7778	Pr =	0.003						
Total (n=697)	65.4	[60.8, 69.8]	6.1	[4.2, 8.8]	4.5	[3.0, 6.6]	24.0	[20.1, 28.4]	100.0

Note: Respondents were coded as "none" if they reported no regular source of care or "NA." Total count is less than universe count due to item non-response.

5.4.2.1 Q: Is this the same place as your Healthy Michigan Plan primary care provider?

Follow-up group(s): No longer enrolled
Universe: Respondents who have a regular source of care that is a clinic/doctor's office since HMP coverage ended (n = 478)

	Regular source of care since HMP coverage ended is same HMP PCP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=478)	78.7	[73.6, 83.1]	20.0	[15.7, 25.0]	1.3	[0.5, 3.1]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=135)	70.6	[60.4, 79.1]	29.0	[20.6, 39.2]	0.4	[0.1, 2.8]	100.0
35-50 (n=145)	82.4	[73.7, 88.7]	17.0	[10.8, 25.7]	0.6	[0.1, 4.2]	100.0
51-64 (n=198)	84.6	[76.1, 90.5]	12.4	[7.1, 20.6]	3.0	[1.0, 8.8]	100.0
Pearson: Uncorrected chi2(4) =	19.7722						
Design-based F(3.64, 1697.18) =	3.8741	Pr =	0.005				
Gender							
Male (n=188)	76.9	[68.2, 83.8]	21.3	[14.7, 29.9]	1.8	[0.5, 5.9]	100.0
Female (n=290)	80.4	[74.2, 85.4]	18.8	[13.8, 25.0]	0.8	[0.3, 2.7]	100.0
Pearson: Uncorrected chi2(2) =	1.3789						
Design-based F(1.90, 883.64) =	0.5098	Pr =	0.591				
Race/ethnicity							
White, non-Hispanic (n=320)	78.9	[72.5, 84.1]	19.0	[14.0, 25.3]	2.1	[0.9, 5.1]	100.0
Black, non-Hispanic (n=100)	81.2	[69.4, 89.1]	18.8	[10.9, 30.6]	0.0		100.0
Hispanic (n=21)	76.4	[49.0, 91.6]	23.6	[8.4, 51.0]	0.0		100.0
Other, non-Hispanic (n=32)	71.8	[49.8, 86.7]	28.2	[13.3, 50.2]	0.0		100.0
Pearson: Uncorrected chi2(6) =	5.6729						
Design-based F(5.82, 2685.25) =	0.6277	Pr =	0.703				
FPL category							
0-35% (n=149)	86.5	[79.0, 91.6]	11.4	[6.8, 18.5]	2.1	[0.6, 7.0]	100.0
36-99% (n=181)	76.3	[67.3, 83.4]	23.0	[15.9, 32.0]	0.7	[0.2, 2.9]	100.0
100%+ (n=148)	70.1	[58.8, 79.3]	29.1	[19.9, 40.5]	0.8	[0.1, 5.5]	100.0
Pearson: Uncorrected chi2(4) =	17.3004						
Design-based F(3.71, 1727.26) =	3.3694	Pr =	0.011				
Region							
UP/NW/NE (n=93)	89.6	[78.6, 95.3]	10.4	[4.7, 21.4]	0.0		100.0
W/E Central/E (n=143)	75.9	[65.6, 83.9]	22.3	[14.5, 32.8]	1.8	[0.5, 5.5]	100.0
S Central/SW/SE (n=113)	73.4	[62.7, 82.0]	25.3	[16.9, 35.9]	1.3	[0.3, 5.5]	100.0
Detroit Metro (n=129)	81.3	[71.6, 88.3]	17.4	[10.8, 26.9]	1.2	[0.2, 8.4]	100.0
Pearson: Uncorrected chi2(6) =	7.1077						
Design-based F(5.23, 2437.56) =	0.8756	Pr =	0.500				
Chronic condition (2016/2017 survey or DW)							
Yes (n=385)	81.0	[75.1, 85.7]	17.4	[12.8, 23.1]	1.7	[0.7, 4.0]	100.0
No (n=93)	71.2	[59.1, 80.9]	28.8	[19.1, 40.9]	0.0		100.0
Pearson: Uncorrected chi2(2) =	8.2815						
Design-based F(1.97, 916.09) =	2.7238	Pr =	0.067				
Total (n=478)	78.7	[73.6, 83.1]	20.0	[15.7, 25.0]	1.3	[0.5, 3.1]	100.0

5.5 Q: In the last 12 months, did you get dental care?

Follow-up group(s): Still enrolled
Universe: All respondents

	Dental care in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	54.4	[51.8, 57.0]	45.1	[42.5, 47.7]	0.5	[0.3, 0.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	58.3	[53.5, 63.0]	41.2	[36.5, 46.0]	0.5	[0.2, 1.6]	100.0
35-50 (n=760)	55.9	[51.3, 60.4]	43.6	[39.2, 48.2]	0.5	[0.2, 1.2]	100.0
51-64 (n=964)	47.7	[43.9, 51.6]	51.7	[47.9, 55.6]	0.5	[0.2, 1.2]	100.0
Pearson: Uncorrected chi2(4) =	18.5129						
Design-based F(3.59, 8530.15) =	3.5078	Pr =	0.010				
Gender							
Male (n=933)	48.9	[44.7, 53.0]	50.7	[46.6, 54.8]	0.4	[0.2, 1.0]	100.0
Female (n=1,455)	59.2	[55.9, 62.4]	40.3	[37.1, 43.6]	0.6	[0.3, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	26.1532						
Design-based F(1.88, 4460.34) =	9.4926	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,603)	54.7	[51.5, 57.8]	44.6	[41.5, 47.8]	0.7	[0.3, 1.3]	100.0
Black, non-Hispanic (n=479)	51.0	[45.4, 56.7]	48.7	[43.1, 54.4]	0.3	[0.1, 1.0]	100.0
Hispanic (n=100)	55.5	[43.7, 66.7]	44.5	[33.3, 56.3]	0.0		100.0
Other, non-Hispanic (n=176)	62.8	[54.1, 70.8]	37.2	[29.2, 45.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	12.2233						
Design-based F(5.51, 12931.91) =	1.3887	Pr =	0.220				
FPL category							
0-35% (n=1,001)	52.8	[48.9, 56.7]	46.9	[42.9, 50.8]	0.3	[0.1, 0.8]	100.0
36-99% (n=824)	55.8	[51.6, 59.8]	43.9	[39.8, 48.0]	0.4	[0.1, 1.0]	100.0
100%+ (n=563)	57.5	[52.6, 62.2]	41.4	[36.7, 46.2]	1.2	[0.4, 3.0]	100.0
Pearson: Uncorrected chi2(4) =	8.6635						
Design-based F(3.73, 8862.73) =	1.9350	Pr =	0.107				
Region							
UP/NW/NE (n=450)	54.0	[48.7, 59.2]	44.9	[39.7, 50.2]	1.1	[0.3, 4.4]	100.0
W/E Central/E (n=777)	53.6	[49.5, 57.7]	45.7	[41.7, 49.8]	0.7	[0.3, 1.6]	100.0
S Central/SW/SE (n=464)	55.0	[49.8, 60.1]	44.4	[39.3, 49.6]	0.6	[0.2, 1.5]	100.0
Detroit Metro (n=697)	54.8	[50.1, 59.5]	45.0	[40.3, 49.7]	0.2	[0.1, 0.9]	100.0
Pearson: Uncorrected chi2(6) =	4.2403						
Design-based F(5.35, 12713.61) =	0.6245	Pr =	0.692				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	52.8	[49.9, 55.7]	46.8	[43.9, 49.7]	0.4	[0.2, 0.8]	100.0
No (n=457)	60.3	[54.6, 65.7]	39.0	[33.6, 44.7]	0.7	[0.2, 2.4]	100.0
Pearson: Uncorrected chi2(2) =	10.1796						
Design-based F(1.95, 4641.70) =	3.3979	Pr =	0.035				
Total (n=2,388)	54.4	[51.8, 57.0]	45.1	[42.5, 47.7]	0.5	[0.3, 0.9]	100.0

5.6 Q: In the past 12 months, when you felt sick or wanted advice about your health, how easy or difficult was it to get an appointment to see your primary care provider?

Follow-up group(s): Still enrolled
Universe: All respondents

	PCP appointment ease in past 12 months														
	Very easy		Easy		Neutral		Difficult		Very difficult		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group															
Still enrolled (n=2,383)	36.0	[33.5, 38.6]	34.8	[32.5, 37.3]	13.5	[11.8, 15.4]	5.1	[4.1, 6.2]	3.0	[2.2, 4.1]	7.5	[6.1, 9.1]	0.1	[0.0, 0.2]	100.0
Pearson: Uncorrected chi2(0) =	.														
Design-based F(., .) =	.	Pr =	.												
Age															
19-34 (n=664)	32.1	[27.7, 36.9]	31.7	[27.6, 36.2]	17.2	[13.9, 21.2]	6.0	[4.3, 8.3]	2.2	[1.2, 3.9]	10.7	[7.9, 14.3]	0.0	[0.0, 0.3]	100.0
35-50 (n=758)	38.1	[33.7, 42.7]	35.4	[31.2, 39.8]	12.0	[9.4, 15.1]	4.3	[3.0, 6.0]	4.3	[2.7, 6.9]	5.9	[3.9, 8.8]	0.1	[0.0, 0.6]	100.0
51-64 (n=961)	38.4	[34.7, 42.3]	38.0	[34.4, 41.8]	10.7	[8.6, 13.3]	4.9	[3.5, 6.8]	2.5	[1.5, 4.4]	5.3	[4.0, 7.1]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(12) =	53.3918														
Design-based F(10.52, 24947.25) =	3.1795	Pr =	0.000												
Gender															
Male (n=930)	37.5	[33.6, 41.7]	33.3	[29.7, 37.2]	11.9	[9.5, 14.8]	3.8	[2.6, 5.4]	2.2	[1.3, 3.6]	11.2	[8.6, 14.4]	0.1	[0.0, 0.5]	100.0
Female (n=1,453)	34.7	[31.6, 38.0]	36.1	[33.1, 39.3]	14.9	[12.6, 17.5]	6.1	[4.8, 7.8]	3.8	[2.6, 5.6]	4.3	[3.3, 5.6]	0.0	[0.0, 0.2]	100.0
Pearson: Uncorrected chi2(6) =	56.2694														
Design-based F(5.44, 12904.60) =	6.6128	Pr =	0.000												
Race/ethnicity															
White, non-Hispanic (n=1,600)	36.8	[33.6, 40.0]	34.0	[31.2, 37.0]	14.2	[12.1, 16.6]	5.0	[3.9, 6.3]	2.4	[1.7, 3.5]	7.5	[5.9, 9.6]	0.1	[0.0, 0.4]	100.0
Black, non-Hispanic (n=478)	37.7	[32.4, 43.4]	35.2	[30.1, 40.7]	13.7	[10.2, 18.2]	4.0	[2.4, 6.5]	3.3	[1.7, 6.2]	6.1	[3.7, 9.9]	0.0		100.0
Hispanic (n=100)	25.5	[17.2, 36.2]	35.2	[25.4, 46.5]	10.0	[5.0, 18.8]	6.6	[2.7, 15.2]	10.7	[4.1, 25.1]	12.0	[5.0, 26.1]	0.0		100.0
Other, non-Hispanic (n=175)	30.8	[22.9, 40.0]	40.2	[31.4, 49.7]	11.1	[6.8, 17.8]	6.1	[3.1, 11.6]	2.9	[1.2, 7.0]	8.9	[5.0, 15.3]	0.0		100.0
Pearson: Uncorrected chi2(18) =	42.2340														
Design-based F(16.24, 38018.51) =	1.3467	Pr =	0.157												
FPL category															
0-35% (n=999)	38.8	[35.0, 42.8]	33.6	[30.0, 37.3]	13.2	[10.7, 16.2]	4.2	[3.0, 5.8]	3.3	[2.1, 5.1]	6.9	[5.0, 9.5]	0.0		100.0
36-99% (n=822)	35.3	[31.3, 39.5]	36.2	[32.4, 40.2]	13.9	[11.4, 16.9]	5.5	[4.0, 7.5]	2.5	[1.5, 4.0]	6.5	[4.7, 9.1]	0.0		100.0
100%+ (n=562)	28.3	[24.3, 32.7]	36.8	[32.3, 41.4]	13.9	[10.9, 17.5]	7.0	[4.9, 10.0]	3.0	[1.6, 5.7]	10.6	[7.6, 14.6]	0.4	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(12) =	32.5948														
Design-based F(10.60, 25138.34) =	2.2323	Pr =	0.012												
Region															
UP/NW/NE (n=449)	38.4	[33.4, 43.8]	35.0	[30.3, 40.1]	13.3	[10.2, 17.2]	3.6	[2.2, 6.0]	2.8	[1.4, 5.2]	6.6	[4.5, 9.8]	0.2	[0.0, 1.3]	100.0
W/E Central/E (n=774)	37.5	[33.7, 41.5]	34.1	[30.3, 38.0]	14.7	[12.1, 17.9]	3.7	[2.6, 5.3]	2.7	[1.7, 4.2]	7.2	[5.1, 10.1]	0.1	[0.0, 0.7]	100.0
S Central/SW/SE (n=464)	30.5	[26.1, 35.4]	33.8	[29.1, 39.0]	12.0	[9.0, 15.9]	8.8	[6.3, 12.1]	4.8	[2.7, 8.4]	9.8	[7.0, 13.7]	0.1	[0.0, 1.0]	100.0
Detroit Metro (n=696)	36.6	[32.1, 41.4]	35.7	[31.5, 40.1]	13.3	[10.4, 16.9]	4.8	[3.4, 6.9]	2.7	[1.4, 4.8]	6.9	[4.7, 10.0]	0.0		100.0
Pearson: Uncorrected chi2(18) =	31.6462														
Design-based F(14.39, 34128.77) =	1.5100	Pr =	0.096												
Chronic condition (2016/2017 survey or DW)															
Yes (n=1,928)	36.7	[33.9, 39.7]	36.8	[34.1, 39.6]	12.8	[11.0, 14.8]	5.0	[4.0, 6.3]	3.3	[2.3, 4.6]	5.3	[4.0, 6.9]	0.1	[0.0, 0.3]	100.0
No (n=455)	33.4	[28.2, 39.0]	27.6	[23.0, 32.7]	16.1	[12.1, 21.1]	5.1	[3.2, 8.1]	2.3	[1.2, 4.2]	15.4	[11.4, 20.4]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(6) =	70.5174														
Design-based F(5.35, 12694.65) =	8.0093	Pr =	0.000												
Total (n=2,383)	36.0	[33.5, 38.6]	34.8	[32.5, 37.3]	13.5	[11.8, 15.4]	5.1	[4.1, 6.2]	3.0	[2.2, 4.1]	7.5	[6.1, 9.1]	0.1	[0.0, 0.2]	100.0

Note: Total count is less than universe count due to item non-response.

5.6.1 Q: What made it difficult?

Follow-up group(s): Still enrolled
Universe: Respondents who had a difficult/very difficult time getting an appointment to see their PCP in the past 12 months (n = 197)

Reasons PCP visit difficult	Weighted Proportion	95%CI
Couldn't get appointment soon enough (n=150)	77.2	[69.7, 83.3]
My PCP not available/had to see another provider (n=21)	10.3	[6.3, 16.4]
No response from PCP/office not open (n=15)	8.4	[4.7, 14.6]
Inconvenient hours (n=15)	7.4	[4.0, 13.4]
Other (n=12)	5.2	[2.8, 9.4]
Transportation/logistics (n=8)	3.0	[1.3, 6.6]
Didn't like PCP/wanted a new doctor (n=2)	1.4	[0.3, 6.6]

Note: Respondents were able to provide multiple responses

5.7 Q: Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?

Follow-up group(s): No longer enrolled
Universe: All respondents

	ER visit since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	21.0	[17.4, 25.1]	78.2	[74.1, 81.9]	0.7	[0.3, 1.7]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	26.3	[19.8, 34.1]	73.1	[65.4, 79.7]	0.5	[0.1, 2.2]	100.0
35-50 (n=209)	16.7	[11.8, 23.1]	83.3	[76.9, 88.2]	0.0		100.0
51-64 (n=255)	17.6	[12.7, 24.0]	80.5	[74.0, 85.7]	1.9	[0.7, 5.0]	100.0
Pearson: Uncorrected chi2(4) =	14.0145						
Design-based F(3.71, 2582.45) =	3.0755	Pr =	0.018				
Gender							
Male (n=297)	18.6	[13.5, 25.1]	80.5	[74.0, 85.7]	0.9	[0.3, 2.8]	100.0
Female (n=411)	23.4	[18.7, 28.9]	75.9	[70.5, 80.7]	0.6	[0.2, 1.7]	100.0
Pearson: Uncorrected chi2(2) =	2.6541						
Design-based F(1.76, 1224.35) =	1.0551	Pr =	0.341				
Race/ethnicity							
White, non-Hispanic (n=455)	20.2	[16.2, 24.9]	78.6	[73.9, 82.7]	1.2	[0.5, 2.8]	100.0
Black, non-Hispanic (n=154)	22.0	[14.3, 32.4]	77.8	[67.5, 85.5]	0.2	[0.0, 1.2]	100.0
Hispanic (n=38)	28.6	[13.8, 49.9]	71.4	[50.1, 86.2]	0.0		100.0
Other, non-Hispanic (n=52)	21.5	[10.4, 39.2]	78.5	[60.8, 89.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.1657						
Design-based F(5.04, 3465.00) =	0.4977	Pr =	0.780				
FPL category							
0-35% (n=217)	24.1	[17.4, 32.3]	75.7	[67.5, 82.4]	0.2	[0.0, 1.3]	100.0
36-99% (n=259)	20.3	[15.3, 26.4]	78.6	[72.5, 83.7]	1.1	[0.4, 3.0]	100.0
100%+ (n=232)	17.2	[12.3, 23.5]	81.6	[75.2, 86.7]	1.2	[0.3, 4.8]	100.0
Pearson: Uncorrected chi2(4) =	5.3019						
Design-based F(3.47, 2415.72) =	1.2104	Pr =	0.305				
Region							
UP/NW/NE (n=124)	23.4	[16.0, 32.8]	76.6	[67.2, 84.0]	0.0		100.0
W/E Central/E (n=203)	17.5	[12.6, 23.7]	80.3	[73.9, 85.5]	2.2	[0.9, 5.4]	100.0
S Central/SW/SE (n=169)	20.6	[14.7, 28.2]	79.2	[71.6, 85.2]	0.2	[0.0, 1.4]	100.0
Detroit Metro (n=212)	23.3	[16.5, 31.9]	76.5	[68.0, 83.4]	0.2	[0.0, 1.3]	100.0
Pearson: Uncorrected chi2(6) =	10.2700						
Design-based F(4.65, 3233.91) =	1.8631	Pr =	0.103				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	24.0	[19.7, 28.9]	75.0	[70.0, 79.3]	1.0	[0.5, 2.3]	100.0
No (n=170)	13.4	[8.0, 21.7]	86.6	[78.3, 92.0]	0.0		100.0
Pearson: Uncorrected chi2(2) =	12.2631						
Design-based F(1.77, 1229.05) =	4.3024	Pr =	0.017				
Total (n=708)	21.0	[17.4, 25.1]	78.2	[74.1, 81.9]	0.7	[0.3, 1.7]	100.0

Note: Total count is less than universe count due to item non-response.

5.8 Q: During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?

Follow-up group(s): Still enrolled
Universe: All respondents

	ER visit in past 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	33.3	[30.9, 35.8]	66.1	[63.6, 68.5]	0.6	[0.3, 1.1]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=664)	36.7	[32.2, 41.4]	62.3	[57.5, 66.8]	1.0	[0.4, 2.5]	100.0
35-50 (n=760)	32.8	[28.8, 37.0]	66.9	[62.6, 70.9]	0.4	[0.1, 1.2]	100.0
51-64 (n=964)	29.6	[26.1, 33.4]	70.0	[66.3, 73.5]	0.4	[0.2, 0.9]	100.0
Pearson: Uncorrected chi2(4) =	13.3881						
Design-based F(3.63, 8621.37) =	2.5378	Pr =	0.044				
Gender							
Male (n=933)	28.5	[25.1, 32.2]	70.9	[67.2, 74.4]	0.6	[0.3, 1.4]	100.0
Female (n=1,455)	37.4	[34.1, 40.7]	62.0	[58.7, 65.2]	0.6	[0.3, 1.5]	100.0
Pearson: Uncorrected chi2(2) =	21.2684						
Design-based F(1.99, 4723.98) =	6.8169	Pr =	0.001				
Race/ethnicity							
White, non-Hispanic (n=1,603)	32.5	[29.6, 35.6]	66.7	[63.6, 69.7]	0.8	[0.4, 1.6]	100.0
Black, non-Hispanic (n=479)	36.2	[31.1, 41.7]	63.4	[57.9, 68.5]	0.4	[0.1, 1.8]	100.0
Hispanic (n=100)	31.9	[22.1, 43.7]	68.1	[56.3, 77.9]	0.0		100.0
Other, non-Hispanic (n=176)	29.1	[21.7, 37.8]	70.3	[61.6, 77.8]	0.6	[0.1, 4.2]	100.0
Pearson: Uncorrected chi2(6) =	6.1710						
Design-based F(5.91, 13858.28) =	0.6527	Pr =	0.686				
FPL category							
0-35% (n=1,001)	35.3	[31.7, 39.1]	64.4	[60.5, 68.0]	0.3	[0.1, 1.3]	100.0
36-99% (n=824)	29.1	[25.4, 33.1]	69.7	[65.7, 73.5]	1.1	[0.5, 2.4]	100.0
100%+ (n=563)	32.9	[28.4, 37.6]	66.2	[61.5, 70.7]	0.9	[0.3, 2.7]	100.0
Pearson: Uncorrected chi2(4) =	12.0287						
Design-based F(3.80, 9037.28) =	2.0671	Pr =	0.086				
Region							
UP/NW/NE (n=450)	32.5	[27.7, 37.7]	67.0	[61.8, 71.8]	0.5	[0.2, 1.5]	100.0
W/E Central/E (n=777)	32.0	[28.3, 35.9]	67.3	[63.3, 70.9]	0.8	[0.3, 1.9]	100.0
S Central/SW/SE (n=464)	35.8	[30.8, 41.0]	63.3	[58.0, 68.3]	0.9	[0.2, 4.1]	100.0
Detroit Metro (n=697)	33.3	[29.1, 37.9]	66.3	[61.7, 70.5]	0.4	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(6) =	3.4816						
Design-based F(4.99, 11850.50) =	0.4662	Pr =	0.801				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,931)	37.9	[35.1, 40.8]	61.5	[58.7, 64.4]	0.6	[0.3, 1.2]	100.0
No (n=457)	16.6	[12.8, 21.2]	82.6	[77.9, 86.5]	0.8	[0.3, 2.3]	100.0
Pearson: Uncorrected chi2(2) =	82.9194						
Design-based F(1.97, 4675.03) =	27.0213	Pr =	0.000				
Total (n=2,388)	33.3	[30.9, 35.8]	66.1	[63.6, 68.5]	0.6	[0.3, 1.1]	100.0

5.8.1 Q: Thinking about the most recent time you were at the emergency room, did you try to contact your usual provider's office before going to the emergency room?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 922)

	Tried to contact PCP before going to ER								
	Yes		No		NA		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
Still enrolled (n=777)	19.2	[16.0, 22.7]	78.5	[74.7, 81.8]	2.2	[1.3, 3.9]	0.1	[0.0, 0.5]	100.0
No longer enrolled (n=145)	18.6	[12.4, 27.0]	75.1	[65.6, 82.7]	5.6	[2.1, 14.5]	0.6	[0.1, 2.8]	100.0
Pearson: Uncorrected chi2(3) =	6.8117								
Design-based F(2.47, 2245.81) =	1.7570	Pr =	0.164						
Age									
19-34 (n=309)	16.9	[12.5, 22.3]	78.3	[72.3, 83.3]	4.7	[2.5, 8.6]	0.2	[0.0, 1.2]	100.0
35-50 (n=295)	20.7	[15.9, 26.6]	77.7	[71.8, 82.7]	1.4	[0.5, 3.6]	0.1	[0.0, 1.0]	100.0
51-64 (n=318)	20.5	[15.5, 26.6]	77.7	[71.4, 82.9]	1.5	[0.3, 6.0]	0.4	[0.1, 1.6]	100.0
Pearson: Uncorrected chi2(6) =	10.7197								
Design-based F(5.04, 4585.74) =	1.5614	Pr =	0.167						
Gender									
Male (n=336)	12.5	[9.1, 16.9]	84.0	[79.2, 87.9]	3.2	[1.7, 6.0]	0.3	[0.1, 1.1]	100.0
Female (n=586)	23.5	[19.5, 28.1]	73.8	[69.1, 78.1]	2.5	[1.1, 5.3]	0.2	[0.0, 0.7]	100.0
Pearson: Uncorrected chi2(3) =	17.4899								
Design-based F(2.57, 2339.16) =	4.8772	Pr =	0.004						
Race/ethnicity									
White, non-Hispanic (n=591)	20.0	[16.3, 24.3]	77.6	[73.2, 81.5]	2.1	[1.1, 3.9]	0.3	[0.1, 0.8]	100.0
Black, non-Hispanic (n=210)	16.6	[11.6, 23.1]	80.0	[73.0, 85.5]	3.2	[1.3, 7.6]	0.2	[0.0, 1.5]	100.0
Hispanic (n=44)	17.9	[8.9, 32.7]	73.8	[54.0, 87.2]	8.2	[1.2, 39.7]	0.0		100.0
Other, non-Hispanic (n=67)	25.1	[14.5, 39.8]	71.6	[57.0, 82.8]	3.3	[1.0, 10.4]	0.0		100.0
Pearson: Uncorrected chi2(9) =	9.4160								
Design-based F(6.76, 6088.41) =	0.7418	Pr =	0.632						
FPL category									
0-35% (n=407)	18.8	[14.7, 23.7]	77.3	[72.1, 81.8]	3.6	[1.9, 6.7]	0.2	[0.1, 0.8]	100.0
36-99% (n=297)	19.1	[14.7, 24.4]	78.3	[72.8, 83.0]	2.3	[1.0, 5.2]	0.3	[0.0, 2.0]	100.0
100%+ (n=218)	19.8	[14.4, 26.6]	79.5	[72.6, 84.9]	0.7	[0.2, 3.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.6923								
Design-based F(5.34, 4856.11) =	0.8830	Pr =	0.497						
Region									
UP/NW/NE (n=169)	23.2	[16.9, 30.9]	72.6	[64.5, 79.3]	3.4	[1.4, 8.1]	0.9	[0.2, 3.5]	100.0
W/E Central/E (n=283)	20.9	[16.2, 26.7]	77.5	[71.6, 82.4]	1.6	[0.6, 4.2]	0.0		100.0
S Central/SW/SE (n=193)	15.6	[10.6, 22.2]	80.6	[73.6, 86.1]	3.2	[1.4, 6.9]	0.7	[0.2, 2.8]	100.0
Detroit Metro (n=277)	18.5	[13.8, 24.5]	78.2	[71.9, 83.5]	3.2	[1.4, 7.4]	0.0		100.0
Pearson: Uncorrected chi2(9) =	9.7232								
Design-based F(7.13, 6490.03) =	1.1830	Pr =	0.308						
Chronic condition (2016/2017 survey or DW)									
Yes (n=828)	19.9	[16.8, 23.4]	77.4	[73.8, 80.7]	2.5	[1.5, 4.1]	0.2	[0.1, 0.7]	100.0
No (n=94)	13.2	[7.1, 23.1]	81.8	[70.0, 89.7]	5.0	[1.2, 18.0]	0.0		100.0
Pearson: Uncorrected chi2(3) =	4.9826								
Design-based F(2.35, 2134.21) =	1.0837	Pr =	0.346						
Total (n=922)	19.1	[16.2, 22.3]	77.9	[74.5, 81.0]	2.8	[1.7, 4.6]	0.2	[0.1, 0.6]	100.0

5.8.1.1 Q: Did you talk to someone?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who tried to contact their usual provider's office before going to the emergency room (n = 190)

	Talked to someone before going to ER						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=159)	75.1	[65.3, 82.8]	23.9	[16.3, 33.8]	1.0	[0.2, 3.9]	100.0
No longer enrolled (n=31)	84.4	[64.0, 94.3]	15.6	[5.7, 36.0]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.3493						
Design-based F(1.91, 340.09) =	0.6309	Pr =	0.526				
Age							
19-34 (n=58)	74.9	[58.7, 86.2]	25.1	[13.8, 41.3]	0.0		100.0
35-50 (n=66)	82.3	[68.6, 90.8]	15.4	[7.4, 29.4]	2.3	[0.6, 9.2]	100.0
51-64 (n=66)	71.4	[53.8, 84.2]	28.6	[15.8, 46.2]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.9377						
Design-based F(3.72, 662.39) =	1.0620	Pr =	0.372				
Gender							
Male (n=49)	75.7	[58.0, 87.6]	22.5	[11.1, 40.4]	1.7	[0.2, 11.6]	100.0
Female (n=141)	76.8	[66.4, 84.7]	22.7	[14.8, 33.1]	0.5	[0.1, 3.5]	100.0
Pearson: Uncorrected chi2(2) =	0.6971						
Design-based F(1.78, 316.29) =	0.2884	Pr =	0.723				
Race/ethnicity							
White, non-Hispanic (n=128)	78.7	[67.4, 86.9]	20.6	[12.5, 32.1]	0.6	[0.1, 4.3]	100.0
Black, non-Hispanic (n=36)	74.6	[54.4, 87.8]	23.6	[10.8, 43.9]	1.9	[0.3, 12.5]	100.0
Hispanic (n=10)	76.8	[43.4, 93.5]	23.2	[6.5, 56.6]	0.0		100.0
Other, non-Hispanic (n=16)	67.9	[37.5, 88.2]	32.1	[11.8, 62.5]	0.0		100.0
Pearson: Uncorrected chi2(6) =	2.1943						
Design-based F(5.34, 949.66) =	0.2984	Pr =	0.923				
FPL category							
0-35% (n=84)	71.1	[57.3, 81.8]	28.3	[17.6, 42.1]	0.7	[0.1, 4.6]	100.0
36-99% (n=63)	82.9	[69.7, 91.1]	15.2	[7.6, 28.2]	1.9	[0.3, 12.6]	100.0
100%+ (n=43)	84.6	[69.9, 92.9]	15.4	[7.1, 30.1]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.3821						
Design-based F(3.79, 675.29) =	1.4128	Pr =	0.230				
Region							
UP/NW/NE (n=43)	87.6	[70.4, 95.4]	12.4	[4.6, 29.6]	0.0		100.0
W/E Central/E (n=60)	74.0	[58.8, 84.9]	24.8	[14.0, 40.1]	1.2	[0.2, 8.4]	100.0
S Central/SW/SE (n=32)	84.7	[68.9, 93.3]	15.3	[6.7, 31.1]	0.0		100.0
Detroit Metro (n=55)	72.4	[55.6, 84.6]	26.5	[14.5, 43.4]	1.1	[0.1, 7.5]	100.0
Pearson: Uncorrected chi2(6) =	3.8107						
Design-based F(4.61, 820.45) =	0.7185	Pr =	0.599				
Chronic condition (2016/2017 survey or DW)							
Yes (n=176)	74.9	[65.6, 82.3]	24.2	[16.9, 33.5]	0.9	[0.2, 3.6]	100.0
No (n=14)	94.9	[69.6, 99.3]	5.1	[0.7, 30.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.2614						
Design-based F(1.99, 354.66) =	1.8649	Pr =	0.157				
Total (n=190)	76.5	[67.8, 83.5]	22.6	[15.8, 31.3]	0.8	[0.2, 3.3]	100.0

5.8.2 Q: Why did you end up going to the ER?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who talked to someone at their usual provider's office before going to the emergency room (n = 152)

Why did you end up going to the ER?	Weighted Proportion	95%CI
Told to go to ER (n=102)	63.2	[53.3, 72.2]
Symptoms didn't improve or got worse (n=28)	21.5	[13.9, 31.6]
Difficulty getting appointment (n=20)	15.4	[9.6, 24.0]
Other (n=10)	7.8	[3.8, 15.5]
No response from PCP/office not open (n=2)	0.9	[0.2, 3.8]
Don't know (n=1)	0.7	[0.1, 4.9]
Provider's advice wasn't helpful (n=1)	0.3	[0.0, 2.2]

Note: Respondents were able to provide multiple responses

5.8.3 Q: Which of these were true about that last ER visit?

5.8.3.1 Q: You arrived by ambulance or other emergency vehicle

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	Arrived by ambulance						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=767)	15.0	[12.3, 18.1]	84.9	[81.8, 87.6]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	11.4	[7.5, 17.0]	88.6	[83.0, 92.5]	0.0		100.0
35-50 (n=255)	16.7	[12.3, 22.3]	83.0	[77.4, 87.4]	0.2	[0.0, 1.8]	100.0
51-64 (n=268)	18.2	[13.4, 24.1]	81.8	[75.9, 86.6]	0.0		100.0
Pearson: Uncorrected chi2(4) =	6.5384						
Design-based F(3.66, 2764.16) =	1.3632	Pr =	0.247				
Gender							
Male (n=280)	18.2	[13.6, 24.0]	81.6	[75.7, 86.2]	0.2	[0.0, 1.5]	100.0
Female (n=487)	12.9	[9.9, 16.6]	87.1	[83.4, 90.1]	0.0		100.0
Pearson: Uncorrected chi2(2) =	5.1606						
Design-based F(1.80, 1358.70) =	2.5895	Pr =	0.081				
Race/ethnicity							
White, non-Hispanic (n=489)	12.2	[9.3, 16.0]	87.6	[83.9, 90.6]	0.1	[0.0, 1.1]	100.0
Black, non-Hispanic (n=178)	20.6	[14.8, 27.9]	79.4	[72.1, 85.2]	0.0		100.0
Hispanic (n=33)	4.3	[1.0, 16.7]	95.7	[83.3, 99.0]	0.0		100.0
Other, non-Hispanic (n=57)	13.9	[6.4, 27.6]	86.1	[72.4, 93.6]	0.0		100.0
Pearson: Uncorrected chi2(6) =	11.9492						
Design-based F(5.50, 4099.31) =	1.6388	Pr =	0.139				
FPL category							
0-35% (n=351)	15.9	[12.2, 20.6]	83.9	[79.3, 87.7]	0.1	[0.0, 1.0]	100.0
36-99% (n=242)	13.5	[9.3, 19.1]	86.5	[80.9, 90.7]	0.0		100.0
100%+ (n=174)	13.9	[9.0, 20.7]	86.1	[79.3, 91.0]	0.0		100.0
Pearson: Uncorrected chi2(4) =	1.2160						
Design-based F(3.41, 2572.92) =	0.3897	Pr =	0.786				
Region							
UP/NW/NE (n=138)	9.1	[5.4, 15.0]	90.9	[85.0, 94.6]	0.0		100.0
W/E Central/E (n=242)	15.7	[11.5, 21.0]	84.3	[79.0, 88.5]	0.0		100.0
S Central/SW/SE (n=153)	15.7	[10.1, 23.7]	83.8	[75.8, 89.5]	0.5	[0.1, 3.3]	100.0
Detroit Metro (n=234)	15.4	[11.0, 21.1]	84.6	[78.9, 89.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	4.9810						
Design-based F(4.34, 3275.29) =	1.1501	Pr =	0.331				
Chronic condition (2016/2017 survey or DW)							
Yes (n=697)	14.9	[12.1, 18.2]	85.0	[81.7, 87.8]	0.1	[0.0, 0.7]	100.0
No (n=70)	15.8	[8.0, 29.0]	84.2	[71.0, 92.0]	0.0		100.0
Pearson: Uncorrected chi2(2) =	0.1231						
Design-based F(1.70, 1280.63) =	0.0532	Pr =	0.925				
Total (n=767)	15.0	[12.3, 18.1]	84.9	[81.8, 87.6]	0.1	[0.0, 0.6]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.2 Q: The problem was too serious for a doctor's office or clinic.

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	Problem too serious for doctor's office						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=761)	55.6	[51.0, 60.2]	40.3	[35.8, 45.0]	4.0	[2.7, 6.1]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	43.7	[36.2, 51.6]	53.0	[45.1, 60.8]	3.2	[1.3, 7.7]	100.0
35-50 (n=254)	61.7	[54.2, 68.7]	32.8	[26.2, 40.2]	5.5	[3.0, 9.8]	100.0
51-64 (n=263)	66.1	[58.6, 72.8]	30.6	[24.0, 38.0]	3.3	[1.7, 6.5]	100.0
Pearson: Uncorrected chi2(4) =	35.8692						
Design-based F(3.76, 2816.38) =	6.1628	Pr =	0.000				
Gender							
Male (n=278)	55.8	[48.6, 62.8]	39.9	[33.1, 47.2]	4.3	[2.0, 8.9]	100.0
Female (n=483)	55.5	[49.5, 61.4]	40.6	[34.7, 46.7]	3.9	[2.4, 6.2]	100.0
Pearson: Uncorrected chi2(2) =	0.0835						
Design-based F(2.00, 1495.98) =	0.0254	Pr =	0.975				
Race/ethnicity							
White, non-Hispanic (n=487)	55.0	[49.1, 60.8]	40.7	[35.0, 46.7]	4.3	[2.5, 7.2]	100.0
Black, non-Hispanic (n=176)	57.5	[48.2, 66.3]	38.6	[29.9, 48.2]	3.9	[1.7, 8.6]	100.0
Hispanic (n=33)	46.9	[28.3, 66.5]	51.5	[32.1, 70.5]	1.6	[0.2, 10.6]	100.0
Other, non-Hispanic (n=55)	53.5	[37.2, 69.0]	41.2	[26.4, 57.9]	5.3	[1.1, 22.8]	100.0
Pearson: Uncorrected chi2(6) =	2.7274						
Design-based F(5.49, 4059.10) =	0.3017	Pr =	0.925				
FPL category							
0-35% (n=349)	53.0	[46.5, 59.5]	42.2	[35.8, 48.8]	4.8	[2.8, 8.0]	100.0
36-99% (n=239)	62.5	[54.1, 70.2]	35.4	[27.8, 43.9]	2.1	[0.8, 5.3]	100.0
100%+ (n=173)	55.5	[46.5, 64.1]	40.5	[32.0, 49.6]	4.0	[1.5, 10.4]	100.0
Pearson: Uncorrected chi2(4) =	5.7621						
Design-based F(3.86, 2894.12) =	1.1220	Pr =	0.344				
Region							
UP/NW/NE (n=137)	51.9	[42.4, 61.3]	43.5	[34.3, 53.1]	4.6	[2.1, 9.8]	100.0
W/E Central/E (n=241)	52.8	[45.7, 59.9]	43.4	[36.4, 50.7]	3.8	[1.8, 7.5]	100.0
S Central/SW/SE (n=150)	59.0	[49.5, 67.9]	33.3	[25.2, 42.5]	7.7	[3.3, 17.0]	100.0
Detroit Metro (n=233)	56.8	[48.4, 64.8]	40.5	[32.6, 49.1]	2.6	[1.2, 5.7]	100.0
Pearson: Uncorrected chi2(6) =	9.5227						
Design-based F(5.18, 3881.17) =	1.2853	Pr =	0.266				
Chronic condition (2016/2017 survey or DW)							
Yes (n=691)	56.8	[51.9, 61.6]	39.6	[34.9, 44.6]	3.6	[2.3, 5.5]	100.0
No (n=70)	46.0	[32.5, 60.1]	46.1	[32.8, 59.9]	7.9	[2.3, 23.6]	100.0
Pearson: Uncorrected chi2(2) =	5.6486						
Design-based F(1.95, 1457.69) =	1.4598	Pr =	0.233				
Total (n=761)	55.6	[51.0, 60.2]	40.3	[35.8, 45.0]	4.0	[2.7, 6.1]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.3 Q: Your doctor's office or clinic was not open.

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	PCP office was not open						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=756)	66.3	[61.9, 70.4]	29.7	[25.8, 34.0]	4.0	[2.6, 6.0]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=243)	68.6	[61.1, 75.3]	28.2	[21.8, 35.5]	3.2	[1.3, 7.6]	100.0
35-50 (n=252)	62.5	[54.9, 69.5]	33.7	[26.9, 41.3]	3.8	[2.0, 7.1]	100.0
51-64 (n=261)	67.9	[60.5, 74.5]	26.7	[20.6, 33.8]	5.4	[2.9, 9.9]	100.0
Pearson: Uncorrected chi2(4) =	4.6442						
Design-based F(3.86, 2869.86) =	0.8037	Pr =	0.519				
Gender							
Male (n=275)	61.9	[54.6, 68.7]	32.9	[26.4, 40.0]	5.2	[2.7, 9.7]	100.0
Female (n=481)	69.2	[63.7, 74.1]	27.6	[22.9, 33.0]	3.2	[1.9, 5.2]	100.0
Pearson: Uncorrected chi2(2) =	4.9966						
Design-based F(1.99, 1477.22) =	1.6922	Pr =	0.185				
Race/ethnicity							
White, non-Hispanic (n=482)	72.0	[66.7, 76.7]	23.6	[19.3, 28.6]	4.4	[2.6, 7.3]	100.0
Black, non-Hispanic (n=175)	61.1	[52.0, 69.5]	34.4	[26.3, 43.5]	4.5	[2.1, 9.2]	100.0
Hispanic (n=33)	60.3	[40.1, 77.4]	39.7	[22.6, 59.9]	0.0		100.0
Other, non-Hispanic (n=56)	49.3	[33.7, 65.0]	48.7	[33.1, 64.6]	2.0	[0.3, 13.2]	100.0
Pearson: Uncorrected chi2(6) =	23.2218						
Design-based F(5.92, 4342.20) =	2.6559	Pr =	0.015				
FPL category							
0-35% (n=347)	66.1	[59.8, 71.9]	30.4	[24.8, 36.5]	3.5	[1.8, 6.8]	100.0
36-99% (n=237)	68.4	[60.6, 75.3]	26.2	[19.7, 33.9]	5.4	[3.0, 9.7]	100.0
100%+ (n=172)	64.3	[55.5, 72.2]	32.1	[24.4, 40.8]	3.6	[1.8, 7.1]	100.0
Pearson: Uncorrected chi2(4) =	2.4555						
Design-based F(3.76, 2796.68) =	0.5336	Pr =	0.700				
Region							
UP/NW/NE (n=137)	61.5	[51.6, 70.4]	31.2	[22.8, 41.1]	7.3	[4.0, 13.1]	100.0
W/E Central/E (n=238)	73.6	[67.0, 79.2]	24.4	[18.9, 30.9]	2.0	[0.8, 4.8]	100.0
S Central/SW/SE (n=150)	64.7	[54.9, 73.3]	30.3	[22.3, 39.7]	5.0	[1.7, 13.8]	100.0
Detroit Metro (n=231)	63.2	[55.3, 70.5]	32.6	[25.6, 40.4]	4.2	[2.2, 7.7]	100.0
Pearson: Uncorrected chi2(6) =	9.9620						
Design-based F(5.21, 3874.56) =	1.3679	Pr =	0.231				
Chronic condition (2016/2017 survey or DW)							
Yes (n=686)	66.5	[61.9, 70.9]	29.7	[25.5, 34.2]	3.8	[2.5, 5.7]	100.0
No (n=70)	64.5	[50.1, 76.6]	30.0	[19.0, 43.8]	5.6	[1.3, 20.6]	100.0
Pearson: Uncorrected chi2(2) =	0.6433						
Design-based F(1.94, 1442.81) =	0.1680	Pr =	0.839				
Total (n=756)	66.3	[61.9, 70.4]	29.7	[25.8, 34.0]	4.0	[2.6, 6.0]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.4 Q: You needed to get care at a time that would not make you miss work or school.

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	Needed to go at a time I wouldn't miss work/school						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=756)	40.3	[35.7, 44.9]	58.5	[53.9, 63.1]	1.2	[0.6, 2.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=240)	47.3	[39.3, 55.5]	52.7	[44.5, 60.7]	0.0		100.0
35-50 (n=253)	40.1	[32.9, 47.8]	58.7	[51.0, 66.0]	1.2	[0.5, 2.8]	100.0
51-64 (n=263)	29.6	[22.8, 37.3]	67.3	[59.5, 74.3]	3.1	[1.2, 7.7]	100.0
Pearson: Uncorrected chi2(4) =	22.9836						
Design-based F(3.59, 2673.90) =	4.4168	Pr =	0.002				
Gender							
Male (n=273)	41.8	[34.7, 49.2]	56.5	[49.1, 63.7]	1.6	[0.6, 4.6]	100.0
Female (n=483)	39.2	[33.5, 45.3]	59.8	[53.7, 65.6]	0.9	[0.4, 2.1]	100.0
Pearson: Uncorrected chi2(2) =	1.3627						
Design-based F(1.90, 1412.66) =	0.4870	Pr =	0.605				
Race/ethnicity							
White, non-Hispanic (n=481)	41.5	[35.7, 47.5]	57.3	[51.3, 63.1]	1.2	[0.4, 3.2]	100.0
Black, non-Hispanic (n=177)	43.1	[34.2, 52.4]	55.7	[46.5, 64.6]	1.2	[0.4, 3.7]	100.0
Hispanic (n=32)	28.2	[12.9, 51.1]	71.8	[48.9, 87.1]	0.0		100.0
Other, non-Hispanic (n=56)	31.2	[17.5, 49.2]	66.2	[48.7, 80.2]	2.6	[0.8, 8.1]	100.0
Pearson: Uncorrected chi2(6) =	6.1663						
Design-based F(5.36, 3931.39) =	0.7453	Pr =	0.598				
FPL category							
0-35% (n=347)	39.1	[32.8, 45.8]	60.0	[53.3, 66.4]	0.8	[0.2, 3.1]	100.0
36-99% (n=237)	44.4	[36.4, 52.8]	54.3	[46.0, 62.3]	1.3	[0.4, 3.9]	100.0
100%+ (n=172)	38.7	[30.5, 47.6]	58.9	[50.0, 67.2]	2.4	[1.0, 5.9]	100.0
Pearson: Uncorrected chi2(4) =	3.7081						
Design-based F(3.75, 2789.88) =	0.7858	Pr =	0.527				
Region							
UP/NW/NE (n=135)	31.9	[24.1, 41.0]	65.6	[56.6, 73.6]	2.4	[1.0, 5.9]	100.0
W/E Central/E (n=238)	43.3	[36.3, 50.7]	56.1	[48.8, 63.2]	0.5	[0.1, 2.1]	100.0
S Central/SW/SE (n=151)	37.7	[29.0, 47.3]	61.7	[52.2, 70.5]	0.6	[0.1, 4.2]	100.0
Detroit Metro (n=232)	40.9	[33.0, 49.3]	57.4	[49.1, 65.4]	1.7	[0.6, 4.5]	100.0
Pearson: Uncorrected chi2(6) =	5.6212						
Design-based F(4.84, 3598.27) =	0.9489	Pr =	0.446				
Chronic condition (2016/2017 survey or DW)							
Yes (n=686)	39.9	[35.2, 44.9]	58.7	[53.8, 63.5]	1.4	[0.7, 2.7]	100.0
No (n=70)	42.9	[29.6, 57.4]	57.1	[42.6, 70.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.3112						
Design-based F(1.91, 1423.18) =	0.4483	Pr =	0.630				
Total (n=756)	40.3	[35.7, 44.9]	58.5	[53.9, 63.1]	1.2	[0.6, 2.4]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.5 Q: You went to the ER because it's your closest place to receive care.

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	ER is closest place to receive care						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=751)	70.9	[66.5, 75.0]	28.3	[24.2, 32.7]	0.8	[0.3, 2.4]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=238)	65.7	[57.8, 72.9]	33.1	[26.0, 41.0]	1.2	[0.3, 4.6]	100.0
35-50 (n=251)	72.3	[64.8, 78.8]	26.7	[20.3, 34.2]	1.0	[0.2, 5.8]	100.0
51-64 (n=262)	77.0	[69.5, 83.1]	23.0	[16.9, 30.5]	0.0		100.0
Pearson: Uncorrected chi2(4) =	8.9154						
Design-based F(3.91, 2889.37) =	1.2434	Pr =	0.291				
Gender							
Male (n=273)	71.1	[64.1, 77.2]	28.1	[22.1, 35.0]	0.8	[0.1, 5.5]	100.0
Female (n=478)	70.8	[65.0, 76.0]	28.4	[23.2, 34.2]	0.8	[0.2, 3.0]	100.0
Pearson: Uncorrected chi2(2) =	0.0062						
Design-based F(1.97, 1456.34) =	0.0016	Pr =	0.998				
Race/ethnicity							
White, non-Hispanic (n=477)	66.4	[60.4, 71.9]	32.7	[27.3, 38.7]	0.9	[0.2, 3.2]	100.0
Black, non-Hispanic (n=176)	78.7	[70.7, 84.9]	21.3	[15.1, 29.3]	0.0		100.0
Hispanic (n=32)	91.6	[73.7, 97.7]	8.4	[2.3, 26.3]	0.0		100.0
Other, non-Hispanic (n=56)	66.1	[49.1, 79.7]	33.9	[20.3, 50.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	20.0631						
Design-based F(5.91, 4306.16) =	2.1509	Pr =	0.046				
FPL category							
0-35% (n=347)	71.4	[65.0, 77.2]	27.2	[21.6, 33.7]	1.3	[0.4, 4.1]	100.0
36-99% (n=235)	73.4	[66.4, 79.4]	26.4	[20.5, 33.4]	0.1	[0.0, 1.0]	100.0
100%+ (n=169)	65.8	[56.6, 74.0]	34.2	[26.0, 43.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	5.9490						
Design-based F(3.12, 2308.68) =	1.2438	Pr =	0.292				
Region							
UP/NW/NE (n=135)	67.9	[57.5, 76.7]	31.8	[23.0, 42.1]	0.4	[0.1, 2.7]	100.0
W/E Central/E (n=235)	68.9	[61.5, 75.4]	30.4	[23.9, 37.7]	0.7	[0.1, 5.2]	100.0
S Central/SW/SE (n=151)	71.8	[62.7, 79.4]	28.2	[20.6, 37.3]	0.0		100.0
Detroit Metro (n=230)	72.5	[64.4, 79.2]	26.3	[19.6, 34.2]	1.3	[0.3, 5.1]	100.0
Pearson: Uncorrected chi2(6) =	3.6156						
Design-based F(4.84, 3579.63) =	0.4554	Pr =	0.804				
Chronic condition (2016/2017 survey or DW)							
Yes (n=682)	70.6	[65.8, 74.9]	28.5	[24.2, 33.2]	0.9	[0.3, 2.7]	100.0
No (n=69)	73.9	[61.5, 83.5]	26.1	[16.5, 38.5]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.0068						
Design-based F(1.94, 1435.75) =	0.3058	Pr =	0.730				
Total (n=751)	70.9	[66.5, 75.0]	28.3	[24.2, 32.7]	0.8	[0.3, 2.4]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.6 Q: You went to the ER because you get most of your care at the emergency room.

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

	Receive most care at ER						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=739)	23.5	[20.0, 27.5]	75.8	[71.8, 79.3]	0.7	[0.3, 1.5]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=236)	23.2	[17.6, 30.0]	76.8	[70.0, 82.4]	0.0		100.0
35-50 (n=246)	24.5	[18.5, 31.7]	75.0	[67.8, 81.0]	0.5	[0.2, 1.8]	100.0
51-64 (n=257)	22.7	[17.0, 29.5]	75.3	[68.4, 81.1]	2.0	[0.8, 4.8]	100.0
Pearson: Uncorrected chi2(4) =	7.0596						
Design-based F(3.48, 2530.51) =	1.6972	Pr =	0.157				
Gender							
Male (n=270)	33.7	[27.1, 40.9]	65.0	[57.8, 71.6]	1.3	[0.5, 3.1]	100.0
Female (n=469)	16.8	[13.3, 21.0]	82.9	[78.6, 86.4]	0.3	[0.1, 1.1]	100.0
Pearson: Uncorrected chi2(2) =	31.2128						
Design-based F(1.73, 1254.11) =	15.2263	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=473)	19.9	[16.0, 24.4]	79.0	[74.4, 83.0]	1.1	[0.5, 2.4]	100.0
Black, non-Hispanic (n=171)	30.2	[22.5, 39.2]	69.6	[60.6, 77.3]	0.2	[0.0, 1.7]	100.0
Hispanic (n=32)	28.1	[14.2, 48.0]	71.9	[52.0, 85.8]	0.0		100.0
Other, non-Hispanic (n=53)	21.9	[11.6, 37.4]	78.1	[62.6, 88.4]	0.0		100.0
Pearson: Uncorrected chi2(6) =	10.7669						
Design-based F(5.36, 3840.01) =	1.5044	Pr =	0.180				
FPL category							
0-35% (n=335)	25.4	[20.3, 31.3]	73.8	[67.9, 79.0]	0.8	[0.3, 2.0]	100.0
36-99% (n=234)	21.1	[15.8, 27.5]	78.5	[72.0, 83.8]	0.4	[0.1, 1.9]	100.0
100%+ (n=170)	20.5	[14.3, 28.3]	78.7	[70.8, 84.9]	0.8	[0.2, 3.2]	100.0
Pearson: Uncorrected chi2(4) =	2.3505						
Design-based F(3.48, 2531.79) =	0.7043	Pr =	0.570				
Region							
UP/NW/NE (n=133)	14.0	[8.6, 21.9]	85.0	[77.0, 90.5]	1.1	[0.2, 4.4]	100.0
W/E Central/E (n=230)	25.5	[19.7, 32.4]	73.7	[66.9, 79.6]	0.8	[0.2, 2.4]	100.0
S Central/SW/SE (n=147)	29.0	[20.9, 38.6]	69.2	[59.6, 77.4]	1.8	[0.5, 6.1]	100.0
Detroit Metro (n=229)	21.9	[16.3, 28.7]	78.0	[71.2, 83.5]	0.2	[0.0, 1.1]	100.0
Pearson: Uncorrected chi2(6) =	10.5232						
Design-based F(4.80, 3491.31) =	2.0295	Pr =	0.074				
Chronic condition (2016/2017 survey or DW)							
Yes (n=670)	23.0	[19.4, 27.2]	76.2	[72.0, 79.9]	0.8	[0.4, 1.6]	100.0
No (n=69)	27.4	[16.6, 41.8]	72.6	[58.2, 83.4]	0.0		100.0
Pearson: Uncorrected chi2(2) =	1.3500						
Design-based F(1.75, 1273.49) =	0.5541	Pr =	0.552				
Total (n=739)	23.5	[20.0, 27.5]	75.8	[71.8, 79.3]	0.7	[0.3, 1.5]	100.0

Note: Total count is less than universe count due to item non-response.

5.8.3.7 Q: Any other reason you decided to go to the ER?

Follow-up group(s): Still enrolled
Universe: Respondents who had an emergency room visit in the past 12 months (n = 773)

Any other reasons for going to ER	Weighted Proportion	95%CI
Other (n=109)	13.9	[11.2, 17.1]
Symptoms didn't improve or got worse (n=88)	10.1	[7.8, 13.0]
No response from provider/office closed (n=19)	3.0	[1.8, 4.9]
Told to go to the ER (n=25)	2.5	[1.6, 4.1]
Transportation/logistics (n=10)	1.4	[0.6, 3.0]
Difficulty getting appointment (n=6)	0.8	[0.3, 2.1]
Provider's advice wasn't helpful (n=2)	0.5	[0.1, 3.1]
N/A (n=5)	0.4	[0.2, 1.1]

Note: Respondents were able to provide multiple responses

5.9 Q: In the last 12 months was there a time when you needed help or advice when your usual clinic or doctor's office was closed?

Follow-up group(s): Still enrolled
Universe: All respondents

	Needed help when usual clinic/doctor's office was closed in last 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,380)	24.4	[22.2, 26.6]	75.2	[73.0, 77.4]	0.4	[0.2, 0.8]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=663)	26.7	[22.7, 31.0]	73.1	[68.7, 77.0]	0.2	[0.1, 0.8]	100.0
35-50 (n=755)	23.3	[19.9, 27.1]	76.2	[72.3, 79.6]	0.5	[0.2, 1.5]	100.0
51-64 (n=962)	22.7	[19.6, 26.3]	76.8	[73.2, 80.0]	0.5	[0.2, 1.3]	100.0
Pearson: Uncorrected chi2(4) =	4.9553						
Design-based F(3.67, 8695.97) =	0.9988	Pr =	0.403				
Gender							
Male (n=931)	18.9	[16.1, 22.2]	80.8	[77.6, 83.7]	0.2	[0.1, 0.6]	100.0
Female (n=1,449)	29.0	[26.0, 32.1]	70.4	[67.3, 73.4]	0.6	[0.3, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	35.0438						
Design-based F(1.78, 4216.19) =	14.5217	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=1,601)	25.5	[22.8, 28.3]	73.9	[71.1, 76.6]	0.6	[0.3, 1.2]	100.0
Black, non-Hispanic (n=475)	22.3	[18.0, 27.3]	77.5	[72.5, 81.9]	0.2	[0.0, 1.5]	100.0
Hispanic (n=99)	27.6	[17.7, 40.4]	72.4	[59.6, 82.3]	0.0		100.0
Other, non-Hispanic (n=176)	22.6	[16.1, 30.7]	77.4	[69.3, 83.9]	0.0		100.0
Pearson: Uncorrected chi2(6) =	6.8513						
Design-based F(5.71, 13363.57) =	0.7260	Pr =	0.622				
FPL category							
0-35% (n=998)	24.6	[21.5, 28.0]	75.1	[71.7, 78.3]	0.3	[0.1, 0.8]	100.0
36-99% (n=822)	23.4	[19.9, 27.2]	75.9	[72.0, 79.4]	0.7	[0.3, 1.9]	100.0
100%+ (n=560)	25.1	[21.1, 29.5]	74.5	[70.1, 78.5]	0.4	[0.1, 1.8]	100.0
Pearson: Uncorrected chi2(4) =	2.4776						
Design-based F(3.87, 9167.88) =	0.5325	Pr =	0.706				
Region							
UP/NW/NE (n=450)	24.5	[20.2, 29.4]	74.7	[69.8, 79.1]	0.8	[0.3, 2.1]	100.0
W/E Central/E (n=774)	25.7	[22.3, 29.4]	73.6	[69.9, 77.0]	0.7	[0.3, 1.7]	100.0
S Central/SW/SE (n=462)	26.4	[22.1, 31.2]	73.3	[68.5, 77.6]	0.2	[0.0, 1.7]	100.0
Detroit Metro (n=694)	22.6	[19.0, 26.7]	77.2	[73.0, 80.8]	0.2	[0.1, 1.0]	100.0
Pearson: Uncorrected chi2(6) =	6.4928						
Design-based F(5.26, 12463.39) =	0.9998	Pr =	0.418				
Chronic condition (2016/2017 survey or DW)							
Yes (n=1,923)	26.3	[23.9, 28.9]	73.2	[70.6, 75.7]	0.5	[0.2, 0.9]	100.0
No (n=457)	17.3	[13.4, 22.0]	82.5	[77.8, 86.3]	0.3	[0.1, 1.1]	100.0
Pearson: Uncorrected chi2(2) =	18.5900						
Design-based F(1.73, 4097.64) =	7.6249	Pr =	0.001				
Total (n=2,380)	24.4	[22.2, 26.6]	75.2	[73.0, 77.4]	0.4	[0.2, 0.8]	100.0

Note: Total count is less than universe count due to item non-response.

5.9.1 Q: Thinking of the last time, what did you do to get the health care help or advice you needed?

Follow-up group(s): Still enrolled
Universe: Respondents who needed health care help or advice when their usual clinic or doctor's office was closed in the last 12 months (n = 590)

Means of getting help when usual clinic or doctor's office closed	Weighted Proportion	95%CI
Went to ER (n=203)	36.4	[31.5, 41.7]
Went to Urgent Care/Walk-in clinic (n=185)	29.1	[24.8, 33.8]
Got advice elsewhere (n=94)	16.2	[12.9, 20.2]
Phone/email with PCP office (n=57)	10.3	[7.6, 13.8]
Got PCP appointment next day/soon (n=47)	8.5	[6.0, 11.9]
Did not seek care, problem did not improve (n=9)	1.4	[0.7, 2.9]
Problem improved without seeking care (n=8)	1.1	[0.5, 2.7]
Other (n=7)	1.0	[0.4, 2.3]
Don't know (n=1)	0.1	[0.0, 0.9]

Note: Respondents were able to provide multiple responses

5.10 Q: If I have a medical problem, my preference is to go straight to a doctor and ask his or her opinion.

Follow-up group(s): Still enrolled
Universe: All respondents

	Preference is to go straight to doctor for a medical problem												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
Still enrolled (n=2,387)	15.7	[13.9, 17.7]	68.1	[65.6, 70.5]	8.5	[7.1, 10.2]	6.6	[5.4, 8.1]	0.5	[0.3, 0.9]	0.5	[0.2, 1.3]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=663)	14.7	[11.6, 18.5]	65.5	[60.7, 70.0]	11.4	[8.5, 15.1]	7.8	[5.6, 10.9]	0.6	[0.2, 1.7]	0.0		100.0
35-50 (n=760)	18.4	[15.0, 22.3]	68.2	[63.8, 72.3]	6.6	[4.8, 9.1]	5.3	[3.7, 7.6]	0.5	[0.1, 1.5]	1.0	[0.3, 3.4]	100.0
51-64 (n=964)	13.8	[11.4, 16.5]	71.2	[67.6, 74.5]	7.2	[5.5, 9.3]	6.8	[5.0, 9.2]	0.3	[0.1, 0.8]	0.7	[0.3, 1.6]	100.0
Pearson: Uncorrected chi2(10) =	33.7678												
Design-based F(8.31, 19731.41) =	2.1149	Pr =	0.029										
Gender													
Male (n=933)	16.1	[13.2, 19.4]	68.7	[64.7, 72.4]	7.5	[5.7, 9.9]	6.2	[4.5, 8.5]	0.6	[0.2, 1.5]	1.0	[0.4, 2.7]	100.0
Female (n=1,454)	15.4	[13.1, 18.0]	67.6	[64.4, 70.7]	9.3	[7.4, 11.7]	7.0	[5.5, 9.0]	0.4	[0.2, 0.9]	0.2	[0.1, 0.5]	100.0
Pearson: Uncorrected chi2(5) =	11.1517												
Design-based F(4.72, 11200.27) =	1.4869	Pr =	0.194										
Race/ethnicity													
White, non-Hispanic (n=1,603)	14.5	[12.2, 17.0]	65.2	[62.0, 68.3]	10.4	[8.5, 12.7]	8.4	[6.8, 10.5]	0.7	[0.4, 1.4]	0.8	[0.3, 2.0]	100.0
Black, non-Hispanic (n=479)	18.3	[14.6, 22.8]	72.5	[67.4, 77.1]	5.0	[3.2, 7.8]	3.6	[2.0, 6.7]	0.2	[0.0, 1.6]	0.3	[0.0, 2.1]	100.0
Hispanic (n=100)	12.8	[5.9, 25.5]	75.8	[61.7, 85.8]	8.2	[2.5, 23.4]	3.3	[1.0, 10.1]	0.0		0.0		100.0
Other, non-Hispanic (n=175)	20.2	[14.0, 28.1]	69.1	[60.4, 76.6]	6.0	[3.1, 11.2]	4.5	[2.0, 10.0]	0.1	[0.0, 1.0]	0.1	[0.0, 1.0]	100.0
Pearson: Uncorrected chi2(15) =	53.7341												
Design-based F(12.50, 29306.76) =	2.1355	Pr =	0.011										
FPL category													
0-35% (n=1,001)	16.4	[13.7, 19.5]	66.9	[63.0, 70.5]	8.9	[6.8, 11.6]	6.5	[4.7, 8.9]	0.6	[0.3, 1.3]	0.8	[0.3, 2.2]	100.0
36-99% (n=824)	15.7	[12.7, 19.2]	69.3	[65.4, 73.0]	8.0	[6.2, 10.2]	6.4	[4.9, 8.4]	0.1	[0.0, 0.5]	0.5	[0.2, 1.1]	100.0
100%+ (n=562)	13.6	[10.8, 17.0]	70.2	[65.8, 74.3]	8.1	[6.0, 10.8]	7.5	[5.4, 10.4]	0.6	[0.1, 2.6]	0.0		100.0
Pearson: Uncorrected chi2(10) =	9.1258												
Design-based F(7.83, 18586.78) =	0.6996	Pr =	0.689										
Region													
UP/NW/NE (n=450)	12.4	[9.3, 16.3]	65.8	[60.6, 70.7]	8.2	[5.6, 11.7]	12.6	[9.5, 16.6]	0.3	[0.1, 1.2]	0.7	[0.2, 2.3]	100.0
W/E Central/E (n=777)	17.4	[14.3, 21.1]	67.6	[63.5, 71.4]	8.8	[6.7, 11.6]	5.0	[3.6, 7.0]	0.7	[0.2, 1.9]	0.5	[0.2, 1.4]	100.0
S Central/SW/SE (n=464)	12.1	[9.2, 15.8]	67.7	[62.7, 72.4]	9.9	[7.1, 13.5]	9.1	[6.5, 12.7]	0.9	[0.3, 2.8]	0.3	[0.0, 1.8]	100.0
Detroit Metro (n=696)	16.7	[13.5, 20.4]	69.1	[64.5, 73.3]	7.9	[5.5, 11.0]	5.5	[3.6, 8.5]	0.2	[0.1, 0.9]	0.6	[0.1, 2.9]	100.0
Pearson: Uncorrected chi2(15) =	33.6713												
Design-based F(12.27, 29135.79) =	1.7670	Pr =	0.046										
Chronic condition (2016/2017 survey or DW)													
Yes (n=1,930)	16.1	[14.1, 18.4]	69.0	[66.2, 71.7]	7.8	[6.3, 9.6]	6.1	[4.8, 7.8]	0.3	[0.1, 0.6]	0.6	[0.2, 1.6]	100.0
No (n=457)	14.2	[10.5, 19.0]	64.8	[59.1, 70.0]	11.0	[7.9, 15.2]	8.5	[6.0, 11.8]	1.2	[0.4, 3.1]	0.3	[0.1, 1.4]	100.0
Pearson: Uncorrected chi2(5) =	17.1862												
Design-based F(4.79, 11388.03) =	2.2596	Pr =	0.048										
Total (n=2,387)	15.7	[13.9, 17.7]	68.1	[65.6, 70.5]	8.5	[7.1, 10.2]	6.6	[5.4, 8.1]	0.5	[0.3, 0.9]	0.5	[0.2, 1.3]	100.0

Note: Total count is less than universe count due to item non-response.

5.11 Q: I'm often embarrassed to go see a doctor.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Embarrassed to go see a doctor												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=709)	2.4	[1.3, 4.4]	9.2	[6.8, 12.4]	3.6	[2.3, 5.7]	63.4	[58.8, 67.8]	20.7	[17.1, 24.8]	0.7	[0.2, 2.2]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	2.1	[0.8, 5.4]	7.4	[4.6, 11.6]	6.2	[3.4, 10.9]	56.7	[48.8, 64.3]	26.9	[20.3, 34.7]	0.7	[0.1, 5.0]	100.0
35-50 (n=209)	1.6	[0.4, 5.4]	13.1	[7.8, 21.2]	0.7	[0.1, 2.9]	68.5	[60.1, 75.9]	16.1	[11.0, 23.1]	0.0		100.0
51-64 (n=255)	3.9	[1.4, 10.4]	7.7	[4.6, 12.6]	2.9	[1.5, 5.6]	68.0	[60.7, 74.5]	16.1	[11.8, 21.5]	1.5	[0.4, 5.7]	100.0
Pearson: Uncorrected chi2(10) =	35.0580												
Design-based F(9.24, 6442.34) =	2.4355	Pr =	0.009										
Gender													
Male (n=297)	3.7	[1.7, 7.7]	12.1	[8.1, 17.7]	3.8	[1.8, 7.7]	61.6	[54.3, 68.5]	18.2	[13.1, 24.6]	0.6	[0.1, 4.2]	100.0
Female (n=412)	1.1	[0.4, 2.9]	6.4	[4.2, 9.7]	3.4	[2.0, 5.8]	65.1	[59.3, 70.5]	23.2	[18.4, 28.8]	0.8	[0.2, 3.1]	100.0
Pearson: Uncorrected chi2(5) =	13.7794												
Design-based F(4.88, 3403.38) =	1.8112	Pr =	0.109										
Race/ethnicity													
White, non-Hispanic (n=455)	2.5	[1.1, 5.8]	7.6	[5.3, 10.8]	4.7	[2.7, 8.0]	61.3	[55.5, 66.7]	23.6	[19.2, 28.8]	0.4	[0.1, 2.6]	100.0
Black, non-Hispanic (n=155)	3.5	[1.4, 8.4]	11.5	[6.4, 20.0]	1.4	[0.4, 4.5]	63.6	[53.2, 72.9]	19.9	[12.2, 30.8]	0.0		100.0
Hispanic (n=38)	0.0		15.5	[5.5, 36.5]	5.6	[1.5, 19.4]	73.3	[53.8, 86.6]	2.2	[0.5, 8.8]	3.3	[0.5, 20.2]	100.0
Other, non-Hispanic (n=52)	0.0		10.7	[3.4, 29.4]	2.3	[0.5, 9.3]	73.0	[56.1, 85.1]	10.3	[4.4, 22.1]	3.7	[0.5, 22.1]	100.0
Pearson: Uncorrected chi2(15) =	38.1279												
Design-based F(13.29, 9143.87) =	1.7199	Pr =	0.049										
FPL category													
0-35% (n=217)	4.7	[2.2, 9.7]	9.9	[5.8, 16.5]	3.5	[1.4, 8.4]	61.0	[52.2, 69.0]	21.0	[14.5, 29.3]	0.0		100.0
36-99% (n=260)	1.3	[0.5, 3.6]	10.0	[6.6, 15.0]	3.7	[2.0, 6.7]	65.1	[58.4, 71.3]	18.3	[13.8, 23.9]	1.6	[0.4, 6.2]	100.0
100%+ (n=232)	0.3	[0.0, 2.1]	7.2	[4.0, 12.4]	3.7	[1.7, 7.8]	65.0	[57.2, 72.0]	23.2	[17.2, 30.4]	0.7	[0.1, 4.7]	100.0
Pearson: Uncorrected chi2(10) =	18.2238												
Design-based F(9.09, 6337.87) =	1.3537	Pr =	0.203										
Region													
UP/NW/NE (n=124)	0.5	[0.1, 3.4]	6.2	[3.1, 11.9]	3.8	[1.4, 10.4]	61.5	[51.6, 70.5]	28.0	[20.0, 37.7]	0.0		100.0
W/E Central/E (n=203)	1.6	[0.4, 6.9]	9.5	[5.9, 14.9]	4.0	[2.0, 8.1]	67.3	[59.6, 74.1]	17.5	[12.5, 24.1]	0.0		100.0
S Central/SW/SE (n=169)	2.0	[0.7, 5.7]	10.8	[6.0, 18.5]	5.0	[2.5, 9.7]	59.8	[50.6, 68.4]	22.5	[16.2, 30.4]	0.0		100.0
Detroit Metro (n=213)	3.7	[1.5, 8.4]	8.8	[5.0, 15.2]	2.4	[0.7, 7.9]	63.0	[54.3, 71.0]	20.2	[13.7, 28.9]	1.8	[0.6, 5.5]	100.0
Pearson: Uncorrected chi2(15) =	18.0063												
Design-based F(11.48, 8003.19) =	1.0195	Pr =	0.426										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	2.3	[1.1, 4.8]	10.8	[7.8, 14.6]	3.2	[1.9, 5.2]	63.6	[58.3, 68.7]	19.2	[15.1, 24.1]	1.0	[0.3, 3.1]	100.0
No (n=171)	2.8	[1.0, 7.7]	5.4	[2.4, 11.7]	4.7	[1.9, 11.3]	62.7	[53.3, 71.2]	24.4	[17.6, 32.8]	0.0		100.0
Pearson: Uncorrected chi2(5) =	9.4347												
Design-based F(4.99, 3478.88) =	1.1015	Pr =	0.357										
Total (n=709)	2.4	[1.3, 4.4]	9.2	[6.8, 12.4]	3.6	[2.3, 5.7]	63.4	[58.8, 67.8]	20.7	[17.1, 24.8]	0.7	[0.2, 2.2]	100.0

5.12 Q: Getting regular check-ups is not very important when you are healthy.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Check-ups are not important if you are healthy												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=709)	0.9	[0.4, 1.9]	11.7	[9.0, 15.0]	4.0	[2.5, 6.4]	64.9	[60.2, 69.3]	18.5	[15.0, 22.7]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	0.9	[0.2, 3.5]	12.2	[8.3, 17.6]	3.8	[1.6, 8.5]	61.2	[53.1, 68.8]	21.9	[15.6, 29.8]	0.0		100.0
35-50 (n=209)	0.4	[0.1, 2.8]	11.9	[7.3, 18.9]	2.9	[1.4, 5.9]	70.2	[62.1, 77.2]	14.6	[9.6, 21.6]	0.0		100.0
51-64 (n=255)	1.4	[0.6, 3.6]	10.5	[6.3, 17.1]	5.6	[2.5, 12.1]	64.5	[56.8, 71.5]	17.7	[13.0, 23.6]	0.3	[0.0, 2.2]	100.0
Pearson: Uncorrected chi2(10) =	10.2998												
Design-based F(9.01, 6279.75) =	0.7616	Pr =	0.652										
Gender													
Male (n=297)	1.1	[0.4, 2.9]	15.3	[10.9, 21.2]	5.3	[2.7, 10.1]	59.6	[52.2, 66.6]	18.5	[13.3, 25.2]	0.2	[0.0, 1.2]	100.0
Female (n=412)	0.7	[0.2, 2.4]	8.0	[5.4, 11.7]	2.7	[1.5, 4.9]	70.1	[64.4, 75.3]	18.5	[14.2, 23.9]	0.0		100.0
Pearson: Uncorrected chi2(5) =	15.1777												
Design-based F(4.50, 3135.24) =	2.4582	Pr =	0.037										
Race/ethnicity													
White, non-Hispanic (n=455)	1.1	[0.5, 2.7]	9.5	[6.9, 13.1]	4.5	[2.6, 7.9]	68.0	[62.4, 73.1]	16.7	[12.8, 21.5]	0.1	[0.0, 1.0]	100.0
Black, non-Hispanic (n=155)	0.7	[0.1, 4.5]	11.9	[6.8, 20.2]	3.7	[1.1, 11.3]	60.0	[49.6, 69.6]	23.7	[15.6, 34.4]	0.0		100.0
Hispanic (n=38)	1.2	[0.2, 8.3]	20.5	[8.7, 41.1]	2.8	[0.6, 11.3]	61.6	[42.5, 77.7]	13.9	[5.7, 29.9]	0.0		100.0
Other, non-Hispanic (n=52)	0.0		21.5	[9.9, 40.4]	2.5	[0.6, 10.4]	60.5	[43.5, 75.3]	15.5	[7.0, 30.9]	0.0		100.0
Pearson: Uncorrected chi2(15) =	16.8631												
Design-based F(12.76, 8775.65) =	0.8296	Pr =	0.627										
FPL category													
0-35% (n=217)	1.1	[0.4, 3.3]	10.9	[6.7, 17.1]	4.1	[1.9, 9.0]	60.7	[51.9, 68.8]	23.3	[16.4, 31.9]	0.0		100.0
36-99% (n=260)	0.2	[0.0, 1.7]	11.5	[7.4, 17.3]	4.3	[1.8, 9.8]	69.5	[62.5, 75.7]	14.5	[10.5, 19.7]	0.0		100.0
100%+ (n=232)	1.4	[0.4, 4.5]	13.1	[8.5, 19.7]	3.4	[1.5, 7.4]	65.7	[58.0, 72.6]	16.2	[11.4, 22.4]	0.3	[0.0, 2.2]	100.0
Pearson: Uncorrected chi2(10) =	11.7675												
Design-based F(8.36, 5826.22) =	0.9966	Pr =	0.438										
Region													
UP/NW/NE (n=124)	0.4	[0.1, 2.7]	10.6	[6.2, 17.5]	5.0	[2.1, 11.4]	65.9	[56.1, 74.5]	18.1	[11.6, 27.2]	0.0		100.0
W/E Central/E (n=203)	0.7	[0.2, 2.9]	13.8	[9.0, 20.7]	3.5	[1.7, 7.4]	66.4	[58.5, 73.5]	15.5	[10.6, 22.1]	0.0		100.0
S Central/SW/SE (n=169)	1.8	[0.5, 5.8]	10.3	[5.6, 18.2]	2.9	[1.1, 7.2]	65.2	[56.0, 73.4]	19.8	[13.8, 27.7]	0.0		100.0
Detroit Metro (n=213)	0.6	[0.1, 2.8]	11.1	[6.9, 17.3]	4.8	[2.0, 11.0]	63.3	[54.5, 71.3]	20.0	[13.5, 28.7]	0.2	[0.0, 1.5]	100.0
Pearson: Uncorrected chi2(15) =	6.8203												
Design-based F(11.30, 7875.14) =	0.4496	Pr =	0.937										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	1.0	[0.4, 2.3]	11.1	[8.2, 15.0]	3.9	[2.3, 6.6]	66.3	[61.0, 71.3]	17.5	[13.6, 22.4]	0.1	[0.0, 0.8]	100.0
No (n=171)	0.6	[0.1, 4.3]	13.0	[7.9, 20.7]	4.2	[1.5, 11.3]	61.2	[51.5, 70.0]	21.0	[14.3, 29.7]	0.0		100.0
Pearson: Uncorrected chi2(5) =	2.4404												
Design-based F(4.42, 3082.24) =	0.3285	Pr =	0.876										
Total (n=709)	0.9	[0.4, 1.9]	11.7	[9.0, 15.0]	4.0	[2.5, 6.4]	64.9	[60.2, 69.3]	18.5	[15.0, 22.7]	0.1	[0.0, 0.6]	100.0

5.13 Q: Going to public or free clinics is just fine with me.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Public/free clinic is fine with me												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=709)	9.5	[7.1, 12.6]	59.0	[54.3, 63.5]	10.5	[8.0, 13.6]	17.8	[14.5, 21.8]	2.5	[1.5, 4.4]	0.6	[0.2, 1.6]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	9.2	[5.8, 14.2]	60.9	[52.9, 68.3]	13.2	[8.8, 19.5]	13.4	[8.6, 20.3]	2.9	[1.1, 7.3]	0.4	[0.1, 2.8]	100.0
35-50 (n=209)	8.4	[4.5, 14.9]	59.5	[51.4, 67.1]	8.5	[5.2, 13.7]	21.4	[15.5, 28.8]	1.7	[0.6, 5.2]	0.5	[0.1, 3.6]	100.0
51-64 (n=255)	11.4	[7.1, 17.7]	55.5	[47.8, 62.9]	8.5	[5.5, 13.0]	20.8	[15.0, 28.0]	2.9	[1.4, 6.0]	0.9	[0.2, 3.7]	100.0
Pearson: Uncorrected chi2(10) =	12.4491												
Design-based F(9.49, 6616.66) =	0.9012	Pr =	0.527										
Gender													
Male (n=297)	10.3	[6.8, 15.4]	62.5	[55.1, 69.3]	9.2	[5.7, 14.3]	15.3	[10.4, 21.9]	2.8	[1.2, 6.1]	0.0		100.0
Female (n=412)	8.7	[5.9, 12.7]	55.5	[49.7, 61.2]	11.9	[8.7, 16.0]	20.4	[16.2, 25.3]	2.3	[1.1, 5.0]	1.2	[0.4, 3.1]	100.0
Pearson: Uncorrected chi2(5) =	9.9782												
Design-based F(4.87, 3393.03) =	1.3369	Pr =	0.247										
Race/ethnicity													
White, non-Hispanic (n=455)	9.1	[6.4, 12.8]	56.7	[50.9, 62.3]	13.2	[9.7, 17.7]	17.9	[14.0, 22.7]	2.5	[1.3, 5.0]	0.5	[0.1, 2.1]	100.0
Black, non-Hispanic (n=155)	9.7	[5.1, 17.8]	59.7	[49.6, 69.1]	6.9	[3.6, 12.8]	19.7	[12.3, 30.2]	4.0	[1.6, 9.8]	0.0		100.0
Hispanic (n=38)	13.8	[4.6, 34.5]	76.3	[57.4, 88.5]	4.3	[1.2, 13.7]	5.7	[1.7, 17.5]	0.0		0.0		100.0
Other, non-Hispanic (n=52)	8.3	[2.9, 21.5]	66.2	[50.2, 79.1]	6.2	[1.3, 25.5]	15.9	[8.5, 27.8]	0.0		3.4	[0.8, 12.7]	100.0
Pearson: Uncorrected chi2(15) =	28.2391												
Design-based F(13.53, 9308.77) =	1.2912	Pr =	0.206										
FPL category													
0-35% (n=217)	9.5	[5.7, 15.5]	58.5	[50.0, 66.6]	9.9	[5.9, 16.2]	18.4	[12.5, 26.3]	3.0	[1.1, 7.5]	0.7	[0.2, 2.7]	100.0
36-99% (n=260)	11.0	[7.0, 16.7]	61.9	[54.8, 68.6]	10.6	[7.2, 15.5]	14.6	[10.4, 20.3]	1.8	[0.8, 4.3]	0.0		100.0
100%+ (n=232)	7.8	[4.6, 12.8]	56.1	[48.3, 63.6]	11.3	[7.3, 17.0]	20.9	[15.3, 27.9]	2.8	[1.1, 6.8]	1.1	[0.3, 4.6]	100.0
Pearson: Uncorrected chi2(10) =	7.3888												
Design-based F(9.44, 6577.38) =	0.5499	Pr =	0.846										
Region													
UP/NW/NE (n=124)	8.3	[4.3, 15.2]	72.0	[62.6, 79.8]	3.7	[1.4, 9.3]	12.0	[7.0, 19.9]	4.0	[1.7, 9.1]	0.0		100.0
W/E Central/E (n=203)	5.3	[2.7, 10.1]	62.2	[54.3, 69.5]	15.0	[10.3, 21.4]	15.9	[10.9, 22.6]	0.9	[0.2, 4.1]	0.6	[0.1, 4.1]	100.0
S Central/SW/SE (n=169)	9.0	[5.3, 14.9]	58.7	[49.4, 67.4]	13.5	[8.1, 21.8]	14.8	[9.8, 21.7]	3.4	[1.5, 7.8]	0.6	[0.1, 4.0]	100.0
Detroit Metro (n=213)	13.2	[8.5, 20.0]	53.8	[45.3, 62.1]	7.0	[3.9, 12.4]	22.4	[15.9, 30.5]	2.9	[1.0, 7.9]	0.7	[0.2, 2.8]	100.0
Pearson: Uncorrected chi2(15) =	32.0937												
Design-based F(13.37, 9320.38) =	1.8322	Pr =	0.031										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	8.8	[6.2, 12.4]	57.8	[52.5, 62.9]	8.7	[6.4, 11.8]	20.7	[16.4, 25.7]	3.2	[1.7, 5.7]	0.8	[0.3, 2.2]	100.0
No (n=171)	11.3	[6.7, 18.3]	62.1	[52.7, 70.6]	15.1	[9.4, 23.2]	10.6	[6.8, 16.2]	1.0	[0.2, 3.9]	0.0		100.0
Pearson: Uncorrected chi2(5) =	19.3499												
Design-based F(4.81, 3352.16) =	2.8872	Pr =	0.014										
Total (n=709)	9.5	[7.1, 12.6]	59.0	[54.3, 63.5]	10.5	[8.0, 13.6]	17.8	[14.5, 21.8]	2.5	[1.5, 4.4]	0.6	[0.2, 1.6]	100.0

5.14 Q: Sometimes I go to the ER because I know they can't turn me away.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Go to ER because they can't deny care												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=708)	3.7	[2.3, 5.9]	18.7	[15.5, 22.5]	7.8	[5.5, 10.8]	51.8	[47.1, 56.5]	16.6	[13.3, 20.4]	1.5	[0.7, 2.8]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	4.9	[2.5, 9.4]	16.2	[11.7, 21.9]	9.1	[5.6, 14.4]	46.3	[38.5, 54.4]	22.5	[16.3, 30.1]	0.9	[0.3, 3.0]	100.0
35-50 (n=208)	2.5	[0.9, 6.7]	21.5	[15.2, 29.5]	5.8	[2.6, 12.5]	56.0	[47.8, 63.9]	12.0	[8.1, 17.3]	2.3	[0.8, 6.5]	100.0
51-64 (n=255)	3.0	[1.2, 7.4]	19.6	[14.2, 26.5]	7.8	[4.2, 14.0]	55.7	[48.0, 63.1]	12.5	[8.6, 17.9]	1.3	[0.4, 4.5]	100.0
Pearson: Uncorrected chi2(10) =	21.5944												
Design-based F(9.60, 6678.47) =	1.5103	Pr =	0.132										
Gender													
Male (n=297)	4.8	[2.6, 8.8]	20.1	[15.1, 26.2]	10.0	[6.2, 15.7]	49.9	[42.6, 57.2]	13.8	[9.6, 19.5]	1.4	[0.5, 4.0]	100.0
Female (n=411)	2.5	[1.2, 5.2]	17.4	[13.4, 22.1]	5.5	[3.6, 8.3]	53.7	[47.9, 59.5]	19.3	[14.8, 24.9]	1.6	[0.7, 3.6]	100.0
Pearson: Uncorrected chi2(5) =	11.7334												
Design-based F(4.95, 3445.66) =	1.6049	Pr =	0.156										
Race/ethnicity													
White, non-Hispanic (n=455)	2.1	[1.0, 4.4]	15.0	[11.7, 19.1]	7.8	[5.2, 11.4]	52.3	[46.5, 58.1]	21.1	[16.5, 26.6]	1.7	[0.7, 4.0]	100.0
Black, non-Hispanic (n=155)	6.1	[2.9, 12.5]	23.7	[16.3, 33.1]	8.3	[3.8, 17.1]	52.2	[42.4, 61.9]	9.3	[5.3, 16.0]	0.4	[0.1, 2.6]	100.0
Hispanic (n=37)	7.5	[1.4, 31.9]	19.2	[9.0, 36.3]	5.3	[1.2, 20.5]	51.2	[32.6, 69.5]	11.2	[2.0, 43.2]	5.6	[1.4, 20.2]	100.0
Other, non-Hispanic (n=52)	4.9	[1.4, 16.3]	29.2	[16.6, 46.2]	7.2	[1.7, 25.5]	48.6	[33.0, 64.5]	9.3	[3.9, 20.4]	0.8	[0.1, 5.4]	100.0
Pearson: Uncorrected chi2(15) =	37.2545												
Design-based F(12.74, 8750.38) =	1.6208	Pr =	0.073										
FPL category													
0-35% (n=217)	4.3	[2.1, 8.8]	19.4	[13.6, 26.8]	8.6	[4.7, 15.1]	50.3	[41.8, 58.8]	15.9	[10.5, 23.4]	1.5	[0.4, 5.2]	100.0
36-99% (n=259)	3.6	[1.6, 7.7]	19.2	[14.3, 25.2]	8.9	[5.5, 14.1]	52.9	[45.8, 59.8]	14.6	[10.6, 19.9]	0.9	[0.2, 3.1]	100.0
100%+ (n=232)	2.8	[1.0, 7.4]	17.2	[12.4, 23.4]	5.1	[2.7, 9.4]	52.7	[44.9, 60.5]	20.0	[13.9, 28.0]	2.1	[0.9, 5.0]	100.0
Pearson: Uncorrected chi2(10) =	6.7366												
Design-based F(9.44, 6571.44) =	0.4772	Pr =	0.898										
Region													
UP/NW/NE (n=124)	1.4	[0.2, 9.5]	13.8	[8.3, 21.9]	4.2	[1.9, 8.9]	53.7	[43.8, 63.4]	22.5	[15.2, 32.1]	4.4	[1.7, 10.8]	100.0
W/E Central/E (n=202)	2.3	[0.8, 6.6]	19.8	[14.5, 26.5]	8.4	[5.0, 13.9]	49.7	[41.8, 57.6]	17.9	[12.1, 25.6]	1.8	[0.5, 6.9]	100.0
S Central/SW/SE (n=169)	3.4	[1.4, 8.2]	16.8	[11.0, 24.9]	12.8	[7.5, 21.1]	48.2	[38.9, 57.7]	17.1	[11.8, 24.3]	1.6	[0.4, 5.6]	100.0
Detroit Metro (n=213)	5.4	[2.7, 10.3]	20.2	[14.4, 27.5]	5.1	[2.2, 11.6]	55.0	[46.5, 63.3]	13.9	[8.6, 21.6]	0.4	[0.1, 2.9]	100.0
Pearson: Uncorrected chi2(15) =	24.7861												
Design-based F(13.02, 9065.24) =	1.2647	Pr =	0.226										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	4.6	[2.8, 7.6]	18.8	[15.1, 23.2]	6.2	[4.0, 9.7]	53.7	[48.4, 58.9]	15.3	[11.9, 19.4]	1.3	[0.5, 3.3]	100.0
No (n=170)	1.2	[0.4, 3.9]	18.5	[12.5, 26.5]	11.6	[6.8, 19.1]	47.1	[37.6, 56.7]	19.8	[12.9, 29.1]	1.8	[0.8, 4.4]	100.0
Pearson: Uncorrected chi2(5) =	13.1585												
Design-based F(4.66, 3240.78) =	1.7892	Pr =	0.117										
Total (n=708)	3.7	[2.3, 5.9]	18.7	[15.5, 22.5]	7.8	[5.5, 10.8]	51.8	[47.1, 56.5]	16.6	[13.3, 20.4]	1.5	[0.7, 2.8]	100.0

Note: Total count is less than universe count due to item non-response.

5.15 Q: Sometimes I go to the ER because I don't have another place to get care.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Go to ER because it's the only place to get care												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=708)	5.8	[4.0, 8.2]	27.8	[24.0, 32.0]	5.9	[4.0, 8.5]	46.7	[42.1, 51.4]	12.8	[9.9, 16.4]	1.1	[0.5, 2.5]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	7.8	[4.6, 13.0]	26.0	[20.1, 32.9]	7.1	[4.1, 12.3]	44.1	[36.3, 52.3]	14.9	[10.0, 21.7]	0.0		100.0
35-50 (n=208)	4.7	[2.5, 8.7]	34.6	[27.2, 42.8]	3.6	[1.7, 7.4]	44.4	[36.7, 52.4]	10.7	[6.4, 17.6]	2.0	[0.6, 6.4]	100.0
51-64 (n=255)	3.8	[1.9, 7.5]	23.0	[17.8, 29.3]	6.4	[3.3, 12.2]	53.3	[45.8, 60.8]	11.7	[7.9, 16.9]	1.8	[0.6, 5.1]	100.0
Pearson: Uncorrected chi2(10) =	22.4572												
Design-based F(9.55, 6646.79) =	1.6346	Pr =	0.094										
Gender													
Male (n=297)	6.8	[4.2, 10.8]	29.9	[23.9, 36.7]	7.3	[4.2, 12.3]	44.3	[37.1, 51.7]	10.3	[6.6, 15.7]	1.4	[0.5, 4.0]	100.0
Female (n=411)	4.8	[2.7, 8.3]	25.7	[21.1, 30.8]	4.5	[2.8, 7.0]	49.1	[43.3, 54.9]	15.2	[11.2, 20.4]	0.8	[0.2, 2.7]	100.0
Pearson: Uncorrected chi2(5) =	9.7357												
Design-based F(4.93, 3428.13) =	1.3210	Pr =	0.253										
Race/ethnicity													
White, non-Hispanic (n=455)	5.2	[3.2, 8.2]	26.0	[21.5, 31.1]	6.8	[4.3, 10.5]	45.5	[39.7, 51.4]	14.8	[11.0, 19.7]	1.6	[0.7, 4.0]	100.0
Black, non-Hispanic (n=155)	5.9	[3.0, 11.1]	29.0	[21.3, 38.3]	4.7	[1.9, 11.1]	50.7	[40.9, 60.4]	9.8	[4.9, 18.6]	0.0		100.0
Hispanic (n=37)	16.1	[4.7, 42.7]	19.3	[9.2, 36.2]	4.9	[1.0, 20.7]	57.4	[37.8, 74.9]	2.3	[0.6, 9.1]	0.0		100.0
Other, non-Hispanic (n=52)	3.5	[1.1, 10.9]	42.4	[27.1, 59.4]	4.7	[1.1, 17.4]	37.7	[23.6, 54.2]	10.2	[4.4, 21.8]	1.5	[0.2, 9.9]	100.0
Pearson: Uncorrected chi2(15) =	27.8754												
Design-based F(13.17, 9049.67) =	1.3211	Pr =	0.191										
FPL category													
0-35% (n=217)	6.3	[3.3, 11.7]	27.0	[20.4, 34.8]	5.5	[2.7, 10.7]	48.5	[40.0, 57.0]	10.9	[6.4, 18.0]	1.8	[0.6, 5.4]	100.0
36-99% (n=259)	6.2	[3.9, 9.7]	29.1	[23.1, 35.9]	8.2	[4.8, 13.7]	45.2	[38.3, 52.3]	11.2	[7.7, 16.0]	0.2	[0.0, 1.3]	100.0
100%+ (n=232)	4.5	[2.1, 9.3]	27.5	[21.3, 34.6]	3.7	[1.8, 7.3]	45.8	[38.2, 53.6]	17.5	[11.8, 25.2]	1.0	[0.3, 3.4]	100.0
Pearson: Uncorrected chi2(10) =	12.8058												
Design-based F(8.93, 6211.93) =	0.9769	Pr =	0.456										
Region													
UP/NW/NE (n=124)	3.6	[1.2, 10.0]	28.2	[20.3, 37.6]	4.3	[1.9, 9.7]	44.0	[34.6, 54.0]	16.9	[10.6, 25.8]	3.0	[0.9, 9.6]	100.0
W/E Central/E (n=202)	5.0	[2.5, 9.7]	26.0	[19.9, 33.2]	6.4	[3.4, 11.7]	50.8	[42.8, 58.7]	10.7	[6.2, 17.8]	1.2	[0.2, 7.8]	100.0
S Central/SW/SE (n=169)	7.7	[4.5, 12.8]	27.2	[19.4, 36.6]	5.4	[2.8, 10.2]	42.3	[33.2, 52.0]	15.9	[10.7, 22.8]	1.6	[0.4, 5.5]	100.0
Detroit Metro (n=213)	5.7	[2.8, 11.2]	29.4	[22.8, 37.1]	6.1	[3.0, 12.0]	46.9	[38.6, 55.4]	11.6	[6.8, 19.0]	0.3	[0.0, 2.2]	100.0
Pearson: Uncorrected chi2(15) =	11.3877												
Design-based F(12.99, 9043.14) =	0.5971	Pr =	0.859										
Chronic condition (2016/2017 survey or DW)													
Yes (n=538)	5.6	[3.7, 8.3]	27.9	[23.6, 32.6]	4.6	[2.9, 7.3]	48.0	[42.8, 53.3]	12.6	[9.3, 16.8]	1.4	[0.6, 3.3]	100.0
No (n=170)	6.2	[2.9, 12.8]	27.6	[20.1, 36.7]	9.1	[4.9, 16.3]	43.4	[34.0, 53.3]	13.3	[8.2, 20.9]	0.3	[0.0, 2.1]	100.0
Pearson: Uncorrected chi2(5) =	7.4678												
Design-based F(4.63, 3225.07) =	0.9816	Pr =	0.424										
Total (n=708)	5.8	[4.0, 8.2]	27.8	[24.0, 32.0]	5.9	[4.0, 8.5]	46.7	[42.1, 51.4]	12.8	[9.9, 16.4]	1.1	[0.5, 2.5]	100.0

Note: Total count is less than universe count due to item non-response.

5.16 Q: In the past 12 months, did you check how much you would pay for a doctor's visit, medication, or other health care service before you received care?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Checked cost before receiving care in past 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	23.7	[21.5, 26.1]	75.0	[72.6, 77.3]	1.3	[0.7, 2.1]	100.0
No longer enrolled (n=709)	37.4	[33.0, 42.0]	62.2	[57.6, 66.6]	0.4	[0.1, 1.6]	100.0
Pearson: Uncorrected chi2(2) =	54.5470						
Design-based F(2.00, 6157.75) =	17.2247	Pr =	0.000				
Age							
19-34 (n=909)	31.9	[28.1, 35.9]	66.9	[62.8, 70.7]	1.2	[0.5, 3.2]	100.0
35-50 (n=969)	24.0	[20.8, 27.5]	75.5	[72.0, 78.7]	0.6	[0.2, 1.3]	100.0
51-64 (n=1,218)	23.8	[21.0, 26.9]	74.8	[71.7, 77.6]	1.4	[0.8, 2.5]	100.0
Pearson: Uncorrected chi2(4) =	27.9785						
Design-based F(3.66, 11291.29) =	4.2308	Pr =	0.003				
Gender							
Male (n=1,229)	22.9	[20.0, 26.1]	75.6	[72.4, 78.6]	1.4	[0.7, 2.9]	100.0
Female (n=1,867)	30.4	[27.8, 33.2]	68.8	[66.0, 71.5]	0.7	[0.4, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	24.4400						
Design-based F(2.00, 6164.98) =	7.0487	Pr =	0.001				
Race/ethnicity							
White, non-Hispanic (n=2,058)	28.1	[25.6, 30.7]	70.9	[68.2, 73.4]	1.1	[0.5, 2.2]	100.0
Black, non-Hispanic (n=634)	25.4	[21.2, 30.2]	73.5	[68.7, 77.8]	1.1	[0.5, 2.3]	100.0
Hispanic (n=138)	22.8	[16.2, 31.2]	76.1	[67.6, 82.9]	1.1	[0.2, 5.0]	100.0
Other, non-Hispanic (n=227)	26.2	[19.8, 33.7]	72.8	[65.2, 79.2]	1.1	[0.3, 3.7]	100.0
Pearson: Uncorrected chi2(6) =	3.5059						
Design-based F(5.67, 17270.29) =	0.3824	Pr =	0.882				
FPL category							
0-35% (n=1,218)	24.9	[22.0, 28.2]	73.6	[70.3, 76.6]	1.5	[0.8, 2.8]	100.0
36-99% (n=1,084)	29.5	[26.1, 33.1]	69.9	[66.3, 73.3]	0.7	[0.3, 1.4]	100.0
100%+ (n=794)	28.5	[25.0, 32.4]	71.0	[67.2, 74.6]	0.4	[0.1, 1.8]	100.0
Pearson: Uncorrected chi2(4) =	12.8325						
Design-based F(3.86, 11910.99) =	2.3210	Pr =	0.057				
Region							
UP/NW/NE (n=574)	28.0	[24.0, 32.4]	71.5	[67.1, 75.5]	0.5	[0.1, 2.1]	100.0
W/E Central/E (n=979)	28.3	[25.1, 31.7]	70.6	[67.2, 73.9]	1.1	[0.6, 2.0]	100.0
S Central/SW/SE (n=633)	25.6	[21.7, 30.0]	73.9	[69.6, 77.8]	0.4	[0.2, 1.2]	100.0
Detroit Metro (n=910)	26.3	[22.8, 30.1]	72.3	[68.4, 75.9]	1.4	[0.7, 3.1]	100.0
Pearson: Uncorrected chi2(6) =	6.4545						
Design-based F(5.11, 15757.51) =	0.8894	Pr =	0.489				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,468)	27.4	[25.1, 29.8]	71.7	[69.3, 74.0]	0.9	[0.6, 1.5]	100.0
No (n=628)	25.3	[21.3, 29.9]	73.2	[68.5, 77.4]	1.5	[0.5, 4.6]	100.0
Pearson: Uncorrected chi2(2) =	2.7810						
Design-based F(1.89, 5817.35) =	0.5895	Pr =	0.545				
Total (n=3,096)	26.9	[24.9, 29.0]	72.0	[69.9, 74.1]	1.1	[0.6, 1.7]	100.0

Note: Total count is less than universe count due to item non-response.

5.16.1 Q: What type of health care was this for?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who checked cost before receiving care in the past 12 months (n = 824)

Type of health care costs checked	Weighted Proportion	95%CI
Primary care (n=377)	46.0	[41.6, 50.4]
Prescription medication (n=240)	29.6	[25.6, 34.0]
Other (n=148)	17.5	[14.4, 21.0]
Surgery or procedure (n=74)	8.8	[6.3, 12.2]
Lab/imaging test (n=79)	8.7	[6.6, 11.3]
Specialty care (n=60)	5.5	[4.1, 7.4]
Mental health care (n=15)	3.2	[1.6, 6.5]
Support services (n=12)	1.2	[0.6, 2.4]

Note: Respondents were able to provide multiple responses

5.17 Q: In the past 12 months, did you compare quality ratings for any health care services at different places?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Compared quality ratings in past 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,387)	13.6	[11.9, 15.4]	85.7	[83.8, 87.4]	0.8	[0.4, 1.3]	100.0
No longer enrolled (n=708)	18.9	[15.5, 22.8]	80.8	[76.9, 84.2]	0.3	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	14.1055						
Design-based F(1.96, 6051.11) =	4.9173	Pr =	0.008				
Age							
19-34 (n=908)	18.4	[15.5, 21.7]	81.5	[78.2, 84.4]	0.1	[0.0, 0.8]	100.0
35-50 (n=969)	14.2	[11.7, 17.2]	84.5	[81.4, 87.2]	1.2	[0.6, 2.4]	100.0
51-64 (n=1,218)	10.7	[8.8, 12.9]	88.6	[86.3, 90.6]	0.7	[0.3, 1.7]	100.0
Pearson: Uncorrected chi2(4) =	34.1701						
Design-based F(3.89, 11999.50) =	6.0300	Pr =	0.000				
Gender							
Male (n=1,230)	11.8	[9.7, 14.4]	87.6	[85.0, 89.8]	0.6	[0.2, 1.4]	100.0
Female (n=1,865)	17.4	[15.3, 19.7]	81.9	[79.5, 84.0]	0.7	[0.4, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	19.4321						
Design-based F(1.99, 6124.04) =	5.9296	Pr =	0.003				
Race/ethnicity							
White, non-Hispanic (n=2,057)	15.2	[13.3, 17.3]	84.4	[82.2, 86.3]	0.5	[0.2, 1.0]	100.0
Black, non-Hispanic (n=634)	12.8	[10.0, 16.2]	86.0	[82.4, 88.9]	1.3	[0.6, 2.7]	100.0
Hispanic (n=138)	15.3	[9.5, 23.6]	83.7	[75.4, 89.6]	1.0	[0.3, 3.3]	100.0
Other, non-Hispanic (n=227)	16.6	[11.2, 23.9]	83.4	[76.1, 88.8]	0.0		100.0
Pearson: Uncorrected chi2(6) =	11.0862						
Design-based F(5.49, 16708.04) =	1.2730	Pr =	0.269				
FPL category							
0-35% (n=1,217)	14.2	[11.9, 16.8]	84.9	[82.2, 87.3]	0.9	[0.5, 1.8]	100.0
36-99% (n=1,084)	14.8	[12.6, 17.4]	84.8	[82.2, 87.0]	0.4	[0.2, 1.1]	100.0
100%+ (n=794)	16.4	[13.3, 20.0]	83.3	[79.7, 86.4]	0.3	[0.1, 0.8]	100.0
Pearson: Uncorrected chi2(4) =	5.0737						
Design-based F(3.56, 10969.73) =	1.1463	Pr =	0.331				
Region							
UP/NW/NE (n=574)	11.4	[8.8, 14.6]	88.3	[85.0, 90.9]	0.3	[0.0, 2.1]	100.0
W/E Central/E (n=980)	14.6	[12.1, 17.4]	84.7	[81.8, 87.2]	0.7	[0.3, 1.5]	100.0
S Central/SW/SE (n=633)	13.3	[10.6, 16.5]	86.4	[83.2, 89.1]	0.3	[0.1, 1.4]	100.0
Detroit Metro (n=908)	16.3	[13.6, 19.5]	82.9	[79.6, 85.7]	0.8	[0.4, 1.8]	100.0
Pearson: Uncorrected chi2(6) =	8.5864						
Design-based F(5.47, 16868.25) =	1.2609	Pr =	0.275				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,468)	14.6	[12.9, 16.5]	84.6	[82.7, 86.4]	0.8	[0.5, 1.4]	100.0
No (n=627)	15.4	[12.3, 19.2]	84.4	[80.6, 87.6]	0.2	[0.0, 1.3]	100.0
Pearson: Uncorrected chi2(2) =	3.4728						
Design-based F(1.97, 6070.97) =	1.1501	Pr =	0.316				
Total (n=3,095)	14.8	[13.3, 16.5]	84.6	[82.9, 86.1]	0.7	[0.4, 1.1]	100.0

Note: Total count is less than universe count due to item non-response.

5.17.1 Q: What type of health care was this for?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: Respondents who compared quality ratings for health care services at different places in the past 12 months (n = 442)

Type of health care quality compared	Weighted Proportion	95%CI
Primary care (n=209)	49.4	[43.5, 55.2]
Other (n=92)	22.4	[17.6, 28.0]
Specialty care (n=69)	15.4	[11.8, 19.8]
Surgery or procedure (n=49)	8.8	[6.3, 12.2]
Prescription medication (n=37)	7.7	[5.3, 11.2]
Lab/imaging test (n=23)	6.5	[4.0, 10.2]
Mental health care (n=13)	3.5	[1.8, 6.8]
Support services (n=8)	1.6	[0.7, 3.6]

Note: Respondents were able to provide multiple responses

5.18 Q: In the past 12 months, did you ask a health care provider to recommend a less costly prescription drug?

Follow-up group(s): Still enrolled, No longer enrolled
Universe: All respondents

	Asked for less costly prescription in past 12 months						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
Still enrolled (n=2,388)	22.2	[20.3, 24.2]	77.5	[75.5, 79.3]	0.3	[0.2, 0.6]	100.0
No longer enrolled (n=709)	30.3	[26.3, 34.7]	69.3	[65.0, 73.4]	0.3	[0.1, 1.2]	100.0
Pearson: Uncorrected chi2(2) =	19.8782						
Design-based F(1.94, 5969.70) =	7.8796	Pr =	0.000				
Age							
19-34 (n=909)	19.3	[16.5, 22.4]	80.6	[77.5, 83.4]	0.1	[0.0, 0.5]	100.0
35-50 (n=969)	26.6	[23.4, 30.0]	72.6	[69.2, 75.8]	0.8	[0.4, 1.5]	100.0
51-64 (n=1,219)	27.4	[24.6, 30.5]	72.4	[69.4, 75.3]	0.1	[0.0, 0.6]	100.0
Pearson: Uncorrected chi2(4) =	33.3335						
Design-based F(3.65, 11275.36) =	7.5543	Pr =	0.000				
Gender							
Male (n=1,230)	17.4	[15.0, 20.0]	82.3	[79.6, 84.6]	0.4	[0.1, 0.9]	100.0
Female (n=1,867)	30.1	[27.6, 32.6]	69.6	[67.1, 72.1]	0.3	[0.1, 0.6]	100.0
Pearson: Uncorrected chi2(2) =	68.1219						
Design-based F(1.88, 5810.22) =	28.3052	Pr =	0.000				
Race/ethnicity							
White, non-Hispanic (n=2,058)	26.9	[24.6, 29.2]	72.8	[70.5, 75.1]	0.3	[0.1, 0.7]	100.0
Black, non-Hispanic (n=634)	18.2	[15.0, 22.0]	81.4	[77.6, 84.7]	0.4	[0.1, 1.1]	100.0
Hispanic (n=138)	24.7	[17.3, 33.9]	74.5	[65.3, 82.0]	0.8	[0.2, 3.3]	100.0
Other, non-Hispanic (n=228)	23.4	[17.7, 30.2]	76.5	[69.6, 82.2]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(6) =	24.4846						
Design-based F(5.21, 15868.91) =	3.6047	Pr =	0.003				
FPL category							
0-35% (n=1,218)	22.2	[19.6, 25.0]	77.5	[74.7, 80.1]	0.3	[0.1, 0.7]	100.0
36-99% (n=1,084)	24.9	[22.1, 28.0]	74.6	[71.5, 77.4]	0.5	[0.2, 1.3]	100.0
100%+ (n=795)	28.0	[24.5, 31.8]	71.8	[68.0, 75.3]	0.2	[0.1, 0.6]	100.0
Pearson: Uncorrected chi2(4) =	9.9320						
Design-based F(3.61, 11126.12) =	2.5124	Pr =	0.046				
Region							
UP/NW/NE (n=574)	28.0	[24.1, 32.2]	71.9	[67.6, 75.7]	0.2	[0.0, 1.1]	100.0
W/E Central/E (n=980)	26.9	[23.9, 30.2]	72.4	[69.2, 75.5]	0.6	[0.3, 1.4]	100.0
S Central/SW/SE (n=633)	27.9	[24.1, 32.2]	71.9	[67.6, 75.8]	0.2	[0.0, 1.3]	100.0
Detroit Metro (n=910)	19.7	[16.9, 22.8]	80.1	[77.0, 82.9]	0.2	[0.1, 0.7]	100.0
Pearson: Uncorrected chi2(6) =	29.3227						
Design-based F(5.28, 16289.14) =	4.8870	Pr =	0.000				
Chronic condition (2016/2017 survey or DW)							
Yes (n=2,469)	26.2	[24.2, 28.3]	73.4	[71.3, 75.5]	0.4	[0.2, 0.7]	100.0
No (n=628)	17.2	[14.0, 21.0]	82.6	[78.8, 85.8]	0.2	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(2) =	25.1677						
Design-based F(1.77, 5461.51) =	10.8848	Pr =	0.000				
Total (n=3,097)	24.1	[22.4, 25.9]	75.6	[73.7, 77.3]	0.3	[0.2, 0.6]	100.0

6 Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

6.1 Insurance status since HMP ended

Follow-up group(s): No longer enrolled
Universe: All respondents

	Insurance status since HMP ended								
	Insured all months		Insured some months		Uninsured all months		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
No longer enrolled (n=709)	54.0	[49.4, 58.7]	16.1	[13.1, 19.7]	27.7	[23.6, 32.2]	2.2	[1.0, 4.5]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=245)	48.9	[41.1, 56.9]	17.1	[12.2, 23.4]	33.0	[26.0, 40.9]	1.0	[0.4, 2.6]	100.0
35-50 (n=209)	51.3	[43.3, 59.3]	17.2	[11.7, 24.4]	28.4	[21.8, 36.1]	3.1	[0.8, 11.3]	100.0
51-64 (n=255)	65.1	[57.3, 72.2]	13.4	[9.3, 19.0]	18.4	[12.6, 26.2]	3.0	[1.1, 8.3]	100.0
Pearson: Uncorrected chi2(6) =	19.8516								
Design-based F(5.50, 3832.72) =	2.0985	Pr =	0.056						
Gender									
Male (n=297)	51.5	[44.2, 58.7]	14.9	[10.6, 20.6]	31.3	[24.9, 38.4]	2.3	[0.7, 7.0]	100.0
Female (n=412)	56.6	[50.7, 62.3]	17.3	[13.3, 22.3]	24.0	[19.1, 29.7]	2.1	[0.8, 4.9]	100.0
Pearson: Uncorrected chi2(3) =	4.8834								
Design-based F(2.94, 2051.77) =	0.9172	Pr =	0.430						
Race/ethnicity									
White, non-Hispanic (n=455)	54.6	[48.7, 60.3]	14.2	[11.0, 18.1]	29.7	[24.3, 35.6]	1.6	[0.6, 4.1]	100.0
Black, non-Hispanic (n=155)	56.0	[46.1, 65.5]	14.9	[9.4, 22.9]	24.8	[17.4, 34.0]	4.3	[1.4, 12.5]	100.0
Hispanic (n=38)	43.0	[26.1, 61.7]	31.1	[15.2, 53.2]	25.9	[13.7, 43.6]	0.0		100.0
Other, non-Hispanic (n=52)	47.1	[31.8, 63.0]	26.0	[12.9, 45.6]	25.6	[14.2, 41.8]	1.3	[0.2, 8.5]	100.0
Pearson: Uncorrected chi2(9) =	18.4673								
Design-based F(8.23, 5659.65) =	1.2587	Pr =	0.259						
FPL category									
0-35% (n=217)	52.9	[44.4, 61.3]	15.7	[10.6, 22.7]	28.3	[21.0, 37.0]	3.0	[1.1, 8.4]	100.0
36-99% (n=260)	57.1	[49.9, 63.9]	14.9	[10.4, 20.7]	25.5	[19.9, 32.1]	2.6	[0.9, 7.3]	100.0
100%+ (n=232)	52.1	[44.3, 59.8]	18.3	[13.2, 24.8]	29.3	[22.6, 37.1]	0.3	[0.0, 2.2]	100.0
Pearson: Uncorrected chi2(6) =	6.1811								
Design-based F(5.38, 3750.27) =	0.7078	Pr =	0.628						
Region									
UP/NW/NE (n=124)	62.6	[52.7, 71.5]	10.7	[6.0, 18.2]	24.5	[17.2, 33.7]	2.2	[0.7, 7.1]	100.0
W/E Central/E (n=203)	60.2	[52.1, 67.7]	10.4	[6.9, 15.5]	27.5	[20.7, 35.5]	1.9	[0.5, 7.7]	100.0
S Central/SW/SE (n=169)	49.1	[39.7, 58.5]	21.6	[15.1, 29.9]	26.8	[19.6, 35.6]	2.4	[0.8, 7.0]	100.0
Detroit Metro (n=213)	50.5	[42.1, 58.9]	18.3	[12.7, 25.7]	29.0	[21.6, 37.6]	2.2	[0.5, 8.7]	100.0
Pearson: Uncorrected chi2(9) =	13.4103								
Design-based F(7.44, 5184.20) =	1.0742	Pr =	0.378						
Chronic condition (2016/2017 survey or DW)									
Yes (n=538)	57.5	[52.3, 62.6]	13.9	[10.8, 17.6]	26.1	[21.7, 31.1]	2.5	[1.1, 5.6]	100.0
No (n=171)	45.2	[36.0, 54.8]	21.9	[14.9, 30.8]	31.5	[23.1, 41.4]	1.4	[0.3, 5.6]	100.0
Pearson: Uncorrected chi2(3) =	12.0738								
Design-based F(2.99, 2083.98) =	2.3247	Pr =	0.073						
Total (n=709)	54.0	[49.4, 58.7]	16.1	[13.1, 19.7]	27.7	[23.6, 32.2]	2.2	[1.0, 4.5]	100.0

6.2 Q: Was it your choice to end your Healthy Michigan Plan enrollment?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Chose to end HMP						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	28.3	[24.2, 32.9]	68.2	[63.6, 72.5]	3.5	[2.0, 5.8]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	29.6	[22.6, 37.8]	67.7	[59.6, 74.9]	2.7	[1.0, 6.7]	100.0
35-50 (n=209)	28.0	[21.2, 35.9]	66.8	[58.5, 74.1]	5.3	[2.2, 11.9]	100.0
51-64 (n=255)	26.7	[20.3, 34.2]	70.7	[63.1, 77.3]	2.6	[1.3, 5.4]	100.0
Pearson: Uncorrected chi2(4) =	3.6454						
Design-based F(3.74, 2603.02) =	0.5832	Pr =	0.663				
Gender							
Male (n=296)	31.0	[24.4, 38.6]	65.9	[58.3, 72.7]	3.1	[1.3, 7.3]	100.0
Female (n=412)	25.6	[21.1, 30.8]	70.6	[65.2, 75.5]	3.8	[2.0, 7.1]	100.0
Pearson: Uncorrected chi2(2) =	2.6398						
Design-based F(1.99, 1383.65) =	0.7497	Pr =	0.472				
Race/ethnicity							
White, non-Hispanic (n=455)	26.8	[21.9, 32.3]	70.3	[64.7, 75.4]	2.9	[1.5, 5.6]	100.0
Black, non-Hispanic (n=155)	29.1	[20.4, 39.7]	67.4	[56.7, 76.5]	3.5	[0.9, 12.7]	100.0
Hispanic (n=38)	23.2	[12.2, 39.8]	68.9	[51.3, 82.3]	7.9	[2.6, 21.5]	100.0
Other, non-Hispanic (n=52)	35.7	[21.0, 53.7]	59.4	[42.3, 74.5]	4.9	[1.5, 14.4]	100.0
Pearson: Uncorrected chi2(6) =	5.6998						
Design-based F(5.27, 3623.89) =	0.5805	Pr =	0.724				
FPL category							
0-35% (n=216)	33.9	[26.0, 42.7]	60.8	[52.0, 69.0]	5.3	[2.5, 11.0]	100.0
36-99% (n=260)	24.1	[18.6, 30.7]	74.2	[67.6, 79.9]	1.6	[0.7, 4.0]	100.0
100%+ (n=232)	25.0	[19.1, 31.9]	72.2	[65.1, 78.4]	2.8	[1.2, 6.4]	100.0
Pearson: Uncorrected chi2(4) =	14.6285						
Design-based F(3.74, 2602.74) =	2.7595	Pr =	0.030				
Region							
UP/NW/NE (n=123)	18.2	[12.1, 26.5]	78.5	[70.0, 85.1]	3.3	[1.3, 8.0]	100.0
W/E Central/E (n=203)	30.3	[23.6, 37.8]	67.3	[59.6, 74.1]	2.5	[1.0, 5.9]	100.0
S Central/SW/SE (n=169)	33.7	[24.9, 43.9]	63.5	[53.5, 72.4]	2.8	[1.1, 7.0]	100.0
Detroit Metro (n=213)	26.0	[19.0, 34.4]	69.4	[60.8, 76.9]	4.6	[1.9, 10.7]	100.0
Pearson: Uncorrected chi2(6) =	8.2109						
Design-based F(5.03, 3498.46) =	1.1027	Pr =	0.357				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	27.5	[22.9, 32.6]	69.1	[63.8, 73.8]	3.4	[1.8, 6.3]	100.0
No (n=170)	30.4	[22.0, 40.3]	66.1	[56.2, 74.8]	3.5	[1.3, 9.4]	100.0
Pearson: Uncorrected chi2(2) =	0.5929						
Design-based F(2.00, 1391.64) =	0.1545	Pr =	0.857				
Total (n=708)	28.3	[24.2, 32.9]	68.2	[63.6, 72.5]	3.5	[2.0, 5.8]	100.0

Note: Total count is less than universe count due to item non-response.

6.2.1 Q: Why did you decide to end your Healthy Michigan Plan enrollment? Was it...

Follow-up group(s): No longer enrolled
Universe: Respondents who chose to end HMP enrollment (n = 187)

Why did you decide to end your HMP enrollment?	Weighted Proportion	95%CI
Because you got other insurance coverage?		
Yes (n=143)	77.1	[68.9, 83.7]
No (n=28)	14.1	[9.3, 20.8]
Don't know (n=1)	0.4	[0.1, 2.7]
Refused (n=15)	8.4	[4.5, 15.2]
Because you were not satisfied with the Healthy Michigan Plan?		
Yes (n=11)	6.2	[3.3, 11.3]
No (n=119)	92.8	[87.2, 96.0]
Don't know (n=1)	1.0	[0.1, 7.0]
Because of some other reason?		
Yes (n=55)	28.3	[21.3, 36.6]
No (n=115)	67.8	[58.8, 75.6]
Don't know (n=5)	3.9	[1.3, 11.4]

6.2.1.1 Q: What were you dissatisfied with?

Follow-up group(s): No longer enrolled
Universe: Respondents who chose to end HMP enrollment because they were not satisfied with HMP (n = 11)

HMP dissatisfaction	Weighted Proportion	95%CI
Difficulty/inability finding a provider (n=1)	8.0	[8.0, 8.0]
Needed a service that wasn't covered (n=3)	22.6	[22.6, 22.6]
HMP too expensive (n=2)	31.2	[31.2, 31.2]
Other (n=4)	29.5	[29.5, 29.5]
Don't know (n=1)	8.7	[8.7, 8.7]

Note: Respondents were able to provide multiple responses

6.2.2 Q: Why did your Healthy Michigan Plan insurance end?

Follow-up group(s): No longer enrolled
Universe: Respondents who did not choose to end HMP enrollment (n = 499)

Why did your HMP insurance end?	Weighted Proportion	95%CI
No longer eligible: income increase (n=138)	25.0	[20.9, 29.5]
No longer eligible: got other coverage (n=127)	22.2	[18.2, 26.7]
Don't know (n=80)	16.1	[12.4, 20.6]
No longer eligible: non-specific (n=37)	9.0	[6.2, 12.9]
Admin problem: disenrolled/declared ineligible but don't know why (n=30)	8.0	[5.2, 12.1]
Knew you needed to re-apply for HMP, but didn't complete re-application (n=25)	6.0	[3.8, 9.3]
Didn't know HMP ended (n=18)	4.0	[2.4, 6.6]
Re-enrollment materials submitted; DHHS said never received/incomplete (n=12)	2.5	[1.2, 5.0]
Other (n=8)	2.3	[0.9, 5.9]
No longer eligible: moved out of state (n=8)	1.8	[0.8, 4.2]
Didn't get application materials/didn't know I needed to re-apply (n=7)	1.6	[0.7, 3.7]
Admin problem: eligibility/administrative error by DHHS (n=4)	1.3	[0.5, 3.5]
Admin problem: problem with information being requested (n=5)	0.8	[0.3, 2.1]
Admin problem: cancelled by the state (n=2)	0.6	[0.1, 2.8]
Admin problem: case worker difficulties (n=1)	0.5	[0.1, 3.2]
Difficulty completing re-enrollment materials (n=2)	0.3	[0.1, 1.7]
Disenrolled because of unmade payments (n=2)	0.3	[0.1, 1.3]
HMP too expensive (n=1)	0.2	[0.0, 1.5]

Note: Respondents were able to provide multiple responses

6.3 Q: Are you currently covered by any kind of health insurance or health care plan?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Insurance status						
	Insured		Uninsured		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	68.4	[63.7, 72.6]	30.0	[25.8, 34.5]	1.7	[0.7, 4.2]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=245)	63.4	[55.5, 70.7]	35.2	[28.1, 43.1]	1.4	[0.4, 4.3]	100.0
35-50 (n=208)	67.0	[58.8, 74.2]	30.5	[23.7, 38.3]	2.5	[0.5, 11.4]	100.0
51-64 (n=255)	77.7	[69.6, 84.1]	21.0	[14.9, 28.9]	1.3	[0.2, 8.6]	100.0
Pearson: Uncorrected chi2(4) =	12.7755						
Design-based F(3.72, 2585.72) =	1.5966	Pr =	0.177				
Gender							
Male (n=297)	64.6	[57.3, 71.2]	33.8	[27.3, 40.9]	1.7	[0.4, 7.0]	100.0
Female (n=411)	72.2	[66.3, 77.3]	26.1	[21.1, 31.9]	1.7	[0.6, 5.1]	100.0
Pearson: Uncorrected chi2(2) =	4.9385						
Design-based F(1.89, 1317.65) =	1.1563	Pr =	0.313				
Race/ethnicity							
White, non-Hispanic (n=454)	67.0	[61.0, 72.5]	31.3	[25.9, 37.2]	1.7	[0.6, 4.6]	100.0
Black, non-Hispanic (n=155)	69.6	[59.8, 77.9]	28.2	[20.4, 37.5]	2.2	[0.3, 14.2]	100.0
Hispanic (n=38)	68.1	[49.8, 82.2]	31.9	[17.8, 50.2]	0.0		100.0
Other, non-Hispanic (n=52)	71.7	[55.6, 83.7]	27.1	[15.3, 43.2]	1.3	[0.2, 8.5]	100.0
Pearson: Uncorrected chi2(6) =	1.9179						
Design-based F(4.61, 3164.84) =	0.1729	Pr =	0.966				
FPL category							
0-35% (n=217)	67.7	[58.9, 75.4]	30.7	[23.2, 39.3]	1.6	[0.3, 9.1]	100.0
36-99% (n=260)	70.3	[63.5, 76.4]	28.0	[22.1, 34.7]	1.7	[0.4, 6.2]	100.0
100%+ (n=231)	66.9	[59.0, 73.9]	31.3	[24.5, 39.0]	1.8	[0.4, 7.3]	100.0
Pearson: Uncorrected chi2(4) =	0.6939						
Design-based F(3.58, 2492.97) =	0.0874	Pr =	0.980				
Region							
UP/NW/NE (n=124)	74.7	[65.5, 82.2]	24.5	[17.2, 33.7]	0.8	[0.1, 5.4]	100.0
W/E Central/E (n=202)	68.6	[60.4, 75.7]	29.9	[22.9, 37.9]	1.6	[0.3, 7.3]	100.0
S Central/SW/SE (n=169)	67.7	[58.7, 75.5]	31.1	[23.4, 40.1]	1.2	[0.3, 4.8]	100.0
Detroit Metro (n=213)	67.1	[58.4, 74.8]	30.6	[23.1, 39.2]	2.3	[0.5, 9.4]	100.0
Pearson: Uncorrected chi2(6) =	2.4510						
Design-based F(4.81, 3347.45) =	0.2885	Pr =	0.914				
Chronic condition (2016/2017 survey or DW)							
Yes (n=537)	69.8	[64.6, 74.5]	28.4	[23.9, 33.5]	1.8	[0.6, 5.3]	100.0
No (n=171)	64.8	[54.9, 73.5]	33.8	[25.2, 43.6]	1.4	[0.3, 6.6]	100.0
Pearson: Uncorrected chi2(2) =	2.0473						
Design-based F(1.99, 1386.39) =	0.5215	Pr =	0.593				
Total (n=708)	68.4	[63.7, 72.6]	30.0	[25.8, 34.5]	1.7	[0.7, 4.2]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.1 Q: Did you have health insurance at any time since your Healthy Michigan Plan insurance ended?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance (n = 202)

	Any health insurance since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=200)	9.1	[5.6, 14.5]	87.3	[80.2, 92.1]	3.5	[1.0, 11.6]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=89)	8.7	[4.2, 17.0]	90.2	[81.9, 94.9]	1.1	[0.3, 4.6]	100.0
35-50 (n=64)	8.2	[3.6, 17.9]	85.8	[68.8, 94.3]	5.9	[0.8, 31.7]	100.0
51-64 (n=47)	11.8	[4.2, 28.9]	82.4	[62.4, 93.0]	5.8	[0.8, 31.4]	100.0
Pearson: Uncorrected chi2(4) =	3.7861						
Design-based F(3.23, 608.02) =	0.6418	Pr =	0.600				
Gender							
Male (n=99)	7.9	[3.9, 15.5]	88.3	[77.1, 94.4]	3.8	[0.6, 19.5]	100.0
Female (n=101)	10.7	[5.5, 19.6]	86.1	[75.9, 92.4]	3.2	[0.7, 14.3]	100.0
Pearson: Uncorrected chi2(2) =	0.4727						
Design-based F(1.76, 330.94) =	0.1307	Pr =	0.852				
Race/ethnicity							
White, non-Hispanic (n=123)	8.0	[4.1, 14.8]	89.9	[81.8, 94.6]	2.2	[0.4, 10.8]	100.0
Black, non-Hispanic (n=46)	11.3	[4.6, 25.1]	81.4	[60.9, 92.5]	7.4	[1.0, 37.8]	100.0
Hispanic (n=13)	18.7	[4.3, 53.8]	81.3	[46.2, 95.7]	0.0		100.0
Other, non-Hispanic (n=16)	5.1	[0.7, 29.8]	90.5	[68.0, 97.7]	4.4	[0.6, 26.8]	100.0
Pearson: Uncorrected chi2(6) =	5.2707						
Design-based F(4.47, 831.78) =	0.6068	Pr =	0.676				
FPL category							
0-35% (n=55)	7.3	[2.7, 18.0]	87.6	[72.3, 95.1]	5.1	[0.8, 25.3]	100.0
36-99% (n=75)	9.3	[4.2, 19.3]	86.0	[73.6, 93.1]	4.7	[1.0, 19.9]	100.0
100%+ (n=70)	11.7	[5.6, 23.0]	88.3	[77.0, 94.4]	0.0		100.0
Pearson: Uncorrected chi2(4) =	3.4902						
Design-based F(3.23, 607.72) =	0.4778	Pr =	0.712				
Region							
UP/NW/NE (n=32)	0.0		96.9	[80.5, 99.6]	3.1	[0.4, 19.5]	100.0
W/E Central/E (n=56)	9.8	[4.3, 20.7]	86.4	[72.7, 93.8]	3.8	[0.5, 22.8]	100.0
S Central/SW/SE (n=49)	14.6	[7.0, 27.8]	84.0	[70.9, 91.9]	1.4	[0.2, 9.6]	100.0
Detroit Metro (n=63)	7.2	[2.7, 18.0]	88.1	[72.4, 95.5]	4.7	[0.6, 27.3]	100.0
Pearson: Uncorrected chi2(6) =	4.2812						
Design-based F(4.23, 794.55) =	0.5852	Pr =	0.683				
Chronic condition (2016/2017 survey or DW)							
Yes (n=140)	8.5	[4.8, 14.7]	86.3	[77.0, 92.2]	5.2	[1.5, 16.3]	100.0
No (n=60)	10.5	[4.4, 23.1]	89.5	[76.9, 95.6]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.5002						
Design-based F(1.78, 334.77) =	0.9292	Pr =	0.386				
Total (n=200)	9.1	[5.6, 14.5]	87.3	[80.2, 92.1]	3.5	[1.0, 11.6]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.1.1 Q: What type of health insurance did you have?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage ended (n = 21)

Type of health insurance	Weighted Proportion	95%CI
Insurance provided through a job or union (n=12)	61.5	[61.5, 61.5]
Insurance purchased by me or someone else (n=2)	6.3	[6.3, 6.3]
Medicaid/MiChild/other state program (n=6)	32.2	[32.2, 32.2]

Note: Respondents were able to provide multiple responses.
Total count is less than universe count due to item non-response.
All respondents with insurance through a job or union indicated that this was their own job.

6.3.2 Q: Why did that insurance coverage end?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage ended (n = 21)

Why insurance coverage ended	Weighted Proportion	95%CI
Lost/changed job (n=9)	47.6	[47.6, 47.6]
Change in job status (n=4)	19.0	[19.0, 19.0]
Income change (n=1)	7.7	[7.7, 7.7]
Disenrolled because of unmade payments (n=1)	3.4	[3.4, 3.4]
Marketplace/individual plan too expensive (n=1)	2.9	[2.9, 2.9]
Other (n=3)	12.6	[12.6, 12.6]
Don't know (n=1)	6.8	[6.8, 6.8]

Note: Total count is less than universe count due to item non-response.

6.3.3 Q: Since your Healthy Michigan Plan insurance ended, for how many months were you uninsured?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage ended (n = 21)

Length of time uninsured	Weighted Proportion	95%CI
Three months or less (n=10)	48.5	[48.5, 48.5]
Four months o six months (n=6)	28.2	[28.2, 28.2]
Seven to eleven months (n=1)	6.3	[6.3, 6.3]
More than twelve months (n=1)	3.4	[3.4, 3.4]
Other (n=1)	3.9	[3.9, 3.9]
Don't know (n=1)	9.7	[9.7, 9.7]

Note: Total count is less than universe count due to item non-response.

6.3.4 Q: What are the main reasons you currently do not have health insurance?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage ended (n = 21)

Main reasons for no health insurance	Weighted Proportion	95%CI
Other (n=6)	28.8	[28.8, 28.8]
Just didn't get around to it (n=3)	19.0	[19.0, 19.0]
Have a job but does not offer insurance (n=2)	15.5	[15.5, 15.5]
Had problems with applying/re-applying for Medicaid (n=2)	13.4	[13.4, 13.4]
Have a job but waiting for open enrollment period/waiting to enroll (n=2)	9.1	[9.1, 9.1]
Too expensive: non-specific (n=2)	7.9	[7.9, 7.9]
Marketplace/individual plan too expensive (n=1)	6.8	[6.8, 6.8]
Hoping to get a job with insurance benefits (n=1)	4.6	[4.6, 4.6]
HMP too expensive (n=1)	2.7	[2.7, 2.7]

Note: Respondents were able to provide multiple responses

6.3.5 Q: Do you think you will get health insurance within the next 6 months?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage endedP (n =21)

Insurance in the next 6 months?	Weighted Proportion	95%CI
Yes (n=17)	96.1	[96.1, 96.1]
Unsure (n=1)	3.9	[3.9, 3.9]

Note: Total count is less than universe count due to item non-response.

6.3.5.1 Q: What type of health insurance?

Follow-up group(s): No longer enrolled
Universe: Respondents who are not currently covered by any kind of health insurance but had some type of insurance since their HMP coverage ended and think they will get health insurance within the next 6 months (n = 17)

Type of health insurance within next 6 months	Weighted Proportion	95%CI
Medicaid (n=8)	44.6	[44.6, 44.6]
Employer insurance (n=5)	28.6	[28.6, 28.6]
Don't know (n=3)	19.8	[19.8, 19.8]
Insurance purchased by me or someone else (n=1)	7.0	[7.0, 7.0]

6.3.6 Q: What type of health insurance do you have?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

Type of insurance	Weighted Proportion	95%CI
Medicaid (n=237)	44.6	[39.3, 50.0]
Insurance through a job or union (n=137)	31.7	[26.5, 37.5]
Medicare (n=104)	15.8	[12.5, 19.8]
Insurance purchased by me or someone else (n=46)	8.4	[5.9, 12.0]
Other (n=17)	3.0	[1.7, 5.2]
Veterans Administration or VA care (n=3)	1.4	[0.4, 4.8]
County health plan (n=3)	0.8	[0.3, 2.4]
Don't know (n=3)	0.7	[0.2, 2.2]
CHAMPUS or TRICARE (n=1)	0.2	[0.0, 1.3]

Note: Respondents were able to provide multiple responses

6.3.6.1 Q: Whose job is it?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by insurance through a job or a union (n = 137)

Whose job is it?	Weighted Proportion	95%CI
Respondent (n=109)	81.9	[73.6, 88.0]
Family Member (n=27)	18.1	[12.0, 26.4]

Note: Total count is less than universe count due to item non-response.

6.3.6.2 Q: Who purchased it?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by insurance that was purchased (n = 46)

Who purchased it?	Weighted Proportion	95%CI
Respondent (n=38)	92.0	[92.0, 92.0]
Family Member (n=6)	8.0	[8.0, 8.0]

Note: Total count is less than universe count due to item non-response.

6.3.6.3 Q: Was this insurance purchased through the marketplace known as healthcare.gov?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by insurance that was purchased (n = 46)

Was it purchased on the marketplace?	Weighted Proportion	95%CI
Yes (n=32)	69.8	[69.8, 69.8]
No (n=11)	25.2	[25.2, 25.2]
Don't know (n=3)	5.0	[5.0, 5.0]

6.3.6.4 Q: Did [you/they] receive a subsidy?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by insurance that was purchased through the marketplace (n = 32)

Received a subsidy?	Weighted Proportion	95%CI
Yes (n=18)	52.3	[52.3, 52.3]
No (n=8)	39.5	[39.5, 39.5]
Don't know (n=2)	8.2	[8.2, 8.2]

Note: Total count is less than universe count due to item non-response.

6.3.7 Q: Was there any time since your Healthy Michigan Plan insurance ended that you didn't have any health insurance?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

	Uninsured for a period of time since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=507)	19.4	[15.4, 24.2]	79.4	[74.5, 83.5]	1.2	[0.5, 2.9]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=155)	22.0	[15.1, 31.1]	77.6	[68.6, 84.6]	0.4	[0.1, 2.5]	100.0
35-50 (n=144)	21.7	[14.3, 31.5]	77.1	[67.2, 84.7]	1.2	[0.2, 8.2]	100.0
51-64 (n=208)	13.9	[9.4, 20.1]	83.8	[77.4, 88.7]	2.2	[0.7, 6.6]	100.0
Pearson: Uncorrected chi2(4) =	6.7302						
Design-based F(3.67, 1817.67) =	1.2623	Pr =	0.284				
Gender							
Male (n=198)	18.7	[12.7, 26.7]	79.8	[71.8, 86.0]	1.5	[0.4, 4.9]	100.0
Female (n=309)	20.0	[15.0, 26.2]	79.0	[72.8, 84.1]	1.0	[0.3, 3.6]	100.0
Pearson: Uncorrected chi2(2) =	0.3569						
Design-based F(1.96, 967.84) =	0.1211	Pr =	0.882				
Race/ethnicity							
White, non-Hispanic (n=331)	17.3	[13.2, 22.4]	81.7	[76.4, 85.9]	1.0	[0.3, 4.0]	100.0
Black, non-Hispanic (n=108)	16.6	[9.6, 27.2]	81.1	[70.5, 88.6]	2.2	[0.7, 7.2]	100.0
Hispanic (n=25)	36.9	[16.3, 63.8]	63.1	[36.2, 83.7]	0.0		100.0
Other, non-Hispanic (n=36)	34.3	[17.0, 57.1]	65.7	[42.9, 83.0]	0.0		100.0
Pearson: Uncorrected chi2(6) =	14.7278						
Design-based F(5.51, 2690.82) =	1.4453	Pr =	0.199				
FPL category							
0-35% (n=162)	19.7	[12.9, 29.1]	78.2	[68.9, 85.3]	2.1	[0.8, 5.4]	100.0
36-99% (n=184)	17.3	[11.7, 24.9]	81.6	[73.9, 87.4]	1.1	[0.2, 7.3]	100.0
100%+ (n=161)	21.7	[15.0, 30.2]	78.3	[69.8, 85.0]	0.0		100.0
Pearson: Uncorrected chi2(4) =	3.7629						
Design-based F(3.80, 1878.99) =	0.6346	Pr =	0.630				
Region							
UP/NW/NE (n=92)	14.3	[8.1, 24.0]	83.7	[73.9, 90.4]	1.9	[0.4, 8.6]	100.0
W/E Central/E (n=147)	10.7	[6.5, 17.1]	88.3	[81.6, 92.7]	1.0	[0.1, 7.0]	100.0
S Central/SW/SE (n=119)	25.1	[16.5, 36.2]	72.5	[61.2, 81.5]	2.4	[0.5, 9.8]	100.0
Detroit Metro (n=149)	23.9	[16.2, 33.7]	75.7	[65.9, 83.4]	0.4	[0.1, 3.1]	100.0
Pearson: Uncorrected chi2(6) =	15.4609						
Design-based F(5.34, 2642.91) =	2.2181	Pr =	0.046				
Chronic condition (2016/2017 survey or DW)							
Yes (n=397)	16.2	[12.3, 21.1]	82.7	[77.7, 86.7]	1.1	[0.4, 3.0]	100.0
No (n=110)	28.2	[18.7, 40.3]	70.4	[58.3, 80.2]	1.4	[0.2, 9.1]	100.0
Pearson: Uncorrected chi2(2) =	9.3456						
Design-based F(1.99, 985.80) =	2.7252	Pr =	0.066				
Total (n=507)	19.4	[15.4, 24.2]	79.4	[74.5, 83.5]	1.2	[0.5, 2.9]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.7.1 Q: How long were you uninsured?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance but were uninsured for a period of time since their HMP coverage ended (n = 92)

Length of time uninsured	Weighted Proportion	95%CI
Three months or less (n=58)	61.1	[47.5, 73.2]
Four months to six months (n=20)	21.0	[12.4, 33.2]
Seven months to eleven months (n=11)	16.5	[8.1, 30.5]
More than twelve months (n=1)	1.4	[0.2, 9.8]

Note: Total count is less than universe count due to item non-response.

6.3.7.2 Q: What were the main reasons you were without health insurance for that time?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance but were uninsured for a period of time since their HMP coverage ended (n = 92)

Main reasons without health insurance for some time	Weighted Proportion	95%CI
Have a job but waiting for open enrollment period/waiting to enroll (n=24)	28.8	[18.2, 42.3]
Other (n=21)	23.4	[13.7, 37.0]
Just didn't get around to it (n=8)	13.4	[6.2, 26.6]
Had problems with applying/re-applying for Medicaid (n=10)	9.9	[4.0, 22.4]
Too expensive: non-specific (n=9)	9.6	[4.6, 18.9]
Marketplace/individual plan too expensive (n=9)	7.9	[3.8, 15.6]
Didn't know HMP ended (n=3)	2.8	[0.7, 10.1]
Have a job but job does not offer insurance (n=2)	2.6	[0.6, 10.6]
Had problems with applying/re-applying for private insurance (n=1)	2.4	[0.3, 15.8]
No longer eligible for other insurance- change in job status (n=3)	2.0	[0.6, 6.3]
Have a job but insurance is too expensive (n=2)	2.0	[0.4, 9.3]
Don't need health insurance (n=1)	1.4	[0.2, 9.4]
Admin problems: case worker difficulties (n=2)	1.3	[0.3, 5.3]
Still considering insurance options (n=1)	0.4	[0.1, 3.2]
Admin problems: Eligibility/administrative error by DHHS (n=1)	0.4	[0.1, 2.9]
Don't know (n=1)	0.3	[0.0, 2.1]

Note: Respondents were able to provide multiple responses

6.3.8 Q: Is your current health insurance plan in your name or someone else's?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

	Name on insurance plan				
	My name		Someone else's name		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
No longer enrolled (n=507)	91.2	[88.0, 93.6]	8.8	[6.4, 12.0]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=155)	89.5	[83.5, 93.5]	10.5	[6.5, 16.5]	100.0
35-50 (n=144)	90.8	[83.1, 95.2]	9.2	[4.8, 16.9]	100.0
51-64 (n=208)	93.8	[89.3, 96.6]	6.2	[3.4, 10.7]	100.0
Pearson: Uncorrected chi2(2) =	2.1131				
Design-based F(1.93, 952.89) =	0.8492	Pr =	0.424		
Gender					
Male (n=198)	92.6	[87.9, 95.5]	7.4	[4.5, 12.1]	100.0
Female (n=309)	90.0	[85.1, 93.5]	10.0	[6.5, 14.9]	100.0
Pearson: Uncorrected chi2(1) =	1.0095				
Design-based F(1.00, 495.00) =	0.7894	Pr =	0.375		
Race/ethnicity					
White, non-Hispanic (n=331)	87.3	[82.2, 91.1]	12.7	[8.9, 17.8]	100.0
Black, non-Hispanic (n=108)	96.9	[91.5, 98.9]	3.1	[1.1, 8.5]	100.0
Hispanic (n=25)	98.4	[89.1, 99.8]	1.6	[0.2, 10.9]	100.0
Other, non-Hispanic (n=36)	95.8	[84.1, 99.0]	4.2	[1.0, 15.9]	100.0
Pearson: Uncorrected chi2(3) =	14.2721				
Design-based F(2.66, 1297.50) =	5.2383	Pr =	0.002		
FPL category					
0-35% (n=162)	97.1	[92.8, 98.9]	2.9	[1.1, 7.2]	100.0
36-99% (n=184)	89.5	[82.9, 93.8]	10.5	[6.2, 17.1]	100.0
100%+ (n=161)	84.3	[76.1, 90.0]	15.7	[10.0, 23.9]	100.0
Pearson: Uncorrected chi2(2) =	17.5655				
Design-based F(2.00, 987.86) =	6.6528	Pr =	0.001		
Region					
UP/NW/NE (n=92)	87.7	[78.1, 93.5]	12.3	[6.5, 21.9]	100.0
W/E Central/E (n=147)	88.7	[81.1, 93.5]	11.3	[6.5, 18.9]	100.0
S Central/SW/SE (n=119)	91.8	[83.1, 96.2]	8.2	[3.8, 16.9]	100.0
Detroit Metro (n=149)	93.7	[88.8, 96.6]	6.3	[3.4, 11.2]	100.0
Pearson: Uncorrected chi2(3) =	3.5682				
Design-based F(2.82, 1395.00) =	1.0156	Pr =	0.382		
Chronic condition (2016/2017 survey or DW)					
Yes (n=397)	91.6	[87.7, 94.3]	8.4	[5.7, 12.3]	100.0
No (n=110)	90.4	[83.4, 94.6]	9.6	[5.4, 16.6]	100.0
Pearson: Uncorrected chi2(1) =	0.1785				
Design-based F(1.00, 495.00) =	0.1425	Pr =	0.706		
Total (n=507)	91.2	[88.0, 93.6]	8.8	[6.4, 12.0]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.8.1 Q: What is your relationship to that person?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance that is in someone else's name (n = 45)

Relationship to that person	Weighted Proportion	95%CI
Spouse (n=37)	85.3	[85.3, 85.3]
Other family member (n=5)	14.7	[14.7, 14.7]

Note: Total count is less than universe count due to item non-response.

6.3.9 Q: How much are the health insurance premiums?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

	Cost of health insurance premiums										
	$0		**$1-$99**		**$100-$199**		**$200+**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
No longer enrolled (n=504)	43.7	[38.3, 49.2]	26.0	[21.2, 31.5]	15.3	[11.4, 20.0]	5.3	[3.4, 8.1]	9.7	[7.1, 13.2]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=155)	38.0	[29.1, 47.9]	31.2	[22.5, 41.5]	14.0	[7.5, 24.6]	4.8	[2.1, 10.4]	12.0	[7.5, 18.7]	100.0
35-50 (n=142)	46.1	[36.7, 55.8]	26.2	[18.0, 36.5]	13.0	[7.8, 21.0]	5.0	[2.1, 11.5]	9.7	[5.1, 17.7]	100.0
51-64 (n=207)	48.6	[40.5, 56.8]	19.2	[13.6, 26.5]	19.0	[13.6, 25.8]	6.3	[3.5, 10.9]	6.9	[4.0, 11.7]	100.0
Pearson: Uncorrected chi2(8) =	12.2172										
Design-based F(7.43, 3654.05) =	1.0160	Pr =	0.419								
Gender											
Male (n=197)	36.7	[28.9, 45.3]	31.2	[23.0, 40.7]	17.9	[11.4, 27.0]	4.6	[2.4, 8.5]	9.7	[5.8, 15.6]	100.0
Female (n=307)	50.0	[43.3, 56.6]	21.4	[16.7, 27.0]	12.9	[9.4, 17.3]	5.9	[3.3, 10.4]	9.8	[6.6, 14.4]	100.0
Pearson: Uncorrected chi2(4) =	12.2064										
Design-based F(3.96, 1947.21) =	2.0610	Pr =	0.084								
Race/ethnicity											
White, non-Hispanic (n=330)	42.3	[35.9, 49.1]	26.7	[20.6, 34.0]	15.0	[11.0, 20.1]	6.5	[4.0, 10.5]	9.4	[6.3, 13.7]	100.0
Black, non-Hispanic (n=106)	46.3	[34.8, 58.2]	24.4	[15.7, 35.8]	15.7	[7.3, 30.6]	3.2	[0.8, 11.8]	10.4	[5.2, 19.7]	100.0
Hispanic (n=25)	53.5	[30.4, 75.2]	17.0	[5.0, 44.3]	14.9	[5.1, 36.6]	4.2	[1.0, 16.3]	10.4	[3.5, 27.0]	100.0
Other, non-Hispanic (n=36)	33.6	[17.9, 54.0]	36.7	[19.8, 57.7]	13.3	[5.4, 29.3]	4.9	[1.2, 18.0]	11.4	[4.0, 28.8]	100.0
Pearson: Uncorrected chi2(12) =	7.2341										
Design-based F(10.70, 5189.16) =	0.3828	Pr =	0.961								
FPL category											
0-35% (n=160)	46.5	[36.7, 56.5]	23.0	[14.9, 33.6]	16.0	[9.1, 26.6]	4.5	[1.9, 10.1]	10.1	[5.8, 17.0]	100.0
36-99% (n=183)	42.3	[34.2, 50.8]	28.1	[21.0, 36.5]	15.7	[10.6, 22.8]	5.5	[2.7, 10.9]	8.4	[4.8, 14.2]	100.0
100%+ (n=161)	41.1	[32.3, 50.6]	28.2	[19.9, 38.2]	13.5	[9.0, 19.8]	6.3	[3.3, 11.8]	10.9	[6.5, 17.6]	100.0
Pearson: Uncorrected chi2(8) =	3.2752										
Design-based F(7.39, 3634.15) =	0.2785	Pr =	0.967								
Region											
UP/NW/NE (n=92)	41.8	[31.1, 53.4]	19.1	[11.9, 29.2]	20.0	[12.6, 30.2]	4.1	[1.5, 10.9]	15.0	[8.3, 25.7]	100.0
W/E Central/E (n=145)	41.3	[32.6, 50.6]	28.5	[20.2, 38.5]	11.4	[7.0, 18.1]	3.7	[1.4, 9.3]	15.1	[9.4, 23.4]	100.0
S Central/SW/SE (n=118)	48.6	[36.9, 60.4]	25.2	[14.6, 39.8]	14.3	[7.7, 24.9]	6.0	[2.4, 14.3]	6.0	[2.9, 12.0]	100.0
Detroit Metro (n=149)	43.0	[33.6, 53.0]	26.6	[19.0, 35.7]	17.4	[10.4, 27.8]	6.4	[3.3, 11.7]	6.7	[3.2, 13.4]	100.0
Pearson: Uncorrected chi2(12) =	15.5383										
Design-based F(10.31, 5071.21) =	0.9798	Pr =	0.460								
Chronic condition (2016/2017 survey or DW)											
Yes (n=395)	43.3	[37.4, 49.4]	24.3	[19.2, 30.2]	16.6	[12.1, 22.3]	5.2	[3.1, 8.7]	10.6	[7.5, 14.9]	100.0
No (n=109)	44.7	[33.5, 56.4]	30.9	[20.4, 43.8]	11.6	[5.7, 22.1]	5.5	[2.7, 11.2]	7.3	[3.6, 14.4]	100.0
Pearson: Uncorrected chi2(4) =	4.4229										
Design-based F(3.77, 1853.30) =	0.6749	Pr =	0.601								
Total (n=504)	43.7	[38.3, 49.2]	26.0	[21.2, 31.5]	15.3	[11.4, 20.0]	5.3	[3.4, 8.1]	9.7	[7.1, 13.2]	100.0

Note: As noted in the next table, while many respondents reported paying premiums monthly, some respondents said they pay premiums at different time intervals (weekly, biweekly, quarterly). This means that the amounts in this table do not necessarily reflect monthly premium ranges, and in some cases may underestimate the premium amount that respondents pay monthly.

6.3.9.1 Q: How often are the health insurance premiums paid?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

Health insurance premiums payment frequency	Weighted Proportion	95%CI
Every week (n=20)	6.0	[3.2, 10.9]
Every 2 weeks (n=42)	8.5	[6.1, 11.7]
Once a month (n=160)	30.4	[25.5, 35.9]
Quarterly (n=8)	1.5	[0.7, 3.2]
Twice a year (n=1)	0.1	[0.0, 1.0]
Once a year (n=3)	1.3	[0.4, 4.4]
N/A- $0 (n=222)	43.5	[38.2, 49.0]
Other (n=1)	0.1	[0.0, 0.5]
Don't know (n=47)	8.4	[6.1, 11.5]

6.3.10 Q: Would you say the amount per month is...?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance and do not know how much their health insurance premiums cost (n = 53)

Amount per month	Weighted Proportion
$0 (n=2)	4.4
$1-99 (n=6)	12.6
$100-199 (n=7)	8.1
Don't know (n=38)	74.9

6.3.11 Q: Who is covered under your current health insurance plan?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by a private health insurance plan that is in their name (n = 146)

	Who is covered under health insurance plan				
	Just me		Me and at least one other family member		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
No longer enrolled (n=144)	81.2	[69.8, 89.0]	18.8	[11.0, 30.2]	100.0
Pearson: Uncorrected chi2(0) =	.				
Design-based F(., .) =	.	Pr =	.		
Age					
19-34 (n=65)	82.7	[62.2, 93.3]	17.3	[6.7, 37.8]	100.0
35-50 (n=43)	73.3	[57.1, 84.9]	26.7	[15.1, 42.9]	100.0
51-64 (n=36)	89.3	[76.8, 95.5]	10.7	[4.5, 23.2]	100.0
Pearson: Uncorrected chi2(2) =	2.8166				
Design-based F(1.62, 213.24) =	1.0955	Pr =	0.326		
Gender					
Male (n=61)	80.9	[61.1, 92.0]	19.1	[8.0, 38.9]	100.0
Female (n=83)	81.6	[71.4, 88.7]	18.4	[11.3, 28.6]	100.0
Pearson: Uncorrected chi2(1) =	0.0103				
Design-based F(1.00, 132.00) =	0.0058	Pr =	0.939		
Race/ethnicity					
White, non-Hispanic (n=96)	82.2	[72.3, 89.1]	17.8	[10.9, 27.7]	100.0
Black, non-Hispanic (n=26)	74.8	[39.4, 93.1]	25.2	[6.9, 60.6]	100.0
Hispanic (n=8)	94.9	[68.3, 99.4]	5.1	[0.6, 31.7]	100.0
Other, non-Hispanic (n=12)	87.7	[59.7, 97.2]	12.3	[2.8, 40.3]	100.0
Pearson: Uncorrected chi2(3) =	2.5916				
Design-based F(2.00, 260.50) =	0.5543	Pr =	0.576		
FPL category					
0-35% (n=43)	82.1	[52.8, 94.9]	17.9	[5.1, 47.2]	100.0
36-99% (n=52)	81.9	[68.8, 90.3]	18.1	[9.7, 31.2]	100.0
100%+ (n=49)	79.1	[63.8, 89.0]	20.9	[11.0, 36.2]	100.0
Pearson: Uncorrected chi2(2) =	0.1624				
Design-based F(1.58, 208.32) =	0.0411	Pr =	0.929		
Region					
UP/NW/NE (n=20)	76.3	[50.3, 91.1]	23.7	[8.9, 49.7]	100.0
W/E Central/E (n=43)	84.8	[69.3, 93.3]	15.2	[6.7, 30.7]	100.0
S Central/SW/SE (n=37)	88.8	[76.1, 95.2]	11.2	[4.8, 23.9]	100.0
Detroit Metro (n=44)	74.5	[49.9, 89.6]	25.5	[10.4, 50.1]	100.0
Pearson: Uncorrected chi2(3) =	3.5663				
Design-based F(2.38, 313.86) =	0.9869	Pr =	0.385		
Chronic condition (2016/2017 survey or DW)					
Yes (n=99)	78.8	[62.5, 89.2]	21.2	[10.8, 37.5]	100.0
No (n=45)	85.7	[72.3, 93.2]	14.3	[6.8, 27.7]	100.0
Pearson: Uncorrected chi2(1) =	1.0315				
Design-based F(1.00, 132.00) =	0.6803	Pr =	0.411		
Total (n=144)	81.2	[69.8, 89.0]	18.8	[11.0, 30.2]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.12 Q: Does this health plan have a deductible?

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by a private health insurance plan that is in their name (n = 146)

	Health plan has a deductible						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=144)	77.3	[65.8, 85.8]	14.7	[7.4, 27.2]	7.9	[4.5, 13.7]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=65)	77.0	[58.2, 88.9]	16.3	[5.9, 37.5]	6.8	[2.8, 15.3]	100.0
35-50 (n=43)	77.2	[59.5, 88.7]	14.1	[5.1, 33.5]	8.6	[3.1, 21.7]	100.0
51-64 (n=36)	78.7	[61.7, 89.4]	10.7	[4.6, 23.2]	10.6	[3.6, 27.2]	100.0
Pearson: Uncorrected chi2(4) =	0.7888						
Design-based F(3.21, 423.67) =	0.1693	Pr =	0.927				
Gender							
Male (n=61)	73.0	[54.6, 85.9]	19.8	[8.3, 40.2]	7.2	[3.1, 15.7]	100.0
Female (n=83)	82.9	[72.9, 89.7]	8.3	[4.0, 16.5]	8.8	[4.1, 18.1]	100.0
Pearson: Uncorrected chi2(2) =	3.7416						
Design-based F(1.92, 253.77) =	1.6038	Pr =	0.204				
Race/ethnicity							
White, non-Hispanic (n=96)	81.9	[71.8, 88.9]	9.3	[4.8, 17.2]	8.8	[4.2, 17.6]	100.0
Black, non-Hispanic (n=26)	68.7	[36.4, 89.4]	26.7	[7.4, 62.2]	4.7	[1.0, 19.2]	100.0
Hispanic (n=8)	72.6	[37.2, 92.2]	11.4	[2.3, 41.3]	15.9	[3.2, 52.2]	100.0
Other, non-Hispanic (n=12)	81.0	[50.3, 94.7]	16.3	[3.9, 48.5]	2.7	[0.4, 18.4]	100.0
Pearson: Uncorrected chi2(6) =	7.7854						
Design-based F(4.22, 548.68) =	1.0719	Pr =	0.371				
FPL category							
0-35% (n=43)	80.0	[52.6, 93.6]	14.8	[3.3, 47.3]	5.1	[1.7, 14.5]	100.0
36-99% (n=52)	76.0	[60.0, 87.0]	16.1	[7.1, 32.6]	7.9	[3.1, 19.0]	100.0
100%+ (n=49)	75.1	[57.9, 86.8]	13.0	[5.3, 28.5]	12.0	[4.7, 27.4]	100.0
Pearson: Uncorrected chi2(4) =	1.5947						
Design-based F(2.83, 373.87) =	0.2400	Pr =	0.858				
Region							
UP/NW/NE (n=20)	81.0	[54.1, 93.9]	3.0	[0.4, 20.2]	16.0	[3.9, 47.5]	100.0
W/E Central/E (n=43)	79.5	[64.1, 89.3]	12.5	[5.4, 26.6]	8.0	[3.0, 19.5]	100.0
S Central/SW/SE (n=37)	79.8	[61.1, 90.9]	12.3	[4.4, 30.1]	7.9	[2.3, 23.8]	100.0
Detroit Metro (n=44)	73.6	[48.8, 89.1]	19.9	[6.2, 48.4]	6.5	[2.2, 17.5]	100.0
Pearson: Uncorrected chi2(6) =	3.3119						
Design-based F(4.38, 577.63) =	0.4808	Pr =	0.766				
Chronic condition (2016/2017 survey or DW)							
Yes (n=99)	75.0	[59.2, 86.1]	18.0	[8.1, 35.3]	7.0	[3.3, 14.3]	100.0
No (n=45)	81.6	[65.5, 91.2]	8.7	[2.6, 25.9]	9.6	[4.0, 21.5]	100.0
Pearson: Uncorrected chi2(2) =	2.3721						
Design-based F(1.80, 237.43) =	0.8015	Pr =	0.438				
Total (n=144)	77.3	[65.8, 85.8]	14.7	[7.4, 27.2]	7.9	[4.5, 13.7]	100.0

Note: Total count is less than universe count due to item non-response.

6.3.12.1 Q: What is the annual deductible for medical care for this plan? (individual plan)

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by a private health insurance plan in their name and their plan has a deductible (n = 114)

Annual deductible amount (individual)	Weighted Proportion	95%CI
< $1,300 (n=40)	50.6	[50.6, 50.6]
$1,300-2,600 (n=22)	21.2	[21.2, 21.2]
> $2,600 (n=11)	12.5	[12.5, 12.5]
Don't know (n=15)	15.7	[15.7, 15.7]

Note: Total count is less than universe count due to item non-response.

6.3.12.2 Q: What is the annual deductible for medical care for this plan? (2+ persons covered)

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by a private health insurance plan in their name and their plan has a deductible (n = 30)

Annual deductible amount (2+ covered)	Weighted Proportion	95%CI
< $2,600 (n=12)	51.0	[51.0, 51.0]
$2,600-5,200 (n=6)	29.1	[29.1, 29.1]
> $5,200 (n=3)	11.2	[11.2, 11.2]
Don't know (n=2)	8.7	[8.7, 8.7]

Note: Total count is less than universe count due to item non-response.

6.4 Q: The amount I paid for the Healthy Michigan Plan seemed fair.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Amount I paid for HMP seemed fair												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=708)	35.4	[31.0, 40.1]	56.5	[51.8, 61.1]	3.8	[2.1, 6.5]	3.1	[2.0, 4.7]	0.4	[0.1, 1.3]	0.8	[0.3, 1.7]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	41.7	[34.0, 49.8]	52.9	[44.9, 60.7]	3.0	[1.0, 9.2]	1.9	[0.8, 4.7]	0.3	[0.0, 2.0]	0.2	[0.0, 1.4]	100.0
35-50 (n=209)	28.6	[22.0, 36.3]	62.2	[54.3, 69.5]	2.8	[1.4, 5.3]	4.9	[2.7, 8.8]	0.0		1.5	[0.5, 4.8]	100.0
51-64 (n=254)	33.2	[26.4, 40.7]	55.9	[48.2, 63.4]	6.0	[2.6, 13.4]	2.9	[1.3, 6.3]	1.1	[0.3, 4.4]	0.8	[0.2, 2.6]	100.0
Pearson: Uncorrected chi2(10) =	21.8664												
Design-based F(8.09, 5628.55) =	1.7753	Pr =	0.076										
Gender													
Male (n=296)	36.5	[29.6, 43.9]	57.8	[50.4, 64.9]	3.1	[1.2, 7.5]	1.5	[0.6, 3.6]	0.3	[0.0, 2.3]	0.9	[0.3, 2.8]	100.0
Female (n=412)	34.3	[29.0, 40.0]	55.3	[49.4, 61.0]	4.5	[2.2, 8.8]	4.7	[2.9, 7.6]	0.5	[0.1, 2.1]	0.7	[0.2, 1.9]	100.0
Pearson: Uncorrected chi2(5) =	7.5023												
Design-based F(4.40, 3063.86) =	1.0767	Pr =	0.369										
Race/ethnicity													
White, non-Hispanic (n=455)	41.3	[35.4, 47.4]	51.7	[45.8, 57.5]	4.2	[2.1, 8.1]	2.2	[1.2, 3.9]	0.3	[0.0, 1.9]	0.4	[0.1, 1.4]	100.0
Black, non-Hispanic (n=154)	23.5	[16.8, 31.8]	67.2	[57.9, 75.3]	4.3	[1.5, 12.1]	3.6	[1.5, 8.4]	0.5	[0.1, 3.2]	0.9	[0.2, 4.7]	100.0
Hispanic (n=38)	22.1	[10.2, 41.6]	60.5	[41.8, 76.6]	2.8	[0.6, 11.3]	9.2	[3.4, 22.6]	2.7	[0.4, 16.9]	2.7	[0.4, 16.9]	100.0
Other, non-Hispanic (n=52)	40.0	[25.4, 56.6]	54.0	[37.8, 69.4]	0.0		4.4	[1.0, 17.0]	0.0		1.5	[0.2, 10.1]	100.0
Pearson: Uncorrected chi2(15) =	36.1959												
Design-based F(13.15, 9033.27) =	1.8912	Pr =	0.026										
FPL category													
0-35% (n=217)	32.4	[24.8, 41.1]	57.0	[48.3, 65.3]	6.4	[3.0, 13.1]	2.7	[1.3, 5.5]	1.0	[0.3, 3.3]	0.5	[0.1, 3.5]	100.0
36-99% (n=259)	40.0	[33.2, 47.1]	54.3	[47.2, 61.2]	2.2	[1.1, 4.3]	2.1	[0.8, 5.5]	0.0		1.5	[0.6, 3.7]	100.0
100%+ (n=232)	34.4	[27.1, 42.4]	58.6	[50.6, 66.1]	1.7	[0.6, 5.0]	5.0	[2.7, 9.0]	0.0		0.4	[0.0, 2.5]	100.0
Pearson: Uncorrected chi2(10) =	21.0028												
Design-based F(8.75, 6091.24) =	1.9093	Pr =	0.048										
Region													
UP/NW/NE (n=124)	32.2	[23.9, 41.9]	63.1	[53.4, 71.9]	2.3	[0.8, 6.2]	2.4	[0.7, 7.5]	0.0		0.0		100.0
W/E Central/E (n=203)	37.9	[30.4, 46.1]	54.9	[46.8, 62.7]	1.3	[0.4, 4.5]	5.6	[3.1, 10.0]	0.0		0.3	[0.0, 2.3]	100.0
S Central/SW/SE (n=169)	41.6	[32.4, 51.5]	51.6	[42.2, 60.9]	3.3	[1.3, 7.8]	2.0	[0.6, 6.3]	0.5	[0.1, 3.7]	0.9	[0.3, 2.8]	100.0
Detroit Metro (n=212)	30.6	[23.4, 38.9]	59.2	[50.6, 67.2]	6.2	[2.8, 13.1]	2.1	[0.9, 4.7]	0.8	[0.2, 3.1]	1.2	[0.4, 3.8]	100.0
Pearson: Uncorrected chi2(15) =	23.4180												
Design-based F(12.28, 8549.16) =	1.5893	Pr =	0.085										
Chronic condition (2016/2017 survey or DW)													
Yes (n=537)	30.8	[26.1, 35.8]	60.5	[55.2, 65.5]	3.3	[1.8, 6.1]	3.9	[2.5, 6.1]	0.4	[0.1, 1.7]	1.1	[0.5, 2.4]	100.0
No (n=171)	47.1	[37.6, 56.8]	46.6	[37.3, 56.2]	4.8	[1.6, 13.6]	1.0	[0.3, 3.3]	0.4	[0.1, 3.0]	0.0		100.0
Pearson: Uncorrected chi2(5) =	22.6615												
Design-based F(4.03, 2801.53) =	3.2200	Pr =	0.012										
Total (n=708)	35.4	[31.0, 40.1]	56.5	[51.8, 61.1]	3.8	[2.1, 6.5]	3.1	[2.0, 4.7]	0.4	[0.1, 1.3]	0.8	[0.3, 1.7]	100.0

Note: Total count is less than universe count due to item non-response.

6.5 Q: The amount I pay now for my health insurance seems fair.

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

	Amount I pay now for my health insurance seems fair												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=505)	10.9	[8.2, 14.3]	59.0	[53.4, 64.3]	6.1	[4.0, 9.2]	15.2	[11.2, 20.4]	7.4	[5.0, 11.0]	1.4	[0.6, 3.4]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=155)	10.0	[6.0, 16.2]	60.4	[50.1, 69.9]	6.3	[2.9, 13.4]	17.0	[9.8, 28.0]	3.4	[1.3, 9.1]	2.8	[0.9, 8.0]	100.0
35-50 (n=143)	7.5	[4.0, 13.6]	56.7	[46.7, 66.3]	5.3	[2.7, 10.0]	18.3	[11.3, 28.3]	11.9	[6.1, 21.7]	0.4	[0.1, 2.6]	100.0
51-64 (n=207)	15.3	[10.2, 22.3]	59.2	[51.1, 66.8]	6.5	[3.4, 12.0]	10.0	[6.7, 14.6]	8.3	[5.0, 13.6]	0.7	[0.2, 2.3]	100.0
Pearson: Uncorrected chi2(10) =	21.8138												
Design-based F(8.55, 4215.19) =	1.6784	Pr =	0.093										
Gender													
Male (n=196)	10.2	[6.4, 15.9]	58.5	[49.1, 67.4]	7.3	[3.9, 13.3]	17.5	[10.5, 27.6]	6.3	[3.0, 12.7]	0.2	[0.0, 1.3]	100.0
Female (n=309)	11.5	[8.1, 16.1]	59.4	[52.9, 65.5]	5.0	[2.9, 8.4]	13.2	[9.6, 17.8]	8.4	[5.3, 13.2]	2.5	[1.0, 6.2]	100.0
Pearson: Uncorrected chi2(5) =	8.4848												
Design-based F(4.39, 2163.33) =	1.2240	Pr =	0.297										
Race/ethnicity													
White, non-Hispanic (n=332)	13.1	[9.5, 18.0]	55.3	[48.6, 61.9]	7.7	[4.6, 12.6]	13.1	[9.1, 18.6]	9.6	[6.4, 14.3]	1.0	[0.4, 2.9]	100.0
Black, non-Hispanic (n=106)	8.7	[4.2, 17.1]	62.0	[49.0, 73.4]	3.9	[1.6, 9.3]	19.3	[10.1, 33.8]	4.9	[1.2, 18.6]	1.1	[0.2, 7.7]	100.0
Hispanic (n=24)	1.6	[0.2, 10.9]	85.9	[68.8, 94.4]	0.0		9.1	[2.7, 26.3]	1.8	[0.2, 12.3]	1.6	[0.2, 11.1]	100.0
Other, non-Hispanic (n=36)	8.1	[2.8, 21.4]	58.4	[38.5, 75.9]	3.5	[0.5, 21.2]	22.5	[9.5, 44.7]	2.4	[0.3, 15.2]	5.1	[0.7, 28.6]	100.0
Pearson: Uncorrected chi2(15) =	28.0746												
Design-based F(11.81, 5738.05) =	1.3158	Pr =	0.203										
FPL category													
0-35% (n=161)	11.4	[7.0, 18.1]	58.8	[48.4, 68.4]	6.5	[3.0, 13.4]	13.6	[7.0, 24.9]	7.9	[3.8, 15.4]	1.8	[0.4, 7.3]	100.0
36-99% (n=182)	10.7	[6.9, 16.3]	65.2	[57.1, 72.6]	4.4	[2.2, 8.8]	13.4	[8.7, 20.1]	5.5	[2.7, 11.1]	0.8	[0.2, 2.5]	100.0
100%+ (n=162)	10.3	[6.0, 17.3]	51.3	[41.9, 60.6]	7.5	[3.9, 13.8]	20.0	[12.8, 29.9]	9.2	[4.9, 16.7]	1.7	[0.4, 6.1]	100.0
Pearson: Uncorrected chi2(10) =	8.8031												
Design-based F(8.81, 4344.25) =	0.6183	Pr =	0.779										
Region													
UP/NW/NE (n=92)	12.2	[6.6, 21.4]	52.2	[40.9, 63.2]	7.6	[3.3, 16.5]	14.8	[8.2, 25.3]	11.0	[5.7, 20.1]	2.3	[0.7, 7.0]	100.0
W/E Central/E (n=145)	13.2	[7.9, 21.2]	60.4	[50.6, 69.4]	6.6	[3.4, 12.2]	13.3	[7.3, 23.2]	4.6	[2.0, 10.5]	1.9	[0.4, 9.3]	100.0
S Central/SW/SE (n=120)	13.6	[8.4, 21.2]	54.7	[43.0, 65.9]	7.7	[2.8, 19.3]	14.5	[8.1, 24.6]	7.9	[3.3, 17.8]	1.5	[0.3, 7.1]	100.0
Detroit Metro (n=148)	7.3	[3.8, 13.5]	62.3	[51.9, 71.6]	4.3	[2.0, 9.1]	17.1	[9.9, 27.9]	8.3	[4.2, 16.0]	0.8	[0.1, 5.4]	100.0
Pearson: Uncorrected chi2(15) =	11.4364												
Design-based F(12.98, 6398.97) =	0.5667	Pr =	0.882										
Chronic condition (2016/2017 survey or DW)													
Yes (n=396)	10.2	[7.2, 14.2]	56.4	[50.1, 62.5]	5.1	[3.2, 7.9]	17.8	[12.9, 24.1]	8.7	[5.5, 13.4]	1.8	[0.7, 4.5]	100.0
No (n=109)	12.8	[7.6, 21.0]	65.9	[54.4, 75.9]	8.8	[3.8, 18.8]	8.1	[3.4, 18.3]	4.0	[1.7, 8.9]	0.3	[0.0, 2.3]	100.0
Pearson: Uncorrected chi2(5) =	14.9787												
Design-based F(4.25, 2094.62) =	2.1683	Pr =	0.066										
Total (n=505)	10.9	[8.2, 14.3]	59.0	[53.4, 64.3]	6.1	[4.0, 9.2]	15.2	[11.2, 20.4]	7.4	[5.0, 11.0]	1.4	[0.6, 3.4]	100.0

Note: Total count is less than universe count due to item non-response.

6.6 Q: The amount I paid for the Healthy Michigan Plan was affordable.

Follow-up group(s): No longer enrolled
Universe: All respondents

	Amount I paid for HMP was affordable												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=708)	38.6	[34.1, 43.3]	55.8	[51.1, 60.4]	1.4	[0.7, 2.6]	3.6	[2.4, 5.5]	0.2	[0.1, 1.0]	0.4	[0.1, 1.1]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	45.2	[37.4, 53.3]	51.6	[43.6, 59.5]	0.2	[0.0, 1.7]	2.9	[1.2, 6.9]	0.0		0.0		100.0
35-50 (n=209)	33.3	[26.1, 41.4]	58.3	[50.2, 65.9]	2.5	[1.1, 5.5]	5.2	[2.9, 9.1]	0.2	[0.0, 1.6]	0.5	[0.1, 3.3]	100.0
51-64 (n=254)	34.1	[27.2, 41.6]	59.6	[51.9, 66.8]	1.8	[0.5, 6.2]	3.0	[1.5, 5.7]	0.6	[0.1, 4.1]	0.9	[0.3, 3.1]	100.0
Pearson: Uncorrected chi2(10) =	19.3859												
Design-based F(8.90, 6194.12) =	1.8160	Pr =	0.061										
Gender													
Male (n=296)	38.1	[31.1, 45.6]	58.0	[50.6, 65.1]	0.3	[0.0, 1.9]	2.9	[1.4, 5.9]	0.3	[0.0, 2.3]	0.5	[0.1, 1.9]	100.0
Female (n=412)	39.1	[33.6, 44.9]	53.6	[47.8, 59.3]	2.5	[1.2, 4.9]	4.4	[2.7, 7.2]	0.1	[0.0, 1.0]	0.3	[0.1, 1.5]	100.0
Pearson: Uncorrected chi2(5) =	8.4964												
Design-based F(4.51, 3136.56) =	1.5839	Pr =	0.168										
Race/ethnicity													
White, non-Hispanic (n=455)	44.5	[38.6, 50.5]	50.7	[44.8, 56.5]	2.0	[0.9, 4.1]	2.3	[1.3, 4.0]	0.4	[0.1, 1.7]	0.2	[0.0, 1.1]	100.0
Black, non-Hispanic (n=154)	27.8	[20.2, 36.9]	67.0	[57.6, 75.2]	0.3	[0.0, 1.8]	4.8	[2.1, 10.8]	0.0		0.2	[0.0, 1.2]	100.0
Hispanic (n=38)	27.7	[14.2, 46.9]	55.2	[36.6, 72.4]	2.8	[0.6, 11.3]	11.7	[4.7, 26.3]	0.0		2.7	[0.4, 16.9]	100.0
Other, non-Hispanic (n=52)	37.7	[23.4, 54.5]	56.5	[40.0, 71.6]	0.0		4.3	[1.0, 16.9]	0.0		1.5	[0.2, 9.9]	100.0
Pearson: Uncorrected chi2(15) =	39.0802												
Design-based F(12.92, 8874.94) =	2.2973	Pr =	0.005										
FPL category													
0-35% (n=217)	40.5	[32.3, 49.2]	55.0	[46.4, 63.3]	1.6	[0.5, 4.9]	2.0	[0.8, 5.1]	0.4	[0.1, 2.8]	0.5	[0.1, 2.1]	100.0
36-99% (n=259)	39.2	[32.5, 46.3]	56.0	[48.9, 62.9]	1.5	[0.7, 3.6]	2.6	[1.2, 6.0]	0.0		0.6	[0.1, 2.8]	100.0
100%+ (n=232)	34.9	[27.6, 43.0]	56.8	[48.8, 64.4]	0.7	[0.2, 2.4]	7.3	[4.2, 12.6]	0.3	[0.0, 1.9]	0.0		100.0
Pearson: Uncorrected chi2(10) =	13.5195												
Design-based F(8.88, 6180.27) =	1.2833	Pr =	0.241										
Region													
UP/NW/NE (n=124)	42.4	[33.0, 52.3]	53.6	[43.8, 63.2]	1.5	[0.5, 4.6]	2.5	[0.8, 7.6]	0.0		0.0		100.0
W/E Central/E (n=203)	37.3	[29.7, 45.6]	57.2	[49.0, 65.0]	0.6	[0.1, 2.9]	4.6	[2.3, 9.1]	0.2	[0.0, 1.7]	0.0		100.0
S Central/SW/SE (n=169)	44.3	[35.0, 54.1]	51.1	[41.7, 60.5]	1.9	[0.6, 6.3]	2.0	[0.7, 6.2]	0.0		0.6	[0.1, 2.5]	100.0
Detroit Metro (n=212)	35.2	[27.6, 43.7]	58.0	[49.5, 66.0]	1.5	[0.5, 4.4]	4.1	[2.2, 7.8]	0.4	[0.1, 2.9]	0.7	[0.2, 2.7]	100.0
Pearson: Uncorrected chi2(15) =	9.4741												
Design-based F(11.71, 8148.81) =	0.7066	Pr =	0.743										
Chronic condition (2016/2017 survey or DW)													
Yes (n=537)	34.3	[29.5, 39.5]	59.0	[53.7, 64.0]	1.2	[0.6, 2.5]	4.6	[3.0, 7.0]	0.3	[0.1, 1.4]	0.6	[0.2, 1.6]	100.0
No (n=171)	49.3	[39.7, 58.8]	47.8	[38.4, 57.3]	1.7	[0.5, 6.1]	1.3	[0.3, 5.3]	0.0		0.0		100.0
Pearson: Uncorrected chi2(5) =	17.8276												
Design-based F(4.65, 3237.09) =	2.8477	Pr =	0.017										
Total (n=708)	38.6	[34.1, 43.3]	55.8	[51.1, 60.4]	1.4	[0.7, 2.6]	3.6	[2.4, 5.5]	0.2	[0.1, 1.0]	0.4	[0.1, 1.1]	100.0

Note: Total count is less than universe count due to item non-response.

6.7 Q: The amount I pay now for my health insurance is affordable.

Follow-up group(s): No longer enrolled
Universe: Respondents who are currently covered by some kind of health insurance (n = 508)

	Amount I pay now for my health insurance is affordable												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=506)	11.4	[8.6, 14.9]	61.0	[55.6, 66.2]	8.5	[5.8, 12.5]	13.0	[9.6, 17.2]	4.9	[3.1, 7.7]	1.1	[0.4, 3.2]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=155)	10.5	[6.4, 16.8]	63.2	[53.4, 72.0]	11.8	[6.2, 21.1]	8.3	[4.9, 13.7]	3.4	[1.2, 9.0]	2.8	[0.9, 8.0]	100.0
35-50 (n=144)	8.0	[4.4, 14.3]	60.4	[50.2, 69.8]	4.7	[2.3, 9.6]	20.7	[12.8, 31.8]	6.1	[2.9, 12.6]	0.0		100.0
51-64 (n=207)	15.8	[10.5, 22.9]	58.8	[50.7, 66.5]	8.1	[4.8, 13.4]	11.5	[7.6, 17.1]	5.8	[3.1, 10.6]	0.0		100.0
Pearson: Uncorrected chi2(10) =	30.1995												
Design-based F(9.54, 4710.80) =	2.2070	Pr =	0.017										
Gender													
Male (n=196)	10.1	[6.4, 15.7]	65.4	[56.2, 73.6]	7.3	[3.4, 15.2]	15.1	[9.4, 23.3]	2.1	[0.8, 5.2]	0.0		100.0
Female (n=310)	12.6	[8.9, 17.4]	57.2	[50.6, 63.5]	9.6	[6.4, 14.3]	11.1	[8.1, 15.1]	7.5	[4.5, 12.2]	2.1	[0.7, 6.0]	100.0
Pearson: Uncorrected chi2(5) =	16.6538												
Design-based F(4.77, 2357.03) =	2.1487	Pr =	0.060										
Race/ethnicity													
White, non-Hispanic (n=332)	12.7	[9.1, 17.6]	57.8	[51.0, 64.3]	10.8	[6.7, 16.9]	11.2	[8.0, 15.3]	7.1	[4.3, 11.5]	0.5	[0.1, 3.3]	100.0
Black, non-Hispanic (n=106)	9.8	[5.1, 17.9]	63.1	[51.1, 73.7]	7.4	[3.4, 15.4]	16.5	[8.8, 28.7]	2.0	[0.6, 6.9]	1.1	[0.2, 7.7]	100.0
Hispanic (n=25)	1.6	[0.2, 10.7]	85.7	[69.8, 94.0]	1.5	[0.2, 10.3]	9.7	[3.3, 24.9]	0.0		1.6	[0.2, 10.9]	100.0
Other, non-Hispanic (n=36)	10.7	[4.2, 25.0]	62.4	[42.1, 79.1]	0.0		18.2	[6.5, 41.6]	3.5	[0.8, 14.3]	5.1	[0.7, 28.6]	100.0
Pearson: Uncorrected chi2(15) =	31.1595												
Design-based F(12.54, 6108.21) =	1.6086	Pr =	0.078										
FPL category													
0-35% (n=161)	12.6	[7.9, 19.4]	63.0	[53.0, 72.1]	6.0	[2.5, 13.6]	11.6	[6.1, 20.9]	5.0	[2.5, 9.6]	1.8	[0.4, 7.3]	100.0
36-99% (n=183)	11.9	[7.8, 17.6]	65.3	[57.2, 72.5]	6.8	[3.9, 11.4]	12.0	[7.5, 18.7]	4.1	[1.7, 9.3]	0.0		100.0
100%+ (n=162)	9.1	[4.9, 16.0]	52.4	[43.0, 61.7]	14.8	[8.1, 25.6]	16.3	[11.1, 23.4]	6.0	[2.5, 13.6]	1.4	[0.3, 6.3]	100.0
Pearson: Uncorrected chi2(10) =	16.4662												
Design-based F(9.26, 4572.10) =	1.1012	Pr =	0.358										
Region													
UP/NW/NE (n=92)	11.2	[6.0, 19.8]	56.5	[45.2, 67.2]	7.6	[3.6, 15.4]	16.7	[9.6, 27.3]	7.1	[3.1, 15.5]	0.9	[0.1, 6.1]	100.0
W/E Central/E (n=146)	11.8	[6.8, 19.7]	65.1	[55.1, 73.9]	9.3	[4.1, 19.7]	9.0	[5.2, 15.2]	3.2	[1.1, 8.7]	1.6	[0.2, 10.3]	100.0
S Central/SW/SE (n=120)	15.7	[9.9, 24.0]	53.7	[42.0, 65.0]	11.4	[5.5, 22.4]	11.4	[5.7, 21.6]	6.6	[2.4, 16.7]	1.2	[0.2, 7.9]	100.0
Detroit Metro (n=148)	8.6	[4.8, 14.8]	63.6	[53.9, 72.3]	6.5	[3.3, 12.4]	15.9	[9.7, 24.9]	4.7	[2.4, 9.1]	0.8	[0.1, 5.4]	100.0
Pearson: Uncorrected chi2(15) =	13.6535												
Design-based F(13.00, 6422.13) =	0.6935	Pr =	0.772										
Chronic condition (2016/2017 survey or DW)													
Yes (n=396)	10.8	[7.7, 14.9]	60.1	[53.9, 65.9]	8.4	[5.3, 13.0]	13.6	[9.8, 18.5]	5.8	[3.5, 9.4]	1.4	[0.4, 4.4]	100.0
No (n=110)	13.1	[7.8, 21.2]	63.6	[52.1, 73.8]	9.0	[4.0, 18.9]	11.4	[5.7, 21.5]	2.6	[0.9, 7.0]	0.3	[0.0, 2.3]	100.0
Pearson: Uncorrected chi2(5) =	4.2029												
Design-based F(4.31, 2128.49) =	0.6114	Pr =	0.667										
Total (n=506)	11.4	[8.6, 14.9]	61.0	[55.6, 66.2]	8.5	[5.8, 12.5]	13.0	[9.6, 17.2]	4.9	[3.1, 7.7]	1.1	[0.4, 3.2]	100.0

Note: Total count is less than universe count due to item non-response.

6.8 Q: Overall, how does the amount you currently pay for your health care in a typical month compare to what you were paying with your Healthy Michigan Plan insurance?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Current monthly insurance cost compared to HMP										
	Less		About the same		A little more		A lot more		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group											
No longer enrolled (n=701)	7.7	[5.8, 10.2]	39.4	[35.1, 44.0]	14.8	[11.9, 18.2]	32.2	[27.8, 37.0]	5.8	[4.0, 8.4]	100.0
Pearson: Uncorrected chi2(0) =	.										
Design-based F(., .) =	.	Pr =	.								
Age											
19-34 (n=243)	4.0	[2.2, 7.1]	37.9	[30.6, 45.8]	19.9	[14.6, 26.5]	34.0	[26.5, 42.5]	4.2	[2.2, 7.8]	100.0
35-50 (n=206)	9.1	[5.9, 13.8]	43.2	[35.5, 51.3]	8.8	[5.2, 14.3]	32.5	[25.2, 40.8]	6.4	[3.5, 11.5]	100.0
51-64 (n=252)	12.0	[7.5, 18.7]	37.7	[30.9, 45.1]	13.5	[9.2, 19.4]	29.0	[22.6, 36.5]	7.8	[3.9, 14.9]	100.0
Pearson: Uncorrected chi2(8) =	25.7655										
Design-based F(7.72, 5319.70) =	2.3008	Pr =	0.020								
Gender											
Male (n=293)	7.3	[4.6, 11.5]	41.1	[34.3, 48.3]	17.1	[12.8, 22.4]	29.3	[22.5, 37.2]	5.3	[3.0, 9.0]	100.0
Female (n=408)	8.1	[5.8, 11.4]	37.8	[32.4, 43.6]	12.5	[8.9, 17.3]	35.2	[29.8, 40.9]	6.4	[3.8, 10.5]	100.0
Pearson: Uncorrected chi2(4) =	5.3349										
Design-based F(3.92, 2700.30) =	0.8781	Pr =	0.474								
Race/ethnicity											
White, non-Hispanic (n=451)	7.7	[5.5, 10.7]	37.2	[31.8, 43.0]	15.4	[11.9, 19.8]	34.1	[28.6, 40.0]	5.6	[3.3, 9.2]	100.0
Black, non-Hispanic (n=152)	7.3	[3.5, 14.6]	41.4	[32.3, 51.1]	10.5	[6.2, 17.3]	33.6	[24.3, 44.3]	7.2	[3.7, 13.8]	100.0
Hispanic (n=37)	20.3	[10.1, 36.8]	30.0	[15.7, 49.6]	22.3	[8.2, 47.9]	17.8	[8.1, 34.7]	9.7	[3.4, 24.6]	100.0
Other, non-Hispanic (n=52)	1.9	[0.4, 8.3]	53.3	[37.2, 68.8]	19.5	[9.6, 35.7]	23.9	[12.5, 40.8]	1.4	[0.2, 9.5]	100.0
Pearson: Uncorrected chi2(12) =	27.1923										
Design-based F(10.88, 7399.50) =	1.5823	Pr =	0.098								
FPL category											
0-35% (n=216)	5.5	[3.2, 9.3]	49.1	[40.6, 57.6]	11.4	[7.3, 17.2]	29.8	[21.8, 39.2]	4.3	[2.1, 8.5]	100.0
36-99% (n=254)	6.9	[3.7, 12.6]	36.8	[30.3, 43.7]	22.8	[17.1, 29.7]	28.1	[22.3, 34.6]	5.5	[2.6, 11.0]	100.0
100%+ (n=231)	12.1	[8.3, 17.3]	27.9	[21.6, 35.2]	10.3	[6.4, 16.2]	41.1	[33.6, 49.0]	8.6	[4.9, 14.7]	100.0
Pearson: Uncorrected chi2(8) =	44.9362										
Design-based F(7.64, 5266.92) =	3.8369	Pr =	0.000								
Region											
UP/NW/NE (n=123)	8.8	[4.6, 16.3]	35.2	[26.5, 44.9]	10.6	[6.1, 17.8]	40.9	[31.7, 50.7]	4.6	[1.8, 11.1]	100.0
W/E Central/E (n=198)	9.6	[6.2, 14.6]	37.9	[30.6, 45.8]	18.0	[12.5, 25.3]	28.2	[21.3, 36.2]	6.3	[3.1, 12.3]	100.0
S Central/SW/SE (n=169)	7.2	[4.0, 12.6]	41.5	[32.9, 50.7]	12.6	[8.2, 18.8]	34.1	[25.0, 44.6]	4.7	[2.0, 10.4]	100.0
Detroit Metro (n=211)	6.4	[3.5, 11.4]	40.3	[32.4, 48.7]	14.7	[9.9, 21.2]	32.1	[24.4, 40.8]	6.5	[3.5, 11.6]	100.0
Pearson: Uncorrected chi2(12) =	8.5587										
Design-based F(10.59, 7296.71) =	0.5787	Pr =	0.842								
Chronic condition (2016/2017 survey or DW)											
Yes (n=531)	8.4	[6.1, 11.6]	38.1	[33.2, 43.2]	13.9	[10.7, 17.8]	33.0	[28.1, 38.4]	6.5	[4.3, 9.7]	100.0
No (n=170)	5.9	[3.4, 10.2]	42.8	[33.6, 52.5]	17.1	[11.3, 24.9]	30.2	[21.7, 40.3]	4.0	[1.5, 10.2]	100.0
Pearson: Uncorrected chi2(4) =	4.8715										
Design-based F(3.81, 2626.22) =	0.7476	Pr =	0.553								
Total (n=701)	7.7	[5.8, 10.2]	39.4	[35.1, 44.0]	14.8	[11.9, 18.2]	32.2	[27.8, 37.0]	5.8	[4.0, 8.4]	100.0

Note: Total count is less than universe count due to item non-response.

6.9 Q: Since your Healthy Michigan Plan insurance ended, have you had problems paying medical bills?

Follow-up group(s): No longer enrolled
Universe: All respondents

	Problems paying medical bills since HMP coverage ended						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group							
No longer enrolled (n=708)	22.0	[18.5, 26.0]	77.6	[73.7, 81.1]	0.4	[0.1, 1.3]	100.0
Pearson: Uncorrected chi2(0) =	.						
Design-based F(., .) =	.	Pr =	.				
Age							
19-34 (n=244)	20.5	[15.0, 27.2]	79.3	[72.5, 84.7]	0.3	[0.0, 1.9]	100.0
35-50 (n=209)	25.7	[19.2, 33.6]	74.3	[66.4, 80.8]	0.0		100.0
51-64 (n=255)	20.2	[15.4, 26.2]	78.8	[72.7, 83.8]	0.9	[0.2, 4.7]	100.0
Pearson: Uncorrected chi2(4) =	4.9839						
Design-based F(3.76, 2618.40) =	1.0248	Pr =	0.391				
Gender							
Male (n=297)	18.5	[13.6, 24.6]	81.3	[75.2, 86.2]	0.2	[0.0, 1.6]	100.0
Female (n=411)	25.6	[20.9, 30.9]	73.9	[68.6, 78.6]	0.5	[0.1, 2.6]	100.0
Pearson: Uncorrected chi2(2) =	5.6568						
Design-based F(1.90, 1324.33) =	2.2235	Pr =	0.111				
Race/ethnicity							
White, non-Hispanic (n=455)	22.1	[17.9, 26.9]	77.6	[72.7, 81.8]	0.4	[0.1, 2.5]	100.0
Black, non-Hispanic (n=154)	22.8	[15.7, 31.9]	77.2	[68.1, 84.3]	0.0		100.0
Hispanic (n=38)	20.2	[7.7, 43.6]	79.8	[56.4, 92.3]	0.0		100.0
Other, non-Hispanic (n=52)	17.5	[7.8, 34.8]	81.1	[64.1, 91.1]	1.4	[0.2, 9.5]	100.0
Pearson: Uncorrected chi2(6) =	3.5736						
Design-based F(5.60, 3843.88) =	0.3831	Pr =	0.879				
FPL category							
0-35% (n=217)	22.1	[16.0, 29.8]	77.1	[69.3, 83.3]	0.8	[0.2, 3.3]	100.0
36-99% (n=259)	15.5	[11.3, 21.0]	84.5	[79.0, 88.7]	0.0		100.0
100%+ (n=232)	29.8	[23.4, 37.0]	70.1	[62.8, 76.4]	0.2	[0.0, 1.2]	100.0
Pearson: Uncorrected chi2(4) =	14.7608						
Design-based F(3.32, 2313.97) =	3.4231	Pr =	0.013				
Region							
UP/NW/NE (n=124)	23.4	[16.3, 32.4]	76.6	[67.6, 83.7]	0.0		100.0
W/E Central/E (n=203)	18.3	[13.4, 24.6]	81.7	[75.4, 86.6]	0.0		100.0
S Central/SW/SE (n=169)	24.2	[17.6, 32.4]	74.4	[66.0, 81.2]	1.4	[0.3, 5.8]	100.0
Detroit Metro (n=212)	23.1	[16.8, 30.9]	76.8	[68.9, 83.1]	0.1	[0.0, 0.8]	100.0
Pearson: Uncorrected chi2(6) =	8.7212						
Design-based F(4.38, 3046.27) =	1.6493	Pr =	0.153				
Chronic condition (2016/2017 survey or DW)							
Yes (n=538)	23.6	[19.6, 28.1]	75.9	[71.3, 79.9]	0.5	[0.1, 1.8]	100.0
No (n=170)	18.0	[11.7, 26.7]	82.0	[73.3, 88.3]	0.0		100.0
Pearson: Uncorrected chi2(2) =	3.7747						
Design-based F(1.89, 1317.08) =	1.2867	Pr =	0.276				
Total (n=708)	22.0	[18.5, 26.0]	77.6	[73.7, 81.1]	0.4	[0.1, 1.3]	100.0

Note: Total count is less than universe count due to item non-response.

6.9.1 Q: Since your Healthy Michigan Plan insurance ended, have your problems paying medical bills gotten worse, stayed the same, or gotten better?

Follow-up group(s): No longer enrolled
Universe: Respondents who had problems paying medical bills since HMP coverage ended (n = 169)

	Change in problems paying medical bills since HMP coverage ended								
	Gotten worse		Stayed the same		Gotten better		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group									
No longer enrolled (n=168)	80.7	[73.9, 86.1]	15.2	[10.5, 21.5]	3.1	[1.3, 7.0]	1.0	[0.2, 4.2]	100.0
Pearson: Uncorrected chi2(0) =	.								
Design-based F(., .) =	.	Pr =	.						
Age									
19-34 (n=55)	81.1	[67.5, 89.9]	14.5	[6.9, 28.0]	4.3	[1.3, 13.3]	0.0		100.0
35-50 (n=54)	85.8	[75.4, 92.2]	12.9	[6.8, 23.3]	1.3	[0.3, 5.1]	0.0		100.0
51-64 (n=59)	72.8	[58.7, 83.4]	19.4	[10.8, 32.4]	3.6	[0.7, 16.2]	4.2	[1.0, 15.6]	100.0
Pearson: Uncorrected chi2(6) =	7.4865								
Design-based F(5.04, 786.98) =	1.1861	Pr =	0.314						
Gender									
Male (n=58)	80.5	[68.4, 88.7]	16.3	[9.0, 27.9]	1.5	[0.2, 10.4]	1.6	[0.2, 11.1]	100.0
Female (n=110)	80.9	[71.7, 87.6]	14.3	[8.7, 22.8]	4.2	[1.7, 10.1]	0.6	[0.1, 4.2]	100.0
Pearson: Uncorrected chi2(3) =	1.4923								
Design-based F(2.96, 461.04) =	0.4907	Pr =	0.686						
Race/ethnicity									
White, non-Hispanic (n=108)	73.8	[63.4, 82.0]	19.6	[12.5, 29.3]	4.9	[2.0, 11.5]	1.8	[0.4, 7.1]	100.0
Black, non-Hispanic (n=38)	91.8	[81.3, 96.7]	7.5	[2.8, 18.3]	0.7	[0.1, 5.3]	0.0		100.0
Hispanic (n=8)	85.1	[46.7, 97.4]	14.9	[2.6, 53.3]	0.0		0.0		100.0
Other, non-Hispanic (n=10)	95.3	[70.3, 99.4]	4.7	[0.6, 29.7]	0.0		0.0		100.0
Pearson: Uncorrected chi2(9) =	9.1291								
Design-based F(5.52, 838.45) =	0.9744	Pr =	0.437						
FPL category									
0-35% (n=47)	88.2	[77.5, 94.1]	6.0	[2.3, 15.1]	3.3	[0.8, 12.7]	2.5	[0.6, 10.1]	100.0
36-99% (n=44)	76.6	[62.3, 86.6]	21.7	[12.1, 35.8]	1.7	[0.2, 11.7]	0.0		100.0
100%+ (n=77)	74.8	[61.6, 84.6]	21.5	[12.3, 34.8]	3.7	[1.2, 11.3]	0.0		100.0
Pearson: Uncorrected chi2(6) =	10.0877								
Design-based F(5.32, 830.51) =	2.0673	Pr =	0.063						
Region									
UP/NW/NE (n=30)	69.3	[48.1, 84.6]	25.8	[11.9, 47.3]	4.8	[1.2, 17.9]	0.0		100.0
W/E Central/E (n=42)	67.8	[50.0, 81.6]	22.4	[11.2, 39.7]	5.5	[1.3, 20.3]	4.3	[1.0, 16.8]	100.0
S Central/SW/SE (n=43)	81.4	[66.6, 90.6]	14.3	[6.8, 27.6]	4.3	[1.0, 17.3]	0.0		100.0
Detroit Metro (n=53)	90.4	[81.4, 95.3]	9.1	[4.3, 18.2]	0.5	[0.1, 3.6]	0.0		100.0
Pearson: Uncorrected chi2(9) =	14.3529								
Design-based F(7.11, 1109.50) =	2.2802	Pr =	0.025						
Chronic condition (2016/2017 survey or DW)									
Yes (n=138)	79.1	[70.9, 85.4]	15.6	[10.2, 23.0]	4.0	[1.7, 9.0]	1.3	[0.3, 5.5]	100.0
No (n=30)	86.2	[69.9, 94.4]	13.8	[5.6, 30.1]	0.0		0.0		100.0
Pearson: Uncorrected chi2(3) =	2.3247								
Design-based F(2.93, 456.41) =	0.7270	Pr =	0.533						
Total (n=168)	80.7	[73.9, 86.1]	15.2	[10.5, 21.5]	3.1	[1.3, 7.0]	1.0	[0.2, 4.2]	100.0

Note: Total count is less than universe count due to item non-response.

6.10 Q: People without health insurance need to worry a lot about being wiped out financially.

Follow-up group(s): No longer enrolled
Universe: All respondents

	People without health insurance need to worry												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=706)	32.5	[28.2, 37.0]	49.0	[44.4, 53.7]	6.9	[4.8, 9.7]	9.8	[7.4, 12.9]	0.6	[0.2, 1.6]	1.2	[0.4, 3.2]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=245)	29.8	[22.9, 37.8]	45.6	[37.8, 53.6]	11.8	[7.7, 17.5]	9.5	[5.9, 15.0]	1.2	[0.4, 3.6]	2.1	[0.6, 7.2]	100.0
35-50 (n=209)	31.3	[24.4, 39.2]	53.7	[45.7, 61.5]	2.3	[1.0, 5.1]	12.2	[7.7, 18.8]	0.0		0.5	[0.1, 3.2]	100.0
51-64 (n=252)	38.0	[31.0, 45.7]	49.2	[41.6, 56.8]	4.3	[1.6, 11.0]	7.5	[4.3, 12.9]	0.4	[0.1, 2.7]	0.6	[0.1, 3.0]	100.0
Pearson: Uncorrected chi2(10) =	32.2823												
Design-based F(9.16, 6356.94) =	2.4573	Pr =	0.008										
Gender													
Male (n=295)	33.0	[26.4, 40.3]	46.4	[39.2, 53.8]	7.8	[4.7, 12.7]	12.4	[8.7, 17.3]	0.2	[0.0, 1.5]	0.3	[0.0, 1.8]	100.0
Female (n=411)	32.0	[26.9, 37.5]	51.6	[45.8, 57.4]	6.0	[3.7, 9.5]	7.3	[4.4, 11.7]	1.0	[0.4, 3.0]	2.2	[0.7, 6.2]	100.0
Pearson: Uncorrected chi2(5) =	13.7758												
Design-based F(4.68, 3249.16) =	2.0424	Pr =	0.074										
Race/ethnicity													
White, non-Hispanic (n=454)	39.2	[33.6, 45.2]	45.8	[40.1, 51.6]	7.4	[4.9, 10.9]	6.2	[3.8, 10.1]	0.7	[0.2, 2.5]	0.6	[0.2, 1.8]	100.0
Black, non-Hispanic (n=153)	21.7	[14.9, 30.4]	56.2	[46.4, 65.6]	5.0	[1.9, 12.7]	16.2	[10.6, 24.1]	0.8	[0.2, 3.1]	0.0		100.0
Hispanic (n=38)	22.3	[10.5, 41.1]	35.7	[20.9, 53.9]	14.6	[5.2, 34.6]	14.5	[5.8, 31.9]	0.0		12.8	[2.8, 42.6]	100.0
Other, non-Hispanic (n=52)	27.3	[15.8, 42.9]	56.5	[40.2, 71.4]	4.9	[0.7, 27.5]	9.7	[3.7, 23.0]	0.0		1.7	[0.2, 11.2]	100.0
Pearson: Uncorrected chi2(15) =	85.2456												
Design-based F(12.80, 8770.36) =	3.6556	Pr =	0.000										
FPL category													
0-35% (n=215)	34.6	[26.8, 43.2]	45.0	[36.7, 53.6]	5.8	[3.0, 11.0]	12.4	[8.0, 18.9]	0.8	[0.2, 3.7]	1.3	[0.2, 8.9]	100.0
36-99% (n=259)	30.7	[24.6, 37.7]	51.5	[44.4, 58.5]	8.2	[4.7, 14.0]	7.8	[4.6, 12.7]	0.5	[0.1, 2.2]	1.3	[0.4, 3.9]	100.0
100%+ (n=232)	31.4	[24.8, 38.8]	52.1	[44.3, 59.8]	6.8	[3.6, 12.6]	8.3	[5.0, 13.6]	0.4	[0.1, 3.0]	1.0	[0.3, 3.2]	100.0
Pearson: Uncorrected chi2(10) =	7.2708												
Design-based F(8.82, 6123.57) =	0.5123	Pr =	0.864										
Region													
UP/NW/NE (n=124)	35.9	[27.1, 45.8]	48.9	[39.4, 58.4]	3.9	[1.6, 9.3]	10.0	[5.5, 17.3]	0.0		1.4	[0.3, 5.8]	100.0
W/E Central/E (n=202)	25.7	[19.4, 33.2]	51.2	[43.3, 59.2]	10.1	[6.0, 16.6]	11.3	[7.1, 17.6]	0.8	[0.2, 3.0]	0.8	[0.2, 3.3]	100.0
S Central/SW/SE (n=168)	38.9	[30.0, 48.6]	46.9	[37.7, 56.3]	6.3	[2.7, 14.0]	7.5	[4.0, 13.6]	0.4	[0.1, 3.0]	0.0		100.0
Detroit Metro (n=212)	32.8	[25.4, 41.3]	48.7	[40.3, 57.1]	5.5	[2.8, 10.7]	10.0	[5.9, 16.4]	0.8	[0.2, 3.7]	2.2	[0.6, 8.0]	100.0
Pearson: Uncorrected chi2(15) =	16.6612												
Design-based F(12.04, 8352.74) =	0.8791	Pr =	0.568										
Chronic condition (2016/2017 survey or DW)													
Yes (n=535)	31.5	[26.9, 36.5]	51.3	[46.0, 56.5]	6.5	[4.2, 9.8]	9.7	[7.0, 13.1]	0.5	[0.1, 2.1]	0.6	[0.2, 1.7]	100.0
No (n=171)	34.9	[25.9, 45.0]	43.3	[34.3, 52.9]	7.9	[4.1, 14.6]	10.2	[5.5, 18.0]	1.0	[0.3, 3.2]	2.8	[0.7, 10.7]	100.0
Pearson: Uncorrected chi2(5) =	9.1433												
Design-based F(4.80, 3333.49) =	1.1318	Pr =	0.341										
Total (n=706)	32.5	[28.2, 37.0]	49.0	[44.4, 53.7]	6.9	[4.8, 9.7]	9.8	[7.4, 12.9]	0.6	[0.2, 1.6]	1.2	[0.4, 3.2]	100.0

Note: Total count is less than universe count due to item non-response.

6.11 Q: I worry more about something bad happening to my health since my Healthy Michigan Plan insurance ended.

Follow-up group(s): No longer enrolled
Universe: All respondents

	I worry more about my health since HMP coverage ended												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Follow-up group													
No longer enrolled (n=703)	19.1	[15.7, 23.1]	29.9	[25.7, 34.4]	7.5	[5.5, 10.0]	37.5	[33.0, 42.1]	5.5	[3.9, 7.7]	0.5	[0.2, 1.2]	100.0
Pearson: Uncorrected chi2(0) =	.												
Design-based F(., .) =	.	Pr =	.										
Age													
19-34 (n=243)	18.4	[12.9, 25.5]	30.4	[23.5, 38.3]	9.9	[6.3, 15.2]	34.0	[26.9, 42.0]	7.4	[4.6, 11.6]	0.0		100.0
35-50 (n=208)	18.9	[13.7, 25.4]	34.3	[26.9, 42.5]	5.0	[2.8, 8.9]	37.4	[30.0, 45.5]	4.2	[2.0, 8.4]	0.2	[0.0, 1.5]	100.0
51-64 (n=252)	20.6	[14.9, 27.7]	24.1	[18.2, 31.1]	6.4	[4.0, 10.3]	43.0	[35.5, 50.7]	4.3	[2.3, 7.9]	1.7	[0.7, 4.3]	100.0
Pearson: Uncorrected chi2(10) =	20.8515												
Design-based F(8.93, 6170.17) =	1.7840	Pr =	0.067										
Gender													
Male (n=294)	17.3	[12.4, 23.6]	31.8	[25.3, 39.1]	7.1	[4.3, 11.6]	37.5	[30.7, 44.9]	5.9	[3.7, 9.4]	0.4	[0.1, 1.5]	100.0
Female (n=409)	21.0	[16.6, 26.1]	28.0	[23.0, 33.6]	7.8	[5.4, 11.0]	37.4	[31.9, 43.2]	5.2	[3.2, 8.3]	0.7	[0.2, 2.0]	100.0
Pearson: Uncorrected chi2(5) =	2.8042												
Design-based F(4.64, 3208.60) =	0.4280	Pr =	0.816										
Race/ethnicity													
White, non-Hispanic (n=453)	24.2	[19.3, 29.9]	24.5	[20.1, 29.5]	9.9	[7.1, 13.7]	33.5	[28.1, 39.4]	7.6	[5.2, 11.0]	0.3	[0.1, 1.2]	100.0
Black, non-Hispanic (n=153)	11.2	[6.9, 17.6]	34.2	[25.0, 44.8]	3.0	[1.4, 6.3]	48.6	[38.9, 58.5]	2.6	[1.0, 6.6]	0.4	[0.1, 3.0]	100.0
Hispanic (n=37)	10.1	[4.1, 22.9]	56.9	[38.3, 73.8]	1.4	[0.2, 9.5]	29.3	[15.7, 48.0]	1.1	[0.1, 7.4]	1.2	[0.2, 8.3]	100.0
Other, non-Hispanic (n=52)	17.3	[9.0, 30.6]	37.2	[22.4, 55.0]	9.0	[2.5, 27.5]	32.3	[19.8, 47.9]	2.0	[0.5, 7.8]	2.2	[0.5, 9.3]	100.0
Pearson: Uncorrected chi2(15) =	61.5617												
Design-based F(12.19, 8324.43) =	3.7551	Pr =	0.000										
FPL category													
0-35% (n=214)	17.9	[12.2, 25.5]	32.3	[24.6, 41.1]	6.1	[3.2, 11.2]	39.2	[31.2, 47.8]	3.8	[1.8, 7.5]	0.7	[0.2, 2.4]	100.0
36-99% (n=257)	17.9	[13.0, 24.0]	28.4	[22.4, 35.2]	10.5	[7.1, 15.3]	36.2	[29.6, 43.4]	6.5	[3.9, 10.7]	0.5	[0.1, 2.3]	100.0
100%+ (n=232)	22.4	[16.6, 29.7]	28.0	[21.8, 35.3]	5.8	[3.3, 10.2]	36.4	[29.2, 44.4]	7.1	[4.0, 12.2]	0.2	[0.0, 1.3]	100.0
Pearson: Uncorrected chi2(10) =	10.5349												
Design-based F(8.87, 6127.93) =	0.8588	Pr =	0.560										
Region													
UP/NW/NE (n=123)	20.6	[14.0, 29.2]	28.7	[20.6, 38.4]	8.9	[4.6, 16.6]	38.1	[28.9, 48.1]	3.0	[1.2, 7.2]	0.7	[0.1, 5.0]	100.0
W/E Central/E (n=201)	16.6	[11.4, 23.5]	24.9	[18.8, 32.2]	8.0	[4.8, 12.9]	43.4	[35.6, 51.6]	6.8	[3.7, 12.4]	0.2	[0.0, 1.6]	100.0
S Central/SW/SE (n=168)	22.7	[16.1, 31.0]	25.3	[18.3, 33.9]	10.6	[5.7, 18.9]	31.1	[22.6, 41.1]	9.5	[5.6, 15.7]	0.7	[0.2, 3.1]	100.0
Detroit Metro (n=211)	18.5	[12.6, 26.3]	36.5	[28.5, 45.3]	4.9	[2.8, 8.4]	36.7	[29.1, 45.1]	2.8	[1.3, 5.8]	0.6	[0.1, 2.4]	100.0
Pearson: Uncorrected chi2(15) =	27.6517												
Design-based F(12.51, 8647.28) =	1.7263	Pr =	0.052										
Chronic condition (2016/2017 survey or DW)													
Yes (n=535)	20.2	[16.4, 24.6]	30.3	[25.5, 35.6]	5.7	[4.1, 8.0]	38.1	[33.1, 43.3]	5.0	[3.3, 7.5]	0.7	[0.3, 1.6]	100.0
No (n=168)	16.3	[10.0, 25.5]	28.7	[20.9, 38.1]	11.9	[7.0, 19.5]	35.9	[27.0, 45.8]	6.9	[3.8, 12.4]	0.2	[0.0, 1.6]	100.0
Pearson: Uncorrected chi2(5) =	10.2472												
Design-based F(4.36, 3015.53) =	1.4473	Pr =	0.211										
Total (n=703)	19.1	[15.7, 23.1]	29.9	[25.7, 34.4]	7.5	[5.5, 10.0]	37.5	[33.0, 42.1]	5.5	[3.9, 7.7]	0.5	[0.2, 1.2]	100.0

Note: Total count is less than universe count due to item non-response.

7 Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

Not applicable to the Enrollee Follow-up Survey.

2017 Healthy Michigan Voices Follow-Up Survey
Appendix B: Additional Analyses

Contents

0 Demographics

0.1 Demographic characteristics among subgroups (2017)

0.1.1 Demographic characteristics, among respondents with a chronic condition

	Percent	95%CI
Follow-up group		
Still enrolled (n=1,931)	78.3	[76.2, 80.3]
No longer enrolled (n=538)	21.7	[19.7, 23.8]
FPL categories (DW)		
0-35% (n=1,019)	54.0	[52.4, 55.6]
36-99% (n=844)	26.8	[25.5, 28.2]
100%+ (n=606)	19.2	[18.1, 20.3]
Region (DW)		
UP/NW/NE (n=476)	9.6	[9.0, 10.2]
W/E Central/E (n=786)	29.8	[28.5, 31.2]
S Central/SW/SE (n=497)	17.5	[16.5, 18.6]
Detroit Metro (n=710)	43.1	[41.4, 44.7]
Age (DW)		
19-34 (n=548)	29.5	[27.1, 32.1]
35-50 (n=799)	36.5	[34.1, 39.1]
51-64 (n=1,122)	33.9	[31.7, 36.2]
Gender (DW)		
Male (n=966)	46.0	[43.5, 48.6]
Female (n=1,503)	54.0	[51.4, 56.5]
Race/ethnicity (2016)		
White, non-Hispanic (n=1,660)	59.8	[57.3, 62.2]
Black, non-Hispanic (n=515)	28.4	[26.1, 30.9]
Hispanic (n=100)	4.5	[3.5, 5.7]
Other, non-Hispanic (n=164)	7.3	[6.1, 8.8]
Race (2016)		
White (n=1,698)	61.5	[59.0, 63.9]
Black or African American (n=518)	28.6	[26.3, 31.0]
Other (n=143)	6.4	[5.2, 7.8]
More than one (n=79)	3.6	[2.7, 4.7]
Hispanic/Latino (2016)		
Yes (n=100)	4.5	[3.5, 5.7]
No (n=2,341)	95.1	[93.9, 96.2]
Don't know (n=5)	0.4	[0.1, 1.0]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=76)	3.7	[2.8, 4.7]
No (n=2,362)	95.9	[94.8, 96.8]
Don't know (n=7)	0.4	[0.2, 0.9]
Urbanicity (DW)		
Urban (n=1,708)	80.1	[78.6, 81.4]
Suburban (n=254)	9.1	[8.0, 10.3]
Rural (n=507)	10.8	[10.1, 11.7]
Highest level of education (2017)		
Less than high school (n=312)	12.6	[11.1, 14.3]
High school graduate (n=1,038)	41.8	[39.3, 44.3]
Some college (n=517)	21.9	[19.8, 24.2]
Associate's degree (n=318)	12.7	[11.1, 14.5]
Bachelor's degree (n=218)	8.8	[7.5, 10.4]
Post graduate degree (n=60)	2.1	[1.5, 2.9]
Employment status- detailed (2017)		
Full-time employment (n=602)	25.3	[23.1, 27.7]
Part-time employment (n=667)	28.0	[25.7, 30.4]
Out of work (n=296)	14.1	[12.4, 16.1]
Unable to work (n=546)	21.3	[19.4, 23.3]
Retired (n=175)	4.5	[3.7, 5.4]
Not looking for work at this time (n=158)	6.8	[5.6, 8.2]

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In school (2017)		
Yes (n=143)	7.7	[6.3, 9.4]
No (n=2,325)	92.3	[90.6, 93.7]
Veteran (2016)		
Yes (n=88)	4.2	[3.2, 5.4]
No (n=2,378)	95.8	[94.6, 96.8]
Marital status (2017)		
Married (n=605)	20.1	[18.4, 21.9]
Partnered (n=91)	3.3	[2.6, 4.2]
Divorced (n=600)	21.7	[19.7, 23.7]
Widowed (n=106)	3.1	[2.5, 4.0]
Separated (n=98)	4.2	[3.3, 5.3]
Never married (n=958)	47.6	[45.1, 50.2]
Number of places lived in past 3 years (2017)		
One (n=1,755)	68.6	[66.2, 70.9]
Two (n=471)	19.6	[17.7, 21.7]
Three (n=139)	6.7	[5.5, 8.2]
Four or more (n=100)	5.0	[3.9, 6.4]
Don't know (n=2)	0.1	[0.0, 0.3]
Homeless in the last 12 months (2017)		
Yes (n=167)	8.3	[6.9, 9.9]
No (n=2,295)	91.5	[89.9, 92.9]
Don't know (n=4)	0.3	[0.1, 0.8]
Fair/poor health (2017)		
Fair/poor health (n=821)	32.6	[30.3, 34.9]
Excellent/very good/good health (n=1,648)	67.4	[65.1, 69.7]

0.1.2 Demographic characteristics, among respondents with a mental health condition and/or substance use disorder

	Percent	95%CI
Follow-up group		
Still enrolled (n=1,365)	78.4	[75.9, 80.6]
No longer enrolled (n=384)	21.6	[19.4, 24.1]
FPL categories (DW)		
0-35% (n=768)	56.9	[54.7, 59.0]
36-99% (n=567)	25.1	[23.3, 26.9]
100%+ (n=414)	18.1	[16.6, 19.6]
Region (DW)		
UP/NW/NE (n=345)	10.0	[9.2, 11.0]
W/E Central/E (n=587)	32.5	[30.5, 34.4]
S Central/SW/SE (n=380)	19.6	[18.1, 21.2]
Detroit Metro (n=437)	37.9	[35.5, 40.3]
Age (DW)		
19-34 (n=495)	36.4	[33.4, 39.5]
35-50 (n=601)	36.7	[33.9, 39.6]
51-64 (n=653)	26.9	[24.6, 29.4]
Gender (DW)		
Male (n=667)	44.1	[41.1, 47.1]
Female (n=1,082)	55.9	[52.9, 58.9]
Race/ethnicity (2016)		
White, non-Hispanic (n=1,240)	65.8	[62.9, 68.6]
Black, non-Hispanic (n=291)	21.7	[19.3, 24.4]
Hispanic (n=77)	4.9	[3.7, 6.4]
Other, non-Hispanic (n=119)	7.5	[6.1, 9.4]
Race (2016)		
White (n=1,273)	67.8	[64.9, 70.6]
Black or African American (n=293)	21.9	[19.5, 24.5]
Other (n=93)	6.0	[4.6, 7.7]
More than one (n=67)	4.3	[3.2, 5.8]
Hispanic/Latino (2016)		
Yes (n=77)	4.9	[3.7, 6.3]
No (n=1,652)	94.6	[93.0, 95.8]
Don't know (n=5)	0.6	[0.2, 1.4]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=39)	2.8	[1.9, 4.2]
No (n=1,689)	96.8	[95.3, 97.8]
Don't know (n=5)	0.4	[0.2, 1.1]
Urbanicity (DW)		
Urban (n=1,183)	78.2	[76.3, 80.0]
Suburban (n=197)	10.4	[9.0, 12.0]
Rural (n=369)	11.4	[10.3, 12.5]
Highest level of education (2017)		
Less than high school (n=226)	12.2	[10.5, 14.0]
High school graduate (n=711)	41.0	[38.1, 44.0]
Some college (n=392)	23.5	[21.0, 26.2]
Associate's degree (n=241)	13.7	[11.8, 15.9]
Bachelor's degree (n=143)	8.0	[6.5, 9.8]
Post graduate degree (n=34)	1.6	[1.1, 2.3]
Employment status- detailed (2017)		
Full-time employment (n=405)	22.5	[20.2, 25.0]
Part-time employment (n=461)	28.0	[25.3, 30.9]
Out of work (n=220)	13.7	[11.8, 15.9]
Unable to work (n=453)	26.2	[23.7, 28.9]
Retired (n=86)	2.8	[2.1, 3.5]
Not looking for work at this time (n=105)	6.7	[5.3, 8.6]

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In school (2017)		
Yes (n=123)	9.5	[7.6, 11.8]
No (n=1,626)	90.5	[88.2, 92.4]
Veteran (2016)		
Yes (n=58)	3.4	[2.5, 4.7]
No (n=1,689)	96.6	[95.3, 97.5]
Marital status (2017)		
Married (n=386)	16.8	[15.1, 18.7]
Partnered (n=72)	3.7	[2.9, 4.8]
Divorced (n=422)	21.0	[18.8, 23.5]
Widowed (n=62)	2.4	[1.8, 3.2]
Separated (n=63)	3.6	[2.7, 4.7]
Never married (n=738)	52.5	[49.6, 55.4]
Number of places lived in past 3 years (2017)		
One (n=1,174)	64.7	[61.8, 67.5]
Two (n=376)	22.1	[19.7, 24.6]
Three (n=109)	7.1	[5.7, 8.8]
Four or more (n=87)	6.0	[4.6, 7.8]
Don't know (n=2)	0.1	[0.0, 0.4]
Homeless in the last 12 months (2017)		
Yes (n=145)	10.0	[8.2, 12.1]
No (n=1,597)	89.6	[87.4, 91.4]
Don't know (n=4)	0.4	[0.1, 1.1]
Fair/poor health (2017)		
Fair/poor health (n=623)	35.6	[32.8, 38.5]
Excellent/very good/good health (n=1,126)	64.4	[61.5, 67.2]

0.1.3 Demographic characteristics, among respondents with a mental health condition

	Percent	95%CI
Follow-up group		
Still enrolled (n=1,232)	78.2	[75.6, 80.6]
No longer enrolled (n=350)	21.8	[19.4, 24.4]
FPL categories (DW)		
0-35% (n=689)	56.2	[53.8, 58.6]
36-99% (n=517)	25.6	[23.7, 27.6]
100%+ (n=376)	18.2	[16.6, 19.9]
Region (DW)		
UP/NW/NE (n=319)	10.4	[9.4, 11.4]
W/E Central/E (n=544)	33.6	[31.4, 35.8]
S Central/SW/SE (n=348)	20.3	[18.6, 22.1]
Detroit Metro (n=371)	35.7	[33.1, 38.4]
Age (DW)		
19-34 (n=463)	37.8	[34.7, 41.1]
35-50 (n=542)	36.0	[33.1, 39.1]
51-64 (n=577)	26.1	[23.8, 28.6]
Gender (DW)		
Male (n=559)	41.1	[38.0, 44.3]
Female (n=1,023)	58.9	[55.7, 62.0]
Race/ethnicity (2016)		
White, non-Hispanic (n=1,154)	68.6	[65.6, 71.5]
Black, non-Hispanic (n=231)	18.7	[16.3, 21.3]
Hispanic (n=70)	4.9	[3.7, 6.5]
Other, non-Hispanic (n=108)	7.8	[6.2, 9.8]
Race (2016)		
White (n=1,182)	70.5	[67.5, 73.3]
Black or African American (n=233)	18.8	[16.5, 21.4]
Other (n=88)	6.4	[4.9, 8.3]
More than one (n=59)	4.3	[3.1, 5.8]
Hispanic/Latino (2016)		
Yes (n=70)	4.9	[3.7, 6.5]
No (n=1,495)	94.5	[92.8, 95.8]
Don't know (n=5)	0.6	[0.2, 1.6]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=39)	3.1	[2.1, 4.7]
No (n=1,525)	96.4	[94.8, 97.5]
Don't know (n=5)	0.5	[0.2, 1.3]
Urbanicity (DW)		
Urban (n=1,061)	77.7	[75.7, 79.6]
Suburban (n=182)	10.7	[9.2, 12.5]
Rural (n=339)	11.6	[10.4, 12.8]
Highest level of education (2017)		
Less than high school (n=205)	12.1	[10.4, 14.1]
High school graduate (n=619)	38.6	[35.6, 41.7]
Some college (n=361)	24.6	[21.9, 27.5]
Associate's degree (n=227)	14.4	[12.3, 16.8]
Bachelor's degree (n=137)	8.6	[7.0, 10.6]
Post graduate degree (n=32)	1.6	[1.1, 2.4]
Employment status- detailed (2017)		
Full-time employment (n=356)	21.3	[19.0, 23.9]
Part-time employment (n=415)	27.6	[24.7, 30.6]
Out of work (n=198)	13.7	[11.8, 16.0]
Unable to work (n=425)	27.6	[24.9, 30.5]
Retired (n=74)	2.7	[2.0, 3.5]
Not looking for work at this time (n=98)	7.1	[5.5, 9.1]

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In school (2017)		
Yes (n=114)	9.7	[7.7, 12.1]
No (n=1,468)	90.3	[87.9, 92.3]
Veteran (2016)		
Yes (n=43)	3.0	[2.1, 4.2]
No (n=1,537)	97.0	[95.8, 97.9]
Marital status (2017)		
Married (n=358)	17.4	[15.5, 19.5]
Partnered (n=65)	3.7	[2.8, 4.9]
Divorced (n=384)	21.1	[18.7, 23.7]
Widowed (n=57)	2.5	[1.9, 3.4]
Separated (n=56)	3.6	[2.6, 4.8]
Never married (n=658)	51.7	[48.6, 54.7]
Number of places lived in past 3 years (2017)		
One (n=1,057)	64.0	[60.9, 67.0]
Two (n=341)	22.4	[19.9, 25.2]
Three (n=99)	7.1	[5.6, 8.9]
Four or more (n=83)	6.4	[4.9, 8.3]
Don't know (n=2)	0.1	[0.0, 0.5]
Homeless in the last 12 months (2017)		
Yes (n=129)	9.7	[7.9, 12.0]
No (n=1,448)	89.9	[87.7, 91.8]
Don't know (n=3)	0.3	[0.1, 1.1]
Fair/poor health (2017)		
Fair/poor health (n=571)	36.1	[33.2, 39.2]
Excellent/very good/good health (n=1,011)	63.9	[60.8, 66.8]

0.1.4 Demographic characteristics, among respondents with a substance use disorder

	Percent	95%CI
Follow-up group		
Still enrolled (n=484)	78.5	[74.2, 82.2]
No longer enrolled (n=132)	21.5	[17.8, 25.8]
FPL categories (DW)		
0-35% (n=340)	67.0	[63.1, 70.8]
36-99% (n=162)	19.1	[16.2, 22.3]
100%+ (n=114)	13.9	[11.4, 16.7]
Region (DW)		
UP/NW/NE (n=99)	7.5	[6.1, 9.2]
W/E Central/E (n=187)	28.7	[25.1, 32.7]
S Central/SW/SE (n=147)	20.3	[17.3, 23.7]
Detroit Metro (n=183)	43.4	[38.9, 48.1]
Age (DW)		
19-34 (n=158)	32.1	[27.4, 37.1]
35-50 (n=217)	38.0	[33.3, 42.9]
51-64 (n=241)	30.0	[26.0, 34.3]
Gender (DW)		
Male (n=340)	59.1	[54.2, 63.8]
Female (n=276)	40.9	[36.2, 45.8]
Race/ethnicity (2016)		
White, non-Hispanic (n=390)	57.8	[52.8, 62.6]
Black, non-Hispanic (n=149)	31.3	[26.8, 36.3]
Hispanic (n=22)	4.1	[2.5, 6.4]
Other, non-Hispanic (n=44)	6.8	[4.8, 9.5]
Race (2016)		
White (n=402)	59.9	[54.9, 64.7]
Black or African American (n=149)	31.3	[26.8, 36.3]
Other (n=30)	4.9	[3.2, 7.4]
More than one (n=24)	3.8	[2.4, 6.1]
Hispanic/Latino (2016)		
Yes (n=22)	4.0	[2.5, 6.4]
No (n=584)	95.4	[92.9, 97.1]
Don't know (n=2)	0.5	[0.1, 2.4]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=5)	0.8	[0.3, 2.3]
No (n=600)	98.7	[96.8, 99.5]
Don't know (n=2)	0.5	[0.1, 2.4]
Urbanicity (DW)		
Urban (n=450)	82.6	[79.4, 85.3]
Suburban (n=59)	8.7	[6.6, 11.5]
Rural (n=107)	8.7	[7.0, 10.8]
Highest level of education (2017)		
Less than high school (n=99)	15.7	[12.7, 19.2]
High school graduate (n=284)	48.1	[43.2, 53.1]
Some college (n=126)	19.1	[15.8, 23.1]
Associate's degree (n=67)	11.4	[8.4, 15.2]
Bachelor's degree (n=30)	4.7	[3.1, 7.1]
Post graduate degree (n=9)	1.0	[0.5, 2.0]
Employment status- detailed (2017)		
Full-time employment (n=134)	21.5	[17.6, 26.0]
Part-time employment (n=135)	23.6	[19.5, 28.3]
Out of work (n=87)	15.1	[12.0, 18.9]
Unable to work (n=206)	34.0	[29.5, 38.9]
Retired (n=26)	2.1	[1.4, 3.2]
Not looking for work at this time (n=22)	3.7	[2.3, 5.7]

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In school (2017)		
Yes (n=36)	7.1	[4.8, 10.3]
No (n=580)	92.9	[89.7, 95.2]
Veteran (2016)		
Yes (n=34)	5.4	[3.6, 8.0]
No (n=581)	94.6	[92.0, 96.4]
Marital status (2017)		
Married (n=105)	12.3	[9.9, 15.2]
Partnered (n=30)	4.3	[2.9, 6.4]
Divorced (n=147)	23.4	[19.3, 27.9]
Widowed (n=21)	2.0	[1.2, 3.3]
Separated (n=20)	3.3	[2.0, 5.3]
Never married (n=288)	54.7	[49.8, 59.5]
Number of places lived in past 3 years (2017)		
One (n=390)	61.1	[56.1, 65.8]
Two (n=147)	24.4	[20.4, 28.8]
Three (n=39)	7.0	[4.9, 10.0]
Four or more (n=39)	7.5	[5.1, 11.0]
Don't know (n=0)	0.0	
Homeless in the last 12 months (2017)		
Yes (n=79)	16.0	[12.3, 20.6]
No (n=535)	83.8	[79.2, 87.5]
Don't know (n=1)	0.2	[0.0, 1.7]
Fair/poor health (2017)		
Fair/poor health (n=264)	41.8	[37.1, 46.7]
Excellent/very good/good health (n=352)	58.2	[53.3, 62.9]

0.1.5 Demographic characteristics, among respondents employed in 2017

	Percent	95%CI
Follow-up group		
Still enrolled (n=1,319)	74.4	[71.7, 77.0]
No longer enrolled (n=423)	25.6	[23.0, 28.3]
FPL categories (DW)		
0-35% (n=478)	40.2	[37.6, 42.8]
36-99% (n=716)	34.3	[32.3, 36.4]
100%+ (n=548)	25.4	[23.8, 27.2]
Region (DW)		
UP/NW/NE (n=316)	9.0	[8.2, 9.9]
W/E Central/E (n=528)	28.5	[26.6, 30.5]
S Central/SW/SE (n=363)	19.4	[17.8, 21.2]
Detroit Metro (n=535)	43.1	[40.6, 45.6]
Age (DW)		
19-34 (n=642)	44.3	[41.3, 47.5]
35-50 (n=566)	33.8	[30.9, 36.7]
51-64 (n=534)	21.9	[19.8, 24.2]
Gender (DW)		
Male (n=686)	46.6	[43.6, 49.7]
Female (n=1,056)	53.4	[50.3, 56.4]
Race/ethnicity (2016)		
White, non-Hispanic (n=1,136)	57.3	[54.2, 60.3]
Black, non-Hispanic (n=367)	27.2	[24.4, 30.2]
Hispanic (n=88)	6.2	[4.8, 7.9]
Other, non-Hispanic (n=131)	9.4	[7.7, 11.4]
Race (2016)		
White (n=1,165)	59.3	[56.2, 62.2]
Black or African American (n=369)	27.3	[24.5, 30.3]
Other (n=122)	8.9	[7.2, 11.0]
More than one (n=65)	4.5	[3.4, 6.0]
Hispanic/Latino (2016)		
Yes (n=88)	6.2	[4.8, 7.9]
No (n=1,637)	93.8	[92.1, 95.2]
Don't know (n=1)	0.0	[0.0, 0.3]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=78)	5.3	[4.1, 6.9]
No (n=1,646)	94.6	[93.1, 95.8]
Don't know (n=2)	0.1	[0.0, 0.3]
Urbanicity (DW)		
Urban (n=1,256)	81.8	[80.1, 83.5]
Suburban (n=151)	8.2	[6.9, 9.7]
Rural (n=335)	9.9	[9.0, 11.0]
Highest level of education (2017)		
Less than high school (n=130)	7.6	[6.2, 9.3]
High school graduate (n=674)	38.0	[35.1, 41.0]
Some college (n=385)	23.9	[21.3, 26.7]
Associate's degree (n=280)	15.6	[13.6, 17.9]
Bachelor's degree (n=215)	11.7	[9.9, 13.8]
Post graduate degree (n=54)	3.1	[2.1, 4.6]
Employment status- detailed (2017)		
Full-time employment (n=856)	48.6	[45.6, 51.7]
Part-time employment (n=870)	51.3	[48.3, 54.4]
Out of work (n=0)	0.0	
Unable to work (n=1)	0.0	[0.0, 0.2]
Retired (n=0)	0.0	
Not looking for work at this time (n=0)	0.0	

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In school (2017)		
Yes (n=184)	14.5	[12.2, 17.0]
No (n=1,557)	85.5	[83.0, 87.8]
Veteran (2016)		
Yes (n=48)	3.3	[2.4, 4.7]
No (n=1,691)	96.7	[95.3, 97.6]
Marital status (2017)		
Married (n=399)	18.9	[16.9, 21.1]
Partnered (n=69)	3.4	[2.6, 4.5]
Divorced (n=350)	17.4	[15.3, 19.7]
Widowed (n=52)	2.4	[1.7, 3.2]
Separated (n=49)	3.2	[2.3, 4.4]
Never married (n=817)	54.7	[51.7, 57.7]
Number of places lived in past 3 years (2017)		
One (n=1,221)	68.0	[65.1, 70.8]
Two (n=343)	20.3	[18.0, 22.9]
Three (n=119)	8.1	[6.5, 10.1]
Four or more (n=56)	3.5	[2.5, 4.8]
Don't know (n=1)	0.0	[0.0, 0.3]
Homeless in the last 12 months (2017)		
Yes (n=78)	6.1	[4.6, 8.0]
No (n=1,659)	93.7	[91.8, 95.2]
Don't know (n=2)	0.2	[0.0, 0.7]
Fair/poor health (2017)		
Fair/poor health (n=307)	16.7	[14.7, 18.9]
Excellent/very good/good health (n=1,435)	83.3	[81.1, 85.3]

0.1.6 Demographic characteristics, among respondents not employed in 2017

	Percent	95%CI
Follow-up group		
Still enrolled (n=1,066)	79.9	[77.2, 82.4]
No longer enrolled (n=285)	20.1	[17.6, 22.8]
FPL categories (DW)		
0-35% (n=738)	68.5	[66.2, 70.6]
36-99% (n=366)	18.9	[17.1, 20.7]
100%+ (n=247)	12.7	[11.2, 14.3]
Region (DW)		
UP/NW/NE (n=258)	9.3	[8.3, 10.5]
W/E Central/E (n=451)	31.2	[29.0, 33.5]
S Central/SW/SE (n=270)	17.2	[15.5, 19.0]
Detroit Metro (n=372)	42.3	[39.6, 45.0]
Age (DW)		
19-34 (n=265)	28.5	[25.3, 32.0]
35-50 (n=402)	34.2	[31.0, 37.5]
51-64 (n=684)	37.3	[34.3, 40.4]
Gender (DW)		
Male (n=543)	47.6	[44.2, 51.0]
Female (n=808)	52.4	[49.0, 55.8]
Race/ethnicity (2016)		
White, non-Hispanic (n=922)	63.0	[59.7, 66.2]
Black, non-Hispanic (n=263)	25.8	[23.0, 28.9]
Hispanic (n=50)	3.4	[2.5, 4.6]
Other, non-Hispanic (n=97)	7.8	[6.1, 9.9]
Race (2016)		
White (n=941)	64.4	[61.1, 67.5]
Black or African American (n=266)	26.1	[23.2, 29.2]
Other (n=82)	6.1	[4.7, 7.9]
More than one (n=43)	3.4	[2.4, 5.0]
Hispanic/Latino (2016)		
Yes (n=50)	3.3	[2.4, 4.6]
No (n=1,284)	95.7	[94.1, 96.8]
Don't know (n=6)	1.0	[0.4, 2.4]
Arab, Chaldean, Middle Eastern (2016)		
Yes (n=46)	4.4	[3.0, 6.4]
No (n=1,287)	94.9	[92.8, 96.4]
Don't know (n=6)	0.7	[0.3, 1.7]
Urbanicity (DW)		
Urban (n=920)	79.6	[77.5, 81.5]
Suburban (n=156)	9.9	[8.3, 11.7]
Rural (n=275)	10.6	[9.4, 11.9]
Highest level of education (2017)		
Less than high school (n=225)	16.0	[13.8, 18.4]
High school graduate (n=592)	44.0	[40.7, 47.5]
Some college (n=279)	21.5	[18.8, 24.6]
Associate's degree (n=128)	9.4	[7.6, 11.5]
Bachelor's degree (n=90)	7.0	[5.5, 8.9]
Post graduate degree (n=34)	2.0	[1.4, 3.0]
Employment status- detailed (2017)		
Full-time employment (n=0)	0.0	
Part-time employment (n=0)	0.0	
Out of work (n=374)	33.7	[30.4, 37.1]
Unable to work (n=568)	41.3	[38.0, 44.6]
Retired (n=183)	8.5	[7.1, 10.1]
Not looking for work at this time (n=210)	16.6	[14.1, 19.4]

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In school (2017)		
Yes (n=69)	6.9	[5.1, 9.3]
No (n=1,282)	93.1	[90.7, 94.9]
Veteran (2016)		
Yes (n=53)	4.3	[3.1, 5.9]
No (n=1,296)	95.7	[94.1, 96.9]
Marital status (2017)		
Married (n=351)	20.1	[17.9, 22.6]
Partnered (n=50)	3.7	[2.6, 5.2]
Divorced (n=333)	21.7	[19.2, 24.4]
Widowed (n=61)	2.9	[2.1, 3.9]
Separated (n=52)	3.5	[2.6, 4.8]
Never married (n=497)	48.2	[44.8, 51.5]
Number of places lived in past 3 years (2017)		
One (n=950)	66.2	[62.8, 69.4]
Two (n=268)	20.8	[18.2, 23.7]
Three (n=67)	6.5	[4.9, 8.5]
Four or more (n=64)	6.5	[4.8, 8.7]
Don't know (n=1)	0.1	[0.0, 0.6]
Homeless in the last 12 months (2017)		
Yes (n=117)	10.3	[8.3, 12.6]
No (n=1,231)	89.5	[87.1, 91.4]
Don't know (n=2)	0.3	[0.1, 1.3]
Fair/poor health (2017)		
Fair/poor health (n=555)	40.9	[37.6, 44.2]
Excellent/very good/good health (n=796)	59.1	[55.8, 62.4]

0.2 Employment (2017)

0.2.1 Employment (2017) by improved health (from 2016-2017), among all respondents

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=340)	57.4	[50.7, 63.9]	42.6	[36.1, 49.3]	100.0
No (n=2,753)	57.1	[54.8, 59.4]	42.9	[40.6, 45.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0111				
Design-based F(1.00, 3081.00) =	0.0068	Pr =	0.934		
Total (n=3,093)	57.1	[55.0, 59.3]	42.9	[40.7, 45.0]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.2.2 Employment (2017) by improved health (from 2016-2017), among respondents with a chronic condition

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=304)	57.1	[49.9, 64.0]	42.9	[36.0, 50.1]	100.0
No (n=2,163)	52.6	[49.9, 55.2]	47.4	[44.8, 50.1]	100.0
Pearson: Uncorrected chi2(1) =	2.8759				
Design-based F(1.00, 3083.00) =	1.3605	Pr =	0.244		
Total (n=2,467)	53.1	[50.6, 55.6]	46.9	[44.4, 49.4]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.2.3 Employment (2017) by improved health (from 2016-2017), among respondents with a mental health condition and/or substance use disorder

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=221)	54.1	[45.6, 62.4]	45.9	[37.6, 54.4]	100.0
No (n=1,527)	50.0	[46.8, 53.1]	50.0	[46.9, 53.2]	100.0
Pearson: Uncorrected chi2(1) =	2.3608				
Design-based F(1.00, 3084.00) =	0.7953	Pr =	0.373		
Total (n=1,748)	50.5	[47.5, 53.4]	49.5	[46.6, 52.5]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.2.4 Employment (2017) by improved health (from 2016-2017), among respondents with a mental health condition

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=196)	52.1	[42.9, 61.2]	47.9	[38.8, 57.1]	100.0
No (n=1,385)	48.4	[45.1, 51.7]	51.6	[48.3, 54.9]	100.0
Pearson: Uncorrected chi2(1) =	1.9213				
Design-based F(1.00, 3084.00) =	0.5611	Pr =	0.454		
Total (n=1,581)	48.8	[45.7, 51.9]	51.2	[48.1, 54.3]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.2.5 Employment (2017) by improved health (from 2016-2017), among respondents with a substance use disorder

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=84)	41.9	[30.5, 54.1]	58.1	[45.9, 69.5]	100.0
No (n=532)	45.6	[40.2, 51.0]	54.4	[49.0, 59.8]	100.0
Pearson: Uncorrected chi2(1) =	1.8957				
Design-based F(1.00, 3085.00) =	0.2985	Pr =	0.585		
Total (n=616)	45.1	[40.2, 50.1]	54.9	[49.9, 59.8]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.2.6 Employment (2017) by improved oral health (2016 or 2017), among respondents not employed in 2016

	Employed/self-employed (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=729)	29.1	[24.8, 33.8]	70.9	[66.2, 75.2]	100.0
No (n=801)	29.7	[25.6, 34.1]	70.3	[65.9, 74.4]	100.0
Pearson: Uncorrected chi2(1) =	0.1508				
Design-based F(1.00, 3082.00) =	0.0403	Pr =	0.841		
Total (n=1,530)	29.4	[26.4, 32.6]	70.6	[67.4, 73.6]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year.

0.2.7 Predictors of employment (2017), among respondents not employed in 2016

	Employed/self-employed (2017)		
	aOR	95% CI	p-value
Improved oral health (2016 or 2017)			
No		Reference	
Yes	0.94	[0.686, 1.284]	0.693
Age (DW)			
19-34		Reference	
35-50	0.42	[0.286, 0.625]	0.000
51-64	0.30	[0.211, 0.439]	0.000
Gender (DW)			
Male		Reference	
Female	0.68	[0.494, 0.939]	0.019
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.74	[1.196, 2.540]	0.004
Hispanic	1.47	[0.731, 2.965]	0.279
Other, non-Hispanic	1.30	[0.740, 2.278]	0.363
FPL category (DW)			
0-35%		Reference	
36-99%	1.69	[1.193, 2.399]	0.003
100%+	1.23	[0.805, 1.876]	0.340
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.73	[1.221, 2.445]	0.002
Bachelor's/post graduate degree	1.97	[1.213, 3.205]	0.006
Constant	0.55	[0.368, 0.813]	0.003
N	1,503		
F-value	6.950		
Model degrees of freedom	11.000		
Residual degrees of freedom	1,491.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year.

0.3 Employed and/or student (change 2016-2017)

0.3.1 Employed and/or student (2016, 2017, change 2016-2017) by follow-up group and demographic characteristics (2017), among all respondents

	Employed/self-employed and/or student						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Follow-up group							
Still enrolled	53.1	[50.6, 55.6]	2,372	58.7	[56.2, 61.2]	2,388	5.6
No longer enrolled	58.2	[53.6, 62.7]	709	64.1	[59.8, 68.5]	709	5.9
Age (DW)							
19-34	70.0	[66.2, 73.7]	904	73.5	[69.9, 77.1]	909	3.5
35-50	49.8	[45.8, 53.7]	965	57.8	[53.9, 61.7]	969	8.0
51-64	39.0	[35.8, 42.3]	1,212	44.7	[41.3, 48.1]	1,219	5.7
Gender (DW)							
Male	52.2	[48.7, 55.7]	1,223	58.9	[55.5, 62.4]	1,230	6.7
Female	56.1	[53.3, 59.0]	1,858	60.9	[58.1, 63.6]	1,867	4.8
Race/ethnicity (2016)							
White, non-Hispanic	54.0	[51.3, 56.7]	2,049	57.5	[54.8, 60.2]	2,058	3.5
Black, non-Hispanic	51.0	[46.2, 55.9]	631	61.7	[57.1, 66.3]	634	10.7
Hispanic	68.7	[60.0, 77.4]	138	71.5	[63.2, 79.8]	138	2.8
Other, non-Hispanic	60.2	[52.6, 67.9]	227	65.8	[58.5, 73.2]	228	5.6
FPL categories (DW)							
0-35%	38.2	[34.6, 41.8]	1,208	47.4	[43.8, 51.0]	1,218	9.2
36-99%	69.2	[66.0, 72.4]	1,079	72.8	[69.8, 75.7]	1,084	3.6
100%+	75.6	[72.4, 78.9]	794	75.0	[71.7, 78.3]	795	-0.6
Region (DW)							
UP/NW/NE	55.5	[51.1, 59.9]	572	57.7	[53.3, 62.1]	574	2.2
W/E Central/E	51.1	[47.7, 54.6]	971	57.3	[53.9, 60.8]	980	6.2
S Central/SW/SE	56.9	[52.5, 61.2]	633	62.7	[58.4, 67.0]	633	5.8
Detroit Metro	55.1	[51.1, 59.1]	905	61.1	[57.2, 65.0]	910	6.0

0.3.2 Employed and/or student (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Employed/self-employed and/or student						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
All respondents[a]							
Employed/self-employed and/or student	54.3	[52.1, 56.5]	1,679	60.0	[57.8, 62.1]	1,811	5.7
Not employed/self-employed and/or student	45.7	[43.5, 47.9]	1,402	40.0	[37.9, 42.2]	1,286	
Among respondents still enrolled[b]							
Employed/self-employed and/or student	53.1	[50.6, 55.6]	1,275	58.7	[56.2, 61.2]	1,377	5.6
Not employed/self-employed and/or student	46.9	[44.4, 49.4]	1,097	41.3	[38.8, 43.8]	1,011	
Among respondents no longer enrolled[c]							
Employed/self-employed and/or student	58.2	[53.6, 62.6]	404	64.1	[59.7, 68.3]	434	5.9
Not employed/self-employed and/or student	41.8	[37.4, 46.4]	305	35.9	[31.7, 40.3]	275	
Among respondents with a chronic condition (2016 or 2017 survey and/or DW)[d]							
Employed/self-employed and/or student	49.3	[46.8, 51.8]	1,228	55.8	[53.3, 58.2]	1,332	6.5
Not employed/self-employed and/or student	50.7	[48.2, 53.2]	1,226	44.2	[41.8, 46.7]	1,137	
Among respondents with a mental health condition and/or substance use disorder (DW)[e]							
Employed/self-employed and/or student	48.1	[45.2, 51.1]	842	54.2	[51.2, 57.1]	921	6.1
Not employed/self-employed and/or student	51.9	[48.9, 54.8]	896	45.8	[42.9, 48.8]	828	
Among respondents with a mental health condition (DW)[f]							
Employed/self-employed and/or student	47.2	[44.2, 50.3]	751	52.8	[49.7, 55.9]	822	5.6
Not employed/self-employed and/or student	52.8	[49.7, 55.8]	821	47.2	[44.1, 50.3]	760	
Among respondents with a substance use disorder (DW)[g]							
Employed/self-employed and/or student	38.0	[33.4, 42.9]	246	47.3	[42.4, 52.3]	284	9.3
Not employed/self-employed and/or student	62.0	[57.1, 66.6]	367	52.7	[47.7, 57.6]	332	

[a] Mixed effects logistic regression results, $F(1, 3{,}085) = 29.90$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR = 1.83, $p < 0.001$, 95% CI (1.5, 2.3)
[b] Mixed effects logistic regression results, $F(1, 2{,}376) = 21.03$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR = 1.78, $p < 0.001$, 95% CI (1.4, 2.3)
[c] Mixed effects logistic regression results, $F(1, 697) = 9.76$, $p = 0.0019$; Employed/self-employed and/or student in 2017 OR= 2.03, $p = 0.002$, 95% CI (1.3, 3.2)
[d] Mixed effects logistic regression results, $F(1, 2{,}457) = 30.68$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR= 1.96, $p < 0.001$, 95% CI (1.5, 2.5)
[e] Mixed effects logistic regression results, $F(1, 1{,}737) = 23.45$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR= 1.94, $p < 0.001$, 95% CI (1.5, 2.5)
[f] Mixed effects logistic regression results, $F(1, 1{,}570) = 17.95$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR= 1.85, $p < 0.001$, 95% CI (1.4, 2.5)
[g] Mixed effects logistic regression results, $F(1, 604) = 20.42$, $p < 0.0001$; Employed/self-employed and/or student in 2017 OR= 2.76, $p < 0.001$, 95% CI (1.8, 4.3)

0.3.3 Predictors of employment and/or student (change 2016-2017), among all respondents and respondents with a chronic condition

	Employed/self-employed and/or student			Employed/self-employed and/or student[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.74	[1.386, 2.193]	0.000	1.87	[1.457, 2.412]	0.000
Fair/poor health						
No		Reference			Reference	
Yes	0.24	[0.173, 0.329]	0.000	0.27	[0.192, 0.379]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	0.26	[0.162, 0.412]	0.000	0.31	[0.184, 0.539]	0.000
51-64	0.08	[0.045, 0.127]	0.000	0.08	[0.047, 0.152]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.84	[0.597, 1.190]	0.330	0.90	[0.614, 1.323]	0.594
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.74	[1.150, 2.641]	0.009	2.04	[1.286, 3.233]	0.002
Hispanic	2.86	[1.262, 6.500]	0.012	2.79	[1.043, 7.444]	0.041
Other, non-Hispanic	1.94	[1.002, 3.740]	0.049	1.84	[0.821, 4.132]	0.138
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	15.09	[9.261, 24.602]	0.000	16.33	[9.240, 28.874]	0.000
100%+	23.06	[13.370, 39.760]	0.000	28.90	[15.109, 55.264]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.17	[2.144, 4.700]	0.000	3.11	[1.999, 4.849]	0.000
Bachelor's/post graduate degree	4.82	[2.705, 8.593]	0.000	4.32	[2.221, 8.404]	0.000
Constant	0.97	[0.602, 1.549]	0.885	0.62	[0.352, 1.087]	0.095
Respondent	31289.33	[1066.437, 918031.058]	0.000	51847.64	[971.279, 2767668.155]	0.000
N	6,089			4,853		
F-value	21.487			17.223		
Model degrees of freedom	12.000			12.000		
Residual degrees of freedom	3,039.000			2,421.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Variables are from both survey years unless otherwise noted.
[a] Analysis restricted to those with a chronic condition

0.3.4 Interaction between employment and/or student (change 2016-2017) and improved health (from 2016-2017), among all respondents

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.75	[1.364, 2.255]	0.000	1.84	[1.461, 2.320]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	0.93	[0.476, 1.809]	0.826	1.16	[0.649, 2.082]	0.613
Survey year*Improved health (from 2016-2017)						
2017 × Yes	1.59	[0.893, 2.820]	0.116			
Age (DW)						
19-34		Reference			Reference	
35-50	0.19	[0.119, 0.312]	0.000	0.19	[0.120, 0.313]	0.000
51-64	0.05	[0.030, 0.093]	0.000	0.05	[0.030, 0.093]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.84	[0.598, 1.189]	0.330	0.84	[0.599, 1.190]	0.333
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.89	[1.250, 2.870]	0.003	1.89	[1.250, 2.865]	0.003
Hispanic	3.08	[1.341, 7.055]	0.008	3.07	[1.339, 7.032]	0.008
Other, non-Hispanic	2.06	[1.058, 4.003]	0.034	2.05	[1.057, 3.993]	0.034
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	20.31	[11.633, 35.448]	0.000	20.14	[11.570, 35.072]	0.000
100%+	33.48	[18.052, 62.078]	0.000	33.18	[17.947, 61.353]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.87	[2.567, 5.846]	0.000	3.86	[2.562, 5.824]	0.000
Bachelor's/post graduate degree	6.40	[3.574, 11.474]	0.000	6.38	[3.563, 11.419]	0.000
Constant	0.60	[0.376, 0.970]	0.037	0.59	[0.368, 0.946]	0.029
Respondent	263768.01	[2220.322, 31334903.825]	0.000	242794.94	[2158.958, 27304558.334]	0.000
N	6,089			6,089		
F-value	14.097			15.054		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	3,039.000			3,039.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.3.5 Interaction between employment and/or student (change 2016-2017) and improved health (from 2016-2017), among respondents with a chronic condition

	Employed/self-employed and/or student[a]*			Employed/self-employed and/or student[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.90	[1.433, 2.511]	0.000	1.98	[1.535, 2.551]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	1.16	[0.555, 2.409]	0.698	1.37	[0.720, 2.608]	0.337
Survey year*Improved health (from 2016-2017)						
2017 × Yes	1.41	[0.761, 2.615]	0.274			
Age (DW)						
19-34		Reference			Reference	
35-50	0.25	[0.143, 0.423]	0.000	0.25	[0.143, 0.423]	0.000
51-64	0.06	[0.034, 0.120]	0.000	0.06	[0.034, 0.120]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.91	[0.625, 1.336]	0.642	0.91	[0.626, 1.337]	0.645
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.31	[1.451, 3.662]	0.000	2.30	[1.451, 3.658]	0.000
Hispanic	3.11	[1.141, 8.492]	0.027	3.11	[1.140, 8.474]	0.027
Other, non-Hispanic	1.96	[0.861, 4.460]	0.109	1.96	[0.861, 4.457]	0.109
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	21.79	[11.396, 41.647]	0.000	21.66	[11.359, 41.298]	0.000
100%+	41.82	[20.020, 87.371]	0.000	41.56	[19.956, 86.570]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.76	[2.367, 5.987]	0.000	3.76	[2.364, 5.973]	0.000
Bachelor's/post graduate degree	5.43	[2.833, 10.395]	0.000	5.42	[2.830, 10.377]	0.000
Constant	0.35	[0.197, 0.608]	0.000	0.34	[0.194, 0.595]	0.000
Respondent	351137.82	[1540.919, 80015742.266]	0.000	331460.21	[1524.273, 72077539.000]	0.000
N	4,853			4,853		
F-value	11.369			12.169		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	2,421.000			2,421.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a chronic condition

[*] Includes interaction term

0.3.6 Predictors of employment and/or student (change 2016-2017), among respondents with a mental health condition and/or substance use disorder, respondents with a mental health condition, and respondents with a substance use disorder

	Employed/self-employed and/or student[a]			Employed/self-employed and/or student[b]			Employed/self-employed and/or student[c]		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year									
2016		Reference			Reference			Reference	
2017	1.84	[1.376, 2.455]	0.000	1.73	[1.276, 2.349]	0.000	2.67	[1.655, 4.318]	0.000
Fair/poor health									
No		Reference			Reference			Reference	
Yes	0.19	[0.129, 0.295]	0.000	0.21	[0.136, 0.321]	0.000	0.11	[0.055, 0.215]	0.000
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	0.21	[0.110, 0.385]	0.000	0.18	[0.093, 0.345]	0.000	0.33	[0.125, 0.862]	0.024
51-64	0.08	[0.039, 0.163]	0.000	0.08	[0.036, 0.163]	0.000	0.16	[0.058, 0.447]	0.000
Gender (DW)									
Male		Reference			Reference			Reference	
Female	1.38	[0.865, 2.208]	0.176	1.52	[0.926, 2.503]	0.097	1.68	[0.785, 3.612]	0.181
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	1.59	[0.861, 2.933]	0.138	1.14	[0.595, 2.171]	0.699	1.87	[0.742, 4.728]	0.184
Hispanic	3.93	[1.326, 11.641]	0.014	3.66	[1.172, 11.460]	0.026	2.35	[0.351, 15.817]	0.377
Other, non-Hispanic	1.49	[0.619, 3.606]	0.371	1.75	[0.676, 4.520]	0.249	1.59	[0.465, 5.431]	0.460
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	13.99	[7.180, 27.252]	0.000	13.68	[6.888, 27.168]	0.000	13.63	[4.675, 39.746]	0.000
100%+	19.32	[9.235, 40.400]	0.000	20.59	[9.536, 44.438]	0.000	12.16	[3.844, 38.442]	0.000
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	3.03	[1.796, 5.117]	0.000	3.96	[2.267, 6.927]	0.000	1.91	[0.888, 4.093]	0.098
Bachelor's/post graduate degree	3.97	[1.780, 8.844]	0.001	4.92	[2.107, 11.475]	0.000	6.78	[1.494, 30.734]	0.013
Constant	0.66	[0.344, 1.266]	0.211	0.51	[0.255, 1.018]	0.056	0.37	[0.125, 1.070]	0.066
Respondent	84713.92	[661.022, 10856587.675]	0.000	55543.31	[406.095, 7596896.091]	0.000	8831.20	[29.864, 2611540.353]	0.002
N	3,441			3,116			1,206		
F-value	12.162			11.387			5.792		
Model degrees of freedom	12.000			12.000			12.000		
Residual degrees of freedom	1,713.000			1,550.000			592.000		
F-value significance	0.000			0.000			0.000		

Notes: Mixed effects logistic regression. Variables are from both survey years unless otherwise noted.
[a] Analysis restricted to those with a mental health condition and/or substance use disorder
[b] Analysis restricted to those with a mental health condition
[c] Analysis restricted to those with a substance use disorder

0.3.7 Interaction between employment and/or student (change 2016-2017) and improved health (from 2016-2017), among respondents with a mental health condition and/or substance use disorder

	Employed/self-employed and/or student[a*]			Employed/self-employed and/or student[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.88	[1.372, 2.583]	0.000	1.99	[1.487, 2.650]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	1.08	[0.467, 2.500]	0.856	1.34	[0.639, 2.818]	0.437
Survey year*Improved health (from 2016-2017)						
2017 × Yes	1.55	[0.728, 3.306]	0.255			
Age (DW)						
19-34		Reference			Reference	
35-50	0.14	[0.072, 0.287]	0.000	0.14	[0.073, 0.288]	0.000
51-64	0.05	[0.020, 0.111]	0.000	0.05	[0.020, 0.111]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.48	[0.924, 2.357]	0.104	1.47	[0.923, 2.352]	0.104
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.63	[0.895, 2.972]	0.110	1.63	[0.895, 2.966]	0.110
Hispanic	4.27	[1.407, 12.945]	0.010	4.26	[1.406, 12.882]	0.010
Other, non-Hispanic	1.52	[0.632, 3.669]	0.348	1.52	[0.631, 3.661]	0.350
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	21.87	[9.449, 50.602]	0.000	21.67	[9.411, 49.916]	0.000
100%+	35.24	[14.016, 88.618]	0.000	34.89	[13.956, 87.239]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	4.02	[2.273, 7.105]	0.000	4.00	[2.267, 7.062]	0.000
Bachelor's/post graduate degree	5.67	[2.473, 12.991]	0.000	5.65	[2.465, 12.951]	0.000
Constant	0.30	[0.155, 0.593]	0.000	0.30	[0.152, 0.578]	0.000
Respondent	3196084.71	[752.351,1.358e+10]	0.000	2886767.51	[753.340,1.106e+10]	0.000
N	3,441			3,441		
F-value	6.882			7.335		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,713.000			1,713.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a mental health condition and/or substance use disorder

[*] Includes interaction term

0.3.8 Interaction between employment and/or student (change 2016-2017) and improved health (from 2016-2017), among respondents with a mental health condition

	Employed/self-employed and/or student[a*]			Employed/self-employed and/or student[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.79	[1.285, 2.506]	0.001	1.88	[1.387, 2.559]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	1.04	[0.419, 2.579]	0.933	1.27	[0.567, 2.860]	0.559
Survey year*Improved health (from 2016-2017)						
2017 × Yes	1.50	[0.670, 3.357]	0.324			
Age (DW)						
19-34		Reference			Reference	
35-50	0.13	[0.064, 0.263]	0.000	0.13	[0.064, 0.264]	0.000
51-64	0.05	[0.020, 0.113]	0.000	0.05	[0.020, 0.113]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.66	[1.006, 2.726]	0.047	1.65	[1.006, 2.721]	0.047
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.05	[0.567, 1.961]	0.868	1.05	[0.567, 1.961]	0.867
Hispanic	3.76	[1.173, 12.042]	0.026	3.75	[1.172, 12.003]	0.026
Other, non-Hispanic	1.76	[0.676, 4.565]	0.247	1.75	[0.675, 4.556]	0.249
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	20.94	[8.997, 48.717]	0.000	20.79	[8.965, 48.223]	0.000
100%+	36.22	[14.212, 92.288]	0.000	35.93	[14.157, 91.177]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	5.34	[2.879, 9.893]	0.000	5.32	[2.872, 9.838]	0.000
Bachelor's/post graduate degree	7.06	[2.913, 17.113]	0.000	7.04	[2.903, 17.060]	0.000
Constant	0.23	[0.112, 0.472]	0.000	0.23	[0.110, 0.461]	0.000
Respondent	1397652.62	[443.435,4.405e+09]	0.001	1291447.98	[442.174,3.772e+09]	0.001
N	3,116			3,116		
F-value	6.481			6.912		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,550.000			1,550.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a mental health condition

[*] Includes interaction term

0.3.9 Interaction between employment and/or student (change 2016-2017) and improved health (from 2016-2017), among respondents with a substance use disorder

	Employed/self-employed and/or student[a*]			Employed/self-employed and/or student[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.60	[1.550, 4.361]	0.000	2.81	[1.754, 4.495]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	0.34	[0.084, 1.369]	0.128	0.51	[0.173, 1.489]	0.217
Survey year*Improved health (from 2016-2017)						
2017 × Yes	2.02	[0.599, 6.845]	0.256			
Age (DW)						
19-34		Reference			Reference	
35-50	0.21	[0.067, 0.634]	0.006	0.21	[0.069, 0.633]	0.006
51-64	0.07	[0.021, 0.269]	0.000	0.08	[0.021, 0.270]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.70	[0.772, 3.748]	0.187	1.69	[0.770, 3.720]	0.190
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.42	[0.923, 6.349]	0.072	2.41	[0.924, 6.303]	0.072
Hispanic	3.27	[0.453, 23.651]	0.240	3.27	[0.460, 23.189]	0.236
Other, non-Hispanic	2.79	[0.790, 9.822]	0.111	2.79	[0.800, 9.742]	0.107
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	23.15	[6.000, 89.298]	0.000	22.62	[6.005, 85.213]	0.000
100%+	23.45	[5.533, 99.383]	0.000	22.92	[5.549, 94.638]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	2.54	[1.108, 5.831]	0.028	2.52	[1.105, 5.769]	0.028
Bachelor's/post graduate degree	13.45	[2.618, 69.054]	0.002	13.27	[2.595, 67.880]	0.002
Constant	0.14	[0.043, 0.474]	0.001	0.14	[0.042, 0.459]	0.001
Respondent	674993.86	[12.024,3.789e+10]	0.016	537962.40	[14.223,2.035e+10]	0.014
N	1,206			1,206		
F-value	3.447			3.708		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	592.000			592.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a substance use disorder

[*] Includes interaction term

0.3.10 Employment and/or student (2016, 2017, change 2016-2017), among all respondents and various subgroups who reported improved oral health in 2016 or 2017

	Employed/self-employed and/or student						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Among all respondents who experienced improved oral health in either 2016 or 2017							
Employed/self-employed and/or student	54.4	[51.2, 57.6]	812	61.1	[58.0, 64.2]	881	6.7
Not employed/self-employed and/or student	45.6	[42.4, 48.8]	673	38.9	[35.8, 42.0]	613	
Among respondents with a chronic condition (2016 or 2017 survey and/or DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed and/or student	49.2	[45.6, 52.9]	589	56.6	[53.0, 60.1]	646	7.2
Not employed/self-employed and/or student	50.8	[47.1, 54.4]	600	43.4	[39.9, 47.0]	551	
Among respondents with a mental health condition and/or substance use disorder (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed and/or student	49.3	[45.1, 53.5]	417	55.1	[50.9, 59.2]	457	5.3
Not employed/self-employed and/or student	50.7	[46.5, 54.9]	441	44.9	[40.8, 49.1]	408	
Among respondents with a mental health condition (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed and/or student	49.5	[45.1, 53.9]	377	54.1	[49.8, 58.5]	411	4.6
Not employed/self-employed and/or student	50.5	[46.1, 54.9]	405	45.9	[41.5, 50.2]	378	
Among respondents with a substance use disorder (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed and/or student	35.6	[29.3, 42.4]	110	44.3	[37.4, 51.3]	124	8.7
Not employed/self-employed and/or student	64.4	[57.6, 70.7]	183	55.7	[48.7, 62.6]	169	

0.3.11 Interaction between employment and/or student (change 2016-2017) and improved oral health (2016 or 2017), among all respondents

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.66	[1.200, 2.287]	0.002	1.84	[1.461, 2.320]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.13	[0.758, 1.690]	0.544	1.26	[0.896, 1.766]	0.185
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	1.24	[0.782, 1.975]	0.358			
Age (DW)						
19-34		Reference			Reference	
35-50	0.20	[0.121, 0.316]	0.000	0.20	[0.121, 0.317]	0.000
51-64	0.05	[0.030, 0.094]	0.000	0.05	[0.030, 0.094]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.84	[0.595, 1.184]	0.318	0.84	[0.594, 1.184]	0.317
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.85	[1.222, 2.803]	0.004	1.85	[1.222, 2.800]	0.004
Hispanic	3.09	[1.346, 7.096]	0.008	3.09	[1.346, 7.086]	0.008
Other, non-Hispanic	2.03	[1.049, 3.942]	0.036	2.03	[1.047, 3.938]	0.036
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	20.07	[11.538, 34.896]	0.000	19.98	[11.498, 34.736]	0.000
100%+	33.55	[18.147, 62.029]	0.000	33.42	[18.082, 61.765]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.86	[2.562, 5.817]	0.000	3.86	[2.560, 5.809]	0.000
Bachelor's/post graduate degree	6.46	[3.600, 11.605]	0.000	6.45	[3.594, 11.588]	0.000
Constant	0.57	[0.340, 0.946]	0.030	0.54	[0.326, 0.892]	0.016
Respondent	247652.67	[2194.097, 27953111.753]	0.000	238306.91	[2145.259, 26472412.939]	0.000
N	6,089			6,089		
F-value	14.024			15.083		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	3,039.000			3,039.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.3.12 Interaction between employment and/or student (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a chronic condition

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	1.84	[1.299, 2.610]	0.001	1.98	[1.535, 2.551]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.06	[0.672, 1.661]	0.812	1.14	[0.780, 1.653]	0.508
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	1.16	[0.689, 1.939]	0.583			
Age (DW)						
19-34		Reference			Reference	
35-50	0.25	[0.144, 0.429]	0.000	0.25	[0.144, 0.429]	0.000
51-64	0.06	[0.034, 0.121]	0.000	0.06	[0.034, 0.121]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.91	[0.624, 1.338]	0.643	0.91	[0.624, 1.337]	0.642
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.26	[1.425, 3.591]	0.001	2.26	[1.425, 3.589]	0.001
Hispanic	3.13	[1.148, 8.535]	0.026	3.13	[1.149, 8.538]	0.026
Other, non-Hispanic	1.93	[0.851, 4.356]	0.116	1.92	[0.851, 4.353]	0.116
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	21.58	[11.315, 41.143]	0.000	21.55	[11.307, 41.085]	0.000
100%+	41.58	[19.977, 86.557]	0.000	41.55	[19.965, 86.454]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.73	[2.351, 5.923]	0.000	3.73	[2.351, 5.923]	0.000
Bachelor's/post graduate degree	5.41	[2.812, 10.391]	0.000	5.41	[2.811, 10.395]	0.000
Constant	0.35	[0.188, 0.636]	0.001	0.33	[0.184, 0.608]	0.000
Respondent	336581.43	[1532.888, 73904354.636]	0.000	332785.94	[1525.947, 72575590.526]	0.000
N	4,853			4,853		
F-value	11.230			12.179		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	2,421.000			2,421.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.3.13 Interaction between employment and/or student (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a mental health condition and/or substance use disorder

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.07	[1.381, 3.114]	0.000	1.99	[1.487, 2.650]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.30	[0.773, 2.202]	0.319	1.25	[0.795, 1.959]	0.336
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.91	[0.510, 1.642]	0.765			
Age (DW)						
19-34		Reference			Reference	
35-50	0.15	[0.073, 0.290]	0.000	0.15	[0.073, 0.290]	0.000
51-64	0.05	[0.020, 0.111]	0.000	0.05	[0.020, 0.111]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.48	[0.928, 2.367]	0.099	1.48	[0.928, 2.368]	0.099
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.59	[0.873, 2.895]	0.129	1.59	[0.873, 2.895]	0.129
Hispanic	4.26	[1.403, 12.924]	0.011	4.26	[1.402, 12.927]	0.011
Other, non-Hispanic	1.53	[0.635, 3.697]	0.342	1.53	[0.635, 3.696]	0.342
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	21.27	[9.267, 48.838]	0.000	21.26	[9.262, 48.814]	0.000
100%+	34.95	[13.997, 87.247]	0.000	34.92	[13.989, 87.181]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	3.94	[2.241, 6.934]	0.000	3.94	[2.240, 6.934]	0.000
Bachelor's/post graduate degree	5.63	[2.459, 12.888]	0.000	5.63	[2.458, 12.875]	0.000
Constant	0.27	[0.132, 0.565]	0.000	0.28	[0.136, 0.572]	0.000
Respondent	2862133.35	[756.513,1.083e+10]	0.000	2851251.35	[752.804,1.080e+10]	0.000
N	3,441			3,441		
F-value	6.805			7.338		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,713.000			1,713.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.3.14 Interaction between employment and/or student (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a mental health condition

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.14	[1.377, 3.313]	0.001	1.88	[1.387, 2.557]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.60	[0.922, 2.769]	0.095	1.40	[0.874, 2.253]	0.161
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.77	[0.421, 1.421]	0.408			
Age (DW)						
19-34		Reference			Reference	
35-50	0.13	[0.065, 0.267]	0.000	0.13	[0.065, 0.267]	0.000
51-64	0.05	[0.020, 0.113]	0.000	0.05	[0.020, 0.113]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.65	[1.005, 2.723]	0.048	1.65	[1.006, 2.721]	0.048
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.01	[0.545, 1.876]	0.973	1.01	[0.545, 1.877]	0.972
Hispanic	3.72	[1.164, 11.919]	0.027	3.72	[1.162, 11.912]	0.027
Other, non-Hispanic	1.77	[0.676, 4.621]	0.245	1.77	[0.677, 4.612]	0.245
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	20.32	[8.810, 46.863]	0.000	20.23	[8.775, 46.629]	0.000
100%+	36.07	[14.263, 91.208]	0.000	35.89	[14.204, 90.681]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	5.25	[2.848, 9.668]	0.000	5.24	[2.841, 9.648]	0.000
Bachelor's/post graduate degree	7.04	[2.917, 17.010]	0.000	7.02	[2.909, 16.925]	0.000
Constant	0.19	[0.087, 0.407]	0.000	0.20	[0.093, 0.430]	0.000
Respondent	1284200.07	[454.660,3.627e+09]	0.001	1234385.88	[442.795,3.441e+09]	0.001
N	3,116			3,116		
F-value	6.490			6.927		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,550.000			1,550.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.3.15 Interaction between employment and/or student (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a substance use disorder

	Employed/self-employed and/or student*			Employed/self-employed and/or student		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	3.18	[1.689, 5.993]	0.000	2.81	[1.754, 4.494]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	0.59	[0.240, 1.468]	0.259	0.52	[0.239, 1.117]	0.093
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.77	[0.281, 2.092]	0.604			
Age (DW)						
19-34		Reference			Reference	
35-50	0.20	[0.067, 0.607]	0.004	0.20	[0.067, 0.609]	0.005
51-64	0.08	[0.021, 0.267]	0.000	0.08	[0.022, 0.268]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.58	[0.720, 3.475]	0.253	1.58	[0.721, 3.467]	0.252
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.59	[0.990, 6.779]	0.052	2.58	[0.989, 6.748]	0.053
Hispanic	3.05	[0.436, 21.305]	0.261	3.02	[0.431, 21.173]	0.265
Other, non-Hispanic	2.49	[0.708, 8.736]	0.155	2.47	[0.708, 8.643]	0.155
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	23.45	[6.170, 89.129]	0.000	23.21	[6.162, 87.447]	0.000
100%+	22.62	[5.428, 94.231]	0.000	22.35	[5.416, 92.280]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	2.61	[1.144, 5.956]	0.023	2.60	[1.142, 5.922]	0.023
Bachelor's/post graduate degree	13.16	[2.566, 67.510]	0.002	13.02	[2.556, 66.298]	0.002
Constant	0.16	[0.044, 0.613]	0.007	0.18	[0.050, 0.632]	0.008
Respondent	552062.76	[14.464,2.107e+10]	0.014	495734.77	[14.645,1.678e+10]	0.014
N	1,206			1,206		
F-value	3.517			3.759		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	592.000			592.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4 Employment (change 2016-2017)

0.4.1 Employment (2016, 2017, change 2016-2017) by follow-up group and demographic characteristics (2017), among all respondents

	Employed/self-employed								
	2016				2017				Delta
	Percent	SE	95%CI	N	Percent	SE	95%CI	N	Percent
Follow-up group									
Still enrolled	47.5	0.01	[45.0, 50.1]	2,379	55.4	0.01	[52.9, 57.9]	2,385	7.9
No longer enrolled	52.4	0.02	[47.8, 57.0]	709	62.9	0.02	[58.6, 67.3]	708	10.5
Age (DW)									
19-34	56.9	0.02	[52.8, 60.9]	905	67.5	0.02	[63.6, 71.3]	907	10.6
35-50	48.6	0.02	[44.7, 52.5]	966	56.8	0.02	[52.9, 60.7]	968	8.2
51-64	38.1	0.02	[34.8, 41.3]	1,217	43.9	0.02	[40.5, 47.3]	1,218	5.8
Gender (DW)									
Male	45.6	0.02	[42.0, 49.1]	1,226	56.6	0.02	[53.2, 60.1]	1,229	11.0
Female	51.5	0.01	[48.6, 54.3]	1,862	57.6	0.01	[54.8, 60.4]	1,864	6.1
Race/ethnicity (2016)									
White, non-Hispanic	49.0	0.01	[46.2, 51.7]	2,055	54.9	0.01	[52.2, 57.7]	2,058	5.9
Black, non-Hispanic	46.0	0.02	[41.2, 50.8]	631	58.6	0.02	[53.8, 63.3]	630	12.6
Hispanic	61.9	0.05	[52.1, 71.7]	138	71.1	0.04	[62.7, 79.4]	138	9.2
Other, non-Hispanic	50.0	0.04	[41.9, 58.1]	228	61.8	0.04	[54.0, 69.5]	228	11.8
FPL category (DW)									
0-35%	31.9	0.02	[28.4, 35.4]	1,212	43.9	0.02	[40.3, 47.5]	1,216	12.0
36-99%	65.7	0.02	[62.4, 69.0]	1,082	70.8	0.02	[67.8, 73.9]	1,082	5.1
100%+	68.9	0.02	[65.1, 72.7]	794	72.8	0.02	[69.3, 76.3]	795	3.9
Region (DW)									
UP/NW/NE	52.3	0.02	[47.8, 56.7]	574	56.2	0.02	[51.7, 60.6]	574	3.9
W/E Central/E	45.7	0.02	[42.3, 49.1]	975	54.9	0.02	[51.4, 58.4]	979	9.2
S Central/SW/SE	51.7	0.02	[47.3, 56.0]	633	60.1	0.02	[55.8, 64.4]	633	8.4
Detroit Metro	48.7	0.02	[44.7, 52.7]	906	57.6	0.02	[53.7, 61.6]	907	8.9

Notes: Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

0.4.2 Employment (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Employed/self-employed						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
All respondents[a]							
Employed/self-employed	48.7	[46.5, 50.9]	1,555	57.1	[55.0, 59.3]	1,742	8.4
Not employed/self-employed	51.3	[49.1, 53.5]	1,533	42.9	[40.7, 45.0]	1,351	
Among respondents still enrolled[b]							
Employed/self-employed	47.5	[45.0, 50.1]	1,181	55.4	[52.8, 57.9]	1,319	7.9
Not employed/self-employed	52.5	[49.9, 55.0]	1,198	44.6	[42.1, 47.2]	1,066	
Among respondents no longer enrolled[c]							
Employed/self-employed	52.4	[47.8, 57.0]	374	62.9	[58.5, 67.2]	423	10.6
Not employed/self-employed	47.6	[43.0, 52.2]	335	37.1	[32.8, 41.5]	285	
Among respondents with a chronic condition (2016 or 2017 survey and/or DW)[d]							
Employed/self-employed	45.6	[43.2, 48.1]	1,161	53.1	[50.6, 55.6]	1,280	7.5
Not employed/self-employed	54.4	[51.9, 56.8]	1,300	46.9	[44.4, 49.4]	1,187	
Among respondents with a mental health condition and/or substance use disorder (DW)[e]							
Employed/self-employed	42.8	[40.0, 45.8]	777	50.5	[47.5, 53.4]	875	7.7
Not employed/self-employed	57.2	[54.2, 60.0]	967	49.5	[46.6, 52.5]	873	
Among respondents with a mental health condition (DW)[f]							
Employed/self-employed	41.6	[38.6, 44.7]	688	48.8	[45.7, 51.9]	778	7.2
Not employed/self-employed	58.4	[55.3, 61.4]	889	51.2	[48.1, 54.3]	803	
Among respondents with a substance use disorder (DW)[g]							
Employed/self-employed	34.2	[29.8, 38.9]	231	45.1	[40.2, 50.1]	272	10.9
Not Employed/self-employed	65.8	[61.1, 70.2]	384	54.9	[49.9, 59.8]	344	

Notes: Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

[a] Mixed effects logistic regression results, $F(1, 3{,}085) = 52.2$, $p < 0.0001$; Employed/self-employed in 2017 OR = 2.22, $p < 0.001$, 95% CI (1.8, 2.8)

[b] Mixed effects logistic regression results, $F(1, 2{,}376) = 33.15$, $p < 0.0001$; Employed/self-employed in 2017 OR = 2.10, $p < 0.001$, 95% CI (1.6, 2.7)

[c] Mixed effects logistic regression results, $F(1, 697) = 21.71$, $p < 0.0001$; Employed/self-employed in 2017 OR= 2.68, $p < 0.001$, 95% CI (1.8, 4.1)

[d] Mixed effects logistic regression results, $F(1, 2{,}457) = 35.04$, $p < 0.0001$; Employed/self-employed in 2017 OR= 2.09, $p < 0.001$, 95% CI (1.6, 2.7)

[e] Mixed effects logistic regression results, $F(1, 1{,}737) = 27.69$, $p < 0.0001$; Employed/self-employed in 2017 OR= 2.13, $p < 0.001$, 95% CI (1.6, 2.8)

[f] Mixed effects logistic regression results, $F(1, 1{,}570) = 21.63$, $p < 0.0001$; Employed/self-employed in 2017 OR= 2.03, $p < 0.001$, 95% CI (1.5, 2.7)

[g] Mixed effects logistic regression results, $F(1, 604) = 25.03$, $p < 0.0001$; Employed/self-employed in 2017 OR= 3.14, $p < 0.001$, 95% CI (2.0, 4.9)

0.4.3 Predictors of employment (change 2016-2017), among all respondents and respondents with a chronic condition

	Employed/self-employed			Employed/self-employed[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.13	[1.700, 2.672]	0.000	2.01	[1.556, 2.595]	0.000
Fair/poor health						
No		Reference			Reference	
Yes	0.25	[0.188, 0.345]	0.000	0.27	[0.190, 0.370]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	0.68	[0.448, 1.028]	0.068	0.70	[0.422, 1.162]	0.168
51-64	0.21	[0.139, 0.324]	0.000	0.20	[0.118, 0.334]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.86	[0.620, 1.197]	0.374	0.88	[0.597, 1.286]	0.499
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.56	[1.054, 2.309]	0.026	1.83	[1.168, 2.879]	0.008
Hispanic	2.86	[1.339, 6.118]	0.007	2.83	[1.157, 6.927]	0.023
Other, non-Hispanic	1.31	[0.697, 2.470]	0.400	1.76	[0.806, 3.825]	0.157
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	14.78	[9.324, 23.440]	0.000	16.55	[9.438, 29.026]	0.000
100%+	16.87	[10.175, 27.975]	0.000	20.85	[11.118, 39.115]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.54	[1.078, 2.199]	0.018	1.70	[1.118, 2.573]	0.013
Bachelor's/post graduate degree	2.22	[1.306, 3.765]	0.003	2.36	[1.252, 4.436]	0.008
Constant	0.45	[0.279, 0.720]	0.001	0.35	[0.193, 0.619]	0.000
Respondent	3348.90	[324.582, 34552.510]	0.000	17144.52	[587.219, 500553.973]	0.000
N	6,092			4,858		
F-value	22.439			16.322		
Model degrees of freedom	12.000			12.000		
Residual degrees of freedom	3,039.000			2,421.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Variables are from both survey years unless otherwise noted. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

[a] Analysis restricted to those with a chronic condition

0.4.4 Interaction between employment (change 2016-2017) and improved health (from 2016-2017), among all respondents and respondents with a chronic condition

	Employed/self-employed*			Employed/self-employed			Employed/self-employed[a*]			Employed/self-employed[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year												
2016		Reference			Reference			Reference			Reference	
2017	2.18	[1.704, 2.793]	0.000	2.24	[1.786, 2.813]	0.000	2.02	[1.524, 2.684]	0.000	2.12	[1.637, 2.736]	0.000
Improved health (from 2016-2017)												
No		Reference			Reference			Reference			Reference	
Yes	0.97	[0.489, 1.921]	0.929	1.10	[0.603, 2.022]	0.749	1.19	[0.560, 2.528]	0.651	1.44	[0.745, 2.771]	0.279
Survey year*Improved health (from 2016-2017)												
2017 × Yes	1.30	[0.770, 2.187]	0.327				1.46	[0.805, 2.646]	0.212			
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	0.54	[0.356, 0.820]	0.004	0.54	[0.356, 0.820]	0.004	0.56	[0.341, 0.929]	0.024	0.56	[0.342, 0.928]	0.024
51-64	0.16	[0.104, 0.249]	0.000	0.16	[0.104, 0.249]	0.000	0.16	[0.092, 0.266]	0.000	0.16	[0.092, 0.267]	0.000
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	0.86	[0.620, 1.207]	0.394	0.87	[0.620, 1.208]	0.396	0.89	[0.606, 1.301]	0.541	0.89	[0.607, 1.302]	0.545
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	1.67	[1.117, 2.483]	0.012	1.67	[1.118, 2.482]	0.012	2.05	[1.298, 3.228]	0.002	2.05	[1.299, 3.225]	0.002
Hispanic	3.01	[1.394, 6.494]	0.005	3.00	[1.393, 6.481]	0.005	3.13	[1.266, 7.725]	0.013	3.12	[1.264, 7.693]	0.014
Other, non-Hispanic	1.35	[0.711, 2.578]	0.356	1.35	[0.711, 2.577]	0.356	1.85	[0.831, 4.113]	0.132	1.85	[0.832, 4.108]	0.132
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	18.59	[11.237, 30.753]	0.000	18.52	[11.206, 30.621]	0.000	21.42	[11.452, 40.046]	0.000	21.26	[11.400, 39.645]	0.000
100%+	22.47	[13.019, 38.792]	0.000	22.39	[12.984, 38.624]	0.000	28.91	[14.460, 57.805]	0.000	28.70	[14.397, 57.198]	0.000
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	1.78	[1.237, 2.571]	0.002	1.78	[1.237, 2.570]	0.002	1.99	[1.303, 3.049]	0.001	1.99	[1.302, 3.046]	0.001
Bachelor's/post graduate degree	2.76	[1.621, 4.684]	0.000	2.75	[1.621, 4.681]	0.000	2.89	[1.570, 5.334]	0.001	2.89	[1.569, 5.329]	0.001
Constant	0.28	[0.173, 0.463]	0.000	0.28	[0.172, 0.457]	0.000	0.19	[0.105, 0.348]	0.000	0.19	[0.103, 0.340]	0.000
Respondent	11355.17	[650.583, 198191.289]	0.000	11048.69	[640.211, 190676.970]	0.000	73577.11	[1005.373, 5384658.620]	0.000	69247.02	[983.544, 4875380.960]	0.000
N	6,092			6,092			4,858			4,858		
F-value	16.078			17.007			11.161			11.809		
Model degrees of freedom	13.000			12.000			13.000			12.000		
Residual degrees of freedom	3,039.000			3,039.000			2,421.000			2,421.000		
F-value significance	0.000			0.000			0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a chronic condition

[*] Includes interaction term

0.4.5 Predictors of employment (change 2016-2017), among respondents with a mental health condition and/or substance use disorder, respondents with a mental health condition, and respondents with a substance use disorder

	Employed/self-employed[a]			Employed/self-employed[b]			Employed/self-employed[c]		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year									
2016		Reference			Reference			Reference	
2017	2.02	[1.505, 2.724]	0.000	1.91	[1.401, 2.618]	0.000	3.12	[1.915, 5.088]	0.000
Fair/poor health									
No		Reference			Reference			Reference	
Yes	0.21	[0.142, 0.311]	0.000	0.23	[0.152, 0.341]	0.000	0.11	[0.056, 0.225]	0.000
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	0.55	[0.314, 0.965]	0.037	0.50	[0.280, 0.884]	0.017	0.57	[0.230, 1.422]	0.229
51-64	0.22	[0.118, 0.398]	0.000	0.21	[0.113, 0.401]	0.000	0.28	[0.112, 0.709]	0.007
Gender (DW)									
Male		Reference			Reference			Reference	
Female	1.20	[0.759, 1.885]	0.439	1.27	[0.789, 2.060]	0.321	1.40	[0.674, 2.897]	0.368
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	1.36	[0.751, 2.460]	0.311	0.98	[0.527, 1.838]	0.959	1.93	[0.773, 4.813]	0.159
Hispanic	4.19	[1.398, 12.530]	0.011	3.80	[1.192, 12.123]	0.024	2.82	[0.435, 18.242]	0.276
Other, non-Hispanic	0.89	[0.369, 2.123]	0.785	0.95	[0.371, 2.416]	0.908	1.27	[0.394, 4.082]	0.690
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	14.76	[7.902, 27.576]	0.000	14.14	[7.471, 26.776]	0.000	16.81	[5.823, 48.509]	0.000
100%+	14.59	[7.381, 28.834]	0.000	15.40	[7.588, 31.256]	0.000	11.62	[3.803, 35.514]	0.000
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	1.32	[0.822, 2.136]	0.248	1.66	[1.008, 2.733]	0.047	1.17	[0.569, 2.415]	0.667
Bachelor's/post graduate degree	1.93	[0.895, 4.140]	0.094	2.26	[1.017, 5.004]	0.045	2.19	[0.561, 8.526]	0.259
Constant	0.36	[0.189, 0.693]	0.002	0.30	[0.148, 0.590]	0.001	0.23	[0.079, 0.660]	0.006
Respondent	5508.09	[197.739, 153429.974]	0.000	3479.96	[124.695, 97117.548]	0.000	3214.30	[23.660, 436677.745]	0.001
N	3,446			3,120			1,208		
F-value	12.702			11.933			5.633		
Model degrees of freedom	12.000			12.000			12.000		
Residual degrees of freedom	1,713.000			1,550.000			592.000		
F-value significance	0.000			0.000			0.000		

Notes: Mixed effects logistic regression. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a mental health condition and/or substance use disorder

[b] Analysis restricted to those with a mental health condition

[c] Analysis restricted to those with a substance use disorder

0.4.6 Interaction between employment (change 2016-2017) and improved health (from 2016-2017), among respondents with a mental health condition and/or substance use disorder and respondents with a mental health condition

	Employed/self-employed[a*]			Employed/self-employed[a]			Employed/self-employed[b*]			Employed/self-employed[b]		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year												
2016		Reference			Reference			Reference			Reference	
2017	2.05	[1.482, 2.828]	0.000	2.17	[1.617, 2.920]	0.000	1.95	[1.384, 2.738]	0.000	2.07	[1.512, 2.825]	0.000
Improved health (from 2016-2017)												
No		Reference			Reference			Reference			Reference	
Yes	1.01	[0.416, 2.463]	0.979	1.31	[0.607, 2.814]	0.493	0.97	[0.373, 2.542]	0.956	1.26	[0.551, 2.889]	0.581
Survey year*Improved health (from 2016-2017)												
2017 × Yes	1.66	[0.816, 3.368]	0.162				1.66	[0.781, 3.533]	0.187			
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	0.43	[0.244, 0.760]	0.004	0.43	[0.245, 0.761]	0.004	0.40	[0.226, 0.713]	0.002	0.40	[0.227, 0.714]	0.002
51-64	0.15	[0.080, 0.282]	0.000	0.15	[0.080, 0.284]	0.000	0.15	[0.080, 0.291]	0.000	0.15	[0.080, 0.293]	0.000
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	1.25	[0.791, 1.989]	0.335	1.25	[0.792, 1.986]	0.335	1.36	[0.836, 2.206]	0.216	1.36	[0.837, 2.202]	0.216
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	1.36	[0.745, 2.484]	0.316	1.36	[0.746, 2.481]	0.315	0.91	[0.487, 1.700]	0.768	0.91	[0.489, 1.702]	0.772
Hispanic	4.42	[1.407, 13.868]	0.011	4.39	[1.403, 13.762]	0.011	3.83	[1.141, 12.855]	0.030	3.82	[1.140, 12.784]	0.030
Other, non-Hispanic	0.86	[0.357, 2.069]	0.735	0.86	[0.358, 2.065]	0.734	0.90	[0.352, 2.319]	0.832	0.90	[0.353, 2.313]	0.832
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	20.47	[9.953, 42.090]	0.000	20.23	[9.881, 41.416]	0.000	19.26	[9.304, 39.855]	0.000	19.05	[9.239, 39.286]	0.000
100%+	22.79	[10.562, 49.170]	0.000	22.53	[10.488, 48.413]	0.000	23.25	[10.600, 51.020]	0.000	23.01	[10.524, 50.299]	0.000
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	1.60	[0.980, 2.616]	0.060	1.60	[0.979, 2.610]	0.061	2.03	[1.216, 3.391]	0.007	2.03	[1.214, 3.380]	0.007
Bachelor's/post graduate degree	2.52	[1.161, 5.480]	0.019	2.52	[1.159, 5.470]	0.020	2.96	[1.316, 6.655]	0.009	2.95	[1.313, 6.635]	0.009
Constant	0.18	[0.088, 0.353]	0.000	0.17	[0.086, 0.343]	0.000	0.14	[0.069, 0.301]	0.000	0.14	[0.067, 0.293]	0.000
Respondent	37975.13	[419.438, 3438193.610]	0.000	34536.18	[402.865, 2960667.219]	0.000	17876.67	[235.559, 1356667.548]	0.000	16437.85	[226.471, 1193099.500]	0.000
N	3,446			3,446			3,120			3,120		
F-value	8.424			8.815			7.966			8.326		
Model degrees of freedom	13.000			12.000			13.000			12.000		
Residual degrees of freedom	1,713.000			1,713.000			1,550.000			1,550.000		
F-value significance	0.000			0.000			0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a mental health condition and/or substance use disorder

[b] Analysis restricted to those with a mental health condition

[*] Includes interaction term

0.4.7 Interaction between employment (change 2016-2017) and improved health (from 2016-2017), among respondents with a substance use disorder

	Employed/self-employed[a*]			Employed/self-employed[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	3.08	[1.844, 5.144]	0.000	3.25	[2.027, 5.210]	0.000
Improved health (from 2016-2017)						
No		Reference			Reference	
Yes	0.35	[0.091, 1.379]	0.134	0.47	[0.167, 1.330]	0.155
Survey year*Improved health (from 2016-2017)						
2017 × Yes	1.63	[0.460, 5.803]	0.447			
Age (DW)						
19-34		Reference			Reference	
35-50	0.39	[0.144, 1.069]	0.067	0.39	[0.145, 1.067]	0.067
51-64	0.15	[0.050, 0.428]	0.000	0.15	[0.051, 0.429]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.37	[0.640, 2.929]	0.417	1.37	[0.639, 2.918]	0.421
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.39	[0.911, 6.286]	0.076	2.39	[0.913, 6.268]	0.076
Hispanic	3.87	[0.536, 27.987]	0.179	3.86	[0.541, 27.517]	0.177
Other, non-Hispanic	2.08	[0.588, 7.387]	0.255	2.09	[0.594, 7.370]	0.250
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	26.07	[7.210, 94.302]	0.000	25.78	[7.216, 92.066]	0.000
100%+	20.02	[5.283, 75.839]	0.000	19.82	[5.294, 74.227]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.47	[0.682, 3.156]	0.326	1.47	[0.682, 3.153]	0.327
Bachelor's/post graduate degree	3.67	[0.882, 15.312]	0.074	3.67	[0.878, 15.336]	0.075
Constant	0.09	[0.029, 0.314]	0.000	0.09	[0.028, 0.307]	0.000
Respondent	68719.56	[25.931,1.821e+08]	0.006	62997.33	[27.644,1.436e+08]	0.005
N	1,208			1,208		
F-value	3.927			4.278		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	592.000			592.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those with a substance use disorder

[*] Includes interaction term

0.4.8 Employment (2016, 2017, change 2016-2017), among all respondents and various subgroups who reported improved oral health in 2016 or 2017

	Employed/self-employed						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Among all respondents who experienced improved oral health in either 2016 or 2017							
Employed/self-employed	49.9	[46.7, 53.1]	758	58.3	[55.1, 61.4]	845	8.4
Not employed/self-employed	50.1	[46.9, 53.3]	730	41.7	[38.6, 44.9]	647	
Among respondents with a chronic condition (2016 or 2017 survey and/or DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed	45.7	[42.1, 49.4]	557	53.2	[49.6, 56.8]	616	7.5
Not employed/self-employed	54.3	[50.6, 57.9]	635	46.8	[43.2, 50.4]	581	
Among respondents with a mental health condition and/or substance use disorder (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed	45.3	[41.1, 49.5]	387	51.1	[46.9, 55.3]	431	5.8
Not employed/self-employed	54.7	[50.5, 58.9]	474	48.9	[44.7, 53.1]	434	
Among respondents with a mental health condition (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed	45.3	[41.0, 49.8]	348	50.0	[45.6, 54.3]	387	4.7
Not employed/self-employed	54.7	[50.2, 59.0]	437	50.0	[45.7, 54.4]	402	
Among respondents with a substance use disorder (DW) who experienced improved oral health in either 2016 or 2017							
Employed/self-employed	32.5	[26.5, 39.2]	102	41.4	[34.6, 48.5]	117	8.9
Not employed/self-employed	67.5	[60.8, 73.5]	191	58.6	[51.5, 65.4]	176	

Notes: Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

0.4.9 Interaction between employment (change 2016-2017) and improved oral health (2016 or 2017), among all respondents

	Employed/self-employed*			Employed/self-employed		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.22	[1.615, 3.039]	0.000	2.24	[1.786, 2.813]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.35	[0.907, 2.001]	0.140	1.36	[0.981, 1.894]	0.065
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	1.02	[0.655, 1.603]	0.915			
Age (DW)						
19-34		Reference			Reference	
35-50	0.55	[0.359, 0.828]	0.004	0.55	[0.359, 0.828]	0.004
51-64	0.16	[0.104, 0.250]	0.000	0.16	[0.104, 0.250]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.86	[0.613, 1.197]	0.364	0.86	[0.613, 1.196]	0.364
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.62	[1.084, 2.409]	0.018	1.62	[1.084, 2.409]	0.018
Hispanic	3.02	[1.394, 6.545]	0.005	3.02	[1.395, 6.546]	0.005
Other, non-Hispanic	1.34	[0.708, 2.537]	0.369	1.34	[0.708, 2.537]	0.369
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	18.38	[11.130, 30.349]	0.000	18.38	[11.128, 30.342]	0.000
100%+	22.71	[13.178, 39.151]	0.000	22.71	[13.177, 39.141]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.79	[1.240, 2.570]	0.002	1.79	[1.240, 2.570]	0.002
Bachelor's/post graduate degree	2.81	[1.655, 4.784]	0.000	2.81	[1.655, 4.784]	0.000
Constant	0.25	[0.145, 0.420]	0.000	0.25	[0.146, 0.413]	0.000
Respondent	10807.63	[632.051, 184802.865]	0.000	10790.30	[631.398, 184401.291]	0.000
N	6,092			6,092		
F-value	15.790			17.111		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	3,039.000			3,039.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4.10 Interaction between employment (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a chronic condition

	Employed/self-employed*			Employed/self-employed		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.12	[1.510, 2.972]	0.000	2.12	[1.637, 2.736]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.12	[0.708, 1.761]	0.636	1.12	[0.768, 1.619]	0.566
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	1.00	[0.596, 1.672]	0.995			
Age (DW)						
19-34		Reference			Reference	
35-50	0.57	[0.345, 0.944]	0.029	0.57	[0.345, 0.944]	0.029
51-64	0.16	[0.091, 0.267]	0.000	0.16	[0.091, 0.267]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.89	[0.604, 1.301]	0.539	0.89	[0.604, 1.302]	0.539
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.01	[1.278, 3.173]	0.003	2.01	[1.278, 3.173]	0.003
Hispanic	3.14	[1.271, 7.778]	0.013	3.14	[1.271, 7.778]	0.013
Other, non-Hispanic	1.82	[0.824, 4.021]	0.138	1.82	[0.824, 4.021]	0.138
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	21.15	[11.340, 39.442]	0.000	21.15	[11.339, 39.445]	0.000
100%+	28.73	[14.427, 57.233]	0.000	28.73	[14.425, 57.239]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.98	[1.295, 3.025]	0.002	1.98	[1.295, 3.024]	0.002
Bachelor's/post graduate degree	2.87	[1.550, 5.300]	0.001	2.87	[1.550, 5.299]	0.001
Constant	0.19	[0.098, 0.357]	0.000	0.19	[0.099, 0.354]	0.000
Respondent	70327.56	[988.190, 5005072.842]	0.000	70327.23	[988.072, 5005628.758]	0.000
N	4,858			4,858		
F-value	11.011			11.817		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	2,421.000			2,421.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4.11 Interaction between employment (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a mental health condition and/or substance use disorder

	Employed/self-employed*			Employed/self-employed		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.58	[1.727, 3.841]	0.000	2.17	[1.617, 2.919]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.60	[0.947, 2.702]	0.079	1.34	[0.858, 2.098]	0.197
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.71	[0.400, 1.260]	0.241			
Age (DW)						
19-34		Reference			Reference	
35-50	0.43	[0.245, 0.769]	0.004	0.43	[0.245, 0.769]	0.004
51-64	0.15	[0.079, 0.282]	0.000	0.15	[0.079, 0.283]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.26	[0.795, 1.998]	0.325	1.26	[0.795, 1.997]	0.325
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.32	[0.724, 2.411]	0.363	1.32	[0.723, 2.408]	0.365
Hispanic	4.41	[1.411, 13.799]	0.011	4.39	[1.404, 13.734]	0.011
Other, non-Hispanic	0.87	[0.364, 2.087]	0.758	0.87	[0.365, 2.085]	0.759
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	19.95	[9.778, 40.708]	0.000	19.81	[9.703, 40.435]	0.000
100%+	22.85	[10.669, 48.946]	0.000	22.67	[10.585, 48.569]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.58	[0.967, 2.571]	0.068	1.57	[0.967, 2.566]	0.068
Bachelor's/post graduate degree	2.52	[1.159, 5.469]	0.020	2.51	[1.158, 5.439]	0.020
Constant	0.14	[0.068, 0.301]	0.000	0.16	[0.075, 0.327]	0.000
Respondent	35581.66	[421.071, 3006745.731]	0.000	33817.08	[399.139, 2865157.297]	0.000
N	3,446			3,446		
F-value	8.550			8.855		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,713.000			1,713.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4.12 Interaction between employment (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a mental health condition

	Employed/self-employed*			Employed/self-employed		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.65	[1.720, 4.071]	0.000	2.07	[1.511, 2.823]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.98	[1.151, 3.409]	0.014	1.53	[0.964, 2.432]	0.071
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.61	[0.335, 1.100]	0.100			
Age (DW)						
19-34		Reference			Reference	
35-50	0.41	[0.227, 0.724]	0.002	0.41	[0.228, 0.725]	0.002
51-64	0.15	[0.079, 0.291]	0.000	0.15	[0.080, 0.293]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.36	[0.835, 2.204]	0.218	1.35	[0.835, 2.198]	0.219
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	0.87	[0.466, 1.610]	0.649	0.87	[0.466, 1.610]	0.649
Hispanic	3.81	[1.142, 12.734]	0.030	3.78	[1.134, 12.621]	0.030
Other, non-Hispanic	0.92	[0.360, 2.331]	0.854	0.92	[0.362, 2.327]	0.856
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	18.73	[9.139, 38.371]	0.000	18.44	[8.996, 37.794]	0.000
100%+	23.41	[10.781, 50.849]	0.000	23.04	[10.608, 50.033]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	2.00	[1.202, 3.338]	0.008	2.00	[1.199, 3.321]	0.008
Bachelor's/post graduate degree	2.96	[1.320, 6.647]	0.008	2.94	[1.317, 6.576]	0.009
Constant	0.10	[0.048, 0.229]	0.000	0.12	[0.055, 0.260]	0.000
Respondent	17105.77	[244.834, 1195127.808]	0.000	15422.99	[221.668, 1073085.544]	0.000
N	3,120			3,120		
F-value	8.276			8.379		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	1,550.000			1,550.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4.13 Interaction between employment (change 2016-2017) and improved oral health (2016 or 2017), among respondents with a substance use disorder

	Employed/self-employed*			Employed/self-employed		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	3.86	[1.989, 7.483]	0.000	3.25	[2.026, 5.205]	0.000
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	0.66	[0.266, 1.623]	0.362	0.54	[0.250, 1.153]	0.110
Survey year*Improved oral health (2016 or 2017)						
2017 × Yes	0.69	[0.254, 1.865]	0.462			
Age (DW)						
19-34		Reference			Reference	
35-50	0.38	[0.140, 1.032]	0.058	0.38	[0.141, 1.033]	0.058
51-64	0.15	[0.051, 0.429]	0.000	0.15	[0.051, 0.430]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	1.28	[0.596, 2.745]	0.527	1.28	[0.598, 2.739]	0.524
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.55	[0.973, 6.696]	0.057	2.54	[0.970, 6.660]	0.058
Hispanic	3.58	[0.513, 25.054]	0.198	3.54	[0.507, 24.776]	0.202
Other, non-Hispanic	1.88	[0.526, 6.716]	0.331	1.87	[0.529, 6.616]	0.331
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	26.89	[7.483, 96.661]	0.000	26.60	[7.454, 94.903]	0.000
100%+	19.48	[5.144, 73.767]	0.000	19.23	[5.116, 72.281]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.51	[0.701, 3.245]	0.293	1.50	[0.701, 3.229]	0.294
Bachelor's/post graduate degree	3.65	[0.863, 15.400]	0.078	3.62	[0.866, 15.111]	0.078
Constant	0.10	[0.028, 0.391]	0.001	0.11	[0.032, 0.410]	0.001
Respondent	64811.39	[28.900,1.453e+08]	0.005	58573.39	[28.049,1.223e+08]	0.005
N	1,208			1,208		
F-value	4.033			4.345		
Model degrees of freedom	13.000			12.000		
Residual degrees of freedom	592.000			592.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

* Includes interaction term

0.4.14 Employment (2016, 2017, change 2016-2017) sensitivity analyses

	Employed/self-employed						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
All respondents[a]							
Employed/self-employed	55.9	[53.5, 58.1]	1,555	60.2	[57.8, 62.4]	1,618	4.3
Not employed/self-employed	44.1	[41.9, 46.5]	1,104	39.8	[37.6, 42.2]	1,046	
All respondents[b]							
Employed/self-employed	51.5	[49.3, 53.7]	1,555	56.8	[54.6, 59.0]	1,663	5.3
Not employed/self-employed	48.5	[46.3, 50.7]	1,409	43.2	[41.0, 45.4]	1,306	
All respondents[c]							
Employed/self-employed	54.2	[52.0, 56.3]	1,679	57.1	[55.0, 59.3]	1,742	2.9
Not employed/self-employed	45.8	[43.7, 48.0]	1,409	42.9	[40.7, 45.0]	1,352	
All respondents[d]							
Employed/self-employed	52.2	[50.0, 54.3]	1,634	57.1	[55.0, 59.3]	1,742	4.9
Not employed/self-employed	47.8	[45.7, 50.0]	1,454	42.9	[40.7, 45.0]	1,351	
All respondents[e]							
Employed/self-employed	48.7	[46.5, 50.9]	1,555	53.5	[51.3, 55.7]	1,672	4.8
Not employed/self-employed	51.3	[49.1, 53.5]	1,533	46.5	[44.3, 48.7]	1,421	

Notes: Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

[a] Analysis excludes those who answered homemaker, student, or retired to the employment question in 2016; Mixed effects logistic regression results, F(1, 2,656) = 12.75, p = 0.0004; Employed/self-employed in 2017 OR = 1.54, p< 0.001, 95% CI (1.2, 2.0)

[b] Analysis excludes those who answered student to the employment question in 2016; Mixed effects logistic regression results, F(1, 3,085) = 22.90, p < 0.0001; Employed/self-employed in 2017 OR = 1.74, p< 0.001, 95% CI (1.4, 2.2)

[c] Analysis assumes those who answered student to employment question in 2016 are employed in 2016; Mixed effects logistic regression results, F(1, 3,085) = 6.60, p = 0.0102; Employed/self-employed in 2017 OR = 1.33, p= 0.010, 95% CI (1.1, 1.7)

[d] Analysis assumes those who answered student to employment question in 2016 are employed in 2016 if they answered being employed in 2017; Mixed effects logistic regression results, F(1, 3,085) = 21.64, p < 0.0001; Employed/self-employed in 2017 OR = 1.71, p< 0.001, 95% CI (1.4, 2.1)

[e] Analysis recodes those who answered student in 2017 to not employed in 2017 if they indicated they were a full-time student with part-time employment in 2017; Mixed effects logistic regression results, F(1, 3,085) = 17.93, p < 0.0001; Employed/self-employed in 2017 OR = 1.57, p< 0.001, 95% CI (1.3, 1.9)

0.5 Employment status, detailed (2017)

0.5.1 Employment status, detailed (2017) by employment status detailed (2016), among all respondents

	Employment, detailed (2017)										
	Employed/self-employed		Out of work		Unable to work		Retired		Not looking for work at this time		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Employment, detailed (2016)											
Employed/self-employed (n=1,538)	86.2	[83.7, 88.4]	8.2	[6.5, 10.4]	2.5	[1.8, 3.5]	0.7	[0.4, 1.3]	2.3	[1.4, 3.9]	100.0
Out of work (n=717)	34.3	[29.9, 39.1]	29.3	[25.3, 33.7]	25.4	[21.8, 29.5]	2.7	[1.8, 4.1]	8.2	[6.3, 10.7]	100.0
Unable to work (n=369)	10.7	[7.6, 14.9]	7.0	[4.5, 10.9]	74.8	[69.2, 79.8]	3.0	[1.7, 5.2]	4.4	[2.3, 8.2]	100.0
Retired (n=138)	14.2	[7.2, 26.3]	1.6	[0.4, 6.3]	6.1	[3.0, 11.8]	73.2	[61.7, 82.3]	4.9	[1.7, 12.9]	100.0
Homemaker[a] (n=163)	18.4	[12.1, 27.0]	10.3	[6.5, 15.9]	15.7	[9.6, 24.6]	3.2	[1.6, 6.4]	52.4	[42.8, 61.8]	100.0
Student[b] (n=123)	63.6	[52.5, 73.5]	18.5	[11.7, 28.0]	4.0	[1.7, 9.5]	0.0		13.8	[7.4, 24.4]	100.0
Total (n=3,064)	57.3	[55.1, 59.4]	14.4	[12.8, 16.1]	17.6	[16.1, 19.3]	3.6	[3.0, 4.3]	7.1	[6.0, 8.4]	100.0

Note: This table shows row percents.

[a] This response option was not included in the 2017 survey

[b] In 2016, student status was included as a response option to the employment question "What is your current job status. Are you currently...?" while in 2017, student status was asked as a separate question "Are you currently in school?"

	Employment, detailed (2017)											
	Employed/self-employed		Out of work		Unable to work		Retired		Not looking for work at this time		Total	
	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI
Employment, detailed (2016)												
Employed/self-employed (n=1,538)	42.1	[40.0, 44.3]	4.0	[3.2, 5.1]	1.2	[0.9, 1.7]	0.4	[0.2, 0.6]	1.1	[0.7, 1.9]	48.8	[46.7, 51.0]
Out of work (n=717)	9.2	[7.8, 10.8]	7.9	[6.7, 9.3]	6.8	[5.8, 8.0]	0.7	[0.5, 1.1]	2.2	[1.7, 2.9]	26.9	[24.9, 29.0]
Unable to work (n=369)	1.2	[0.9, 1.7]	0.8	[0.5, 1.3]	8.5	[7.4, 9.8]	0.3	[0.2, 0.6]	0.5	[0.3, 1.0]	11.4	[10.1, 12.8]
Retired (n=138)	0.4	[0.2, 0.8]	0.0	[0.0, 0.2]	0.2	[0.1, 0.3]	2.1	[1.6, 2.7]	0.1	[0.0, 0.4]	2.9	[2.3, 3.5]
Homemaker[a] (n=163)	0.8	[0.5, 1.3]	0.5	[0.3, 0.7]	0.7	[0.4, 1.2]	0.1	[0.1, 0.3]	2.4	[1.8, 3.1]	4.5	[3.7, 5.5]
Student[b] (n=123)	3.5	[2.7, 4.6]	1.0	[0.6, 1.6]	0.2	[0.1, 0.5]	0.0		0.8	[0.4, 1.5]	5.5	[4.5, 6.8]
Total (n=3,064)	57.3	[55.1, 59.4]	14.4	[12.8, 16.1]	17.6	[16.1, 19.3]	3.6	[3.0, 4.3]	7.1	[6.0, 8.4]	100.0	

Note: This table presents the same data as above using cell percents.

[a] This response option was not included in the 2017 survey

[b] In 2016, student status was included as a response option to the employment question "What is your current job status. Are you currently...?" while in 2017, student status was asked as a separate question "Are you currently in school?"

0.6 Positive employment-related outcome (2017)

0.6.1 Positive employment-related outcome (2017) by improved health (from 2016-2017), among all respondents

	Positive employment-related outcome (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=241)	67.6	[59.4, 74.9]	32.4	[25.1, 40.6]	100.0
No (n=1,915)	60.1	[57.1, 62.9]	39.9	[37.1, 42.9]	100.0
Pearson: Uncorrected chi2(1) =	5.3239				
Design-based F(1.00, 2144.00) =	2.9456	Pr =	0.086		
Total (n=2,156)	60.9	[58.2, 63.6]	39.1	[36.4, 41.8]	100.0

Notes: χ^2 test of independence. Positive employment-related outcome was defined as a "yes" response to any of the following survey items from the 2017 enrollee follow-up survey: "the Healthy Michigan Plan helped me do a better job at work", "the Healthy Michigan Plan helped me get a better job", or "the Healthy Michigan Plan has made me better able to look for a job". Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.6.2 Positive employment-related outcome (2017) by improved health (from 2016-2017), among respondents with a chronic condition

	Positive employment-related outcome (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=209)	70.6	[61.5, 78.2]	29.4	[21.8, 38.5]	100.0
No (n=1,403)	62.4	[59.0, 65.8]	37.6	[34.2, 41.0]	100.0
Pearson: Uncorrected chi2(1) =	7.7283				
Design-based F(1.00, 2228.00) =	2.8222	Pr =	0.093		
Total (n=1,612)	63.6	[60.4, 66.7]	36.4	[33.3, 39.6]	100.0

Notes: χ^2 test of independence. Positive employment-related outcome was defined as a "yes" response to any of the following survey items from the 2017 enrollee follow-up survey: "the Healthy Michigan Plan helped me do a better job at work", "the Healthy Michigan Plan helped me get a better job", or "the Healthy Michigan Plan has made me better able to look for a job". Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

0.6.3 Predictors of positive employment-related outcome (2017), among all respondents and respondents with a chronic condition

	Positive employment-related outcome (2017)			Positive employment-related outcome (2017)[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.87	[0.621, 1.206]	0.393	0.84	[0.604, 1.173]	0.309
Number of chronic conditions (DW)	1.06	[0.967, 1.160]	0.217	0.96	[0.856, 1.077]	0.490
Age (DW)						
19-34		Reference			Reference	
35-50	1.19	[0.902, 1.580]	0.216	1.21	[0.861, 1.706]	0.271
51-64	1.62	[1.202, 2.177]	0.002	1.68	[1.188, 2.368]	0.003
Gender (DW)						
Male		Reference			Reference	
Female	1.02	[0.803, 1.298]	0.864	1.00	[0.750, 1.332]	0.996
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.35	[1.013, 1.789]	0.040	1.28	[0.919, 1.786]	0.143
Hispanic	0.94	[0.571, 1.562]	0.824	0.79	[0.417, 1.487]	0.461
Other, non-Hispanic	1.62	[1.057, 2.491]	0.027	1.91	[1.084, 3.368]	0.025
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	1.22	[0.929, 1.609]	0.151	1.34	[0.970, 1.858]	0.076
100%+	1.00	[0.753, 1.320]	0.984	1.24	[0.885, 1.735]	0.211
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.04	[0.811, 1.345]	0.735	1.15	[0.848, 1.550]	0.373
Bachelor's/post graduate degree	1.45	[1.023, 2.062]	0.037	1.28	[0.829, 1.970]	0.266
Constant	0.97	[0.702, 1.350]	0.874	1.19	[0.767, 1.857]	0.434
N	2,130			1,592		
F-value	2.293			1.581		
Model degrees of freedom	12.000			12.000		
Residual degrees of freedom	2,118.000			1,580.000		
F-value significance	0.007			0.090		

Notes: Multiple logistic regression. Positive employment-related outcome was defined as a "yes" response to any of the following survey items from the 2017 enrollee follow-up survey: "the Healthy Michigan Plan helped me do a better job at work", "the Healthy Michigan Plan helped me get a better job", or "the Healthy Michigan Plan has made me better able to look for a job". New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse.

[a] Analysis restricted to those with a chronic condition

0.7 HMP helped me do a better job at work (2017)

0.7.1 HMP helped me do a better job at work (2017) by improved health (from 2016-2017), among all respondents

	HMP helped me do a better job at work (2017)				
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=158)	78.1	[67.3, 86.0]	21.9	[14.0, 32.7]	100.0
No (n=1,335)	77.0	[73.9, 79.9]	23.0	[20.1, 26.1]	100.0
Pearson: Uncorrected chi2(1) =	0.0950				
Design-based F(1.00, 1481.00) =	0.0429	Pr =	0.836		
Total (n=1,493)	77.1	[74.2, 79.8]	22.9	[20.2, 25.8]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP helped me do a better job at work, respondents who answered "N/A" were excluded from the analysis.

0.7.2 HMP helped me do a better job at work (2017) by improved health (from 2016-2017), among respondents with a chronic condition

	HMP helped me do a better job at work (2017)				
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=139)	79.5	[67.7, 87.8]	20.5	[12.2, 32.3]	100.0
No (n=985)	79.0	[75.3, 82.2]	21.0	[17.8, 24.7]	100.0
Pearson: Uncorrected chi2(1) =	0.0372				
Design-based F(1.00, 1740.00) =	0.0097	Pr =	0.921		
Total (n=1,124)	79.1	[75.6, 82.1]	20.9	[17.9, 24.4]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP helped me do a better job at work, respondents who answered "N/A" were excluded from the analysis.

0.7.3 HMP helped me do a better job at work (2017) by improved oral health (2016 or 2017), among respondents employed in 2017

	HMP helped me do a better job at work (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=726)	82.3	[78.3, 85.7]	17.7	[14.3, 21.7]	100.0
No (n=748)	72.2	[67.7, 76.3]	27.8	[23.7, 32.3]	100.0
Pearson: Uncorrected chi2(1) =	40.7379				
Design-based F(1.00, 2817.00) =	12.0819	Pr =	0.001		
Total (n=1,474)	77.2	[74.2, 79.9]	22.8	[20.1, 25.8]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP helped me do a better job at work, respondents who answered "N/A" were excluded from the analysis. ϕ= 0.12

0.7.4 HMP helped me do a better job at work (2017) by improved oral health (2016 or 2017), among respondents with a chronic condition

	HMP helped me do a better job at work (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=557)	86.2	[82.0, 89.5]	13.8	[10.5, 18.0]	100.0
No (n=577)	72.2	[66.8, 77.1]	27.8	[22.9, 33.2]	100.0
Pearson: Uncorrected chi2(1) =	51.7282				
Design-based F(1.00, 1750.00) =	18.8362	Pr =	0.000		
Total (n=1,134)	79.0	[75.6, 82.1]	21.0	[17.9, 24.4]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP helped me do a better job at work, respondents who answered "N/A" were excluded from the analysis. ϕ= 0.17

0.7.5 Predictors of HMP helped me do a better job at work (2017), among respondents employed in 2017 and respondents with a chronic condition

	HMP helped me do a better job at work (2017)			HMP helped me do a better job at work (2017)[a]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.76	[1.254, 2.470]	0.001	2.32	[1.533, 3.508]	0.000
Number of chronic conditions (DW)	1.04	[0.903, 1.207]	0.558	0.90	[0.760, 1.074]	0.249
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.92	[0.577, 1.468]	0.726	0.95	[0.585, 1.527]	0.819
Age (DW)						
19-34		Reference			Reference	
35-50	1.14	[0.772, 1.685]	0.508	1.06	[0.650, 1.726]	0.816
51-64	2.21	[1.396, 3.495]	0.001	2.84	[1.698, 4.750]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.82	[0.579, 1.165]	0.269	0.82	[0.536, 1.245]	0.345
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.17	[0.779, 1.767]	0.445	1.07	[0.658, 1.733]	0.790
Hispanic	0.55	[0.271, 1.108]	0.094	0.44	[0.180, 1.098]	0.079
Other, non-Hispanic	1.00	[0.582, 1.717]	0.997	0.98	[0.479, 1.995]	0.949
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	1.17	[0.773, 1.769]	0.458	1.40	[0.845, 2.317]	0.191
100%+	0.81	[0.534, 1.225]	0.316	0.97	[0.585, 1.621]	0.919
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.17	[0.820, 1.682]	0.381	1.09	[0.703, 1.679]	0.707
Bachelor's/post graduate degree	1.51	[0.935, 2.429]	0.092	1.20	[0.669, 2.169]	0.535
Constant	2.07	[1.186, 3.600]	0.010	2.63	[1.258, 5.480]	0.010
N	1,459			1,111		
F-value	3.166			3.830		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	1,447.000			1,099.000		
F-value significance	0.000			0.000		

Notes: Multiple logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. For HMP helped me do a better job at work, respondents who answered "N/A" were excluded from the analysis.

[a] Analysis restricted to those with a chronic condition

0.8 HMP helped me get a better job (2017)

0.8.1 HMP helped me get a better job (2017) by improved health (from 2016-2017), among all respondents

		HMP helped me get a better job (2017)			
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=30)	49.3	[26.8, 72.1]	50.7	[27.9, 73.2]	100.0
No (n=247)	34.1	[27.1, 41.8]	65.9	[58.2, 72.9]	100.0
Pearson: Uncorrected chi2(1) =	2.8757				
Design-based F(1.00, 265.00) =	1.5013	Pr =	0.222		
Total (n=277)	35.8	[28.9, 43.5]	64.2	[56.5, 71.1]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP helped me get a better job, respondents who answered "N/A" were excluded from the analysis.

0.8.2 HMP helped me get a better job (2017) by improved health (from 2016-2017), among respondents with a chronic condition

		HMP helped me get a better job (2017)			
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=28)	47.7	[25.0, 71.4]	52.3	[28.6, 75.0]	100.0
No (n=177)	34.1	[25.9, 43.4]	65.9	[56.6, 74.1]	100.0
Pearson: Uncorrected chi2(1) =	8.6087				
Design-based F(1.00, 821.00) =	1.0818	Pr =	0.299		
Total (n=205)	36.2	[28.1, 45.2]	63.8	[54.8, 71.9]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP helped me get a better job, respondents who answered "N/A" were excluded from the analysis.

0.8.3 HMP helped me get a better job (2017) by improved oral health (2016 or 2017), among respondents employed in 2017

	HMP helped me get a better job (2017)				
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=140)	33.2	[23.9, 44.0]	66.8	[56.0, 76.1]	100.0
No (n=137)	38.8	[29.1, 49.5]	61.2	[50.5, 70.9]	100.0
Pearson: Uncorrected chi2(1) =	5.5106				
Design-based F(1.00, 1620.00) =	0.5709	Pr =	0.450		
Total (n=277)	35.8	[29.0, 43.4]	64.2	[56.6, 71.0]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP helped me get a better job, respondents who answered "N/A" were excluded from the analysis.

0.8.4 HMP helped me get a better job (2017) by improved oral health (2016 or 2017), among respondents with a chronic condition

	HMP helped me get a better job (2017)				
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=102)	37.2	[25.8, 50.3]	62.8	[49.7, 74.2]	100.0
No (n=103)	35.0	[24.4, 47.3]	65.0	[52.7, 75.6]	100.0
Pearson: Uncorrected chi2(1) =	0.4434				
Design-based F(1.00, 821.00) =	0.0658	Pr =	0.798		
Total (n=205)	36.2	[28.1, 45.2]	63.8	[54.8, 71.9]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP helped me get a better job, respondents who answered "N/A" were excluded from the analysis.

0.8.5 Predictors of HMP helped me get a better job (2017), among respondents employed in 2017 and respondents with a chronic condition

	HMP helped me get a better job (2017)[a]			HMP helped me get a better job (2017)[b]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	0.83	[0.437, 1.580]	0.571	1.20	[0.551, 2.611]	0.644
Number of chronic conditions (DW)	1.08	[0.829, 1.401]	0.573	1.14	[0.797, 1.626]	0.475
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.73	[0.316, 1.696]	0.466	0.71	[0.310, 1.639]	0.423
Age (DW)						
19-34		Reference			Reference	
35-50	1.01	[0.460, 2.222]	0.978	0.83	[0.330, 2.081]	0.687
51-64	1.28	[0.453, 3.596]	0.643	1.16	[0.376, 3.588]	0.794
Gender (DW)						
Male		Reference			Reference	
Female	0.45	[0.235, 0.876]	0.019	0.54	[0.250, 1.186]	0.125
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	0.79	[0.353, 1.780]	0.572	0.74	[0.283, 1.936]	0.538
Hispanic	0.76	[0.164, 3.530]	0.725	0.71	[0.087, 5.854]	0.752
Other, non-Hispanic	0.87	[0.304, 2.495]	0.795	0.83	[0.250, 2.770]	0.764
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	0.90	[0.406, 2.009]	0.803	1.07	[0.424, 2.722]	0.880
100%+	1.00	[0.436, 2.284]	0.995	1.04	[0.398, 2.712]	0.937
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.08	[0.532, 2.177]	0.837	1.43	[0.637, 3.200]	0.385
Bachelor's/post graduate degree	0.87	[0.373, 2.009]	0.736	1.25	[0.445, 3.494]	0.673
Constant	0.96	[0.332, 2.793]	0.945	0.56	[0.142, 2.239]	0.414
N	275			203		
F-value	0.781			0.511		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	263.000			191.000		
F-value significance	0.680			0.916		

Notes: Multiple logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. For HMP helped me get a better job, respondents who answered "N/A" were excluded from the analysis.

[a] Analysis restricted to those employed in 2017

[b] Analysis restricted to those with a chronic condition

0.9 HMP made me better able to look for a job (2017)

0.9.1 HMP made me better able to look for a job (2017) by improved health (from 2016-2017), among all respondents

	HMP made me better able to look for a job (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=41)	84.5	[62.5, 94.7]	15.5	[5.3, 37.5]	100.0
No (n=223)	66.7	[58.3, 74.1]	33.3	[25.9, 41.7]	100.0
Pearson: Uncorrected chi2(1) =	5.0007				
Design-based F(1.00, 252.00) =	2.6875	Pr =	0.102		
Total (n=264)	69.3	[61.7, 76.0]	30.7	[24.0, 38.3]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP made me better able to look for a job, respondents who answered "N/A" were excluded from the analysis.

0.9.2 HMP made me better able to look for a job (2017) by improved health (from 2016-2017), among respondents with a chronic condition

	HMP made me better able to look for a job (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Improved health (from 2016-2017)					
Yes (n=41)	85.7	[67.7, 94.5]	14.3	[5.5, 32.3]	100.0
No (n=193)	61.6	[52.3, 70.2]	38.4	[29.8, 47.7]	100.0
Pearson: Uncorrected chi2(1) =	32.4555				
Design-based F(1.00, 850.00) =	5.9423	Pr =	0.015		
Total (n=234)	65.9	[57.5, 73.4]	34.1	[26.6, 42.5]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For HMP made me better able to look for a job, respondents who answered "N/A" were excluded from the analysis. ϕ= 0.19.

0.9.3 HMP made me better able to look for a job (2017) by improved oral health (2016 or 2017), among respondents not employed in 2017

	HMP made me better able to look for a job (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=133)	72.5	[60.9, 81.6]	27.5	[18.4, 39.1]	100.0
No (n=134)	63.9	[53.1, 73.4]	36.1	[26.6, 46.9]	100.0
Pearson: Uncorrected chi2(1) =	17.0780				
Design-based F(1.00, 2001.00) =	1.2872	Pr =	0.257		
Total (n=267)	68.2	[60.4, 75.0]	31.8	[25.0, 39.6]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP made me better able to look for a job, respondents who answered "N/A" were excluded from the analysis.

0.9.4 HMP made me better able to look for a job (2017) by improved oral health (2016 or 2017), among respondents with a chronic condition

	HMP made me better able to look for a job (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Improved oral health (2016 or 2017)					
Yes (n=123)	68.2	[55.6, 78.6]	31.8	[21.4, 44.4]	100.0
No (n=111)	63.4	[51.9, 73.5]	36.6	[26.5, 48.1]	100.0
Pearson: Uncorrected chi2(1) =	2.1817				
Design-based F(1.00, 850.00) =	0.3403	Pr =	0.560		
Total (n=234)	65.9	[57.5, 73.4]	34.1	[26.6, 42.5]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. For HMP made me better able to look for a job, respondents who answered "N/A" were excluded from the analysis.

0.9.5 Predictors of HMP made me better able to look for a job (2017), among respondents not employed in 2017 and respondents with a chronic condition

	HMP made me better able to look for a job (2017)[a]			HMP made me better able to look for a job (2017)[b]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Improved oral health (2016 or 2017)						
No		Reference			Reference	
Yes	1.16	[0.570, 2.360]	0.681	1.22	[0.603, 2.472]	0.578
Number of chronic conditions (DW)	0.99	[0.754, 1.312]	0.970	0.72	[0.534, 0.969]	0.030
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.61	[0.266, 1.415]	0.251	0.56	[0.245, 1.267]	0.162
Age (DW)						
19-34		Reference			Reference	
35-50	1.26	[0.493, 3.224]	0.627	1.14	[0.455, 2.879]	0.773
51-64	1.31	[0.569, 3.023]	0.523	1.87	[0.713, 4.899]	0.202
Gender (DW)						
Male		Reference			Reference	
Female	0.95	[0.443, 2.037]	0.894	1.56	[0.745, 3.278]	0.236
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	2.10	[0.895, 4.917]	0.088	1.70	[0.756, 3.816]	0.198
Hispanic	12.13	[1.080, 136.261]	0.043	11.34	[1.082, 118.854]	0.043
Other, non-Hispanic	0.84	[0.226, 3.111]	0.792	0.40	[0.114, 1.430]	0.159
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	1.21	[0.494, 2.952]	0.679	0.46	[0.202, 1.063]	0.069
100%+	0.64	[0.234, 1.734]	0.376	0.78	[0.288, 2.089]	0.614
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	2.26	[1.011, 5.032]	0.047	2.54	[1.177, 5.482]	0.018
Bachelor's/post graduate degree	0.86	[0.253, 2.905]	0.804	2.70	[0.622, 11.732]	0.184
Constant	1.25	[0.517, 3.030]	0.617	2.30	[0.642, 8.237]	0.200
N	266			233		
F-value	1.077			1.522		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	254.000			221.000		
F-value significance	0.380			0.111		

Notes: Multiple logistic regression. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. For HMP made me better able to look for a job, respondents who answered "N/A" were excluded from the analysis.

[a] Analysis restricted to those who are not employed in 2017

[b] Analysis restricted to those with a chronic condition

1 Aim 1: To describe changes over time in health and functional status for HMP respondents, particularly those with chronic conditions or other indicators of poorer health.

1.1 Chronic conditions

1.1.1 New chronic condition diagnosis in 2017 by follow-up group, among all respondents

	New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	20.8	[18.7, 23.1]	79.2	[76.9, 81.3]	100.0
No longer enrolled (n=709)	17.7	[14.3, 21.8]	82.3	[78.2, 85.7]	100.0
Pearson: Uncorrected chi2(1) =	3.3536				
Design-based F(1.00, 3085.00) =	1.8607	Pr =	0.173		
Total (n=3,097)	20.1	[18.3, 22.1]	79.9	[77.9, 81.7]	100.0

Notes: New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse.

1.1.2 Presence of a chronic condition by follow-up group, among all respondents

	Chronic condition (2016 or 2017 survey and/or DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	78.3	[76.1, 80.4]	21.7	[19.6, 23.9]	100.0
No longer enrolled (n=709)	71.7	[67.0, 75.9]	28.3	[24.1, 33.0]	100.0
Pearson: Uncorrected chi2(1) =	13.7645				
Design-based F(1.00, 3085.00) =	7.6520	Pr =	0.006		
Total (n=3,097)	76.8	[74.8, 78.7]	23.2	[21.3, 25.2]	100.0

Notes: Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse.

1.1.3 Presence of two or more chronic conditions by follow-up group, among all respondents

	Two or more chronic conditions (2016 or 2017 survey and/or DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	53.6	[50.9, 56.2]	46.4	[43.8, 49.1]	100.0
No longer enrolled (n=709)	46.6	[42.1, 51.2]	53.4	[48.8, 57.9]	100.0
Pearson: Uncorrected chi2(1) =	10.7618				
Design-based F(1.00, 3085.00) =	6.6950	Pr =	0.010		
Total (n=3,097)	51.9	[49.7, 54.2]	48.1	[45.8, 50.3]	100.0

Notes: Two or more chronic conditions was defined as being diagnosed with two or more of the following chronic conditions: asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse.

1.2 Health status (2017)

1.2.1 Health status (2017) by health status (2016), among all respondents

	Health status (2017)										
	Excellent		**Very good**		**Good**		**Fair**		**Poor**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Health status (2016)											
Excellent (n=248)	46.8	[39.3, 54.4]	35.8	[28.5, 43.9]	15.0	[10.5, 20.9]	2.0	[0.7, 5.3]	0.4	[0.1, 3.1]	100.0
Very good (n=793)	13.3	[10.0, 17.4]	51.4	[46.7, 56.0]	29.3	[25.3, 33.7]	5.9	[4.0, 8.8]	0.1	[0.0, 0.6]	100.0
Good (n=1,080)	3.6	[2.2, 5.7]	21.7	[18.6, 25.1]	58.4	[54.6, 62.1]	14.6	[12.3, 17.3]	1.7	[1.0, 3.1]	100.0
Fair (n=717)	3.1	[1.7, 5.6]	8.6	[6.1, 12.0]	31.6	[27.5, 36.0]	48.9	[44.3, 53.5]	7.8	[5.8, 10.4]	100.0
Poor (n=252)	0.0		3.7	[1.0, 12.2]	10.2	[6.4, 15.8]	38.9	[31.6, 46.6]	47.3	[39.7, 55.1]	100.0
Total (n=3,096)	9.9	[8.5, 11.5]	26.5	[24.5, 28.6]	36.6	[34.5, 38.8]	20.9	[19.2, 22.8]	6.0	[5.1, 7.1]	100.0

Note: This table shows row percents.

	Health status (2017)											
	Excellent		**Very good**		**Good**		**Fair**		**Poor**		**Total**	
	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI
Health status (2016)												
Excellent (n=248)	4.5	[3.7, 5.5]	3.4	[2.6, 4.6]	1.4	[1.0, 2.1]	0.2	[0.1, 0.5]	0.0	[0.0, 0.3]	9.6	[8.3, 11.1]
Very good (n=793)	3.5	[2.6, 4.7]	13.6	[12.1, 15.3]	7.8	[6.6, 9.1]	1.6	[1.0, 2.4]	0.0	[0.0, 0.2]	26.5	[24.5, 28.6]
Good (n=1,080)	1.2	[0.7, 1.9]	7.2	[6.1, 8.5]	19.4	[17.7, 21.2]	4.9	[4.1, 5.8]	0.6	[0.3, 1.0]	33.2	[31.1, 35.3]
Fair (n=717)	0.7	[0.4, 1.3]	2.0	[1.4, 2.8]	7.3	[6.2, 8.5]	11.3	[9.9, 12.7]	1.8	[1.3, 2.4]	23.0	[21.2, 25.0]
Poor (n=252)	0.0		0.3	[0.1, 1.0]	0.8	[0.5, 1.3]	3.0	[2.3, 3.8]	3.6	[2.9, 4.5]	7.7	[6.6, 8.9]
Total (n=3,096)	9.9	[8.5, 11.5]	26.5	[24.5, 28.6]	36.6	[34.5, 38.8]	20.9	[19.2, 22.8]	6.0	[5.1, 7.1]	100.0	

Note: This table presents the same data as above using cell percents.

1.3 Fair/poor health (change 2016-2017)

1.3.1 Fair/poor health (2016, 2017, change 2016-2017) by follow-up group and demographic characteristics, among all respondents

	Fair/poor health								
	2016				2017				Delta
	Percent	SE	95%CI	N	Percent	SE	95%CI	N	Percent
Follow-up group[a]									
Still enrolled	31.4	0.01	[29.0, 33.7]	2,388	27.2	0.01	[24.9, 29.4]	2,388	-4.2
No longer enrolled	28.4	0.02	[24.2, 32.5]	709	26.4	0.02	[22.4, 30.4]	709	-2.0
Age (DW)									
19-34	20.7	0.02	[17.4, 24.1]	909	15.9	0.01	[12.9, 18.8]	909	-4.8
35-50	36.9	0.02	[33.1, 40.7]	969	32.1	0.02	[28.5, 35.8]	969	-4.8
51-64	36.4	0.02	[33.1, 39.7]	1,219	35.5	0.02	[32.2, 38.8]	1,219	-0.9
Gender (DW)									
Male	31.6	0.02	[28.4, 34.9]	1,230	28.6	0.02	[25.4, 31.7]	1,230	-3.0
Female	29.8	0.01	[27.2, 32.4]	1,867	25.6	0.01	[23.2, 28.0]	1,867	-4.2
Race/ethnicity (2016)									
White, non-Hispanic	30.6	0.01	[28.1, 33.2]	2,058	27.9	0.01	[25.4, 30.3]	2,058	-2.7
Black, non-Hispanic	31.5	0.02	[27.1, 35.9]	634	26.0	0.02	[21.9, 30.1]	634	-5.5
Hispanic	28.3	0.04	[19.6, 36.9]	138	21.5	0.04	[13.6, 29.4]	138	-6.8
Other, non-Hispanic	28.8	0.03	[22.0, 35.6]	228	24.9	0.03	[18.4, 31.3]	228	-3.9
FPL category (DW)									
0-35%	37.6	0.02	[34.2, 40.9]	1,218	32.3	0.02	[29.1, 35.5]	1,218	-5.3
36-99%	24.3	0.01	[21.4, 27.2]	1,084	23.0	0.01	[20.2, 25.9]	1,084	-1.3
100%+	21.5	0.02	[18.3, 24.7]	795	18.4	0.02	[15.3, 21.5]	795	-3.1
Region (DW)									
UP/NW/NE	30.7	0.02	[26.6, 34.8]	574	27.1	0.02	[23.1, 31.1]	574	-3.6
W/E Central/E	31.6	0.02	[28.3, 34.9]	980	30.8	0.02	[27.4, 34.1]	980	-0.8
S Central/SW/SE	29.0	0.02	[24.9, 33.1]	633	25.6	0.02	[21.7, 29.4]	633	-3.4
Detroit Metro	30.7	0.02	[27.0, 34.4]	910	24.9	0.02	[21.6, 28.3]	910	-5.8

[a] Mixed effects logistic regression results, F(3, 3,083) = 5.55, p = 0.0008; Interaction effect of follow-up*year (no longer enrolled*2017) on reporting fair/poor health OR = 1.28, p = 0.245, 95% CI (0.8, 2.1)

1.3.2 Fair/poor health (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Fair/poor health						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
All respondents[a]							
Fair/poor health	30.7	[28.7, 32.8]	970	27.0	[25.1, 29.0]	862	-3.7
Excellent/very good/good health	69.3	[67.2, 71.3]	2,127	73.0	[71.0, 74.9]	2,235	
Among respondents still enrolled[b]							
Fair/poor health	31.4	[29.1, 33.8]	767	27.2	[25.0, 29.4]	670	-4.2
Excellent/very good/good health	68.6	[66.2, 70.9]	1,621	72.8	[70.6, 75.0]	1,717	
Among respondents no longer enrolled[c]							
Fair/poor health	28.4	[24.4, 32.7]	203	26.4	[22.6, 30.6]	192	-2.0
Excellent/very good/good health	71.6	[67.3, 75.6]	506	73.6	[69.4, 77.4]	517	
Among respondents no longer enrolled and uninsured[d]							
Fair/poor health	23.6	[16.9, 31.9]	42	19.0	[12.8, 27.3]	33	-4.6
Excellent/very good/good health	76.4	[68.1, 83.1]	151	81.0	[72.7, 87.2]	160	
Among respondents with a chronic condition (2016 or 2017 survey and/or DW)[e]							
Fair/poor health	36.7	[34.3, 39.1]	908	32.6	[30.3, 34.9]	821	-4.1
Excellent/very good/good health	63.3	[60.9, 65.7]	1,561	67.4	[65.1, 69.7]	1,648	
Among respondents with two or more chronic conditions (2016 or 2017 survey and/or DW)[f]							
Fair/poor health	45.6	[42.7, 48.5]	777	40.9	[38.0, 43.8]	710	-4.7
Excellent/very good/good health	54.4	[51.5, 57.3]	990	59.1	[56.2, 62.0]	1,057	
Among respondents with a mental health condition and/or substance use disorder (DW)[g]							
Fair/poor health	39.9	[37.0, 42.8]	691	35.6	[32.8, 38.5]	623	-4.3
Excellent/very good/good health	60.1	[57.2, 63.0]	1,058	64.4	[61.5, 67.2]	1,126	
Among respondents with a mental health condition (DW)[h]							
Fair/poor health	40.8	[37.8, 43.9]	632	36.1	[33.2, 39.2]	571	-4.7
Excellent/very good/good health	59.2	[56.1, 62.2]	950	63.9	[60.8, 66.8]	1,011	
Among respondents with a substance use disorder (DW)[i]							
Fair/poor health	44.1	[39.3, 49.0]	282	41.8	[37.1, 46.7]	264	-2.3
Excellent/very good/good health	55.9	[51.0, 60.7]	334	58.2	[53.3, 62.9]	352	

[a] Mixed effects logistic regression results, F(1, 3,085) = 14.41, p = 0.0001; Fair/poor health in 2017 OR = 0.66, p < 0.001, 95% CI (0.5, 0.8)
[b] Mixed effects logistic regression results, F(1, 2,376) = 14.16, p = 0.0002; Fair/poor health in 2017 OR = 0.62, p < 0.001, 95% CI (0.5, 0.8)
[c] Mixed effects logistic regression results, F(1, 697) = 1.01, p = 0.3161; Fair/poor health in 2017 OR = 0.80, p = 0.316, 95% CI (0.5, 1.2)
[d] Mixed effects logistic regression results, F(1, 181) = 1.44, p = 0.2323; Fair/poor health in 2017 OR = 0.61, p = 0.232, 95% CI (0.3, 1.4)
[e] Mixed effects logistic regression results, F(1, 2,457) = 11.85, p= 0.006; Fair/poor health in 2017 OR = 0.68, p = 0.001, 95% CI (0.5, 0.8)
[f] Mixed effects logistic regression results, F(1, 1,755) = 9.66, p = 0.0019; Fair/poor health in 2017 OR = 0.68, p = 0.002, 95% CI (0.5, 0.9)
[g] Mixed effects logistic regression results, F(1, 1,737) = 9.73, p= 0.0018; Fair/poor health in 2017 OR = 0.66, p = 0.002, 95% CI (0.5, 0.9)
[h] Mixed effects logistic regression results, F(1, 1,570) = 11,71, p= 0.0006; Fair/poor health in 2017 OR = 0.63, p = 0.001, 95% CI (0.5, 0.8)
[i] Mixed effects logistic regression results, F(1, 604) = 1.03, p= 0.3097; Fair/poor health in 2017 OR = 0.82, p = 0.310, 95% CI (0.6, 1.2)

1.3.3 Interaction between fair/poor health (change 2016-2017) and presence of a chronic condition, among all respondents

	Fair/poor health*			Fair/poor health		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	0.55	[0.299, 1.027]	0.061	0.66	[0.530, 0.816]	0.000
Chronic condition (2016 or 2017 survery and/or DW)						
No		Reference			Reference	
Yes	13.75	[7.556, 25.033]	0.000	14.91	[8.496, 26.163]	0.000
Survey year*Chronic condition (2016 or 2017 survery and/or DW)						
2017 × Yes	1.21	[0.628, 2.339]	0.566			
Age (DW)						
19-34		Reference			Reference	
35-50	3.26	[2.061, 5.170]	0.000	3.26	[2.060, 5.169]	0.000
51-64	2.94	[1.895, 4.570]	0.000	2.94	[1.894, 4.571]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.90	[0.630, 1.274]	0.541	0.90	[0.630, 1.275]	0.542
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	0.64	[0.416, 0.975]	0.038	0.64	[0.415, 0.976]	0.038
Hispanic	0.97	[0.419, 2.249]	0.944	0.97	[0.418, 2.250]	0.942
Other, non-Hispanic	1.03	[0.527, 2.010]	0.933	1.03	[0.527, 2.010]	0.933
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	0.32	[0.219, 0.482]	0.000	0.32	[0.219, 0.482]	0.000
100%+	0.24	[0.155, 0.379]	0.000	0.24	[0.155, 0.379]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.37	[0.247, 0.547]	0.000	0.37	[0.247, 0.547]	0.000
Bachelor's/post graduate degree	0.25	[0.138, 0.439]	0.000	0.25	[0.138, 0.440]	0.000
Insurance status in 12 months prior to HMP (2016)						
Insured/Don't know		Reference			Reference	
Uninsured	0.77	[0.542, 1.102]	0.155	0.77	[0.542, 1.103]	0.156
Constant	0.04	[0.017, 0.079]	0.000	0.03	[0.016, 0.073]	0.000
Respondent	15190.59	[593.887, 388548.686]	0.000	14944.58	[591.960, 377289.606]	0.000
N	6,098			6,098		
F-value	12.670			13.818		
Model degrees of freedom	14.000			13.000		
Residual degrees of freedom	3,037.000			3,037.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse. Variables are from both survey years unless otherwise noted.

* Includes interaction term

1.3.4 Predictors of fair/poor health (change 2016-2017), among respondents still enrolled and respondents still enrolled with two or more chronic conditions

	Fair/poor health[a]			Fair/poor health[b]		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	0.62	[0.480, 0.795]	0.000	0.68	[0.532, 0.869]	0.002
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.56	[0.347, 0.910]	0.019	0.59	[0.387, 0.894]	0.013
Number of chronic conditions (DW)	3.31	[2.740, 4.010]	0.000	2.60	[2.150, 3.155]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	1.40	[0.848, 2.304]	0.189	1.31	[0.765, 2.238]	0.327
51-64	0.78	[0.479, 1.285]	0.336	0.86	[0.519, 1.425]	0.559
Gender (DW)						
Male		Reference			Reference	
Female	0.85	[0.577, 1.259]	0.421	0.76	[0.521, 1.110]	0.156
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	0.64	[0.401, 1.018]	0.059	0.60	[0.383, 0.944]	0.027
Hispanic	0.68	[0.276, 1.665]	0.396	0.80	[0.328, 1.946]	0.621
Other, non-Hispanic	1.06	[0.500, 2.244]	0.881	1.05	[0.479, 2.292]	0.906
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	0.55	[0.361, 0.836]	0.005	0.53	[0.351, 0.802]	0.003
100%+	0.41	[0.255, 0.657]	0.000	0.39	[0.242, 0.622]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.41	[0.272, 0.622]	0.000	0.52	[0.347, 0.787]	0.002
Bachelor's/post graduate degree	0.39	[0.207, 0.752]	0.005	0.49	[0.250, 0.976]	0.042
Constant	0.05	[0.023, 0.088]	0.000	0.10	[0.047, 0.225]	0.000
Respondent	3353.64	[162.386, 69260.114]	0.000	257.82	[44.044, 1509.194]	0.000
N	4,706			3,480		
F-value	14.495			10.215		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	2,341.000			1,728.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those still enrolled

[b] Analysis restricted to those with two or more chronic conditions

1.3.5 Predictors of fair/poor health (change 2016-2017), among respondents no longer enrolled and uninsured

	Fair/poor health		
	aOR	95% CI	p-value
Survey year			
2016		Reference	
2017	0.65	[0.297, 1.414]	0.274
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)			
No		Reference	
Yes	0.72	[0.155, 3.376]	0.678
Number of chronic conditions (DW)	2.18	[1.381, 3.450]	0.001
Age (DW)			
19-34		Reference	
35-50	2.91	[0.824, 10.260]	0.096
51-64	1.25	[0.310, 5.009]	0.756
Gender (DW)			
Male		Reference	
Female	0.30	[0.093, 0.945]	0.040
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.35	[0.079, 1.517]	0.158
Hispanic	1.60	[0.241, 10.625]	0.626
Other, non-Hispanic	0.56	[0.043, 7.404]	0.660
FPL category (DW)			
0-35%		Reference	
36-99%	0.32	[0.090, 1.174]	0.086
100%+	0.34	[0.074, 1.563]	0.165
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.55	[0.174, 1.708]	0.296
Bachelor's/post graduate degree	0.54	[0.067, 4.390]	0.563
Constant	0.17	[0.026, 1.058]	0.057
Respondent	21.45	[0.657, 700.492]	0.084
N	382		
F-value	1.806		
Model degrees of freedom	13.000		
Residual degrees of freedom	179.000		
F-value significance	0.046		

Notes: Mixed effects logistic regression. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. Variables are from both survey years unless otherwise noted.

1.3.6 Fair/poor health (2016, 2017, change 2016-2017) by follow-up group, among various chronic condition subgroups

	Fair/poor health								
	2016				2017				Delta
	Percent	SE	95%CI	N	Percent	SE	95%CI	N	Percent
Among respondents with asthma (2016 or 2017 survey and/or DW)	43.2	0.02	[38.9, 47.6]	800	37.0	0.02	[32.8, 41.2]	800	-6.2
% Fair/poor health still enrolled	43.8	0.03	[38.8, 48.8]	619	36.6	0.02	[31.8, 41.3]	619	-7.2
% Fair/poor health no longer enrolled	41.3	0.05	[32.2, 50.5]	181	38.5	0.05	[29.6, 47.5]	181	-2.8
Among respondents with arthritis (2016 or 2017 survey and/or DW)	47.4	0.02	[44.2, 50.5]	1,392	43.4	0.02	[40.3, 46.6]	1,392	-4
% Fair/poor health still enrolled	48.6	0.02	[45.0, 52.2]	1,098	42.9	0.02	[39.3, 46.5]	1,098	-5.7
% Fair/poor health no longer enrolled	42.9	0.03	[36.1, 49.7]	294	45.4	0.03	[38.5, 52.2]	294	2.5
Among respondents with cancer (2016 or 2017 survey and/or DW)	49.1	0.04	[41.6, 56.7]	278	46.8	0.04	[39.2, 54.3]	278	-2.3
% Fair/poor health still enrolled	48.0	0.04	[39.5, 56.5]	213	43.8	0.04	[35.5, 52.1]	213	-4.2
% Fair/poor health no longer enrolled	52.7	0.08	[37.3, 68.2]	65	56.6	0.08	[41.5, 71.7]	65	3.9
Among respondents with COPD (2016 or 2017 survey and/or DW)	49.1	0.02	[44.7, 53.4]	857	43.9	0.02	[39.6, 48.1]	857	-5.2
% Fair/poor health still enrolled	48.9	0.03	[43.9, 53.9]	674	41.8	0.02	[37.0, 46.6]	674	-7.1
% Fair/poor health no longer enrolled	49.8	0.04	[41.2, 58.5]	183	52.0	0.04	[43.4, 60.6]	183	2.2
Among respondents with diabetes (2016 or 2017 survey and/or DW)	46.8	0.02	[42.3, 51.3]	699	44.6	0.02	[40.1, 49.2]	699	-2.2
% Fair/poor health still enrolled	47.0	0.03	[41.9, 52.2]	557	45.3	0.03	[40.1, 50.5]	557	-1.7
% Fair/poor health no longer enrolled	46.0	0.05	[36.4, 55.6]	142	42.0	0.05	[32.4, 51.5]	142	-4.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)	43.0	0.02	[39.9, 46.1]	1,550	38.0	0.02	[35.0, 41.1]	1,550	-5.0
% Fair/poor health still enrolled	43.0	0.02	[39.5, 46.6]	1,208	37.4	0.02	[33.9, 40.8]	1,208	-5.6
% Fair/poor health no longer enrolled	42.7	0.03	[36.3, 49.2]	342	40.3	0.03	[33.9, 46.7]	342	-2.4
Among respondents with heart disease (2016 or 2017 survey and/or DW)	51.7	0.03	[46.5, 56.9]	592	46.0	0.03	[40.9, 51.1]	592	-5.7
% Fair/poor health still enrolled	52.7	0.03	[46.7, 58.8]	456	44.7	0.03	[38.8, 50.6]	456	-8
% Fair/poor health no longer enrolled	48.3	0.05	[37.9, 58.6]	136	50.7	0.05	[40.4, 60.9]	136	2.4

1.4 Improved health (from 2016-2017)

1.4.1 Improved health (from 2016-2017) by presence of a mental health condition and/or substance use disorder, among all respondents

	Improved health (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Mental health condition and/or substance use disorder (DW)					
Yes (n=1,749)	12.7	[10.8, 14.9]	87.3	[85.1, 89.2]	100.0
No (n=1,348)	9.0	[7.2, 11.2]	91.0	[88.8, 92.8]	100.0
Pearson: Uncorrected chi2(1) =	10.4798				
Design-based F(1.00, 3085.00) =	6.1077	Pr =	0.014		
Total (n=3,097)	11.1	[9.7, 12.6]	88.9	[87.4, 90.3]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. ϕ= 0.06

1.4.2 Improved health (from 2016-2017) by new chronic condition diagnosis (2016), among respondents with a chronic condition

	Improved health (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
New chronic condition diagnosis (2016)					
Yes (n=634)	14.5	[11.6, 18.0]	85.5	[82.0, 88.4]	100.0
No (n=1,835)	12.3	[10.3, 14.5]	87.7	[85.5, 89.7]	100.0
Pearson: Uncorrected chi2(1) =	2.5600				
Design-based F(1.00, 3085.00) =	1.4096	Pr =	0.235		
Total (n=2,469)	12.8	[11.2, 14.7]	87.2	[85.3, 88.8]	100.0

Notes: χ^2 test of independence. New chronic condition diagnosis in 2016 was defined as a new diagnosis of asthma, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2016 as indicated by self-report. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

1.4.3 Improved health (from 2016-2017) by experience of homelessness (2017), housing insecurity (2017), and employment (2017), among respondents still enrolled

	Improved health (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Homeless in the last 12 months (2017)					
Yes (n=149)	11.7	[6.9, 19.4]	88.3	[80.6, 93.1]	100.0
No (n=2,233)	11.2	[9.6, 13.1]	88.8	[86.9, 90.4]	100.0
Pearson: Uncorrected chi2(1) =	0.0605				
Design-based F(1.00, 3079.00) =	0.0273	Pr =	0.869		
Number of places lived in past 3 years (2017)					
One (n=1,724)	11.6	[9.7, 13.8]	88.4	[86.2, 90.3]	100.0
Two (n=450)	9.0	[6.2, 12.9]	91.0	[87.1, 93.8]	100.0
Three (n=128)	11.8	[6.4, 20.7]	88.2	[79.3, 93.6]	100.0
Four or more (n=81)	14.5	[7.7, 25.6]	85.5	[74.4, 92.3]	100.0
Pearson: Uncorrected chi2(3) =	4.7255				
Design-based F(2.98, 9175.38) =	0.7166	Pr =	0.541		
Employed/self-employed (2017)					
Yes (n=1,319)	12.0	[9.7, 14.7]	88.0	[85.3, 90.3]	100.0
No (n=1,066)	10.5	[8.5, 12.8]	89.5	[87.2, 91.5]	100.0
Pearson: Uncorrected chi2(1) =	1.7756				
Design-based F(1.00, 3082.00) =	0.8415	Pr =	0.359		
Total (n=2,388)	11.3	[9.7, 13.1]	88.7	[86.9, 90.3]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

1.4.4 Improved health (from 2016-2017) by experience of homelessness (2017), housing insecurity (2017), employment (2017), and insurance status (2017), among respondents no longer enrolled

	Improved health (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Homeless in the last 12 months (2017)					
Yes (n=46)	13.5	[5.8, 28.3]	86.5	[71.7, 94.2]	100.0
No (n=661)	9.8	[7.3, 13.1]	90.2	[86.9, 92.7]	100.0
Pearson: Uncorrected chi2(1) =	3.6838				
Design-based F(1.00, 3083.00) =	0.5174	Pr =	0.472		
Number of places lived in past 3 years (2017)					
One (n=451)	10.3	[7.1, 14.8]	89.7	[85.2, 92.9]	100.0
Two (n=161)	11.9	[7.4, 18.5]	88.1	[81.5, 92.6]	100.0
Three (n=58)	5.8	[1.8, 16.9]	94.2	[83.1, 98.2]	100.0
Four or more (n=39)	11.1	[3.6, 29.1]	88.9	[70.9, 96.4]	100.0
Pearson: Uncorrected chi2(3) =	9.3223				
Design-based F(2.95, 9085.93) =	0.4470	Pr =	0.716		
Employed/self-employed (2017)					
Yes (n=423)	8.6	[5.8, 12.6]	91.4	[87.4, 94.2]	100.0
No (n=285)	13.2	[8.9, 19.0]	86.8	[81.0, 91.1]	100.0
Pearson: Uncorrected chi2(1) =	16.1823				
Design-based F(1.00, 3084.00) =	2.3636	Pr =	0.124		
Insurance status (2017)					
Insured (n=508)	9.9	[6.9, 13.8]	90.1	[86.2, 93.1]	100.0
Uninsured (n=193)	11.9	[7.5, 18.3]	88.1	[81.7, 92.5]	100.0
Pearson: Uncorrected chi2(1) =	2.9335				
Design-based F(1.00, 3077.00) =	0.4307	Pr =	0.512		
Total (n=709)	10.3	[7.8, 13.5]	89.7	[86.5, 92.2]	100.0

Notes: χ^2 test of independence. Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017. For homeless in the last 12 months, number of places lived in past 3 years, and insurance status, respondents who answered "Don't know" were excluded from the analysis.

1.5 Days poor physical health (change 2016-2017)

1.5.1 Days poor physical health (2016, 2017, change 2016-2017) by follow-up group, demographic characteristics (2017), presence of a chronic condition, presence of a mental health condition and/or substance use disorder, presence of a mental health condition, and presence of a substance use disorder, among all respondents

	Days poor physical health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Follow-up group[a]									
Still enrolled	7.0	0.26	[6.5, 7.5]	2,360	5.6	0.23	[5.1, 6.0]	2,375	-1.4
No longer enrolled	6.8	0.47	[5.9, 7.7]	701	5.8	0.43	[5.0, 6.7]	702	-1.0
Age (DW)									
19-34	4.3	0.33	[3.7, 4.9]	901	3.0	0.25	[2.5, 3.5]	902	-1.3
35-50	8.2	0.43	[7.3, 9.0]	963	6.9	0.41	[6.1, 7.7]	964	-1.3
51-64	9.0	0.40	[8.2, 9.8]	1,197	7.6	0.36	[6.9, 8.3]	1,211	-1.4
Gender (DW)									
Male	6.8	0.36	[6.1, 7.6]	1,216	5.3	0.31	[4.7, 5.9]	1,223	-1.5
Female	7.0	0.28	[6.5, 7.6]	1,845	6.0	0.27	[5.4, 6.5]	1,854	-1.0
Race/ethnicity (2016)									
White, non-Hispanic	7.5	0.30	[7.0, 8.1]	2,031	6.1	0.26	[5.6, 6.6]	2,042	-1.4
Black, non-Hispanic	5.9	0.45	[5.1, 6.8]	633	4.4	0.37	[3.6, 5.1]	633	-1.5
Hispanic	6.2	0.87	[4.5, 7.9]	135	5.5	0.98	[3.6, 7.4]	136	-0.7
Other, non-Hispanic	6.3	0.76	[4.9, 7.8]	226	6.3	0.80	[4.7, 7.9]	227	0.0
FPL category (DW)									
0-35%	8.1	0.38	[7.4, 8.9]	1,200	6.3	0.33	[5.7, 7.0]	1,212	-1.8
36-99%	5.9	0.33	[5.3, 6.6]	1,068	5.0	0.30	[4.4, 5.6]	1,077	-0.9
100%+	5.3	0.35	[4.6, 6.0]	793	4.8	0.35	[4.1, 5.4]	788	-0.5
Region (DW)									
UP/NW/NE	7.7	0.51	[6.7, 8.7]	566	7.0	0.49	[6.1, 8.0]	571	-0.7
W/E Central/E	7.7	0.40	[6.9, 8.5]	969	6.6	0.36	[5.9, 7.3]	972	-1.1
S Central/SW/SE	7.0	0.48	[6.1, 8.0]	626	5.9	0.43	[5.1, 6.8]	629	-1.1
Detroit Metro	6.2	0.38	[5.4, 6.9]	900	4.6	0.33	[3.9, 5.2]	905	-1.6
Chronic condition (2016 or 2017 survey and/or DW)[b]									
No	2.7	0.34	[2.0, 3.4]	623	1.9	0.29	[1.3, 2.5]	627	-0.8
Yes	8.2	0.27	[7.7, 8.8]	2,438	6.8	0.25	[6.3, 7.3]	2,450	-1.4
Mental health condition and/or substance use disorder (DW)[c]									
No	4.3	0.26	[3.7, 4.8]	1,336	3.3	0.22	[2.8, 3.7]	1,341	-1.0
Yes	9.1	0.34	[8.5, 9.8]	1,725	7.6	0.31	[7.0, 8.2]	1,736	-1.5
Mental health condition (DW)[d]									
No	4.5	0.25	[4.0, 5.0]	1,502	3.4	0.21	[3.0, 3.8]	1,507	-1.1
Yes	9.5	0.37	[8.7, 10.2]	1,559	8.0	0.34	[7.3, 8.7]	1,570	-1.5
Substance use disorder (DW)[e]									
No	6.1	0.24	[5.6, 6.6]	2,450	5.0	0.21	[4.6, 5.4]	2,464	-1.1
Yes	10.0	0.58	[8.9, 11.2]	611	8.1	0.53	[7.1, 9.2]	613	-1.9

[a] Two factor repeated measures ANOVA results, F(1, 3,083)= 1.09, p= 0.2969
[b] Two factor repeated measures ANOVA results, F(1, 3,083)= 2.60, p= 0.1069
[c] Two factor repeated measures ANOVA results, F(1, 3,083)= 1.60, p= 0.2060
[d] Two factor repeated measures ANOVA results, F(1, 3,083)= 0.51, p= 0.4770
[e] Two factor repeated measures ANOVA results, F(1, 3,083)= 2.04, p= 0.1529

1.5.2 Days poor physical health (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Days poor physical health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
All follow-up respondents[a]	6.9	0.23	[6.5, 7.4]	3,061	5.7	0.20	[5.3, 6.0]	3,077	-1.2
Among those still enrolled[b]	7.0	0.26	[6.5, 7.5]	2,360	5.6	0.23	[5.1, 6.0]	2,375	-1.4
Among those no longer enrolled[c]	6.8	0.46	[5.9, 7.7]	701	5.8	0.43	[5.0, 6.7]	702	-1.0
Among those no longer enrolled and uninsured[d]	4.9	0.73	[3.4, 6.3]	191	3.8	0.61	[2.6, 5.0]	191	-1.1
Among those with a chronic condition (2016 or 2017 and/or DW)[e]	8.2	0.27	[7.7, 8.8]	2,438	6.8	0.25	[6.3, 7.3]	2,450	-1.4
Among those with two or more chronic conditions (2016 or 2017 and/or DW)[f]	9.9	0.34	[9.3, 10.6]	1,740	8.5	0.32	[7.8, 9.1]	1,753	-1.4
Among those with a mental health condition and/or substance use disorder (DW)[g]	9.1	0.34	[8.5, 9.8]	1,725	7.6	0.31	[7.0, 8.2]	1,736	-1.5
Among those with a mental health condition (DW)[h]	9.5	0.36	[8.7, 10.2]	1,559	8.0	0.34	[7.3, 8.7]	1,570	-1.5
Among those with a substance use disorder (DW)[i]	10.0	0.58	[8.9, 11.2]	611	8.1	0.53	[7.1, 9.2]	613	-1.9

[a] Paired sample t-test results, difference in days = -1.2, t(3,031) = -6.10, p < 0.001, 95% CI (-1.7, -0.9)
[b] Paired sample t-test results, difference in days = -1.4, t(2,335) = -5.65, p < 0.001, 95% CI (-1.9, -0.9)
[c] Paired sample t-test results, difference in days = -0.9, t(684) = -2.30, p = 0.022, 95% CI (-1.7, -0.1)
[d] Paired sample t-test results, difference in days = -0.9, t(177) = -1.20, p = 0.232, 95% CI (-2.5, -0.6)
[e] Paired sample t-test results, difference in days = -1.5, t(2,409) = -5.57, p < 0.001, 95% CI (-2.0, -0.9)
[f] Paired sample t-test results, difference in days = -1.5, t(1,716) = -4.39, p < 0.001, 95% CI (-2.1, -0.8)
[g] Paired sample t-test results, difference in days = -1.5, t(1,702) = -4.83, p < 0.001, 95% CI (-2.2, -0.9)
[h] Paired sample t-test results, difference in days = -1.5, t(1,537) = -4.32, p < 0.001, 95% CI (-2.1, -0.8)
[i] Paired sample t-test results, difference in days = -2.0, t(596) = -3.79, p < 0.001, 95% CI (-3.0, -1.0)

1.5.3 Predictors of days poor physical health (change 2016-2017), among all respondents

	Days poor physical health		
	Coef.	95% CI	p-value
Survey year			
2016		Reference	
2017	-1.32	[-1.740,- 0.894]	0.000
Number of chronic conditions (DW)	2.28	[2.028, 2.530]	0.000
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)			
No		Reference	
Yes	-1.38	[-2.334,- 0.429]	0.004
Age (DW)			
19-34		Reference	
35-50	1.67	[0.851, 2.487]	0.000
51-64	1.09	[0.264, 1.907]	0.010
Gender (DW)			
Male		Reference	
Female	0.46	[-0.234, 1.148]	0.194
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	-2.26	[-3.010,- 1.510]	0.000
Hispanic	0.20	[-1.344, 1.748]	0.798
Other, non-Hispanic	0.22	[-1.021, 1.468]	0.725
FPL category (DW)			
0-35%		Reference	
36-99%	-1.41	[-2.150,- 0.665]	0.000
100%+	-1.70	[-2.489,- 0.904]	0.000
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	-0.24	[-0.951, 0.477]	0.516
Bachelor's/post graduate degree	-0.80	[-1.800, 0.195]	0.115
Constant	3.36	[2.396, 4.330]	0.000
Respondent	31.92	[27.064, 36.779]	0.000
Days poor physical health residuals	51.66	[46.935, 56.382]	0.000
N	6,049		
F-value	47.967		
Model degrees of freedom	13.000		
Residual degrees of freedom	3,037.000		
F-value significance	0.000		

Notes: Mixed effects linear regression. Variables are from both survey years unless otherwise noted. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse.

1.5.4 Interaction between days poor physical health (change 2016-2017) and presence of a chronic condition, among all respondents

	Days poor physical health*			Days poor physical health		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-0.81	[-1.426,- 0.200]	0.009	-1.31	[-1.737,- 0.890]	0.000
Chronic condition (2016 or 2017 survery and/or DW)						
No		Reference			Reference	
Yes	4.35	[3.472, 5.222]	0.000	4.02	[3.299, 4.740]	0.000
Survey year*Chronic condition (2016 or 2017 survery and/or DW)						
2017 × Yes	-0.65	[-1.456, 0.150]	0.111			
Age (DW)						
19-34		Reference			Reference	
35-50	3.00	[2.136, 3.862]	0.000	3.00	[2.136, 3.861]	0.000
51-64	3.30	[2.448, 4.148]	0.000	3.30	[2.448, 4.148]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.60	[-0.143, 1.338]	0.114	0.60	[-0.143, 1.339]	0.114
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-2.20	[-3.018,- 1.379]	0.000	-2.20	[-3.018,- 1.380]	0.000
Hispanic	-0.12	[-1.760, 1.521]	0.886	-0.12	[-1.760, 1.520]	0.886
Other, non-Hispanic	0.27	[-1.043, 1.587]	0.685	0.27	[-1.042, 1.588]	0.684
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-1.87	[-2.667,- 1.070]	0.000	-1.87	[-2.668,- 1.071]	0.000
100%+	-2.15	[-2.982,- 1.317]	0.000	-2.15	[-2.981,- 1.317]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	-0.46	[-1.244, 0.316]	0.244	-0.46	[-1.244, 0.316]	0.243
Bachelor's/post graduate degree	-1.47	[-2.532,- 0.417]	0.006	-1.47	[-2.531,- 0.417]	0.006
Insurance status in 12 months prior to HMP (2016)						
Insured/Don't know		Reference			Reference	
Uninsured	-0.67	[-1.395, 0.050]	0.068	-0.67	[-1.396, 0.049]	0.068
Constant	3.60	[2.407, 4.791]	0.000	3.85	[2.695, 5.006]	0.000
Respondent	39.05	[33.819, 44.282]	0.000	39.03	[33.794, 44.262]	0.000
Days poor physical health residuals	51.67	[46.946, 56.402]	0.000	51.71	[46.984, 56.445]	0.000
N	6,045			6,045		
F-value	28.811			30.595		
Model degrees of freedom	14.000			13.000		
Residual degrees of freedom	3,035.000			3,035.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse. Variables are from both survey years unless otherwise noted.

* Includes interaction term

1.5.5 Predictors of days poor physical health (change 2016-2017), among respondents still enrolled and respondents with two or more chronic conditions

	Days poor physical health[a]			Days poor physical health[b]		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-1.44	[-1.943,- 0.942]	0.000	-1.49	[-2.155,- 0.830]	0.000
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	-1.52	[-2.619,- 0.431]	0.006	-1.01	[-2.185, 0.165]	0.092
Number of chronic conditions (DW)	2.32	[2.050, 2.595]	0.000	2.41	[1.934, 2.884]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	1.79	[0.851, 2.726]	0.000	2.24	[0.830, 3.641]	0.002
51-64	1.07	[0.145, 1.992]	0.023	1.86	[0.539, 3.188]	0.006
Gender (DW)						
Male		Reference			Reference	
Female	0.43	[-0.361, 1.225]	0.286	0.05	[-1.023, 1.119]	0.930
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-2.19	[-3.054,- 1.325]	0.000	-3.39	[-4.536,- 2.234]	0.000
Hispanic	-0.01	[-1.507, 1.489]	0.991	-0.35	[-2.912, 2.221]	0.792
Other, non-Hispanic	0.41	[-1.050, 1.865]	0.583	0.22	[-1.852, 2.297]	0.834
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-0.92	[-1.767,- 0.067]	0.035	-1.65	[-2.809,- 0.497]	0.005
100%+	-1.60	[-2.467,- 0.733]	0.000	-2.12	[-3.403,- 0.835]	0.001
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.07	[-0.739, 0.873]	0.870	-0.02	[-1.129, 1.090]	0.972
Bachelor's/post graduate degree	-0.16	[-1.454, 1.127]	0.803	0.00	[-2.043, 2.052]	0.997
Constant	2.84	[1.837, 3.837]	0.000	2.90	[0.906, 4.890]	0.004
Respondent	30.26	[24.793, 35.726]	0.000	46.00	[38.531, 53.465]	0.000
Days poor physical health residuals	53.39	[47.784, 58.997]	0.000	69.16	[61.998, 76.331]	0.000
N	4,667			3,440		
F-value	38.359			18.079		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	2,341.000			1,726.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those still enrolled

[b] Analysis restricted to those with two or more chronic conditions

1.5.6 Days poor physical health (2016, 2017, change 2016-2017) by follow-up group, among chronic condition subgroups

	Days poor physical health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents with asthma (2016 or 2017 survey and/or DW)	9.3	0.50	[8.3, 10.3]	789	7.9	0.47	[7.0, 8.8]	793	-1.4
Still enrolled	9.3	0.56	[8.2, 10.4]	610	7.7	0.52	[6.7, 8.7]	614	-1.6
No longer enrolled	9.3	1.12	[7.1, 11.5]	179	8.5	1.06	[6.4, 10.5]	179	-0.8
Among respondents with arthritis (2016 or 2017 survey and/or DW)	12.0	0.40	[11.2, 12.7]	1,377	9.9	0.38	[9.2, 10.6]	1,384	-2.1
Still enrolled	12.0	0.45	[11.1, 12.9]	1,086	9.7	0.42	[8.9, 10.5]	1,093	-2.3
No longer enrolled	11.9	0.87	[10.2, 13.6]	291	10.6	0.86	[8.9, 12.3]	291	-1.3
Among respondents with cancer (2016 or 2017 survey and/or DW)	11.5	0.95	[9.6, 13.4]	276	9.5	0.90	[7.7, 11.2]	277	-2.0
Still enrolled	11.4	1.06	[9.3, 13.5]	211	8.8	0.94	[7.0, 10.7]	212	-2.6
No longer enrolled	11.7	2.09	[7.6, 15.9]	65	11.6	2.10	[7.4, 15.7]	65	-0.1
Among respondents with COPD (2016 or 2017 survey and/or DW)	10.6	0.51	[9.6, 11.6]	844	8.8	0.46	[7.9, 9.7]	852	-1.8
Still enrolled	10.3	0.57	[9.2, 11.4]	663	8.3	0.50	[7.3, 9.3]	671	-2.0
No longer enrolled	11.9	1.11	[9.8, 14.1]	181	10.5	1.11	[8.3, 12.7]	181	-1.4
Among respondents with diabetes (2016 or 2017 survey and/or DW)	10.1	0.53	[9.0, 11.1]	686	8.9	0.51	[7.9, 9.9]	694	-1.2
Still enrolled	10.2	0.60	[9.1, 11.4]	546	9.0	0.58	[7.9, 10.1]	554	-1.2
No longer enrolled	9.4	1.10	[7.3, 11.6]	140	8.6	1.01	[6.6, 10.6]	140	-0.8
Among respondents with hypertension (2016 or 2017 survey and/or DW)	9.1	0.36	[8.4, 9.8]	1,528	7.3	0.32	[6.7, 8.0]	1,540	-1.8
Still enrolled	9.1	0.41	[8.3, 9.9]	1,190	7.1	0.35	[6.4, 7.8]	1,202	-2.0
No longer enrolled	8.9	0.75	[7.4, 10.4]	338	8.2	0.72	[6.8, 9.6]	338	-0.7
Among respondents with heart disease (2016 or 2017 survey and/or DW)	10.6	0.64	[9.3, 11.8]	580	8.7	0.57	[7.6, 9.8]	585	-1.9
Still enrolled	10.3	0.72	[8.9, 11.7]	447	8.4	0.62	[7.2, 9.6]	455	-1.9
No longer enrolled	11.4	1.32	[8.8, 14.0]	133	10.0	1.33	[7.4, 12.6]	130	-1.4

Note: Weighted means among chronic conditions subgroups, as defined by self-report and claims data.

1.5.7 Average decrease in days poor physical health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), and employment (2017), among respondents still enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	-1.3	0.97	[-3.2, 0.7]	149
No	-1.4	0.26	[-2.0,- 0.9]	2192
Number of places lived in past 3 years (2017)				
One	-1.6	0.30	[-2.2,- 1.0]	1693
Two	-0.7	0.59	[-1.8, 0.5]	442
Three	-1.9	1.01	[-3.9, 0.1]	128
Four or more	-0.8	1.27	[-3.3, 1.7]	79
Employed/self-employed (2017)				
Yes	-1.5	0.31	[-2.1,- 0.9]	1306
No	-1.4	0.42	[-2.2,- 0.6]	1038
Total	-1.4	0.25	[-1.9,- 0.9]	2347

Notes: For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

1.5.8 Average decrease in days poor physical health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), employment (2017), and insurance status (2017), among respondents no longer enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	0.6	1.80	[-2.9, 4.2]	45
No	-1.0	0.39	[-1.8, - 0.3]	649
Number of places lived in past 3 years (2017)				
One	-0.9	0.47	[-1.9, - 0.0]	442
Two	-2.0	0.88	[-3.7, - 0.3]	159
Three	0.8	1.08	[-1.3, 2.9]	57
Four or more	0.7	1.75	[-2.7, 4.1]	38
Employed/self-employed (2017)				
Yes	-0.4	0.43	[-1.3, 0.5]	419
No	-1.8	0.75	[-3.2, - 0.3]	276
Insurance status (2017)				
Insured	-1.1	0.45	[-2.0, - 0.2]	499
Uninsured	-0.9	0.78	[-2.5, 0.6]	189
Total	-0.9	0.39	[-1.7, - 0.1]	696

Notes: For homeless in the last 12 months, number of places lived in past 3 years, and insurance status, respondents who answered "Don't know" were excluded from the analysis.

1.5.9 Days poor physical health (2016, 2017, change 2016-2017) by new chronic condition diagnosis (2016), among respondents with a chronic condition

	Days poor physical health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
New chronic condition diagnosis (2016)									
Yes	11.4	0.58	[10.2, 12.5]	625	9.4	0.54	[8.3, 10.5]	631	-2.0
No	7.2	0.30	[6.6, 7.8]	1,813	6.0	0.27	[5.4, 6.5]	1,819	

Notes: Two factor repeated measures ANOVA results, F(1, 3,083)= 1.91, p= 0.1671. New chronic condition diagnosis in 2016 was defined as a new diagnosis of asthma, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2016 as indicated by self-report.

1.6 Days poor mental health (change 2016-2017)

1.6.1 Days poor mental health (2016, 2017, change 2016-2017) by follow-up group, demographic characteristics, presence of a chronic condition, presence of a mental health condition and/or substance use disorder, presence of a mental health condition, and presence of a substance use disorder, among all respondents

	Days poor mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Follow-up group[a]									
Still enrolled	6.1	0.28	[5.5, 6.6]	2,333	5.8	0.25	[5.3, 6.3]	2,364	-0.3
No longer enrolled	5.7	0.43	[4.8, 6.5]	698	6.0	0.48	[5.0, 6.9]	704	0.3
Age (DW)									
19-34	4.9	0.39	[4.2, 5.7]	892	5.2	0.36	[4.5, 6.0]	898	0.3
35-50	6.9	0.44	[6.0, 7.7]	951	6.8	0.43	[6.0, 7.7]	963	-0.1
51-64	6.3	0.38	[5.6, 7.0]	1,188	5.4	0.34	[4.7, 6.0]	1,207	-0.9
Gender (DW)									
Male	5.8	0.37	[5.1, 6.6]	1,207	5.1	0.33	[4.5, 5.8]	1,218	-0.7
Female	6.1	0.30	[5.5, 6.7]	1,824	6.4	0.29	[5.8, 7.0]	1,850	0.3
Race/ethnicity (2016)									
White, non-Hispanic	6.7	0.32	[6.1, 7.3]	2,021	6.2	0.29	[5.6, 6.8]	2,038	-0.5
Black, non-Hispanic	4.6	0.42	[3.8, 5.4]	621	4.7	0.44	[3.9, 5.6]	631	0.1
Hispanic	5.0	0.95	[3.1, 6.8]	136	5.0	0.82	[3.4, 6.6]	135	0.0
Other, non-Hispanic	5.7	0.84	[4.0, 7.4]	218	6.7	0.85	[5.1, 8.4]	226	1.0
FPL category (DW)									
0-35%	7.3	0.39	[6.5, 8.0]	1,197	6.7	0.36	[5.9, 7.4]	1,205	-0.6
36-99%	4.7	0.31	[4.1, 5.3]	1,056	5.1	0.32	[4.5, 5.8]	1,070	0.4
100%+	4.3	0.39	[3.6, 5.1]	778	4.6	0.38	[3.8, 5.3]	793	0.3
Region (DW)									
UP/NW/NE	6.2	0.49	[5.2, 7.1]	563	5.5	0.45	[4.6, 6.4]	568	-0.7
W/E Central/E	6.3	0.39	[5.6, 7.1]	955	6.5	0.40	[5.7, 7.3]	963	0.2
S Central/SW/SE	6.9	0.51	[5.9, 7.9]	624	6.8	0.43	[6.0, 7.7]	630	-0.1
Detroit Metro	5.3	0.41	[4.5, 6.1]	889	5.0	0.38	[4.2, 5.7]	907	-0.3
Chronic condition (2016 or 2017 survey and/or DW)[b]									
No	2.3	0.36	[1.6, 3.0]	626	1.9	0.25	[1.4, 2.4]	623	-0.4
Yes	6.2	0.25	[5.7, 6.7]	2,418	6.0	0.24	[5.5, 6.5]	2,445	-0.2
Mental health condition and/or substance use disorder (DW)[c]									
No	2.5	0.21	[2.1, 2.9]	1,334	2.5	0.21	[2.1, 2.9]	1,340	0.0
Yes	7.5	0.33	[6.9, 8.2]	1,710	7.1	0.30	[6.5, 7.7]	1,728	-0.4
Mental health condition (DW)[d]									
No	2.6	0.20	[2.2, 3.0]	1,498	2.7	0.21	[2.3, 3.1]	1,505	0.1
Yes	8.0	0.36	[7.3, 8.7]	1,546	7.5	0.32	[6.9, 8.1]	1,563	-0.5
Substance use disorder (DW)[e]									
No	4.4	0.22	[4.0, 4.8]	2,444	4.2	0.20	[3.8, 4.5]	2,459	-0.2
Yes	8.5	0.55	[7.4, 9.6]	600	8.3	0.53	[7.3, 9.4]	609	-0.3

[a] Two factor repeated measures ANOVA results, F(1, 3,077)= 1.34, p= 0.2463.
[b] Two factor repeated measures ANOVA results, F(1, 3,077)= 0.01, p= 0.9170.
[c] Two factor repeated measures ANOVA results, F(1, 3,077)= 0.07, p= 0.7890.
[d] Two factor repeated measures ANOVA results, F(1, 3,077)= 0.06, p= 0.8075.
[e] Two factor repeated measures ANOVA results, F(1, 3,077)= 1.79, p= 0.1813.

1.6.2 Days poor mental health (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Days poor mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
All follow-up respondents[a]	6.0	0.24	[5.5, 6.4]	3,031	5.8	0.22	[5.4, 6.3]	3,068	-0.2
Among those still enrolled[b]	6.1	0.28	[5.5, 6.6]	2,333	5.8	0.25	[5.3, 6.3]	2,364	-0.3
Among those no longer enrolled[c]	5.7	0.43	[4.8, 6.5]	698	6.0	0.48	[5.0, 6.9]	704	0.3
Among those no longer enrolled and uninsured[d]	5.6	0.80	[4.0, 7.1]	193	5.6	0.94	[3.7, 7.5]	193	0.0
Among those with a chronic condition (2016 or 2017 survey and/or DW)[e]	6.7	0.28	[6.1, 7.2]	2,411	6.5	0.26	[6.0, 7.1]	2,449	-0.2
Among respondents with two or more chronic conditions (2016 or 2017 survey and/or DW)[f]	7.9	0.35	[7.2, 8.6]	1,723	7.5	0.33	[6.9, 8.1]	1,750	-0.4
Among those with a mental health condition and/or substance use disorder (DW)[g]	8.9	0.36	[8.1, 9.6]	1,704	8.6	0.34	[8.0, 9.3]	1,726	-0.3
Among those with a mental health condition (DW)[h]	9.6	0.39	[8.8, 10.3]	1,539	9.3	0.36	[8.6, 10.1]	1,560	-0.3
Among those with a substance use disorder (DW)[i]	9.3	0.62	[8.1, 10.5]	602	8.5	0.57	[7.5, 9.7]	608	-0.7

[a] Paired sample t-test results, difference in days = -0.2, t(2,998) = -1.07, p = 0.284, 95% CI (-0.7, 0.2)
[b] Paired sample t-test results, difference in days = -0.4, t(2,303) = -1.55, p = 0.122, 95% CI (-0.9, 0.1)
[c] Paired sample t-test results, difference in days = -0.2, t(683) = 0.53, p = 0.600, 95% CI (-0.7, 1.2)
[d] Paired sample t-test results, difference in days = 0.0, t(181) = 0.04, p = 0.969, 95% CI (-1.9, 2.0)
[e] Paired sample t-test results, difference in days = -0.2, t(2,385) = -0.90, p = 0.366, 95% CI (-0.7, 0.3)
[f] Paired sample t-test results, difference in days = -0.5, t(1,700) = -1.45, p = 0.146, 95% CI (-1.1, 0.2)
[g] Paired sample t-test results, difference in days = -0.3, t(1,676) = -0.88, p = 0.380, 95% CI (-1.0, 0.4)
[h] Paired sample t-test results, difference in days = -0.3, t(1,512) = -0.78, p = 0.436, 95% CI (-1.0, 0.4)
[i] Paired sample t-test results, difference in days = -1.0, t(584) = -1.68, p = 0.094, 95% CI (-2.1, 0.2)

1.6.3 Predictors of days poor mental health (change 2016-2017), among all respondents

	Days poor mental health		
	Coef.	95% CI	p-value
Survey year			
2016		Reference	
2017	-0.23	[-0.658, 0.200]	0.296
Number of chronic conditions (DW)	1.32	[1.050, 1.598]	0.000
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)			
No		Reference	
Yes	-0.00	[-1.083, 1.075]	0.994
Age (DW)			
19-34		Reference	
35-50	0.31	[-0.690, 1.307]	0.545
51-64	-1.53	[-2.475,- 0.594]	0.001
Gender (DW)			
Male		Reference	
Female	1.06	[0.268, 1.861]	0.009
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	-2.40	[-3.279,- 1.527]	0.000
Hispanic	-0.96	[-2.484, 0.564]	0.217
Other, non-Hispanic	-0.00	[-1.421, 1.412]	0.995
FPL category (DW)			
0-35%		Reference	
36-99%	-2.02	[-2.873,- 1.163]	0.000
100%+	-2.49	[-3.417,- 1.555]	0.000
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.28	[-0.572, 1.142]	0.515
Bachelor's/post graduate degree	-1.25	[-2.159,- 0.333]	0.007
Constant	5.13	[3.993, 6.259]	0.000
Respondent	40.49	[34.774, 46.199]	0.000
Days poor mental health residuals	48.03	[43.126, 52.936]	0.000
N	6,013		
F-value	14.280		
Model degrees of freedom	13.000		
Residual degrees of freedom	3,032.000		
F-value significance	0.000		

Notes: Mixed effects linear regression. Variables are from both survey years unless otherwise noted. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse.

1.6.4 Interaction between days poor mental health (change 2016-2017) and presence of a chronic condition, among all respondents

	Days poor mental health*			Days poor mental health		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-0.31	[-1.140, 0.517]	0.461	-0.23	[-0.659, 0.201]	0.296
Chronic condition (2016 or 2017 survery and/or DW)						
No		Reference			Reference	
Yes	2.77	[1.717, 3.825]	0.000	2.82	[1.945, 3.704]	0.000
Survey year*Chronic condition (2016 or 2017 survery and/or DW)						
2017 × Yes	0.11	[-0.862, 1.077]	0.828			
Age (DW)						
19-34		Reference			Reference	
35-50	1.05	[0.025, 2.078]	0.045	1.05	[0.025, 2.078]	0.045
51-64	-0.33	[-1.292, 0.639]	0.507	-0.33	[-1.292, 0.639]	0.508
Gender (DW)						
Male		Reference			Reference	
Female	1.15	[0.342, 1.955]	0.005	1.15	[0.342, 1.955]	0.005
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-2.37	[-3.274,- 1.460]	0.000	-2.37	[-3.274,- 1.460]	0.000
Hispanic	-1.18	[-2.719, 0.364]	0.134	-1.18	[-2.718, 0.365]	0.135
Other, non-Hispanic	0.05	[-1.406, 1.515]	0.942	0.05	[-1.406, 1.516]	0.941
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-2.32	[-3.189,- 1.457]	0.000	-2.32	[-3.189,- 1.457]	0.000
100%+	-2.77	[-3.717,- 1.826]	0.000	-2.77	[-3.717,- 1.826]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.14	[-0.735, 1.010]	0.757	0.14	[-0.735, 1.010]	0.757
Bachelor's/post graduate degree	-1.65	[-2.605,- 0.688]	0.001	-1.65	[-2.605,- 0.688]	0.001
Insurance status in 12 months prior to HMP (2016)						
Insured/Don't know		Reference			Reference	
Uninsured	-0.61	[-1.442, 0.217]	0.148	-0.61	[-1.442, 0.216]	0.147
Constant	5.42	[4.027, 6.805]	0.000	5.38	[4.062, 6.688]	0.000
Respondent	42.72	[37.002, 48.442]	0.000	42.72	[37.002, 48.443]	0.000
Days poor mental health residuals	48.07	[43.166, 52.984]	0.000	48.08	[43.166, 52.985]	0.000
N	6,009			6,009		
F-value	8.614			9.195		
Model degrees of freedom	14.000			13.000		
Residual degrees of freedom	3,030.000			3,030.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse. Variables are from both survey years unless otherwise noted.

* Includes interaction term

1.6.5 Predictors of days poor mental health (change 2016-2017), among respondents still enrolled and respondents with two or more chronic conditions

	Days poor mental health[a]			Days poor mental health[b]		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-0.37	[-0.853, 0.113]	0.133	-0.42	[-1.058, 0.213]	0.193
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	-0.78	[-1.910, 0.343]	0.173	-0.02	[-1.283, 1.240]	0.974
Number of chronic conditions (DW)	1.50	[1.193, 1.808]	0.000	1.14	[0.635, 1.648]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	0.40	[-0.755, 1.561]	0.495	-0.24	[-1.963, 1.476]	0.781
51-64	-1.62	[-2.688,- 0.557]	0.003	-2.19	[-3.793,- 0.585]	0.008
Gender (DW)						
Male		Reference			Reference	
Female	1.21	[0.298, 2.132]	0.009	0.95	[-0.226, 2.126]	0.113
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-2.38	[-3.408,- 1.346]	0.000	-2.86	[-4.144,- 1.574]	0.000
Hispanic	-0.68	[-2.512, 1.143]	0.463	-1.50	[-3.921, 0.916]	0.223
Other, non-Hispanic	-0.01	[-1.599, 1.575]	0.988	0.50	[-1.906, 2.910]	0.683
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-1.94	[-2.902,- 0.970]	0.000	-2.16	[-3.425,- 0.903]	0.001
100%+	-2.68	[-3.693,- 1.676]	0.000	-2.74	[-4.123,- 1.360]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.26	[-0.720, 1.230]	0.608	-0.07	[-1.300, 1.162]	0.912
Bachelor's/post graduate degree	-0.75	[-1.884, 0.382]	0.194	-1.26	[-2.903, 0.386]	0.134
Constant	4.74	[3.424, 6.062]	0.000	6.80	[4.280, 9.311]	0.000
Respondent	41.09	[34.472, 47.716]	0.000	54.58	[46.214, 62.937]	0.000
Days poor mental health residuals	48.03	[42.495, 53.571]	0.000	58.51	[51.293, 65.723]	0.000
N	4,631			3,422		
F-value	12.223			5.443		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	2,335.000			1,722.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those still enrolled

[b] Analysis restricted to those with two or more chronic conditions

1.6.6 Days poor mental health (2016, 2017, change 2016-2017) by follow-up group, among chronic condition subgroups

	Days poor mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents with asthma (2016 or 2017 survey and/or DW)	7.5	0.48	[6.5, 8.4]	781	7.1	0.47	[6.2, 8.0]	789	-0.4
Still enrolled	8.0	0.56	[6.9, 9.1]	606	7.1	0.51	[6.1, 8.2]	610	-0.9
No longer enrolled	5.5	0.87	[3.8, 7.2]	175	7.0	1.10	[4.9, 9.2]	179	1.5
Among respondents with arthritis (2016 or 2017 survey and/or DW)	8.0	0.38	[7.2, 8.7]	1,356	7.7	0.36	[7.0, 8.4]	1,377	-0.3
Still enrolled	8.3	0.44	[7.4, 9.1]	1,069	7.6	0.40	[6.8, 8.4]	1,085	-0.7
No longer enrolled	7.0	0.75	[5.5, 8.5]	287	8.0	0.86	[6.3, 9.7]	292	1.0
Among respondents with cancer (2016 or 2017 survey and/or DW)	7.7	0.85	[6.0, 9.4]	274	6.7	0.80	[5.1, 8.2]	276	-1.0
Still enrolled	7.6	0.98	[5.7, 9.6]	211	6.2	0.78	[4.6, 7.7]	212	-1.4
No longer enrolled	7.9	1.74	[4.5, 11.4]	63	8.2	2.15	[4.0, 12.5]	64	0.3
Among respondents with COPD (2016 or 2017 survey and/or DW)	8.1	0.51	[7.1, 9.1]	835	7.9	0.49	[6.9, 8.8]	847	-0.2
Still enrolled	8.5	0.60	[7.3, 9.7]	655	7.9	0.54	[6.8, 8.9]	666	-0.6
No longer enrolled	6.6	0.85	[4.9, 8.2]	180	7.9	1.10	[5.7, 10.0]	181	1.3
Among respondents with diabetes (2016 or 2017 survey and/or DW)	8.0	0.57	[6.9, 9.1]	678	8.1	0.57	[7.0, 9.2]	695	0.1
Still enrolled	8.2	0.66	[6.9, 9.5]	539	8.2	0.64	[6.9, 9.4]	553	0.0
No longer enrolled	7.4	1.07	[5.3, 9.5]	139	7.7	1.18	[5.4, 10.0]	142	0.3
Among respondents with hypertension (2016 or 2017 survey and/or DW)	7.2	0.36	[6.5, 7.9]	1,517	6.9	0.34	[6.2, 7.6]	1,538	-0.3
Still enrolled	7.4	0.42	[6.6, 8.2]	1,181	6.7	0.37	[6.0, 7.5]	1,198	-0.7
No longer enrolled	6.6	0.68	[5.3, 7.9]	336	7.4	0.80	[5.9, 9.0]	340	0.8
Among respondents with heart disease (2016 or 2017 survey and/or DW)	8.2	0.63	[7.0, 9.5]	579	7.4	0.57	[6.2, 8.5]	588	-0.8
Still enrolled	8.1	0.74	[6.6, 9.6]	445	7.3	0.62	[6.1, 8.5]	454	-0.8
No longer enrolled	8.6	1.15	[6.3, 10.9]	134	7.6	1.31	[5.0, 10.1]	134	-1.0

Note: Weighted means among chronic conditions subgroups, as defined by self-report and claims data.

1.6.7 Average decrease in days poor mental health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), and employment (2017), among respondents still enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	-2.6	1.14	[-4.9,- 0.4]	145
No	-0.2	0.25	[-0.7, 0.3]	2165
Number of places lived in past 3 years (2017)				
One	-0.3	0.27	[-0.9, 0.2]	1669
Two	-0.3	0.58	[-1.4, 0.8]	439
Three	-0.7	1.21	[-3.1, 1.7]	126
Four or more	-1.5	1.95	[-5.3, 2.3]	77
Employed/self-employed (2017)				
Yes	-0.3	0.30	[-0.9, 0.3]	1288
No	-0.5	0.41	[-1.3, 0.3]	1024
Total	-0.4	0.25	[-0.9, 0.1]	2315

Notes: For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

1.6.8 Average decrease in days poor mental health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), employment (2017), and insurance status (2017), among respondents no longer enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	-0.6	2.43	[-5.3, 4.2]	42
No	0.4	0.46	[-0.5, 1.3]	651
Number of places lived in past 3 years (2017)				
One	-0.0	0.53	[-1.1, 1.0]	442
Two	0.6	1.19	[-1.7, 2.9]	159
Three	0.6	1.63	[-2.6, 3.8]	57
Four or more	1.0	1.75	[-2.4, 4.4]	37
Employed/self-employed (2017)				
Yes	-0.4	0.48	[-1.3, 0.6]	418
No	1.3	0.96	[-0.6, 3.2]	276
Insurance status (2017)				
Insured	0.3	0.53	[-0.8, 1.3]	495
Uninsured	0.0	0.99	[-1.9, 2.0]	193
Total	0.2	0.47	[-0.7, 1.2]	695

Notes: For homeless in the last 12 months, number of places lived in past 3 years, and insurance status, respondents who answered "Don't know" were excluded from the analysis.

1.6.9 Days poor mental health (2016, 2017, change 2016-2017) by new chronic condition diagnosis (2016), among respondents with a chronic condition

	Days poor mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
New chronic condition diagnosis (2016)									
Yes	8.2	0.57	[7.0, 9.3]	626	8.0	0.58	[6.8, 9.1]	624	-0.2
No	6.2	0.32	[5.6, 6.8]	1,785	6.1	0.29	[5.5, 6.7]	1,825	

Notes: Two factor repeated measures ANOVA results, F(1, 3,077)= 0.00, p= 0.9588. New chronic condition diagnosis in 2016 was defined as a new diagnosis of asthma, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2016 as indicated by self-report.

1.7 Days missed due to poor physical/mental health (change 2016-2017)

1.7.1 Days missed due to poor physical/mental health (2016, 2017, change 2016-2017) by follow-up group, demographic characteristics (2017), presence of a chronic condition, presence of a mental health condition and/or substance use disorder, presence of a mental health condition, presence of a substance use disorder, among all respondents

	Days missed due to poor physical/mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Follow-up group[a]									
Still enrolled	5.2	0.23	[4.7, 5.7]	2,346	5.0	0.21	[4.6, 5.4]	2,366	-0.2
No longer enrolled	5.5	0.47	[4.5, 6.4]	698	5.2	0.45	[4.3, 6.0]	702	-0.3
Age (DW)									
19-34	3.0	0.31	[2.4, 3.6]	898	3.0	0.26	[2.5, 3.5]	900	0.0
35-50	6.3	0.40	[5.5, 7.1]	951	6.0	0.37	[5.2, 6.7]	962	-0.3
51-64	6.9	0.38	[6.2, 7.7]	1,195	6.5	0.37	[5.8, 7.3]	1,206	-0.4
Gender (DW)									
Male	5.6	0.34	[4.9, 6.3]	1,206	5.1	0.31	[4.5, 5.7]	1,216	-0.5
Female	5.0	0.26	[4.4, 5.5]	1,838	5.0	0.24	[4.5, 5.5]	1,852	0.0
Race/ethnicity (2016)									
White, non-Hispanic	5.6	0.27	[5.1, 6.1]	2,022	5.2	0.24	[4.7, 5.7]	2,037	-0.4
Black, non-Hispanic	4.5	0.42	[3.7, 5.4]	624	4.6	0.40	[3.8, 5.4]	633	0.1
Hispanic	4.9	1.07	[2.8, 7.0]	136	4.7	0.87	[3.0, 6.4]	136	-0.2
Other, non-Hispanic	5.3	0.71	[3.9, 6.7]	226	5.1	0.70	[3.7, 6.5]	224	-0.2
FPL category (DW)									
0-35%	7.0	0.37	[6.3, 7.7]	1,196	6.1	0.33	[5.5, 6.8]	1,202	-0.9
36-99%	3.7	0.26	[3.2, 4.2]	1,067	4.1	0.26	[3.6, 4.6]	1,076	0.4
100%+	2.8	0.25	[2.3, 3.3]	781	3.5	0.33	[2.9, 4.1]	790	0.7
Region (DW)									
UP/NW/NE	5.3	0.44	[4.5, 6.2]	560	5.2	0.42	[4.4, 6.0]	567	-0.1
W/E Central/E	5.5	0.34	[4.8, 6.1]	965	5.6	0.34	[4.9, 6.3]	968	0.1
S Central/SW/SE	5.9	0.47	[4.9, 6.8]	625	5.3	0.42	[4.5, 6.1]	630	-0.6
Detroit Metro	4.8	0.36	[4.1, 5.5]	894	4.5	0.32	[3.9, 5.1]	903	-0.3
Chronic condition (2016 or 2017 survey and/or DW)[b]									
No	2.3	0.36	[1.6, 3.0]	626	1.9	0.25	[1.4, 2.4]	623	-0.4
Yes	6.2	0.25	[5.7, 6.7]	2,418	6.0	0.24	[5.5, 6.5]	2,445	-0.2
Mental health condition and/or substance use disorder (DW)[c]									
No	2.5	0.21	[2.1, 2.9]	1,334	2.5	0.21	[2.1, 2.9]	1,340	0.0
Yes	7.5	0.33	[6.9, 8.2]	1,710	7.1	0.30	[6.5, 7.7]	1,728	-0.4
Mental health condition (DW)[d]									
No	2.6	0.20	[2.2, 3.0]	1,498	2.7	0.21	[2.3, 3.1]	1,505	0.1
Yes	8.0	0.36	[7.3, 8.7]	1,546	7.5	0.32	[6.9, 8.1]	1,563	-0.5
Substance use disorder (DW)[e]									
No	4.4	0.22	[4.0, 4.8]	2,444	4.2	0.20	[3.8, 4.5]	2,459	-0.2
Yes	8.5	0.55	[7.4, 9.6]	600	8.3	0.53	[7.3, 9.4]	609	-0.3

[a] Two factor repeated measures ANOVA results, F(1, 3,083)= 0.00, p= 0.9765
[b] Two factor repeated measures ANOVA results, F(1, 3,083)= 0.13, p= 0.7182
[c] Two factor repeated measures ANOVA results, F(1, 3,083)= 0.97, p= 0.3258
[d] Two factor repeated measures ANOVA results, F(1, 3,083)= 1.69, p= 0.1940
[e] Two factor repeated measures ANOVA results, F(1, 3,083)= 0.00, p= 0.9892

1.7.2 Days missed due to poor physical/mental health (2016, 2017, change 2016-2017), among all respondents and various subgroups

	Days missed due to poor physical/mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
All follow-up respondents[a]	5.3	0.21	[4.8, 5.7]	3,044	5.0	0.19	[4.7, 5.4]	3,068	-0.3
Among those still enrolled[b]	5.2	0.23	[4.7, 5.7]	2,346	5.0	0.21	[4.6, 5.4]	2,366	0.2
Among those no longer enrolled[c]	5.5	0.46	[4.6, 6.4]	698	5.2	0.44	[4.3, 6.0]	702	-0.3
Among those no longer enrolled and uninsured[d]	3.6	0.60	[2.4, 4.8]	191	4.0	0.85	[2.3, 5.6]	193	-0.4
Among those with a chronic condition (2016 or 2017 survey and/or DW)[e]	6.2	0.25	[5.7, 6.7]	2,418	6.0	0.24	[5.5, 6.5]	2,445	-0.2
Among respondents with two or more chronic conditions (2016 or 2017 survey and/or DW)[f]	7.7	0.32	[7.1, 8.4]	1,729	7.6	0.31	[7.0, 8.2]	1,744	-0.1
Among those with a mental health condition and/or substance use disorder (DW)[g]	7.5	0.33	[6.9, 8.2]	1,710	7.1	0.30	[6.5, 7.7]	1,728	-0.4
Among those with a mental health condition (DW)[h]	8.0	0.35	[7.3, 8.7]	1,546	7.5	0.32	[6.9, 8.1]	1,563	-0.5
Among those with a substance use disorder (DW)[i]	8.5	0.55	[7.4, 9.6]	600	8.3	0.53	[7.3, 9.4]	609	-0.2

[a] Paired sample t-test results, difference in days = -0.2, t(3,005) = -1.08, p = 0.282, 95% CI (-0.6, 0.2)
[b] Paired sample t-test results, difference in days = -0.2, t(2,314) = -1.02, p = 0.306, 95% CI (-0.7, 0.2)
[c] Paired sample t-test results, difference in days = -0.2, t(679) = -0.38, p = 0.708, 95% CI (-1.0, 0.7)
[d] Paired sample t-test results, difference in days = -0.3, t(179) = -0.33, p = 0.743, 95% CI (-1.7, 2.4)
[e] Paired sample t-test results, difference in days = -0.2, t(2,383) = -0.84, p = 0.400, 95% CI (-0.7, 0.3)
[f] Paired sample t-test results, difference in days = -0.2, t(1,695) = -0.48, p = 0.632, 95% CI (-0.8, 0.5)
[g] Paired sample t-test results, difference in days = -0.4, t(1,679) = -1.30, p = 0.195, 95% CI (-1.0, 0.2)
[h] Paired sample t-test results, difference in days = -0.5, t(1,517) = -1.46, p = 0.145, 95% CI (-1.1, 0.2)
[i] Paired sample t-test results, difference in days = -0.3, t(582) = -0.51, p = 0.610, 95% CI (-1.3, 0.8)

1.7.3 Predictors of days missed due to poor physical/mental health (change 2016-2017), among all respondents

	Days missed due to poor physical/mental health		
	Coef.	95% CI	p-value
Survey year			
2016		Reference	
2017	-0.24	[-0.641, 0.153]	0.229
Number of chronic conditions (DW)	1.84	[1.588, 2.102]	0.000
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)			
No		Reference	
Yes	-0.51	[-1.472, 0.444]	0.293
Age (DW)			
19-34		Reference	
35-50	1.11	[0.351, 1.866]	0.004
51-64	0.71	[-0.099, 1.528]	0.085
Gender (DW)			
Male		Reference	
Female	-0.10	[-0.774, 0.566]	0.761
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	-1.52	[-2.245,- 0.799]	0.000
Hispanic	0.54	[-1.155, 2.228]	0.534
Other, non-Hispanic	0.21	[-0.991, 1.416]	0.729
FPL category (DW)			
0-35%		Reference	
36-99%	-2.20	[-2.911,- 1.497]	0.000
100%+	-2.84	[-3.586,- 2.088]	0.000
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	-0.14	[-0.829, 0.541]	0.680
Bachelor's/post graduate degree	-0.84	[-1.763, 0.082]	0.074
Constant	3.12	[2.189, 4.054]	0.000
Respondent	30.81	[26.248, 35.380]	0.000
Days missed due to poor physical/mental health residuals	41.11	[36.736, 45.476]	0.000
N	6,024		
F-value	32.326		
Model degrees of freedom	13.000		
Residual degrees of freedom	3,037.000		
F-value significance	0.000		

Notes: Mixed effects linear regression. Variables are from both survey years unless otherwise noted. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse.

1.7.4 Interaction between days missed due to poor physical/mental health (change 2016-2017) and presence of a chronic condition, among all respondents

	Days missed due to poor physical/mental health*			Days missed due to poor physical/mental health		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-0.40	[-1.039, 0.237]	0.218	-0.24	[-0.638, 0.156]	0.234
Chronic condition (2016 or 2017 survery and/or DW)						
No		Reference			Reference	
Yes	2.84	[1.971, 3.718]	0.000	2.95	[2.253, 3.645]	0.000
Survey year*Chronic condition (2016 or 2017 survery and/or DW)						
2017 × Yes	0.21	[-0.591, 1.009]	0.609			
Age (DW)						
19-34		Reference			Reference	
35-50	2.28	[1.466, 3.100]	0.000	2.28	[1.465, 3.100]	0.000
51-64	2.63	[1.798, 3.458]	0.000	2.63	[1.798, 3.458]	0.000
Gender (DW)						
Male		Reference			Reference	
Female	0.04	[-0.668, 0.744]	0.916	0.04	[-0.668, 0.744]	0.916
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-1.44	[-2.236,- 0.652]	0.000	-1.44	[-2.235,- 0.652]	0.000
Hispanic	0.24	[-1.541, 2.023]	0.791	0.24	[-1.541, 2.027]	0.790
Other, non-Hispanic	0.24	[-1.012, 1.483]	0.712	0.24	[-1.013, 1.483]	0.712
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-2.61	[-3.361,- 1.861]	0.000	-2.61	[-3.362,- 1.861]	0.000
100%+	-3.24	[-4.022,- 2.463]	0.000	-3.24	[-4.022,- 2.463]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	-0.34	[-1.073, 0.401]	0.372	-0.34	[-1.073, 0.401]	0.372
Bachelor's/post graduate degree	-1.43	[-2.385,- 0.483]	0.003	-1.43	[-2.386,- 0.483]	0.003
Insurance status in 12 months prior to HMP (2016)						
Insured/Don't know		Reference			Reference	
Uninsured	-0.52	[-1.189, 0.155]	0.132	-0.52	[-1.189, 0.155]	0.132
Constant	3.87	[2.704, 5.039]	0.000	3.79	[2.697, 4.885]	0.000
Respondent	36.13	[31.107, 41.158]	0.000	36.14	[31.109, 41.163]	0.000
Days missed due to poor physical/mental health residuals	41.09	[36.719, 45.452]	0.000	41.09	[36.719, 45.454]	0.000
N	6,020			6,020		
F-value	21.610			22.393		
Model degrees of freedom	14.000			13.000		
Residual degrees of freedom	3,035.000			3,035.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse. Variables are from both survey years unless otherwise noted.

* Includes interaction term

1.7.5 Predictors of days missed due to poor physical/mental health (change 2016-2017), among respondents still enrolled and respondents with two or more chronic conditions

	Days missed due to poor physical/mental health[a]			Days missed due to poor physical/mental health[b]		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	-0.23	[-0.672, 0.219]	0.319	-0.16	[-0.786, 0.465]	0.615
New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)						
No		Reference			Reference	
Yes	-0.72	[-1.764, 0.334]	0.181	-0.37	[-1.534, 0.789]	0.529
Number of chronic conditions (DW)	1.93	[1.650, 2.200]	0.000	1.94	[1.454, 2.426]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	1.22	[0.378, 2.067]	0.005	1.67	[0.317, 3.016]	0.016
51-64	0.77	[-0.127, 1.672]	0.092	1.36	[0.032, 2.678]	0.045
Gender (DW)						
Male		Reference			Reference	
Female	-0.04	[-0.776, 0.690]	0.909	-0.87	[-1.927, 0.181]	0.104
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-1.30	[-2.113,- 0.495]	0.002	-1.76	[-2.930,- 0.590]	0.003
Hispanic	0.08	[-1.379, 1.544]	0.912	0.42	[-2.025, 2.860]	0.737
Other, non-Hispanic	0.58	[-0.825, 1.988]	0.417	-0.22	[-2.356, 1.916]	0.840
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-1.74	[-2.515,- 0.972]	0.000	-2.99	[-4.086,- 1.887]	0.000
100%+	-2.80	[-3.570,- 2.025]	0.000	-3.80	[-4.997,- 2.599]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.08	[-0.661, 0.815]	0.837	0.03	[-1.047, 1.103]	0.959
Bachelor's/post graduate degree	-0.44	[-1.590, 0.700]	0.446	0.05	[-1.971, 2.071]	0.961
Constant	2.36	[1.448, 3.268]	0.000	3.04	[1.118, 4.967]	0.002
Respondent	29.12	[24.203, 34.040]	0.000	46.47	[39.400, 53.537]	0.000
Days missed due to poor physical/mental health residuals	40.61	[35.846, 45.380]	0.000	56.29	[49.551, 63.038]	0.000
N	4,644			3,421		
F-value	27.010			11.686		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	2,339.000			1,727.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present 2 years or 1 year before enrollment as indicated by self-report and/or data warehouse. Variables are from both survey years unless otherwise noted.

[a] Analysis restricted to those still enrolled

[b] Analysis restricted to those with two or more chronic conditions

1.7.6 Days missed due to poor physical/mental health (2016, 2017, change 2016-2017) by follow-up group, among chronic condition subgroups

	Days missed due to poor physical or mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents with asthma (2016 or 2017 survey and/or DW)	7.0	0.47	[6.0, 7.9]	784	6.6	0.43	[5.7, 7.4]	790	-0.4
Still enrolled	7.0	0.52	[6.0, 8.0]	608	6.7	0.47	[5.8, 7.6]	610	-0.3
No longer enrolled	6.8	1.12	[4.6, 9.0]	176	6.2	0.97	[4.3, 8.1]	180	-0.6
Among respondents with arthritis (2016 or 2017 survey and/or DW)	9.1	0.38	[8.3, 9.8]	1,353	8.6	0.37	[7.8, 9.3]	1,373	-0.5
Still enrolled	9.1	0.43	[8.3, 9.9]	1,068	8.3	0.40	[7.5, 9.1]	1,081	-0.8
No longer enrolled	9.0	0.86	[7.3, 10.7]	285	9.4	0.90	[7.7, 11.2]	292	0.4
Among respondents with cancer (2016 or 2017 survey and/or DW)	8.8	0.89	[7.0, 10.5]	270	7.6	0.82	[6.0, 9.2]	276	-1.2
Still enrolled	8.5	0.97	[6.6, 10.4]	207	7.0	0.82	[5.4, 8.6]	211	-1.5
No longer enrolled	9.7	2.18	[5.4, 14.0]	63	9.8	2.09	[5.6, 13.9]	65	0.1
Among respondents with COPD (2016 or 2017 survey and/or DW)	8.2	0.49	[7.2, 9.1]	836	8.0	0.44	[7.1, 8.8]	843	-0.2
Still enrolled	7.9	0.53	[6.8, 8.9]	659	7.8	0.48	[6.9, 8.8]	662	-0.1
No longer enrolled	9.3	1.16	[7.1, 11.6]	177	8.4	1.05	[6.3, 10.5]	181	-0.9
Among respondents with diabetes (2016 or 2017 survey and/or DW)	8.0	0.53	[7.0, 9.1]	686	7.6	0.49	[6.6, 8.5]	691	-0.4
Still enrolled	8.0	0.60	[6.8, 9.2]	545	7.6	0.56	[6.5, 8.7]	551	-0.4
No longer enrolled	8.0	1.14	[5.7, 10.2]	141	7.4	1.01	[5.5, 9.4]	140	-0.6
Among respondents with hypertension (2016 or 2017 survey and/or DW)	7.0	0.33	[6.4, 7.7]	1,517	6.9	0.32	[6.3, 7.5]	1,535	-0.1
Still enrolled	6.9	0.37	[6.2, 7.7]	1,183	6.8	0.34	[6.1, 7.5]	1,197	-0.1
No longer enrolled	7.5	0.76	[6.0, 9.0]	334	7.3	0.79	[5.8, 8.9]	338	-0.2
Among respondents with heart disease (2016 or 2017 survey and/or DW)	8.3	0.60	[7.1, 9.5]	576	8.5	0.57	[7.4, 9.7]	586	0.2
Still enrolled	8.0	0.66	[6.7, 9.3]	445	8.5	0.63	[7.2, 9.7]	451	0.5
No longer enrolled	9.6	1.36	[6.9, 12.3]	131	8.8	1.32	[6.2, 11.4]	135	-0.8

Note: Weighted means among chronic conditions subgroups, as defined by self-report and claims data.

1.7.7 Average decrease in days missed due to poor physical/mental health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), and employment (2017), among respondents still enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	-1.4	1.15	[-3.7, 0.8]	143
No	-0.1	0.23	[-0.6, 0.3]	2177
Number of places lived in past 3 years (2017)				
One	-0.0	0.25	[-0.5, 0.5]	1677
Two	-0.3	0.49	[-1.3, 0.6]	440
Three	-0.7	1.06	[-2.8, 1.4]	125
Four or more	-3.1	1.75	[-6.6, 0.3]	79
Employed/self-employed (2017)				
Yes	-0.4	0.23	[-0.9, 0.0]	1296
No	0.0	0.42	[-0.8, 0.9]	1027
Total	-0.2	0.23	[-0.7, 0.2]	2326

Notes: For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

1.7.8 Average decrease in days missed due to poor physical/mental health (change 2016-2017) by experience of homelessness (2017), housing insecurity (2017), employment (2017), and insurance status (2017), among respondents no longer enrolled

	Mean	SE	95%CI	N
Homeless in the last 12 months (2017)				
Yes	1.9	1.67	[-1.3, 5.2]	43
No	-0.3	0.45	[-1.2, 0.6]	646
Number of places lived in past 3 years (2017)				
One	-0.5	0.55	[-1.6, 0.5]	440
Two	-0.1	1.12	[-2.3, 2.1]	158
Three	1.0	0.93	[-0.8, 2.8]	55
Four or more	1.1	1.09	[-1.0, 3.3]	38
Employed/self-employed (2017)				
Yes	-0.0	0.40	[-0.8, 0.8]	417
No	-0.4	0.98	[-2.3, 1.5]	273
Insurance status (2017)				
Insured	-0.5	0.45	[-1.3, 0.4]	493
Uninsured	0.3	1.03	[-1.7, 2.4]	191
Total	-0.2	0.44	[-1.0, 0.7]	691

Notes: For homeless in the last 12 months, number of places lived in past 3 years, and insurance status, respondents who answered "Don't know" were excluded from the analysis.

1.7.9 Days missed due to poor physical/mental health (2016, 2017, change 2016-2017) by new chronic condition diagnosis (2016), among respondents with a chronic condition

	Days missed due to poor physical/mental health								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
New chronic condition diagnosis (2016)									
Yes	9.2	0.59	[8.1, 10.4]	621	8.4	0.54	[7.3, 9.4]	628	-0.8
No	5.2	0.26	[4.7, 5.7]	1,797	5.2	0.26	[4.7, 5.7]	1,817	

Notes: Two factor repeated measures ANOVA results, F(1, 3,083)= 2.81, p= 0.1396. New chronic condition diagnosis in 2016 was defined as a new diagnosis of asthma, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2016 as indicated by self-report.

1.8 Improved oral health

1.8.1 Improved oral health (2016 or 2017) by follow-up group, among all respondents

	Improved oral health (2016 or 2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	49.3	[46.7, 51.9]	50.7	[48.1, 53.3]	100.0
No longer enrolled (n=709)	45.5	[41.0, 50.2]	54.5	[49.8, 59.0]	100.0
Pearson: Uncorrected chi2(1) =	3.1624				
Design-based F(1.00, 3085.00) =	1.9469	Pr =	0.163		
Total (n=3,097)	48.4	[46.2, 50.7]	51.6	[49.3, 53.8]	100.0

Notes: χ^2 test of independence. Improved oral health in this table was defined as respondents who reported in either 2016 or 2017 that their oral health got better in the past year.

1.8.2 Predictors of improved oral health (change 2016-2017), among all respondents

	Improved oral health		
	aOR	95% CI	p-value
Survey year			
2016		Reference	
2017	0.29	[0.236, 0.345]	0.000
Follow-up group			
Still enrolled		Reference	
No longer enrolled	0.75	[0.600, 0.944]	0.014
Any dental visit (DW)			
No		Reference	
Yes	8.29	[6.236, 11.020]	0.000
Age (DW)			
19-34		Reference	
35-50	0.79	[0.616, 1.025]	0.076
51-64	0.84	[0.664, 1.058]	0.137
Gender (DW)			
Male		Reference	
Female	0.92	[0.747, 1.123]	0.398
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.75	[1.372, 2.241]	0.000
Hispanic	0.96	[0.618, 1.483]	0.845
Other, non-Hispanic	1.44	[0.977, 2.117]	0.065
FPL category (DW)			
0-35%		Reference	
36-99%	0.96	[0.774, 1.184]	0.686
100%+	0.82	[0.645, 1.032]	0.090
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.88	[0.706, 1.087]	0.228
Bachelor's/post graduate degree	0.77	[0.552, 1.086]	0.138
Constant	0.17	[0.115, 0.238]	0.000
Respondent	2.71	[1.707, 4.307]	0.000
N	6,102		
F-value	23.336		
Model degrees of freedom	13.000		
Residual degrees of freedom	3,039.000		
F-value significance	0.000		

Notes: Mixed effects logistic regression. Variables are from both survey years unless otherwise noted.

1.8.3 Improved oral health (2016, 2017, change 2016-2017), among respondents still enrolled

	Improved oral health						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Among respondents still enrolled							
Oral health improved in the past year	41.0	[38.5, 43.6]	978	22.7	[20.6, 25.1]	504	-18.3
Oral health did not improve in the past year	59.0	[56.4, 61.5]	1,410	77.3	[74.9, 79.4]	1,884	

Notes: Improved oral health was defined as respondents who reported that their oral health got better in the past year.

1.8.4 Improved oral health (2017) by improved oral health (2016), among respondents still enrolled

	Improved oral health (2017)					
	Yes		No		Total	
	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI
Improved oral health (2016)						
Yes (n=978)	14.4	[12.6, 16.4]	26.6	[24.4, 28.9]	41.0	[38.5, 43.6]
No (n=1,410)	8.3	[7.0, 9.9]	50.7	[48.1, 53.3]	59.0	[56.4, 61.5]
Total (n=2,388)	22.7	[20.6, 25.1]	77.3	[74.9, 79.4]	100.0	

Notes: Improved oral health was defined as respondents who reported that their oral health got better in the past year.

1.8.5 Predictors of improved oral health (change 2016-2017), among respondents still enrolled

	Improved oral health			Improved oral health		
	OR	95% CI	p-value	aOR	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	0.31	[0.254, 0.387]	0.000	0.31	[0.251, 0.387]	0.000
Any dental visit (DW)						
No					Reference	
Yes				9.40	[6.671, 13.248]	0.000
Age (DW)						
19-34					Reference	
35-50				0.88	[0.653, 1.192]	0.414
51-64				0.81	[0.611, 1.064]	0.127
Gender (DW)						
Male					Reference	
Female				0.93	[0.732, 1.190]	0.578
Race/ethnicity (2016)						
White, non-Hispanic					Reference	
Black, non-Hispanic				1.72	[1.286, 2.302]	0.000
Hispanic				1.05	[0.624, 1.769]	0.853
Other, non-Hispanic				1.42	[0.909, 2.208]	0.124
FPL category (DW)						
0-35%					Reference	
36-99%				0.99	[0.773, 1.271]	0.947
100%+				0.88	[0.672, 1.157]	0.364
Highest level of education (2017)						
High school or less					Reference	
Associate's degree/some college				0.91	[0.708, 1.174]	0.474
Bachelor's/post graduate degree				0.79	[0.521, 1.197]	0.265
Constant	0.60	[0.520, 0.701]	0.000	0.13	[0.085, 0.205]	0.000
Respondent	7.80	[3.832, 15.884]	0.000	3.20	[1.829, 5.609]	0.000
N	4,776			4,706		
F-value	115.620			19.184		
Model degrees of freedom	1.000			12.000		
Residual degrees of freedom	2,376.000			2,341.000		
F-value significance	0.000			0.000		

Notes: Mixed effects logistic regression. Variables are from both survey years unless otherwise noted. Improved oral health was defined as respondents who reported that their oral health got better in the past year.

1.8.6 Worsened oral health (2017) by follow-up group, among all respondents

	Worsened oral health (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	16.3	[14.5, 18.2]	83.7	[81.8, 85.5]	100.0
No longer enrolled (n=709)	23.0	[19.3, 27.2]	77.0	[72.8, 80.7]	100.0
Pearson: Uncorrected chi2(1) =	17.1512				
Design-based F(1.00, 3085.00) =	10.7298	Pr =	0.001		
Total (n=3,097)	17.8	[16.2, 19.6]	82.2	[80.4, 83.8]	100.0

Notes: χ^2 test of independence. Worsened oral health was defined as respondents who reported that their oral health got worse in the past year. ϕ= 0.07

1.8.7 Predictors of worsened oral health (2017), among all respondents

	Worsened oral health (2017)		
	aOR	95% CI	p-value
Follow-up group			
Still enrolled		Reference	
No longer enrolled	1.67	[1.281, 2.176]	0.000
Any dental visit (DW)			
No		Reference	
Yes	1.00	[0.777, 1.281]	0.987
Age (DW)			
19-34		Reference	
35-50	1.51	[1.111, 2.062]	0.009
51-64	1.43	[1.067, 1.929]	0.017
Gender (DW)			
Male		Reference	
Female	1.17	[0.922, 1.497]	0.193
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.94	[0.698, 1.257]	0.665
Hispanic	0.99	[0.553, 1.762]	0.964
Other, non-Hispanic	0.87	[0.570, 1.334]	0.528
FPL category (DW)			
0-35%		Reference	
36-99%	0.82	[0.630, 1.069]	0.144
100%+	0.85	[0.637, 1.129]	0.259
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.86	[0.666, 1.112]	0.250
Bachelor's/post graduate degree	0.79	[0.553, 1.138]	0.208
Constant	0.17	[0.115, 0.239]	0.000
N	3,051		
F-value	2.656		
Model degrees of freedom	12.000		
Residual degrees of freedom	3,039.000		
F-value significance	0.002		

Notes: Multiple logistic regression. Worsened oral health was defined as respondents who reported that their oral health got worse in the past year.

2 Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.

2.1 Knowledge of HMP covered benefits (change 2016-2017)

2.1.1 Knowledge of HMP covered benefits (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Knowledge that dental care is covered[a]							
Yes	77.0	[74.7, 79.2]	1,857	81.6	[79.5, 83.5]	1,957	4.6
No/don't know	23.0	[20.8, 25.3]	528	18.4	[16.5, 20.5]	431	
Knowledge that eyeglasses are covered[b]							
Yes	61.5	[58.9, 64.0]	1,535	67.9	[65.4, 70.3]	1,664	6.4
No/don't know	38.5	[36.0, 41.1]	850	32.1	[29.7, 34.6]	724	
Knowledge that counseling is covered[c]							
Yes	56.3	[53.7, 58.8]	1,381	58.8	[56.2, 61.4]	1,449	2.5
No/don't know	43.7	[41.2, 46.3]	1,004	41.2	[38.6, 43.8]	939	

[a] **Notes**: Mixed effects logistic regression results, $F(1, 2{,}376) = 14.21$, $p = 0.0002$; Knowledge that dental care is covered ('yes' response) in 2017 OR = 1.55, $p < 0.001$, 95% CI (1.2, 1.9)
[b] **Notes**: Mixed effects logistic regression results, $F(1, 2{,}376) = 25.53$, $p < 0.0001$; Knowledge that eyeglasses are covered ('yes' response) in 2017 OR = 1.73, $p < 0.001$, 95% CI (1.4, 2.1)
[c] **Notes**: Mixed effects logistic regression results, $F(1, 2{,}376) = 3.17$, $p = 0.0749$; Knowledge that counseling is covered ('yes' response) in 2017 OR = 1.19, $p = 0.075$, 95% CI (1.0, 1.4)

2.1.2 Predictors of knowledge that dental care is covered (change 2016-2017), among respondents still enrolled

	Knowledge that dental care is covered		
	aOR	95% CI	p-value
Survey year			
2016		Reference	
2017	1.51	[1.193, 1.903]	0.001
Need help reading written materials (2016)			
Never/rarely		Reference	
Sometimes/often/always	0.73	[0.464, 1.163]	0.188
Employed/self-employed			
Yes		Reference	
No	0.89	[0.635, 1.251]	0.506
Age (DW)			
19-34		Reference	
35-50	1.05	[0.681, 1.604]	0.839
51-64	1.02	[0.696, 1.503]	0.910
Gender (DW)			
Male		Reference	
Female	1.88	[1.328, 2.666]	0.000
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.97	[0.633, 1.485]	0.886
Hispanic	0.58	[0.292, 1.171]	0.130
Other, non-Hispanic	0.96	[0.524, 1.760]	0.897
FPL category (DW)			
0-35%		Reference	
36-99%	0.77	[0.520, 1.138]	0.189
100%+	0.63	[0.418, 0.957]	0.030
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.15	[0.794, 1.668]	0.458
Bachelor's/post graduate degree	1.57	[0.944, 2.597]	0.082
Constant	6.60	[3.670, 11.866]	0.000
Respondent	82.36	[17.751, 382.170]	0.000
N	4,690		
F-value	2.646		
Model degrees of freedom	13.000		
Residual degrees of freedom	2,338.000		
F-value significance	0.001		

Notes: Mixed effects logistic regression. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Variables are from both survey years unless otherwise noted.

2.2 Knowledge of HMP covered benefits and costs (change 2016-2017)

2.2.1 Knowledge of HMP covered benefits and costs (2016, 2017, change 2016-2017), among respondents still enrolled

	Knowledge of HMP covered benefits and costs								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents still enrolled	3.1	0.04	[3.0, 3.2]	2,388	3.1	0.03	[3.0, 3.1]	2,388	0.0

Notes: Paired sample t-test results, difference in score = -0.4, t(2,376) = -1.06, p = 0.288, 95% CI (-0.1, 0.0). Knowledge of HMP covered benefits and costs is defined as the count of correct answers to a series of questions about HMP, which were common to both the 2016 and 2017 surveys (Range 0-6). These questions include: I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK; I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK; Some kinds of visits, tests and medicines have no copays. Y/N/DK; Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, routine dental care, counseling for mental or emotional problems.

2.3 Knowledge of HMP cost-sharing requirements and healthy behavior rewards (change 2016-2017)

2.3.1 Knowledge of HMP cost-sharing requirements and healthy behavior rewards (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Some visits, tests, and medicines have no copays[a]							
Yes	76.5	[74.1, 78.7]	1,887	72.4	[70.0, 74.6]	1,743	-4.1
No/don't know	23.5	[21.3, 25.9]	497	27.6	[25.4, 30.0]	644	
May get reduction by completing HRA[b]							
Yes	27.7	[25.4, 30.1]	682	27.5	[25.2, 29.8]	691	-0.2
No/don't know	72.3	[69.9, 74.6]	1,701	72.5	[70.2, 74.8]	1,696	
Could be dropped from HMP for not paying[c]							
No	13.3	[11.6, 15.1]	313	16.6	[14.9, 18.6]	409	3.3
Yes/don't know	86.7	[84.9, 88.4]	2,071	83.4	[81.4, 85.1]	1,978	

[a] Mixed effects logistic regression results, F(1, 2,376) = 7.47, p = 0.0063; Some visits, tests, and medicines have no copays ('yes' response) in 2017 OR = 0.76, p = 0.006, 95% CI (0.6, 0.9)

[b] Mixed effects logistic regression results, F(1, 2,376) = 0.03, p = 0.8558; May get reduction by completing HRA ('yes' response) in 2017 OR = 0.98, p = 0.856, 95% CI (0.8, 1.2)

[c] Mixed effects logistic regression results, F(1, 2,376) = 8.43, p = 0.0037; Could be dropped from HMP for not paying ('no' response) in 2017 OR = 1.38, p = 0.004, 95% CI (1.1, 1.7). Respondents cannot be dropped from HMP for not paying, therefore "no" is the correct response on this cost-sharing requirement.

2.4 Experiences with MI Health Account (change 2016-2017)

2.4.1 Experiences with MI Health Account (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Received MIHA statement[a]							
Yes	72.3	[69.8, 74.7]	1,836	78.4	[76.0, 80.6]	1,954	6.1
No/don't know	27.7	[25.3, 30.2]	552	21.6	[19.4, 24.0]	434	
Carefully review MIHA Statement[b]							
Strongly agree/agree	89.3	[87.2, 91.0]	1,660	84.8	[82.6, 86.8]	1,693	-4.5
Strongly disagree/disagree/neutral/don't know	10.7	[9.0, 12.8]	174	15.2	[13.2, 17.4]	261	
MIHA Statements help me be aware of health care costs[c]							
Strongly agree/agree	88.3	[86.4, 90.0]	1,610	82.6	[80.3, 84.7]	1,634	-5.7
Strongly disagree/disagree/neutral/don't know	11.7	[10.0, 13.6]	223	17.4	[15.3, 19.7]	320	
MIHA Statements led me to change health care decisions[d]							
Strongly agree/agree	29.5	[26.9, 32.3]	530	31.0	[28.4, 33.7]	595	1.5
Strongly disagree/disagree/neutral/don't know	70.5	[67.7, 73.1]	1,303	69.0	[66.3, 71.6]	1,357	

Notes: MIHA = MI Health Account

[a] Mixed effects logistic regression results, F(1, 2,376) = 18.39, p < 0.0001; Received MIHA statement ('yes' response) in 2017 OR = 1.68, p < 0.001, 95% CI (1.3, 2.1). Wording is different in survey years. In 2016 the wording used was, "Have you received a bill or statement from the state that showed the services you received and how much you owe for the Healthy Michigan Plan? It's called your MI Health Account Statement."; In 2017 the wording used was, "In the past year, have you received a statement from the state that showed the services you received through the Healthy Michigan Plan and how much you owe, if anything? It's called your MI Health Account Statement."

[b] Mixed effects logistic regression results, F(1, 2,132) = 11.88, p = 0.0006; Carefully review MIHA Statement ('strongly agree/agree' response) in 2017 OR = 0.60, p = 0.001, 95% CI (0.4, 0.8)

[c] Mixed effects logistic regression results, F(1, 2,132) = 16.05, p = 0.0001; MIHA Statements help me be aware of health care costs ('strongly agree/agree' response) in 2017 OR = 0.57, p < 0.001, 95% CI (0.4, 0.8)

[d] Mixed effects logistic regression results, F(1, 2,132) = 0.98, p = 0.3218; MIHA Statements led me to change health care decisions ('strongly agree/agree' response) in 2017 OR = 1.10, p = 0.322, 95% CI (0.9, 1.4)

2.5 Perspectives on cost-sharing (2017)

2.5.1 Getting discounts for improving health is a good idea (2017), among respondents still enrolled

	Getting discounts for improving health is a good idea (2017)			
	Mean	SE	95%CI	N
Among respondents still enrolled	4.1	0.02	[4.1, 4.2]	2,387

Notes: Getting discounts for improving health is a good idea is measured on a 5-point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

2.5.2 The amount I pay for HMP is affordable (2017), among still enrolled chronic condition subgroups

	The amount I pay for HMP is affordable (2017)												
	Strongly agree		**Agree**		**Neutral**		**Disagree**		**Strongly disagree**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW) (n=619)	26.4	[22.1, 31.2]	56.4	[51.3, 61.4]	8.2	[5.6, 11.8]	4.9	[3.3, 7.3]	1.6	[0.6, 3.8]	2.5	[1.1, 5.4]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW) (n=1,097)	25.7	[22.6, 29.1]	60.1	[56.5, 63.7]	4.3	[2.9, 6.3]	5.6	[4.0, 7.7]	1.7	[0.9, 3.0]	2.7	[1.6, 4.3]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW) (n=213)	21.4	[15.3, 29.1]	66.9	[58.8, 74.1]	2.8	[1.4, 5.4]	6.7	[3.9, 11.3]	0.3	[0.0, 2.0]	1.9	[0.8, 4.3]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW) (n=674)	24.1	[20.0, 28.8]	62.8	[57.8, 67.5]	4.4	[2.7, 7.3]	4.2	[2.8, 6.4]	1.8	[1.0, 3.5]	2.6	[1.5, 4.5]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW) (n=557)	23.4	[19.2, 28.1]	62.6	[57.4, 67.5]	3.8	[1.9, 7.3]	4.8	[3.2, 7.2]	1.8	[0.8, 3.8]	3.6	[2.1, 6.2]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW) (n=1,207)	23.0	[20.2, 26.2]	64.8	[61.3, 68.1]	3.9	[2.7, 5.7]	4.6	[3.4, 6.3]	0.8	[0.4, 1.5]	2.9	[1.9, 4.4]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW) (n=456)	21.2	[17.0, 26.1]	67.4	[61.8, 72.5]	4.8	[2.8, 8.3]	3.5	[2.1, 5.7]	1.1	[0.5, 2.4]	2.0	[1.0, 4.0]	100.0
Total (n=2,385)	24.7	[22.5, 27.0]	62.0	[59.4, 64.5]	4.6	[3.6, 5.9]	5.1	[4.1, 6.5]	1.0	[0.6, 1.6]	2.5	[1.8, 3.5]	100.0

2.6 Perspectives on cost-sharing (change 2016-2017)

2.6.1 Perspectives on cost-sharing (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
The amount I have to pay overall for HMP seems fair[a]							
Strongly agree/agree	88.7	[86.9, 90.2]	2,144	84.1	[82.1, 86.0]	2,064	-4.6
Strongly disagree/disagree/neutral/don't know	11.3	[9.8, 13.1]	240	15.9	[14.0, 17.9]	322	
The amount I pay for HMP is affordable[b]							
Strongly agree/agree	90.1	[88.5, 91.5]	2,167	86.7	[84.8, 88.4]	2,089	-3.4
Strongly disagree/disagree/neutral/don't know	9.9	[8.5, 11.5]	218	13.3	[11.6, 15.2]	296	

[a] Mixed effects logistic regression results, F(1, 2,376) = 14.49, p = 0.0001; The amount I have to pay overall for HMP seems fair ('strongly agree/agree' response) in 2017 OR = 0.60, p < 0.001, 95% CI (0.5, 0.9)
[b] Mixed effects logistic regression results, F(1, 2,376) = 9.21, p = 0.0024; The amount I pay for HMP is affordable ('strongly agree/agree' response) in 2017 OR = 0.66, p = 0.002, 95% CI (0.5, 0.9)

2.7 Perspectives on HMP coverage (2017)

2.7.1 Having HMP has taken a lot of stress off me (2017), among still enrolled chronic condition subgroups

	Having HMP has taken a lot of stress off me (2017)												
	Strongly agree		**Agree**		**Neutral**		**Disagree**		**Strongly disagree**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW) (n=619)	40.2	[35.4, 45.3]	51.1	[46.0, 56.2]	4.7	[2.9, 7.5]	1.6	[0.8, 3.0]	2.1	[0.9, 4.8]	0.3	[0.1, 1.1]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW) (n=1,098)	38.2	[34.8, 41.8]	55.2	[51.5, 58.7]	2.9	[1.8, 4.5]	1.9	[1.2, 3.1]	1.5	[0.7, 3.2]	0.3	[0.1, 0.8]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW) (n=213)	36.0	[28.7, 44.1]	57.9	[49.7, 65.8]	2.0	[0.8, 4.8]	3.5	[1.6, 7.6]	0.5	[0.1, 2.5]	0.0		100.0
Among respondents with COPD (2016 or 2017 survey and/or DW) (n=674)	39.0	[34.3, 43.9]	54.3	[49.3, 59.1]	3.8	[2.2, 6.6]	1.5	[0.8, 3.0]	1.1	[0.4, 2.9]	0.4	[0.1, 1.1]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW) (n=557)	36.6	[31.8, 41.6]	57.7	[52.5, 62.7]	2.3	[1.2, 4.5]	1.2	[0.6, 2.5]	1.8	[0.7, 4.5]	0.4	[0.1, 1.6]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW) (n=1,208)	37.5	[34.1, 41.0]	56.2	[52.6, 59.7]	2.6	[1.7, 4.0]	2.1	[1.2, 3.8]	1.2	[0.6, 2.6]	0.3	[0.1, 0.7]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW) (n=456)	36.5	[31.0, 42.3]	59.1	[53.2, 64.8]	2.4	[1.4, 4.1]	1.2	[0.6, 2.6]	0.4	[0.1, 1.4]	0.3	[0.1, 1.5]	100.0
Total (n=2,387)	37.2	[34.8, 39.7]	54.2	[51.6, 56.8]	4.7	[3.7, 6.0]	2.8	[2.0, 3.8]	0.8	[0.4, 1.6]	0.2	[0.1, 0.5]	100.0

2.7.2 Without HMP I wouldn't be able to go to the doctor (2017), among still enrolled chronic condition subgroups

	Without HMP I wouldn't be able to go to doctor (2017)												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW) (n=619)	42.0	[37.1, 47.1]	48.4	[43.3, 53.5]	3.9	[2.2, 6.8]	4.1	[2.5, 6.5]	0.7	[0.2, 3.0]	0.9	[0.4, 2.1]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW) (n=1,098)	40.9	[37.4, 44.5]	51.4	[47.7, 55.0]	2.2	[1.2, 4.0]	4.5	[3.2, 6.4]	0.4	[0.1, 1.3]	0.6	[0.3, 1.1]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW) (n=213)	39.2	[31.5, 47.4]	53.7	[45.3, 61.8]	1.5	[0.4, 4.7]	4.4	[2.1, 8.9]	0.3	[0.0, 1.9]	1.0	[0.3, 3.1]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW) (n=674)	41.4	[36.7, 46.3]	52.1	[47.2, 57.0]	2.1	[1.0, 4.6]	3.1	[2.0, 4.9]	0.3	[0.1, 1.1]	0.8	[0.3, 2.1]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW) (n=557)	37.3	[32.5, 42.4]	53.0	[47.8, 58.2]	2.5	[1.4, 4.6]	4.8	[2.5, 9.1]	0.9	[0.3, 3.1]	1.4	[0.7, 2.9]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW) (n=1,208)	39.0	[35.5, 42.5]	51.3	[47.7, 55.0]	2.7	[1.8, 4.0]	5.4	[3.7, 7.6]	0.7	[0.3, 1.7]	1.0	[0.5, 1.8]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW) (n=456)	39.7	[34.1, 45.6]	52.3	[46.3, 58.3]	2.1	[1.1, 4.0]	4.5	[2.4, 8.4]	0.3	[0.1, 1.1]	1.1	[0.4, 3.0]	100.0
Total (n=2,388)	37.1	[34.6, 39.6]	51.4	[48.7, 54.0]	3.9	[3.0, 5.2]	6.3	[5.1, 7.8]	0.6	[0.3, 1.1]	0.8	[0.4, 1.5]	100.0

2.7.3 Without HMP I wouldn't be able to go to the dentist (2017), among still enrolled chronic condition subgroups

	Without HMP I wouldn't be able to go to dentist (2017)												
	Strongly agree		**Agree**		**Neutral**		**Disagree**		**Strongly disagree**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW) (n=619)	39.1	[34.3, 44.2]	45.7	[40.7, 50.8]	4.2	[2.5, 6.7]	6.6	[4.5, 9.5]	0.5	[0.1, 2.0]	4.0	[2.3, 6.9]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW) (n=1,098)	37.1	[33.6, 40.7]	51.7	[48.1, 55.4]	3.6	[2.2, 5.8]	4.9	[3.6, 6.7]	0.3	[0.1, 0.7]	2.4	[1.6, 3.6]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW) (n=213)	32.2	[25.2, 40.1]	53.4	[45.0, 61.6]	1.5	[0.4, 5.4]	7.1	[3.9, 12.5]	0.9	[0.1, 6.4]	4.8	[2.4, 9.4]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW) (n=674)	37.7	[33.1, 42.6]	49.6	[44.6, 54.5]	3.0	[1.5, 5.8]	4.8	[3.1, 7.5]	0.5	[0.1, 1.7]	4.4	[2.3, 8.3]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW) (n=557)	33.2	[28.6, 38.3]	52.2	[46.9, 57.4]	3.6	[2.3, 5.7]	7.1	[4.3, 11.6]	0.4	[0.1, 2.0]	3.4	[1.9, 6.1]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW) (n=1,208)	34.7	[31.4, 38.2]	50.3	[46.6, 53.9]	3.9	[2.7, 5.6]	6.7	[4.9, 9.0]	0.4	[0.1, 0.9]	4.1	[2.6, 6.3]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW) (n=456)	34.2	[28.9, 39.9]	51.1	[45.0, 57.1]	3.5	[1.7, 7.1]	6.2	[3.5, 10.8]	0.1	[0.0, 0.4]	5.0	[2.4, 10.2]	100.0
Total (n=2,388)	33.7	[31.3, 36.2]	49.9	[47.3, 52.5]	5.0	[3.9, 6.3]	7.7	[6.3, 9.3]	0.6	[0.4, 1.1]	3.0	[2.2, 4.3]	100.0

2.8 Perspectives on HMP coverage (change 2016-2017)

2.8.1 Perspectives on HMP coverage (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Having HMP has taken a lot of stress off me[a]							
Strongly agree/agree	87.9	[86.0, 89.6]	2,139	91.4	[89.8, 92.9]	2,206	3.5
Strongly disagree/disagree/neutral/don't know	12.1	[10.4, 14.0]	248	8.6	[7.1, 10.2]	181	
Without HMP, I wouldn't be able to go to the doctor[b]							
Strongly agree/agree	84.3	[82.3, 86.2]	2,028	88.4	[86.5, 90.1]	2,141	4.1
Strongly disagree/disagree/neutral/don't know	15.7	[13.8, 17.7]	358	11.6	[9.9, 13.5]	247	

[a] Mixed effects logistic regression results, F(1, 2,376) = 10.90, p = 0.0010; Having HMP has taken a lot of stress off me ('strongly agree/agree' response) in 2017 OR = 1.69, p = 0.001, 95% CI (1.2, 2.3)
[b] Mixed effects logistic regression results, F(1, 2,376) = 13.45, p = 0.0003; Without HMP, I wouldn't be able to go to the doctor ('strongly agree/agree' response) in 2017 OR = 1.69, p < 0.001, 95% CI (1.3, 2.2)

2.8.2 Importance of having health insurance (2016, 2017, change 2016-2017), among all respondents, respondents still enrolled, and respondents no longer enrolled

	It is very important to me personally to have health insurance						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
All respondents[a]							
Strongly agree/agree	97.7	[96.8, 98.3]	3,028	97.3	[96.6, 97.9]	3,013	-0.4
Strongly disagree/disagree/neutral/don't know	2.3	[1.7, 3.2]	64	2.7	[2.1, 3.4]	84	
Among respondents still enrolled[b]							
Strongly agree/agree	98.0	[96.9, 98.8]	2,342	97.6	[96.7, 98.2]	2,334	-0.4
Strongly disagree/disagree/neutral/don't know	2.0	[1.2, 3.1]	42	2.4	[1.8, 3.3]	54	
Among respondents no longer enrolled[c]							
Strongly agree/agree	96.4	[94.3, 97.8]	686	96.4	[94.7, 97.6]	679	0.0
Strongly disagree/disagree/neutral/don't know	3.6	[2.2, 5.7]	22	3.6	[2.4, 5.3]	30	

[a] Mixed effects logistic regression results, F(1, 3,085) = 0.50, p = 0.4804; It is very important to me personally to have health insurance ('strongly agree/agree' response) in 2017 OR = 0.84, p = 0.480, 95% CI (0.5, 1.4)
[b] Mixed effects logistic regression results, F(1, 2,376) = 0.62, p = 0.4309; It is very important to me personally to have health insurance ('strongly agree/agree' response) in 2017 OR = 0.78, p = 0.431, 95% CI (0.4, 1.4)
[c] Mixed effects logistic regression results, F(1, 697) = 0.00, p = 0.9937; It is very important to me personally to have health insurance ('strongly agree/agree' response) in 2017 OR = 1.00, p = 0.994, 95% CI (0.5, 2.2)

2.8.3 Importance of having health insurance (2016, 2017, change 2016-2017), among respondents still enrolled

	Having health insurance is important to me								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents still enrolled	4.4	0.02	[4.4, 4.5]	2384	4.4	0.02	[4.4, 4.4]	2388	0.0

Notes: Having health insurance is important to me is measured on a 5-point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

2.9 Questions or problems using HMP (change 2016-2017)

2.9.1 Questions or problems using HMP (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Any questions about HMP[a]							
Yes	15.6	[13.9, 17.5]	376	11.0	[9.5, 12.7]	263	-4.6
No/don't know	84.4	[82.5, 86.1]	2,012	89.0	[87.3, 90.5]	2,125	

[a] Wording is different in survey years. In 2016, the wording used was "Have you had any questions or problems using your Healthy Michigan Plan insurance?"; in 2017, the wording used was "In the last 12 months, have you had any questions or problems using your Healthy Michigan Plan insurance?"

3 Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.

3.1 Forgone health care (2017)

3.1.1 Forgone health care in the last 12 months (2017) by presence of a chronic condition, among respondents still enrolled

	Chronic condition (2016 or 2017 survey and/or DW)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Forgone health care in last 12 months (2017)						
Yes (n=183)	9.1	[7.6, 10.9]	2.8	[1.6, 4.8]	7.8	[6.5, 9.2]
No/don't know (n=2,204)	90.9	[89.1, 92.4]	97.2	[95.2, 98.4]	92.2	[90.8, 93.5]
Pearson: Uncorrected chi2(1) =	29.9527					
Design-based F(1.00, 3084.00) =	18.4252	Pr =	0.000			
Forgone care: primary care (2017)						
Yes (n=74)	43.3	[34.2, 52.9]	41.2	[18.2, 68.8]	43.2	[34.5, 52.3]
No (n=109)	56.7	[47.1, 65.8]	58.8	[31.2, 81.8]	56.8	[47.7, 65.5]
Pearson: Uncorrected chi2(1) =	0.1149					
Design-based F(1.00, 880.00) =	0.0198	Pr =	0.888			
Forgone care: specialty care (2017)						
Yes (n=54)	29.1	[21.3, 38.3]	18.6	[3.6, 58.0]	28.3	[20.9, 37.0]
No (n=129)	70.9	[61.7, 78.7]	81.4	[42.0, 96.4]	71.7	[63.0, 79.1]
Pearson: Uncorrected chi2(1) =	3.4202					
Design-based F(1.00, 880.00) =	0.3946	Pr =	0.530			
Forgone care: mental health care (2017)						
Yes (n=13)	8.4	[4.1, 16.4]	19.7	[4.2, 58.1]	9.2	[4.8, 17.0]
No (n=170)	91.6	[83.6, 95.9]	80.3	[41.9, 95.8]	90.8	[83.0, 95.2]
Pearson: Uncorrected chi2(1) =	9.8059					
Design-based F(1.00, 880.00) =	1.1462	Pr =	0.285			
Forgone care: prescription medication (2017)						
Yes (n=34)	19.9	[13.4, 28.6]	27.5	[9.9, 56.7]	20.5	[14.2, 28.7]
No (n=149)	80.1	[71.4, 86.6]	72.5	[43.3, 90.1]	79.5	[71.3, 85.8]
Pearson: Uncorrected chi2(1) =	2.2376					
Design-based F(1.00, 880.00) =	0.3946	Pr =	0.530			

Notes: χ^2 test of independence.

3.1.2 Forgone health care in the last 12 months (2017) by presence of a mental health condition and/or substance use disorder, among respondents still enrolled

	Mental health condition and/or substance use disorder (DW)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Forgone health care in last 12 months (2017)						
Yes (n=183)	10.7	[8.8, 13.0]	4.0	[2.8, 5.8]	7.8	[6.5, 9.2]
No/don't know (n=2,204)	89.3	[87.0, 91.2]	96.0	[94.2, 97.2]	92.2	[90.8, 93.5]
Pearson: Uncorrected chi2(1) =	46.8109					
Design-based F(1.00, 3084.00) =	24.0807	Pr =	0.000			
Forgone care: primary care (2017)						
Yes (n=74)	42.5	[32.7, 53.0]	45.4	[28.4, 63.6]	43.2	[34.5, 52.3]
No (n=109)	57.5	[47.0, 67.3]	54.6	[36.4, 71.6]	56.8	[47.7, 65.5]
Pearson: Uncorrected chi2(1) =	0.5345					
Design-based F(1.00, 880.00) =	0.0726	Pr =	0.788			
Forgone care: specialty care (2017)						
Yes (n=54)	27.7	[19.3, 38.0]	30.2	[16.6, 48.3]	28.3	[20.9, 37.0]
No (n=129)	72.3	[62.0, 80.7]	69.8	[51.7, 83.4]	71.7	[63.0, 79.1]
Pearson: Uncorrected chi2(1) =	0.4719					
Design-based F(1.00, 880.00) =	0.0679	Pr =	0.794			
Forgone care: mental health care (2017)						
Yes (n=13)	12.0	[6.3, 21.6]	0.0	9.2	[4.8, 17.0]	
No (n=170)	88.0	[78.4, 93.7]	100.0	90.8	[83.0, 95.2]	
Pearson: Uncorrected chi2(1) =	26.7889					
Design-based F(1.00, 880.00) =	3.2729	Pr =	0.071			
Forgone care: prescription medication (2017)						
Yes (n=34)	19.8	[12.8, 29.5]	22.7	[11.3, 40.4]	20.5	[14.2, 28.7]
No (n=149)	80.2	[70.5, 87.2]	77.3	[59.6, 88.7]	79.5	[71.3, 85.8]
Pearson: Uncorrected chi2(1) =	0.8051					
Design-based F(1.00, 880.00) =	0.1182	Pr =	0.731			

Notes: χ^2 test of independence.

3.1.3 Forgone health care in the last 12 months (2017) by presence of a mental health condition, among respondents still enrolled

	Mental health condition (DW)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Forgone health care in last 12 months (2017)						
Yes (n=183)	10.7	[8.6, 13.1]	4.9	[3.6, 6.7]	7.8	[6.5, 9.2]
No/don't know (n=2,204)	89.3	[86.9, 91.4]	95.1	[93.3, 96.4]	92.2	[90.8, 93.5]
Pearson: Uncorrected chi2(1) =	35.9954					
Design-based F(1.00, 3084.00) =	17.6598	Pr =	0.000			
Forgone care: primary care (2017)						
Yes (n=74)	39.7	[29.7, 50.7]	50.6	[35.2, 66.0]	43.2	[34.5, 52.3]
No (n=109)	60.3	[49.3, 70.3]	49.4	[34.0, 64.8]	56.8	[47.7, 65.5]
Pearson: Uncorrected chi2(1) =	9.3007					
Design-based F(1.00, 880.00) =	1.2426	Pr =	0.265			
Forgone care: specialty care (2017)						
Yes (n=54)	30.2	[21.0, 41.3]	24.0	[13.5, 38.8]	28.3	[20.9, 37.0]
No (n=129)	69.8	[58.7, 79.0]	76.0	[61.2, 86.5]	71.7	[63.0, 79.1]
Pearson: Uncorrected chi2(1) =	3.7088					
Design-based F(1.00, 880.00) =	0.5387	Pr =	0.463			
Forgone care: mental health care (2017)						
Yes (n=13)	11.9	[6.0, 22.3]	3.3	[0.5, 20.2]	9.2	[4.8, 17.0]
No (n=170)	88.1	[77.7, 94.0]	96.7	[79.8, 99.5]	90.8	[83.0, 95.2]
Pearson: Uncorrected chi2(1) =	16.8654					
Design-based F(1.00, 880.00) =	1.8077	Pr =	0.179			
Forgone care: prescription medication (2017)						
Yes (n=34)	21.0	[13.3, 31.5]	19.4	[10.3, 33.7]	20.5	[14.2, 28.7]
No (n=149)	79.0	[68.5, 86.7]	80.6	[66.3, 89.7]	79.5	[71.3, 85.8]
Pearson: Uncorrected chi2(1) =	0.2952					
Design-based F(1.00, 880.00) =	0.0433	Pr =	0.835			

Notes: χ^2 test of independence.

3.1.4 Forgone health care in the last 12 months (2017) by presence of a substance use disorder, among respondents still enrolled

	Substance use disorder (DW)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Forgone health care in last 12 months (2017)						
Yes (n=183)	13.6	[10.1, 17.9]	6.2	[5.0, 7.6]	7.8	[6.5, 9.2]
No/don't know (n=2,204)	86.4	[82.1, 89.9]	93.8	[92.4, 95.0]	92.2	[90.8, 93.5]
Pearson: Uncorrected chi2(1) =	40.1271					
Design-based F(1.00, 3084.00) =	18.7535	Pr =	0.000			
Forgone care: primary care (2017)						
Yes (n=74)	52.7	[37.6, 67.3]	37.3	[27.3, 48.6]	43.2	[34.5, 52.3]
No (n=109)	47.3	[32.7, 62.4]	62.7	[51.4, 72.7]	56.8	[47.7, 65.5]
Pearson: Uncorrected chi2(1) =	20.2768					
Design-based F(1.00, 880.00) =	2.5706	Pr =	0.109			
Forgone care: specialty care (2017)						
Yes (n=54)	16.5	[7.6, 32.2]	35.4	[25.7, 46.5]	28.3	[20.9, 37.0]
No (n=129)	83.5	[67.8, 92.4]	64.6	[53.5, 74.3]	71.7	[63.0, 79.1]
Pearson: Uncorrected chi2(1) =	36.8190					
Design-based F(1.00, 880.00) =	4.2867	Pr =	0.039			
Forgone care: mental health care (2017)						
Yes (n=13)	9.8	[4.0, 21.8]	8.9	[3.5, 20.7]	9.2	[4.8, 17.0]
No (n=170)	90.2	[78.2, 96.0]	91.1	[79.3, 96.5]	90.8	[83.0, 95.2]
Pearson: Uncorrected chi2(1) =	0.1822					
Design-based F(1.00, 880.00) =	0.0211	Pr =	0.885			
Forgone care: prescription medication (2017)						
Yes (n=34)	20.9	[11.2, 35.4]	20.3	[12.7, 30.8]	20.5	[14.2, 28.7]
No (n=149)	79.1	[64.6, 88.8]	79.7	[69.2, 87.3]	79.5	[71.3, 85.8]
Pearson: Uncorrected chi2(1) =	0.0441					
Design-based F(1.00, 880.00) =	0.0058	Pr =	0.939			

Notes: χ^2 test of independence.

3.1.5 Predictors of forgone health care in the last 12 months (2017), among respondents still enrolled

	Forgone health care in last 12 months (2017)			Forgone health care in last 12 months (2017)			Forgone health care in last 12 months (2017)			Forgone health care in last 12 months (2017)		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Chronic condition (2016 or 2017 survey and/or DW)												
No		Reference										
Yes	4.07	[2.102, 7.874]	0.000									
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	0.97	[0.583, 1.618]	0.911	1.14	[0.679, 1.902]	0.626	1.16	[0.695, 1.943]	0.567	1.12	[0.668, 1.864]	0.677
51-64	1.01	[0.606, 1.670]	0.981	1.37	[0.833, 2.265]	0.214	1.40	[0.846, 2.320]	0.190	1.25	[0.763, 2.062]	0.371
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	1.05	[0.701, 1.567]	0.820	1.05	[0.705, 1.572]	0.803	1.01	[0.674, 1.509]	0.969	1.20	[0.792, 1.826]	0.387
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	0.87	[0.529, 1.415]	0.565	1.07	[0.653, 1.738]	0.799	1.08	[0.666, 1.751]	0.755	0.85	[0.520, 1.405]	0.536
Hispanic	0.85	[0.318, 2.245]	0.736	0.87	[0.330, 2.290]	0.777	0.88	[0.331, 2.348]	0.800	0.83	[0.325, 2.119]	0.696
Other, non-Hispanic	1.21	[0.635, 2.294]	0.567	1.26	[0.660, 2.410]	0.482	1.22	[0.641, 2.329]	0.543	1.22	[0.639, 2.345]	0.542
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	0.50	[0.318, 0.784]	0.003	0.54	[0.345, 0.855]	0.008	0.53	[0.335, 0.830]	0.006	0.53	[0.340, 0.840]	0.007
100%+	0.71	[0.426, 1.176]	0.182	0.75	[0.453, 1.250]	0.272	0.74	[0.445, 1.228]	0.244	0.76	[0.460, 1.268]	0.296
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	1.16	[0.753, 1.778]	0.506	1.13	[0.731, 1.738]	0.588	1.09	[0.706, 1.680]	0.699	1.21	[0.789, 1.851]	0.385
Bachelor's/post graduate degree	1.69	[0.948, 3.007]	0.075	1.71	[0.959, 3.058]	0.069	1.59	[0.893, 2.820]	0.115	1.75	[0.977, 3.126]	0.060
Mental health condition and/or substance use disorder (DW)												
No					Reference							
Yes				2.95	[1.877, 4.634]	0.000						
Mental health condition (DW)												
No								Reference				
Yes							2.37	[1.569, 3.588]	0.000			
Substance use disorder (DW)												
No											Reference	
Yes										2.53	[1.631, 3.919]	0.000
Constant	0.03	[0.013, 0.060]	0.000	0.04	[0.019, 0.066]	0.000	0.05	[0.025, 0.083]	0.000	0.06	[0.031, 0.098]	0.000
N	2,352			2,352			2,352			2,352		
F-value	2.442			3.602			2.841			3.194		
Model degrees of freedom	11.000			11.000			11.000			11.000		
Residual degrees of freedom	2,340.000			2,340.000			2,340.000			2,340.000		
F-value significance	0.005			0.000			0.001			0.000		

Notes: Multiple logistic regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse.

3.1.6 Forgone health care since HMP coverage ended (2017) by insurance status, detailed (2017), among respondents no longer enrolled

Insurance status, detailed (2017)	Forgone health care since HMP coverage ended (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Uninsured (n=193)	30.4	[22.4, 39.8]	69.6	[60.2, 77.6]	100.0
Medicaid (n=202)	10.1	[5.7, 17.3]	89.9	[82.7, 94.3]	100.0
Private, job (n=136)	5.9	[3.3, 10.3]	94.1	[89.7, 96.7]	100.0
Private, self or other, healthcare.gov (n=32)	13.6	[5.5, 29.8]	86.4	[70.2, 94.5]	100.0
Medicare, VA, or CHAMPUS (n=103)	20.7	[12.0, 33.3]	79.3	[66.7, 88.0]	100.0
Other, unspecified, or unknown (n=42)	17.9	[7.9, 35.6]	82.1	[64.4, 92.1]	100.0
Pearson: Uncorrected chi2(5) =	206.4810				
Design-based F(4.61, 14231.40) =	7.0903	Pr =	0.000		

Notes: χ^2 test of independence. Cramer's V= 0.26.

3.1.7 Predictors of forgone health care since HMP coverage ended (2017), among respondents no longer enrolled

	Forgone health care since HMP coverage ended (2017)		
	aOR	95% CI	p-value
Insurance status, detailed (2017)			
Uninsured		Reference	
Medicaid	0.25	[0.111, 0.567]	0.001
Private, job	0.12	[0.056, 0.258]	0.000
Private, self or other, healthcare.gov	0.32	[0.097, 1.072]	0.065
Medicare, VA, or CHAMPUS	0.71	[0.290, 1.739]	0.453
Other, unspecified, or unknown	0.61	[0.224, 1.670]	0.336
Employed/self-employed (2017)			
Yes		Reference	
No	1.08	[0.585, 2.000]	0.802
Married or partnered (2017)			
No		Reference	
Yes	0.65	[0.373, 1.128]	0.125
Chronic condition (2016 or 2017 survey and/or DW)			
No		Reference	
Yes	1.05	[0.561, 1.976]	0.874
Number of places lived in past 3 years (2017)			
One		Reference	
Two	1.40	[0.768, 2.562]	0.270
Three	0.76	[0.316, 1.808]	0.528
Four or more	0.58	[0.142, 2.366]	0.447
Urbanicity (DW)			
Urban		Reference	
Suburban	0.48	[0.205, 1.107]	0.085
Rural	0.44	[0.208, 0.925]	0.030
Age (DW)			
19-34		Reference	
35-50	1.36	[0.718, 2.596]	0.343
51-64	0.72	[0.332, 1.565]	0.408
Gender (DW)			
Male		Reference	
Female	1.43	[0.850, 2.422]	0.177
Race/ethnicity (DW)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.25	[0.123, 0.526]	0.000
Hispanic	0.62	[0.163, 2.352]	0.480
Other, non-Hispanic	0.52	[0.202, 1.335]	0.174
FPL category (DW)			
0-35%		Reference	
36-99%	0.59	[0.293, 1.177]	0.134
100%+	1.02	[0.529, 1.965]	0.954
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.47	[0.781, 2.771]	0.232
Bachelor's/post graduate degree	1.58	[0.769, 3.232]	0.214
Constant	0.57	[0.224, 1.472]	0.248
N	695		
F-value	2.763		
Model degrees of freedom	23.000		
Residual degrees of freedom	683.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse. For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

3.1.8 Forgone health care (2017) by follow-up group, among all respondents

	Forgone health care (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	7.8	[6.5, 9.2]	92.2	[90.8, 93.5]	100.0
No longer enrolled (n=709)	17.1	[13.7, 21.2]	82.9	[78.8, 86.3]	100.0
Pearson: Uncorrected chi2(1) =	53.8174				
Design-based F(1.00, 3085.00) =	31.0191	Pr =	0.000		
Total (n=3,097)	9.9	[8.6, 11.4]	90.1	[88.6, 91.4]	100.0

Notes: χ^2 test of independence. Forgone health care was defined as respondents who reported forgone health care either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled. ϕ= 0.13

3.1.9 Forgone health care (2017) by follow-up group, among chronic condition subgroups

	Forgone health care						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)							
Still enrolled (n=619)	9.8	[7.1, 13.4]	90.2	[86.6, 92.9]	0.0		100.0
No longer enrolled (n=181)	17.0	[11.2, 25.1]	82.1	[73.9, 88.1]	0.9	[0.1, 5.8]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)							
Still enrolled (n=1,098)	11.6	[9.4, 14.2]	88.1	[85.5, 90.2]	0.3	[0.1, 1.0]	100.0
No longer enrolled (n=294)	16.1	[11.9, 21.5]	82.2	[76.4, 86.8]	1.7	[0.4, 6.9]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)							
Still enrolled (n=213)	6.6	[3.8, 11.5]	93.1	[88.3, 96.1]	0.2	[0.0, 1.7]	100.0
No longer enrolled (n=65)	10.2	[4.8, 20.3]	89.8	[79.7, 95.2]	0.0		100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)							
Still enrolled (n=674)	10.6	[7.9, 14.2]	89.4	[85.8, 92.1]	0.0		100.0
No longer enrolled (n=183)	14.1	[8.9, 21.5]	85.0	[77.5, 90.4]	0.9	[0.1, 6.2]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)							
Still enrolled (n=557)	9.6	[7.0, 13.1]	90.3	[86.8, 92.9]	0.1	[0.0, 1.0]	100.0
No longer enrolled (n=142)	19.4	[12.5, 29.0]	80.6	[71.0, 87.5]	0.0		100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)							
Still enrolled (n=1,208)	10.9	[8.8, 13.5]	89.1	[86.5, 91.2]	0.0		100.0
No longer enrolled (n=342)	17.1	[12.8, 22.5]	82.5	[77.0, 86.8]	0.5	[0.1, 3.2]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)							
Still enrolled (n=456)	12.0	[8.7, 16.4]	87.9	[83.5, 91.2]	0.1	[0.0, 0.7]	100.0
No longer enrolled (n=136)	20.8	[13.6, 30.6]	79.2	[69.4, 86.4]	0.0		100.0
Total (n=2,387)	7.8	[6.5, 9.2]	92.1	[90.6, 93.4]	0.1	[0.0, 0.4]	100.0

3.2 Forgone health care due to financial reasons (2017)

3.2.1 Forgone health care due to financial reasons (2017) by follow-up group, among respondents still enrolled and those no longer enrolled

	Forgone health care due to financial reasons (2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	1.6	[1.1, 2.3]	98.4	[97.7, 98.9]	100.0
No longer enrolled (n=709)	13.5	[10.3, 17.4]	86.5	[82.6, 89.7]	100.0
Pearson: Uncorrected chi2(1) =	188.2382				
Design-based F(1.00, 3085.00) =	121.7478	Pr =	0.000		
Total (n=3,097)	4.3	[3.5, 5.4]	95.7	[94.6, 96.5]	100.0

Note: χ^2 test of independence. Forgone health care due to financial reasons was defined as respondents who reported forgone health care, either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled, due to the following reasons: cost, no insurance coverage, or needing a service that was not covered. ϕ= 0.25

3.2.2 Predictors of forgone health care due to financial reasons (2017), among respondents still enrolled and those no longer enrolled

	Forgone health care due to financial reasons (2017)		
	aOR	95% CI	p-value
Follow-up group			
No longer enrolled		Reference	
Still enrolled	0.09	[0.050, 0.147]	0.000
Number of chronic conditions (DW)	1.12	[0.946, 1.316]	0.194
Age (DW)			
19-34		Reference	
35-50	1.19	[0.688, 2.048]	0.537
51-64	0.82	[0.421, 1.587]	0.550
Gender (DW)			
Male		Reference	
Female	1.05	[0.629, 1.754]	0.850
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.42	[0.220, 0.812]	0.010
Hispanic	1.29	[0.476, 3.522]	0.613
Other, non-Hispanic	0.39	[0.152, 0.982]	0.046
FPL category (DW)			
0-35%		Reference	
36-99%	0.54	[0.295, 1.007]	0.053
100%+	0.87	[0.450, 1.662]	0.663
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.85	[1.068, 3.206]	0.028
Bachelor's/post graduate degree	1.12	[0.534, 2.353]	0.763
Constant	0.15	[0.058, 0.398]	0.000
N	3,051		
F-value	13.989		
Model degrees of freedom	12.000		
Residual degrees of freedom	3,039.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Forgone health care due to financial reasons was defined as respondents who reported forgone health care, either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled, due to the following reasons: cost, no insurance coverage, or needing a service that was not covered.

3.2.3 Forgone health care due to financial reasons (2017) by follow-up group, among respondents still enrolled and those no longer enrolled with private insurance

	Forgone health care due to financial reasons (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	1.6	[1.1, 2.3]	98.4	[97.7, 98.9]	100.0
No longer enrolled with private insurance (n=183)	4.9	[2.8, 8.5]	95.1	[91.5, 97.2]	100.0
Pearson: Uncorrected chi2(1) =	13.3750				
Design-based F(1.00, 3085.00) =	11.8483	Pr =	0.001		
Total (n=2,571)	1.8	[1.3, 2.5]	98.2	[97.5, 98.7]	100.0

Note: χ^2 test of independence. Forgone health care due to financial reasons was defined as respondents who reported forgone health care, either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled, due to the following reasons: cost, no insurance coverage, or needing a service that was not covered. ϕ= 0.07

3.2.4 Predictors of forgone health care due to financial reasons (2017), among respondents still enrolled and those no longer enrolled with private insurance

	Forgone health care due to financial reasons (2017)		
	aOR	95% CI	p-value
Follow-up group			
No longer enrolled with private insurance		Reference	
Still enrolled	0.25	[0.118, 0.549]	0.000
Number of chronic conditions (DW)	1.53	[1.273, 1.848]	0.000
Age (DW)			
19-34		Reference	
35-50	1.42	[0.556, 3.622]	0.464
51-64	1.04	[0.376, 2.865]	0.943
Gender (DW)			
Male		Reference	
Female	0.66	[0.333, 1.305]	0.231
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.64	[0.279, 1.483]	0.300
Hispanic	2.16	[0.563, 8.324]	0.261
Other, non-Hispanic	0.27	[0.056, 1.295]	0.102
FPL category (DW)			
0-35%		Reference	
36-99%	1.02	[0.511, 2.019]	0.965
100%+	1.60	[0.662, 3.885]	0.296
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.22	[0.578, 2.559]	0.607
Bachelor's/post graduate degree	1.63	[0.702, 3.776]	0.256
Constant	0.02	[0.008, 0.050]	0.000
N	2,533		
F-value	6.689		
Model degrees of freedom	12.000		
Residual degrees of freedom	2,521.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Forgone health care due to financial reasons was defined as respondents who reported forgone health care, either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled, due to the following reasons: cost, no insurance coverage, or needing a service that was not covered.

3.3 Forgone dental care (2017)

3.3.1 Forgone dental care in the last 12 months (2017) by presence of a chronic condition, presence of a mental health condition and/or substance use disorder, presence of a mental health condition, and presence of a substance use disorder, among respondents still enrolled

	Forgone dental care in last 12 months (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Chronic condition (2016 or 2017 survey and/or DW)					
Yes (n=1,929)	17.2	[15.2, 19.4]	82.8	[80.6, 84.8]	100.0
No (n=457)	13.7	[10.4, 17.9]	86.3	[82.1, 89.6]	100.0
Pearson: Uncorrected chi2(1) =	4.6138				
Design-based F(1.00, 3083.00) =	2.2779	Pr =	0.131		
Mental health condition and/or substance use disorder (DW)					
Yes (n=1,363)	18.8	[16.3, 21.5]	81.2	[78.5, 83.7]	100.0
No (n=1,023)	13.5	[11.2, 16.1]	86.5	[83.9, 88.8]	100.0
Pearson: Uncorrected chi2(1) =	15.6177				
Design-based F(1.00, 3083.00) =	8.3294	Pr =	0.004		
Mental health condition (DW)					
Yes (n=1,230)	19.6	[17.0, 22.5]	80.4	[77.5, 83.0]	100.0
No (n=1,156)	13.3	[11.1, 15.8]	86.7	[84.2, 88.9]	100.0
Pearson: Uncorrected chi2(1) =	22.3841				
Design-based F(1.00, 3083.00) =	11.6608	Pr =	0.001		
Substance use disorder (DW)					
Yes (n=482)	16.5	[12.7, 21.1]	83.5	[78.9, 87.3]	100.0
No (n=1,904)	16.4	[14.5, 18.6]	83.6	[81.4, 85.5]	100.0
Pearson: Uncorrected chi2(1) =	0.0001				
Design-based F(1.00, 3083.00) =	0.0000	Pr =	0.995		
Total (n=2,386)	16.4	[14.7, 18.3]	83.6	[81.7, 85.3]	100.0

Notes: χ^2 test of independence.

3.3.2 Forgone dental care in the last 12 months (2017) by employment (2017), among respondents still enrolled

Employed/self-employed (2017)	Forgone dental care in last 12 months (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=1,319)	15.6	[13.4, 18.1]	84.4	[81.9, 86.6]	100.0
No (n=1,064)	17.6	[14.9, 20.6]	82.4	[79.4, 85.1]	100.0
Pearson: Uncorrected chi2(1) =	2.2392				
Design-based F(1.00, 3080.00) =	1.1418	Pr =	0.285		

Notes: χ^2 test of independence.

3.3.3 Forgone dental care in the last 12 months (2017) by knowledge that dental care is covered (2017), among respondents still enrolled

Knowledge that dental care is covered (2017)	Forgone dental care in last 12 months (2017)				
	Yes		No/don't know		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=1,955)	15.0	[13.1, 17.0]	85.0	[83.0, 86.9]	100.0
No/don't know (n=431)	23.0	[18.5, 28.3]	77.0	[71.7, 81.5]	100.0
Pearson: Uncorrected chi2(1) =	22.0848				
Design-based F(1.00, 3083.00) =	10.9438	Pr =	0.001		

Notes: χ^2 test of independence. ϕ= 0.08

3.3.4 Predictors of forgone dental care in the last 12 months (2017), among respondents still enrolled

	Forgone dental care in last 12 months (2017)		
	aOR	95% CI	p-value
Knowledge that dental care is covered (2017)			
No/don't know		Reference	
Yes	0.57	[0.410, 0.788]	0.001
Age (DW)			
19-34		Reference	
35-50	0.97	[0.693, 1.369]	0.881
51-64	0.88	[0.631, 1.228]	0.453
Gender (DW)			
Male		Reference	
Female	1.71	[1.274, 2.290]	0.000
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.87	[0.615, 1.223]	0.416
Hispanic	0.53	[0.252, 1.100]	0.088
Other, non-Hispanic	1.18	[0.738, 1.886]	0.490
FPL category (DW)			
0-35%		Reference	
36-99%	1.02	[0.746, 1.390]	0.909
100%+	1.19	[0.851, 1.654]	0.313
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.24	[0.920, 1.668]	0.159
Bachelor's/post graduate degree	1.67	[1.137, 2.457]	0.009
Constant	0.21	[0.128, 0.328]	0.000
N	2,351		
F-value	3.320		
Model degrees of freedom	11.000		
Residual degrees of freedom	2,339.000		
F-value significance	0.000		

Notes: Multiple logistic regression.

3.3.5 Predictors of forgone dental care in the last 12 months (2017), among respondents still enrolled

	Forgone dental care in last 12 months (2017)			Forgone dental care in last 12 months (2017)			Forgone dental care in last 12 months (2017)			Forgone dental care in last 12 months (2017)		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Chronic condition (2016 or 2017 survey and/or DW)												
No		Reference										
Yes	1.45	[1.002, 2.083]	0.049									
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	0.92	[0.651, 1.286]	0.609	0.97	[0.689, 1.355]	0.841	0.97	[0.694, 1.367]	0.879	0.97	[0.692, 1.363]	0.866
51-64	0.82	[0.584, 1.158]	0.263	0.93	[0.664, 1.289]	0.646	0.94	[0.674, 1.311]	0.715	0.90	[0.646, 1.253]	0.531
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	1.64	[1.225, 2.200]	0.001	1.64	[1.225, 2.193]	0.001	1.60	[1.191, 2.142]	0.002	1.69	[1.265, 2.270]	0.000
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	0.87	[0.619, 1.233]	0.442	0.96	[0.688, 1.343]	0.818	0.99	[0.711, 1.382]	0.958	0.87	[0.619, 1.234]	0.444
Hispanic	0.55	[0.263, 1.158]	0.116	0.56	[0.265, 1.168]	0.121	0.56	[0.268, 1.178]	0.127	0.55	[0.262, 1.142]	0.108
Other, non-Hispanic	1.24	[0.774, 1.989]	0.371	1.28	[0.801, 2.045]	0.303	1.27	[0.798, 2.036]	0.310	1.22	[0.763, 1.957]	0.405
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	1.04	[0.761, 1.421]	0.806	1.09	[0.800, 1.483]	0.588	1.08	[0.795, 1.480]	0.607	1.04	[0.765, 1.425]	0.787
100%+	1.24	[0.889, 1.725]	0.207	1.29	[0.926, 1.787]	0.133	1.29	[0.926, 1.792]	0.133	1.24	[0.894, 1.732]	0.194
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	1.25	[0.933, 1.685]	0.133	1.24	[0.920, 1.663]	0.159	1.22	[0.904, 1.636]	0.196	1.26	[0.936, 1.686]	0.128
Bachelor's/post graduate degree	1.67	[1.129, 2.463]	0.010	1.70	[1.149, 2.507]	0.008	1.66	[1.123, 2.452]	0.011	1.64	[1.115, 2.421]	0.012
Mental health condition and/or substance use disorder (DW)												
No					Reference							
Yes				1.57	[1.202, 2.044]	0.001						
Mental health condition (DW)												
No								Reference				
Yes							1.60	[1.234, 2.085]	0.000			
Substance use disorder (DW)												
No											Reference	
Yes										1.21	[0.857, 1.719]	0.276
Constant	0.10	[0.065, 0.160]	0.000	0.09	[0.063, 0.142]	0.000	0.10	[0.065, 0.145]	0.000	0.12	[0.084, 0.180]	0.000
N	2,351			2,351			2,351			2,351		
F-value	2.474			3.229			3.369			2.316		
Model degrees of freedom	11.000			11.000			11.000			11.000		
Residual degrees of freedom	2,339.000			2,339.000			2,339.000			2,339.000		
F-value significance	0.004			0.000			0.000			0.008		

Notes: Multiple logistic regression. Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse.

3.3.6 Forgone dental care (2017) by follow-up group, among all respondents

	Forgone dental care (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	16.4	[14.7, 18.3]	83.6	[81.7, 85.3]	100.0
No longer enrolled (n=709)	23.3	[19.7, 27.2]	76.7	[72.8, 80.3]	100.0
Pearson: Uncorrected chi2(1) =	17.4270				
Design-based F(1.00, 3085.00) =	11.7931	Pr =	0.001		
Total (n=3,097)	18.0	[16.4, 19.7]	82.0	[80.3, 83.6]	100.0

Notes: χ^2 test of independence. Forgone dental care was defined as respondents who reported forgone dental care either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled. ϕ= 0.08

3.3.7 Predictors of forgone dental care (2017), among all respondents

	Forgone dental care (2017)		
	aOR	95% CI	p-value
Follow-up group			
Still enrolled		Reference	
No longer enrolled	1.58	[1.224, 2.037]	0.000
Age (DW)			
19-34		Reference	
35-50	1.17	[0.877, 1.549]	0.290
51-64	1.02	[0.773, 1.348]	0.885
Gender (DW)			
Male		Reference	
Female	1.63	[1.276, 2.081]	0.000
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.84	[0.630, 1.125]	0.246
Hispanic	0.49	[0.270, 0.893]	0.020
Other, non-Hispanic	1.09	[0.728, 1.627]	0.681
FPL category (DW)			
0-35%		Reference	
36-99%	1.06	[0.806, 1.384]	0.692
100%+	1.20	[0.905, 1.597]	0.203
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.28	[0.995, 1.643]	0.055
Bachelor's/post graduate degree	1.47	[1.060, 2.037]	0.021
Constant	0.12	[0.088, 0.170]	0.000
N	3,051		
F-value	4.174		
Model degrees of freedom	11.000		
Residual degrees of freedom	3,039.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Forgone dental care was defined as respondents who reported forgone dental care either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled.

3.3.8 Forgone dental care (2017) by follow-up group, among chronic condition subgroups

	Forgone dental care						
	Yes		No		Don't know		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)							
Still enrolled (n=619)	18.9	[15.3, 23.0]	80.8	[76.6, 84.4]	0.3	[0.1, 1.4]	100.0
No longer enrolled (n=181)	22.4	[15.7, 30.9]	77.6	[69.1, 84.3]	0.0		100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)							
Still enrolled (n=1,096)	17.3	[14.8, 20.2]	82.4	[79.5, 85.0]	0.3	[0.1, 1.0]	100.0
No longer enrolled (n=294)	21.8	[16.8, 27.9]	77.8	[71.8, 82.9]	0.4	[0.1, 1.6]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)							
Still enrolled (n=213)	21.8	[15.6, 29.7]	78.2	[70.3, 84.4]	0.0		100.0
No longer enrolled (n=65)	30.7	[17.3, 48.4]	69.3	[51.6, 82.7]	0.0		100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)							
Still enrolled (n=673)	19.8	[16.1, 24.0]	79.9	[75.7, 83.5]	0.3	[0.1, 1.4]	100.0
No longer enrolled (n=183)	28.4	[21.0, 37.2]	70.5	[61.7, 77.9]	1.1	[0.3, 4.6]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)							
Still enrolled (n=557)	18.0	[14.5, 22.2]	82.0	[77.8, 85.5]	0.0		100.0
No longer enrolled (n=142)	25.3	[17.6, 34.9]	74.5	[64.9, 82.2]	0.3	[0.0, 1.8]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)							
Still enrolled (n=1,207)	16.6	[14.1, 19.5]	83.2	[80.4, 85.8]	0.1	[0.0, 0.8]	100.0
No longer enrolled (n=342)	23.6	[18.5, 29.6]	75.8	[69.7, 80.9]	0.7	[0.2, 2.3]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)							
Still enrolled (n=456)	20.8	[16.3, 26.2]	78.9	[73.5, 83.4]	0.3	[0.0, 2.0]	100.0
No longer enrolled (n=136)	27.3	[18.9, 37.8]	72.2	[61.7, 80.7]	0.5	[0.1, 3.6]	100.0
Total (n=2,386)	16.4	[14.7, 18.3]	83.3	[81.4, 85.1]	0.2	[0.1, 0.5]	100.0

3.4 Out-of-pocket costs (2017)

3.4.1 Out-of-pocket costs in the last 12 months (2017), among still enrolled chronic condition subgroups

	Out-of-pocket costs in the last 12 months (2017)																
	Less than $50		**$51-100**		**$101-500**		**$501-2,000**		**$2,001-3,000**		**$3,001-5,000**		**More than $5,000**		**Don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW) (n=617)	66.9	[62.1, 71.3]	10.4	[7.7, 13.9]	15.9	[13.1, 19.3]	4.3	[2.7, 6.7]	1.0	[0.2, 4.7]	0.0		1.2	[0.4, 3.6]	0.4	[0.1, 1.6]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW) (n=1,092)	63.9	[60.4, 67.2]	11.0	[9.1, 13.1]	18.5	[15.8, 21.5]	5.6	[4.2, 7.5]	0.3	[0.1, 0.7]	0.1	[0.0, 0.4]	0.3	[0.1, 1.3]	0.3	[0.1, 0.8]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW) (n=212)	60.1	[51.7, 67.9]	12.8	[8.1, 19.7]	22.4	[16.4, 29.8]	4.2	[2.2, 8.0]	0.0		0.0		0.3	[0.0, 1.8]	0.3	[0.0, 2.0]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW) (n=673)	66.2	[61.4, 70.7]	11.5	[8.8, 15.0]	17.5	[14.0, 21.6]	3.7	[2.1, 6.4]	0.3	[0.1, 1.0]	0.2	[0.0, 0.7]	0.4	[0.1, 2.9]	0.2	[0.1, 0.7]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW) (n=555)	69.0	[64.4, 73.4]	10.0	[7.5, 13.1]	14.0	[11.1, 17.4]	5.4	[3.6, 8.1]	0.1	[0.0, 0.8]	0.0		1.2	[0.3, 4.0]	0.3	[0.0, 2.2]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW) (n=1,205)	68.4	[65.1, 71.6]	10.5	[8.5, 12.8]	14.7	[12.5, 17.3]	5.3	[3.9, 7.2]	0.2	[0.1, 0.6]	0.0		0.5	[0.1, 1.6]	0.4	[0.1, 1.4]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW) (n=455)	68.3	[62.6, 73.5]	12.7	[9.1, 17.5]	13.7	[10.6, 17.6]	4.5	[2.4, 8.1]	0.0	[0.0, 0.3]	0.0		0.0		0.8	[0.2, 3.2]	100.0
Total (n=2,380)	65.7	[63.3, 68.1]	10.9	[9.5, 12.6]	16.6	[14.7, 18.6]	4.9	[3.9, 6.1]	0.4	[0.1, 1.2]	0.3	[0.1, 0.9]	0.4	[0.2, 1.0]	0.8	[0.5, 1.4]	100.0

4 Aim 4: To describe HMP respondents' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.

4.1 Average weight (change 2016-2017)

4.1.1 Average weight (2016, 2017, change 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled, respondents with a chronic condition, respondents with a mental health condition and/or substance use disorder, respondents with a mental health condition, respondents with a substance use disorder

	Weight								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Any HRA completion with physician attestation (DW), among respondents still enrolled[a]									
Yes	193.0	2.01	[189.1, 196.9]	1,084	195.2	2.07	[191.2, 199.3]	1,085	2.2
No	187.5	2.13	[183.3, 191.6]	1,243	189.3	2.27	[184.8, 193.7]	1,242	
Any HRA completion with physician attestation (DW), among respondents with a chronic condition (2016 or 2017 survey and/or DW)[b]									
Yes	197.6	2.06	[193.6, 201.7]	1,099	200.0	2.11	[195.8, 204.1]	1,102	2.4
No	191.6	2.05	[187.6, 195.6]	1,309	193.6	2.20	[189.3, 198.0]	1,306	
Any HRA completion with physician attestation (DW), among respondents with a mental health condition and/or substance use disorder (DW)[c]									
Yes	197.8	2.45	[193.0, 202.6]	774	200.5	2.52	[195.6, 205.4]	775	2.7
No	184.3	1.93	[180.5, 188.1]	934	186.0	2.08	[181.9, 190.0]	936	
Any HRA completion with physician attestation (DW), among respondents with a mental health condition (DW)[d]									
Yes	196.3	2.53	[191.4, 201.3]	710	199.6	2.61	[194.5, 204.8]	712	3.3
No	183.3	2.05	[179.3, 187.3]	832	185.3	2.21	[181.0, 189.7]	833	
Any HRA completion with physician attestation (DW), among respondents with a substance use disorder (DW)[e]									
Yes	193.1	4.21	[184.8, 201.3]	248	193.3	4.28	[184.9, 201.7]	246	0.2
No	183.8	2.74	[178.4, 189.2]	361	184.8	3.14	[178.6, 190.9]	364	

[a] Two factor repeated measures ANOVA results, F(1, 2,351)= 0.17, p= 0.6835
[b] Two factor repeated measures ANOVA results, F(1, 2,434)= 0.05, p= 0.8302
[c] Two factor repeated measures ANOVA results, F(1, 1,724)= 0.29, p= 0.5871
[d] Two factor repeated measures ANOVA results, F(1, 1,557)= 0.21, p= 0.6460
[e] Two factor repeated measures ANOVA results, F(1, 604)= 0.04, p= 0.8400

4.1.2 Predictors of average weight (change 2016-2017), among respondents still enrolled and respondents with a chronic condition

	Weight[a]			Weight[b]		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year						
2016		Reference			Reference	
2017	2.23	[1.180, 3.275]	0.000	2.46	[1.389, 3.530]	0.000
Any HRA completion with physician attestation (DW)						
No		Reference			Reference	
Yes	6.01	[0.469, 11.552]	0.034	6.88	[1.339, 12.414]	0.015
Fair/poor health						
No		Reference			Reference	
Yes	1.13	[-0.944, 3.194]	0.286	1.55	[-0.317, 3.409]	0.104
Age (DW)						
19-34		Reference			Reference	
35-50	9.07	[1.611, 16.535]	0.017	7.86	[-0.034, 15.748]	0.051
51-64	-2.28	[-8.397, 3.836]	0.465	-7.08	[-13.662,- 0.501]	0.035
Gender (DW)						
Male		Reference			Reference	
Female	-27.76	[-33.562,- 21.949]	0.000	-25.64	[-31.360,- 19.914]	0.000
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	5.89	[-1.397, 13.173]	0.113	5.56	[-1.431, 12.547]	0.119
Hispanic	-6.86	[-20.099, 6.373]	0.309	-9.36	[-23.399, 4.688]	0.192
Other, non-Hispanic	-16.83	[-26.082,- 7.579]	0.000	-10.98	[-20.812,- 1.155]	0.029
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	2.66	[-3.318, 8.636]	0.383	2.39	[-3.787, 8.563]	0.448
100%+	5.26	[-1.540, 12.064]	0.129	2.84	[-3.915, 9.598]	0.410
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	2.58	[-3.487, 8.655]	0.404	5.58	[-0.462, 11.621]	0.070
Bachelor's/post graduate degree	-2.83	[-11.164, 5.500]	0.505	3.40	[-5.270, 12.064]	0.442
Constant	197.78	[188.841, 206.717]	0.000	200.65	[191.554, 209.755]	0.000
Respondent	2647.49	[2309.662, 2985.316]	0.000	2665.37	[2333.878, 2996.853]	0.000
Weight residuals	208.11	[140.754, 275.470]	0.000	227.05	[159.269, 294.827]	0.000
N	4,595			4,754		
F-value	10.916			11.489		
Model degrees of freedom	13.000			13.000		
Residual degrees of freedom	2,319.000			2,400.000		
F-value significance	0.000			0.000		

Notes: Mixed effects linear regression. Variables are from both survey years unless otherwise noted.
[a] Analysis restricted to those still enrolled
[b] Analysis restricted to those with a chronic condition

4.1.3 Predictors of average weight (change 2016-2017), among respondents with a mental health condition and/or substance use disorder, respondents with a mental health condition, respondents with a substance use disorder

	Weight[a]			Weight[b]			Weight[c]		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Survey year									
2016		Reference			Reference			Reference	
2017	2.52	[1.247, 3.788]	0.000	3.06	[1.691, 4.421]	0.000	0.45	[-1.743, 2.637]	0.689
Any HRA completion with physician attestation (DW)									
No		Reference			Reference			Reference	
Yes	13.56	[7.551, 19.569]	0.000	12.38	[6.112, 18.648]	0.000	9.63	[-0.013, 19.281]	0.050
Fair/poor health									
No		Reference			Reference			Reference	
Yes	1.28	[-0.960, 3.525]	0.262	1.90	[-0.669, 4.474]	0.147	-0.43	[-3.778, 2.918]	0.801
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	7.10	[-0.532, 14.732]	0.068	6.69	[-1.192, 14.575]	0.096	8.32	[-3.708, 20.357]	0.175
51-64	-5.52	[-12.657, 1.615]	0.129	-3.96	[-11.426, 3.516]	0.299	-4.55	[-15.920, 6.822]	0.432
Gender (DW)									
Male		Reference			Reference			Reference	
Female	-20.99	[-27.086,- 14.898]	0.000	-20.55	[-27.079,- 14.015]	0.000	-25.42	[-34.497,- 16.335]	0.000
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	8.82	[0.743, 16.892]	0.032	6.74	[-1.963, 15.448]	0.129	12.53	[0.953, 24.100]	0.034
Hispanic	-15.53	[-25.912,- 5.149]	0.003	-17.19	[-28.300,- 6.080]	0.002	-8.93	[-26.924, 9.066]	0.330
Other, non-Hispanic	-14.03	[-24.664,- 3.394]	0.010	-13.00	[-24.234,- 1.770]	0.023	-10.98	[-24.565, 2.597]	0.113
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	4.01	[-2.783, 10.811]	0.247	5.12	[-2.086, 12.320]	0.164	3.28	[-6.725, 13.284]	0.520
100%+	3.21	[-4.295, 10.712]	0.402	3.87	[-4.052, 11.797]	0.338	6.38	[-6.782, 19.546]	0.341
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	6.08	[-0.443, 12.594]	0.068	5.98	[-0.781, 12.743]	0.083	9.44	[-0.565, 19.445]	0.064
Bachelor's/post graduate degree	0.96	[-9.661, 11.582]	0.859	0.76	[-10.332, 11.856]	0.893	2.25	[-15.547, 20.048]	0.804
Constant	190.68	[182.061, 199.299]	0.000	190.04	[180.718, 199.359]	0.000	185.62	[173.594, 197.654]	0.000
Respondent	2539.32	[2282.345, 2796.292]	0.000	2520.19	[2250.670, 2789.709]	0.000	2161.54	[1769.508, 2553.572]	0.000
Weight residuals	242.38	[151.124, 333.630]	0.000	259.44	[157.411, 361.469]	0.000	280.41	[73.361, 487.465]	0.008
N	3,375			3,050			1,197		
F-value	9.824			8.572			3.736		
Model degrees of freedom	13.000			13.000			13.000		
Residual degrees of freedom	1,700.000			1,537.000			592.000		
F-value significance	0.000			0.000			0.000		

Notes: Mixed effects linear regression. Variables are from both survey years unless otherwise noted.
[a] Analysis restricted to those with a mental health condition and/or substance use disorder
[b] Analysis restricted to those with a mental health condition
[c] Analysis restricted to those with a substance use disorder

4.1.4 Average weight (2016, 2017, change 2016-2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups

	Weight								
	2016				2017				Delta
	Mean	SE	95%CI	N	Mean	SE	95%CI	N	Mean
Among respondents with asthma (2016 or 2017 survey and/or DW)	194.7	2.89	[189.0, 200.4]	600	197.2	3.16	[191.0, 203.4]	605	2.5
Any HRA completion with physician attestation (DW)	194.8	3.90	[187.2, 202.5]	272	197.9	4.12	[189.8, 206.0]	276	3.1
No HRA completion with physician attestation (DW)	194.6	4.14	[186.4, 202.7]	328	196.6	4.59	[187.6, 205.6]	329	2.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)	197.3	2.00	[193.4, 201.2]	1,073	198.4	2.11	[194.2, 202.5]	1,075	1.1
Any HRA completion with physician attestation (DW)	200.9	2.74	[195.6, 206.3]	534	202.2	2.90	[196.6, 207.9]	537	1.3
No HRA completion with physician attestation (DW)	193.8	2.90	[188.1, 199.5]	539	194.7	3.04	[188.7, 200.6]	538	0.9
Among respondents with cancer (2016 or 2017 survey and/or DW)	184.7	4.49	[175.8, 193.5]	207	184.9	4.31	[176.5, 193.4]	209	0.2
Any HRA completion with physician attestation (DW)	190.3	7.47	[175.6, 205.1]	101	191.0	6.89	[177.4, 204.6]	103	0.7
No HRA completion with physician attestation (DW)	180.0	4.93	[170.3, 189.8]	106	180.1	4.80	[170.6, 189.6]	106	0.1
Among respondents with COPD (2016 or 2017 survey and/or DW)	193.0	2.48	[188.2, 197.9]	659	195.8	2.69	[190.5, 201.1]	664	2.8
Any HRA completion with physician attestation (DW)	201.2	3.63	[194.0, 208.3]	315	203.5	3.77	[196.1, 210.9]	317	2.3
No HRA completion with physician attestation (DW)	186.0	3.30	[179.5, 192.5]	344	189.2	3.76	[181.8, 196.6]	347	3.2
Among respondents with diabetes (2016 or 2017 survey and/or DW)	207.6	3.05	[201.6, 213.6]	544	209.0	3.16	[202.8, 215.2]	542	1.4
Any HRA completion with physician attestation (DW)	210.1	4.61	[201.1, 219.2]	281	210.6	4.66	[201.5, 219.8]	279	0.5
No HRA completion with physician attestation (DW)	204.7	3.92	[197.0, 212.4]	263	207.1	4.23	[198.8, 215.5]	263	2.4
Among respondents with hypertension (2016 or 2017 survey and/or DW)	202.8	2.26	[198.4, 207.2]	1,182	205.6	2.45	[200.8, 210.4]	1,179	2.8
Any HRA completion with physician attestation (DW)	205.6	2.84	[200.0, 211.2]	588	207.5	2.97	[201.6, 213.3]	586	1.9
No HRA completion with physician attestation (DW)	200.2	3.48	[193.4, 207.0]	594	203.9	3.83	[196.3, 211.4]	593	3.7
Among respondents with heart disease (2016 or 2017 survey and/or DW)	196.3	4.32	[187.8, 204.8]	447	201.1	4.89	[191.5, 210.7]	444	4.8
Any HRA completion with physician attestation (DW)	198.9	4.80	[189.4, 208.3]	219	203.5	5.34	[193.0, 214.0]	218	4.6
No HRA completion with physician attestation (DW)	193.6	7.31	[179.2, 207.9]	228	198.6	8.27	[182.4, 214.9]	226	5.0

Note: Weighted means among chronic conditions subgroups, as defined by self-report and claims data.

4.2 Exercise (change 2016-2017)

4.2.1 Increased or maintained exercise frequency (from 2016-2017) by health professional discussed exercise (2016 or 2017) and any outpatient visit, among respondents still enrolled

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Health professional discussed exercise (2016 or 2017)					
Yes (n=1,580)	55.5	[52.3, 58.6]	44.5	[41.4, 47.7]	100.0
No (n=808)	62.5	[57.9, 66.8]	37.5	[33.2, 42.1]	100.0
Pearson: Uncorrected chi2(1) =	14.2137				
Design-based F(1.00, 3085.00) =	6.1706	Pr =	0.013		
Any outpatient visit (DW)					
Yes (n=2,318)	57.8	[55.2, 60.3]	42.2	[39.7, 44.8]	100.0
No (n=70)	61.7	[46.0, 75.4]	38.3	[24.6, 54.0]	100.0
Pearson: Uncorrected chi2(1) =	0.9378				
Design-based F(1.00, 3085.00) =	0.2469	Pr =	0.619		
Total (n=2,388)	58.0	[55.4, 60.5]	42.0	[39.5, 44.6]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017. Health professional discussed exercise was defined as respondents who reported discussing exercise with a health professional in either 2016 or 2017. Health professional discussed exercise and increased or maintained exercise frequency ϕ= 0.07.

4.2.2 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=1,115)	58.0	[54.2, 61.6]	42.0	[38.4, 45.8]	100.0
No (n=1,273)	58.0	[54.4, 61.5]	42.0	[38.5, 45.6]	100.0
Pearson: Uncorrected chi2(1) =	0.0007				
Design-based F(1.00, 3085.00) =	0.0003	Pr =	0.985		
Total (n=2,388)	58.0	[55.4, 60.5]	42.0	[39.5, 44.6]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

4.2.3 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic condition

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=925)	56.6	[52.5, 60.7]	43.4	[39.3, 47.5]	100.0
No (n=1,006)	57.0	[52.9, 61.0]	43.0	[39.0, 47.1]	100.0
Pearson: Uncorrected chi2(1) =	0.0358				
Design-based F(1.00, 3085.00) =	0.0130	Pr =	0.909		
Total (n=1,931)	56.8	[53.9, 59.7]	43.2	[40.3, 46.1]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

4.2.4 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=282)	59.9	[52.6, 66.7]	40.1	[33.3, 47.4]	100.0
No HRA completion with physician attestation (DW) (n=337)	52.5	[45.4, 59.5]	47.5	[40.5, 54.6]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=551)	53.8	[48.7, 58.9]	46.2	[41.1, 51.3]	100.0
No HRA completion with physician attestation (DW) (n=547)	57.7	[52.4, 62.8]	42.3	[37.2, 47.6]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=105)	65.6	[54.1, 75.6]	34.4	[24.4, 45.9]	100.0
No HRA completion with physician attestation (DW) (n=108)	53.8	[41.9, 65.3]	46.2	[34.7, 58.1]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=323)	56.0	[49.0, 62.7]	44.0	[37.3, 51.0]	100.0
No HRA completion with physician attestation (DW) (n=351)	57.1	[50.0, 63.9]	42.9	[36.1, 50.0]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=290)	55.1	[47.6, 62.3]	44.9	[37.7, 52.4]	100.0
No HRA completion with physician attestation (DW) (n=267)	56.3	[49.1, 63.3]	43.7	[36.7, 50.9]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=600)	53.4	[48.3, 58.4]	46.6	[41.6, 51.7]	100.0
No HRA completion with physician attestation (DW) (n=608)	58.0	[52.8, 63.0]	42.0	[37.0, 47.2]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=223)	55.1	[46.6, 63.4]	44.9	[36.6, 53.4]	100.0
No HRA completion with physician attestation (DW) (n=233)	57.5	[49.1, 65.5]	42.5	[34.5, 50.9]	100.0
Total (n=1,115)	58.0	[54.2, 61.6]	42.0	[38.4, 45.8]	100.0

4.2.5 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=646)	53.2	[48.3, 58.1]	46.8	[41.9, 51.7]	100.0
No (n=719)	56.4	[51.6, 61.1]	43.6	[38.9, 48.4]	100.0
Pearson: Uncorrected chi2(1) =	3.1792				
Design-based F(1.00, 3085.00) =	0.8331	Pr =	0.361		
Total (n=1,365)	54.9	[51.5, 58.3]	45.1	[41.7, 48.5]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

4.2.6 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=591)	53.2	[48.0, 58.4]	46.8	[41.6, 52.0]	100.0
No (n=641)	56.6	[51.6, 61.5]	43.4	[38.5, 48.4]	100.0
Pearson: Uncorrected chi2(1) =	3.4929				
Design-based F(1.00, 3085.00) =	0.8327	Pr =	0.362		
Total (n=1,232)	55.0	[51.4, 58.6]	45.0	[41.4, 48.6]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

4.2.7 Increased or maintained exercise frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder

	Increased or maintained exercise frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=208)	48.9	[40.5, 57.4]	51.1	[42.6, 59.5]	100.0
No (n=276)	57.1	[49.5, 64.4]	42.9	[35.6, 50.5]	100.0
Pearson: Uncorrected chi2(1) =	20.4891				
Design-based F(1.00, 3085.00) =	1.9808	Pr =	0.159		
Total (n=484)	53.5	[47.8, 59.1]	46.5	[40.9, 52.2]	100.0

Notes: χ^2 test of independence. Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

4.3 Sugary drink consumption (change 2016-2017)

4.3.1 Sugary drink consumption (change 2016-2017) by health professional discussed diet/nutrition (2016 or 2017) and any outpatient visit, among respondents still enrolled

	Sugary drink consumption (change 2016-2017)						
	Worse		Same		Better		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Health professional discussed diet/nutrition (2016 or 2017)							
Yes (n=1,270)	26.0	[23.2, 29.1]	37.9	[34.6, 41.2]	36.1	[32.9, 39.5]	100.0
No (n=636)	23.4	[19.3, 28.0]	43.6	[38.4, 48.9]	33.0	[28.1, 38.3]	100.0
Pearson: Uncorrected chi2(2) =	8.1982						
Design-based F(2.00, 5194.81) =	1.6569	Pr =	0.191				
Any outpatient visit (DW)							
Yes (n=1,846)	25.1	[22.7, 27.7]	40.3	[37.5, 43.2]	34.6	[31.8, 37.4]	100.0
No (n=60)	24.7	[13.6, 40.6]	33.1	[20.0, 49.5]	42.2	[27.1, 58.9]	100.0
Pearson: Uncorrected chi2(2) =	4.1608						
Design-based F(1.99, 5187.19) =	0.5305	Pr =	0.588				
Total (n=1,906)	25.1	[22.7, 27.7]	39.9	[37.1, 42.8]	35.0	[32.3, 37.9]	100.0

Notes: Change in sugary drink consumption was defined as 'worse' if respondents reported a higher frequency of sugary drink consumption in 2017 compared to 2016, 'same' if respondents reported the same frequency of sugary drink consumption in 2017 as in 2016, or 'better' if respondents reported a lower frequency of sugary drink consumption in 2017 compared to 2016; respondents who reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017 were excluded. Health professional discussed diet/nutrition was defined as respondents who reported discussing diet/nutrition with a health professional in either 2016 or 2017.

4.3.2 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=1,115)	46.6	[42.8, 50.3]	53.4	[49.7, 57.2]	100.0
No (n=1,273)	46.6	[43.0, 50.2]	53.4	[49.8, 57.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0007				
Design-based F(1.00, 3085.00) =	0.0003	Pr =	0.986		
Total (n=2,388)	46.6	[44.0, 49.2]	53.4	[50.8, 56.0]	100.0

Notes: χ^2 test of independence. Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

4.3.3 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic condition

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=925)	47.3	[43.2, 51.5]	52.7	[48.5, 56.8]	100.0
No (n=1,006)	47.8	[43.8, 51.9]	52.2	[48.1, 56.2]	100.0
Pearson: Uncorrected chi2(1) =	0.0815				
Design-based F(1.00, 3085.00) =	0.0298	Pr =	0.863		
Total (n=1,931)	47.6	[44.7, 50.5]	52.4	[49.5, 55.3]	100.0

Notes: χ^2 test of independence. Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

4.3.4 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=282)	48.1	[41.0, 55.4]	51.9	[44.6, 59.0]	100.0
No HRA completion with physician attestation (DW) (n=337)	43.2	[36.5, 50.3]	56.8	[49.7, 63.5]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=551)	49.7	[44.6, 54.8]	50.3	[45.2, 55.4]	100.0
No HRA completion with physician attestation (DW) (n=547)	47.3	[42.1, 52.5]	52.7	[47.5, 57.9]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=105)	56.1	[44.6, 66.9]	43.9	[33.1, 55.4]	100.0
No HRA completion with physician attestation (DW) (n=108)	50.9	[39.1, 62.7]	49.1	[37.3, 60.9]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=323)	46.9	[40.1, 53.9]	53.1	[46.1, 59.9]	100.0
No HRA completion with physician attestation (DW) (n=351)	49.1	[42.1, 56.2]	50.9	[43.8, 57.9]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=290)	52.3	[44.9, 59.6]	47.7	[40.4, 55.1]	100.0
No HRA completion with physician attestation (DW) (n=267)	54.3	[47.1, 61.4]	45.7	[38.6, 52.9]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=600)	49.5	[44.4, 54.5]	50.5	[45.5, 55.6]	100.0
No HRA completion with physician attestation (DW) (n=608)	50.7	[45.5, 55.9]	49.3	[44.1, 54.5]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=223)	50.4	[42.0, 58.9]	49.6	[41.1, 58.0]	100.0
No HRA completion with physician attestation (DW) (n=233)	54.6	[46.2, 62.8]	45.4	[37.2, 53.8]	100.0
Total (n=1,115)	46.6	[42.8, 50.3]	53.4	[49.7, 57.2]	100.0

4.3.5 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=646)	46.3	[41.4, 51.2]	53.7	[48.8, 58.6]	100.0
No (n=719)	44.3	[39.6, 49.0]	55.7	[51.0, 60.4]	100.0
Pearson: Uncorrected chi2(1) =	1.2486				
Design-based F(1.00, 3085.00) =	0.3329	Pr =	0.564		
Total (n=1,365)	45.2	[41.8, 48.6]	54.8	[51.4, 58.2]	100.0

Notes: χ^2 test of independence. Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

4.3.6 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=591)	46.6	[41.5, 51.8]	53.4	[48.2, 58.5]	100.0
No (n=641)	44.3	[39.5, 49.3]	55.7	[50.7, 60.5]	100.0
Pearson: Uncorrected chi2(1) =	1.6101				
Design-based F(1.00, 3085.00) =	0.3889	Pr =	0.533		
Total (n=1,232)	45.4	[41.9, 49.0]	54.6	[51.0, 58.1]	100.0

Notes: χ^2 test of independence. Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

4.3.7 Decreased or maintained sugary drink consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder

	Decreased or maintained sugary drink consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=208)	43.1	[35.1, 51.6]	56.9	[48.4, 64.9]	100.0
No (n=276)	43.3	[36.0, 50.8]	56.7	[49.2, 64.0]	100.0
Pearson: Uncorrected chi2(1) =	0.0042				
Design-based F(1.00, 3085.00) =	0.0004	Pr =	0.984		
Total (n=484)	43.2	[37.8, 48.8]	56.8	[51.2, 62.2]	100.0

Notes: χ^2 test of independence. Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

4.4 Fruit and vegetable consumption (change 2016-2017)

4.4.1 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=1,115)	48.2	[44.5, 51.9]	51.8	[48.1, 55.5]	100.0
No (n=1,273)	42.3	[38.8, 45.8]	57.7	[54.2, 61.2]	100.0
Pearson: Uncorrected chi2(1) =	10.7612				
Design-based F(1.00, 3085.00) =	5.1122	Pr =	0.024		
Total (n=2,388)	44.9	[42.3, 47.4]	55.1	[52.6, 57.7]	100.0

Notes: χ^2 test of independence. ϕ= 0.06. Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

4.4.2 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic condition

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=925)	48.3	[44.1, 52.4]	51.7	[47.6, 55.9]	100.0
No (n=1,006)	42.3	[38.4, 46.3]	57.7	[53.7, 61.6]	100.0
Pearson: Uncorrected chi2(1) =	10.9718				
Design-based F(1.00, 3085.00) =	4.1083	Pr =	0.043		
Total (n=1,931)	45.0	[42.2, 47.9]	55.0	[52.1, 57.8]	100.0

Notes: χ^2 test of independence. ϕ= 0.06. Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

4.4.3 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=282)	48.5	[41.4, 55.7]	51.5	[44.3, 58.6]	100.0
No HRA completion with physician attestation (DW) (n=337)	41.2	[34.7, 48.2]	58.8	[51.8, 65.3]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=551)	52.1	[47.0, 57.1]	47.9	[42.9, 53.0]	100.0
No HRA completion with physician attestation (DW) (n=547)	47.0	[41.9, 52.2]	53.0	[47.8, 58.1]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=105)	52.3	[40.7, 63.5]	47.7	[36.5, 59.3]	100.0
No HRA completion with physician attestation (DW) (n=108)	38.3	[26.9, 51.2]	61.7	[48.8, 73.1]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=323)	47.8	[40.9, 54.7]	52.2	[45.3, 59.1]	100.0
No HRA completion with physician attestation (DW) (n=351)	41.7	[35.1, 48.6]	58.3	[51.4, 64.9]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=290)	48.4	[41.1, 55.8]	51.6	[44.2, 58.9]	100.0
No HRA completion with physician attestation (DW) (n=267)	43.6	[36.6, 50.9]	56.4	[49.1, 63.4]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=600)	49.0	[43.9, 54.0]	51.0	[46.0, 56.1]	100.0
No HRA completion with physician attestation (DW) (n=608)	43.3	[38.3, 48.4]	56.7	[51.6, 61.7]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=223)	51.9	[43.4, 60.3]	48.1	[39.7, 56.6]	100.0
No HRA completion with physician attestation (DW) (n=233)	45.1	[37.0, 53.4]	54.9	[46.6, 63.0]	100.0
Total (n=1,115)	48.2	[44.5, 51.9]	51.8	[48.1, 55.5]	100.0

4.4.4 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=646)	48.0	[43.1, 52.9]	52.0	[47.1, 56.9]	100.0
No (n=719)	43.4	[38.8, 48.0]	56.6	[52.0, 61.2]	100.0
Pearson: Uncorrected chi2(1) =	6.6270				
Design-based F(1.00, 3085.00) =	1.7850	Pr =	0.182		
Total (n=1,365)	45.5	[42.1, 48.9]	54.5	[51.1, 57.9]	100.0

Notes: χ^2 test of independence. Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

4.4.5 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=591)	47.2	[42.1, 52.4]	52.8	[47.6, 57.9]	100.0
No (n=641)	43.3	[38.5, 48.2]	56.7	[51.8, 61.5]	100.0
Pearson: Uncorrected chi2(1) =	4.7180				
Design-based F(1.00, 3085.00) =	1.1522	Pr =	0.283		
Total (n=1,232)	45.1	[41.6, 48.7]	54.9	[51.3, 58.4]	100.0

Notes: χ^2 test of independence. Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

4.4.6 Increased or maintained fruit and vegetable consumption (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder

	Increased or maintained fruit and vegetable consumption (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=208)	54.9	[46.4, 63.0]	45.1	[37.0, 53.6]	100.0
No (n=276)	41.8	[34.8, 49.2]	58.2	[50.8, 65.2]	100.0
Pearson: Uncorrected chi2(1) =	52.1741				
Design-based F(1.00, 3085.00) =	5.2380	Pr =	0.022		
Total (n=484)	47.6	[42.0, 53.3]	52.4	[46.7, 58.0]	100.0

Notes: χ^2 test of independence. ϕ= 0.13. Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

4.5 Binge drinking (change 2016-2017)

4.5.1 Decrease in binge drinking frequency (from 2016-2017) by health professional discussed safe alcohol use (2016 or 2017) and any outpatient visit, among respondents still enrolled who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Health professional discussed safe alcohol use (2016 or 2017)					
Yes (n=174)	44.6	[35.8, 53.7]	55.4	[46.3, 64.2]	100.0
No (n=255)	57.5	[49.1, 65.4]	42.5	[34.6, 50.9]	100.0
Pearson: Uncorrected chi2(1) =	48.4394				
Design-based F(1.00, 3085.00) =	4.2128	Pr =	0.040		
Any outpatient visit (DW)					
Yes (n=410)	55.3	[49.3, 61.3]	44.7	[38.7, 50.7]	100.0
No (n=19)	23.4	[7.3, 54.2]	76.6	[45.8, 92.7]	100.0
Pearson: Uncorrected chi2(1) =	97.9796				
Design-based F(1.00, 3085.00) =	4.5166	Pr =	0.034		
Total (n=429)	52.6	[46.5, 58.7]	47.4	[41.3, 53.5]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016. Health professional discussed safe alcohol use was defined as respondents who reported discussing safe alcohol use with a health professional in either 2016 or 2017.

4.5.2 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=204)	54.1	[45.3, 62.6]	45.9	[37.4, 54.7]	100.0
No (n=225)	51.6	[43.1, 59.9]	48.4	[40.1, 56.9]	100.0
Pearson: Uncorrected chi2(1) =	1.9543				
Design-based F(1.00, 3085.00) =	0.1657	Pr =	0.684		
Total (n=429)	52.6	[46.5, 58.7]	47.4	[41.3, 53.5]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

4.5.3 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic condition who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=169)	54.9	[45.0, 64.4]	45.1	[35.6, 55.0]	100.0
No (n=168)	56.2	[46.0, 65.8]	43.8	[34.2, 54.0]	100.0
Pearson: Uncorrected chi2(1) =	0.5118				
Design-based F(1.00, 3085.00) =	0.0322	Pr =	0.858		
Total (n=337)	55.6	[48.4, 62.5]	44.4	[37.5, 51.6]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

4.5.4 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=282)	12.1	[7.9, 18.0]	87.9	[82.0, 92.1]	100.0
No HRA completion with physician attestation (DW) (n=337)	5.6	[3.6, 8.8]	94.4	[91.2, 96.4]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=551)	9.2	[6.5, 12.8]	90.8	[87.2, 93.5]	100.0
No HRA completion with physician attestation (DW) (n=547)	11.0	[7.8, 15.3]	89.0	[84.7, 92.2]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=105)	11.3	[5.6, 21.6]	88.7	[78.4, 94.4]	100.0
No HRA completion with physician attestation (DW) (n=108)	9.9	[4.9, 19.2]	90.1	[80.8, 95.1]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=323)	12.9	[8.8, 18.5]	87.1	[81.5, 91.2]	100.0
No HRA completion with physician attestation (DW) (n=351)	11.5	[7.8, 16.7]	88.5	[83.3, 92.2]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=290)	10.2	[6.7, 15.4]	89.8	[84.6, 93.3]	100.0
No HRA completion with physician attestation (DW) (n=267)	8.6	[4.9, 14.4]	91.4	[85.6, 95.1]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=600)	11.4	[8.5, 15.1]	88.6	[84.9, 91.5]	100.0
No HRA completion with physician attestation (DW) (n=608)	12.9	[9.6, 17.2]	87.1	[82.8, 90.4]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=223)	6.7	[3.9, 11.4]	93.3	[88.6, 96.1]	100.0
No HRA completion with physician attestation (DW) (n=233)	7.6	[4.5, 12.7]	92.4	[87.3, 95.5]	100.0
Total (n=1,115)	10.3	[8.3, 12.8]	89.7	[87.2, 91.7]	100.0

4.5.5 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=124)	58.8	[48.4, 68.4]	41.2	[31.6, 51.6]	100.0
No (n=137)	57.9	[46.7, 68.4]	42.1	[31.6, 53.3]	100.0
Pearson: Uncorrected chi2(1) =	0.2194				
Design-based F(1.00, 3085.00) =	0.0121	Pr =	0.912		
Total (n=261)	58.3	[50.5, 65.7]	41.7	[34.3, 49.5]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

4.5.6 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=96)	57.0	[45.3, 67.9]	43.0	[32.1, 54.7]	100.0
No (n=109)	64.6	[53.0, 74.8]	35.4	[25.2, 47.0]	100.0
Pearson: Uncorrected chi2(1) =	18.5949				
Design-based F(1.00, 3085.00) =	0.8826	Pr =	0.348		
Total (n=205)	61.5	[53.2, 69.2]	38.5	[30.8, 46.8]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

4.5.7 Decrease in binge drinking frequency (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder who reported one or more days of binge drinking in the past seven days in 2016

	Decrease in binge drinking frequency (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=66)	54.1	[39.9, 67.6]	45.9	[32.4, 60.1]	100.0
No (n=68)	50.6	[35.3, 65.8]	49.4	[34.2, 64.7]	100.0
Pearson: Uncorrected chi2(1) =	3.8345				
Design-based F(1.00, 3085.00) =	0.1063	Pr =	0.744		
Total (n=134)	52.2	[41.5, 62.7]	47.8	[37.3, 58.5]	100.0

Notes: χ^2 test of independence. Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

4.6 Tobacco use (change 2016-2017)

4.6.1 Quit smoking or using tobacco (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled who reported using tobacco in 2016

	Quit smoking or using tobacco (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=403)	11.2	[8.0, 15.3]	88.8	[84.7, 92.0]	100.0
No (n=489)	16.8	[12.3, 22.5]	83.2	[77.5, 87.7]	100.0
Pearson: Uncorrected chi2(1) =	19.1433				
Design-based F(1.00, 3085.00) =	3.2525	Pr =	0.071		
Total (n=892)	14.4	[11.4, 18.1]	85.6	[81.9, 88.6]	100.0

Notes: χ^2 test of independence. Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

4.6.2 Quit smoking or using tobacco (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic health condition who reported using tobacco in 2016

	Quit smoking or using tobacco (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=361)	10.7	[7.5, 15.1]	89.3	[84.9, 92.5]	100.0
No (n=414)	15.2	[10.7, 21.2]	84.8	[78.8, 89.3]	100.0
Pearson: Uncorrected chi2(1) =	13.5417				
Design-based F(1.00, 3085.00) =	1.9986	Pr =	0.158		
Total (n=775)	13.2	[10.2, 16.9]	86.8	[83.1, 89.8]	100.0

Notes: χ^2 test of independence. Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

4.6.3 Quit smoking or using tobacco (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder who reported using tobacco in 2016

	Quit smoking or using tobacco (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=274)	11.9	[8.0, 17.3]	88.1	[82.7, 92.0]	100.0
No (n=325)	11.0	[7.1, 16.8]	89.0	[83.2, 92.9]	100.0
Pearson: Uncorrected chi2(1) =	0.5223				
Design-based F(1.00, 3085.00) =	0.0597	Pr =	0.807		
Total (n=599)	11.4	[8.4, 15.2]	88.6	[84.8, 91.6]	100.0

Notes: χ^2 test of independence. Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

4.6.4 Quit smoking or using tobacco (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition who reported using tobacco in 2016

	Quit smoking or using tobacco (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=239)	12.3	[8.0, 18.5]	87.7	[81.5, 92.0]	100.0
No (n=283)	11.2	[7.0, 17.3]	88.8	[82.7, 93.0]	100.0
Pearson: Uncorrected chi2(1) =	0.9538				
Design-based F(1.00, 3085.00) =	0.0948	Pr =	0.758		
Total (n=522)	11.7	[8.5, 15.8]	88.3	[84.2, 91.5]	100.0

Notes: χ^2 test of independence. Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

4.6.5 Quit smoking or using tobacco (from 2016-2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder who reported using tobacco in 2016

	Quit smoking or using tobacco (from 2016-2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Any HRA completion with physician attestation (DW)					
Yes (n=138)	4.5	[2.3, 8.9]	95.5	[91.1, 97.7]	100.0
No (n=159)	8.0	[4.0, 15.4]	92.0	[84.6, 96.0]	100.0
Pearson: Uncorrected chi2(1) =	15.3118				
Design-based F(1.00, 3085.00) =	1.3314	Pr =	0.249		
Total (n=297)	6.4	[3.8, 10.5]	93.6	[89.5, 96.2]	100.0

Notes: χ^2 test of independence. Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

4.6.6 Attempting to quit smoking or using tobacco (2016, 2017, change 2016-2017), among respondents still enrolled and various subgroups of respondents still enrolled who reported using tobacco in 2016

	Attempting to quit smoking or using tobacco								
	2016				2017				Delta
	Proportion	SE	95%CI	N	Proportion	SE	95%CI	N	Proportion
Any HRA completion with physician attestation (DW), among respondents still enrolled[a]									
Yes	0.918	0.02	[0.878, 0.958]	310	0.930	0.02	[0.888, 0.971]	260	0.012
No	0.891	0.02	[0.856, 0.925]	374	0.902	0.02	[0.855, 0.950]	310	
Any HRA completion with physician attestation (DW), among respondents still enrolled with a chronic condition (2016 or 2017 survey and/or DW)[b]									
Yes	0.913	0.02	[0.870, 0.956]	284	0.929	0.02	[0.885, 0.973]	238	0.016
No	0.904	0.02	[0.868, 0.940]	327	0.910	0.03	[0.859, 0.961]	278	
Any HRA completion with physician attestation (DW), among respondents still enrolled with a mental health condition and/or substance use disorder (DW)[c]									
Yes	0.894	0.03	[0.839, 0.949]	207	0.932	0.03	[0.880, 0.984]	171	0.038
No	0.877	0.02	[0.831, 0.923]	253	0.908	0.03	[0.855, 0.960]	219	
Any HRA completion with physician attestation (DW), among respondents still enrolled with a mental health condition (DW)[d]									
Yes	0.911	0.02	[0.864, 0.957]	179	0.953	0.02	[0.920, 0.987]	148	0.042
No	0.868	0.03	[0.817, 0.920]	219	0.909	0.03	[0.851, 0.967]	191	
Any HRA completion with physician attestation (DW), among respondents still enrolled with a substance use disorder (DW)[e]									
Yes	0.877	0.04	[0.793, 0.961]	108	0.935	0.04	[0.858, 1.012]	93	0.058
No	0.844	0.04	[0.768, 0.920]	125	0.898	0.04	[0.828, 0.968]	111	

[a] Two factor repeated measures ANOVA results, F(1, 735)= 0.02, p= 0.8775
[b] Two factor repeated measures ANOVA results, F(1, 653)= 0.02, p= 0.8790
[c] Two factor repeated measures ANOVA results, F(1, 490)= 0.16, p= 0.6876
[d] Two factor repeated measures ANOVA results, F(1, 425)= 0.02, p= 0.8948
[e] Two factor repeated measures ANOVA results, F(1, 242)= 0.01, p= 0.9367

4.6.7 Attempting to quit smoking or using tobacco (2016, 2017, change 2016-2017), among still enrolled chronic condition subgroups who reported using tobacco in 2016

	Tried to quit smoking or using tobacco								
	2016				2017				Delta
	Percent	SE	95%CI	N	Percent	SE	95%CI	N	Percent
Among respondents with asthma (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	84.5	0.05	[74.2, 94.8]	96	93.0	0.04	[84.3, 101.7]	92	8.5
No HRA completion with physician attestation (DW)	89.0	0.04	[80.5, 97.5]	96	88.1	0.05	[78.6, 97.7]	100	-0.9
Among respondents with arthritis (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	93.9	0.02	[89.9, 97.9]	186	93.9	0.02	[89.9, 98.0]	165	0
No HRA completion with physician attestation (DW)	88.9	0.03	[83.5, 94.3]	205	91.4	0.03	[86.2, 96.6]	189	2.5
Among respondents with cancer (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	86.7	.	[86.7, 86.7]	34	91.4	0.05	[80.8, 101.9]	29	4.7
No HRA completion with physician attestation (DW)	97.3	.	[97.3, 97.3]	33	93.2	0.04	[85.2, 101.2]	27	-4.1
Among respondents with COPD (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	89.2	0.04	[82.1, 96.3]	142	92.4	0.04	[85.2, 99.7]	132	3.2
No HRA completion with physician attestation (DW)	94.7	0.02	[91.3, 98.2]	144	95.2	0.03	[89.0, 101.5]	139	0.5
Among respondents with diabetes (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	87.5	0.04	[78.8, 96.2]	81	94.8	0.03	[893, 100.3]	68	7.3
No HRA completion with physician attestation (DW)	92.3	0.03	[86.6, 98.0]	85	94.7	0.03	[89.6, 99.8]	73	2.4
Among respondents with hypertension (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	88.5	0.03	[82.4, 94.6]	188	91.3	0.03	[85.4, 97.2]	164	2.8
No HRA completion with physician attestation (DW)	90.8	0.02	[86.1, 95.4]	196	90.4	0.03	[84.6, 96.3]	187	-0.4
Among respondents with heart disease (2016 or 2017 survey and/or DW)									
Any HRA completion with physician attestation (DW)	94.7	0.03	[89.0, 100.4]	80	97.0	0.02	[93.2, 100.7]	77	2.3
No HRA completion with physician attestation (DW)	90.4	0.04	[83.2, 97.7]	89	94.2	0.03	[88.8, 99.6]	76	3.8

4.7 Drug use in last 30 days (2017)

4.7.1 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among respondents still enrolled

Any HRA completion with physician attestation (DW)	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=1,113)	3.9	[2.9, 5.4]	96.1	[94.6, 97.1]	100.0
No (n=1,273)	6.5	[4.8, 8.7]	93.5	[91.3, 95.2]	100.0
Pearson: Uncorrected chi2(1) =	9.9424				
Design-based F(1.00, 3083.00) =	5.3994	Pr =	0.020		

Notes: χ^2 test of independence. ϕ= 0.06.

4.7.2 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among respondents still enrolled with a chronic condition

Any HRA completion with physician attestation (DW)	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=924)	4.4	[3.1, 6.0]	95.6	[94.0, 96.9]	100.0
No (n=1,006)	7.3	[5.2, 10.1]	92.7	[89.9, 94.8]	100.0
Pearson: Uncorrected chi2(1) =	11.8857				
Design-based F(1.00, 3084.00) =	4.8415	Pr =	0.028		

Notes: χ^2 test of independence. ϕ= 0.06.

4.7.3 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among still enrolled chronic condition subgroups

	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=281)	3.1	[1.7, 5.6]	96.9	[94.4, 98.3]	100.0
No HRA completion with physician attestation (DW) (n=337)	7.9	[4.6, 13.2]	92.1	[86.8, 95.4]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=550)	5.0	[3.2, 7.7]	95.0	[92.3, 96.8]	100.0
No HRA completion with physician attestation (DW) (n=547)	7.6	[5.0, 11.3]	92.4	[88.7, 95.0]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=105)	5.0	[2.3, 10.8]	95.0	[89.2, 97.7]	100.0
No HRA completion with physician attestation (DW) (n=108)	8.1	[1.7, 30.6]	91.9	[69.4, 98.3]	100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=323)	4.6	[2.7, 7.7]	95.4	[92.3, 97.3]	100.0
No HRA completion with physician attestation (DW) (n=351)	7.3	[4.1, 12.6]	92.7	[87.4, 95.9]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=290)	4.7	[2.5, 8.8]	95.3	[91.2, 97.5]	100.0
No HRA completion with physician attestation (DW) (n=267)	7.8	[4.2, 14.0]	92.2	[86.0, 95.8]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=600)	5.5	[3.8, 7.9]	94.5	[92.1, 96.2]	100.0
No HRA completion with physician attestation (DW) (n=608)	6.7	[4.6, 9.7]	93.3	[90.3, 95.4]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Any HRA completion with physician attestation (DW) (n=223)	4.6	[2.2, 9.4]	95.4	[90.6, 97.8]	100.0
No HRA completion with physician attestation (DW) (n=233)	6.2	[3.5, 10.7]	93.8	[89.3, 96.5]	100.0
Total (n=1,113)	3.9	[2.9, 5.4]	96.1	[94.6, 97.1]	100.0

4.7.4 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition and/or substance use disorder

Any HRA completion with physician attestation (DW)	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=644)	5.2	[3.6, 7.5]	94.8	[92.5, 96.4]	100.0
No (n=719)	8.5	[6.1, 11.6]	91.5	[88.4, 93.9]	100.0
Pearson: Uncorrected chi2(1) =	12.4327				
Design-based F(1.00, 3083.00) =	3.9305	Pr =	0.048		

Notes: χ^2 test of independence. ϕ= 0.06.

4.7.5 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among respondents still enrolled with a mental health condition

Any HRA completion with physician attestation (DW)	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=589)	4.9	[3.3, 7.2]	95.1	[92.8, 96.7]	100.0
No (n=641)	8.1	[5.9, 11.0]	91.9	[89.0, 94.1]	100.0
Pearson: Uncorrected chi2(1) =	12.7975				
Design-based F(1.00, 3083.00) =	3.9156	Pr =	0.048		

Notes: χ^2 test of independence. ϕ= 0.06.

4.7.6 Drug use in last 30 days (2017) by any HRA completion with physician attestation, among respondents still enrolled with a substance use disorder

Any HRA completion with physician attestation (DW)	Drug use in last 30 days (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=207)	7.8	[4.8, 12.3]	92.2	[87.7, 95.2]	100.0
No (n=276)	11.1	[7.1, 17.0]	88.9	[83.0, 92.9]	100.0
Pearson: Uncorrected chi2(1) =	9.5831				
Design-based F(1.00, 3084.00) =	1.1737	Pr =	0.279		

Notes: χ^2 test of independence.

4.8 Drug use in last 30 days (change 2016-2017)

4.8.1 Drug use in last 30 days (2016, 2017, change 2016-2017), among respondents still enrolled

	2016			2017			Delta
	%	95%CI	N	%	95%CI	N	%
Any drug use in last 30 days							
Yes	6.1	[4.9, 7.6]	128	5.4	[4.3, 6.7]	125	-0.7
No	93.9	[92.4, 95.1]	2,259	94.6	[93.3, 95.7]	2,261	

Notes: Mixed effects logistic regression results, F(1, 2,376) = 0.89, p = 0.3445; Any drug use in last 30 days ('yes' response) in 2017 OR = 0.83, p = 0.345, 95% CI (0.6, 1.2)

4.9 Any HRA completion with physician attestation

4.9.1 Any HRA completion with physician attestation by follow-up group, among all respondents

	Any HRA completion with physician attestation (DW)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	43.9	[41.3, 46.4]	56.1	[53.6, 58.7]	100.0
No longer enrolled (n=709)	28.8	[25.1, 32.8]	71.2	[67.2, 74.9]	100.0
Pearson: Uncorrected chi2(1) =	52.3390				
Design-based F(1.00, 3085.00) =	36.7921	Pr =	0.000		
Total (n=3,097)	40.4	[38.2, 42.6]	59.6	[57.4, 61.8]	100.0

Notes: χ^2 test of independence. ϕ= 0.13.

4.9.2 Any HRA completion with physician attestation by any PCP visit, among respondents still enrolled

	Any HRA completion with physician attestation (DW)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Any PCP visit (DW)					
Yes (n=2,279)	46.6	[44.0, 49.2]	53.4	[50.8, 56.0]	100.0
No (n=109)	8.2	[4.2, 15.5]	91.8	[84.5, 95.8]	100.0
Pearson: Uncorrected chi2(1) =	122.1653				
Design-based F(1.00, 3085.00) =	54.8992	Pr =	0.000		
Total (n=2,388)	43.9	[41.3, 46.4]	56.1	[53.6, 58.7]	100.0

Notes: χ^2 test of independence. ϕ= 0.20.

5 Aim 5: To understand HMP respondents' decisions about when, where and how to seek care, including decisions about emergency department utilization.

5.1 Preventive services

5.1.1 Preventive services, among respondents still enrolled

	Percent	95%CI
Any PCP visit (DW)		
Yes (n=2,279)	92.9	[91.1, 94.4]
No (n=109)	7.1	[5.6, 8.9]
Any preventive service (DW)[a]		
Yes (n=2,232)	92.4	[90.8, 93.7]
No (n=156)	7.6	[6.3, 9.2]
Any dental visit (DW)		
Yes (n=1,615)	67.4	[64.9, 69.8]
No (n=773)	32.6	[30.2, 35.1]
Any cancer screening (DW)		
Yes (n=1,406)	50.0	[47.5, 52.6]
No (n=982)	50.0	[47.4, 52.5]
Any cervical cancer screening (DW)[b]		
Yes (n=882)	59.0	[55.7, 62.3]
No (n=573)	41.0	[37.7, 44.3]
Any breast cancer screening (DW)[c]		
Yes (n=535)	75.4	[70.9, 79.4]
No (n=158)	24.6	[20.6, 29.1]
Any colorectal cancer screening (DW)[d]		
Yes (n=515)	45.6	[42.0, 49.3]
No (n=575)	54.4	[50.7, 58.0]
Any STI test (excluding HPV) (DW)		
Yes (n=777)	35.8	[33.3, 38.3]
No (n=1,611)	64.2	[61.7, 66.7]
Any HPV test (DW)		
Yes (n=462)	17.0	[15.2, 18.8]
No (n=1,926)	83.0	[81.2, 84.8]
Any vaccine (non-flu) (DW)		
Yes (n=818)	33.2	[30.8, 35.7]
No (n=1,570)	66.8	[64.3, 69.2]
Any flu vaccine (DW)		
Yes (n=901)	33.7	[31.3, 36.1]
No (n=1,487)	66.3	[63.9, 68.7]
Any pneumonia vaccine (DW)		
Yes (n=267)	9.5	[8.1, 11.1]
No (n=2,121)	90.5	[88.9, 91.9]
Any statin (DW)		
Yes (n=594)	20.4	[18.5, 22.4]
No (n=1,794)	79.6	[77.6, 81.5]
Any NRT/varenicline (DW)		
Yes (n=343)	13.2	[11.6, 15.0]
No (n=2,045)	86.8	[85.0, 88.4]
Any nutrition program (DW)		
Yes (n=94)	4.2	[3.2, 5.5]
No (n=2,294)	95.8	[94.5, 96.8]
Any diabetes prevention program (DW)		
Yes (n=50)	1.7	[1.2, 2.3]
No (n=2,338)	98.3	[97.7, 98.8]

[a] Any preventive service includes the preventive services listed below (does not include primary care visit)
[b] Restricted to female respondents
[c] Restricted to female respondents over the age of 50
[d] Restricted to respondents over the age of 50

5.1.2 Statin prescription, among respondents still enrolled with diabetes and/or heart disease

Any statin (DW)	Percent	95%CI
Yes (n=394)	42.0	[37.8, 46.3]
No (n=449)	58.0	[53.7, 62.2]

5.1.3 NRT/varenicline prescription, among respondents still enrolled who reported using tobacco in 2016 or 2017

Any NRT/varenicline (DW)	Percent	95%CI
Yes (n=303)	28.1	[24.8, 31.6]
No (n=691)	71.9	[68.4, 75.2]

5.1.4 Preventive services by any HRA completion with physician attestation, among respondents still enrolled

	Any HRA completion with physician attestation (DW)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Any PCP visit (DW)						
Yes (n=2,279)	98.7	[97.4, 99.3]	88.4	[85.3, 90.9]	92.9	[91.1, 94.4]
No (n=109)	1.3	[0.7, 2.6]	11.6	[9.1, 14.7]	7.1	[5.6, 8.9]
Pearson: Uncorrected chi2(1) =	122.1653					
Design-based F(1.00, 3085.00) =	54.8992	Pr =	0.000			
Any preventive service (DW)[a]						
Yes (n=2,232)	95.6	[93.8, 96.8]	89.9	[87.4, 91.9]	92.4	[90.8, 93.7]
No (n=156)	4.4	[3.2, 6.2]	10.1	[8.1, 12.6]	7.6	[6.3, 9.2]
Pearson: Uncorrected chi2(1) =	34.6558					
Design-based F(1.00, 3085.00) =	17.2681	Pr =	0.000			
Any dental visit (DW)						
Yes (n=1,615)	71.3	[67.8, 74.5]	64.3	[60.8, 67.7]	67.4	[64.9, 69.8]
No (n=773)	28.7	[25.5, 32.2]	35.7	[32.3, 39.2]	32.6	[30.2, 35.1]
Pearson: Uncorrected chi2(1) =	16.6524					
Design-based F(1.00, 3085.00) =	7.8222	Pr =	0.005			
Any cancer screening (DW)						
Yes (n=1,406)	57.6	[53.8, 61.3]	44.1	[40.7, 47.6]	50.0	[47.5, 52.6]
No (n=982)	42.4	[38.7, 46.2]	55.9	[52.4, 59.3]	50.0	[47.4, 52.5]
Pearson: Uncorrected chi2(1) =	55.6971					
Design-based F(1.00, 3085.00) =	26.2379	Pr =	0.000			
Any cervical cancer screening (DW)[b]						
Yes (n=882)	65.5	[60.9, 69.9]	53.8	[49.2, 58.3]	59.0	[55.7, 62.3]
No (n=573)	34.5	[30.1, 39.1]	46.2	[41.7, 50.8]	41.0	[37.7, 44.3]
Pearson: Uncorrected chi2(1) =	43.6767					
Design-based F(1.00, 3085.00) =	12.6073	Pr =	0.000			
Any breast cancer screening (DW)[c]						
Yes (n=535)	83.1	[77.8, 87.4]	67.3	[60.2, 73.8]	75.4	[70.9, 79.4]
No (n=158)	16.9	[12.6, 22.2]	32.7	[26.2, 39.8]	24.6	[20.6, 29.1]
Pearson: Uncorrected chi2(1) =	104.2119					
Design-based F(1.00, 3085.00) =	14.0929	Pr =	0.000			
Any colorectal cancer screening (DW)[d]						
Yes (n=515)	47.6	[42.6, 52.7]	43.6	[38.5, 48.8]	45.6	[42.0, 49.3]
No (n=575)	52.4	[47.3, 57.4]	56.4	[51.2, 61.5]	54.4	[50.7, 58.0]
Pearson: Uncorrected chi2(1) =	5.0153					
Design-based F(1.00, 3085.00) =	1.1697	Pr =	0.280			
Any STI test (excluding HPV) (DW)						
Yes (n=777)	38.5	[34.8, 42.2]	33.6	[30.3, 37.2]	35.8	[33.3, 38.3]
No (n=1,611)	61.5	[57.8, 65.2]	66.4	[62.8, 69.7]	64.2	[61.7, 66.7]
Pearson: Uncorrected chi2(1) =	7.7290					
Design-based F(1.00, 3085.00) =	3.4930	Pr =	0.062			
Any HPV test (DW)						
Yes (n=462)	20.3	[17.6, 23.3]	14.3	[12.3, 16.7]	17.0	[15.2, 18.8]
No (n=1,926)	79.7	[76.7, 82.4]	85.7	[83.3, 87.7]	83.0	[81.2, 84.8]
Pearson: Uncorrected chi2(1) =	19.1817					
Design-based F(1.00, 3085.00) =	10.5574	Pr =	0.001			
Any vaccine (non-flu) (DW)						
Yes (n=818)	34.9	[31.4, 38.5]	31.9	[28.7, 35.3]	33.2	[30.8, 35.7]
No (n=1,570)	65.1	[61.5, 68.6]	68.1	[64.7, 71.3]	66.8	[64.3, 69.2]
Pearson: Uncorrected chi2(1) =	3.0562					
Design-based F(1.00, 3085.00) =	1.4386	Pr =	0.230			
Any flu vaccine (DW)						
Yes (n=901)	38.3	[34.8, 42.0]	30.0	[27.0, 33.3]	33.7	[31.3, 36.1]
No (n=1,487)	61.7	[58.0, 65.2]	70.0	[66.7, 73.0]	66.3	[63.9, 68.7]
Pearson: Uncorrected chi2(1) =	23.4674					
Design-based F(1.00, 3085.00) =	11.4805	Pr =	0.001			

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Any pneumonia vaccine (DW)						
Yes (n=267)	11.1	[8.9, 13.6]	8.3	[6.6, 10.3]	9.5	[8.1, 11.1]
No (n=2,121)	88.9	[86.4, 91.1]	91.7	[89.7, 93.4]	90.5	[88.9, 91.9]
Pearson: Uncorrected chi2(1) =	6.7923					
Design-based F(1.00, 3085.00) =	3.4078	Pr =	0.065			
Any statin (DW)						
Yes (n=594)	24.3	[21.4, 27.4]	17.4	[15.0, 19.9]	20.4	[18.5, 22.4]
No (n=1,794)	75.7	[72.6, 78.6]	82.6	[80.1, 85.0]	79.6	[77.6, 81.5]
Pearson: Uncorrected chi2(1) =	22.4210					
Design-based F(1.00, 3085.00) =	12.4167	Pr =	0.000			
Any NRT/varenicline (DW)						
Yes (n=343)	15.2	[12.8, 18.0]	11.6	[9.6, 13.9]	13.2	[11.6, 15.0]
No (n=2,045)	84.8	[82.0, 87.2]	88.4	[86.1, 90.4]	86.8	[85.0, 88.4]
Pearson: Uncorrected chi2(1) =	8.6263					
Design-based F(1.00, 3085.00) =	4.4121	Pr =	0.036			
Any nutrition program (DW)						
Yes (n=94)	4.6	[3.2, 6.4]	4.0	[2.6, 6.0]	4.2	[3.2, 5.5]
No (n=2,294)	95.4	[93.6, 96.8]	96.0	[94.0, 97.4]	95.8	[94.5, 96.8]
Pearson: Uncorrected chi2(1) =	0.6940					
Design-based F(1.00, 3085.00) =	0.2711	Pr =	0.603			
Any diabetes prevention program (DW)						
Yes (n=50)	2.3	[1.5, 3.4]	1.2	[0.8, 2.0]	1.7	[1.2, 2.3]
No (n=2,338)	97.7	[96.6, 98.5]	98.8	[98.0, 99.2]	98.3	[97.7, 98.8]
Pearson: Uncorrected chi2(1) =	5.2282					
Design-based F(1.00, 3085.00) =	3.8920	Pr =	0.049			

Notes: χ^2 test of independence
[a] Any preventive service includes the preventive services listed below (does not include primary care visit)
[b] Analysis restricted to female respondents
[c] Analysis restricted to female respondents over the age of 50
[d] Analysis restricted to respondents over the age of 50

5.1.5 Preventive services by discussed HRA with provider in the last year (2017), among respondents still enrolled

	Discussed HRA with provider in the last year (2017)					
	Yes		No/don't know		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Any PCP visit (DW)						
Yes (n=2,276)	97.4	[95.6, 98.4]	89.1	[86.0, 91.6]	92.9	[91.0, 94.4]
No (n=109)	2.6	[1.6, 4.4]	10.9	[8.4, 14.0]	7.1	[5.6, 9.0]
Pearson: Uncorrected chi2(1) =	79.9760					
Design-based F(1.00, 3082.00) =	28.2606	Pr =	0.000			
Any preventive service (DW)[a]						
Yes (n=2,230)	94.5	[92.6, 95.9]	90.7	[88.3, 92.7]	92.5	[90.9, 93.8]
No (n=155)	5.5	[4.1, 7.4]	9.3	[7.3, 11.7]	7.5	[6.2, 9.1]
Pearson: Uncorrected chi2(1) =	15.8397					
Design-based F(1.00, 3082.00) =	7.5856	Pr =	0.006			
Any dental visit (DW)						
Yes (n=1,613)	67.7	[64.2, 71.1]	67.1	[63.6, 70.5]	67.4	[64.9, 69.8]
No (n=772)	32.3	[28.9, 35.8]	32.9	[29.5, 36.4]	32.6	[30.2, 35.1]
Pearson: Uncorrected chi2(1) =	0.1380					
Design-based F(1.00, 3082.00) =	0.0635	Pr =	0.801			
Any cancer screening (DW)						
Yes (n=1,404)	56.1	[52.4, 59.7]	44.9	[41.4, 48.6]	50.0	[47.5, 52.6]
No (n=981)	43.9	[40.3, 47.6]	55.1	[51.4, 58.6]	50.0	[47.4, 52.5]
Pearson: Uncorrected chi2(1) =	38.1453					
Design-based F(1.00, 3082.00) =	17.6527	Pr =	0.000			
Any cervical cancer screening (DW)[b]						
Yes (n=880)	62.0	[57.4, 66.5]	55.9	[51.1, 60.6]	59.0	[55.6, 62.2]
No (n=573)	38.0	[33.5, 42.6]	44.1	[39.4, 48.9]	41.0	[37.8, 44.4]
Pearson: Uncorrected chi2(1) =	11.9005					
Design-based F(1.00, 3083.00) =	3.2965	Pr =	0.070			
Any breast cancer screening (DW)[c]						
Yes (n=535)	79.8	[74.2, 84.5]	70.3	[63.0, 76.7]	75.4	[70.8, 79.4]
No (n=158)	20.2	[15.5, 25.8]	29.7	[23.3, 37.0]	24.6	[20.6, 29.2]
Pearson: Uncorrected chi2(1) =	37.7183					
Design-based F(1.00, 3085.00) =	4.8676	Pr =	0.027			
Any colorectal cancer screening (DW)[d]						
Yes (n=515)	46.2	[41.3, 51.2]	45.0	[39.7, 50.3]	45.6	[42.0, 49.3]
No (n=575)	53.8	[48.8, 58.7]	55.0	[49.7, 60.3]	54.4	[50.7, 58.0]
Pearson: Uncorrected chi2(1) =	0.4946					
Design-based F(1.00, 3085.00) =	0.1149	Pr =	0.735			
Any STI test (excluding HPV) (DW)						
Yes (n=776)	39.7	[36.2, 43.4]	32.4	[29.0, 36.0]	35.8	[33.3, 38.3]
No (n=1,609)	60.3	[56.6, 63.8]	67.6	[64.0, 71.0]	64.2	[61.7, 66.7]
Pearson: Uncorrected chi2(1) =	18.0152					
Design-based F(1.00, 3082.00) =	8.0605	Pr =	0.005			
Any HPV test (DW)						
Yes (n=461)	20.8	[18.1, 23.8]	13.6	[11.6, 16.0]	16.9	[15.2, 18.8]
No (n=1,924)	79.2	[76.2, 81.9]	86.4	[84.0, 88.4]	83.1	[81.2, 84.8]
Pearson: Uncorrected chi2(1) =	28.4646					
Design-based F(1.00, 3082.00) =	15.7638	Pr =	0.000			
Any vaccine (non-flu) (DW)						
Yes (n=817)	35.7	[32.4, 39.3]	31.1	[27.8, 34.7]	33.3	[30.8, 35.7]
No (n=1,568)	64.3	[60.7, 67.6]	68.9	[65.3, 72.2]	66.7	[64.3, 69.2]
Pearson: Uncorrected chi2(1) =	7.3445					
Design-based F(1.00, 3082.00) =	3.4089	Pr =	0.065			
Any flu vaccine (DW)						
Yes (n=901)	39.4	[35.9, 43.0]	28.9	[25.8, 32.2]	33.7	[31.4, 36.1]
No (n=1,484)	60.6	[57.0, 64.1]	71.1	[67.8, 74.2]	66.3	[63.9, 68.6]
Pearson: Uncorrected chi2(1) =	38.1233					
Design-based F(1.00, 3082.00) =	18.5556	Pr =	0.000			

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Any pneumonia vaccine (DW)						
Yes (n=267)	12.5	[10.3, 15.1]	7.0	[5.4, 8.9]	9.5	[8.2, 11.1]
No (n=2,118)	87.5	[84.9, 89.7]	93.0	[91.1, 94.6]	90.5	[88.9, 91.8]
Pearson: Uncorrected chi2(1) =	27.4099					
Design-based F(1.00, 3082.00) =	13.7239	Pr =	0.000			
Any statin (DW)						
Yes (n=594)	25.7	[22.9, 28.7]	15.9	[13.6, 18.6]	20.4	[18.6, 22.4]
No (n=1,791)	74.3	[71.3, 77.1]	84.1	[81.4, 86.4]	79.6	[77.6, 81.4]
Pearson: Uncorrected chi2(1) =	44.8483					
Design-based F(1.00, 3082.00) =	24.1337	Pr =	0.000			
Any NRT/varenicline (DW)						
Yes (n=343)	14.8	[12.5, 17.4]	11.9	[9.8, 14.4]	13.2	[11.6, 15.0]
No (n=2,042)	85.2	[82.6, 87.5]	88.1	[85.6, 90.2]	86.8	[85.0, 88.4]
Pearson: Uncorrected chi2(1) =	5.7214					
Design-based F(1.00, 3082.00) =	2.9008	Pr =	0.089			
Any nutrition program (DW)						
Yes (n=94)	4.2	[3.0, 5.8]	4.3	[2.8, 6.4]	4.2	[3.2, 5.5]
No (n=2,291)	95.8	[94.2, 97.0]	95.7	[93.6, 97.2]	95.8	[94.5, 96.8]
Pearson: Uncorrected chi2(1) =	0.0321					
Design-based F(1.00, 3082.00) =	0.0129	Pr =	0.909			
Any diabetes prevention program (DW)						
Yes (n=50)	2.4	[1.6, 3.5]	1.1	[0.6, 1.8]	1.7	[1.3, 2.3]
No (n=2,335)	97.6	[96.5, 98.4]	98.9	[98.2, 99.4]	98.3	[97.7, 98.7]
Pearson: Uncorrected chi2(1) =	8.0359					
Design-based F(1.00, 3082.00) =	6.0341	Pr =	0.014			

Notes: χ^2 test of independence
[a] Any preventive service includes the preventive services listed below (does not include primary care visit)
[b] Analysis restricted to female respondents
[c] Analysis restricted to female respondents over the age of 50
[d] Analysis restricted to respondents over the age of 50

5.1.6 Preventive services by knowledge of HMP covered benefits and costs (2016, 2017, change 2016-2017), among respondents still enrolled

	Knowledge of HMP covered benefits and costs							
	2016				2017			
	Mean	SE	95%CI	N	Mean	SE	95%CI	N
Any PCP visit (DW)								
Yes	3.2	0.04	[3.1, 3.2]	2,279	3.1	0.03	[3.0, 3.2]	2,279
No	2.4	0.20	[2.0, 2.8]	109	2.7	0.18	[2.3, 3.0]	109
Any preventive service(DW)[a]								
Yes	3.2	0.04	[3.1, 3.2]	2,232	3.1	0.03	[3.0, 3.2]	2,232
No	2.7	0.16	[2.3, 3.0]	156	2.7	0.15	[2.4, 3.0]	156
Any dental visit (DW)								
Yes	3.2	0.05	[3.2, 3.3]	1,615	3.2	0.04	[3.1, 3.3]	1,615
No	2.8	0.07	[2.7, 3.0]	773	2.8	0.06	[2.7, 2.9]	773
Any cancer screening (DW)								
Yes	3.3	0.05	[3.2, 3.4]	1,406	3.2	0.04	[3.1, 3.3]	1,406
No	2.9	0.06	[2.8, 3.1]	982	2.9	0.05	[2.8, 3.0]	982
Any cervical cancer screening (DW)[b]								
Yes	3.3	0.06	[3.2, 3.4]	882	3.2	0.05	[3.1, 3.3]	882
No	3.3	0.08	[3.1, 3.4]	573	3.2	0.07	[3.0, 3.3]	573
Any breast cancer screening (DW)[c]								
Yes	3.4	0.06	[3.2, 3.5]	535	3.3	0.06	[3.1, 3.4]	535
No	3.1	0.16	[2.8, 3.4]	158	2.8	0.15	[2.5, 3.1]	158
Any colorectal cancer screening (DW)[d]								
Yes	3.4	0.07	[3.2, 3.5]	515	3.1	0.06	[3.0, 3.3]	515
No	3.2	0.07	[3.0, 3.3]	575	3.0	0.07	[2.9, 3.2]	575
Any STI test (excluding HPV) (DW)								
Yes	3.2	0.07	[3.0, 3.3]	777	3.1	0.06	[3.0, 3.2]	777
No	3.1	0.05	[3.0, 3.2]	1,611	3.1	0.04	[3.0, 3.1]	1,611
Any HPV test (DW)								
Yes	3.3	0.09	[3.1, 3.4]	462	3.2	0.07	[3.0, 3.3]	462
No	3.1	0.04	[3.0, 3.2]	1,926	3.1	0.04	[3.0, 3.1]	1,926
Any vaccine (non-flu) (DW)								
Yes	3.1	0.06	[3.0, 3.2]	818	3.1	0.06	[3.0, 3.2]	818
No	3.1	0.05	[3.0, 3.2]	1,570	3.1	0.04	[3.0, 3.1]	1,570
Any flu vaccine (DW)								
Yes	3.3	0.06	[3.2, 3.4]	901	3.2	0.05	[3.1, 3.3]	901
No	3.0	0.05	[2.9, 3.1]	1,487	3.0	0.04	[2.9, 3.1]	1,487
Any pneumonia vaccine (DW)								
Yes	3.1	0.12	[2.9, 3.3]	267	3.1	0.10	[2.9, 3.3]	267
No	3.1	0.04	[3.0, 3.2]	2,121	3.1	0.04	[3.0, 3.1]	2,121
Any statin (DW)								
Yes	3.3	0.07	[3.1, 3.4]	594	3.1	0.06	[3.0, 3.2]	594
No	3.1	0.05	[3.0, 3.2]	1,794	3.1	0.04	[3.0, 3.2]	1,794
Any NRT/varenicline (DW)								
Yes	3.3	0.09	[3.1, 3.5]	343	3.0	0.08	[2.9, 3.2]	343
No	3.1	0.04	[3.0, 3.2]	2,045	3.1	0.04	[3.0, 3.2]	2,045
Any nutrition program (DW)								
Yes	3.2	0.22	[2.8, 3.7]	94	3.2	0.20	[2.8, 3.6]	94
No	3.1	0.04	[3.0, 3.2]	2,294	3.1	0.03	[3.0, 3.1]	2,294
Any diabetes prevention program (DW)								
Yes	2.9	0.25	[2.4, 3.4]	50	3.3	0.18	[2.9, 3.6]	50
No	3.1	0.04	[3.0, 3.2]	2,338	3.1	0.03	[3.0, 3.1]	2,338

Notes: Knowledge of HMP covered benefits and costs is defined as the count of correct answers to a series of questions about HMP, which were common to both the 2016 and 2017 surveys (Range 0-6). These questions include: I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK; I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK; Some kinds of visits, tests and medicines have no copays. Y/N/DK; Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, routine dental care, counseling for mental or emotional problems.

[a] Any preventive service includes the preventive services listed below (does not include primary care visit)

[b] Analysis restricted to female respondents

[c] Analysis restricted to female respondents over the age of 50

[d] Analysis restricted to respondents over the age of 50

5.1.7 Preventive services by may get reduction by completing HRA (2017), among respondents still enrolled

	May get reduction by completing HRA (2017)					
	Yes		No/don't know		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Any PCP visit (DW)						
Yes (n=2,278)	91.0	[86.8, 94.0]	93.6	[91.5, 95.2]	92.9	[91.0, 94.4]
No (n=109)	9.0	[6.0, 13.2]	6.4	[4.8, 8.5]	7.1	[5.6, 9.0]
Pearson: Uncorrected chi2(1) =	6.2661					
Design-based F(1.00, 3084.00) =	1.8485	Pr =	0.174			
Any preventive service (DW)[a]						
Yes (n=2,231)	89.7	[86.0, 92.4]	93.4	[91.7, 94.8]	92.4	[90.8, 93.7]
No (n=156)	10.3	[7.6, 14.0]	6.6	[5.2, 8.3]	7.6	[6.3, 9.2]
Pearson: Uncorrected chi2(1) =	12.0318					
Design-based F(1.00, 3084.00) =	5.1330	Pr =	0.024			
Any dental visit (DW)						
Yes (n=1,614)	68.1	[63.4, 72.5]	67.0	[64.0, 69.8]	67.3	[64.8, 69.7]
No (n=773)	31.9	[27.5, 36.6]	33.0	[30.2, 36.0]	32.7	[30.3, 35.2]
Pearson: Uncorrected chi2(1) =	0.3686					
Design-based F(1.00, 3084.00) =	0.1716	Pr =	0.679			
Any cancer screening (DW)						
Yes (n=1,406)	47.6	[42.8, 52.5]	51.1	[48.1, 54.2]	50.2	[47.6, 52.8]
No (n=981)	52.4	[47.5, 57.2]	48.9	[45.8, 51.9]	49.8	[47.2, 52.4]
Pearson: Uncorrected chi2(1) =	3.0430					
Design-based F(1.00, 3084.00) =	1.4340	Pr =	0.231			
Any cervical cancer screening (DW)[b]						
Yes (n=882)	59.1	[52.6, 65.2]	59.0	[55.1, 62.8]	59.0	[55.7, 62.3]
No (n=573)	40.9	[34.8, 47.4]	41.0	[37.2, 44.9]	41.0	[37.7, 44.3]
Pearson: Uncorrected chi2(1) =	0.0001					
Design-based F(1.00, 3085.00) =	0.0000	Pr =	0.995			
Any breast cancer screening (DW)[c]						
Yes (n=535)	78.5	[70.2, 84.9]	74.1	[68.6, 79.0]	75.4	[70.8, 79.4]
No (n=158)	21.5	[15.1, 29.8]	25.9	[21.0, 31.4]	24.6	[20.6, 29.2]
Pearson: Uncorrected chi2(1) =	6.4483					
Design-based F(1.00, 3085.00) =	0.8462	Pr =	0.358			
Any colorectal cancer screening (DW)[d]						
Yes (n=515)	43.8	[37.4, 50.3]	46.4	[42.1, 50.8]	45.6	[42.0, 49.3]
No (n=575)	56.2	[49.7, 62.6]	53.6	[49.2, 57.9]	54.4	[50.7, 58.0]
Pearson: Uncorrected chi2(1) =	1.7922					
Design-based F(1.00, 3085.00) =	0.4291	Pr =	0.512			
Any STI test (excluding HPV) (DW)						
Yes (n=776)	32.3	[27.8, 37.2]	36.9	[33.9, 39.9]	35.6	[33.1, 38.2]
No (n=1,611)	67.7	[62.8, 72.2]	63.1	[60.1, 66.1]	64.4	[61.8, 66.9]
Pearson: Uncorrected chi2(1) =	5.6018					
Design-based F(1.00, 3084.00) =	2.5031	Pr =	0.114			
Any HPV test (DW)						
Yes (n=462)	14.2	[11.4, 17.6]	18.1	[16.0, 20.3]	17.0	[15.3, 18.9]
No (n=1,925)	85.8	[82.4, 88.6]	81.9	[79.7, 84.0]	83.0	[81.1, 84.7]
Pearson: Uncorrected chi2(1) =	6.4601					
Design-based F(1.00, 3084.00) =	3.6172	Pr =	0.057			
Any vaccine (non-flu) (DW)						
Yes (n=817)	32.9	[28.5, 37.8]	33.1	[30.3, 36.0]	33.1	[30.7, 35.5]
No (n=1,570)	67.1	[62.2, 71.5]	66.9	[64.0, 69.7]	66.9	[64.5, 69.3]
Pearson: Uncorrected chi2(1) =	0.0069					
Design-based F(1.00, 3084.00) =	0.0032	Pr =	0.955			
Any flu vaccine (DW)						
Yes (n=901)	36.1	[31.6, 40.9]	32.8	[30.1, 35.7]	33.7	[31.4, 36.2]
No (n=1,486)	63.9	[59.1, 68.4]	67.2	[64.3, 69.9]	66.3	[63.8, 68.6]
Pearson: Uncorrected chi2(1) =	3.0014					
Design-based F(1.00, 3084.00) =	1.4532	Pr =	0.228			

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Any pneumonia vaccine (DW)						
Yes (n=267)	8.9	[6.6, 12.0]	9.8	[8.2, 11.6]	9.5	[8.2, 11.1]
No (n=2,120)	91.1	[88.0, 93.4]	90.2	[88.4, 91.8]	90.5	[88.9, 91.8]
Pearson: Uncorrected chi2(1) =	0.5123					
Design-based F(1.00, 3084.00) =	0.2577	Pr =	0.612			
Any statin (DW)						
Yes (n=594)	18.8	[15.6, 22.5]	21.1	[18.9, 23.4]	20.4	[18.6, 22.4]
No (n=1,793)	81.2	[77.5, 84.4]	78.9	[76.6, 81.1]	79.6	[77.6, 81.4]
Pearson: Uncorrected chi2(1) =	2.0130					
Design-based F(1.00, 3084.00) =	1.1456	Pr =	0.285			
Any NRT/varenicline (DW)						
Yes (n=343)	8.2	[6.1, 10.9]	15.1	[13.1, 17.4]	13.2	[11.7, 15.0]
No (n=2,044)	91.8	[89.1, 93.9]	84.9	[82.6, 86.9]	86.8	[85.0, 88.3]
Pearson: Uncorrected chi2(1) =	25.7057					
Design-based F(1.00, 3084.00) =	15.0756	Pr =	0.000			
Any nutrition program (DW)						
Yes (n=93)	4.2	[2.7, 6.6]	3.9	[2.8, 5.4]	4.0	[3.1, 5.2]
No (n=2,294)	95.8	[93.4, 97.3]	96.1	[94.6, 97.2]	96.0	[94.8, 96.9]
Pearson: Uncorrected chi2(1) =	0.1998					
Design-based F(1.00, 3084.00) =	0.0947	Pr =	0.758			
Any diabetes prevention program (DW)						
Yes (n=50)	2.2	[1.3, 3.7]	1.5	[1.0, 2.2]	1.7	[1.3, 2.3]
No (n=2,337)	97.8	[96.3, 98.7]	98.5	[97.8, 99.0]	98.3	[97.7, 98.7]
Pearson: Uncorrected chi2(1) =	1.7625					
Design-based F(1.00, 3084.00) =	1.3078	Pr =	0.253			

Notes: χ^2 test of independence
[a] Any preventive service includes the preventive services listed below (does not include primary care visit)
[b] Analysis restricted to female respondents
[c] Analysis restricted to female respondents over the age of 50
[d] Analysis restricted to respondents over the age of 50

5.1.8 Preventive services by some kinds of visits, tests, and medicines have no copays (2017), among respondents still enrolled

	Some kinds of visits, tests, and medicines have no copays (2017)					
	Yes		No/don't know		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Any PCP visit (DW)						
Yes (n=2,278)	94.2	[92.1, 95.8]	89.3	[85.3, 92.4]	92.9	[91.0, 94.4]
No (n=109)	5.8	[4.2, 7.9]	10.7	[7.6, 14.7]	7.1	[5.6, 9.0]
Pearson: Uncorrected chi2(1) =	22.4568					
Design-based F(1.00, 3084.00) =	6.9113	Pr =	0.009			
Any preventive service (DW)[a]						
Yes (n=2,231)	93.2	[91.4, 94.7]	90.0	[86.7, 92.6]	92.4	[90.8, 93.7]
No (n=156)	6.8	[5.3, 8.6]	10.0	[7.4, 13.3]	7.6	[6.3, 9.2]
Pearson: Uncorrected chi2(1) =	8.9170					
Design-based F(1.00, 3084.00) =	3.9714	Pr =	0.046			
Any dental visit (DW)						
Yes (n=1,614)	67.7	[64.8, 70.5]	66.2	[61.2, 70.8]	67.3	[64.8, 69.7]
No (n=773)	32.3	[29.5, 35.2]	33.8	[29.2, 38.8]	32.7	[30.3, 35.2]
Pearson: Uncorrected chi2(1) =	0.6574					
Design-based F(1.00, 3084.00) =	0.2882	Pr =	0.591			
Any cancer screening (DW)						
Yes (n=1,406)	51.6	[48.5, 54.6]	46.5	[41.7, 51.4]	50.2	[47.6, 52.8]
No (n=981)	48.4	[45.4, 51.5]	53.5	[48.6, 58.3]	49.8	[47.2, 52.4]
Pearson: Uncorrected chi2(1) =	6.2661					
Design-based F(1.00, 3084.00) =	2.9131	Pr =	0.088			
Any cervical cancer screening (DW)[b]						
Yes (n=882)	59.7	[55.9, 63.5]	56.9	[50.2, 63.3]	59.0	[55.7, 62.3]
No (n=573)	40.3	[36.5, 44.1]	43.1	[36.7, 49.8]	41.0	[37.7, 44.3]
Pearson: Uncorrected chi2(1) =	1.9559					
Design-based F(1.00, 3085.00) =	0.5456	Pr =	0.460			
Any breast cancer screening (DW)[c]						
Yes (n=535)	78.0	[72.5, 82.6]	68.6	[60.1, 76.1]	75.4	[70.8, 79.4]
No (n=158)	22.0	[17.4, 27.5]	31.4	[23.9, 39.9]	24.6	[20.6, 29.2]
Pearson: Uncorrected chi2(1) =	28.9784					
Design-based F(1.00, 3085.00) =	3.9455	Pr =	0.047			
Any colorectal cancer screening (DW)[d]						
Yes (n=515)	45.6	[41.3, 50.0]	45.7	[39.1, 52.3]	45.6	[42.0, 49.3]
No (n=575)	54.4	[50.0, 58.7]	54.3	[47.7, 60.9]	54.4	[50.7, 58.0]
Pearson: Uncorrected chi2(1) =	0.0017					
Design-based F(1.00, 3085.00) =	0.0004	Pr =	0.984			
Any STI test (excluding HPV) (DW)						
Yes (n=776)	35.7	[32.9, 38.7]	35.3	[30.6, 40.3]	35.6	[33.1, 38.2]
No (n=1,611)	64.3	[61.3, 67.1]	64.7	[59.7, 69.4]	64.4	[61.8, 66.9]
Pearson: Uncorrected chi2(1) =	0.0497					
Design-based F(1.00, 3084.00) =	0.0215	Pr =	0.883			
Any HPV test (DW)						
Yes (n=462)	17.0	[15.0, 19.1]	17.1	[13.8, 20.9]	17.0	[15.3, 18.9]
No (n=1,925)	83.0	[80.9, 85.0]	82.9	[79.1, 86.2]	83.0	[81.1, 84.7]
Pearson: Uncorrected chi2(1) =	0.0055					
Design-based F(1.00, 3084.00) =	0.0029	Pr =	0.957			
Any vaccine (non-flu) (DW)						
Yes (n=817)	34.2	[31.3, 37.1]	30.1	[25.9, 34.7]	33.1	[30.7, 35.5]
No (n=1,570)	65.8	[62.9, 68.7]	69.9	[65.3, 74.1]	66.9	[64.5, 69.3]
Pearson: Uncorrected chi2(1) =	4.5344					
Design-based F(1.00, 3084.00) =	2.1649	Pr =	0.141			

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Any flu vaccine (DW)						
Yes (n=901)	35.1	[32.3, 38.0]	30.1	[26.1, 34.5]	33.7	[31.4, 36.2]
No (n=1,486)	64.9	[62.0, 67.7]	69.9	[65.5, 73.9]	66.3	[63.8, 68.6]
Pearson: Uncorrected chi2(1) =	6.8129					
Design-based F(1.00, 3084.00) =	3.5550	Pr =	0.059			
Any pneumonia vaccine (DW)						
Yes (n=267)	10.2	[8.5, 12.1]	7.9	[5.8, 10.7]	9.5	[8.2, 11.1]
No (n=2,120)	89.8	[87.9, 91.5]	92.1	[89.3, 94.2]	90.5	[88.9, 91.8]
Pearson: Uncorrected chi2(1) =	3.6164					
Design-based F(1.00, 3084.00) =	1.9786	Pr =	0.160			
Any statin (DW)						
Yes (n=594)	20.2	[18.0, 22.6]	21.0	[17.7, 24.8]	20.4	[18.6, 22.4]
No (n=1,793)	79.8	[77.4, 82.0]	79.0	[75.2, 82.3]	79.6	[77.6, 81.4]
Pearson: Uncorrected chi2(1) =	0.2703					
Design-based F(1.00, 3084.00) =	0.1561	Pr =	0.693			
Any NRT/varenicline (DW)						
Yes (n=343)	12.3	[10.6, 14.3]	15.6	[12.3, 19.5]	13.2	[11.7, 15.0]
No (n=2,044)	87.7	[85.7, 89.4]	84.4	[80.5, 87.7]	86.8	[85.0, 88.3]
Pearson: Uncorrected chi2(1) =	5.7055					
Design-based F(1.00, 3084.00) =	2.7471	Pr =	0.098			
Any nutrition program (DW)						
Yes (n=93)	4.3	[3.2, 5.8]	3.2	[1.7, 5.8]	4.0	[3.1, 5.2]
No (n=2,294)	95.7	[94.2, 96.8]	96.8	[94.2, 98.3]	96.0	[94.8, 96.9]
Pearson: Uncorrected chi2(1) =	2.0604					
Design-based F(1.00, 3084.00) =	0.7937	Pr =	0.373			
Any diabetes prevention program (DW)						
Yes (n=50)	1.8	[1.2, 2.6]	1.5	[0.9, 2.7]	1.7	[1.3, 2.3]
No (n=2,337)	98.2	[97.4, 98.8]	98.5	[97.3, 99.1]	98.3	[97.7, 98.7]
Pearson: Uncorrected chi2(1) =	0.2403					
Design-based F(1.00, 3084.00) =	0.2033	Pr =	0.652			

Notes: χ^2 test of independence

[a] Any preventive service includes the preventive services listed below (does not include primary care visit)

[b] Analysis restricted to female respondents

[c] Analysis restricted to female respondents over the age of 50

[d] Analysis restricted to respondents over the age of 50

5.1.9 Preventive services by MIHA Statements led me to change health care decisions (2017), among respondents still enrolled

	MIHA Statements led me to change health care decisions (2017)			
	Mean	SE	95%CI	N
Any PCP visit (DW)				
Yes	2.9	0.03	[2.8, 2.9]	1,884
No	2.8	0.18	[2.4, 3.2]	68
Any preventive service (DW)[a]				
Yes	2.9	0.03	[2.8, 2.9]	1,842
No	3.0	0.11	[2.7, 3.2]	110
Any dental visits (DW)				
Yes	2.8	0.03	[2.8, 2.9]	1,323
No	2.9	0.05	[2.8, 3.0]	629
Any cancer screening (DW)				
Yes	2.8	0.03	[2.8, 2.9]	1,196
No	2.9	0.04	[2.8, 3.0]	756
Any cervical cancer screening (DW)[b]				
Yes	2.8	0.04	[2.7, 2.9]	745
No	2.8	0.06	[2.7, 2.9]	474
Any breast cancer screening (DW)[c]				
Yes	2.8	0.06	[2.7, 2.9]	475
No	2.8	0.12	[2.5, 3.0]	128
Any colorectal cancer screening (DW)[d]				
Yes	2.9	0.06	[2.8, 3.0]	448
No	2.9	0.06	[2.8, 3.0]	478
Any STI test (excluding HPV) (DW)				
Yes	2.8	0.05	[2.7, 2.9]	627
No	2.9	0.03	[2.8, 2.9]	1,325
Any HPV test (DW)				
Yes	2.8	0.06	[2.7, 2.9]	392
No	2.9	0.03	[2.8, 2.9]	1,560
Any vaccine (non-flu) (DW)				
Yes	2.8	0.04	[2.8, 2.9]	680
No	2.9	0.04	[2.8, 2.9]	1,272
Any flu vaccine (DW)				
Yes	2.9	0.04	[2.8, 3.0]	769
No	2.9	0.04	[2.8, 2.9]	1,183
Any pneumonia vaccine (DW)				
Yes	2.8	0.08	[2.7, 3.0]	228
No	2.9	0.03	[2.8, 2.9]	1,724
Any statin (DW)				
Yes	2.9	0.05	[2.8, 3.0]	509
No	2.8	0.03	[2.8, 2.9]	1,443
Any NRT/varenicline (DW)				
Yes	2.8	0.07	[2.7, 3.0]	287
No	2.9	0.03	[2.8, 2.9]	1,665
Any nutrition program (DW)				
Yes	2.8	0.11	[2.5, 3.0]	81
No	2.9	0.03	[2.8, 2.9]	1,871
Any diabetes prevention program (DW)				
Yes	3.0	0.16	[2.7, 3.3]	40
No	2.9	0.03	[2.8, 2.9]	1,912

Notes: MIHA statements led me to change health care decisions is measured on a 5-point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

[a] Any preventive service includes the preventive services listed below (does not include primary care visit)

[b] Analysis restricted to female respondents

[c] Analysis restricted to female respondents over the age of 50

[d] Analysis restricted to respondents over the age of 50

5.1.10 Predictors of number of preventive services (1), among respondents still enrolled

	Number of preventive services (DW)			Number of preventive services (DW)			Number of preventive services (DW)		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
May get reduction by completing HRA (2017)									
No/don't know		Reference							
Yes	0.01	[-0.420, 0.448]	0.949						
Number of chronic conditions (DW)	0.78	[0.644, 0.910]	0.000	0.77	[0.636, 0.902]	0.000	0.21	[0.072, 0.350]	0.003
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	0.87	[0.353, 1.383]	0.001	0.89	[0.372, 1.400]	0.001	0.83	[0.368, 1.284]	0.000
51-64	1.72	[1.208, 2.236]	0.000	1.76	[1.243, 2.274]	0.000	2.01	[1.533, 2.481]	0.000
Gender (DW)									
Male		Reference			Reference			Reference	
Female	3.99	[3.593, 4.384]	0.000	3.97	[3.570, 4.363]	0.000	3.45	[3.083, 3.811]	0.000
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	-0.54	[-1.050,- 0.032]	0.037	-0.51	[-1.018, 0.005]	0.052	-0.01	[-0.449, 0.432]	0.971
Hispanic	-0.21	[-0.931, 0.509]	0.565	-0.18	[-0.907, 0.539]	0.618	0.32	[-0.296, 0.934]	0.310
Other, non-Hispanic	-0.48	[-1.159, 0.201]	0.167	-0.48	[-1.159, 0.208]	0.172	-0.22	[-0.763, 0.316]	0.417
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	-0.03	[-0.491, 0.440]	0.914	-0.01	[-0.479, 0.452]	0.955	-0.03	[-0.458, 0.391]	0.878
100%+	0.05	[-0.409, 0.516]	0.819	0.04	[-0.420, 0.498]	0.867	0.12	[-0.291, 0.539]	0.558
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	0.17	[-0.254, 0.603]	0.425	0.13	[-0.292, 0.559]	0.537	0.08	[-0.297, 0.460]	0.673
Bachelor's/post graduate degree	0.61	[-0.022, 1.250]	0.058	0.59	[-0.043, 1.224]	0.068	0.71	[0.155, 1.269]	0.012
Some kinds of visits, tests, and medicines have no copays (2017)									
No/don't know					Reference				
Yes				0.42	[-0.028, 0.865]	0.066			
Any HRA completion with physician attestation (DW)									
No								Reference	
Yes							1.24	[0.875, 1.608]	0.000
Number of PCP visits (DW)							0.19	[0.156, 0.217]	0.000
Constant	3.49	[3.001, 3.981]	0.000	3.21	[2.632, 3.786]	0.000	2.10	[1.655, 2.555]	0.000
N	2,352			2,352			2,353		
F-value	73.595			74.611			110.034		
Model degrees of freedom	12.000			12.000			13.000		
Residual degrees of freedom	2,340.000			2,340.000			2,341.000		
F-value significance	0.000			0.000			0.000		

Notes: Multiple linear regression.

5.1.11 Predictors of number of preventive services (2), among respondents still enrolled

	Number of preventive services (DW)			Number of preventive services (DW)			Number of preventive services (DW)		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Discussed HRA with provider in the last year (2017)									
No/don't know		Reference							
Yes	0.84	[0.443, 1.232]	0.000						
Number of chronic conditions (DW)	0.72	[0.590, 0.857]	0.000	0.61	[0.484, 0.739]	0.000	0.76	[0.623, 0.888]	0.000
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	0.86	[0.351, 1.369]	0.001	0.80	[0.282, 1.317]	0.002	0.83	[0.324, 1.335]	0.001
51-64	1.70	[1.181, 2.216]	0.000	1.73	[1.212, 2.242]	0.000	1.71	[1.206, 2.214]	0.000
Gender (DW)									
Male		Reference			Reference			Reference	
Female	3.91	[3.517, 4.301]	0.000	3.75	[3.364, 4.145]	0.000	3.93	[3.541, 4.321]	0.000
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	-0.61	[-1.110,- 0.101]	0.019	-0.41	[-0.928, 0.099]	0.114	-0.48	[-0.974, 0.021]	0.060
Hispanic	-0.24	[-0.951, 0.478]	0.516	-0.19	[-0.896, 0.509]	0.589	-0.14	[-0.864, 0.583]	0.703
Other, non-Hispanic	-0.35	[-1.044, 0.349]	0.328	-0.29	[-0.932, 0.346]	0.369	-0.35	[-1.035, 0.328]	0.309
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	-0.05	[-0.510, 0.417]	0.844	-0.08	[-0.550, 0.390]	0.738	-0.03	[-0.482, 0.427]	0.905
100%+	0.06	[-0.404, 0.519]	0.806	0.13	[-0.327, 0.584]	0.579	0.08	[-0.375, 0.532]	0.734
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	0.18	[-0.250, 0.609]	0.412	0.15	[-0.268, 0.572]	0.478	0.12	[-0.306, 0.539]	0.588
Bachelor's/post graduate degree	0.59	[-0.035, 1.223]	0.064	0.51	[-0.151, 1.166]	0.131	0.42	[-0.206, 1.054]	0.187
PCP visit in past 12 months (2017)									
No/don't know					Reference				
Yes				2.75	[2.144, 3.358]	0.000			
Having health insurance is important to me (2017)							0.19	[0.107, 0.264]	0.000
Constant	3.28	[2.795, 3.774]	0.000	1.76	[1.088, 2.439]	0.000	3.18	[2.705, 3.658]	0.000
N	2,350			2,238			2,353		
F-value	73.512			74.940			76.358		
Model degrees of freedom	12.000			12.000			12.000		
Residual degrees of freedom	2,338.000			2,226.000			2,341.000		
F-value significance	0.000			0.000			0.000		

Notes: Multiple linear regression.

5.1.12 Predictors of number of preventive services (3), among respondents still enrolled

	Number of preventive services (DW)			Number of preventive services (DW)			Number of preventive services (DW)		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Any outpatient visit (DW)									
No		Reference							
Yes	4.92	[4.298, 5.535]	0.000						
Number of chronic conditions (DW)	0.67	[0.542, 0.789]	0.000	0.75	[0.616, 0.885]	0.000	0.74	[0.590, 0.896]	0.000
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	0.91	[0.438, 1.383]	0.000	0.88	[0.364, 1.392]	0.001	0.83	[0.248, 1.421]	0.005
51-64	1.68	[1.175, 2.180]	0.000	1.77	[1.247, 2.283]	0.000	1.63	[1.067, 2.199]	0.000
Gender (DW)									
Male		Reference			Reference			Reference	
Female	3.72	[3.341, 4.090]	0.000	3.90	[3.502, 4.290]	0.000	3.93	[3.502, 4.368]	0.000
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	-0.27	[-0.756, 0.207]	0.263	-0.42	[-0.937, 0.107]	0.119	-0.49	[-1.073, 0.087]	0.096
Hispanic	-0.09	[-0.800, 0.618]	0.801	-0.14	[-0.867, 0.588]	0.708	-0.44	[-1.271, 0.385]	0.294
Other, non-Hispanic	-0.12	[-0.711, 0.479]	0.702	-0.22	[-0.921, 0.478]	0.535	-0.77	[-1.623, 0.086]	0.078
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	-0.17	[-0.617, 0.277]	0.455	-0.04	[-0.500, 0.429]	0.881	-0.25	[-0.773, 0.274]	0.351
100%+	-0.02	[-0.458, 0.420]	0.932	0.04	[-0.418, 0.493]	0.871	-0.07	[-0.577, 0.432]	0.779
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	0.07	[-0.344, 0.474]	0.754	0.09	[-0.336, 0.510]	0.686	0.12	[-0.366, 0.599]	0.636
Bachelor's/post graduate degree	0.53	[-0.038, 1.104]	0.067	0.50	[-0.130, 1.130]	0.120	0.58	[-0.086, 1.246]	0.088
Knowledge of HMP covered benefits and costs (2017)				0.37	[0.201, 0.530]	0.000			
MIHA Statements led me to change health care decisions (2017)							-0.05	[-0.276, 0.172]	0.648
Constant	-0.82	[-1.500,- 0.140]	0.018	2.45	[1.751, 3.154]	0.000	4.12	[3.250, 4.983]	0.000
N	2,353			2,353			1,924		
F-value	108.933			74.451			55.034		
Model degrees of freedom	12.000			12.000			12.000		
Residual degrees of freedom	2,341.000			2,341.000			1,912.000		
F-value significance	0.000			0.000			0.000		

Notes: Multiple linear regression. Knowledge of HMP covered benefits and costs is defined as the count of correct answers to a series of questions about HMP, which were common to both the 2016 and 2017 surveys (Range 0-6). These questions include: I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK; I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK; Some kinds of visits, tests and medicines have no copays. Y/N/DK; Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, routine dental care, counseling for mental or emotional problems.

5.2 PCP visits and regular source of care

5.2.1 Any PCP visit by follow-up group, among all respondents

	Any PCP visit (DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	92.9	[91.1, 94.4]	7.1	[5.6, 8.9]	100.0
No longer enrolled (n=709)	89.9	[86.3, 92.6]	10.1	[7.4, 13.7]	100.0
Pearson: Uncorrected chi2(1) =	7.0036				
Design-based F(1.00, 3085.00) =	3.1993	Pr =	0.074		
Total (n=3,097)	92.2	[90.6, 93.5]	7.8	[6.5, 9.4]	100.0

Notes: χ^2 test of independence.

5.2.2 Number of PCP visits by regular source of care is ER or urgent care in last 12 months (2017), among respondents still enrolled

	Number of PCP visits (DW)			
	Mean	SE	95%CI	N
Regular source of care is ER or urgent care in last 12 months (2017)				
Yes	7.0	1.10	[4.9, 9.2]	103
No	10.8	0.24	[10.3, 11.3]	2,285

5.2.3 Number of PCP visits by tried to contact PCP before going to ER (2017), among respondents still enrolled

	Number of PCP visits (DW)			
	Mean	SE	95%CI	N
Tried to contact PCP before going to ER (2017)				
Yes	16.2	1.19	[13.9, 18.6]	158
No/don't know	12.6	0.52	[11.6, 13.6]	603

5.2.4 Predictors of number of PCP visits, among respondents still enrolled

	Number of PCP visits (DW)			Number of PCP visits (DW)		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Regular source of care is ER or urgent care in last 12 months (2017)						
No		Reference				
Yes	-0.30	[-0.565,- 0.040]	0.024			
Number of chronic conditions (DW)	0.20	[0.180, 0.225]	0.000	0.18	[0.138, 0.213]	0.000
Homeless in the last 12 months (2017)						
No		Reference			Reference	
Yes	0.07	[-0.085, 0.227]	0.371	0.04	[-0.167, 0.251]	0.695
Number of places lived in past 3 years (2017)						
One		Reference			Reference	
Two	-0.06	[-0.154, 0.032]	0.202	-0.03	[-0.171, 0.117]	0.715
Three	0.16	[-0.010, 0.321]	0.065	0.11	[-0.117, 0.342]	0.336
Four or more	-0.03	[-0.264, 0.199]	0.784	-0.01	[-0.320, 0.300]	0.950
Mental health condition and/or substance use disorder (DW)						
No		Reference			Reference	
Yes	0.47	[0.384, 0.549]	0.000	0.38	[0.235, 0.528]	0.000
Age (DW)						
19-34		Reference			Reference	
35-50	0.05	[-0.050, 0.153]	0.318	0.05	[-0.116, 0.208]	0.576
51-64	-0.08	[-0.190, 0.020]	0.113	-0.05	[-0.213, 0.118]	0.575
Gender (DW)						
Male		Reference			Reference	
Female	0.26	[0.178, 0.335]	0.000	0.32	[0.197, 0.449]	0.000
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-0.15	[-0.244,- 0.057]	0.002	-0.29	[-0.433,- 0.148]	0.000
Hispanic	-0.16	[-0.322, 0.000]	0.050	-0.32	[-0.606,- 0.032]	0.030
Other, non-Hispanic	0.05	[-0.093, 0.188]	0.509	0.06	[-0.166, 0.284]	0.607
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	0.05	[-0.034, 0.129]	0.251	0.05	[-0.087, 0.181]	0.494
100%+	-0.01	[-0.093, 0.073]	0.808	-0.01	[-0.139, 0.116]	0.860
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.02	[-0.059, 0.099]	0.613	0.03	[-0.098, 0.153]	0.671
Bachelor's/post graduate degree	-0.07	[-0.181, 0.032]	0.170	-0.03	[-0.215, 0.145]	0.705
Tried to contact PCP before going to ER (2017)						
No/don't know					Reference	
Yes				0.16	[0.028, 0.299]	0.018
Constant	1.51	[1.388, 1.639]	0.000	1.62	[1.396, 1.853]	0.000
N	2,346			750		
F-value						
Model degrees of freedom						
Residual degrees of freedom	2,334.000			738.000		
F-value significance	2,334.000			738.000		

Notes: Multiple Poisson regression. For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis. For tried to contact PCP before going to ER, respondents who answered "N/A" were excluded from the analysis.

5.2.5 Regular source of care is ER or urgent care in last 12 months (2017) by PCP visit in past 12 months (2017), among respondents still enrolled

PCP visit in past 12 months (2017)	Regular source of care is the ER or urgent care in last 12 months (2017)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=1,998)	2.4	[1.7, 3.5]	97.6	[96.5, 98.3]	100.0
No/don't know (n=274)	15.0	[10.1, 21.6]	85.0	[78.4, 89.9]	100.0
Total (n=2,272)	4.2	[3.2, 5.5]	95.8	[94.5, 96.8]	100.0
Pearson: Uncorrected chi2(1) =	143.0519				
Design-based F(1.00, 2969.00) =	56.2172	Pr =	0.000		

Notes: χ^2 test of independence. ϕ= 0.22.

5.2.6 Regular source of care is not the ER in last 12 months (2016, 2017, change 2016-2017), among respondents still enrolled, respondents still enrolled with a chronic condition, respondents still enrolled with a mental health condition and/or substance use disorder, respondents still enrolled with a mental health condition, and respondents still enrolled with a substance use disorder

	Regular source of care is not the ER in last 12 months						
	2016			2017			Delta
	Percent	95%CI	N	Percent	95%CI	N	Percent
Among respondents still enrolled							
Regular source of care is not the ER	98.7	[98.0, 99.1]	2,237	97.4	[96.1, 98.3]	2,222	-1.3
Regular source of care is the ER	1.3	[0.9, 2.0]	30	2.6	[1.7, 3.9]	34	
Among respondents still enrolled with a chronic condition (2016 or 2017 survey and/or DW)							
Regular source of care is not the ER	98.7	[97.9, 99.2]	1,835	97.4	[95.8, 98.4]	1,829	-1.3
Regular source of care is the ER	1.3	[0.8, 2.1]	25	2.6	[1.6, 4.2]	26	
Among respondents still enrolled with a mental health condition and/or substance use disorder (DW)							
Regular source of care is not the ER	98.4	[97.3, 99.1]	1,307	97.1	[95.0, 98.3]	1,292	-1.3
Regular source of care is the ER	1.6	[0.9, 2.7]	19	2.9	[1.7, 5.0]	22	
Among respondents still enrolled with a mental health condition (DW)							
Regular source of care is not the ER	98.3	[97.0, 99.0]	1,184	97.8	[96.2, 98.7]	1,169	-0.5
Regular source of care is the ER	1.7	[1.0 , 3.0]	18	2.2	[1.3, 3.8]	18	
Among respondents still enrolled with a substance use disorder (DW)							
Regular source of care is not the ER	98.7	[98.0, 99.1]	2,237	97.4	[96.1, 98.3]	2,222	-1.3
Regular source of care is the ER	1.3	[0.9, 2.0]	30	2.6	[1.7, 3.9]	34	

Notes: Regular source of care is not the ER in last 12 months was defined as respondents who reported that their regular source of care is a clinic, doctor's office, urgent care, walk-in clinic, other type of place, or don't know.

5.2.7 Regular source of care is not the ER (2017) by follow-up group, among chronic condition subgroups

	Regular source of care is not the ER				
	No		Yes		Total
	Row%	95%CI	Row%	95%CI	Row%
Among respondents with asthma (2016 or 2017 survey and/or DW)					
Still enrolled (n=597)	6.3	[3.6, 10.8]	93.7	[89.2, 96.4]	100.0
No longer enrolled (n=156)	2.3	[0.8, 6.3]	97.7	[93.7, 99.2]	100.0
Among respondents with arthritis (2016 or 2017 survey and/or DW)					
Still enrolled (n=1,057)	3.5	[2.3, 5.1]	96.5	[94.9, 97.7]	100.0
No longer enrolled (n=258)	3.4	[1.5, 7.1]	96.6	[92.9, 98.5]	100.0
Among respondents with cancer (2016 or 2017 survey and/or DW)					
Still enrolled (n=208)	1.4	[0.4, 5.0]	98.6	[95.0, 99.6]	100.0
No longer enrolled (n=59)	0.0		100.0		100.0
Among respondents with COPD (2016 or 2017 survey and/or DW)					
Still enrolled (n=652)	4.2	[2.3, 7.5]	95.8	[92.5, 97.7]	100.0
No longer enrolled (n=163)	4.3	[1.8, 9.5]	95.7	[90.5, 98.2]	100.0
Among respondents with diabetes (2016 or 2017 survey and/or DW)					
Still enrolled (n=549)	2.5	[1.3, 4.8]	97.5	[95.2, 98.7]	100.0
No longer enrolled (n=124)	5.8	[2.3, 13.8]	94.2	[86.2, 97.7]	100.0
Among respondents with hypertension (2016 or 2017 survey and/or DW)					
Still enrolled (n=1,171)	2.9	[1.9, 4.5]	97.1	[95.5, 98.1]	100.0
No longer enrolled (n=292)	4.8	[2.7, 8.6]	95.2	[91.4, 97.3]	100.0
Among respondents with heart disease (2016 or 2017 survey and/or DW)					
Still enrolled (n=444)	4.7	[2.6, 8.6]	95.3	[91.4, 97.4]	100.0
No longer enrolled (n=124)	4.6	[1.8, 11.1]	95.4	[88.9, 98.2]	100.0
Total (n=2,256)	4.0	[2.9, 5.4]	96.0	[94.6, 97.1]	100.0

5.3 Dental visit

5.3.1 Any dental visit by follow-up group, among all respondents

	Any dental visit (DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	67.4	[64.9, 69.8]	32.6	[30.2, 35.1]	100.0
No longer enrolled (n=709)	65.3	[60.8, 69.6]	34.7	[30.4, 39.2]	100.0
Pearson: Uncorrected chi2(1) =	1.0463				
Design-based F(1.00, 3085.00) =	0.6479	Pr =	0.421		
Total (n=3,097)	66.9	[64.7, 69.0]	33.1	[31.0, 35.3]	100.0

Notes: χ^2 test of independence.

5.3.2 Any dental visit by knowledge that dental care is covered (2017), among respondents still enrolled

	Any dental visit (DW)				
	Yes		No		Total
	Row%	95%CI	Row%	95%CI	Row%
Knowledge that dental care is covered (2017)					
Yes (n=1,957)	74.7	[72.0, 77.1]	25.3	[22.9, 28.0]	100.0
No/don't know (n=431)	35.1	[29.7, 41.0]	64.9	[59.0, 70.3]	100.0
Pearson: Uncorrected chi2(1) =	330.4573				
Design-based F(1.00, 3085.00) =	154.3633	Pr =	0.000		
Total (n=2,388)	67.4	[64.9, 69.8]	32.6	[30.2, 35.1]	100.0

Notes: χ^2 test of independence. $\phi = 0.33$

5.3.3 Predictors of any dental visit, among respondents still enrolled

	Any dental visit (DW)		
	aOR	95% CI	p-value
Knowledge that dental care is covered (2017)			
No/don't know		Reference	
Yes	5.46	[4.075, 7.312]	0.000
Age (DW)			
19-34		Reference	
35-50	1.22	[0.894, 1.664]	0.211
51-64	0.94	[0.700, 1.263]	0.681
Gender (DW)			
Male		Reference	
Female	1.41	[1.098, 1.801]	0.007
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.79	[0.582, 1.071]	0.128
Hispanic	0.99	[0.601, 1.635]	0.972
Other, non-Hispanic	1.19	[0.744, 1.896]	0.472
FPL category (DW)			
0-35%		Reference	
36-99%	0.89	[0.676, 1.174]	0.412
100%+	0.94	[0.701, 1.271]	0.701
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.29	[0.986, 1.676]	0.063
Bachelor's/post graduate degree	1.22	[0.816, 1.815]	0.336
Constant	0.42	[0.277, 0.649]	0.000
N	2,353		
F-value	12.785		
Model degrees of freedom	11.000		
Residual degrees of freedom	2,341.000		
F-value significance	0.000		

Notes: Multiple logistic regression.

5.4 Tried to contact PCP before going to ER (2017)

5.4.1 Tried to contact PCP before going to ER (2017) by PCP visit in past 12 months (2017), among respondents still enrolled

PCP visit in past 12 months (2017)	Tried to contact PCP before going to ER (2017)				
	Yes		**No/don't know**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Yes (n=674)	21.3	[17.8, 25.4]	78.7	[74.6, 82.2]	100.0
No/don't know (n=64)	8.4	[3.7, 18.1]	91.6	[81.9, 96.3]	100.0
Total (n=738)	20.1	[16.8, 23.9]	79.9	[76.1, 83.2]	100.0
Pearson: Uncorrected chi2(1) =	13.0652				
Design-based F(1.00, 1435.00) =	5.9645	Pr =	0.015		

Notes: χ^2 test of independence. For tried to contact PCP before going to ER, respondents who answered "N/A" were excluded from the analysis. ϕ= 0.10.

5.4.2 Predictors of tried to contact PCP before going to the ER (2017), among respondents still enrolled

	Tried to contact PCP before going to ER (2017)		
	aOR	95% CI	p-value
PCP visit in past 12 months (2017)			
No/don't know		Reference	
Yes	2.61	[0.977, 6.950]	0.056
Number of chronic conditions (DW)	1.10	[0.959, 1.259]	0.176
Homeless in the last 12 months (2017)			
Yes		Reference	
No	0.54	[0.252, 1.164]	0.116
Number of places lived in past 3 years (2017)			
One		Reference	
Two	0.96	[0.554, 1.661]	0.881
Three	0.37	[0.137, 1.010]	0.052
Four or more	0.83	[0.294, 2.359]	0.730
Mental health condition and/or substance use disorder (DW)			
No		Reference	
Yes	0.95	[0.568, 1.582]	0.837
Age (DW)			
19-34		Reference	
35-50	1.08	[0.597, 1.967]	0.790
51-64	1.14	[0.612, 2.135]	0.675
Gender (DW)			
Male		Reference	
Female	2.18	[1.317, 3.592]	0.002
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.85	[0.488, 1.474]	0.559
Hispanic	1.34	[0.504, 3.551]	0.559
Other, non-Hispanic	2.11	[1.008, 4.407]	0.048
FPL category (DW)			
0-35%		Reference	
36-99%	0.79	[0.475, 1.315]	0.364
100%+	1.13	[0.638, 1.994]	0.679
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.01	[0.616, 1.642]	0.983
Bachelor's/post graduate degree	2.80	[1.400, 5.582]	0.004
Constant	0.08	[0.025, 0.250]	0.000
N	727		
F-value	2.138		
Model degrees of freedom	17.000		
Residual degrees of freedom	715.000		
F-value significance	0.005		

Notes: Multiple logistic regression. For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

5.5 ER visit (2016 or 2017)

5.5.1 ER visit (2016 or 2017) by follow-up group, among all respondents

	ER visit (2016 or 2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=2,388)	50.2	[47.6, 52.8]	49.8	[47.2, 52.4]	100.0
No longer enrolled (n=709)	44.1	[39.6, 48.8]	55.9	[51.2, 60.4]	100.0
Pearson: Uncorrected chi2(1) =	8.1077				
Design-based F(1.00, 3085.00) =	4.9585	Pr =	0.026		
Total (n=3,097)	48.8	[46.5, 51.1]	51.2	[48.9, 53.5]	100.0

Notes: χ^2 test of independence. $\phi = 0.05$. ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

5.5.2 ER visit (2016 or 2017) by follow-up group, among respondents with a chronic condition

	ER visit (2016 or 2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=1,931)	54.8	[51.9, 57.7]	45.2	[42.3, 48.1]	100.0
No longer enrolled (n=538)	46.9	[41.7, 52.2]	53.1	[47.8, 58.3]	100.0
Pearson: Uncorrected chi2(1) =	13.1909				
Design-based F(1.00, 3085.00) =	6.6544	Pr =	0.010		
Total (n=2,469)	53.1	[50.5, 55.6]	46.9	[44.4, 49.5]	100.0

Notes: χ^2 test of independence. $\phi = 0.07$. ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

5.5.3 ER visit (2016 or 2017) by follow-up group, among respondents with a mental health condition and/or substance use disorder

	ER visit (2016 or 2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=1,365)	63.2	[59.9, 66.4]	36.8	[33.6, 40.1]	100.0
No longer enrolled (n=384)	52.8	[46.7, 58.9]	47.2	[41.1, 53.3]	100.0
Pearson: Uncorrected chi2(1) =	23.6196				
Design-based F(1.00, 3085.00) =	8.8276	Pr =	0.003		
Total (n=1,749)	60.9	[58.0, 63.8]	39.1	[36.2, 42.0]	100.0

Notes: χ^2 test of independence. $\phi = 0.09$. ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

5.5.4 ER visit (2016 or 2017) by follow-up group, among respondents with a chronic condition and a mental health condition and/or substance use disorder

	ER visit (2016 or 2017)				
	Yes		**No**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Follow-up group					
Still enrolled (n=1,187)	65.3	[61.7, 68.6]	34.7	[31.4, 38.3]	100.0
No longer enrolled (n=317)	55.1	[48.5, 61.4]	44.9	[38.6, 51.5]	100.0
Pearson: Uncorrected chi2(1) =	22.0883				
Design-based F(1.00, 3085.00) =	7.7388	Pr =	0.005		
Total (n=1,504)	63.2	[60.1, 66.2]	36.8	[33.8, 39.9]	100.0

Notes: χ^2 test of independence. $\phi = 0.08$. ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

5.5.5 Predictors of ER visit (2016 or 2017), among all respondents, respondents with a chronic condition, respondents with a mental health condition and/or substance use disorder, and respondents with a chronic condition and a mental health condition and/or substance use disorder

	ER visit (2016 or 2017)			ER visit (2016 or 2017)[a]			ER visit (2016 or 2017)[b]			ER visit (2016 or 2017)[c]		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Follow-up group												
Still enrolled		Reference			Reference			Reference			Reference	
No longer enrolled	0.81	[0.649, 1.019]	0.072	0.74	[0.573, 0.956]	0.021	0.64	[0.473, 0.858]	0.003	0.64	[0.465, 0.886]	0.007
Need help reading written materials (2016)												
Sometimes/often/always		Reference			Reference			Reference			Reference	
Never/rarely	0.71	[0.537, 0.933]	0.014	0.71	[0.525, 0.950]	0.021	0.97	[0.682, 1.367]	0.845	0.99	[0.689, 1.410]	0.938
Employed/self-employed (2017)												
No		Reference			Reference			Reference			Reference	
Yes	0.77	[0.623, 0.953]	0.016	0.75	[0.591, 0.940]	0.013	0.83	[0.626, 1.101]	0.196	0.81	[0.594, 1.091]	0.162
Fair/poor health (2017)												
No		Reference			Reference			Reference			Reference	
Yes	1.70	[1.363, 2.121]	0.000	1.56	[1.234, 1.976]	0.000	1.42	[1.065, 1.906]	0.017	1.43	[1.056, 1.942]	0.021
Discrimination due to English speaking ability (2016)												
No		Reference			Reference			Reference			Reference	
Yes	1.47	[0.653, 3.307]	0.353	1.44	[0.583, 3.533]	0.431	1.46	[0.479, 4.427]	0.508	2.36	[0.609, 9.117]	0.214
Discrimination due to race/ethnicity (2016)												
No		Reference			Reference			Reference			Reference	
Yes	1.69	[0.953, 3.007]	0.072	1.41	[0.760, 2.607]	0.277	1.72	[0.827, 3.594]	0.146	1.41	[0.652, 3.028]	0.385
Discrimination due to health insurance/ability to pay (2016)												
No		Reference			Reference			Reference			Reference	
Yes	1.44	[1.068, 1.949]	0.017	1.52	[1.097, 2.115]	0.012	1.55	[1.070, 2.246]	0.020	1.49	[0.995, 2.235]	0.053
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	0.73	[0.571, 0.932]	0.012	0.66	[0.490, 0.884]	0.005	0.70	[0.502, 0.965]	0.030	0.68	[0.472, 0.992]	0.045
51-64	0.53	[0.416, 0.668]	0.000	0.45	[0.337, 0.589]	0.000	0.50	[0.361, 0.701]	0.000	0.46	[0.321, 0.673]	0.000
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	1.47	[1.206, 1.787]	0.000	1.39	[1.110, 1.728]	0.004	1.46	[1.130, 1.889]	0.004	1.46	[1.105, 1.938]	0.008
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	1.28	[1.010, 1.622]	0.041	1.24	[0.958, 1.617]	0.102	1.55	[1.094, 2.187]	0.014	1.51	[1.055, 2.167]	0.024
Hispanic	1.04	[0.664, 1.630]	0.864	0.86	[0.501, 1.475]	0.583	1.02	[0.568, 1.843]	0.939	0.74	[0.379, 1.430]	0.366
Other, non-Hispanic	1.03	[0.724, 1.456]	0.881	1.12	[0.746, 1.696]	0.574	1.38	[0.844, 2.253]	0.200	1.98	[1.154, 3.407]	0.013
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	0.85	[0.680, 1.063]	0.155	0.93	[0.724, 1.193]	0.565	0.79	[0.587, 1.056]	0.110	0.82	[0.594, 1.127]	0.219
100%+	0.94	[0.740, 1.203]	0.639	1.09	[0.829, 1.438]	0.531	0.99	[0.716, 1.361]	0.937	1.10	[0.773, 1.570]	0.593
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	0.99	[0.800, 1.224]	0.924	0.93	[0.733, 1.175]	0.534	0.92	[0.695, 1.208]	0.535	0.88	[0.653, 1.184]	0.396
Bachelor's/post graduate degree	0.57	[0.421, 0.768]	0.000	0.64	[0.448, 0.912]	0.014	0.67	[0.437, 1.023]	0.064	0.73	[0.446, 1.182]	0.197
Constant	1.46	[1.016, 2.096]	0.041	2.00	[1.330, 2.995]	0.001	1.79	[1.115, 2.889]	0.016	1.98	[1.185, 3.293]	0.009
N	3,035			2,423			1,716			1,475		
F-value	7.165			5.821			3.644			3.612		
Model degrees of freedom	17.000			17.000			17.000			17.000		
Residual degrees of freedom	3,023.000			2,411.000			1,704.000			1,463.000		
F-value significance	0.000			0.000			0.000			0.000		

Notes: Multiple logistic regression. ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

[a] Analysis restricted to those with a chronic condition

[b] Analysis restricted to those with a mental health condition and/or substance use disorder

[c] Analysis restricted to those with a chronic condition and a mental health condition and/or substance use disorder

5.6 ER visits

5.6.1 All ER visits (Period 3) by demographics, employment (2017), fair/poor health (2017), and health literacy (2016), among respondents still enrolled

	All ER visits (DW, Period 3)						
	No ER visits		1-4 ER visits		5+ ER visits		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
FPL category (DW)							
0-35% (n=1,001)	61.2	[57.3, 64.9]	33.3	[29.8, 37.1]	5.5	[3.8, 7.8]	100.0
36-99% (n=824)	67.0	[62.9, 70.8]	31.2	[27.4, 35.2]	1.8	[1.0, 3.5]	100.0
100%+ (n=563)	64.3	[59.5, 68.8]	33.9	[29.4, 38.6]	1.8	[0.9, 3.6]	100.0
Pearson: Uncorrected chi2(4) =	30.2227						
Design-based F(3.89, 11988.44) =	4.5286	Pr =	0.001				
Region (DW)							
UP/NW/NE (n=450)	66.0	[60.8, 70.9]	31.3	[26.5, 36.5]	2.7	[1.5, 4.8]	100.0
W/E Central/E (n=777)	63.4	[59.4, 67.3]	33.2	[29.4, 37.2]	3.4	[2.1, 5.4]	100.0
S Central/SW/SE (n=464)	60.8	[55.6, 65.8]	34.3	[29.5, 39.5]	4.8	[2.8, 8.2]	100.0
Detroit Metro (n=697)	63.5	[58.9, 67.9]	32.4	[28.3, 36.9]	4.1	[2.4, 6.9]	100.0
Pearson: Uncorrected chi2(6) =	4.5217						
Design-based F(4.97, 15332.89) =	0.4220	Pr =	0.833				
Age (DW)							
19-34 (n=664)	61.3	[56.5, 65.8]	32.6	[28.4, 37.2]	6.1	[4.1, 9.2]	100.0
35-50 (n=760)	60.0	[55.5, 64.3]	36.3	[32.1, 40.7]	3.8	[2.2, 6.3]	100.0
51-64 (n=964)	69.7	[66.0, 73.2]	29.1	[25.7, 32.8]	1.1	[0.6, 2.2]	100.0
Pearson: Uncorrected chi2(4) =	48.2802						
Design-based F(3.63, 11206.88) =	5.6809	Pr =	0.000				
Gender (DW)							
Male (n=933)	68.2	[64.3, 71.8]	29.3	[25.8, 33.1]	2.5	[1.6, 3.8]	100.0
Female (n=1,455)	59.0	[55.7, 62.3]	35.9	[32.8, 39.2]	5.0	[3.4, 7.4]	100.0
Pearson: Uncorrected chi2(2) =	33.4034						
Design-based F(2.00, 6165.72) =	7.4868	Pr =	0.001				
Race/ethnicity (2016)							
White, non-Hispanic (n=1,603)	65.8	[62.7, 68.8]	30.1	[27.3, 33.0]	4.1	[2.7, 6.2]	100.0
Black, non-Hispanic (n=479)	55.3	[49.7, 60.8]	40.9	[35.5, 46.6]	3.7	[2.2, 6.2]	100.0
Hispanic (n=100)	62.2	[50.6, 72.7]	34.7	[24.7, 46.4]	3.0	[1.1, 8.1]	100.0
Other, non-Hispanic (n=176)	71.2	[62.8, 78.4]	25.8	[19.0, 33.9]	3.0	[1.0, 8.5]	100.0
Pearson: Uncorrected chi2(6) =	38.7091						
Design-based F(5.75, 17566.18) =	3.0269	Pr =	0.007				
Highest level of education (2017)							
High school or less (n=1,268)	60.2	[56.7, 63.6]	35.4	[32.2, 38.9]	4.4	[3.0, 6.4]	100.0
Associate's degree/some college (n=836)	63.8	[59.4, 68.0]	32.8	[28.8, 37.1]	3.4	[1.9, 6.0]	100.0
Bachelor's/post graduate degree (n=279)	74.7	[68.0, 80.4]	22.1	[16.8, 28.4]	3.2	[1.4, 7.4]	100.0
Pearson: Uncorrected chi2(4) =	27.6090						
Design-based F(3.82, 11766.47) =	2.9142	Pr =	0.022				
Employed/self-employed (2017)							
Yes (n=1,319)	66.4	[63.0, 69.7]	30.5	[27.3, 33.8]	3.1	[1.9, 5.2]	100.0
No (n=1,066)	59.2	[55.4, 62.9]	36.0	[32.4, 39.7]	4.8	[3.4, 6.8]	100.0
Pearson: Uncorrected chi2(2) =	19.1647						
Design-based F(1.93, 5954.49) =	3.6622	Pr =	0.027				
Fair/poor health (2017)							
Yes (n=670)	51.8	[47.1, 56.5]	42.5	[37.9, 47.2]	5.7	[3.8, 8.5]	100.0
No (n=1,718)	67.5	[64.5, 70.4]	29.3	[26.6, 32.2]	3.2	[2.1, 4.9]	100.0
Pearson: Uncorrected chi2(2) =	66.5091						
Design-based F(1.96, 6051.13) =	14.2970	Pr =	0.000				
Need help reading written materials (2016)							
Never/rarely (n=2,041)	65.0	[62.3, 67.7]	31.1	[28.6, 33.8]	3.8	[2.7, 5.3]	100.0
Sometimes/often/always (n=344)	53.8	[47.2, 60.3]	42.1	[35.8, 48.7]	4.1	[2.0, 8.0]	100.0
Pearson: Uncorrected chi2(2) =	23.1005						
Design-based F(1.98, 6111.29) =	4.8895	Pr =	0.008				
Total (n=2,388)	63.3	[60.7, 65.7]	32.9	[30.5, 35.3]	3.9	[2.9, 5.2]	100.0

Notes: χ^2 test of independence.

5.6.2 All ER visits (Period 3) by change in mental health status (2017), PCP appointment ease (2017), and forgone health care in last 12 months (2017), among respondents still enrolled

	All ER visits (DW, Period 3)						
	No ER visits		**1-4 ER visits**		**5+ ER visits**		**Total**
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Change in mental health (2017)							
Gotten better (n=637)	62.2	[57.1, 67.0]	33.6	[29.0, 38.5]	4.3	[2.3, 7.7]	100.0
Stayed the same/don't know (n=1,450)	65.6	[62.3, 68.7]	31.2	[28.2, 34.3]	3.3	[2.1, 5.0]	100.0
Gotten worse (n=299)	54.7	[47.5, 61.7]	39.4	[32.7, 46.5]	5.9	[3.5, 9.8]	100.0
Pearson: Uncorrected chi2(4) =	19.1497						
Design-based F(3.79, 11675.99) =	1.9720	Pr =	0.100				
PCP appointment ease (2017)							
Very easy/easy/neutral/don't know (n=2,033)	62.8	[60.0, 65.5]	33.0	[30.4, 35.7]	4.2	[3.0, 5.8]	100.0
Difficult/very difficult (n=197)	50.6	[42.1, 59.1]	45.5	[37.2, 54.1]	3.9	[1.8, 7.9]	100.0
Pearson: Uncorrected chi2(2) =	16.4705						
Design-based F(1.97, 5771.80) =	4.5733	Pr =	0.011				
Forgone health care in last 12 months (2017)							
Yes (n=183)	45.5	[36.8, 54.5]	45.1	[36.3, 54.1]	9.4	[4.8, 17.5]	100.0
No/don't know (n=2,204)	64.7	[62.1, 67.3]	31.9	[29.4, 34.4]	3.4	[2.4, 4.8]	100.0
Pearson: Uncorrected chi2(2) =	45.3454						
Design-based F(1.95, 6002.68) =	9.5854	Pr =	0.000				
Total (n=2,388)	63.3	[60.7, 65.7]	32.9	[30.5, 35.3]	3.9	[2.9, 5.2]	100.0

Notes: χ^2 test of independence. For PCP appointment ease, respondents who answered "N/A" were excluded from the analysis.

5.6.3 Number of ER visits by period, among respondents still enrolled

	Number of ER visits (DW)			
	Mean	SE	95%CI	N
Period of enrollment (DW)				
Period 1	0.8	0.07	[0.7, 0.9]	2,388
Period 2	1.0	0.06	[0.9, 1.1]	2,388
Period 3	0.8	0.06	[0.7, 1.0]	2,388

Notes: Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.4 Number of ER visits by period, among respondents no longer enrolled

	Number of ER visits (DW)			
	Mean	SE	95%CI	N
Period of enrollment (DW)				
Period 1	0.7	0.06	[0.6, 0.9]	709
Period 2	1.0	0.08	[0.8, 1.1]	709
Period 3	0.6	0.07	[0.5, 0.8]	709

Notes: Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.5 Predictors of the number of ER visits , among respondents still enrolled

	Number of ER visits			Number of ER visits			Number of ER visits		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Period of enrollment									
Period 1		Reference			Reference			Reference	
Period 2	0.22	[0.086, 0.363]	0.001	0.22	[0.086, 0.363]	0.001	0.22	[0.086, 0.363]	0.001
Period 3	0.07	[-0.085, 0.222]	0.382	0.07	[-0.085, 0.222]	0.382	0.07	[-0.085, 0.222]	0.382
Need help reading written materials (2016)									
Sometimes/often/always		Reference			Reference			Reference	
Never/rarely	-0.20	[-0.407, 0.008]	0.059	-0.18	[-0.389, 0.022]	0.081	-0.20	[-0.408, 0.012]	0.065
Fair/poor health (2017)									
No		Reference			Reference			Reference	
Yes	0.58	[0.407, 0.756]	0.000	0.53	[0.357, 0.703]	0.000	0.55	[0.378, 0.732]	0.000
Employed/self-employed (2017)									
No		Reference			Reference			Reference	
Yes	-0.25	[-0.436,- 0.057]	0.011	-0.22	[-0.413,- 0.032]	0.022	-0.23	[-0.418,- 0.038]	0.019
Age (DW)									
19-34		Reference			Reference			Reference	
35-50	-0.25	[-0.469,- 0.025]	0.029	-0.24	[-0.462,- 0.022]	0.031	-0.27	[-0.490,- 0.044]	0.019
51-64	-0.83	[-1.047,- 0.623]	0.000	-0.83	[-1.037,- 0.620]	0.000	-0.86	[-1.077,- 0.652]	0.000
Gender (DW)									
Male		Reference			Reference			Reference	
Female	0.42	[0.240, 0.607]	0.000	0.42	[0.237, 0.601]	0.000	0.36	[0.177, 0.543]	0.000
Race/ethnicity (2016)									
White, non-Hispanic		Reference			Reference			Reference	
Black, non-Hispanic	0.36	[0.166, 0.555]	0.000	0.36	[0.170, 0.560]	0.000	0.39	[0.193, 0.581]	0.000
Hispanic	0.04	[-0.423, 0.510]	0.854	0.04	[-0.420, 0.498]	0.868	0.05	[-0.412, 0.520]	0.820
Other, non-Hispanic	-0.03	[-0.362, 0.302]	0.858	-0.03	[-0.363, 0.296]	0.841	-0.01	[-0.339, 0.310]	0.929
FPL category (DW)									
0-35%		Reference			Reference			Reference	
36-99%	-0.29	[-0.499,- 0.078]	0.007	-0.27	[-0.475,- 0.055]	0.013	-0.31	[-0.519,- 0.101]	0.004
100%+	-0.19	[-0.411, 0.038]	0.103	-0.18	[-0.407, 0.040]	0.108	-0.22	[-0.438, 0.007]	0.058
Highest level of education (2017)									
High school or less		Reference			Reference			Reference	
Associate's degree/some college	-0.13	[-0.324, 0.064]	0.188	-0.14	[-0.337, 0.052]	0.150	-0.16	[-0.352, 0.033]	0.104
Bachelor's/post graduate degree	-0.61	[-0.914,- 0.305]	0.000	-0.65	[-0.950,- 0.345]	0.000	-0.64	[-0.939,- 0.338]	0.000
Forgone health care in last 12 months (2017)									
No/don't know					Reference				
Yes				0.55	[0.291, 0.810]	0.000			
Any PCP visit (DW)									
No								Reference	
Yes							0.77	[0.361, 1.177]	0.000
Constant	-0.74	[-1.033,- 0.455]	0.000	-0.80	[-1.082,- 0.512]	0.000	-1.40	[-1.857,- 0.941]	0.000
Respondent	1.53	[1.305, 1.763]	0.000	1.51	[1.280, 1.739]	0.000	1.50	[1.279, 1.726]	0.000
N	7,041			7,038			7,041		
F-value	16.180			16.821			16.206		
Model degrees of freedom	15.000			16.000			16.000		
Residual degrees of freedom	2,335.000			2,334.000			2,335.000		
F-value significance	0.000			0.000			0.000		

Notes: Mixed effects Poisson model. Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.6 Predictors of the number of ER visits, among respondents no longer enrolled

	Number of ER visits			Number of ER visits			Number of ER visits			Number of ER visits		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value	Coef.	95% CI	p-value
Period of enrollment (DW)												
Period 1		Reference			Reference			Reference			Reference	
Period 2	0.31	[0.150, 0.465]	0.000	0.31	[0.150, 0.465]	0.000	0.31	[0.150, 0.465]	0.000	0.31	[0.150, 0.465]	0.000
Period 3	-0.16	[-0.395, 0.084]	0.203	-0.16	[-0.395, 0.084]	0.203	-0.16	[-0.395, 0.084]	0.203	-0.16	[-0.395, 0.084]	0.203
Need help reading written materials (2016)												
Sometimes/often/always		Reference			Reference			Reference			Reference	
Never/rarely	-0.26	[-0.656, 0.130]	0.189	-0.20	[-0.587, 0.192]	0.320	-0.18	[-0.564, 0.203]	0.355	-0.27	[-0.662, 0.124]	0.180
Fair/poor health (2017)												
No		Reference			Reference			Reference			Reference	
Yes	0.46	[0.145, 0.777]	0.004	0.47	[0.155, 0.779]	0.003	0.39	[0.080, 0.702]	0.014	0.45	[0.129, 0.761]	0.006
Employed/self-employed (2017)												
No		Reference			Reference			Reference			Reference	
Yes	-0.21	[-0.517, 0.092]	0.171	-0.21	[-0.508, 0.087]	0.166	-0.22	[-0.517, 0.083]	0.156	-0.22	[-0.522, 0.088]	0.163
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	-0.20	[-0.533, 0.127]	0.227	-0.21	[-0.532, 0.120]	0.216	-0.21	[-0.528, 0.113]	0.204	-0.20	[-0.533, 0.129]	0.231
51-64	-0.64	[-0.979,- 0.311]	0.000	-0.65	[-0.982,- 0.322]	0.000	-0.56	[-0.906,- 0.223]	0.001	-0.64	[-0.973,- 0.303]	0.000
Gender (DW)												
Male		Reference			Reference			Reference			Reference	
Female	0.58	[0.284, 0.868]	0.000	0.61	[0.317, 0.893]	0.000	0.65	[0.360, 0.936]	0.000	0.58	[0.286, 0.870]	0.000
Race/ethnicity (2016)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	0.04	[-0.282, 0.369]	0.792	-0.02	[-0.347, 0.309]	0.909	0.03	[-0.300, 0.365]	0.849	0.07	[-0.258, 0.395]	0.681
Hispanic	-0.10	[-0.633, 0.427]	0.702	-0.14	[-0.673, 0.402]	0.621	-0.14	[-0.675, 0.385]	0.592	-0.09	[-0.625, 0.436]	0.727
Other, non-Hispanic	-0.14	[-0.700, 0.428]	0.636	-0.24	[-0.793, 0.307]	0.385	-0.23	[-0.761, 0.308]	0.405	-0.12	[-0.682, 0.445]	0.680
FPL category (DW)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	-0.11	[-0.438, 0.226]	0.531	-0.15	[-0.475, 0.181]	0.378	-0.17	[-0.505, 0.157]	0.303	-0.09	[-0.427, 0.241]	0.585
100%+	-0.29	[-0.640, 0.069]	0.114	-0.32	[-0.671, 0.029]	0.072	-0.34	[-0.692, 0.018]	0.063	-0.29	[-0.641, 0.063]	0.107
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	-0.22	[-0.522, 0.089]	0.165	-0.15	[-0.455, 0.160]	0.345	-0.16	[-0.462, 0.141]	0.296	-0.23	[-0.536, 0.075]	0.140
Bachelor's/post graduate degree	-1.05	[-1.547,- 0.548]	0.000	-0.96	[-1.462,- 0.453]	0.000	-0.87	[-1.376,- 0.371]	0.001	-1.05	[-1.551,- 0.552]	0.000
Go to ER because they can't deny care (2017)				0.21	[0.087, 0.329]	0.001						
Go to ER because it's the only place to get care (2017)							0.24	[0.129, 0.350]	0.000			
Forgone health care since HMP coverage ended (2017)												
No/don't know											Reference	
Yes										0.19	[-0.155, 0.525]	0.285
Constant	-0.62	[-1.138,- 0.101]	0.019	-1.18	[-1.808,- 0.543]	0.000	-1.36	[-2.007,- 0.721]	0.000	-0.65	[-1.174,- 0.128]	0.015
Respondent	1.40	[1.095, 1.700]	0.000	1.34	[1.049, 1.633]	0.000	1.32	[1.043, 1.606]	0.000	1.40	[1.093, 1.699]	0.000
N	2,091			2,088			2,088			2,091		
F-value	6.746			7.538			8.034			6.317		
Model degrees of freedom	15.000			16.000			16.000			16.000		
Residual degrees of freedom	685.000			684.000			684.000			685.000		
F-value significance	0.000			0.000			0.000			0.000		

Notes: Mixed effects Poisson model. Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.7 Number of ER visits by period, among respondents with a chronic condition

	Number of ER visits (DW)			
	Mean	SE	95%CI	N
Period of enrollment (DW)				
Period 1	0.9	0.07	[0.7, 1.0]	2,469
Period 2	1.1	0.07	[1.0, 1.3]	2,469
Period 3	0.9	0.06	[0.8, 1.0]	2,469

Notes: Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.8 Number of ER visits by period, among respondents with a mental health condition and/or substance use disorder

	Number of ER visits (DW)			
	Mean	SE	95%CI	N
Period of enrollment (DW)				
Period 1	1.1	0.09	[0.9, 1.3]	1,749
Period 2	1.4	0.09	[1.2, 1.6]	1,749
Period 3	1.1	0.08	[1.0, 1.3]	1,749

Notes: Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.9 Number of ER visits by period, among respondents with a chronic condition and a mental health condition and/or substance use disorder

	Number of ER visits (DW)			
	Mean	SE	95%CI	N
Period of enrollment (DW)				
Period 1	1.2	0.11	[1.0, 1.4]	1,504
Period 2	1.5	0.10	[1.3, 1.7]	1,504
Period 3	1.2	0.09	[1.0, 1.4]	1,504

Notes: Periods refer to 12 month windows during the time enrolled in HMP. Please refer to Appendix C for full definition.

5.6.10 Low complexity ER visits (Period 3) by demographics, employment (2017), fair/poor health (2017), and health literacy (2016), among respondents still enrolled

	Low complexity ER visits (DW, Period 3)				
	No ER visits		1-4 ER visits		Total
	Row%	95%CI	Row%	95%CI	Row%
FPL category (DW)					
0-35% (n=1,001)	97.0	[95.2, 98.2]	3.0	[1.8, 4.8]	100.0
36-99% (n=824)	98.1	[96.6, 98.9]	1.9	[1.1, 3.4]	100.0
100%+ (n=563)	98.1	[96.5, 99.0]	1.9	[1.0, 3.5]	100.0
Pearson: Uncorrected chi2(2) =	3.7402				
Design-based F(1.88, 5809.39) =	1.1808	Pr =	0.305		
Region (DW)					
UP/NW/NE (n=450)	97.5	[95.5, 98.6]	2.5	[1.4, 4.5]	100.0
W/E Central/E (n=777)	97.6	[95.6, 98.7]	2.4	[1.3, 4.4]	100.0
S Central/SW/SE (n=464)	98.1	[96.1, 99.0]	1.9	[1.0, 3.9]	100.0
Detroit Metro (n=697)	97.2	[95.0, 98.5]	2.8	[1.5, 5.0]	100.0
Pearson: Uncorrected chi2(3) =	1.1267				
Design-based F(2.44, 7525.47) =	0.2150	Pr =	0.848		
Age (DW)					
19-34 (n=664)	96.9	[94.8, 98.2]	3.1	[1.8, 5.2]	100.0
35-50 (n=760)	97.1	[94.7, 98.4]	2.9	[1.6, 5.3]	100.0
51-64 (n=964)	98.8	[97.8, 99.3]	1.2	[0.7, 2.2]	100.0
Pearson: Uncorrected chi2(2) =	8.1756				
Design-based F(1.74, 5365.31) =	1.9432	Pr =	0.149		
Gender (DW)					
Male (n=933)	98.1	[96.9, 98.8]	1.9	[1.2, 3.1]	100.0
Female (n=1,455)	97.0	[95.2, 98.1]	3.0	[1.9, 4.8]	100.0
Pearson: Uncorrected chi2(1) =	3.9901				
Design-based F(1.00, 3085.00) =	1.8060	Pr =	0.179		
Race/ethnicity (2016)					
White, non-Hispanic (n=1,603)	97.4	[95.8, 98.4]	2.6	[1.6, 4.2]	100.0
Black, non-Hispanic (n=479)	97.6	[95.4, 98.8]	2.4	[1.2, 4.6]	100.0
Hispanic (n=100)	99.0	[93.0, 99.9]	1.0	[0.1, 7.0]	100.0
Other, non-Hispanic (n=176)	97.5	[92.3, 99.2]	2.5	[0.8, 7.7]	100.0
Pearson: Uncorrected chi2(3) =	1.4137				
Design-based F(2.89, 8823.67) =	0.2203	Pr =	0.876		
Highest level of education (2017)					
High school or less (n=1,268)	97.7	[96.4, 98.5]	2.3	[1.5, 3.6]	100.0
Associate's degree/some college (n=836)	97.0	[94.3, 98.4]	3.0	[1.6, 5.7]	100.0
Bachelor's/post graduate degree (n=279)	98.5	[96.6, 99.3]	1.5	[0.7, 3.4]	100.0
Pearson: Uncorrected chi2(2) =	2.7946				
Design-based F(1.63, 5013.90) =	0.7194	Pr =	0.460		
Employed/self-employed (2017)					
Yes (n=1,319)	97.6	[96.0, 98.6]	2.4	[1.4, 4.0]	100.0
No (n=1,066)	97.4	[95.8, 98.4]	2.6	[1.6, 4.2]	100.0
Pearson: Uncorrected chi2(1) =	0.1968				
Design-based F(1.00, 3082.00) =	0.0759	Pr =	0.783		
Fair/poor health (2017)					
Yes (n=670)	97.1	[94.6, 98.4]	2.9	[1.6, 5.4]	100.0
No (n=1,718)	97.7	[96.4, 98.5]	2.3	[1.5, 3.6]	100.0
Pearson: Uncorrected chi2(1) =	0.7887				
Design-based F(1.00, 3085.00) =	0.3068	Pr =	0.580		
Need help reading written materials (2016)					
Never/rarely (n=2,041)	97.6	[96.5, 98.4]	2.4	[1.6, 3.5]	100.0
Sometimes/often/always (n=344)	96.8	[93.2, 98.5]	3.2	[1.5, 6.8]	100.0
Pearson: Uncorrected chi2(1) =	1.1738				
Design-based F(1.00, 3082.00) =	0.4697	Pr =	0.493		
Total (n=2,388)	97.5	[96.4, 98.3]	2.5	[1.7, 3.6]	100.0

Notes: χ^2 test of independence.

5.6.11 Low complexity ER visits (Period 3) by change in mental health status (2017), PCP appointment ease (2017), and forgone health care in last 12 months (2017), among respondents still enrolled

	Low complexity ER visits (DW, Period 3)				
	No ER visits		1-4 ER visits		Total
	Row%	95%CI	Row%	95%CI	Row%
Change in mental health (2017)					
Gotten better (n=637)	97.0	[94.9, 98.2]	3.0	[1.8, 5.1]	100.0
Stayed the same/don't know (n=1,450)	97.7	[96.1, 98.7]	2.3	[1.3, 3.9]	100.0
Gotten worse (n=299)	97.7	[94.7, 99.0]	2.3	[1.0, 5.3]	100.0
Pearson: Uncorrected chi2(2) =	1.3879				
Design-based F(1.94, 5971.50) =	0.3244	Pr =	0.716		
PCP appointment ease (2017)					
Very easy/easy/neutral/don't know (n=2,033)	97.4	[96.1, 98.2]	2.6	[1.8, 3.9]	100.0
Difficult/very difficult (n=197)	97.7	[94.9, 99.0]	2.3	[1.0, 5.1]	100.0
Pearson: Uncorrected chi2(1) =	0.1102				
Design-based F(1.00, 2927.00) =	0.0944	Pr =	0.759		
Forgone health care in last 12 months (2017)					
Yes (n=183)	95.3	[88.3, 98.2]	4.7	[1.8, 11.7]	100.0
No/don't know (n=2,204)	97.7	[96.6, 98.4]	2.3	[1.6, 3.4]	100.0
Pearson: Uncorrected chi2(1) =	5.2130				
Design-based F(1.00, 3084.00) =	1.9124	Pr =	0.167		
Total (n=2,388)	97.5	[96.4, 98.3]	2.5	[1.7, 3.6]	100.0

Notes: χ^2 test of independence. For PCP appointment ease, respondents who answered "N/A" were excluded from the analysis.

5.6.12 Predictors of the number of low complexity ER visits, among respondents still enrolled

	Number of low complexity ER visits (DW)			Number of low complexity ER visits (DW)		
	Coef.	95% CI	p-value	Coef.	95% CI	p-value
PCP visit in past 12 months (2017)						
No/don't know		Reference				
Yes	0.59	[-0.188, 1.363]	0.137			
Number of chronic conditions (DW)	-0.00	[-0.217, 0.208]	0.969	0.00	[-0.240, 0.250]	0.968
Homeless in the last 12 months (2017)						
Yes		Reference			Reference	
No	-1.42	[-2.428,- 0.414]	0.006	-1.24	[-2.254,- 0.222]	0.017
Number of places lived in past 3 years (2017)						
One		Reference			Reference	
Two	0.85	[0.332, 1.368]	0.001	0.82	[0.280, 1.361]	0.003
Three	0.77	[-0.006, 1.536]	0.052	0.71	[-0.052, 1.475]	0.068
Four or more	0.06	[-0.908, 1.021]	0.908	0.22	[-0.677, 1.110]	0.635
Mental health condition and/or substance use disorder (DW)						
No		Reference			Reference	
Yes	0.60	[0.118, 1.090]	0.015	0.77	[0.260, 1.273]	0.003
Age (DW)						
19-34		Reference			Reference	
35-50	0.18	[-0.551, 0.916]	0.625	0.23	[-0.508, 0.968]	0.541
51-64	-0.83	[-1.468,- 0.190]	0.011	-0.71	[-1.336,- 0.075]	0.028
Gender (DW)						
Male		Reference			Reference	
Female	0.55	[0.030, 1.067]	0.038	0.49	[0.000, 0.985]	0.050
Race/ethnicity (2016)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	-0.13	[-0.750, 0.492]	0.685	-0.03	[-0.605, 0.547]	0.922
Hispanic	-0.35	[-1.452, 0.752]	0.533	-0.45	[-1.597, 0.691]	0.438
Other, non-Hispanic	0.30	[-0.518, 1.113]	0.475	0.22	[-0.593, 1.025]	0.601
FPL category (DW)						
0-35%		Reference			Reference	
36-99%	-0.42	[-0.936, 0.103]	0.116	-0.41	[-0.918, 0.098]	0.114
100%+	-0.04	[-0.565, 0.483]	0.878	-0.09	[-0.619, 0.431]	0.726
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.06	[-0.440, 0.560]	0.815	0.07	[-0.469, 0.609]	0.798
Bachelor's/post graduate degree	0.02	[-0.588, 0.622]	0.956	-0.00	[-0.594, 0.593]	0.998
Number of PCP visits (DW)				0.00	[-0.023, 0.029]	0.821
Constant	-2.47	[-3.448,- 1.486]	0.000	-2.26	[-3.126,- 1.386]	0.000
N	2,235			2,349		
F-value						
Model degrees of freedom						
Residual degrees of freedom	2,223.000			2,337.000		
F-value significance	2,223.000			2,337.000		

Notes: Multiple Poisson regression. For homeless in the last 12 months, and number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6 Aim 6: To understand why respondents lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

6.1 Follow-up group (2017)

6.1.1 Follow-up group by health literacy (2016), experience of homelessness (2017), and change in employment (from 2016-2017), among all respondents

	Follow-up group				
	Still enrolled		No longer enrolled		Total
	Row%	95%CI	Row%	95%CI	Row%
Need help reading written materials (2016)					
Never/rarely (n=2,641)	76.8	[74.7, 78.8]	23.2	[21.2, 25.3]	100.0
Sometimes/often/always (n=453)	76.8	[71.6, 81.4]	23.2	[18.6, 28.4]	100.0
Pearson: Uncorrected chi2(1) =	0.0014				
Design-based F(1.00, 3082.00) =	0.0008	Pr =	0.977		
Homeless in the last 12 months (2017)					
Yes (n=195)	74.0	[65.5, 81.0]	26.0	[19.0, 34.5]	100.0
No (n=2,898)	77.1	[75.1, 78.9]	22.9	[21.1, 24.9]	100.0
Pearson: Uncorrected chi2(1) =	1.1571				
Design-based F(1.00, 3081.00) =	0.5915	Pr =	0.442		
Change in employment (from 2016-2017)					
No employment gain (n=2,716)	77.3	[75.2, 79.2]	22.7	[20.8, 24.8]	100.0
Employment gain (n=381)	74.1	[67.8, 79.4]	25.9	[20.6, 32.2]	100.0
Pearson: Uncorrected chi2(1) =	2.2849				
Design-based F(1.00, 3085.00) =	1.1298	Pr =	0.288		

Notes: χ^2 test of independence. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. For homeless in the last 12 months, respondents who answered "Don't know" were excluded from the analysis.

6.1.2 Follow-up group by housing insecurity (2017), among all respondents

	Follow-up group				
Number of places lived in past 3 years (2017)	Still enrolled		No longer enrolled		Total
	Row%	95%CI	Row%	95%CI	Row%
One (n=2,175)	79.9	[77.8, 81.9]	20.1	[18.1, 22.2]	100.0
Two (n=611)	72.5	[67.8, 76.8]	27.5	[23.2, 32.2]	100.0
Three (n=186)	67.7	[58.4, 75.7]	32.3	[24.3, 41.6]	100.0
Four or more (n=120)	64.1	[52.4, 74.3]	35.9	[25.7, 47.6]	100.0
Pearson: Uncorrected chi2(3) =	42.1519				
Design-based F(2.97, 9142.61) =	7.4443	Pr =	0.000		

Notes: χ^2 test of independence. For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis. Cramer's V= 0.12.

6.1.3 Follow-up group by having health insurance is important to me (2016), amount I pay for HMP is affordable (2016), and amount I have to pay for HMP seems fair (2016), among all respondents

	Mean	SE	95%CI	N
Having health insurance is important to me (2016)				
Still enrolled	4.4	0.02	[4.4, 4.5]	2,384
No longer enrolled	4.4	0.03	[4.3, 4.5]	708
Amount I pay for HMP is affordable (2016)				
Still enrolled	4.1	0.02	[4.1, 4.2]	2,385
No longer enrolled	4.1	0.04	[4.0, 4.2]	707
Amount I have to pay for HMP seems fair (2016)				
Still enrolled	4.1	0.02	[4.1, 4.2]	2,384
No longer enrolled	4.1	0.03	[4.0, 4.1]	707

Notes: Variables were measured on a 5 point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

6.1.4 Predictors of follow-up group, among all respondents

	No longer enrolled			No longer enrolled		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Change in employment (from 2016-2017)						
No employment gain		Reference				
Employment gain	1.24	[0.893, 1.722]	0.200			
Married or partnered (2017)						
No		Reference			Reference	
Yes	1.32	[1.046, 1.675]	0.019	1.34	[1.060, 1.700]	0.015
Number of places lived in past 3 years (2017)						
One		Reference			Reference	
Two	1.55	[1.185, 2.029]	0.001	1.57	[1.199, 2.050]	0.001
Three	1.86	[1.212, 2.852]	0.005	1.89	[1.234, 2.888]	0.003
Four or more	2.56	[1.531, 4.282]	0.000	2.61	[1.556, 4.363]	0.000
Chronic condition (2016 or 2017 survey and/or DW)						
No		Reference			Reference	
Yes	0.77	[0.583, 1.006]	0.055	0.77	[0.586, 1.015]	0.064
Urbanicity (DW)						
Urban		Reference			Reference	
Suburban	1.21	[0.859, 1.713]	0.272	1.23	[0.874, 1.738]	0.233
Rural	1.01	[0.760, 1.332]	0.965	1.01	[0.763, 1.335]	0.950
Age (DW)						
19-34		Reference			Reference	
35-50	0.88	[0.669, 1.147]	0.336	0.88	[0.669, 1.147]	0.336
51-64	0.96	[0.723, 1.264]	0.752	0.98	[0.739, 1.293]	0.873
Age (DW)						
Male		Reference			Reference	
Female	0.77	[0.621, 0.960]	0.020	0.77	[0.618, 0.956]	0.018
Race/ethnicity (DW)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.22	[0.916, 1.614]	0.177	1.23	[0.923, 1.630]	0.159
Hispanic	1.11	[0.677, 1.807]	0.687	1.09	[0.668, 1.777]	0.732
Other, non-Hispanic	0.85	[0.563, 1.292]	0.453	0.86	[0.565, 1.296]	0.462
FPL category (2017)						
0-35%		Reference			Reference	
36-99%	1.79	[1.372, 2.322]	0.000	1.68	[1.282, 2.206]	0.000
100%+	2.07	[1.568, 2.733]	0.000	1.94	[1.456, 2.578]	0.000
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	0.86	[0.681, 1.095]	0.227	0.86	[0.682, 1.097]	0.231
Bachelor's/post graduate degree	1.39	[1.000, 1.922]	0.050	1.39	[1.004, 1.923]	0.047
Employed/self-employed (2017)						
No					Reference	
Yes				1.15	[0.910, 1.463]	0.236
Constant	0.22	[0.148, 0.340]	0.000	0.22	[0.141, 0.330]	0.000
N	3,048			3,044		
F-value	5.258			5.208		
Model degrees of freedom	18.000			18.000		
Residual degrees of freedom	3,036.000			3,032.000		
F-value significance	0.000			0.000		

Notes: Multiple logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or data warehouse.

6.2 Reason for disenrollment (2017)

6.2.1 Reason for disenrollment (2017), among respondents no longer enrolled

	Percent	95%CI
Reason for disenrollment (2017)		
Income increase/other coverage (n=405)	53.7	[49.0, 58.3]
Dissatisfied with HMP cost or services (n=10)	1.1	[0.6, 2.1]
Administrative problems (n=51)	8.6	[6.2, 11.8]
Ineligible to continue (n=85)	13.8	[10.8, 17.4]
Did not take action to re-enroll (n=50)	7.7	[5.6, 10.4]
Reason not given (n=108)	15.2	[12.1, 19.0]
Total (n=709)	100.0	

6.2.2 Reason for disenrollment by types of insurance (2017), among respondents no longer enrolled

	Reason for disenrollment (2017)												
	Income increase/other coverage		Dissatisfied with HMP cost or services		Administrative problems		Ineligible to continue HMP		Did not take action to re-enroll		Reason not given		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance through a job or union (2017)													
Yes (n=137)	85.0	[76.6, 90.8]	0.0		1.8	[0.4, 8.3]	8.4	[4.4, 15.4]	3.0	[0.9, 9.4]	1.8	[0.6, 5.2]	100.0
No (n=371)	53.1	[46.9, 59.3]	1.4	[0.6, 3.1]	6.5	[4.1, 10.2]	11.6	[8.0, 16.6]	7.4	[4.8, 11.3]	20.0	[15.3, 25.6]	100.0
Pearson: Uncorrected chi2(5) =	314.0364												
Design-based F(4.59, 13249.48) =	8.0074	Pr =	0.000										
Insurance purchased by me or someone else (2017)													
Yes (n=46)	59.8	[39.5, 77.2]	1.5	[0.2, 10.2]	5.3	[1.3, 19.3]	22.9	[8.5, 48.6]	5.5	[0.8, 29.8]	5.0	[1.5, 15.1]	100.0
No (n=462)	63.6	[58.0, 68.8]	0.9	[0.4, 2.2]	4.9	[3.1, 7.9]	9.5	[6.9, 12.9]	6.1	[4.0, 9.1]	15.1	[11.4, 19.6]	100.0
Pearson: Uncorrected chi2(5) =	55.5575												
Design-based F(4.01, 11552.16) =	1.3474	Pr =	0.250										
Veterans Administration or VA care (2017)													
Yes (n=3)	100.0		0.0		0.0		0.0		0.0		0.0		100.0
No (n=505)	62.7	[57.4, 67.8]	1.0	[0.4, 2.2]	5.0	[3.2, 7.9]	10.7	[7.8, 14.7]	6.1	[4.0, 9.1]	14.4	[11.0, 18.6]	100.0
Pearson: Uncorrected chi2(5) =	23.4684												
Design-based F(4.28, 12333.09) =	0.5091	Pr =	0.741										
CHAMPUS or TRICARE (2017)													
Yes (n=1)	100.0		0.0		0.0		0.0		0.0		0.0		100.0
No (n=507)	63.2	[57.8, 68.2]	0.9	[0.4, 2.1]	5.0	[3.2, 7.8]	10.6	[7.7, 14.5]	6.0	[4.0, 9.0]	14.2	[10.9, 18.4]	100.0
Pearson: Uncorrected chi2(5) =	3.0200												
Design-based F(4.74, 13683.73) =	0.0862	Pr =	0.993										
Medicare (2017)													
Yes (n=104)	87.7	[79.5, 92.9]	1.9	[0.5, 7.3]	0.9	[0.1, 6.3]	4.2	[1.6, 10.7]	0.0		5.3	[2.3, 11.7]	100.0
No (n=404)	58.7	[52.6, 64.5]	0.8	[0.3, 2.1]	5.7	[3.6, 9.0]	11.8	[8.4, 16.3]	7.1	[4.7, 10.6]	15.9	[12.0, 20.8]	100.0
Pearson: Uncorrected chi2(5) =	158.4982												
Design-based F(4.72, 13617.13) =	5.9517	Pr =	0.000										
County health plan (2017)													
Yes (n=3)	61.8	[12.7, 94.7]	0.0		0.0		38.2	[5.3, 87.3]	0.0		0.0		100.0
No (n=505)	63.3	[57.9, 68.3]	1.0	[0.4, 2.2]	5.0	[3.2, 7.8]	10.4	[7.5, 14.2]	6.1	[4.0, 9.0]	14.3	[10.9, 18.5]	100.0
Pearson: Uncorrected chi2(5) =	22.5566												
Design-based F(4.84, 13961.50) =	0.6120	Pr =	0.685										
Medicaid (2017)													
Yes (n=237)	42.4	[35.2, 50.0]	1.5	[0.5, 4.0]	8.7	[5.2, 14.0]	9.5	[6.2, 14.4]	9.5	[6.1, 14.6]	28.4	[21.7, 36.1]	100.0
No (n=271)	80.0	[73.2, 85.4]	0.5	[0.1, 2.1]	2.0	[0.7, 5.4]	11.5	[7.3, 17.7]	3.2	[1.3, 7.6]	2.8	[1.5, 5.2]	100.0
Pearson: Uncorrected chi2(5) =	610.1565												
Design-based F(4.66, 13431.98) =	17.0469	Pr =	0.000										
Other (2017)													
Yes (n=17)	55.6	[29.1, 79.3]	0.0		0.0		36.5	[15.0, 65.1]	2.9	[0.4, 18.8]	5.0	[0.7, 28.8]	100.0
No (n=491)	63.5	[58.0, 68.6]	1.0	[0.4, 2.2]	5.1	[3.3, 8.0]	9.8	[6.9, 13.7]	6.1	[4.0, 9.2]	14.5	[11.0, 18.8]	100.0
Pearson: Uncorrected chi2(5) =	69.8624												
Design-based F(4.47, 12894.33) =	2.5612	Pr =	0.031										
Don't know (2017)													
Yes (n=3)	29.3	[3.3, 83.5]	0.0		17.5	[1.8, 70.7]	0.0		53.2	[9.1, 92.8]	0.0		100.0
No (n=505)	63.5	[58.1, 68.5]	1.0	[0.4, 2.2]	4.9	[3.1, 7.7]	10.7	[7.7, 14.6]	5.7	[3.7, 8.6]	14.3	[10.9, 18.5]	100.0
Pearson: Uncorrected chi2(5) =	85.0143												
Design-based F(4.39, 12664.29) =	2.6010	Pr =	0.029										
Total (n=709)	53.7	[49.0, 58.3]	1.1	[0.6, 2.1]	8.6	[6.2, 11.8]	13.8	[10.8, 17.4]	7.7	[5.6, 10.4]	15.2	[12.1, 19.0]	100.0

Notes: χ^2 test of independence. Insurance type: insurance through a job or union and reason for disenrollment, ϕ= 0.33; Insurance type: Medicare and reason for disenrollment, ϕ= 0.23; Insurance type: Medicaid and reason for disenrollment, ϕ= 0.46; Insurance type: other and reason for disenrollment, ϕ= 0.16; Insurance type: "don't know" and reason for disenrollment, ϕ= 0.17.

6.2.3 Predictors of reason for disenrollment: income increase or other insurance coverage compared to dissatisfied with HMP cost or services, among respondents no longer enrolled

	Income increase or other insurance coverage (ref) compared to dissatisfied with HMP cost or services		
	RRR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	0.00	[0.000, 0.000]	0.000
Number of places lived in past 3 years (2017)			
One		Reference	
Two	3.07	[0.727, 13.002]	0.127
Three	0.85	[0.077, 9.522]	0.898
Four or more	3.52	[0.346, 35.691]	0.287
Urbanicity (DW)			
Urban		Reference	
Suburban	1.25	[0.170, 9.145]	0.829
Rural	0.00	[0.000, 0.000]	0.000
Age (DW)			
19-34		Reference	
35-50	2.69	[0.640, 11.267]	0.177
51-64	0.39	[0.043, 3.605]	0.410
Gender (DW)			
Male		Reference	
Female	0.92	[0.230, 3.653]	0.901
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.29	[0.026, 3.155]	0.306
Hispanic	1.23	[0.158, 9.552]	0.843
Other, non-Hispanic	0.00	[0.000, 0.000]	0.000
FPL category (DW)			
0-35%		Reference	
36-99%	3.37	[0.321, 35.318]	0.311
100%+	3.17	[0.358, 28.039]	0.299
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.65	[0.275, 9.883]	0.584
Bachelor's/post graduate degree	3.67	[0.521, 25.915]	0.191
Constant	0.00	[0.000, 0.062]	0.000
N	698		
F-value	30.600		
Model degrees of freedom	80.000		
Residual degrees of freedom	686.000		
F-value significance	0.000		

Notes: Multinomal logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.2.4 Predictors of reason for disenrollment: income increase or other insurance coverage compared to administrative problems, among respondents no longer enrolled

	Income increase or other insurance coverage (ref) compared to administrative problems		
	RRR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	0.20	[0.051, 0.769]	0.019
Number of places lived in past 3 years (2017)			
One		Reference	
Two	1.51	[0.620, 3.668]	0.364
Three	1.07	[0.256, 4.475]	0.925
Four or more	1.03	[0.228, 4.658]	0.968
Urbanicity (DW)			
Urban		Reference	
Suburban	1.28	[0.374, 4.414]	0.690
Rural	1.23	[0.449, 3.393]	0.682
Age (DW)			
19-34		Reference	
35-50	0.87	[0.373, 2.042]	0.753
51-64	0.69	[0.271, 1.763]	0.439
Gender (DW)			
Male		Reference	
Female	0.59	[0.302, 1.162]	0.127
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.95	[0.782, 4.841]	0.152
Hispanic	0.45	[0.077, 2.667]	0.381
Other, non-Hispanic	0.35	[0.063, 1.986]	0.238
FPL category (DW)			
0-35%		Reference	
36-99%	1.19	[0.538, 2.623]	0.670
100%+	0.57	[0.215, 1.519]	0.261
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.58	[0.254, 1.348]	0.208
Bachelor's/post graduate degree	0.20	[0.058, 0.706]	0.012
Constant	0.32	[0.114, 0.906]	0.032
N	698		
F-value	30.600		
Model degrees of freedom	80.000		
Residual degrees of freedom	686.000		
F-value significance	0.000		

Notes: Multinomal logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.2.5 Predictors of reason for disenrollment: income increase or other insurance coverage compared to ineligible to continue HMP, among respondents no longer enrolled

	Income increase or other insurance coverage (ref) compared to ineligible to continue HMP		
	RRR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	2.21	[1.087, 4.507]	0.029
Number of places lived in past 3 years (2017)			
One		Reference	
Two	1.37	[0.674, 2.778]	0.384
Three	2.13	[0.866, 5.238]	0.099
Four or more	2.68	[0.857, 8.409]	0.090
Urbanicity (DW)			
Urban		Reference	
Suburban	1.21	[0.462, 3.172]	0.698
Rural	0.42	[0.174, 1.023]	0.056
Age (DW)			
19-34		Reference	
35-50	1.03	[0.517, 2.032]	0.943
51-64	0.71	[0.334, 1.521]	0.381
Gender (DW)			
Male		Reference	
Female	1.78	[0.942, 3.356]	0.076
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	1.82	[0.898, 3.677]	0.097
Hispanic	1.47	[0.459, 4.683]	0.518
Other, non-Hispanic	0.92	[0.251, 3.376]	0.900
FPL category (DW)			
0-35%		Reference	
36-99%	0.72	[0.326, 1.570]	0.403
100%+	0.75	[0.345, 1.636]	0.470
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.94	[0.987, 3.802]	0.055
Bachelor's/post graduate degree	1.44	[0.670, 3.091]	0.351
Constant	0.10	[0.038, 0.257]	0.000
N	698		
F-value	30.600		
Model degrees of freedom	80.000		
Residual degrees of freedom	686.000		
F-value significance	0.000		

Notes: Multinomal logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.2.6 Predictors of reason for disenrollment: income increase or other insurance coverage compared to did not take action to re-enroll, among respondents no longer enrolled

	Income increase or other insurance coverage (ref) compared to did not take action to re-enroll		
	RRR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	1.18	[0.413, 3.392]	0.753
Number of places lived in past 3 years (2017)			
One		Reference	
Two	0.92	[0.376, 2.242]	0.850
Three	0.36	[0.053, 2.415]	0.292
Four or more	0.89	[0.207, 3.860]	0.880
Urbanicity (DW)			
Urban		Reference	
Suburban	6.03	[2.283, 15.921]	0.000
Rural	4.15	[1.674, 10.287]	0.002
Age (DW)			
19-34		Reference	
35-50	0.66	[0.267, 1.632]	0.368
51-64	0.67	[0.273, 1.660]	0.390
Gender (DW)			
Male		Reference	
Female	0.95	[0.454, 2.002]	0.898
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	4.02	[1.718, 9.401]	0.001
Hispanic	1.74	[0.314, 9.578]	0.527
Other, non-Hispanic	0.55	[0.109, 2.776]	0.468
FPL category (DW)			
0-35%		Reference	
36-99%	1.13	[0.513, 2.477]	0.766
100%+	0.38	[0.134, 1.065]	0.066
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.82	[0.354, 1.922]	0.655
Bachelor's/post graduate degree	0.36	[0.108, 1.181]	0.091
Constant	0.11	[0.033, 0.390]	0.001
N	698		
F-value	30.600		
Model degrees of freedom	80.000		
Residual degrees of freedom	686.000		
F-value significance	0.000		

Notes: Multinomal logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.2.7 Predictors of reason for disenrollment: income increase or other insurance coverage compared to reason not given, among respondents no longer enrolled

	Income increase or other insurance coverage (ref) compared to reason not given		
	RRR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	0.64	[0.245, 1.675]	0.363
Number of places lived in past 3 years (2017)			
One		Reference	
Two	1.41	[0.715, 2.764]	0.322
Three	1.15	[0.423, 3.147]	0.779
Four or more	0.86	[0.201, 3.640]	0.832
Urbanicity (DW)			
Urban		Reference	
Suburban	1.47	[0.620, 3.462]	0.383
Rural	0.93	[0.456, 1.885]	0.834
Age (DW)			
19-34		Reference	
35-50	0.66	[0.337, 1.282]	0.218
51-64	0.38	[0.191, 0.759]	0.006
Gender (DW)			
Male		Reference	
Female	1.38	[0.774, 2.455]	0.275
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	2.25	[1.138, 4.449]	0.020
Hispanic	2.15	[0.631, 7.339]	0.220
Other, non-Hispanic	2.13	[0.882, 5.153]	0.093
FPL category (DW)			
0-35%		Reference	
36-99%	0.75	[0.395, 1.441]	0.393
100%+	0.54	[0.262, 1.119]	0.098
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.49	[0.261, 0.913]	0.025
Bachelor's/post graduate degree	0.23	[0.092, 0.590]	0.002
Constant	0.44	[0.179, 1.073]	0.071
N	698		
F-value	30.600		
Model degrees of freedom	80.000		
Residual degrees of freedom	686.000		
F-value significance	0.000		

Notes: Multinomal logistic regression. Change in employment was defined as follow-up respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.3 Insurance status (2017)

6.3.1 Insurance status (2017) by change in employment (from 2016-2017), among respondents no longer enrolled

	Insurance status (2017)				
	Insured		**Uninsured**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Change in employment (from 2016-2017)					
No employment gain (n=605)	70.5	[65.6, 74.9]	29.5	[25.1, 34.4]	100.0
Employment gain (n=96)	64.8	[51.9, 75.9]	35.2	[24.1, 48.1]	100.0
Pearson: Uncorrected chi2(1) =	6.5595				
Design-based F(1.00, 3077.00) =	0.7700	Pr =	0.380		
Total (n=701)	69.5	[65.0, 73.7]	30.5	[26.3, 35.0]	100.0

Notes: χ^2 test of independence. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

6.3.2 Insurance status (2017) by job change in last 12 months (2017), among respondents no longer enrolled

	Insurance status (2017)				
	Insured		**Uninsured**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Job change in last 12 months (2017)					
Yes (n=117)	66.5	[55.7, 75.8]	33.5	[24.2, 44.3]	100.0
No (n=301)	63.5	[56.2, 70.3]	36.5	[29.7, 43.8]	100.0
Pearson: Uncorrected chi2(1) =	2.2566				
Design-based F(1.00, 2794.00) =	0.2237	Pr =	0.636		
Total (n=701)	69.5	[65.0, 73.7]	30.5	[26.3, 35.0]	100.0

Notes: χ^2 test of independence.

6.3.3 Predictors of insurance status (2017), among respondents no longer enrolled

	Uninsured (2017)		
	aOR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	1.00	[0.499, 2.010]	0.996
Fair/poor health (2017)			
No		Reference	
Yes	0.70	[0.359, 1.373]	0.301
Age (DW)			
19-34		Reference	
35-50	0.97	[0.584, 1.624]	0.920
51-64	0.61	[0.329, 1.149]	0.127
Gender (DW)			
Male		Reference	
Female	0.62	[0.396, 0.964]	0.034
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.77	[0.452, 1.321]	0.346
Hispanic	1.26	[0.545, 2.932]	0.584
Other, non-Hispanic	0.65	[0.281, 1.503]	0.313
FPL category (DW)			
0-35%		Reference	
36-99%	0.78	[0.461, 1.331]	0.366
100%+	0.86	[0.477, 1.548]	0.613
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	1.16	[0.732, 1.855]	0.520
Bachelor's/post graduate degree	0.41	[0.187, 0.907]	0.028
Number of chronic conditions (DW)	0.88	[0.745, 1.039]	0.132
Major functional limitation (2017)			
None		Reference	
Functional limitation	0.83	[0.386, 1.797]	0.640
Constant	1.19	[0.591, 2.378]	0.631
N	684		
F-value	1.526		
Model degrees of freedom	14.000		
Residual degrees of freedom	672.000		
F-value significance	0.096		

Notes: Multiple logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Major functional limitation was defined as missing 14-30 days of the past 30 days due to poor physical and/or mental health.

6.4 Insurance status prior to HMP, detailed (2016)

6.4.1 Insurance status prior to HMP, detailed (2016), among all respondents

	Percent	95%CI
Insurance status prior to HMP, detailed (2016)		
Uninsured (n=1,792)	57.3	[55.1, 59.6]
Medicaid (n=599)	19.3	[17.6, 21.1]
Private, job (n=304)	10.4	[9.0, 11.8]
Private, self or other, healthcare.gov (n=50)	1.5	[1.1, 2.1]
Medicare, VA, or CHAMPUS (n=19)	0.7	[0.4, 1.2]
Other, unspecified, or unknown (n=333)	10.8	[9.4, 12.4]
Total (n=3,097)	100.0	

6.5 Insurance status, detailed (2017)

6.5.1 Insurance status, detailed (2017), among respondents no longer enrolled

	Percent	95%CI
Insurance status, detailed (2017)		
Uninsured (n=193)	29.9	[25.8, 34.4]
Medicaid (n=202)	26.6	[23.0, 30.7]
Private, job (n=136)	21.5	[17.6, 25.9]
Private, self or other, healthcare.gov (n=32)	4.0	[2.5, 6.3]
Medicare, VA, or CHAMPUS (n=103)	11.4	[9.0, 14.4]
Other, unspecified, or unknown (n=43)	6.5	[4.6, 9.2]
Total (n=709)	100.0	

6.5.2 Predictors of insurance status, detailed (2017), among respondents no longer enrolled

	Uninsured (2017)			Medicaid (2017)			Private, job (2017)			Private, self or other, healthcare.gov (2017)		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Employed/self-employed (2017)												
No		Reference			Reference			Reference			Reference	
Yes	1.73	[0.995, 3.006]	0.052	0.25	[0.154, 0.400]	0.000	13.07	[4.892, 34.903]	0.000	5.48	[1.749, 17.167]	0.004
Number of places lived in past 3 years (2017)												
One		Reference			Reference			Reference			Reference	
Two	0.89	[0.512, 1.541]	0.673	1.16	[0.669, 2.022]	0.593	1.06	[0.569, 1.958]	0.863	1.38	[0.500, 3.825]	0.532
Three	0.76	[0.328, 1.779]	0.532	1.17	[0.580, 2.354]	0.664	1.00	[0.445, 2.241]	0.996	1.22	[0.217, 6.862]	0.820
Four or more	0.71	[0.280, 1.812]	0.476	1.31	[0.446, 3.819]	0.626	0.62	[0.203, 1.917]	0.410	5.76	[1.119, 29.659]	0.036
Urbanicity (DW)												
Urban		Reference			Reference			Reference			Reference	
Suburban	0.80	[0.411, 1.552]	0.506	1.27	[0.653, 2.453]	0.485	0.62	[0.259, 1.472]	0.276	2.11	[0.596, 7.438]	0.247
Rural	0.61	[0.360, 1.034]	0.066	1.51	[0.873, 2.614]	0.140	0.98	[0.507, 1.880]	0.942	1.71	[0.638, 4.594]	0.285
Age (DW)												
19-34		Reference			Reference			Reference			Reference	
35-50	1.00	[0.596, 1.664]	0.987	0.88	[0.524, 1.487]	0.638	1.23	[0.676, 2.247]	0.495	1.02	[0.320, 3.228]	0.977
51-64	0.60	[0.322, 1.119]	0.108	0.51	[0.287, 0.902]	0.021	0.73	[0.358, 1.485]	0.383	2.86	[0.982, 8.317]	0.054
Age (DW)												
Male		Reference			Reference			Reference			Reference	
Female	0.62	[0.398, 0.969]	0.036	2.89	[1.827, 4.562]	0.000	0.87	[0.517, 1.462]	0.597	1.01	[0.360, 2.842]	0.984
Race/ethnicity (DW)												
White, non-Hispanic		Reference			Reference			Reference			Reference	
Black, non-Hispanic	0.67	[0.376, 1.182]	0.165	1.41	[0.810, 2.455]	0.224	1.12	[0.593, 2.105]	0.731	0.37	[0.065, 2.138]	0.267
Hispanic	1.06	[0.445, 2.533]	0.893	0.81	[0.262, 2.493]	0.711	0.78	[0.202, 2.980]	0.711	0.38	[0.054, 2.668]	0.330
Other, non-Hispanic	0.66	[0.290, 1.513]	0.328	1.35	[0.645, 2.836]	0.424	1.35	[0.557, 3.272]	0.507	1.47	[0.323, 6.726]	0.616
FPL category (2017)												
0-35%		Reference			Reference			Reference			Reference	
36-99%	0.78	[0.453, 1.347]	0.373	0.95	[0.568, 1.593]	0.849	0.85	[0.428, 1.692]	0.646	0.32	[0.115, 0.913]	0.033
100%+	0.90	[0.492, 1.632]	0.719	0.69	[0.372, 1.263]	0.225	0.78	[0.395, 1.533]	0.468	0.93	[0.295, 2.951]	0.906
Highest level of education (2017)												
High school or less		Reference			Reference			Reference			Reference	
Associate's degree/some college	1.05	[0.655, 1.678]	0.845	0.60	[0.363, 0.992]	0.047	1.51	[0.821, 2.778]	0.184	2.08	[0.807, 5.356]	0.129
Bachelor's/post graduate degree	0.39	[0.181, 0.848]	0.017	0.46	[0.233, 0.906]	0.025	3.51	[1.802, 6.823]	0.000	1.33	[0.307, 5.716]	0.705
Married or partnered (2017)												
No		Reference			Reference			Reference			Reference	
Yes	0.71	[0.444, 1.123]	0.142	1.36	[0.819, 2.266]	0.234	0.89	[0.497, 1.583]	0.686	1.92	[0.671, 5.481]	0.224
Fair/poor health (2017)												
No		Reference			Reference			Reference			Reference	
Yes	0.59	[0.328, 1.079]	0.087	1.37	[0.809, 2.336]	0.239	0.73	[0.346, 1.540]	0.408	0.79	[0.246, 2.510]	0.684
Constant	0.89	[0.402, 1.970]	0.773	0.52	[0.244, 1.107]	0.090	0.03	[0.010, 0.099]	0.000	0.01	[0.001, 0.024]	0.000
N	697			697			697			697		
F-value	1.688			4.685			3.142			4.348		
Model degrees of freedom	18.000			18.000			18.000			18.000		
Residual degrees of freedom	685.000			685.000			685.000			685.000		
F-value significance	0.037			0.000			0.000			0.000		

Notes: Multiple logistic regression. For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.5.3 Predictors of insurance status, detailed (2017), among respondents no longer enrolled (continued)

	Medicare, VA, or CHAMPUS (2017)			Other, unspecified, or unknown (2017)		
	aOR	95% CI	p-value	aOR	95% CI	p-value
Employed/self-employed (2017)						
No		Reference			Reference	
Yes	0.24	[0.121, 0.482]	0.000	0.61	[0.300, 1.254]	0.180
Number of places lived in past 3 years (2017)						
One		Reference			Reference	
Two	0.82	[0.339, 1.986]	0.660	1.01	[0.401, 2.523]	0.990
Three	0.67	[0.136, 3.350]	0.630	1.88	[0.569, 6.222]	0.299
Four or more	0.11	[0.013, 0.917]	0.041	2.45	[0.489, 12.289]	0.275
Urbanicity (DW)						
Urban		Reference			Reference	
Suburban	0.95	[0.413, 2.191]	0.907	1.56	[0.571, 4.248]	0.386
Rural	1.13	[0.553, 2.290]	0.745	1.03	[0.266, 3.982]	0.966
Age (DW)						
19-34		Reference			Reference	
35-50	2.35	[0.551, 10.055]	0.248	0.65	[0.262, 1.625]	0.358
51-64	9.94	[2.513, 39.299]	0.001	1.04	[0.411, 2.652]	0.928
Age (DW)						
Male		Reference			Reference	
Female	0.49	[0.272, 0.874]	0.016	0.92	[0.431, 1.964]	0.829
Race/ethnicity (DW)						
White, non-Hispanic		Reference			Reference	
Black, non-Hispanic	1.12	[0.474, 2.659]	0.793	1.62	[0.661, 3.992]	0.289
Hispanic	1.78	[0.583, 5.407]	0.312	2.10	[0.632, 6.951]	0.226
Other, non-Hispanic	0.60	[0.165, 2.154]	0.430	0.31	[0.066, 1.403]	0.127
FPL category (2017)						
0-35%		Reference			Reference	
36-99%	2.11	[0.926, 4.828]	0.075	3.35	[1.542, 7.268]	0.002
100%+	3.31	[1.542, 7.095]	0.002	1.82	[0.675, 4.895]	0.237
Highest level of education (2017)						
High school or less		Reference			Reference	
Associate's degree/some college	1.02	[0.458, 2.282]	0.957	0.72	[0.299, 1.749]	0.472
Bachelor's/post graduate degree	1.23	[0.478, 3.147]	0.671	2.09	[0.921, 4.757]	0.078
Married or partnered (2017)						
No		Reference			Reference	
Yes	0.48	[0.249, 0.920]	0.027	1.98	[0.765, 5.102]	0.159
Fair/poor health (2017)						
No		Reference			Reference	
Yes	1.68	[0.908, 3.101]	0.098	1.45	[0.666, 3.150]	0.349
Constant	0.06	[0.008, 0.366]	0.003	0.03	[0.009, 0.084]	0.000
N	697			697		
F-value	4.970			2.418		
Model degrees of freedom	18.000			18.000		
Residual degrees of freedom	685.000			685.000		
F-value significance	0.000			0.001		

Notes: Multiple logistic regression. For number of places lived in past 3 years, respondents who answered "Don't know" were excluded from the analysis.

6.5.4 Insurance status, detailed (2017) by insurance status prior to HMP, detailed (2016), among all respondents

	Current insurance status, detailed (2017)														
	HMP		Uninsured		Medicaid		Private, job		Private, self		Government		Other		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Insurance status prior to HMP, detailed (2016)															
Uninsured (n=1,792)	79.1	[76.6, 81.4]	6.9	[5.6, 8.5]	5.9	[4.8, 7.3]	3.6	[2.6, 5.1]	0.8	[0.5, 1.5]	2.5	[1.7, 3.6]	1.1	[0.6, 2.0]	100.0
Medicaid (n=599)	74.7	[69.8, 79.1]	7.7	[5.2, 11.3]	7.4	[5.4, 10.2]	5.5	[3.2, 9.3]	1.3	[0.3, 4.5]	2.0	[1.1, 3.5]	1.4	[0.7, 3.0]	100.0
Private, job (n=304)	67.6	[60.8, 73.8]	7.8	[4.5, 13.2]	4.4	[2.6, 7.2]	11.7	[7.7, 17.4]	1.0	[0.4, 2.6]	4.8	[2.9, 7.6]	2.7	[1.3, 5.3]	100.0
Private, self (n=50)	72.5	[56.1, 84.5]	1.5	[0.2, 10.3]	4.8	[1.4, 14.9]	7.2	[2.6, 18.7]	3.2	[0.8, 12.4]	2.7	[0.7, 9.3]	8.0	[1.9, 28.1]	100.0
Government (n=19)	84.2	[54.4, 96.0]	0.0		3.9	[0.8, 17.3]	1.5	[0.2, 10.2]	0.0		10.4	[1.5, 47.5]	0.0		100.0
Other (n=333)	77.1	[70.8, 82.4]	6.1	[3.2, 11.2]	7.4	[4.5, 11.9]	4.7	[2.7, 8.1]	0.5	[0.1, 1.8]	2.2	[1.1, 4.4]	2.0	[0.9, 4.5]	100.0
Total (n=3,097)	76.8	[74.9, 78.6]	6.9	[5.9, 8.2]	6.2	[5.3, 7.2]	5.0	[4.0, 6.2]	0.9	[0.6, 1.5]	2.7	[2.1, 3.4]	1.5	[1.1, 2.2]	100.0

Note: This table shows row percents. "Private, self" includes healthcare.gov enrollees. Government includes Medicaid, VA, and CHAMPUS.

	Current insurance status, detailed (2017)															
	HMP		Uninsured		Medicaid		Private, job		Private, self		Government		Other		Total	
	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI	Cell%	95%CI
Insurance status prior to HMP, detailed (2016)																
Uninsured (n=1,792)	45.4	[43.1, 47.6]	4.0	[3.2, 4.9]	3.4	[2.7, 4.2]	2.1	[1.5, 2.9]	0.5	[0.3, 0.8]	1.4	[1.0, 2.1]	0.6	[0.3, 1.2]	57.3	[55.1, 59.6]
Medicaid (n=599)	14.4	[12.9, 16.0]	1.5	[1.0, 2.2]	1.4	[1.0, 2.0]	1.1	[0.6, 1.8]	0.2	[0.1, 0.9]	0.4	[0.2, 0.7]	0.3	[0.1, 0.6]	19.3	[17.6, 21.1]
Private, job (n=304)	7.0	[5.9, 8.3]	0.8	[0.5, 1.4]	0.5	[0.3, 0.8]	1.2	[0.8, 1.9]	0.1	[0.0, 0.3]	0.5	[0.3, 0.8]	0.3	[0.1, 0.6]	10.4	[9.0, 11.8]
Private, self (n=50)	1.1	[0.7, 1.7]	0.0	[0.0, 0.2]	0.1	[0.0, 0.2]	0.1	[0.0, 0.3]	0.0	[0.0, 0.2]	0.0	[0.0, 0.1]	0.1	[0.0, 0.5]	1.5	[1.1, 2.1]
Government (n=19)	0.6	[0.3, 1.1]	0.0		0.0	[0.0, 0.1]	0.0	[0.0, 0.1]	0.0		0.1	[0.0, 0.5]	0.0		0.7	[0.4, 1.2]
Other (n=333)	8.3	[7.1, 9.7]	0.7	[0.3, 1.3]	0.8	[0.5, 1.3]	0.5	[0.3, 0.9]	0.1	[0.0, 0.2]	0.2	[0.1, 0.5]	0.2	[0.1, 0.5]	10.8	[9.4, 12.4]
Total (n=3,097)	76.8	[74.9, 78.6]	6.9	[5.9, 8.2]	6.2	[5.3, 7.2]	5.0	[4.0, 6.2]	0.9	[0.6, 1.5]	2.7	[2.1, 3.4]	1.5	[1.1, 2.2]	100.0	

Note: This table presents the same data as above using cell percents. "Private, self" includes healthcare.gov enrollees. Government includes Medicaid, VA, and CHAMPUS.

6.5.5 Insurance status, detailed (2017) by regular source of care since HMP coverage ended (2017), among respondents no longer enrolled

Insurance status, detailed (2017)	Regular source of care since HMP coverage ended (2017)					
	Yes		No		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI
Uninsured (n=168)	21.2	[17.3, 25.7]	59.6	[47.1, 71.0]	27.7	[23.5, 32.4]
Medicaid (n=200)	31.6	[27.2, 36.4]	13.7	[7.0, 25.1]	28.6	[24.6, 32.9]
Private, job (n=125)	22.3	[17.8, 27.6]	17.4	[10.2, 28.3]	21.5	[17.4, 26.2]
Private, self or other, healthcare.gov (n=31)	4.6	[2.8, 7.5]	2.1	[0.6, 6.8]	4.2	[2.6, 6.7]
Medicare, VA, or CHAMPUS (n=101)	14.0	[10.9, 17.8]	3.7	[1.4, 9.4]	12.3	[9.6, 15.5]
Other, unspecified, or unknown (n=36)	6.3	[4.1, 9.4]	3.4	[1.2, 9.6]	5.8	[3.9, 8.5]
Pearson: Uncorrected chi2(5) =	330.8765					
Design-based F(4.67, 14190.63) =	10.5654	Pr =	0.000			

Notes: χ^2 test of independence. For regular source of care since HMP coverage ended, respondents who answered "N/A" were excluded from the analysis. Cramer's V= 0.33.

6.5.6 Insurance status, detailed (2017) by type of regular source of care since HMP coverage ended (2017), among respondents no longer enrolled

Insurance status, detailed (2017)	Type of regular source of care since HMP coverage ended (2017)													
	Clinic		Doctor's office		Urgent care		Walk-in clinic		Emergency room		Other		Total	
	Col%	95%CI	Col%	95%CI	Col%	95%CI	Col%	95%CI	Col%	95%CI	Col%	95%CI	Col%	95%CI
Uninsured (n=115)	23.0	[14.3, 34.7]	13.7	[10.0, 18.5]	22.6	[9.7, 44.2]	72.0	[52.0, 85.9]	57.3	[37.2, 75.3]	36.8	[11.3, 72.7]	21.4	[17.5, 25.9]
Medicaid (n=188)	30.3	[20.9, 41.8]	33.9	[28.4, 39.8]	40.4	[16.5, 69.9]	15.2	[6.6, 31.4]	25.7	[12.1, 46.5]	9.6	[2.1, 34.0]	31.5	[27.2, 36.3]
Private, job (n=106)	28.5	[17.1, 43.7]	23.8	[18.5, 30.1]	8.7	[2.5, 26.3]	0.0		8.0	[2.0, 27.3]	19.3	[5.5, 49.8]	22.3	[17.8, 27.5]
Private, self or other, healthcare.gov (n=28)	3.8	[1.4, 9.7]	6.0	[3.4, 10.5]	0.0		0.0		0.0		0.0		4.6	[2.7, 7.5]
Medicare, VA, or CHAMPUS (n=96)	8.6	[4.5, 15.7]	16.8	[12.6, 22.0]	3.1	[0.4, 20.0]	9.0	[2.5, 27.7]	5.2	[0.7, 29.1]	34.3	[10.7, 69.4]	14.0	[10.9, 17.8]
Other, unspecified, or unknown (n=32)	5.8	[2.2, 14.1]	5.9	[3.7, 9.2]	25.1	[5.8, 64.6]	3.8	[0.9, 15.1]	3.8	[0.5, 22.6]	0.0		6.3	[4.1, 9.4]
Pearson: Uncorrected chi2(25) =	567.2915													
Design-based F(19.74, 58053.36) =	3.0653	Pr =	0.000											

Notes: χ^2 test of independence. Cramer's V= 0.20.

6.6 Private insurance (2017)

6.6.1 Private insurance (2017) by change in employment (from 2016-2017), among respondents no longer enrolled

	Private insurance (2017)				
	Do not have it		**Currently have it**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Change in employment (from 2016-2017)					
No employment gain (n=447)	65.3	[59.5, 70.7]	34.7	[29.3, 40.5]	100.0
Employment gain (n=61)	30.6	[18.3, 46.3]	69.4	[53.7, 81.7]	100.0
Pearson: Uncorrected chi2(1) =	194.1535				
Design-based F(1.00, 2884.00) =	17.5922	Pr =	0.000		
Total (n=508)	59.8	[54.2, 65.3]	40.2	[34.7, 45.8]	100.0

Notes: χ^2 test of independence. ϕ = 0.62. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no).

6.6.2 Private insurance (2017) by job change in last 12 months (2017), among respondents no longer enrolled

	Private insurance (2017)				
	Do not have it		**Currently have it**		**Total**
	Row%	95%CI	Row%	95%CI	Row%
Job change in last 12 months (2017)					
Yes (n=81)	34.3	[23.3, 47.2]	65.7	[52.8, 76.7]	100.0
No (n=194)	37.5	[29.4, 46.5]	62.5	[53.5, 70.6]	100.0
Pearson: Uncorrected chi2(1) =	2.5501				
Design-based F(1.00, 2651.00) =	0.1824	Pr =	0.669		
Total (n=508)	59.8	[54.2, 65.3]	40.2	[34.7, 45.8]	100.0

Notes: χ^2 test of independence.

6.6.3 Predictors of private insurance (2017), among respondents no longer enrolled

	Private insurance (2017)		
	aOR	95% CI	p-value
Change in employment (from 2016-2017)			
No employment gain		Reference	
Employment gain	2.74	[1.342, 5.585]	0.006
Fair/poor health (2017)			
No		Reference	
Yes	0.68	[0.314, 1.480]	0.332
Age (DW)			
19-34		Reference	
35-50	1.05	[0.573, 1.908]	0.884
51-64	0.52	[0.261, 1.017]	0.056
Gender (DW)			
Male		Reference	
Female	0.62	[0.368, 1.032]	0.066
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	0.75	[0.410, 1.361]	0.340
Hispanic	2.08	[0.650, 6.689]	0.216
Other, non-Hispanic	1.10	[0.447, 2.704]	0.836
FPL category (DW)			
0-35%		Reference	
36-99%	0.92	[0.481, 1.773]	0.810
100%+	0.89	[0.461, 1.714]	0.724
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	2.94	[1.671, 5.191]	0.000
Bachelor's/post graduate degree	3.94	[2.055, 7.572]	0.000
Number of chronic conditions (DW)	0.92	[0.767, 1.105]	0.373
Major functional limitation (2017)			
None		Reference	
Functional limitation	0.34	[0.149, 0.771]	0.010
Constant	0.80	[0.357, 1.787]	0.583
N	493		
F-value	5.737		
Model degrees of freedom	14.000		
Residual degrees of freedom	481.000		
F-value significance	0.000		

Notes: Multiple logistic regression. Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017. Survey items assessing employment and student status differed between 2016 and 2017 as follows. In 2016, a single item asked "What is your current job status. Are you currently...?", with respondents asked to select only one response option: employed/self-employed, out of work (>= 1 year), out of work (< 1 year), homemaker, student, retired, or unable to work. In 2017, items were asked separately: a) "Are you currently in school?" (yes/no); b) "Are you currently employed or self-employed?" (yes/no). Major functional limitation was defined as missing 14-30 days of the past 30 days due to poor physical and/or mental health.

6.7 Perspectives on cost of insurance since HMP coverage ended (2017)

6.7.1 Current monthly insurance cost compared to HMP (2017) by type of insurance (2017), among respondents no longer enrolled

Type of insurance (2017)	Current monthly insurance cost compared to HMP (2017)								
	About the same		Less		A little more		A lot more		Total
	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%	95%CI	Row%
Medicaid (n=192)	79.4	[71.4, 85.6]	8.9	[5.5, 14.3]	6.5	[3.0, 13.4]	5.2	[2.2, 11.7]	100.0
Private, job (n=131)	12.0	[7.0, 19.7]	1.3	[0.3, 5.1]	33.0	[23.9, 43.6]	53.7	[42.6, 64.5]	100.0
Private, self or other, healthcare.gov (n=32)	12.5	[4.5, 30.4]	5.1	[1.1, 20.5]	11.5	[3.6, 30.8]	70.9	[49.7, 85.7]	100.0
Medicare, VA, or CHAMPUS (n=98)	28.4	[19.5, 39.5]	17.7	[9.1, 31.5]	13.1	[6.9, 23.6]	40.8	[28.7, 54.1]	100.0
Other, unspecified, or unknown (n=39)	34.1	[17.6, 55.5]	11.3	[4.1, 27.7]	11.6	[4.6, 26.5]	43.0	[26.3, 61.5]	100.0
Pearson: Uncorrected chi2(12) =	1410.9438								
Design-based F(11.33, 32489.31) =	14.7794	Pr =	0.000						

Notes: χ^2 test of independence. For current monthly insurance cost compared to HMP, respondents who answered "Don't know" were excluded from the analysis. Cramer's V= 0.40.

6.7.2 Amount I pay now for my health insurance seems fair (2017) by type of insurance (2017), among respondents no longer enrolled

	Amount I pay now for my health insurance seems fair (2017)			
	Mean	SE	95%CI	N
Type of insurance (2017)				
Medicaid	3.9	0.06	[3.8, 4.1]	200
Private, job	3.2	0.14	[2.9, 3.5]	135
Private, self or other, healthcare.gov	2.6	0.24	[2.2, 3.1]	32
Medicare, VA, or CHAMPUS	3.4	0.14	[3.1, 3.7]	103
Other, unspecified, or unknown	3.5	0.20	[3.1, 3.9]	34

Notes: Measured on a 5 point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

6.7.3 Amount I pay now for my health insurance is affordable (2017) by type of insurance (2017), among respondents no longer enrolled

	Amount I pay now for my health insurance is affordable (2017)			
	Mean	SE	95%CI	N
Type of insurance (2017)				
Medicaid	4.0	0.06	[3.9, 4.1]	201
Private, job	3.4	0.11	[3.1, 3.6]	135
Private, self or other, healthcare.gov	2.9	0.21	[2.5, 3.3]	32
Medicare, VA, or CHAMPUS	3.5	0.13	[3.2, 3.7]	103
Other, unspecified, or unknown	3.6	0.19	[3.2, 3.9]	34

Notes: Measured on a 5 point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree".

6.8 Thoughts about current insurance affordability (2017)

6.8.1 Thoughts about current insurance affordability (2017), among respondents still enrolled and those no longer enrolled with private insurance

	Current insurance is affordable (2017)			
	Mean	SE	95%CI	N
Follow-up group				
Still enrolled	4.0	0.02	[4.0, 4.1]	2,385
No longer enrolled with private insurance	3.3	0.10	[3.1, 3.5]	182

Notes: Current insurance is affordable is a derived variable that is measured on a 5-point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree" to the following questions on the 2017 enrollee follow-up surveys: "The amount I pay now for my health insurance is affordable" for respondents no longer enrolled, and to the question "The amount I pay for the Healthy Michigan Plan is affordable" for respondents still enrolled.

6.8.2 Predictors of thoughts about current insurance affordability (2017), among respondents still enrolled and those no longer enrolled with private insurance

	Current insurance is affordable (2017)		
	Coef.	95% CI	p-value
Follow-up group			
Still enrolled		Reference	
No longer enrolled with private insurance	-0.79	[-0.991,- 0.598]	0.000
Number of chronic conditions (DW)	-0.01	[-0.041, 0.014]	0.330
Age (DW)			
19-34		Reference	
35-50	-0.11	[-0.216,- 0.002]	0.045
51-64	-0.01	[-0.107, 0.081]	0.791
Gender (DW)			
Male		Reference	
Female	-0.06	[-0.143, 0.018]	0.130
Race/ethnicity (2016)			
White, non-Hispanic		Reference	
Black, non-Hispanic	-0.26	[-0.356,- 0.161]	0.000
Hispanic	-0.14	[-0.329, 0.042]	0.129
Other, non-Hispanic	-0.25	[-0.439,- 0.069]	0.007
FPL category (DW)			
0-35%		Reference	
36-99%	-0.08	[-0.176, 0.010]	0.080
100%+	-0.19	[-0.292,- 0.095]	0.000
Highest level of education (2017)			
High school or less		Reference	
Associate's degree/some college	0.08	[-0.009, 0.171]	0.079
Bachelor's/post graduate degree	0.24	[0.116, 0.358]	0.000
Constant	4.25	[4.128, 4.362]	0.000
N	2,529		
F-value	11.326		
Model degrees of freedom	12.000		
Residual degrees of freedom	2,517.000		
F-value significance	0.000		

Notes: Multiple linear regression. Current insurance is affordable is a derived variable that is measured on a 5-point Likert scale where 5 indicates "strongly agree" and 1 indicates "strongly disagree" to the following questions on the 2017 enrollee follow-up surveys: "The amount I pay now for my health insurance is affordable" for respondents no longer enrolled, and to the question "The amount I pay for the Healthy Michigan Plan is affordable" for respondents still enrolled.

6.9 Problems paying medical bills since HMP coverage ended (2017)

6.9.1 Problems paying medical bills since HMP coverage ended (2017) by type of insurance (2017), among respondents no longer enrolled

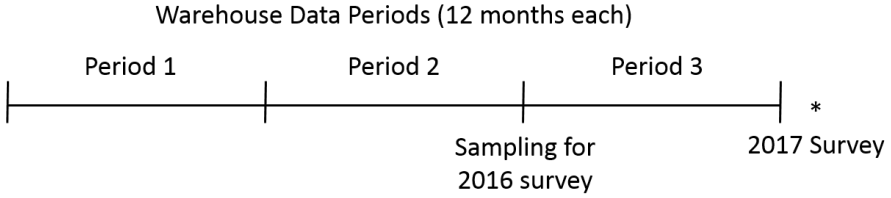
Type of insurance (2017)	Problems paying medical bills since HMP coverage ended (2017)				Total
	Yes		No		
	Row%	95%CI	Row%	95%CI	Row%
Medicaid (n=202)	14.9	[9.4, 22.9]	85.1	[77.1, 90.6]	100.0
Private, job (n=135)	20.3	[13.6, 29.1]	79.7	[70.9, 86.4]	100.0
Private, self or other, healthcare.gov (n=32)	29.9	[14.7, 51.3]	70.1	[48.7, 85.3]	100.0
Medicare, VA, or CHAMPUS (n=103)	24.8	[15.6, 36.9]	75.2	[63.1, 84.4]	100.0
Other, unspecified, or unknown (n=42)	21.9	[9.2, 43.6]	78.1	[56.4, 90.8]	100.0
Pearson: Uncorrected chi2(4) =	35.6308				
Design-based F(3.87, 11176.62) =	0.9665	Pr =	0.423		

Notes: χ^2 test of independence. For problems paying medical bills since HMP coverage ended, respondents who answered "Don't know" were excluded from the analysis.

2017 Healthy Michigan Voices Follow-Up Survey
Appendix C: Claims-Based and Derived Variable Definitions

Utilization measures

Utilization measures were based on administrative claims data drawn directly from the MDHHS Data Warehouse. Claims data were grouped into three 12-month periods, based on the enrollee's date of sampling for the 2016 HMV Enrollee Survey. Period 1 corresponds to the time period 12-24 months prior to sampling, Period 2 is 0-12 months prior to sampling, and Period 3 is 0-12 months post-sampling. The 2017 HMV Follow-Up Survey was fielded after Period 3.



Receipt of preventive care

Primary care visits
Identification of primary care visits was based on any visit with a procedure or revenue code included in the Healthcare Effectiveness Data and Information Set (HEDIS) Outpatient value set, with two additional elements:

1. A procedure code on the MDHHS Physician Primary Care Rate Increase Initiative list; and
2. A billing or rendering provider who was a Primary Care Provider of record for ≥1 Medicaid enrollee in the MDHHS Data Warehouse PCP table; or who had participated in Michigan's Primary Care Transformation (MiPCT) project and thus had been verified as a primary care provider; or who had a primary care specialty classification in both the Michigan Medicaid provider specialty table and the NPPES taxonomy table. NPIs known to be inaccurate from prior analyses were excluded.

Cancer screening
Identification of cancer screening was based on the following procedure codes.

1. **Breast cancer screening:** Mammography procedure codes (77055, 77056, 77057, G0202, G0204, G0206)
2. **Cervical cancer screening:** Cervical cytology procedure codes (88141, 88142, 88143, 88150, 88164, 88175, G0123, G0124, G0143, G0145, P3000, Q0091)
3. **Colorectal cancer screening:** Flexible sigmoidoscopy procedure codes (45340, 45349, G0104), FOBT procedure codes (82270, 82274, G0328), and colonoscopy procedure codes (44388, 44389, 44394, 45378, 45380, 45381, 45382, 45383, 45384, 45385, 45388, 45391, 45398, G0105, G0121)

Diabetes prevention program
Identification of diabetes care management/prevention programs was based on the following procedure codes.

1. G0108- Diab manage trn per indiv
2. G0109- Diab manage trn ind/group
3. 0403T- Diabetes prev standard curr- Health and behavior intervention for prevention of diabetes, minimum 60 minutes, per day

Any dental visit
Identification of dental visits was based on any procedure code beginning with D in procedure code field.

Any nutrition service
Identification of nutrition service was based on the claim having 1 of the following 3 characteristics:

1. Billing or rendering provider with Weight Watchers NPI= 1891941415
2. Billing or rendering provider NPI that matched taxonomy codes for "Diet" or "Nutrition"
3. Procedure Code S9470-Nutritional counseling, diet

HPV testing
Identification of HPV testing was based on the following procedures codes. 87621-Hpv dna amp probe

1. 87623-Hpv low-risk types
2. 87624-Hpv high-risk types
3. 87625-Hpv types 16 & 18 only

STI testing
Identification of STI testing was based on the following procedure codes.

1. 86631-Chlamydia antibody
2. 87110-Chlamydia culture
3. 3511F-Chlmyd/gonrh tsts docd done
4. 86694-HERPES SIMPLEX NES ANTBDY
5. 86695-HERPES SIMPLEX TYPE 1 TEST
6. 86696-HERPES SIMPLEX TYPE 2 TEST
7. 86703-HIV-1/HIV-2 1 RESULT ANTBDY
8. 86701-HIV-1ANTIBODY
9. 86702-HIV-2 ANTIBODY
10. 87806-Hiv antigen w/hiv antibodies
11. 86689-Htlv/hiv confirmj antibody
12. 87850-N. gonorrhoeae assay w/optic
13. 80081-Obstetric panel
14. 87808-Trichomonas assay w/optic
15. 87661-Trichomonas vaginalis amplify

Prescribed HMG CoA Reductase inhibitor (statin)
Identification of statin therapy was based on pharmacy records for drug class: M4D-ANTIHYPERLIPIDEMIC - HMG COA REDUCTASE INHIBITORS.

Nicotine replacement therapy (NRT) or varenicline prescription
Identification of NRT was based on pharmacy records for drug classes: H7N- SMOKING DETERRENTS, OTHER, J3A- SMOKING DETERRENT AGENTS (GANGLIONIC STIM, OTHERS), and J3C-SMOKING DETERRENT-NICOTINIC RECEPT.PARTIAL AGONIST.

Vaccines

Influenza vaccine
Identification of flu vaccine receipt was based on flu vaccine administration dates in the Michigan Care Improvement Registry (MCIR), flu vaccine CPT codes in Medicaid claims data, and flu vaccine NDC codes in the Medicaid pharmacy data; receipt of any flu vaccine during 2015, 2016, or 2017 calendar years is included in this analysis.

Pneumonia vaccine
Identification of pneumonia vaccine receipt was based on having at least one CPT code in Medicaid claims data, NDC code in the Medicaid pharmacy data, or MCIR record for a PCV13 or PPSV23 vaccine during CY2015, 2016, or 2017.

Other vaccines
Identification of any other vaccine receipt was based on having at least one CPT code in Medicaid claims data, NDC code in the Medicaid pharmacy data, or MCIR record for any listed vaccine during CY2015 or 2016. This includes Td/Tdap, Zoster, Hepatitis A and B, HIB, HPV, Meningitis or Meningitis B, Varicella, and MMR during CY2015, 2016, or 2017.

Any preventive service
Any of the above services with the exception of primary care visits are included in this definition.

Health Risk Assessment (HRA) completion

Data were extracted from the Health Risk Assessment (HRA) table in the Data Warehouse for the first 24 months from initial enrollment (i.e., the combined Year 1 and Year 2 period), along with any information obtained during the pre-HMP enrollment period of February-March 2014. This information was used to categorize each enrollee's HRA status:

- HRA attestation – record includes physician attestation date, signaling completion of the HRA process
- HRA questions only – record includes enrollee responses to some/all questions on the patient portion of the HRA, but no physician attestation date
- No HRA record – lack of data for any HRA-related activity

For enrollees with a physician attestation date, the record identified a healthy behavior status:

- Selected a healthy behavior
- No healthy behaviors to address
- Not ready for change
- Serious condition / healthy behavior not required

Emergency department utilization claims

Identification of ED visits was based on specifications in the HEDIS Emergency Department Utilization (EDU) measure. Consistent with HEDIS, ED visits that resulted in an inpatient admission were not counted, and non-institutional/non-surgical ED visits that occurred a day

prior to or after an institutional ED/Observation/Inpatient visit were removed. Two modifications of the HEDIS criteria were made, to allow results to represent the full range of ED utilization for the HMP population: (1) mental health/substance abuse ED visits were included, where HEDIS excludes them; and (2) three observation visit codes (G0378, G0379, revenue code 0762) were added to the HEDIS observation value set, along with codes G0380-G0384 for Hospital Type B emergency visits. ED visits were classified by level of complexity (low, medium, high, or unknown)

Outpatient utilization claims

Primary care visits
Identification of a primary care visit (PCP) required a procedure code or revenue code in the MDHHS Primary Care Incentive Rate "uplift" list AND a primary care provider NPI. A provider was considered a PCP if his/her NPI meets any of the following criteria:

1. Identified as primary care at any time during the MiPCT project.
2. Has a PCP assignment record in the data warehouse PCP table with an end date >= 4/1/2014 and does not have an NPPES taxonomy code in a hospital list.
3. Has evidence of being a primary care provider in both the Michigan Medicaid provider specialty/subspecialty table and the NPPES taxonomy table.

Mental health or substance abuse (MHSA) visits
MH/SA Outpatient Visits are derived from the HEDIS Mental Health Utilization spec. An MH/SA visit must satisfy one of the following criteria:

1. MPT Stand Alone Outpatient Group 1 Value Set with a principal mental health diagnosis (Mental Health Diagnosis Value Set).
2. MPT Outpatient/ED Value Set with MPT Outpatient/ED POS Value Set and a principal mental health diagnosis (Mental Health Diagnosis Value Set).
3. MPT Stand Alone Outpatient Group 2 Value Set with a principal mental health diagnosis (Mental Health Diagnosis Value Set) billed by a mental health practitioner.

This method left out a series of H procedure codes representing various alcohol & drug services; we added all procedure codes beginning with 'H' to the 'stand-alone outpatient group 1' value set to supplement the H codes already included.

Other outpatient visits
Other outpatient visits require a procedure code or revenue code in the HEDIS Outpatient value set (the same one used for the primary care visit spec). None of the outpatient visit categories include ED visits.

Any prescription claims

Use of prescription drugs was based on any claim for a prescription (Rx code) during the time period, regardless of prescription type.

Chronic conditions

Chronic disease defined by claims-based diagnostic codes
Chronic disease was identified using diagnosis codes including asthma, arthritis, cancer, chronic kidney disease, COPD, diabetes mellitus, heart failure or ischemic heart disease, hypertension, and stroke/transient ischemic attack.

Mental and behavioral health conditions or substance use disorders (MH/SUD)
Mental health disorders are defined using ICD-9 and ICD-10 codes for mental health disorders, including the following:

1. Anxiety disorders
2. ADHD, Conduct Disorders, and Hyperkinetic Syndrome
3. Bipolar Disorder
4. Depressive Disorders
5. Personality Disorders
6. Post-Traumatic Stress Disorder (PTSD)
7. Schizoprehia and Other Psychotic Disorders
8. Other Mental Health Disorders

Substance use disorders are defined using ICD-9 and ICD-10 codes for substance use disorders, including the following:

1. Alcohol Use Disorders
2. Drug Use Disorders – Cannabis
3. Drug Use Disorders – Caffeine
4. Drug Use Disorders – Hallucinogens
5. Drug Use Disorders – Inhalants
6. Drug Use Disorders – Opioids
7. Drug Use Disorders - Sedatives, Hypnotics, Anxiolytics
8. Drug Use Disorders – Stimulants
9. Drug Use Disorders - Other or Unknown
10. Drug Use Disorders - Polysubstance

Derived variables

Change in employment (from 2016-2017)
Change in employment was defined as respondents who reported not being employed/self-employed in 2016 and then reported being employed/self-employed in 2017.

Major functional limitation (2017)
Major functional limitation was defined as missing 14-30 days of the past 30 days due to poor physical and/or mental health.

Positive employment-related outcome (2017)
Positive employment-related outcome was defined as a "yes" response to any of the following survey items from the 2017 follow-up survey: "the Healthy Michigan Plan helped me do a better job at work", "the Healthy Michigan Plan helped me get a better job", or "the Healthy Michigan Plan has made me better able to look for a job".

Improved health (from 2016-2017)
Improved health was defined as respondents who reported fair/poor health in 2016 and no longer reported fair/poor health in 2017.

Improved oral health
Improved oral health was defined as respondents who that their oral health got better in the past year.

Worsened oral health (2017)
Worsened oral health was defined as respondents who reported that their oral health got worse in the past year.

New chronic condition diagnosis in 2017 (from 2016-2017 survey and/or DW)
New chronic condition diagnosis in 2017 was defined as a new diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2017 as indicated by self-report and/or data warehouse when there was no diagnosis present either 2 years or 1 year before enrollment as indicated by self-report and/or Data Warehouse.

New chronic condition diagnosis (2016)
New chronic condition diagnosis in 2016 was defined as a new diagnosis of asthma, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke in 2016 as indicated by self-report.

Chronic condition (2016 or 2017 survey and/or DW)
Chronic condition was defined as a diagnosis of asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or Data Warehouse.

Two or more chronic conditions (2016 or 2017 survey and/or DW)
Two or more chronic conditions was defined as being diagnosed with two or more of the following chronic conditions: asthma, arthritis, cancer, COPD, diabetes, hypertension, heart disease, and/or stroke as indicated by self-report in 2016 or 2017 and/or Data Warehouse.

Forgone health care due to financial reasons (2017)
Forgone health care due to financial reasons was defined as respondents who reported forgone health care, either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled, due to the following reasons: cost, no insurance coverage, or needing a service that was not covered.

Health professional discussed exercise (2016 or 2017)
Health professional discussed exercise was defined as respondents who reported discussing exercise with a health professional in either 2016 or 2017.

Health professional discussed diet/nutrition (2016 or 2017)
Health professional discussed diet/nutrition was defined as respondents who reported discussing diet/nutrition with a health professional in either 2016 or 2017.

Health professional discussed safe alcohol use (2016 or 2017)
Health professional discussed safe alcohol use was defined as respondents who reported discussing safe alcohol use with a health professional in either 2016 or 2017.

Increased or maintained exercise frequency (from 2016-2017)
Increased or maintained exercise frequency was defined as respondents who reported a higher exercise frequency in 2017 compared to 2016 or reported exercising 3-6 days or every day in the last 7 days in both 2016 and 2017.

Sugary drink consumption (change 2016-2017)
Change in sugary drink consumption was defined as 'worse' if respondents reported a higher frequency of sugary drink consumption in 2017 compared to 2016, 'same' if respondents reported the same frequency of sugary drink consumption in 2017 as in 2016, or 'better' if respondents reported a lower frequency of sugary drink consumption in 2017 compared to 2016; respondents who reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017 were excluded.

Decreased or maintained sugary drink consumption (from 2016-2017)
Decreased or maintained sugary drink consumption was defined as respondents who reported a lower frequency of sugary drink consumption in 2017 compared to 2016 or reported 0 days of sugary drink consumption in the last 7 days in both 2016 and 2017.

Increased or maintained fruit and vegetable consumption (from 2016-2017)
Increased or maintained fruit and vegetable consumption was defined as respondents who reported a higher frequency of fruit and vegetable consumption (3+ servings in a day) in 2017 compared to 2016 or reported consuming 3+ servings of fruit and vegetables per day every day in the last 7 days in both 2016 and 2017.

Decrease in binge drinking frequency (from 2016-2017)
Decrease in binge drinking frequency was defined as respondents who reported a lower frequency of binge drinking in 2017 compared to 2016.

Current insurance is affordable (2017)
Current insurance is affordable is based on a 5-point Likert scale, dichotomizing strongly agree/agree vs. strongly disagree/disagree/neutral/don't know responses to the following questions on the 2017 enrollee follow-up surveys: "The amount I pay now for my health insurance is affordable" for respondents no longer enrolled, and to the question "The amount I pay for the Healthy Michigan Plan is affordable" for respondents still enrolled.

Knowledge of HMP covered benefits and costs
Knowledge of HMP covered benefits and costs is defined as the count of correct answers to a series of questions about HMP, which were common to both the 2016 and 2017 surveys (Range 0-6). These questions include: I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK; I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK; Some kinds of visits, tests and medicines have no copays. Y/N/DK; Do you think the following are covered under Healthy Michigan Plan, not covered, or you don't know: Eyeglasses, routine dental care, counseling for mental or emotional problems.

Quit smoking or using tobacco (from 2016-2017)
Quit smoking or using tobacco (from 2016-2017) was defined as respondents who reported using tobacco within the past 30 days in 2016 and no longer reported using tobacco with the past 30 days in 2017.

Regular source of care is not the ER in last 12 months
Regular source of care is not the ER in last 12 months was defined as respondents who reported that their regular source of care is a clinic, doctor's office, urgent care, walk-in clinic, other type of place, or don't know.

Regular source of care is not the ER
Regular source of care is not the ER was defined as respondents who reported that their regular source of care is a clinic, doctor's office, urgent care, walk-in clinic, other type of place, or don't know in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled.

Forgone health care (2017)
Forgone health care was defined as respondents who reported forgone health care either in the last 12 months for respondents still enrolled or since HMP coverage ended for respondents no longer enrolled.

ER visit (2016 or 2017)
ER visit had different wording between follow-up groups; for respondents still enrolled, the question asked was "During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"; for respondents no longer enrolled, the question asked was "Since your Healthy Michigan Plan insurance ended, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)?"

2017 Healthy Michigan Voices Follow-Up Survey
Appendix D: Details of Weighting Adjustment

Base Selection Weight

For base selection weight calculation, we started with all respondents from HMV 2016 and the final weight (w_6 in the data set) given to every 2016 *Healthy Michigan Voices* Enrollee Survey respondent. The follow-up survey was administered with 2016 *Healthy Michigan Voices* Enrollee Survey respondents who consented to be followed up. Even though the consent rate was very high at 96.4% (unweighted), not everyone consented. To compensate for this, we applied the following adjustment factor:

$$fu\_f_{1,hi} = \begin{cases} 0, & \text{if } i \text{ did not consent} \\ \dfrac{\sum_{i\in h} w_{6,i}}{\sum_{i\in h} I\_C_i \times w_{6,i}}, & \text{if } i \text{ consented} \end{cases}$$

where $w_{6,i}$ is the final weight of respondent i from HMV 2016 and I_C_i is a 1/0 indicator for consent status (1: consent, 0: not consent). Note that this factor is specific to each sampling stratum, h. This adjustment factor, $fu\_f_{1,hi}$, assumes that consenters in a stratum h represent non-consenters. The resulting base weight of the follow-up survey is:

$$fu\_w_{1,i} = fu\_f_{1,hi} \times w_{6,i}$$

Nonworking Number Adjustment

We used the following adjustment factor, $f_{2,hi}$, for nonworking numbers considered out of our target population.

$$fu\_f_{2,hi} = \begin{cases} 0, & \text{if } i \text{ is not working number} \\ \dfrac{\sum_{i\in h} fu\_w_{1,i}}{\sum_{i\in h}\left(I\_WR_i \times fu\_w_{1,i}\right)}, & \text{if } i \text{ is a working number} \end{cases}$$

where I_WR_i is a 1/0 indicator for working number status (1: working number, 0: nonworking number). The resulting weight is:

$$fu\_w_{2,i} = fu\_f_{2,hi} \times fu\_w_{1,i}$$

Unknown Eligibility Adjustment

An adjustment factor is applied to the weight from the previous stage to account for those that were working numbers but contact was not established as follows.

$$fu\_f_{3,hi} = \begin{cases} 0, & \text{if eligibility is unknown for } i \\ \dfrac{\sum_{i\in h} fu\_w_{2,i}}{\sum_{i\in h}\left(I\_UE_i \times fu\_w_{2,i}\right)}, & \text{if eligibility is known for } i \end{cases}$$

where I_UE_i is a $1/0$ indicator for unknown eligibility status (1: known eligibility; 0: unknown eligibility. The resulting weight is:

$$fu\_w_{3,i} = fu\_f_{3,hi} \times fu\_w_{2,i}$$

Known Eligibility Adjustment

Those who were contacted but were not eligible for various reasons were removed through the following approach:

$$fu\_f_{4,hi} = \begin{cases} 0, & \text{if } i \text{ is ineligible} \\ \dfrac{\sum_{i \in h} fu\_w_{3,i}}{\sum_{i \in h}\left(I\_EL_i \times fu\_w_{3,i}\right)}, & \text{if } i \text{ is eligible} \end{cases}$$

where I_EL_i is a $1/0$ indicator for eligibility status (1: eligible; 0: ineligible). The resulting weight is:

$$fu\_w_{4,i} = fu\_f_{4,hi} \times fu\_w_{3,i}$$

Nonresponse Adjustment

As examined in Table 2 above, there were some meaningful differences between respondents and nonrespondents. We made an adjustment for nonresponse using a logistic regression approach that controlled for the age, sex, race/ethnicity, first month on HMP and sampling stratum, which combines FPL and region. The adjustment factor, $fu\_f_{5,i}$, is the inverse of response propensity predicted from the logistic regression. The resulting weight is:

$$fu\_w_{5,i} = fu\_f_{5,i} \times fu\_w_{4,i}$$

Post-stratification

The target population of the 2017 HMV Follow-Up Survey were assumed to be the same as that of the 2016 HMV Enrollee Survey for a size of 384,262. Because age, sex, race/ethnicity and sampling stratum of follow-up respondents are known from the Data Warehouse, any potential discrepancies in these characteristics between the target population and the nonresponse adjusted sample were controlled in the post-stratification. In order to reduce the effect of a large variation in weights, weights were trimmed and normalized to the population totals. The resulting weight is $fu\_w_{6,i}$. When using this post-stratified weight, the sample matches the target population perfectly with respect to age, sex, race/ethnicity and sampling stratum.

2017 Healthy Michigan Voices Follow-Up Survey
Appendix E: Survey Instrument For Those Still Enrolled
Operationalized Version

[MAKING CONTACT/AGREEMENT TO PARTICIPATE]
Hi, can I speak with [RESP firstname]? This is *[interviewer firstname]* with the Healthy Michigan Voices project at the University of Michigan.

[If answered by another person] We want to give _____ an opportunity to participate in the Healthy Michigan Voices project. When would be a good time to call back? _____ Also, I'd like to leave a toll-free number where [RESP] can call us back. The number is 844-263-8402.

[If Voicemail] Hi, this message is for [firstname]. This is *[interviewer firstname]* with the Healthy Michigan Voices Project at the University of Michigan**. We spoke with you about a year ago, and would like to speak with you again about a follow-up survey and your opportunity for another $25 gift card. When you have about 15 minutes to take the survey, or you'd like to schedule a call-back time,** please give us a call back at our toll free number: 844-263-8402. Again, that's the Healthy Michigan Voices Project at 844-263-8402. Thank you.

INT00: If you have the enrollee on the phone:
Healthy Michigan Voices is a project at the University of Michigan – you may remember completing a phone survey with us about a year ago. We're checking back with people we interviewed last year, to get their views about what's working well and what may need to be improved.

The follow-up survey takes about 15 minutes, and you'll receive another $25 gift card for participating. Does this sound like something you'd have time for today?

INT10: Okay, just a couple of quick things for you to know before we start:

- The survey is confidential. We will not tell the state, your health plan, or your doctor any of the specific answers you give on the survey.
- Participating in the survey is voluntary -- if there are any questions you don't want to answer, you can skip them.
- For completing the survey, you get a $25 gift card that can be used anywhere that accepts MasterCard. And I'll tell you more about that at the end.

Do you have any questions before we begin?

RECORD_CALL: For quality assurance and training purposes, can we record this call? Yes/No [If respondent says no, verify that recorder is turned off]
[once recorder is on] Ok, we have your ID listed as <$Q>.

CH_DOB: And just to confirm that I'm talking with the right person, we show that you were born in <MONTH> <YEAROFB>. Is that correct? Yes/No [TEXT BOX if no]
CK_ENROL: And our records show that you are currently enrolled in the Healthy Michigan Plan. Is that correct? Yes/No [TEXT BOX OPTION]
If NO: GO TO "FOLLOW-UP NO LONGER ENROLLED" Survey Pathway

These first questions are about your health and health care.
Q1. In general, would you say your health is: Excellent; Very Good; Good; Fair; OR Poor

Q2. Thinking about your physical health, which includes physical illness and injury: for how many days during the past 30 days was your physical health not good?

Q3. In the past year, would you say your physical health has gotten better, stayed the same, OR gotten worse?

Q4. Now thinking about your mental health, which includes stress, depression, and problems with emotions: for how many days during the past 30 days was your mental health not good?

Q5. In the past year, would you say your mental and emotional health has gotten better, stayed the same, OR gotten worse?

Q6. During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Q7. In the past year, has the health of your teeth and gums gotten better, stayed the same, OR gotten worse?

Q8a. How tall are you? _____

Q8b. How much do you weigh? _____

Q9. Has a doctor or other health professional ever told you that you had any of the following?

a) Hypertension, also called high blood pressure? Yes/No
b) A heart condition or heart disease? Yes/No
c) Diabetes or sugar diabetes (other than during pregnancy)? Yes/No
d) Cancer, other than skin cancer? Yes/No
e) A mood disorder (For example, depression, anxiety, bipolar disorder)? Yes/No
f) A stroke? Yes/No
g) Asthma? Yes/No
h) Chronic bronchitis, COPD or emphysema? Yes/No
i) A substance use disorder? Yes/No
j) Arthritis or a related condition (for example, rheumatoid arthritis, gout, lupus, or fibromyalgia)? Yes/No
k) Any other ongoing health condition? Yes/No If YES: **Q10a** What is the condition? [TEXT BOX]

Now I'm going to ask about your recent experiences getting health care in the past 12 months.
Q10. In the last 12 months, is there a place you usually go when you need a checkup, feel sick, or want advice about your health? Yes/ No/ Don't know/NA – haven't gotten care

If **Q10=**YES: **Q11**. What kind of a place was it? a clinic, doctor's office, urgent care/walk-in clinic, ER

If Q11=clinic/doctor's office:

Q12. And is this your primary care provider for your Healthy Michigan Plan Coverage? Yes/No

If **Q10**=No/Don't Know/NA OR **Q11**=urgent care/walk-in/ER or **Q12**=No:

Q12a. Do you have a primary care provider for your Healthy Michigan Plan Coverage? Yes/No

Q13. Is this the same primary care provider you had when we talked with you last year? Yes/No

If Q14=No: **Q13a.** Why did you change? [open-ended, check whatever mentioned]

- ☐ Didn't like it/wanted a new doctor
- ☐ Office closed or moved
- ☐ Switched health plans, had to change
- ☐ Other [TEXT BOX]

Q14. Have you seen your primary care provider in the past 12 months? (Yes/ No/Don't know)

If Q14=No: **Q14a.** Why not? [open-ended, check whatever mentioned]

- ☐ Healthy/didn't need to
- ☐ Couldn't get appointment
- ☐ Transportation/office too far away
- ☐ Don't like my PCP/office staff
- ☐ See a specialist instead
- ☐ Inconvenient hours
- ☐ Don't like doctors in general
- ☐ Other [TEXT BOX]

Q15. In the last 12 months, did you get dental care? Yes/No

Q16. In the last 12 months, was there any time when you didn't get the dental care you needed? Yes/No

If 16=YES: **Q16a**. Why didn't you get the care you needed? [open-ended; mark all mentioned]

- ☐ Dental plan wouldn't cover treatment/service
- ☐ Couldn't find provider that took your dental insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Afraid of going to dentist
- ☐ Doesn't realize HMP covers dental at all
- ☐ Other [TEXT BOX]

Q17. During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)? Yes – complete Q18-19 /No – complete Q20

If Q17=YES: **Q18.** Thinking about the last time you were at the emergency room, did you try to contact your usual provider's office before going to the emergency room? Yes/No/NA – no PCP at the time of the ER visit

If Q18=YES: **Q18a**. Did you talk to someone? Yes/No

If Q18a=YES: **Q18b.** Why did you end up going to the ER? [open-ended, check whatever mentioned]

- ☐ No response from the provider
- ☐ Told to go to the ER
- ☐ Advice wasn't helpful
- ☐ Symptoms didn't improve or got worse
- ☐ You couldn't get an appointment soon enough
- ☐ Other [TEXT BOX]

Q19. Which of these were true about that last ER visit?

a. You arrived by ambulance or other emergency vehicle Y/N/DK
b. The problem was too serious for a doctor's office or clinic Y/N/DK
c. Your doctor's office or clinic was not open Y/N/DK
d. You needed to get care at a time that would not make you miss work or school Y/N/DK
e. You went to the ER because it's your closest place to receive care Y/N/DK
f. You went to the ER because you get most of your care at the emergency room Y/N/DK
g. Any other reason you decided to go to the ER? [TEXT BOX]

If Q17=NO: **Q20.** Sometimes people need health care help or advice when their usual clinic or doctor's office is closed. In the last 12 months was there a time when you needed help or advice when your usual clinic or doctor's office was closed? Y/N

If Q20=YES: **Q20a**. Thinking about the last time, what did you do to get the health care help or advice you needed? [open-ended, check whatever mentioned]

- ☐ Phone/email with primary care office
- ☐ Got primary care appointment next day/soon
- ☐ Went to urgent care/walk-in clinic
- ☐ Got advice elsewhere (friends, internet, etc)
- ☐ Problem got better without seeking care
- ☐ Other _____

Q21. In the past 12 months, when you felt sick or wanted advice about your health, how easy or difficult was it to get an appointment to see your primary care provider? Would you say: Very easy/Easy/Neutral/ Difficult/Very Difficult or Not Applicable?

If Q21**=** Difficult/Very Difficult: **Q21a.** What made it difficult? [open-ended, check whatever mentioned]

- ☐ Couldn't get through on the telephone
- ☐ Couldn't get an appointment soon enough
- ☐ Inconvenient hours
- ☐ Transportation
- ☐ My PCP not available / had to see another provider
- ☐ Don't like my PCP/office staff
- ☐ Other [TEXT BOX]

Q22. In the last 12 months, was there any time when you didn't get the health care you needed? Yes/No

If Q22=YES: **Q22a.** What type of care?

- ☐ Primary care visits
- ☐ Specialist visits
- ☐ Mental health
- ☐ Prescription medication
- ☐ Other [TEXT BOX]

If Q22=YES*:* **Q22b.** Why didn't you get the care you needed? [open-ended; mark all mentioned/loop if >1]

- ☐ Cost
- ☐ Plan wouldn't cover services needed
- ☐ Couldn't find provider that took your insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Other [TEXT BOX]

These next questions are about common types of healthy behaviors.

Q23. In the last 7 days, how many days did you exercise for at least 20 minutes? Read categories if needed: Every day; 3-6 days; 1-2 days; 0 days

Q24. In the last 7 days, how many days did you drink soda or pop that contains sugar, sweetened fruit drinks, sports drinks, or energy drinks? (Do not include diet soda) Read if needed: Every day 3-6 days 1-2 days 0 days

Q25. In the last 7 days, how many days did you eat 3 or more servings of fruits or vegetables in a day? Read if needed: Every day 3-6 days 1-2 days 0 days

If questioned: Each time you ate a fruit or vegetable counts as one serving. It can be fresh, frozen, canned, cooked or mixed with other foods.

Q26. In the last 12 months, has a doctor, nurse, or other health professional talked with you about exercise? Y/N

Q27. In the last 12 months has a doctor, nurse or other health professional talked with you about diet and nutrition? Y/N

Q28. In the last 7 days, how many days did you have [autofill 5 or more for men, 4 or more for women] alcoholic drinks? Read if needed: Every day 3-6 days 1-2 days 0 days

If Q28=1 or more days: **Q28a.** In the last 12 months, has a doctor, nurse, or other health professional talked with you about safe alcohol use? Y/N

Q29. In the last 30 days have you smoked or used tobacco? Yes /No

If Q29=YES:

Q30. Do you want to quit smoking or using tobacco? Yes/No

If Q30=YES: **Q30a**. Are you working on cutting back or quitting right now? Yes/No

Q31. In the last 12 months, did you receive any advice or assistance from a health professional or your health plan on HOW to quit or cut back? Yes/No/Don't know

Q32. In the last 30 days, have you used drugs or medications *to affect your mood or help you relax?* This includes prescription drugs taken differently than how you were told to take them, as well as street drugs. Yes/No

If Q32=YES: **Q32a**. How often? Almost every day/Sometimes/Rarely/Never

If Q32a = Almost every day/Sometimes: **Q32b.** In the last 12 months, has a doctor, nurse, or other health professional talked with you about your use of these drugs or medications? Yes/No

People who enroll in the Healthy Michigan Plan are encouraged to complete a Health Risk Assessment each year. *The Health Risk Assessment form includes questions about your eating, exercise and other health habits; a section about choosing a healthy behavior to work on; and a section your provider's office should complete.*

Q33. In the last year, did you discuss the Health Risk Assessment with your doctor or someone at your primary care provider's office? Yes/No/Don't remember

If Q33=YES: **Q33a.** What healthy behavior did you choose to work on? [open-ended, code all mentioned]

Exercise/activity	Stress/mental health care Take medicine regularly
Nutrition/diet	Monitor my blood pressure/blood sugar
Lose weight	Go to the dentist
Reduce/quit tobacco use	Return to doctor
Flu shot	Other [TEXT BOX]
Reduce/quit alcohol use	Don't remember
Treatment for substance use	

If Q33a=anything: **Q33b**. WHY did you choose this healthy behavior? [open-ended]

Doctor suggested it
Something I wanted to do anyway
Easy to do
HMP would cover the cost
Other [TEXT BOX]: _____

The next questions are about your Healthy Michigan coverage.

Q34. I'm going to read some different types of health care, and you tell me if you think it is covered under Healthy Michigan Plan, not covered, or if you don't know. Don't worry if you don't know the answer – the state is just trying to find out what people do and don't know about the Healthy Michigan Plan. The first one is eyeglasses: do you think those are covered, not covered or don't know?

a. Eyeglasses covered/not covered/don't know
b. Prescription medications

c. Routine dental care
d. Treatment to stop smoking
e. Birth control or family planning
f. Counseling for mental or emotional problems
g. Substance use treatment

Now I'm going to make some statements about the Healthy Michigan Plan coverage and costs. If you think the statement is correct, say "yes." If you think it is incorrect, say "no." If you don't know, say "don't know".
Q35a. I could be dropped from the Healthy Michigan Plan for not paying my bill. Y/N/DK
Q35b. I may get a reduction in the amount I might have to pay if I complete a health risk assessment. Y/N/DK
Q35c. Some kinds of visits, tests and medicines have no copays. Y/N/DK
Q35d. There is a limit on the total amount I have to pay each year for Healthy Michigan Plan insurance.

Q36. In the past year, have you received a statement from the state that showed the services you received through the Healthy Michigan Plan and how much you owe, if anything? It's called your MI Health Account Statement. Y/N
NOTE: MI Health Account statements are sent through the mail. You should get one of these statements every few months, even if you don't owe anything. Do you remember anything like that?

If Q36=Yes: ask Q37-39
For the following statements, tell me if you strongly agree, agree, are neutral, disagree, or strongly disagree.
Q37. I carefully review each MI Health Account statement to see how much I owe.
Q38. The MI Health Account statements help me be more aware of the cost of health care.
Q39. Information I saw in a MI Health Account statement led me to change some of my decisions about health care.

ALL RESPONDENTS
Q40. For the next questions, tell me if you*: strongly agree, agree, are neutral, disagree, or strongly disagree.*
a) The amount I have to pay overall for the Healthy Michigan Plan seems fair.
b) The amount I pay for the Healthy Michigan Plan is affordable.
c) Having the Healthy Michigan Plan has taken a lot of stress off me.
d) Without the Healthy Michigan Plan, I wouldn't be able to go to the doctor.
e) Without the Healthy Michigan Plan, I wouldn't be able to go to the dentist.

Q41. For these next few questions, I'm going to read some general statements about getting health, and you tell me if you*: strongly agree, agree, are neutral, disagree, or strongly disagree*

a) Doctors treat people on Medicaid the same as people with private insurance.
b) Medicaid helps people get a "leg-up" when they really need it.
c) Many people on Medicaid do not want other people to know.
d) A lot of people in this country don't respect those on Medicaid.
e) There should be a limit on how long someone can be covered by Medicaid.
f) It is very important to me personally to have health insurance.
g) Getting discounts on copays and premiums as a reward for working on improving your health is a good idea.
h) Everyone should have to pay something for their health care.
i) If I have a medical problem, my preference is to go straight to a doctor and ask his or her opinion

Q42. In the last 12 months, have you had any questions or problems **using** your Healthy Michigan Plan insurance?
If Q42=YES: **Q42a:** What kind of questions or difficulties did you have? (open ended; check all that apply)
☐ Difficulty/inability finding a provider

- ☐ Needed a service that wasn't covered
- ☐ Difficulty finding out information
- ☐ Payment issues (making payments, charged incorrectly, did not know how/how much to pay)
- ☐ Other [TEXT BOX]

Q43. In the last 12 months, about how much did you spend out-of-pocket for your own medical and dental care?
Record $ _____ OR Don't Know

If Q43=DON'T KNOW: **Q43a**. I'll read some categories, and you stop me when I get to the amount you think is about right. less than $50, from $51-100, $101-500, $501 to $2,000, $2,001 to $3,000, $3,001 to $5,000, or more than $5,000?

INTERVIEWER NOTE: (1) Your best estimate is fine. (2) Include anything paid for prescription drugs, co-payments, insurance premiums and deductibles. Do not include anything paid by your health insurance.

For these next questions, you can just answer yes or no.

Q44. In the past 12 months, did you check how much you would pay for a doctor's visit, medication, or other health care service before you received care? Y/N/DK

If Q44=YES: **Q44a:** What type of health care was this for? (open ended; check all that apply)

- ☐ Doctor's visit
- ☐ Medication
- ☐ Lab test / imaging test
- ☐ Surgery or procedure
- ☐ Other [TEXT BOX]

Q45. In the past 12 months, did you compare quality ratings for any health care services at different places?

If Q45=YES: **Q45a:** What type of health care was this for? (open ended; check all that apply)

- ☐ Doctor's visit
- ☐ Medication
- ☐ Lab test / imaging test
- ☐ Surgery or procedure
- ☐ Other [TEXT BOX]

(Q46 Removed from survey 3/10/2017)

Q47. In the past 12 months, did you ask a health care provider to recommend a less costly prescription drug?

Next we have just a few questions about you.

Q48. Are you currently in school? Yes/No

If YES: **Q48a.** Are you a full-time or part-time student? Full-time/Part-time

Q49. Are you currently employed or self-employed? Yes/No

If Q49=YES:

Q50a. Are you working full time or part time? Full-time/Part-time

Q50b. In the past 12 months...about how many days did you miss work because of illness or injury (do not include maternity leave)?

Q50c. Have you changed jobs in the last 12 months? Y/N

If Q49=NO:

Q51a Are you out of work, unable to work, retired, or not looking for work at this time?

1 Out of work
2 Unable to work
3 Retired
4 Not looking for work at this time

Q51b How long have you been [out of work/unable to work/retired]?
Less than one year / One year or more

[if unable] **Q51c** Why are you unable to work?
Disabled / Poor health / Old age / Caregiving responsibilities / Other [TEXT BOX]

Notes: If Q48=YES, resp. should get Q52b, plus whatever employment questions are appropriate
If Q50c=YES, resp. should get Q52b, Q52c and Q52d
If Q50c=NO, resp. should get Q52a and Q52c
If OUT OF WORK (no matter how long), resp. should get Q52e
If UNABLE TO WORK **and** NOT IN SCHOOL, do not ask any of the Q52 questions
If RETIRED for **ONE YEAR OR MORE and** NOT IN SCHOOL, do not ask any of the Q52 questions
If NOT LOOKING FOR WORK (no matter how long), resp. should get Q52b

Q52. For the next questions, please answer Yes, No or Not applicable.
Q52a: The Healthy Michigan Plan gave me insurance when I couldn't get insurance at my job.
Q52b: Having the Healthy Michigan Plan helped me stay insured between jobs or between school and a job.
Q52c: The Healthy Michigan Plan helped me do a better job at work.
Q52d: The Healthy Michigan Plan helped me get a better job.
Q52e: The Healthy Michigan Plan has made me better able to look for a job.

Q53. What is the highest grade of school you have completed, or the highest degree you have received? [open-ended]

- ☐ Less than high school
- ☐ High school graduate (or equivalent)
- ☐ Some college (1-4 years, no degree)
- ☐ Associate's degree (including occupational or academic degrees)
- ☐ Bachelor's degree (BA, BS, AB, etc.)
- ☐ A post graduate degree (MS, MSW, MPH, MD, JD, etc.)

Q54. Are you: Married Divorced Widowed Separated Partnered Never Married

Q55a. In the past 3 years, how many places have you lived for one week or longer —including where you live now? Would you say: 1 / 2 / 3 / 4 or more

Q55b. Have you been homeless at any time in the last 12 months?

Q56. Would you like to add anything else about your experiences with the Healthy Michigan Plan? [TEXT BOX]

End of Survey/Contact Information:
ADDRESS2 That's the end of the survey. Can you please confirm your address so we can send your gift card? [AUTOFILL address] You should receive the gift card in 1-3 weeks at that address.
FOLLOWUPSURV We may be conducting a follow-up survey. Would you be willing to have us recontact you for that? We're just asking for contact information – you can decide at that time if you'd like to participate. Y/N
FOLLOWUPPHONE If YES: What is the best phone number to reach you? [Record new #]

FOLLOWUPTEXT Can this number get text messages? Yes/No
FOLLOWUPEMAIL Is there an email address we can use to contact you? Y/N [record If given]
INT99 Thanks so much for talking with me today! Look for your gift card in 1-3 weeks.

2017 Healthy Michigan Voices Follow-Up Survey
Appendix F: Survey Instrument For Those No Longer Enrolled
Operationalized Version

[MAKING CONTACT/AGREEMENT TO PARTICIPATE]
Hi, can I speak with [RESP firstname]? This is *[interviewer firstname]* with the Healthy Michigan Voices project at the University of Michigan.

[If answered by another person] We want to give _____ an opportunity to participate in the Healthy Michigan Voices project. When would be a good time to call back? _____ Also, I'd like to leave a toll-free number where [RESP] can call us back. The number is 844-263-8402.

[If Voicemail] Hi, this message is for [firstname]. This is *[interviewer firstname]* with the Healthy Michigan Voices Project at the University of Michigan**. We spoke with you about a year ago, and would like to speak with you again about a follow-up survey and your opportunity for another $25 gift card. When you have about 15 minutes to take the survey, or you'd like to schedule a call-back time,** please give us a call back at our toll free number: 844-263-8402. Again, that's the Healthy Michigan Voices Project at 844-263-8402. Thank you.

INT00: If you have the enrollee on the phone:
Healthy Michigan Voices is a project at the University of Michigan – you may remember completing a phone survey with us about a year ago. We're checking back with people we interviewed last year, to check in on how they've been doing over the last year.

The follow-up survey takes about 15 minutes, and you'll receive another $25 gift card for participating. Does this sound like something you'd have time for today?

INT10: Okay, just a couple of quick things for you to know before we start:

- The survey is confidential. We will not tell the state, your health plan, or your doctor any of the specific answers you give on the survey.
- Participating in the survey is voluntary -- if there are any questions you don't want to answer, you can skip them.
- For completing the survey, you get a $25 gift card that can be used anywhere that accepts MasterCard. And I'll tell you more about that at the end.

Do you have any questions before we begin?

RECORD_CALL: For quality assurance and training purposes, can we record this call? Yes/No [If respondent says no, verify that recorder is turned off]
[once recorder is on] Ok, we have your ID listed as <$Q>.

CH_DOB: And just to confirm that I'm talking with the right person, we show that you were born in <MONTH> <YEAROFB>. Is that correct? Yes/No [TEXT BOX if no]
CK_DISENROL: And our records show that your last month in the Healthy Michigan Plan was [HMP last month/year autofilled]. Does that sound about right?

Yes – go to Q1
Recently got back on the Healthy Michigan Plan – go to HMV Follow-Up for Still Enrolled in HMP
On Medicaid but not HMP – go to Q1
No - wrong end date (but still off HMP) [TEXT BOX for explanation] - then go to Q1

So now I have a few questions about the end of your Healthy Michigan Plan insurance coverage.
Q1. Was it <u>your choice</u> to end your Healthy Michigan Plan enrollment?

If YES: Why did you decide to end your Healthy Michigan Plan enrollment? Was it…
- ☐ **Q1a** Because you got other insurance coverage? Yes/No
- ☐ **Q1b** Because you were not satisfied with the Healthy Michigan Plan? Yes/No
  Q1b1 If YES: What were you dissatisfied with? [TEXT BOX]
- ☐ **Q1c** Because of some other reason? Yes/No [TEXT BOX if yes]

If NO: **Q1d.** Why did your Healthy Michigan Plan insurance end? [open-ended; check all mentioned]
- ☐ No longer eligible
- ☐ Didn't send in re-enrollment materials
- ☐ Don't know why
- ☐ Other [TEXT BOX]

Q2. Are you <u>currently</u> covered by any kind of health insurance or health care plan?
Yes—skip to Q4A / No - continue to Q3

[If Q2=NO, NOT currently covered by health insurance]
Q3. Did you have health insurance at any time since your Healthy Michigan Plan insurance ended?
Yes – continue with 3a / No – skip to 3e

If Q3=YES: **Q3a.** What <u>type</u> of health insurance did you have? [open-ended; *can have >1 type*]
- ☐ Insurance provided through a job or union
  If YES: **Q3a1.** Whose job is it? (respondent/family member)
- ☐ Insurance purchased by you or someone else
  If YES: **Q3a2.** Who purchased it? (respondent/family member)
  Q3a3. Was it purchased through the marketplace known as healthcare.gov? Y/N/DK
  If YES: **Q3a4.** Did you receive a subsidy? A subsidy is a benefit from the government that can lower your monthly health insurance payments according to your income. Y/N/DK
- ☐ Veterans Administration or VA care
- ☐ CHAMPUS, TRICARE
- ☐ Medicare
- ☐ County health plan
- ☐ Medicaid / MiChild / other state program
- ☐ Student health plan
- ☐ Other: [TEXT BOX]

Q3b. Why did that insurance coverage end?
- ☐ Lost job/employer coverage
- ☐ Too expensive
- ☐ Other [TEXT BOX]

Q3c. Since your Healthy Michigan Plan insurance ended, for how many months were you uninsured?
- ☐ Three months or less
- ☐ Four months to six months
- ☐ Seven months to 11 months
- ☐ More than 12 months
- ☐ Other [explain] [TEXT BOX]
- ☐ Don't know

Q3d. What are the MAIN reasons you currently do not have health insurance? [open-ended; check all]

- ☐ Job didn't offer health insurance / offered but too expensive
- ☐ No medical problems/didn't need insurance
- ☐ Too expensive to buy own policy
- ☐ Was waiting to get insurance through a job
- ☐ Had problems with applying
- ☐ Tried to enrolled in private insurance, redirected to Medicaid
- ☐ Just didn't get around to it
- ☐ Other [TEXT BOX]
- ☐ Don't know

Q3e. Do you think you will get health insurance within the next 6 months? Yes/No/Unsure/Don't Know

If YES: **Q3e1.** What type of health insurance? Employer/Medicaid/Medicare/Other [TEXT BOX]

If UNSURE: **Q3e2**. What type of health insurance do you think that would be?
Employer/Medicaid/Medicare/Other [TEXT BOX]

If Q2=YES: **Q4a.** What type of health insurance do you have?…

- ☐ Insurance provided through a job or union
  If YES: **Q4a1**Whose job is it? (respondent; family member)
- ☐ Insurance purchased by you or someone else
  If YES: **Q4a2** Who purchased it? (respondent; family member)
  Q4a3 Was this insurance purchased through the marketplace known as healthcare.gov? Yes/No
  Q4a4 If YES: Did [you/they] receive a subsidy? A subsidy is a benefit from the government that can lower your monthly health insurance payments according to your income. Yes/No
- ☐ Veterans Administration or VA care
- ☐ CHAMPUS, TRICARE
- ☐ Medicare
- ☐ County health plan
- ☐ Medicaid
- ☐ Other: [TEXT BOX]

Q4b. Was there any time since your Healthy Michigan Plan insurance ended that you didn't have any health insurance? Yes/No

If YES: **Q4b1.** How long were you uninsured? [record response; offer categories if needed]

- ☐ Three months or less
- ☐ Four months to six months
- ☐ Seven months to 11 months
- ☐ More than 12 months
- ☐ Other [explain] [TEXT BOX]
- ☐ Don't know

Q4c. What were the main reasons you were without health insurance for that time? [open-ended]

- ☐ Job didn't offer health insurance / offered but too expensive
- ☐ No medical problems/didn't need insurance
- ☐ Too expensive to buy own policy
- ☐ Was waiting to get insurance through a job
- ☐ Had problems with applying
- ☐ Tried to enrolled in private insurance, redirected to Medicaid

- ☐ Just didn't get around to it
- ☐ Other [TEXT BOX]

Q4d. *Back to the health insurance you currently have…*Is your current health insurance plan in your name or someone else's? In my name/Someone else's name

Q4d1. If SOMEONE ELSE'S: What is your relationship to that person? Spouse/Former spouse/ Other family member/Some other relationship/Don't know

How much are the health insurance premiums? Give the dollar amount and how often it is paid, for example, $100 a month. Include what is taken out of a paycheck to cover insurance premiums. *Include cost covered by anyone on your behalf EXCEPT an employer.*

Q4e1 [TEXT BOX $____] $0/ $1-$99/ $99-$199 $200 or more Don't know	**Q4e3** Every week/ Every 2 weeks/bi-monthly Once a month/ Quarterly (every 3 months)/ Twice a year Once a year/ N/A - $0 Other [TEXT BOX] Don't know
Q4e2 *If Don't Know for either $ or timeframe*: Would you say the amount per month is: $0 $1-$99 $99-$199 $200 or more Don't know	

[Ask ONLY for those who currently have private coverage and insurance in respondent's name]

Q4f. Who is covered under your current health insurance plan?

- ☐ Just me
- ☐ Me and at least one other family member
- ☐ Don't know

Q4g. A deductible is the amount of money you yourself have to pay for health care services before your health insurance will start paying. Does this health plan have a deductible? Yes/No/Don't know

TRAINING NOTE: Sometimes there are services covered before the deductible is met (IF RESPONDENT CONFUSES DEDUCTIBLE AND CO-PAY: A co-pay is payment for a doctor visit or other medical service and a deductible is the amount you pay before your insurance plan will start paying any part of your medical bills.

[if 4G=Yes] Is the annual deductible for medical care for this plan:

Q4g1a *If individual plan:* less than $1,300/ between $1,300 and $2,600 or more than $2,600?	**Q4g1b** *[If 2+ persons covered by this plan:]* less than $2,600, between $2,600 and $5,200 or more than $5,200?

TRAINING NOTE: If there is a separate deductible for prescription drugs, hospitalization, or out-of-network care, do not include those deductible amounts here.

These next questions are about your health and health care.
Q5. In general, would you say your health is: Excellent; Very Good; Good; Fair; OR Poor

Q6. Thinking about your physical health, which includes physical illness and injury: for how many days during the past 30 days was your physical health not good?

Q7. In the past year, would you say your physical health has gotten better, stayed the same, OR gotten worse?

Q8. Now thinking about your mental health, which includes stress, depression, and problems with emotions: for how many days during the past 30 days was your mental health not good?

Q9. In the past year, would you say your mental and emotional health has gotten better, stayed the same, OR gotten worse?

Q10. During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Q11. In the past year, has the health of your teeth and gums gotten better, stayed the same, OR gotten worse?

Q12. How tall are you? _____

Q13. How much do you weigh? _____

Q14. Has a doctor or other health professional ever told you that you had any of the following?

a) Hypertension, also called high blood pressure? Yes/No
b) A heart condition or heart disease? Yes/No
c) Diabetes or sugar diabetes (other than during pregnancy)? Yes/No
d) Cancer, other than skin cancer? Yes/No
e) A mood disorder (For example, depression, anxiety, bipolar disorder)? Yes/No
f) A stroke? Yes/No
g) Asthma? Yes/No
h) Chronic bronchitis, COPD or emphysema? Yes/No
i) A substance use disorder? Yes/No
j) Arthritis or a related condition (for example, rheumatoid arthritis, gout, lupus, or fibromyalgia)? Yes/No
k) Any other ongoing health condition? Yes/No If YES: What is the condition? [TEXT BOX]

Now I'm going to ask about your recent experiences getting health care.

Q15. Since your Healthy Michigan Plan insurance ended, is there a place you usually go when you need a checkup, feel sick, or want advice about your health? Yes/ No/ Don't know/NA – haven't gotten care

If Q15**=**YES:

Q15a. What kind of a place was it? a clinic, doctor's office, urgent care/walk-in clinic, ER
If Q15a=clinic/ doctor's office: **Q15b.** Is this the same place as your Healthy Michigan Plan primary care provider? Yes/No

Q16. **Since your Healthy Michigan Plan insurance ended,** did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)? Yes – complete Q17 /No – skip to Q18

If 16=YES: **Q17**. Thinking about the most recent time you were at the emergency room, did you try to contact your usual provider's office before going to the emergency room? Yes/No/NA – no usual provider

If Q17=YES: **Q17a.** Did you talk to someone? Yes/No

If Q17a=YES: **Q17b.** Why did you end up going to the ER? [open-ended, check whatever mentioned]

- ☐ No response from the provider
- ☐ Told to go to the ER
- ☐ Advice wasn't helpful
- ☐ Symptoms didn't improve or got worse
- ☐ You couldn't get an appointment soon enough
- ☐ N/A don't have a usual provider right now
- ☐ Other [TEXT BOX]

Q18. Since your Healthy Michigan Plan insurance ended, have you had to change any of your providers? Yes/No

Q18a. If YES: Which providers? [open-ended; mark all mentioned]

- ☐ Primary care provider
- ☐ Specialist
- ☐ Mental health provider
- ☐ Dentist
- ☐ Other [TEXT BOX]

Q19. Since your Healthy Michigan Plan insurance ended, was there any time when you didn't get the health care you needed? Yes/No

Q19a. If YES: What type of care? [open-ended; mark all mentioned]

- ☐ Primary care visits
- ☐ Specialist visits
- ☐ Mental health
- ☐ Prescription medication
- ☐ Other [TEXT BOX]

Q19b. If YES**:** Why didn't you get the care you needed? [open-ended/mark all; loop Q19a types]

- ☐ Cost
- ☐ No insurance coverage
- ☐ Plan wouldn't cover services needed
- ☐ Couldn't find provider that took your insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Other [TEXT BOX]

Q20. Since your Healthy Michigan Plan insurance ended, was there any time when you didn't get the dental care you needed? Yes/No

If Q20=YES: **Q20a.** Why didn't you get the care you needed? [open-ended; mark all mentioned]

- ☐ Dental plan wouldn't cover treatment/service
- ☐ Couldn't find provider that took your dental insurance
- ☐ Problems getting appointment
- ☐ Transportation/logistics
- ☐ Afraid of going to dentist
- ☐ Doesn't realize HMP covers dental at all
- ☐ Other [TEXT BOX]

Q21. Overall, how does the amount you currently pay for your health care in a typical month compare to what you were paying with your Healthy Michigan Plan insurance? Would you say: About the same/Less /A Little More /A lot more

Q22. Since your Healthy Michigan Plan insurance ended, have you had problems paying medical bills? Yes/No
IF Q22=YES: **Q22a** Since your Healthy Michigan insurance ended, have your problems paying medical bills Gotten worse/Stayed the same/Gotten better?

These next few questions ask for your opinions about the Healthy Michigan Plan.
Q23. Tell me if you: Strongly agree/Agree/Are neutral/Disagree/Strongly disagree

a) The amount I paid for the Healthy Michigan Plan seemed fair.
b) The amount I paid for the Healthy Michigan Plan was affordable.
c) I worry more about something bad happening to my health since my Healthy Michigan Plan insurance ended.

Q24. For these next questions, tell me if you: Strongly agree/Agree/Are neutral/Disagree/Strongly disagree

a) [If CURRENTLY INSURED]*:* The amount I pay now for my health insurance seems fair.
b) [If CURRENTLY INSURED]: The amount I pay now for my health insurance is affordable.
c) Getting discounts on copays and premiums as a reward for working on improving your health is a good idea.
d) Everyone should have to pay something for their health care.
e) It is very important to me personally to have health insurance.
f) People without health insurance need to worry a lot about being wiped out financially.

Q25. For these next few questions, I'm going to read some general statements about getting health care, and you tell me if you: Strongly agree/Agree/Are neutral/Disagree/Strongly disagree

a) I'm often embarrassed to go see a doctor.
b) Getting regular check-ups is not very important when you are healthy.
c) Going to public or free clinics is just fine with me.
d) Sometimes I go to the ER because I know they can't turn me away.
e) Sometimes I go to the ER because I don't have another place to get care.
f) Many people are treated poorly when they are applying for Medicaid.
g) Doctors treat people on Medicaid the same as people with private insurance.
h) Medicaid helps people get a "leg-up" when they really need it.
i) Many people on Medicaid do not want other people to know.
j) A lot of people in this country don't respect those on Medicaid.
k) There should be a limit on how long someone can be covered by Medicaid.

For these next questions, you can just answer yes or no.
Q26. In the past 12 months, did you check how much you would pay for a doctor's visit, medication, or other health care service before you received care? Y/N/DK

If Q26=YES: **Q26a:** What type of health care was this for? (open ended; check all that apply)

- ☐ Doctor's visit
- ☐ Medication
- ☐ Lab test / imaging test
- ☐ Surgery or procedure
- ☐ Other [TEXT BOX]

Q27. In the past 12 months, did you compare quality ratings for any health care services at different places?

If Q27=YES: **Q27a:** What type of health care was this for? (open ended; check all that apply)

- ☐ Doctor's visit
- ☐ Medication
- ☐ Lab test / imaging test
- ☐ Surgery or procedure

☐ Other [TEXT BOX]

(Q28 Removed from survey 3/10/2017)

Q29. In the past 12 months, did you ask a health care provider to recommend a less costly prescription drug?

Next we have just a few questions about you.
Q30. Are you currently in school? Yes/No
If YES: **Q30a1** Are you a full-time or part-time student? Full-time/Part-time

Q31. Are you currently employed or self-employed? Yes/No
If Q31=YES: **Q31a.** Are you working full time or part time? Full-time/Part-time
Q31b. In the past 12 months...about how many days did you miss work because of illness or injury (do not include maternity leave)?
Q31c. Have you changed jobs in the last 12 months? Y/N

If Q31=NO: **Q32a.** Are you out of work, unable to work, retired, or not looking for work at this time?
1 Out of work
2 Unable to work
3 Retired
4 Not looking for work at this time
Q32b. How long have you been [out of work/unable to work/retired]?
Less than one year / One year or more
[if unable] **Q32c.** Why are you unable to work?
Disabled / Poor health / Old age / Caregiving responsibilities / Other [TEXT BOX]
Notes: If Q30=YES, resp. should get Q33b, plus whatever employment questions are appropriate
If Q31c=YES, resp. should get Q33b, Q33c and Q33d
If Q31c=NO, resp. should get Q33a and Q33c
If OUT OF WORK (no matter how long), resp. should get Q33e
If UNABLE TO WORK **and** NOT IN SCHOOL, do not ask any of the Q33 questions
If RETIRED for **ONE YEAR OR MORE and** NOT IN SCHOOL, do not ask any of the Q33 questions
If NOT LOOKING FOR WORK (no matter how long), resp. should get Q33b

Q33. For the next questions, please answer Yes, No or Not applicable.
a: The Healthy Michigan Plan gave me insurance when I couldn't get insurance at my job.
b: Having the Healthy Michigan Plan helped me stay insured between jobs or between school and a job.
c: The Healthy Michigan Plan helped me do a better job at work.
d: The Healthy Michigan Plan helped me get a better job.
e: The Healthy Michigan Plan has made me better able to look for a job.

Q34. What is the highest grade of school you have completed, or the highest degree you have received? [open-ended / mark correct category]
- ☐ Less than high school
- ☐ High school graduate (or equivalent)
- ☐ Some college (1-4 years, no degree)
- ☐ Associate's degree (including occupational or academic degrees)
- ☐ Bachelor's degree (BA, BS, AB, etc.)
- ☐ A post graduate degree (MS, MSW, MPH, MD, JD, etc.)

Q35. Are you: Married Divorced Widowed Separated Partnered Never Married

Q36a. In the past 3 years, how many places have you lived for one week or longer – including where you live now? Would you say: 1 / 2 / 3 / 4 or more

Q36b. Have you been homeless at any time in the last 12 months? Yes/no

Q37. Would you like to add anything else about your experiences with the Healthy Michigan Plan? [TEXT BOX]

End of Survey/Contact Information:
ADDRESS2 That's the end of the survey. Can you please confirm your address so we can send your gift card? [AUTOFILL address] You should receive the gift card in 1-3 weeks at that address.
FOLLOWUPSURV We may be conducting a follow-up survey. Would you be willing to have us recontact you for that? We're just asking for contact information – you can decide at that time if you'd like to participate. Y/N
FOLLOWUPPHONE If YES: What is the best phone number to reach you? [Record new #]
FOLLOWUPTEXT Can this number get text messages? Yes/No
FOLLOWUPEMAIL Is there an email address we can use to contact you? Y/N [record If given]
INT99 Thanks so much for talking with me today! Look for your gift card in 1-3 weeks

2017 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan

November 7, 2018

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Institute for Healthcare Policy & Innovation

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2017 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan

Introduction

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). Domain IV of the evaluation includes a series of surveys called *Healthy Michigan Voices*. To complement the 2017 *Healthy Michigan Voices* survey of individuals who recently enrolled in HMP for the first time, this report presents findings from 22 in-depth qualitative interviews conducted from May to September 2017 with individuals who were likely eligible for, but unenrolled in, HMP. The purpose of this report is to describe the experiences and perceptions of those who are eligible but unenrolled. The results of these interviews shed light on individuals' awareness, perceptions and understanding of HMP, its features and costs, reasons for not enrolling in the program, and health care experiences, including access to and payment for care in the 12 months prior to the interview. The results of these interviews meet the requirements as specified in the CMS Special Terms and Conditions.

This report includes a concise description of the methods, key results, limitations and conclusions, followed by supplemental material, including a more in-depth description of the methods, a table of interviewee characteristics and the qualitative data from which the results were derived.

Methods

The sampling goal was to recruit and interview 25 people who were likely eligible for HMP but who had never enrolled. Eligibility criteria were: currently uninsured Michigan resident, age 19-64, not pregnant, income ≤133% FPL, and never enrolled in HMP. Recruitment letters and flyers were sent to community organizations and posted in regions across the state of Michigan. Ads in newspapers and Craigslist were also used. We aimed for a diverse sample with regard to age, race/ethnicity, gender and region. Eligibility was determined by self-report during telephone screening using a simplified form used to calculate modified adjusted gross income (MAGI) to assess income eligibility. HMP and Medicaid enrollment history were later cross-checked with the MDHHS Data Warehouse using interviewees' name and date of birth.

The semi-structured interview guide was developed by the Domain IV evaluation team, and approved by MDHHS. Interview domains included: (a) awareness, perceptions and understanding of HMP, its covered benefits and costs, and reasons for not enrolling in the program; (b) health care utilization in the last 12 months and forgone care; (c) impact of insurance status on finances; (d) perceptions of insurance status; (e) interest in signing up for HMP. Domain IV staff conducted 30 in-person, audio-recorded interviews that lasted 30-45 minutes on average.

Of the 30 completed interviews, data from the MDHHS Data Warehouse showed that 8 interviewees were not eligible to participate due to current or prior enrollment in HMP for longer than 3 months (n=4) or current enrollment in Medicaid (n=4). These 8 interviews were excluded from the sample, resulting in 22 interviews included in this analysis.

Audio recordings of the interviews were transcribed verbatim and coded using Dedoose software. Thematic analysis was conducted by two qualitative data analysts with discrepancies in coding resolved by consensus.

Limitations

This population of uninsured people was hard to find. Recruitment took several months. While we cannot be certain that they are representative of the entire population of those eligible but unenrolled in HMP, we did recruit and interview a diverse set of interviewees with regard to region, age, race/ethnicity and gender.

All data were obtained by self-report, including income. We could not confirm that each interviewee was eligible for HMP. Responses may be affected by inaccurate recollection and by social desirability.

Because the interviews were only available to English speakers, the results are not generalizable to HMP-eligible but unenrolled people whose primary language is not English.

We learned that more people than anticipated had insurance for more than 6 months in the year prior to the interview. Eight interviewees reported having health insurance during some part of the last 12 months and two had VA care. This influenced their experiences and perspectives about care they received during this period and likely reduced their reports of forgone care due to cost. To address this limitation, the interviews conducted in 2018 will be limited to people who report that they have been uninsured for one year or more.

Finally, we did not verify HMP or Medicaid enrollment in the Data Warehouse until data collection was completed. Eight interviewees were ultimately excluded because they had been enrolled in HMP for three months or longer or were currently enrolled in Medicaid. To address this limitation, the interviews conducted in 2018 will verify HMP and Medicaid enrollment through the Data Warehouse prior to conducting the interviews, excluding those who were ever enrolled in HMP or are currently enrolled in Medicaid.

Results

All percentages in this report are based on the 22 interviews that remained after exclusions.

Interviewee characteristics and reasons for being uninsured

All interviewees were uninsured at the time of the interview, although two had VA care. Fifty-nine percent of those interviewed were under age 35, with the others roughly evenly distributed

between 35-50 and 51-64 years of age. Sixty-four percent of interviewees were men and 68% were white. Seventy-two percent of interviewees were employed. The sample was geographically diverse, representing all major regions of Michigan. Thirty-six percent of interviewees had been uninsured for less than 1 year (mostly between 6-11 months), 23% for approximately 1 year, and 36% for more than 1 year (mostly 2 or more years).

Intersection between employment and insurance status

- Most interviewees were either employed or self-employed, although some were employed in part-time or seasonal jobs, and many had been in their jobs less than a year. Interviewees often reported becoming uninsured because they lost, changed or left a job. Among employed interviewees, their employers either did not offer health insurance or they were not eligible because they were part-time or had not been in the position long enough. A few reported an inability to work due to health problems.

Non-employment-related reasons for being uninsured

- Most common non-employment-related reasons for being uninsured included dropping their Marketplace plan or private coverage due to cost or exploring health insurance options but not applying due to cost.

Aim A: To understand the extent of awareness, knowledge, and understanding of HMP among those eligible but unenrolled

Knowledge and understanding of HMP covered benefits and costs

- Only half of interviewees reported that they had heard about HMP or that it sounded familiar to them. Even those interviewees who said they had heard of HMP knew very little, if anything, about eligibility, covered benefits or costs, including co-pays and contributions. Some misunderstood HMP features with those of other Medicaid programs or other types of insurance.

Reasons for not enrolling in HMP/Medicaid

- The most common reasons interviewees gave for not enrolling in HMP or Medicaid was that they thought they were not eligible, did not want to be on a government program/ prefer a sense of self-sufficiency, perceived themselves to be healthy or not in need of medical care, or had negative views about the application or paperwork processes. Some noted that they did not enroll because they did not know about the program.

Interest in HMP

- Many interviewees expressed interest in signing up for, or learning more about, HMP.

Aim B: To describe the experiences and perceptions of being uninsured among those eligible but unenrolled

Perceptions of being uninsured

- Most interviewees were not satisfied with being uninsured and reported they would like to have health insurance. They expressed concerns about unmet health care needs, the costs of care and prescription medications they needed or received, or missing regular preventive care.

Impact of being uninsured on finances

- Many interviewees perceived health insurance to be too expensive, and therefore out-of-reach, based on perceptions or experiences with commercial health plans. Because of these perceptions, some thought being uninsured offered them more financial stability. Others felt their finances were negatively impacted by being uninsured because they were responsible for the full cost of the care they received, and some had medical debt.

- Many interviewees expressed interest in signing up for, or learning more about HMP. A few interviewees reported that they were not interested in signing up for HMP at the time of the interview. Some attributed their lack of interest to anticipated changes in their personal circumstances, including getting employer-sponsored insurance or plans to move out of Michigan.

Aim C: To understand decisions about when, where and how to seek care, including decisions about emergency department utilization among those eligible but enrolled

Health care needs, utilization, and forgone care

- More than half of interviewees reported that they had one or more health problems. All interviewees who were 51-64 years of age reported one or more health problems. Although this group made up only a third of interviewees, they made up half of those with health problems.

- Interviewees' perspectives on the impact of being uninsured on their access to, and use of health care, were influenced by their perceived need for care. Interviewees' health problems had an impact on their perception of their need for care. Almost all interviewees perceived a need for dental care and the majority perceived a need for preventive services, vision care, specialty care and prescriptions. Few reported a need for care of mental health conditions or substance use disorders or for medical equipment and supplies.

- Just over half of interviewees reported having a regular source of care that was a doctor's office or clinic. Both interviewees with and without a regular source of care went without needed care at least some of the time.

- Only a few interviewees had not received any type of care in the past 12 months. Most reported forgoing at least one type of care due to being uninsured or concerns about the cost of care. More than half of interviewees with health problems reported that they were not getting treatment they needed, including preventive and specialty care and

prescriptions needed to improve or manage their conditions. Nearly all said this was due to cost and/or not having insurance.

Getting health care needs met

- Many interviewees were quite aware of the costs associated with co-pays, prescription and medical charges, and health insurance premiums. Many interviewees used a variety of strategies to reduce costs. They reported using store and online coupons and discounts and visiting clinics offering free or sliding-fee services. Some interviewees reported using lifestyle strategies to limit or avoid use of the health care system, including taking steps to avoid or minimize injury, adopting healthy diets and exercising, maintaining good oral hygiene, and using alternative medicines and remedies.

Conclusions

These interviews demonstrated that Michigan residents who were likely eligible for HMP but unenrolled were often unaware of the program or knew little or nothing about its eligibility criteria, covered benefits or costs, including co-pays and contributions. Many thought that they would not be eligible, had negative experiences or perceptions of the administrative processes of commercial or public health insurance, or perceived that they were healthy or did not need formal medical care. Some were philosophically opposed to enrollment because they valued self-sufficiency or did not associate themselves with the Medicaid population.

For many interviewees, the impact of being uninsured included delayed or forgone health care, including preventive care. Many lacked a regular source of care and some who had a doctor avoided or delayed care due to cost. Many, especially those with ongoing health problems also frequently did not receive needed specialty care and prescriptions. Some interviewees had unpaid medical bills. Many interviewees found ways to reduce the cost of needed care such as using clinics offering free, discounted or sliding fee scales, discount coupons, health fairs and lower cost prescriptions and services at stores such as Walmart and Costco. Some used alternative remedies and some reported trying to live healthfully and avoid injury to attempt to limit the need for formal health care services.

The costs associated with HMP did not appear to be a specific reason for not enrolling since so few interviewees knew anything about its costs. However, many remained uninsured because of the perception of the high costs of insurance based on their previous experience or research into private, Marketplace or employer-based insurance. Many assumed they could not afford insurance and were unaware that they may qualify for a more affordable option for coverage. Although most interviewees were employed at least part-time, in one or more jobs, their employers either did not offer health insurance or they were ineligible because they were part-time or had not been in the position long-enough. Some interviewees, especially those who reported being healthy, thought that remaining uninsured improved their ability to pay for food, housing and other expenses. However, some felt their finances were negatively impacted by being uninsured and some reported juggling medical bills in addition to other necessary expenses.

Overall, nearly all interviewees said they would like to have health insurance. These interviews suggest that, for most, it is a lack of awareness of HMP, rather than negative attitudes or perceptions about it, that keeps those who are eligible from enrolling. The results of these interviews suggest that efforts to conduct outreach and educate the public about HMP coverage and costs continues to be important.

2017 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan: Supplemental Material

Methods

Sample

The sampling goal was to recruit and interview 25 people who were likely eligible for HMP but who had never enrolled. After reviewing information about the geographic distribution of low-income (<138% of the federal poverty level [FPL]), uninsured Michigan residents age 19-64, the evaluation team initially selected counties with relatively high percentages of uninsured people representing diverse geographic regions across Michigan for strategic outreach. We broadened our outreach efforts beyond the targeted counties to achieve geographic diversity, representing the southeast, southwest, west, central, "Thumb", northwest, northeast and Upper Peninsula regions of Michigan. Eligibility criteria were ascertained by self-report: Michigan resident, age 19-64, not pregnant, and income $\leq$133% FPL. Based on the very limited success in recruiting HMP-eligible monolingual Spanish speakers for earlier HMP evaluation interviews, the decision was made to limit recruitment to English speakers. Callers who inquired about participating in the interviews were asked whether they had health insurance, including Medicare or Medicaid, and if they had ever been enrolled in HMP.

HMP and Medicaid enrollment history were later cross-checked with the MDHHS Data Warehouse using interviewees' name and date of birth. Of the 30 completed interviews, data from the MDHHS Data Warehouse showed that 8 interviewees were not eligible to participate due to current or prior enrollment in HMP for longer than 3 months (n=4) or current enrollment in Medicaid (n=4). These 8 interviews were excluded from the sample, resulting in 22 interviews included in this analysis.

Recruitment

Outreach and recruitment materials were created and initially distributed to community organizations for further distribution in the target Michigan counties (Sanilac, Macomb, Oakland, St. Joseph, Van Buren, Berrien, Claire, Lake, Benzie, Alcona, Oscoda, Baraga, Alger and Chippewa and the city of Detroit), and later to additional counties in the northwest Lower Peninsula and elsewhere. Recruitment letters included the purpose of the project, interviewee eligibility criteria and compensation. The letters with attached flyers were mailed or emailed to community partner organizations, the Michigan Primary Care Association, free clinics, federally qualified health centers, county health plans, and outreach and enrollment providers. Flyers were also posted in public locations that we anticipated would be used by our target population, e.g., community college campuses, restaurants, laundromats, free health clinics. Ads were also placed online through Craigslist and in local newspapers.

Screening

Recruitment materials requested that those interested call a toll-free recruitment telephone line. People who called the line were screened for eligibility by trained staff using a script and worksheet. Initial questions asked callers about their residence in Michigan, whether they had ever been enrolled in HMP, whether they were pregnant, enrollment in Medicaid or Medicare, and county of residence. Those deemed eligible were then screened for income eligibility based on household income and size, using a simplified form used to calculate modified adjusted gross income (MAGI). Callers who completed the income screening and were deemed ineligible to participate in the interview were mailed a $15 gift card to compensate for their time.

Among screened callers, the most frequent reasons for being ineligible to participate were: previous or current HMP enrollment (n=70), income greater than 133% FPL (n=49), insurance coverage (unspecified) (n=35), Medicare coverage (n=9), age outside of 19-64 years of age (n=5), non-Michigan resident (n=3), refusal to participate (n=3), “mistook our project for health insurance assistance” (n=3), confusion (n=2), and pregnancy (n=1). As noted previously, screening failed to identify 8 interviewees who were currently or recently receiving HMP or Medicaid.

Interview guide and process

The semi-structured interview guide was developed by the Domain IV evaluation team and approved by MDHHS (see Appendix A for the interview guide). Interview domains included: (a) awareness, perceptions and understanding of HMP, its covered benefits and costs, and reasons for not enrolling in the program; (b) health care utilization in the last 12 months and forgone care; (c) impact of insurance status on finances; (d) satisfaction with insurance status; (e) interest in signing up for HMP. The interview guide was pilot tested with 2 individuals and finalized after minor edits to improve clarity. From May to September 2017, trained Domain IV staff conducted 30 in-person, audio-recorded interviews that lasted 30-45 minutes on average. A thank you letter and a $25 Visa gift card were mailed to participants’ homes after the interview to compensate for their time.

Analysis

Audio recordings of the interviews were transcribed verbatim and coded using Dedoose software. Thematic analysis was conducted by two qualitative data analysts. Questions and coding discrepancies were resolved by consensus discussion with the EBU evaluation team leader. Summaries of major themes with illustrative quotations were developed for integration into the final report. In presenting results, we refer to individuals who were eligible but unenrolled as “interviewees”.

Results

Interviewee characteristics and reasons for being uninsured

Interviewee characteristics are summarized in Table 1. Fifty-nine percent of those interviewed were under age 35, with the others roughly evenly distributed between 35-50 and 51-64 years of age. The majority of the sample were men (64%) and the majority were white (68%). Most interviewees (72%) were employed; five were unemployed and one was retired. The sample was geographically diverse, representing all major regions of Michigan. When asked how long they have been uninsured, 36% said less than 1 year, 23% said approximately 1 year, 36% said more than 1 year, and 1 interviewee did not report duration of uninsurance. Most of those uninsured less than 1 year had been uninsured for at least 6 months.

Table 1. Interviewee characteristics

Characteristics	**n**
Age	
19-34	9
35-50	6
51-64	7
Gender	
Male	14
Female	8
Race	
White	15
Black or African American	6
Mixed race	1
Employment status	
Employed	16
Not employed	5
Retired	1
Region	
Thumb	1
Southeast	5
Southwest	1
West	3
Southeast	5
Northwest	1
Central	3
Northeast	2
Upper Peninsula	6
Uninsured duration	
< 1 year	8
Approximately 1 year	5
>1 year *	8
Missing	1

*2 people who had reported being uninsured for >1 year also had VA health care

All interviewees were uninsured at the time of the interview. Two interviewees, both of whom had been uninsured for at least 2 years, had VA health benefits. Most interviewees reported that

they had been uninsured for one year or less. Most of the rest had been uninsured for more than 2 years.

> *[I've had] no health insurance…[for] basically my entire life. (Female, Age 51-64, Marquette County, *VA Benefit)*

> *I've been uninsured for probably years…I was uninsured as of 2008. (Male, Age 35-50, Clare County)*

> *Since I was 26…so 2 years [uninsured]. (Male, Age 19-34, Newaygo County)*

Intersection between employment and insurance status

Interviewees often reported becoming uninsured because they lost, changed, or left a job.

> *Well, I was working where I could get [health insurance], but they let me go before I got it. (Male, Age 35-50, Detroit)*

> *Well, I took a different job. I drove semi-trucks for a couple of years, and I went to a company that didn't carry insurance. They paid well, but they didn't carry insurance. (Male, Age 35-50, Clare County)*

> *I was working, and then I wasn't working at that job anymore, and I haven't gotten insurance yet. (Female, Age 19-34, Marquette County)*

> *The day I was hospitalized, I left work early. I worked out of the house. I was doing tech support. So I told my supervisor. Hey, I have a 103.5 fever. I'm going to go to the doctor. She said, "Okay. Just keep me updated." The next day, I had my lady friend contact work and explain to them, "He's hospitalized. He'll get a hold of you when he can." I contacted the following day but had to leave a message. I didn't get a hold of anyone, and I believe one more day did the same thing. When I was informed from them that I was going to be let go. So I called and got a hold of someone and explained to them what was going on. Like, "Yes, I understand it's mandatory attendance during training. Unfortunately, I'm hospitalized and hooked up to all sorts of machines and whatnot." They said they would pass all the information up to management, see how it goes. They did and still let me go. (Male, Age 35-50, Iron County)*

Most interviewees reported that they were currently employed or self-employed. Roughly half of working interviewees reported part-time employment and half reported full-time employment. Some interviewees described working a combination of two or more part-time, seasonal, and/or full-time jobs. Many interviewees reported that they have been at their job(s) for less than a year.

> *I have two seasonal jobs and one full-time job. (Male, Age 19-34, Iron County)*

I work a lot of part-time. So I guess it equals out to full-time right now. (Female, Age 35-50, Oakland County)

Many employed interviewees reported that their employers offered health insurance. However, most were not eligible for the insurance offered, either because of their part-time status or because they had a waiting period. An interviewee who was offered health insurance through his employer reported that it was too expensive.

I am not eligible…As, you know, someone who is not tenured in the organization and is not working full-time, I'm not eligible to get health insurance yet. (Male, Age 19-34, Detroit)

I wasn't working there enough or I'm not full-time, and they couldn't give me those benefits, I guess. (Male, Age 19-34, Newaygo County)

I have to work for so long to get it. (Male, Age 35-50, Detroit)

After 90 days [will be offered health insurance]. So in another month, I believe. (Female, Age 19-34, Marquette County)

*They did offer health insurance, but it's too expensive…if I…my money goes up, I'd probably look into it, but at this point it's still too expensive. I foresee it in the future ahead a bit. I think it's like $200/pay right now, and so it would be $400/month. (Male, Age 51-64, Midland County, *VA Benefit)*

Some interviewees reported that their employers did not offer health insurance, or they were not sure if they would be offered health insurance.

I had insurance through my company, but… We got bought out, and then the new people dropped our insurance. We no longer have it. (Male, Age 35-50, Alpena County)

I'm approximately 37 hours a week. So I think that's technically full-time…I don't know if I will be [offered health insurance]. I did see a piece of paper taped to the paper towel dispenser about some sort of insurance meeting. But that meeting never happened, the date has passed, and that's the only information I've seen or heard about insurance. (Male, Age 35-50, Iron County)

A few self-employed interviewees reported that they have not signed up for insurance due to the cost.

My building that I rent from has been sold. I have to keep my cash liquid and figure out where I'm going to live next…Moving is expensive, and then I'm gonna try and own versus rent. So insurance doesn't even begin to be part of the equation. (Female, Age 51-64, Kent County)

Among the interviewees who were not working, some had recently become unemployed. Most indicated that they were looking for work; one was retired. A few interviewees commented on what they saw as the limited availability of full-time jobs that would provide decent pay and benefits. Similarly, a few beneficiaries described how it was their impression that employers are only looking to hire part-time to avoid having to offer benefits to employees.

> *There's a lot of unemployment around here, or under-employment. A lot. I mean if you look into the economics of this area, they are not good…There's nobody that wants to hire anybody full-time around here. I mean everybody wants to hire part-time. They don't want to give you any benefits. They don't want to give you any health insurance…if they do offer it, it's so expensive that people, even when you're working, you can't afford it. (Female, Age 51-64, Alpena County)*

> *I know there are millions of other people in the same boat as I am as far as not having health insurance now; maybe not being covered with health insurance, dental insurance, vision insurance basically their entire life like me. I think a lot of it has to do with the fact that employers just do not want to pay the benefits out, and that's why they just hire part-time, at least around here…So how I'm going to resolve that, it has to be more than just offering healthcare. It has to be like vision, dental, you know, as well…The whole package thing that employers don't offer because they're out to save money, and it's the whole package deal that the person is going after when they're trying to secure a full-time job with full benefits. (Female, Age 51-64, Marquette County, *VA Benefit)*

A few interviewees described how health problems interfered with their ability to work.

> *I'm withdrawing [money] from my retirement, which, you know, unless I get something from my doctor about the problems that I have, I'm going to pay a penalty for that…for withdrawing it early. So I applied for Social Security Disability…I worked there [her former job] for 17 years and made my situation a lot worse by doing it…By taking care of people, you know, for a living…It was my choice, but around this town, there's very few jobs and it was a good paying job. So I pushed myself to stay there and to keep working, even though I knew I was doing damage, and now…here I am, no insurance. (Female, Age 51-64, Alpena County)*
> *I have recurrent herniated discs, multiple, and that was one of the reasons why I retired… (Male, Age 51-64, Chippewa County)*

> *Because of my health issues, I'm not able to work a full-time job. Even working a part-time job is a strain. (Female, Age 51-64, Kent County)*

Non-employment-related reasons for being uninsured

Some interviewees reported non-employment-related reasons for becoming uninsured including dropping their Marketplace plan or other private coverage due to cost, aging out of coverage on a parent's insurance plan, not completing the redetermination process in a prior state of residence, or a change in residence/legal status.

I had just retired in January, and working out the budget… I was part of the Michigan Healthcare Exchange…Obamacare, and I had been on it ever since its inception. It [costs] started to increase every year more and more, and then I had to let them know that I went on Social Security, and they determined how much I would get and how much they would provide through the system, and it was just more than I could afford in my budget. It ate up a good…eighth of the budget. (Male, Age 51-64, Chippewa County)

[Insurance company] charged me twice in one month and because I'm on a fixed income, they tied up my money for the month…and worse, sent my bank account into an overdraft situation, and the girl said, "Well, we can fix it tomorrow." And I said, "That's an overdraft situation. Not only is there not enough money to cover two months' worth in the account that you're charging, there's not enough to pay the extra fees. I'm getting slammed with the overdraft fees. I'm paying for your mistake with the overdraft, and then I'm paying for it with overdraft fees. Ridiculous." So that's it. You can't do that to people…So I canceled it. (Female, Age 51-64, Kent County)

Some interviewees said they explored different options for health insurance but that what they found was too expensive.

I had looked into insurance before, and the price was outrageous. (Female, Age 35-50, Detroit)

The last I looked into any form of Medicaid was in January, and it was unavailable …Through Healthcare.gov, I was offered different insurance plans, the least expensive of which was just about the same price as my COBRA option after leaving the job, which was around $500/month…which at the time I couldn't afford. (Male, Age 35-50, Iron County)

It was the Marketplace stuff, and I like looked up what was covered and it didn't really cover anything that I was interested in… because I was interested in vision, dental and mental, and all this stuff didn't cover it enough to make it worth it for me. So I decided just to go without because I wouldn't be able to pay for it anyways. (Female, Age 19-34, Marquette County)

I've gone through a lot of different companies, even with the Affordable Care…It's too expensive through that, too. (Male, Age 35-50, Alpena County)

I've gone into the Marketplace…It was kind of expensive, in my opinion, for a month. (Male, Age 19-34, Kent County)

Aim A: To understand the extent of awareness, knowledge, and understanding of HMP among those eligible but unenrolled

Finding out about the Healthy Michigan Plan

Half of interviewees reported that they had heard about HMP or that it sounded familiar. Some interviewees had not heard of HMP specifically, but they had heard about Medicaid expansion. Interviewees reported hearing about HMP or Medicaid expansion most commonly from friends/people they know and from the news/TV. While many interviewees had heard about HMP, several acknowledged that they didn't know much about it.

> *I had heard of it [HMP]…I think it was an advertisement…Yes, it was on TV, local channels, Healthy Michigan. I think they talked about it on the news. (Male, Age 51-64, Midland County, *VA Benefit)*

> *The name's familiar. I don't know any details about it… (Male, Age 35-50, Iron County)*

> *Yes, I've heard of it [HMP], but I'm not quite sure of… exactly what it is. I've heard of it though…Through friends, probably through the news and stuff. (Male, Age 19-34, Washtenaw County)*

> *I might have heard it, but I never looked into it and know very little about it… (Male, Age 19-34, Tuscola County)*

A few interviewees reported learning about HMP through an interaction with MDHHS (e.g., phone call or visit to office).

> *I was trying to go to the Social Security office and I accidentally went to the Health Human Services and, you know, I thought I read through a pamphlet while I was there, and it said something about a new Medicaid program. I… skimmed through it, and that's the last thing I remember about anything new in Michigan. (Male, Age 19-34, Detroit)*

A few interviewees reported hearing about HMP or Medicaid expansion in a medical setting.

> *I worked in a dental office, and a lot of the people came in and they had the Healthy Michigan Delta Dental plan. So that's where I first started hearing about it. (Female, Age 35-50, Oakland County)*

> *I got a pamphlet on that [Medicaid expansion] in April when I was at a clinic in [City] to have my teeth cleaned. And I was told I would be eligible for Medicaid, but I haven't applied. (Female, Age 51-64, Marquette County, *VA Benefit)*

A few interviewees suggested making the Healthy Michigan Plan more well known.

> *I didn't know a whole lot about it before, and I'm not quite sure where to go to learn about it. I guess it just needs to be a more widely known thing is all I would have to say. I guess a lot of people don't know about it. I mean, I don't, and most people I know probably wouldn't know about it either. I know some uninsured people, too. (Male, Age 19-34, Washtenaw County)*

For the people that need the Healthy Michigan program or anything, put it out there. Let them know. I can't say advertise, but put something out there…They need to make the program so they have more available and to let people know that they're there. I mean I dealt with health and human services for almost 30 years. I saw a caseworker, adult service aide caseworker for my mom twice a year, and we were on the phone I don't know how many times. She knew I didn't have any insurance. She knew my husband lost his job. She never mentioned it… (Female, Age 51-64, Clare County)

Among the few who were asked if they were interested in finding out more about HMP when they first heard about it, most interviewees reported that they were not interested in finding out more about HMP. Some said they were not interested because they did not need insurance at the time.

Before, I was employed, and so I didn't really have any use for it [HMP]. When I became unemployed, it became more of something to look into, but I never did look into it. (Male, Age 19-34, Washtenaw County)

At the time, no…I just didn't need insurance. (Male, Age 19-34, Iron County)

I had insurance [at the time]. So no. (Female, Age 51-64, Alpena County)

At the time, no. I mean, I am [uninsured] now. I would say I'm more interested now, especially since I'm working in dangerous areas. (Male, Age 35-50, Clare County)

Signing up for HMP

Some interviewees discussed the process of signing up for HMP. Of these, a few interviewees began the process, but ultimately did not sign up.

*It was a pain in the neck really…I called [County] up… They're pretty rude…The County level because I think you had to go through them, or even asking a question…At that point, I was just like "forget it." I mean I was turned off on different levels…My own views towards it also, but just different levels . . .From filling out paperwork to…I did go online. I think I even had something sent to the house. I had paperwork sent there… I must have made an account with them…All I remember is it wasn't a very good experience… (Male, Age 51-64, Midland County, *VA Benefit)*

I thought it was pretty easy online… I remember… It was either that or through the Health Department services that they took care of everything…because it was at a point where I was in between jobs and…When you're in college, you obviously can't get benefits, and I had finally just gotten out of college. So I was going to apply for it, but I ended up backing out, but they had spoken about that there. (Male, Age 19-34, Iron County)

A few interviewees described how they recently applied for HMP but found aspects of the application to be confusing.

> *I filled out the forms and mailed them in…I mean I had to call a couple of times and ask some questions because, you know, there were a few things I wasn't quite sure about…like I said, the deductions, what you could claim as a deduction. (Female, Age 51-64, Alpena County)*

> *I think it's very confusing. I think they should simplify a lot of the questions. I think they're too vague on what they're asking, and a lot of people just don't know how to answer them. Because I get very frustrated on a lot of those applications… What they are asking because sometimes it just might not apply to you; but if it was worded different, it would apply to you. (Male, Age 35-50, Alpena County)*

Knowledge and understanding of HMP covered benefits and costs

While several interviewees reported hearing about HMP, only a few expressed any knowledge of HMP covered benefits and costs.

> *I know that some people have these plans where they pay… a small amount of money a month for their plan. Like they're paying like $10/month or something for plans…The people that have the Delta Dental…They're really happy because they can get all their work done, and they can pretty much go where they want to. I know the dental office I'm at now, they actually take it on their side…I heard a lady called yesterday, and she's like, "No, you don't have a co-pay or anything."….So people seem really happy. (Female, Age 35-50, Oakland County)*

> *I think there was definitely a co-pay section in the literature that I picked up. (Male, Age 19-34, Detroit)*

> *… if it's a government subsidized program, it would be a little bit cheaper, I would assume. (Male, Age 19-34, Washtenaw County)*

Some interviewees expressed misunderstandings regarding costs, coverage, consequences for failure to pay, and the population eligible for coverage for HMP. Some of these people may have confused HMP with other Medicaid programs or other types of health insurance.

> *I haven't heard anything. The only thing I ever remember is that one time, I think, Michigan had a spend-down plan. Anybody could get an insurance, but it was based on your yearly earnings. (Male, Age 51-64, Midland County, *VA Benefit)*

> *I think it was just some type of registration or, you know, initial paperwork or processing fee and then something annually, if I'm remembering the correct brochure. (Male, Age 19-34, Detroit)*

I guess I get it confused a lot with Obamacare and a lot of that insurance… When I first signed up, my income was just high enough to pay way too much and that it wasn't low enough to get it for free. So it really wasn't worth it…It was still going to cost me monthly, an amount that I might as well just pay an emergency room fee if I needed it….It just didn't make sense, the amount of money I'd be paying just to…get the coverage of the insurance, you know…I think that's what the premium is, right? You have to pay so much in, and then they'll start covering? It was upwards of like 2 grand that I would have to pay, and I just don't go to the doctor enough where that didn't make any sense to me…[and, regarding consequences of failure to pay] I could assume it [unpaid bill] would still just hit your credit report every year. I could assume it's still a bill. (Male, Age 19-34, Iron County)

Well, I know some people…Like their coverage has been inactive for not paying. (Female, Age 35-50, Oakland County)

*Well, I know what happens to a person if they don't pay their bills. It's gonna go to collection. They're going to be harassed, and if they value their credit rating, they're gonna want to pay it. (Female, Age 51-64, Marquette County, *VA Benefit)*

The people that are cancer patients have needs beyond what that's set up for. For a young mother with little kids that needs to go to the doctor or see a physician's assistant for colds and fevers and little infections and little, you know, little stitch and knee scrapes…that kind of stuff . . . That kinda is ideal. But for someone who has extreme healthcare needs, it just isn't set up to accommodate that. (Female, Age 51-64, Kent County)

*It covers children. That's a good thing. (Male, Age 51-64, Midland County, *VA Benefit)*

Just that not too many people qualify for it…you have to be pretty much…I mean, those income levels are, to me, like poverty…like one step away from being homeless, it sounds like. (Female, Age 51-64, Alpena County)

When asked about what they heard about how easy or hard it is to get appointments with providers with HMP coverage, two interviewees said they had heard positive things and a couple said they had heard negative things. Again, some may have been referring to Medicaid, in general.

I have heard that a lot of doctors, and especially dentists don't accept it…Medicaid…Doctors just in general, but dentists especially around here…I think the Health Department is the only place around here…that takes that insurance. (Female, Age 51-64, Alpena County)

It'll help you get in a little faster, but I don't know how true that is…I didn't read it straight from the site or anything. It's just from what I heard. (Male, Age 35-50, Alpena County)

When asked about what they heard about HMP encouraging healthy behaviors, a few interviewees reported that they had heard something about it, although their descriptions related to health promotion did not have a clear link to HMP.

> *I think I might have seen something on like maybe PBS or something like that that promotes that. I mean I don't know cost for any of them, and I'm sure . . . I would assume that they have all those, but I don't know anything about them or cost. I do remember seeing them promoting health, physical exercise and that…Commercials like that, like "get out there and do this." (Male, Age 51-64, Midland County, *VA Benefit)*

> *I've seen some of these ads right on the buses. The city buses have ads promoting this lifestyle. (Female, Age 51-64, Kent County)*

Reasons for not enrolling in HMP/Medicaid

Interviewees were asked about possible reasons for not signing up for HMP or Medicaid and were able to report more than reason. The most common reasons interviewees gave for not enrolling in HMP or Medicaid were that they did not think they were eligible (in some cases because they had previously been denied Medicaid), they did not want to be on a government program (for some, preferred the sense of self-sufficiency), they perceived themselves to be healthy and/or not in need of medical care, they had negative perceptions about the paperwork or application process, they just did not get around to doing it, and some didn't know about the program or where/how to sign up. When interviewees were asked to identify which of the reasons they had mentioned were the main reason they did not sign up for HMP or Medicaid. The most frequently reported "main reason" was thinking that they were not eligible for the program. No interviewees reported that a specific feature of HMP was the reason they did not sign up.

Didn't think they would be eligible or didn't know about the program

> *I heard about it, but I didn't really do no research or go on it and stuff like that…Probably because I was denied [Medicaid] too many times. So I probably didn't think I was eligible to get it. So I really didn't do my research to see if I could get it. (Male, Age 35-50, Detroit)*

> *I would say I didn't think I'd qualify. That's mainly the reason because I had been getting student loans, and I've been told that to receive student loan stipends and to take advantage of government help is double dipping…DHS told me it was double-dipping, and they were taking my food stamps because I got student loans. And then, something happened and they didn't, and I think she found out she was wrong. (Male, Age 35-50, Clare County)*

> *I just wasn't aware of it and that I was eligible for it, I would say. I thought it would be for people below their . . . well below their means and struggling families, and I didn't see myself as struggling too much. (Male, Age 19-34, Washtenaw County)*

If I would have known it would be available, I would have gotten it or I would have found a way to get something. But I didn't know. I didn't know it existed. (Female, Age 51-64, Clare County)

I just didn't realize that it was applicable or it existed. (Male, Age 51-64, Chippewa County)

I guess just where to sign up for it…that would be one. (Male, Age 19-34, Washtenaw County)

Didn't want to be on a government program / prefer sense of self-sufficiency

*…Part of it was I didn't want to be on Medicaid…I don't know what it would take for me really to go on Medicaid. It was bad enough going and signing up for the VA…It's not the same, but it is help until things settle out…Medicaid to me is…It's government…It's social and I'm not a socialist. I kind of struggle with it a little bit. I think, you know, it's the whole work ethic, it's that. I don't want a handout…I didn't want to be part of a system like that…So it did help me make my decision was what I believe in. I mean I can't blame anybody for that. (Male, Age 51-64, Midland County, *VA Benefit)*

Well, first of all, philosophically, I don't like being on government programs. And secondly, just because of my status…Like I also don't want to depend on the government programs just in case there's a blowback as an immigrant. (Male, Age 19-34, Kent County)

I really don't want to be on government aid. You know? I want to feel like I can depend on myself. Nothing against the government…but I don't need that. (Male, Age 19-34, Newaygo County)

I didn't want to be like a burden to the state… I'm capable of going out and getting it if I need it. You know what I mean? I didn't want to collect on a program that others might need a lot more than I do. (Male, Age 19-34, Iron County)

Perceived themselves to be healthy and/or not in need of medical care

It would probably be my current status of health. I'm pretty, you know, confident with…the precautions I'm taking with my current health, diet, exercise, etc. to kind of preventative… care myself to, you know, avoid any doctors, surgeries, offices, etc. (Male, Age 19-34, Detroit)

…Because I don't think I would need it…I hope I don't need it is the better answer… (Male, Age 19-34, Tuscola County)

*…When I am sick, I go to the VA Clinic in [City] and I see a provider there for free. Maybe that's a reason why I never checked into anything. Basically, I'm healthy. I don't get sick. (Female, Age 51-64, Marquette County, *VA Benefit)*

Negative perceptions about the paperwork or application process

> *It just seems like a hassle to try to sign up for it. I'm just not familiar with what the process is and all the paperwork and all the things associated with all that…Where to go, who does it, what are the programs, what's available…I don't want all my life under a microscope. That's another one. I don't want them asking me a gazillion friggin' questions…My income, my this, my that. Why do you own this? (Male, Age 51-64, Marquette County)*

Did not get around to doing it

> *I think I just didn't get around to it. I had a lot going on. I lost my job, and I was at another job. And I actually was making enough money at that job, but it was like really, really stressful, and then I had to move. I had to start over. I had a whole change in income. I was in like survival mode. So thinking about looking into that and dealing with the Department of Human Services was the last thing on my mind. (Female, Age 35-50, Oakland County)*

Interest in enrolling in HMP

Many interviewees expressed interest in signing up for or learning more about HMP. A few expressed uncertainty about signing up and said it would depend on factors such as their future health or employment status.

> *It depends. . . I guess I would have to know more about the program before I signed up for it, I guess. (Male, Age 19-34, Tuscola County)*

> *Learning more about it perhaps. Signing up…Probably…Probably not…it may depend on, you know, my future health. (Male, Age 19-34, Detroit)*

> *It's a good option. It depends on how this [job] works out, but it is an option. (Male, Age 19-34, Washtenaw County)*

A few interviewees reported that they were not interested in signing up for HMP at the time of the interview. Some attributed their lack of interest to anticipated changes in their personal circumstances, including getting employer-sponsored insurance or plans to move out of Michigan.

> *Not at this time…Just because I know that I should be getting insurance through my employer soon. (Female, Age 19-34, Marquette County)*

> *And I'm not going to apply for any Medicaid insurance at the current time because I'm trying to get out of here [Michigan]. (Female, Age 51-64, Marquette County, *VA Benefit)*

Aim B: To describe the experiences and perceptions of being uninsured among those eligible but unenrolled

Perceptions of being uninsured

Most interviewees reported that they were not satisfied with their current insurance status, noting concerns about not getting their health needs addressed, concerns about costs if they do need care, or their desire to get regular preventative care.

> *No [not satisfied]…Because there are some things I need to take care of. I know I need to, and the longer I wait the more…Maybe when I finally take care of it, it's worse off than what it should be. So, I'm not satisfied at all. (Male, Age 35-50, Detroit)*

> *I'd say, "no, I'm not satisfied being uninsured." What if? If I were to need health services, they are not cheap. I don't have the funding to afford it right now. So, no, I'm not satisfied being uninsured, but I don't know how much I can do about it… (Male, Age 35-50, Iron County)*

> *I would say "no," because if anything did happen, there is no guarantee that the VA is going to pay if I did have any type of emergency. That's why I'm trying to get out of here, you know, where I can hopefully find a 40-hour a week, full-time job with good wages and full benefits because that's what I want so I can at least retire with a little bit of security knowing that when I'm older and I am retired that I'm gonna have the insurances that you need, in case like when I get older than I am now, in case any health issues arise . . . I won't have to go through, "Oh, well, I can't go to a doctor because I'm sick, but I don't have any insurance" … (Female, Age 51-64, Marquette County, *VA Benefit)*

> *I'm not comfortable with not being insured. There's a lot of things I want to do like be able to go for routine checkups to make sure that I'm healthy....I want to enroll in something. (Male, Age 19-34, Kent County)*

> *I was leery about keeping the appointment [with her usual doctor] because I don't have insurance. I don't know how much it's gonna cost to see the doctor. (Female, Age 51-64, Alpena County)*

A few interviewees reported mixed feelings about their insurance status, with some noting the perceived financial benefit of not paying for insurance and some noting that they have been or are able to manage without it.

> *I would prefer to be insured if I had the choice, but when it comes to choosing over economics of not having to pay for it and the ease of not having to worry about it, I choose that since I've been in healthy condition. (Male, Age 19-34, Tuscola County)*

I'm somewhere in the middle. You know, having insurance has a certain level of security, but…The cons are, you know, ties up some of the funds. You also have to pay a co-pay. You also are not accepted everywhere. (Male, Age 19-34, Detroit)

I mean I'm doing alright without insurance, but I think it would improve the quality of life if I did have it. (Male, Age 19-34, Grand Traverse County)

Yes and no. Because I do want to get these metal fillings out of my mouth, and that's a big thing. So, I would like to get insurance to do that. I know a lot of places probably won't even do it with Medicaid coverage. So that's an issue…I would just say in conclusion that I . . . It's not a priority to me to get health insurance simply because I know what affects my health, and I know what things I can take naturally to help with that. If there is any elements or any disease, I know what to do for it. (Female, Age 19-34, Berrien County)

A few interviewees reported that they were satisfied with their current insurance status.

I haven't been affected. So, I would just say "yes," [I'm satisfied] only because I haven't had to have anything emergency. So, I would say "yes." I don't think it's smart, but it is what it is. It's not a big deal to me…As long as [I get] my annual checkup . . . I'm not a person that runs to the doctor's office. (Female, Age 35-50, Detroit)

Absolutely [satisfied]…I guess the biggest argument would be, again, the Eastern versus Western culture of medicine…I don't believe in the treatment options getting through hospitals. So, if I had insurance, whether it be used to go to an Eastern medical doctor, that would be a different subject, I guess. If I had it and I could use it in that sense, I probably would, but to me and the options we have set forth now, it just wouldn't get used. (Male, Age 19-34, Iron County)

A few interviewees reported that they would not like to have health insurance.

I might consider it, but I'm a bit skeptical. I'm probably better off the way I am. (Male, Age 19-34, Detroit)

No, not now…I just feel like it's a waste of not just money but peoples' time. I really think it's just a crutch to lean on…I think a lot of people go to doctors just to get scripts anyway…I don't find what the doctors are doing is beneficial. So I don't mind it…Not having insurance at all…As of right now and where it's at, I'm not worried about it…I'm 27, and I know that with my pancreas issue, diabetes is something that comes into effect, you know, in the late forties, but, again, if you keep your health good…As long as you're eating the right things, you're fine. I don't feel like I need it as long as I keep my diet in check. (Male, Age 19-34, Iron County)

Nearly all interviewees, regardless of satisfaction with their insurance status, reported that they would like to have health insurance. A few interviewees noted how having insurance, compared to being uninured, impacts the quality of care that is received.

I do need insurance though. I know I'm getting older. So risk is far greater as you age. So I need to get something definitely… (Male, Age 35-50, Clare County)

I'm trying to get insurance in case . . . Because I've already had issues, and I don't want to have another major catastrophic thing happen to me again and I don't have insurance….I would prefer to actually have it. . . When I whipped out that [insurance company] card when I went to go see [a doctor], it was like carte blanche. It's like having the Gold American Express card . . . It's just they treat you like totally different. (Male, Age 51-64, Marquette County)

I'm gonna say "yes."…Because I know if you have health insurance and something happens to you and you do have to be admitted to the hospital, they gave you a different type of care…Let me give you an example. If I had an emergency and I went to a hospital, I think they're just supposed to put a Band-Aid over it and stabilize you…An uninsured person just has to be stabilized opposed to if I went in and I was insured, I'm gonna tell you exactly what they're gonna do. They're gonna give you every test they can give you. (Female, Age 35-50, Detroit)

A few interviewees described the stigma associated with being uninsured or on Medicaid.

…being down in Detroit...because you don't have insurance or something, you're kind of like…frowned upon… you're the bad guy because you can't afford it. Where up here, it's more like, "Oh, you don't have insurance? Okay." (Male, Age 35-50, Alpena County)

I just know personal people that I dealt with that had health issues, and they didn't have insurance, and I didn't like the treatment that they received. Especially for…single people with no children. They're frowned upon in my opinion… (Female, Age 35-50, Detroit)

I think it has a negative connotation to it…Like, "Oh, you got Medicaid?"…I think they get billed differently…The doctors…They are business people. "Oh, Blue Cross pays more." "Oh, okay, boom." It's like an automatic. "Oh, the government pays less." (Male, Age 51-64, Marquette County)

Not at all [interested in Medicaid]…I've watched people. They go to the chart to determine how much care they're giving that person. Not legal. They don't care…because it told how much they weren't going to get paid. (Female, Age 51-64, Kent County)

Many interviewees expressed that having health insurance was important to them, but they could not find a way to afford it.

I can't fit it [health insurance] into the budget. I've tried. I've worked it out. There's just no money. (Male, Age 51-64, Chippewa County)

I actually wish I could afford like $400/month premium and this dental plan that I had set up for myself. I wish I could of…I was just like, "Oh, my gosh. I cannot pay for this. I can't afford this." You know, what was I doing? So I canceled all of it. (Male, Age 19-34, Newaygo County)

I just want to be able to afford it [health insurance], either through work or, you know, personally. (Male, Age 19-34, Kent County)

Some interviewees expressed confusion about aspects of health insurance and/or described challenges they had in trying to explore various options for health insurance and the difficulty they had getting information.

I worry about that [costs] for all insurance...I just don't understand the co-pay and all that really. (Male, Age 19-34, Washtenaw County)

I just want it to be as easy as possible to go through the plans and I don't like going on the…When I went to the healthcare savings website, those deductibles…Like if you do have to go to the hospital are so crazy. I mean, I did look at them at one point, and I just…It was like wow…and then, you know, you're like if I did because I did have surgery in the past, and I even called. I had United Healthcare and they said, "Well, you met your deductible," which was like $1500. So when I…tried to get even a personal plan, it was like, "Well, I had you guys," and they're like, "Well, no, your deductible starts all over again since you're under a whole new plan." I was like, "okay." (Female, Age 35-50, Oakland County)

It just seems like a big pain to try to find out where the source is to find where to buy health insurance. But if someone can explain, "These are the good ones where you can pay," "These are the government ones,"…and then someone can explain to me like the deductibles and all this and that. (Male, Age 51-64, Marquette County)

I know that even before when I was insured, there was some weird things with the insurance, and it was very difficult to try to figure out, and the insurance company was super unhelpful. So it was strange where I was like covered for a month, and then the next month I wasn't covered, but I was technically covered by state taxes sort of thing, but they wouldn't pay for the doctor visits or anything like that…So that was very difficult and trying to call people about insurance has been very difficult for someone that doesn't really know what to do. Because I know that the few times I've tried calling about insurance, it kinda seems like they think that I should know already what I need to do, but I don't know it all and it's kinda difficult to try to express what I need, and I feel like over the phone I especially don't convey what I need, and I kinda forget what questions I need to ask. (Female, Age 19-34, Marquette County)

Impact of being uninsured on finances

Many interviewees discussed the impact of being uninsured on their finances from the perspective that any health insurance was expensive, based on perceptions or experiences with

Marketplace or other commercial plans. Some interviewees thought that being uninsured had a positive impact on their finances. They explained that because they went to the doctor rarely, or only when they really needed to, it was more affordable to pay for care out-of-pocket instead of buying health insurance with its premiums, co-pays and deductibles. Some reported that, with their tight budget, it came down to a decision about paying for health insurance or paying for other necessary expenses, like food.

> *Being uninsured? It increases my finances. I have more money available for food or anything around the house…Two doctor's visits is far cheaper than paying insurance deductibles and everything. (Male, Age 35-50, Clare County)*
>
> *If I had insurance and I was paying out of pocket, I wouldn't be able to afford anything else. It definitely wouldn't be able to afford food, I can tell you that… (Male, Age 35-50, Alpena County)*
>
> *The oddest part about the whole thing is I can negotiate better prices when I don't have money…And I have paid the insurance before. It just left me with nothing, and, you know, one of the things about surviving cancer is that your health is in your gut. Eating clean is so, so, so critical. Eating healthy cancer-friendly foods can run you about $300/month. And if you're paying the insurance, well, guess what? …you've gotta kinda rob Peter to pay Paul in a little bit of both. (Female, Age 51-64, Kent County)*
>
> *I mean I looked at the Marketplace. I just can't afford it. A $6,000 deductible plus at that time it was like $400/month. I'm like, "Well, like $6 grand I've got to cover plus $4,800." I'd have to have $10,000 at the end of the year if I got hurt, I would have had into it. So just roll the dice and be careful, and then anything I can afford, I pay for….[Commenting on the cost of paying out-of-pocket] I had something in my eye. It was like $85, $150, another $85. But that still is less than I would have to pay in monthly premiums. (Male, Age 51-64, Midland County, *VA Benefit)*
>
> *It gives me more finances, if anything. I don't pay a monthly fee. I don't have to worry about co-pays. I know I pay $100 every time I go to an emergency room, and that's that…. I'd rather just keep $100 in my wallet for that. (Male, Age 19-34, Iron County)*
>
> *I feel that my insurance status kinda frees up some of my finances, definitely tremendously cuts out the expenses that I would have paid in premiums. (Male, Age 19-34, Detroit)*

Some interviewees thought that being uninsured had a negative impact on their finances in addition to affecting their health.

> *[With insurance] it was always a co-pay of $5. [Referring to prescriptions] Now I have one that costs $60/month, one that costs $40/month…I don't feel I can go without them. I mean I know what happens to me when I go without medication. That's not good….But it's my prescriptions or eat. I just have prescriptions. I come here to get food. That's all there is to it. I have to have them to stay alive. But it's . . . Financially it's killing us. And*

my husband…He's even worse. He will not go to a doctor. (Female, Age 51-64, Clare County)

I don't look at it as like saving me money. (Female, Age 35-50, Oakland County)

It's not the best way to go about things. It's better to have insurance…especially in my situation. I would rather have insurance so that if something like this happens…I don't have to pay out of pocket, like a big chunk…I'd rather pay monthly towards my future healthcare so that when the time arises, you know, I'd have a smaller co-pay, like a smaller expenditure at a time. (Male, Age 19-34, Kent County)

Affecting my finances? No, it doesn't affect my finances. It affects my health. (Female, Age 51-64, Kent County)

Some people described medical bills or debt due to health care they received while uninsured. At least one person's debt was incurred while they were insured. Many described avoiding further health care because of concern about their debt.

It's not easy. Even with insurance, you know, $9,000 is a hefty sum to ask someone to pay, especially considering the fact that my highest year of income was $28,000, and that's gross, not net. $9,000 worth of medical debt after insurance, you know, was still almost half of my income, the greatest year of income I've had. (Male, Age 35-50, Iron County)

*There's days my sugar is 400. I should be in the hospital, but I won't go because I don't have any insurance….I won't go. Unless they took me in an ambulance and I was unconscious. With no insurance, I will not go to the hospital. I just can't…I have to make house payments and pay bills and a medical bill which is killing me. So I won't do it. (Female, Age 51-64, Clare County, *ER visit in past 12 months)*

I'm not going to go to the doctor if I have no insurance because I can't afford the bills that they send me. I already have enough medical bills from my past…I think I've racked over like $35,000 or $40,000…I can't rack more….Especially now like the hospitals can come after you for the money now, whereas before medical bills didn't go against your credit and everything else….I do have collections after me on stuff….It's really hard. (Male, Age 35-50, Alpena County)

Some noted that they would not be denied care for being uninsured and were not overly concerned about the bills they would receive, at least in the immediate term.

It's a no-win situation with insurance. So that's why people just say, "Piss on it. I'll just go to the ER and be indigent… If they take me, fine, and I'll deal with it when and however it happens. The only thing that I'm worried about is as I get older, I don't want to be a burden to my kids. I don't know what happens with estate things. My sister had to deal with my mom and my dad. The past due bills. I mean, do the kids inherit all that? I don't want my kids inheriting my problems. (Male, Age 51-64, Marquette County)

I know I can still get service. From what I've seen, being uninsured, you don't get denied. You just get billed….So like if I were, say, in an accident, I don't think they'd just wheel me outside and say "too bad" I think they'd still take care of me and then just send me a bill. (Male, Age 35-50, Iron County)

Some interviewees described feeling uncertainty and stress while uninsured because they would not be able to afford care if they were to really need it.

If something health-wise unexpected happens, I might have to shell out a lot of money. And so, it kind of puts me on edge financially." (Male, Age 19-34, Kent County).

Being insured before, you'd have to pay monthly or weekly or whatever payroll was, but it was a small amount. The safety net that it provided was well worth the paying for it. Now you don't have to pay for it, but…It means you're opened up to maybe a possible problem happening, which would be financially devastating if it was a big thing. I don't pay for anything now, but it doesn't mean that down the road it won't come back to bite me. (Male, Age 19-34, Washtenaw County)

Like I said, just another stress that . . . How are you going to get your prescriptions? How are you going to see the doctor? (Female, Age 51-64, Alpena County)

It affects you mentally too. It's like, "Wow. I don't have any insurance. What happens if something happens?" You have car insurance. You have home insurance. Come on. You have to have it. (Male, Age 51-64, Chippewa County)

It's ridiculous, you know, making minimum wage and trying to have a house and a vehicle and maintain. Luckily, I don't need any health services immediately, but the fact that I don't have insurance makes when I do need, or if I do need, you know, that much more stressful. (Male, Age 35-50, Iron County)

Some people mentioned the Affordable Care Act's tax penalty. Some people felt they were forced to pay without getting anything in return; others were unsure if/how the mandate would impact them.

I have to pay the penalty and get nothing. It just doesn't make any sense. (Male, Age 51-64, Marquette County)

I know many people in my circle who are in dire straits as well. A lot of them ignored the healthcare option, and they went ahead and paid the penalty rather than buying insurance because they just couldn't afford it. They couldn't even afford a bronze premium, let alone a silver. (Male, Age 51-64, Chippewa County)

I will say it only affects when I file taxes because of the penalty, but I think I'm under the income limits so that I don't have to pay the penalty. (Female, Age 19-34, Berrien County)

Being uninsured at least gives me a sense of economic stability because it's lowering my monthly bills, but obviously I still have to pay a penalty at the end of the year. So realistically it's not really gaining me much probably, but it's not something that I'm too concerned with at the moment….I'm hoping that eventually I will have a job where there will be a benefit for health insurance so I won't have to pay for it. (Male, Age 19-34, Tuscola County)

*Basically, with the VA when I went in there…I was getting dinged for the penalty on my income because I didn't have health insurance…I was getting dinged on the taxes, and I'm like, "I've got to do [something]…" When I went to the VA, I read that that would cover so you wouldn't get penalized. (Male, Age 51-64, Midland County, *VA Benefit)*

Aim C: To understand decisions about when, where and how to seek care, including decisions about emergency department utilization among those eligible but enrolled

Health care needs, utilization, and forgone care

Perceived need for care

Interviewees' perspectives on the impact of being uninsured on their health care was influenced by their perceived need for care. Many reported not needing various types of care, though all interviewees perceived a need for at least one type of care among the eight types of care that we asked them about.

Some interviewees reported not having a need for preventive services in the past 12 months. A few of these interviewees said they did not need preventive services because they were healthy. A few interviewees with health conditions said they did not need preventive services because they knew how to manage their conditions.

I didn't need it. It's that simple. I mean I still feel like I'm 27. There's not much preventing that needs to be done yet, you know? The future scale will come, and I know I'll get insurance eventually, but I'm healthy so…It's just kind of where it's at. (Male, Age 19-34, Iron County)

If I have any issues, I know it's all diet related, especially with my breathing issues. I tend only to have breathing issues when I eat things like gluten or dairy…things like that. So I just try to stay health conscious as far as what I eat, and that makes my health to be a lot better. (Female, Age 19-34, Berrien County)

Nearly half of interviewees reported not having a need for any vision care services in the past 12 months, but a few suggested that cost/lack of insurance would be a barrier to getting these services if they did need them.

I guess right now if I needed vision care, it would be the money…I just wouldn't want to spend the money to see the optometrist, and I wouldn't want to spend money on glasses. (Male, Age 35-50, Clare County)

Many interviewees also reported not needing other types of care in the past 12 months. Most reported not needing substance use services, mental health care services, and medical equipment or supplies. Nearly half reported not needing specialty care and some reported not needing prescriptions medications. Only one interviewee reported that they did not need dental care in the past 12 months.

Health problems

Perceived need for care often was influenced by whether the person had health problems (see Care received section). More than half of interviewees reported that they had one or more health problems. All interviewees who were 51-64 years of age reported one or more health problems. Although only a third of interviewees were in this age group, they made up half of those with health problems.

Among all interviewees with health problems, more than half reported that they were not getting treatment they needed, including preventive and specialty care and prescriptions needed to improve or manage their conditions; nearly all said this was due to cost and/or not having insurance (see Forgone care section).

Regular source of care

Just over half of interviewees reported having a regular source of care (a doctor's office or clinic). Both interviewees with and without a regular source of care went without care at least some of the time (see Forgone care section).

Several people with a regular source of care reported that their doctor's office or clinic provides services for a sliding scale fee.

It's a clinic in [town]…I pay a reduced amount, but I have to prove that I'm on Social Security and give them a copy of the report that they send me that confirms my eligibility, and then I was able to get it at a reduced price. (Male, Age 51-64, Chippewa County)

A few interviewees with a regular source of care also reported visiting an urgent care in the past 12 months.

I had symptoms of a previous infection returning. So, I kinda freaked out and as opposed to calling my old doctor and making an appointment, I went direct to urgent care to get antibiotics. I was in a hurry…I mean, in hindsight, it probably would have been better to wait a few days and go see the doctor. I haven't gotten the bill yet, but I'm assuming that would have been less. (Male, Age 35-50, Iron County)

No regular source of care

Nearly half of interviewees reported not having a regular source of care. A few interviewees without a regular source of care reported visiting an urgent care or emergency room to receive care for an acute condition in the past 12 months.

> *If I had insurance, I'd probably go get a checkup once in awhile. (Male, Age 19-34, Grand Traverse County)*

> *I've been to the emergency room once. But that's about it [in terms of getting care]. (Male, Age 19-34, Kent County)*

A few interviewees without a regular source of care, all between 19-34 years of age, reported that they use the internet to get advice about their health.

> *I mean, any advice about my health I would just Google stuff. So I don't think that's the best, but that's what I did…I haven't seen a doctor in quite some time. (Male, Age 19-34, Washtenaw County)*

> *No, unless Google counts…Web M.D. has been the number one. (Male, Age 19-34, Iron County)*

Forgone care

Most interviewees reported forgoing at least one type of health care service. Nearly all said this was due to cost and/or not having insurance.

Some interviewees reported not getting needed preventive services in the past 12 months.

> *I went in April [to her usual doctor's office] with no health insurance, and I got a bill for $523… I'm a brittle diabetic…I should have been to the doctor three times in the last three months to have an A1c done, to have blood work done, but with no health insurance I'm afraid to go anywhere after getting that bill, seeing I can't pay for it so. (Female, Age 51-64, Clare County)*

> *Because I don't have insurance…it's like, "Oh, should I go see my doctor? That's 200 bucks." I go, "Oh, I've got to pay this bill. Should I pay my doctor or should I pay this?" You know, you get stuck in that mindset. (Male, Age 51-64, Marquette County)*

Some interviewees expressed concern about not getting preventive services or expressed a desire to receive this type of care.

> *I'm from West Africa…There was a research, for example, that I read about possibly people from my area being more prone to heart attacks. You know, just like…African-Americans in general. So, you know, I hear various things like that, and I want to be more proactive with my health and try and have checkups, but because I don't have*

health insurance, I can't really… Like I feel like it would be too expensive to…do any kind of preventative care. (Male, Age 19-34, Kent County)

*For those 2-1/2 to 3 years that I didn't have health insurance, there's no, "Hey, what's going on," inside me type thing. So, I'm at an age where I'm real concerned. I feel like I'm healthy, but you never know. (Male, Age 51-64, Midland County, *VA Benefit)*

I went faithfully [to the doctor, when insured]. I had a regular doctor that had probably been my doctor 10 years, and I was on a schedule and never varied... I just had a lot of personal issues over the last year, and then I was working so much prior to that that I kinda neglected all those things. But I'm in the process of moving and some financial changes so that I can focus on getting back on track. (Female, Age 35-50, Oakland County)

Nearly half of interviewees described not getting specialty care they needed in the past 12 months.

I have recurrent herniated discs, multiple, and that was one of the reasons why I retired, okay? So that is the biggest issue, and I can't afford a doctor's visit or a shot. That would put me in debt...I would like to be able to call my doctor in [City] and set up an appointment and go in the next series of help that I need for helping the back, but what's putting me off is the money. Alright, it would be $3,000 or $4,000 to take care of this problem…now we're past the shots. Now we actually have to have an operation to work on the inside of the vertebrae and get it back. I don't know exactly what needs to be done, but even an MRI is $1,200 or more. (Male, Age 51-64, Chippewa County)

I have to go to [Cancer Clinic] because there's something wrong with my blood, but I don't have insurance. So I couldn't go. (Female, Age 51-64, Clare County)

When I went to the ER, it was a respiratory issue, some kind of respiratory infection, and I was asked by the doctor to see another doctor, like a specialist, just for checkups and to make sure that it's not worse than he thinks it is, but I ended up not following through because I didn't have health insurance. (Male, Age 19-34, Kent County)

I don't make appointments for routine checkups or anything. All my specialty doctors I haven't followed up with…I probably should. You know, like I have conditions that are going to be with me for life. (Male, Age 35-50, Iron County)

Some interviewees said they had forgone prescription drugs. Some had received the medications when insured but could not afford them without insurance.

I'm not on the prescribed medications, of which one I definitely should be on…And that is all due to not having insurance or the funding….There are two medications I should technically still be on daily that I have not been on in months…. When I was insured, I just had a co-pay. For the both, I believe it was approximately $45/month. Now full price for the both, it would be over $200/month. (Male, Age 35-50, Iron County)

The Hep C that I was born with… It's over $1,000/week for the medication. So, that's all I'm trying to do is get insurance so that I can get that taken care of because…I've been accepted…. with the new treatment, and they said that the genotype that I have allows the new treatment and I should be cured, done and over with, never having it ever again…If I can get insurance to cover it… supraventricular tachycardia. So I've had heart surgery already when I was like 28. So it's like I just really need to get insurance…so I can get this stuff taken care of. If not, I don't feel like I'm going to be living that long. (Male, Age 35-50, Alpena County)

I would say right now I probably do need another inhaler, and the only reason why I haven't gone to get it is because I don't have insurance….And I know it's going to cost $130." (Female, Age 19-34, Berrien County)

One of them [prescriptions] I can't buy. It's $486/month. (Female, Age 51-64, Clare County)

There is a huge difference between when I was insured; it was about $3. When I was insured, it was $3 to get my script filled. When I was uninsured, it was over $185….So I quit taking the meds because of the price difference. (Male, Age 19-34, Washtenaw County)

The majority of interviewees reported needing dental care but not getting it in the past 12 months. Some interviewees had looked into the cost of care while others just assumed that it would be too expensive.

If I had that insurance, I would take it off the back burner and do something with it right away. (Female, Age 51-64, Kent County)

No insurance. I mean, that's pretty much my main reason why I haven't done anything is no insurance. I'm not going to go in and pay full price for something I know I can't afford….I mean, if I was to go and get like a cleaning or something, that's only 100 bucks. I'll go and get that done, but as far as like actual dental work and having exams and x-rays and this and that, I can't afford all that. So I just never ask for that service. So most of the time, I just won't even go in and do it. (Male, Age 35-50, Alpena County)

I love my teeth. I love going to the dentist. I had a real good relationship with the dentist. I think it was like prior to not having any healthcare, I was always at the dentist's office. (Male, Age 19-34, Newaygo County)

Some interviewees noted they have untreated dental problems but could not afford the care they needed.

I think I might have a cavity. There's a pain in one tooth when I eat sweets…But without insurance, I won't even walk into a dentist's office…Unless I get a tooth infection or something, I won't bother…[It's] cost, plain and simple….Years ago, I had an infected

tooth and was in extreme pain, didn't have insurance at the time, could afford it anyway…So I went and had that extracted and paid cash…As of now, if that were to happen, I'm not certain what I'd do. I'd probably have to sell a guitar to get it done. (Male, Age 35-50, Iron County)

That tooth broke, but I didn't have any insurance and so I couldn't go. (Female, Age 51-64, Clare County)

I have some cavities that need to be filled, and I don't really want to drop $700 for a cavity. (Male, Age 19-34, Washtenaw County)

I have neglected my teeth and mouth for various reasons. If I needed a tooth pulled or something like that, you know, it's cheaper to do it yourself...But if I had dental insurance, like I did when I worked at the factory downstate, yeah, I probably would have went and saw a dentist. (Male, Age 35-50, Clare County)

Some expressed concern that even with dental insurance or dental coverage through HMP, they would not be able to access or afford the care they need.

When I was quoted from the treatment the local dentist wants to do, even with insurance I'm not certain I could afford it. (Male, Age 35-50, Iron County)

Being uninsured and cost, while important factors, were not the only reason people did not go to the dentist. Some people mentioned not having time, that it was inconvenient to go, or that they were concerned that it might be painful.

Time. Because actually I would like to get all of the silver fillings out of my mouth . . . all the mercury fillings, but I was pregnant in 2016….So I wanted to wait until I had my baby, and then I was nursing and so I had to wait another 6-8 months, and then just kind of…I didn't even think about it anymore. (Female, Age 19-34, Berrien County)

Money, of course, is the first issue, but the other issue is pain. It's a back tooth. I've had a root canal on this back thing before, and that was more pain than anything I ever could imagine despite being anesthetized…. I know what that pain was, and when the nerve ending tells me I absolutely have to do something about it, I'll do something about it. It's both money and the pain factor. (Female, Age 51-64, Kent County)

Some interviewees did not get needed vision care services. Some reported that cost and/or not having insurance was a barrier to getting these services and a few said they just had not gotten around to it.

Because you would have to pay for the examination, pay for the glasses…You just have to pay out of pocket. If you don't have the money, you can't do it. (Male, Age 51-64, Marquette County)

It [vision care] was pretty expensive without insurance…I looked into everything, and…it was too expensive for me at that point. (Female, Age 19-34, Marquette County)

A few interviewees reported not getting needed mental health care services because they did not have insurance. One interviewee also described how they had difficulty trying to find a mental health care provider. One interviewee reported that cost was a barrier to getting substance use services.

I needed mental health services. If I had had insurance, I would have went…I still do. It's very hard. (Female, Age 51-64, Clare County)

Not having insurance and, around here, not really knowing where I can go…I tried looking it up and figuring things out, but I wasn't really able to. I sent out a few emails to providers, and I never got a response back…I kinda looked up doctors and tried to figure out who might have like a payment program or something, and I kinda just looked a lot into that and picked a few people that I liked, and then I tried emailing their websites and that's about where it ended….I just kinda didn't take care of it and just kinda lived with it sort of thing. (Female, Age 19-34, Marquette County)

Getting health care needs met

Most interviewees had received some type of health care in the past 12 months. Some interviewees said they received preventive services in the past 12 months. A few received these services free or for a small fee. A few interviewees had the services covered by the insurance they had at the time, and two interviewees received the services through their VA health benefit.

For the vitals at the clinic, that was free of cost. But the blood test, I paid a little fee to get that done since I…requested that. (Male, Age 19-34, Detroit)

*Any routine tests…Like I have mammograms and that…and the VA pays. (Female, Age 51-64, Marquette County, *VA Benefit)*

Some people said they received specialty care in the past 12 months, but in most cases, they received this care while insured during that period.

Interviewees who received their prescriptions while uninsured described finding discounts online through websites like GoodRx, Blink Health, or other savings programs offered through pharmacies to reduce their costs while uninsured. Some people said they were able to get free antibiotics or discounts for the drugs they needed from some stores.

You can go to Meijer's and they'll give you your antibiotics…amoxicillin is free. (Female, Age 35-50, Oakland County)

Meijer used to carry this generic program. You buy 30 days' worth of your generic medicine for 10 bucks. They no longer have that. Wal-Mart is the only one in the city that has that program. I go to Wal-Mart, and I get the generic, and I actually get 6

months' worth. I got 180 days' worth because I double up so I don't have to keep going every 3 months. (Female, Age 51-64, Kent County)

Most of the co-pays under my insurance policy allowed me for a $15 or $5 co-pay, and so that was never a problem. When I lost my insurance and had to go back, I found that that $15 one was now $180, or that $13 one was now $243 for the same bill….I went online and [found a program where you prepay for your prescriptions online]…They are a middle man, and so a $130 prescription out of pocket would only be $13 or $14 with this program. ….I just had four prescriptions filled yesterday. And I saved over $700 because I added them all up at the end, the drugs that I take, and how much I paid yesterday was $79. (Male, Age 51-64, Chippewa County)

Some people prioritized getting their prescriptions and paid for them, even when it was unaffordable for them.

I go without just about everything to have my prescriptions. Even when he [her husband] got his unemployment, he said, "Tell her to give you a 3-month supply." I said, 'But that's gonna cost $500." He said, "I don't care." He said, "Get a 3-month supply." (Female, Age 51-64, Clare County)

Some interviewees had received dental care in the past 12 months. Many of those who received dental care described receiving care at a more affordable price or at reduced rates though dental schools, pro bono dental care events, community health centers, free clinics, coupon vouchers (like Groupon) or reductions offered by their dentist.

*Actually, my doctor/dentist knew that I was working 32 hours a week and not making a lot of money. So he gave me reduced rates….Like if it was 100 bucks to have my teeth cleaned. Sometimes I would be charged $75, and then I was allowed to make payments on it until it was paid off. The same interviewee also noted: They would have free dental there for vet and community-wide for anyone who needed it, and they came from as far as Wisconsin because it would be advertised on TV…They had dentists that came up from Chicago, the southern part of Wisconsin, the lower peninsula. They have it every year. (Female, Age 51-64, Marquette County, *VA Benefit)*

So, I've, you know, just got vouchers [for dental care] every maybe year or 6 months [from] social discount clubs like maybe Amazon Local, Groupon. When there's a special….It tends to be someone always has one every maybe 2 months, and…I look into that. (Male, Age 19-34, Detroit)

Some interviewees described why going to the dentist, even on a fixed budget, was a high priority.

I can't even go to the doctor without like thinking about my budget or whatever. The one thing I religiously do is I go to the dentist and I just pay [the sliding scale fee at the community health center)]. (Male, Age 51-64, Marquette County)

I try to stay on top of my dental work…That's how you get sick, if you're not keeping up your dental, you know. (Male, Age 51-64, Marquette County)

Some interviewees who needed vision care services were able to get them by paying out of pocket. A few described ways that they were able to reduce the cost of these services, including using Groupon, waiting until special deals were offered, and ordering glasses online.

*I went and paid for myself. I had my own vision done through Wal-Mart. It was a very good exam…One of the best…I think I walked out of there with an exam. Everything was like $200…a new set of glasses, no bifocals…with the frames…I was happy. I just need them to see, you know, distance really. (Male, Age 51-64, Midland County, *VA Benefit)*

I go to See Optical when they have specials for a Groupon. They give great deals. (Female, Age 35-50, Detroit)

Most of those who reported needing mental health care services in the past 12 months, were able to get them through a sliding scale fee that they paid out of pocket or insurance they had at the time.

I've had like some counseling service…That was out of pocket. I think I was basically charged based on my income. So I'd pay like $15 per session. (Male, Age 19-34, Kent County)

My therapist is $65 a session. So, I mean, it . . . Yeah, I guess it was affordable. She kind of slid her scale…to my budget…She's really good. She charges anywhere between $60 and $120. So depending on if you can pay it or not, she works with you very well. (Male, Age 35-50, Alpena County)

A few people described personal connections to medical professionals that provided needed care or that they could call on for advice or help accessing needed services.

I have friends in the medical community that make sure I get certain exams and certain blood tests. (Female, Age 51-64, Kent County)

I just went to my boss and then, like I said, he did it [dental services]. It was something that needed to be done, and we're friends. (Female, Age 35-50, Oakland County)

I have enough people in my family that have medical knowledge. I know people I could easily consult. I have a cousin that's an optometrist. I have an aunt that's a doctor…So the information is available. It's just a matter of reaching out. If it's needed, that's probably what I would do. (Male, Age 35-50, Clare County)

Interviewees described the strategies they use to avoid using or needing health care services. Interviewees most commonly described preventive measures such as exercising, eating

healthy, “being careful/taking it easy”; brushing and flossing teeth; and using home remedies and other alternative care.

> *I’m not trying to do anything stupid. Not trying to make the back an issue. I do stretching exercises. I take walks with the dog; the dog walks me. Yeah, just try to take it easy and not push the back. Not do any heavy lifting. Protecting it. That’s all I can do. (Male, Age 51-64, Chippewa County)*

> *[Getting dental care] could have been better, but nothing has fallen out, nothing’s rotten. I’ve been flossing. Actually, I started paying more attention…doing more of preventative myself. (Male, Age 51-64, Midland County, *VA Benefit)*

> *I mean between my wife and I…We look at it more of like…an eastern medicine type of practice…we’ll go online to see what we can do naturally first before we go to a pharmacy or a pharmaceutical rep or doctor I guess you’d call them. (Male, Age 19-34, Iron County)*

> *I mean usually if I can’t afford something that the doctor, I’ll try to figure out another way that I can get it. If it’s not the actual brand or item that they particularly use, I maybe try to find something that’s an off-brand or something that’s cheaper, even something that I can make myself that will fit with it... (Male, Age 35-50, Alpena County)*

Emergency room use and decision making

Emergency room use

Some interviewees reported having at least one ER visit in the past 12 months. A few interviewees described how they tried to avoid going to the ER, including by using over- the-counter medication or by seeking care elsewhere first.

> *It felt really funny and painful in my throat area, and so I had to go check it out. I was trying to deal with it like, you know, just as someone who doesn’t have insurance and doesn’t want to go to the ER. I think the first few days I tried to use Tylenol…to deal with it, but it felt like it was getting worse, you know, and I felt like my throat was…I could barely talk one morning, and so that was when I knew I had to have somebody look at it. (Male, Age 19-34, Kent County)*

Two interviewees, including one who first sought care somewhere other than an ER, were instructed to go to the emergency room by a health care provider due to the severity of their conditions and both were subsequently admitted to the hospital.

> *A couple months back, I had an infection that I thought was just a small topical…I’ll take care of it with antibiotic creams. It turned into sepsis. I was hospitalized, and it was septic MRSA. I almost died. I was on intravenous antibiotics for a month….Originally, I went to the nearest CVS Minute Clinic because I was uninsured and I didn’t want a large bill. After about a 45-minute wait, I finally saw the doctor…and explained to her what*

was going on…with my fever and the physical feelings and whatnot, and she said, "Get the hell out of here and go to the ER right now. You need IV antibiotics, or you're going to die." Plain and simple. She said, "I'm not going to bill you. I'll put in the system that you had questions."… "But go right now to the ER. I don't care if you have insurance. You're going to die if you don't." (Male, Age 35-50, Iron County)

Though most interviewees were uninsured at the time of their ER visit, only one reported that someone at the hospital spoke with them about signing up for Medicaid. A few interviewees reported that the bill for the services they received was reduced or completely covered (written off) by the hospital, though a couple interviewees expressed some uncertainty about why they did not have to pay, or about what the status of their bill was.

My final bill, because I was uninsured, was $15,000, and the hospital wrote that off…That was a 9-day stay…Plus all the tests, all the specialists, two follow-up appointments, and that 3 weeks' worth of IV medication and a home health nurse once a week. (Male, Age 35-50, Iron County)

*Not for the service [ambulance] where they came to my house…I didn't have to pay for that for some reason. I think it was just waived or something…I know I didn't have insurance. (Male, Age 19-34, Newaygo County, *ER visit in past 12 months)*

But then they sent me this thing there at the hospital that like . . . "Now because you can't pay this, we can scale it to something else to try to get some money out of you."…Instead of $25,000, "because you're indigent or whatever, now we want $5,000."….I don't know if they wrote it off or what. I don't know…It's an outstanding bill, I guess. (Male, Age 51-64, Marquette County)

A few interviewees reported paying for the services they received in the emergency room out-of-pocket and noted that they were still working on paying them off.

It was just a high bill. All those times I went…I didn't pay on the bill, and then I ended up having to just get ahold of the companies myself, and…The bills ended up just going into…default, and that's why I'm paying on them now. (Male, Age 19-34, Newaygo County)

I have like a derogatory mark on my credit because I stepped on a nail when I didn't have any insurance and went to like [Hospital] in [City]…And I got treated for it. Well, I almost died I guess because it was a tract going up into my vein… Well, they saved me, but anyway I had this high bill…Now it's like at $304. Now I've got it to $204, but I'm trying to get this down. (Male, Age 19-34, Newaygo County)

Impact of insurance status on ER decision making

Nearly half of interviewees reported that their insurance status does not impact their decisions about going to the emergency room. Of those who said that their insurance status does not impact their decision making, several said they would go, if they needed it, regardless of

whether they were insured or not. A few interviewees said that their decision-making would be based on the severity of their health problem regardless of whether they were insured or not.

> *I guess my health is the first thing that's important. So, I would have to say that I wouldn't let it affect me at all. I would go to the emergency room to have what needs to be done, and then deal with it afterwards…I'd deal with the repayment and the monies after that. Perhaps talk to the doctors at the hospital and see if they have a plan for people like me; sometimes they do. (Male, Age 51-64, Chippewa County)*

> *If I need to go to the emergency room, I think money is going to be about the last thing on my mind. (Male, Age 19-34, Tuscola County)*

> *I mean it depends. I don't go for anything, a cough or that…If I had insurance or didn't have insurance, it would be the same. Yeah, if I broke my leg, I'm going, regardless…So whether or not I had insurance doesn't base whether I go. It depends on the situation. (Male, Age 51-64, Midland County, *VA Benefit)*

> *It depends on the degree of how bad something hurts. That's my main reason of . . . the degree. You know, when they tell you like, "From 0 to 10, how bad do you feel?" The same way if I decide to go or not. (Male, Age 35-50, Detroit)*

Some interviewees reported that their insurance status does impact their decisions about going to the emergency room. Of those individuals, some said they would not go to the ER while uninsured and others said that it would depend on the severity of their health problem.

> *I tend to hesitate if I do need to go. I try to hold off as long as possible if I don't have insurance because I know that's a $300-$900 bill that I don't want. It's usually that if I don't have insurance, I won't go. (Female, Age 19-34, Berrien County)*

> *Well, if you have no insurance, you know, you're just creating another bill. I mean unless I was dying, I wouldn't go. (Female, Age 51-64, Alpena County)*

In the context of discussing ER use, a few interviewees without a usual source of care described how primary care they avoided due to cost might reduce the need to go to the emergency room.

> *If I had insurance, I would probably do more checkups. With the issue that I had with my respiratory, I probably would have gone in earlier, you know, to a doctor and hopefully, you know, I could have avoided the emergency room. (Male, Age 19-34, Kent County, *ER visit in past 12 months, No RSOC)*

> *Being uninsured, you would only do the things when it was an emergency . . . an absolute emergency…You put it off as long as possible… [If insured] You would be preventative more than…after the problem happened. (Male, Age 19-34, Washtenaw County, No RSOC)*