



***New Jersey Comprehensive Waiver Demonstration
Section 1115 Annual Report
Demonstration Year 4: July 1, 2015 – June 30, 2016***

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I. Introduction

The New Jersey Comprehensive Waiver Demonstration (NJCW) was approved by the Centers for Medicare and Medicaid Services (CMS) on October 2, 2012, and is effective October 1, 2012 through June 30, 2017.

This five year demonstration will:

- Maintain Medicaid and CHIP State Plan benefits without change;
- Streamline benefits and eligibility for four existing 1915(c) home and community-based services (HCBS) waivers under one Managed Long Term Services and Supports Program;
- Continue the service delivery system under two previous 1915(b) managed care waiver programs;
- Eliminate the five year look back at time of application for applicants or beneficiaries seeking long term services and supports who have income at or below 100 percent of the Federal Poverty Level (FPL);
- Cover additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, and intellectual disabilities/developmental disabilities;
- Transform the State's behavioral health system for adults by delivering behavioral health through behavioral health administrative service organizations; and
- Furnish premium assistance options to individuals with access to employer-based coverage.

In this demonstration the State seeks to achieve the following goals:

- Create "no wrong door" access and less complexity in accessing services for integrated health and Long-Term Care (LTC) care services;
- Provide community supports for LTC and mental health and addiction services;
- Provide in-home community supports for an expanded population of individuals with intellectual and developmental disabilities;
- Provide needed services and HCBS supports for an expanded population of youth with severe emotional disabilities; and
- Provide need services and HCBS supports for an expanded population of individuals with co-occurring developmental/mental health disabilities.
- Encourage structural improvements in the health care delivery system through DSRIP funding.

This annual report is submitted in accordance with Special Term and Condition (STC) 102 of the NJCW.

II. STC 102(a): Accomplishments, Project Status, Quantitative and Case Study Findings, Interim Evaluation Findings, and Policy and Administrative Difficulties and Solutions in the Operation of the Demonstration.

During Demonstration Year 4 (DY4), the state continued its progress toward implementing the NJCW. The Managed Long Term Services and Supports (MLTSS) program celebrated its second anniversary on July 1, 2016, the Department of Children and Families (DCF) continued building its Autism Spectrum Disorder (ASD) and Individuals with Intellectual Disabilities and Developmental Disabilities with Co-Occurring Mental Illness (ID/DD-MI) pilot programs, and the Supports Program went live July 1, 2015.

Managed Long Term Services and Supports Program

The launch of MLTSS was a major shift of how services were delivered to individuals who were in need of long term care. The Managed Care Organizations (MCOs) and the Office on Community Choice Options (OCCO) had to complete and validate over 11,000 NJ Choice assessments affirming that individuals who were transitioned from the four former 1915(c) waivers still met nursing facility level of care.

MLTSS also carves-in the behavioral health benefit into the MCO allowing for greater integration for physical, behavioral and long term care benefits.

Following the transition to MLTSS on July 1, 2014, the state has maintained its efforts to ensure that consumers, stakeholders, MCOs, providers and other community-based organizations have learned and are knowledgeable about the move to managed care. The state has depended on its relationships with stakeholder groups to inform consumers about the implementation of MLTSS. In turn, stakeholders have relayed accurate information to consumers. This strategy has continued in the post-implementation phase.

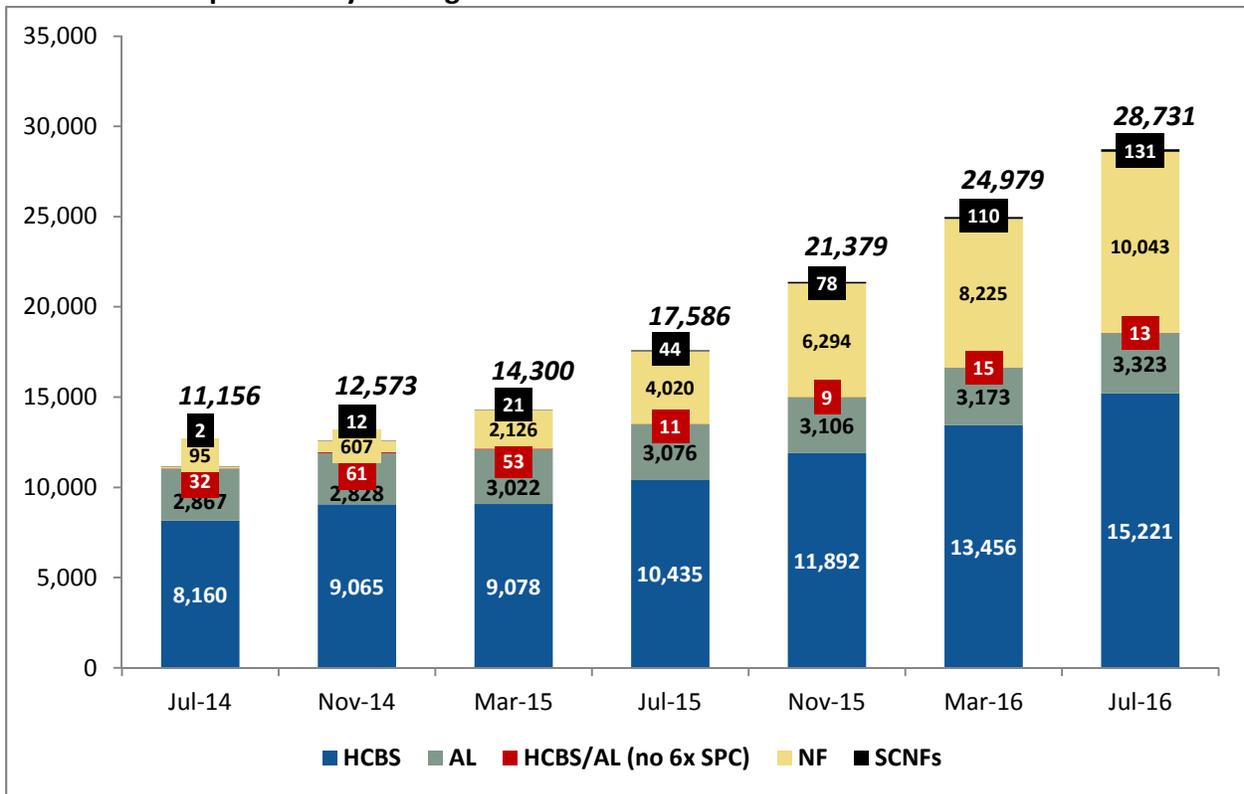
The Division of Aging Services (DoAS) is the primary liaison to the aging and disability networks. The DoAS has oversight of the Aging and Disability Resource Connection (ADRC) partnership as the single entry/no wrong door system for consumers to access MLTSS. The state continues to meet with groups ranging from the Human Services Directors, the 21 Area Agencies on Aging (AAAs), the County Welfare Agencies (CWAs) to the State Health Insurance Assistance Program (SHIP) counselors and Adult Protective Service (APS) providers on a regular basis.

The DMAHS Office of Managed Health Care (OMHC), with its provider relations unit, has been at the forefront in spearheading communications efforts to ensure access through its provider networks in the following categories—HCBS medical; HCBS non-medical; nursing homes; assisted living providers; community residential providers and long-term care pharmacies. As a resource to stakeholders, OMHC addresses provider inquiries on MCO contracting, credentialing, reimbursements, authorizations and appeals. It also handles provider inquiries, complaint resolution and tracking with a dedicated email account for providers to directly contact the Office of Managed Health Care.

The State has had bi-weekly conference calls with the Managed Care Organizations (MCOs) during the demonstration year to review statistics and discuss and create an action plan for any issues that either the State or the MCOs are encountering. Also, state staff from various divisions who are involved in MLTSS meet weekly to discuss any issues to ensure that they are resolved timely and in accordance with the rules and laws that govern the Medicaid program.

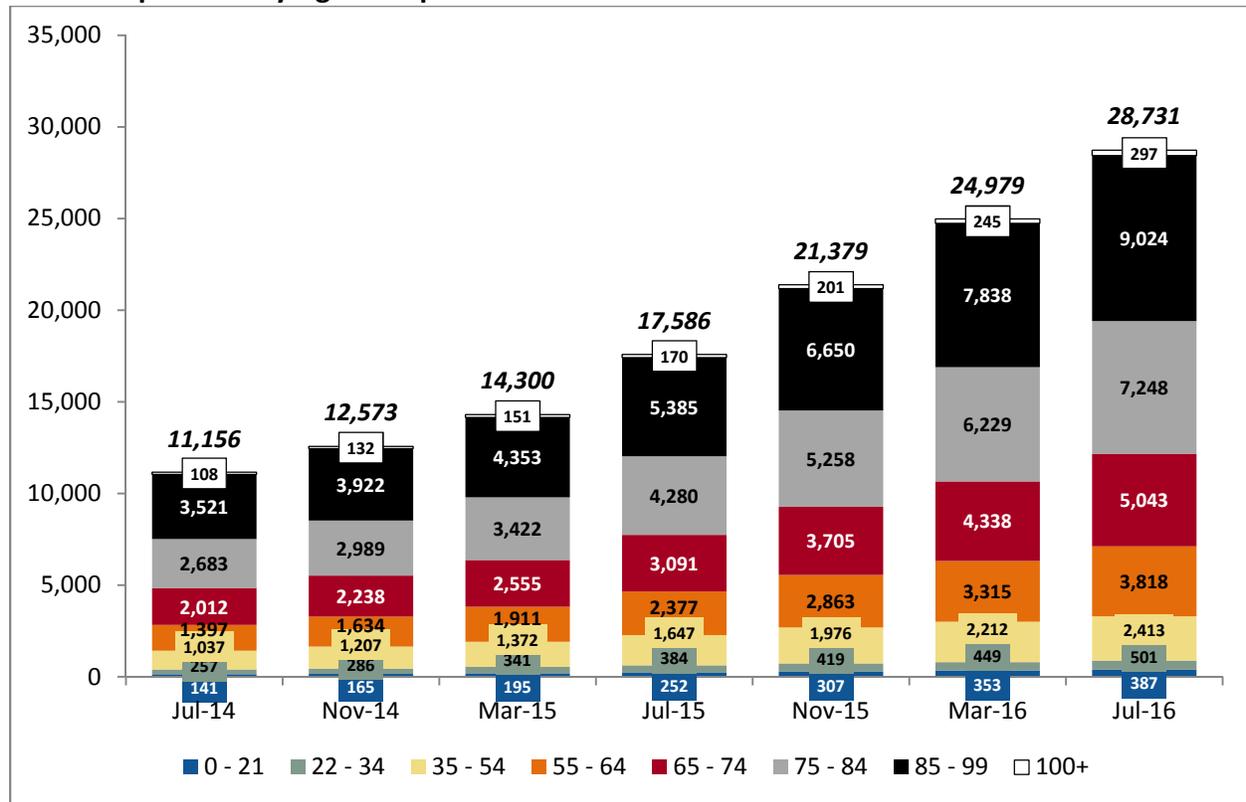
As of June 30, 2016, a total of 28,731 individuals were enrolled in MLTSS. As shown in the chart below, as the program has grown and evolved, more individuals are enrolled in Home and Community-Based (HCBS) settings than Nursing Facilities (NF). Please note that the growth of the NF population since July 1, 2014 is due to new NF enrollees and individuals moving from fee-for-service into MLTSS. The overall NF population has decreased since July 2014 by roughly 800 people.

Total MLTSS Population by Setting



Below is a breakdown of MLTSS participants by age group. The largest segment group of individuals enrolled in MLTSS is between 85 and 99 years of age. Roughly 75 percent of the MLTSS population is ages 65 and older.

MLTSS Population by Age Group



Supports Program

The Supports Program, administered by the Division of Developmental Disabilities (DDD), went live July 1, 2015. Implementing the Supports Program changed DDD's delivery system from a State Contracted to a Fee-for-Service Model. DDD has continued to engage their stakeholders throughout the process to make the shift as easy as possible, providing webinars, trainings and materials and allowing for continuous feedback during the entire time period. They have also engaged families and clients to educate them about the program and ensure their needs are met as they enroll.

DDD, together with the Division of Medical Assistance and Health Services (DMAHS), has developed and begun implementation of the Supports plus Private Duty Nursing (PDN) benefit which is available to individuals in need of, and eligible for, Private Duty Nursing. This program was available, via an amendment approved by CMS in February 2016.

As of June 30, 2016, approximately 500 individuals were enrolled in the Supports Program.

Autism Spectrum Disorder Pilot, Intellectual Disability/Developmental Disability with Co-occurring Mental Illness Pilot, Serious Emotional Disturbance Program

Youth eligible for the ASD and ID/DD-MI pilots began enrolling in March of 2015. The Department of Children and Families (DCF), Children's System of Care (CSOC) has provided and is continuing to provide ongoing support to providers as it relates to procedures and

expectations for the programs. CSOC has also work closely with their stakeholders to ensure that the needs of the community are being heard.

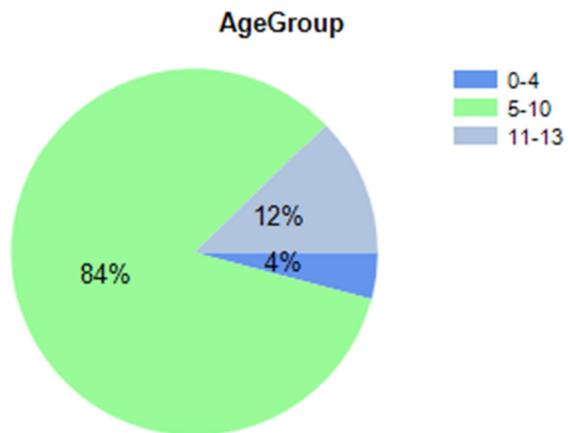
CSOC reviewed the data for youth enrolled in the programs, during the time period covering July 2015 - June 2016.

The goal of this report was to assure that the use of waiver services (therapeutic services and functional supports) that the youth received did indeed have a positive outcome as reflected by the youth remaining in their own home with waiver supports, thereby diverting youth from more costly out of home care.

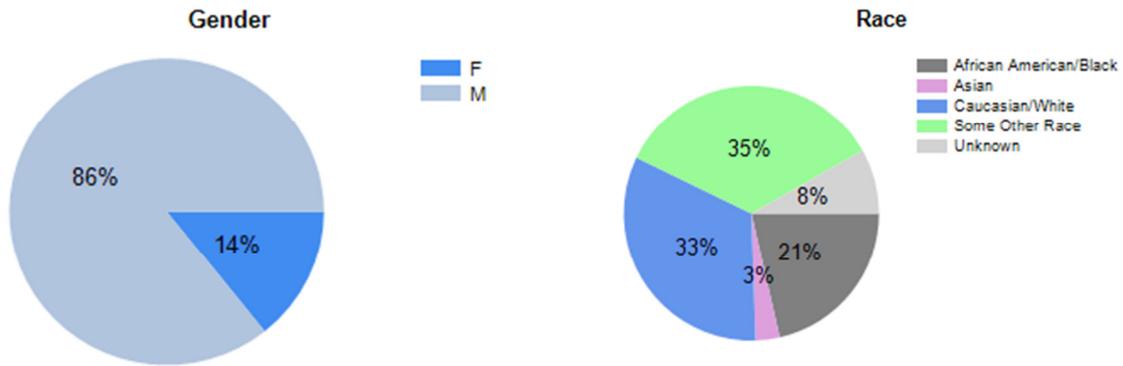
ASD Pilot

As indicated in the chart below the age range of the youth served in the waiver are from 0-13 years old. The largest age group represented is between 5-10 years old, 84% of the enrolled youth.

Age Group	# of Youth	Percent
0-4	4	4%
5-10	82	84%
11-13	12	12%



The gender distribution of the youth is 86% Male and 14% Female. Additionally, 35% of the youth identified race as 'Some Other Race', 21% as African American and 33% as Caucasian, 3% as Asian and 8% were unknown; 39% of youth identified Hispanic as their ethnicity.

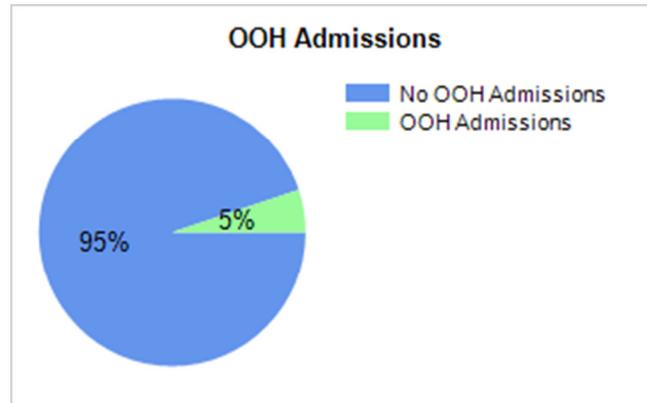


Youth were represented fairly evenly across New Jersey. The majority of youth (13%) resided in Essex County, followed by Monmouth; with Bergen, Burlington, Camden, and Ocean counties following up with equal percentages.

Parents Home County	# of Youth	Percent
ATLANTIC	6	6%
BERGEN	9	9%
BURLINGTON	9	9%
CAMDEN	9	9%
CAPE MAY	1	1%
CUMBERLAND	1	1%
ESSEX	13	13%
GLOUCESTER	4	4%
HUDSON	6	6%
MERCER	2	2%
MIDDLESEX	7	7%
MONMOUTH	11	11%
MORRIS	2	2%
OCEAN	9	9%
PASSAIC	4	4%
SOMERSET	3	3%
UNION	2	2%

During this period only 5 youth (5%) had a need to be admitted into Out of Home (OOH) care during this period and the majority of the 93 youth (95%) were able to remain in home with the waiver supports and services (HCBS).

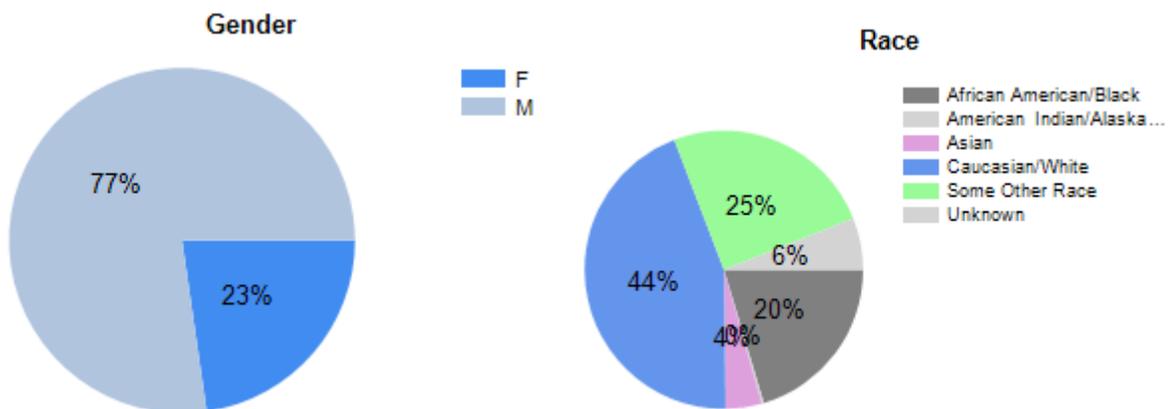
	# of Youth	Percent
No OOH Admissions	93	95%
OOH Admissions	5	5%



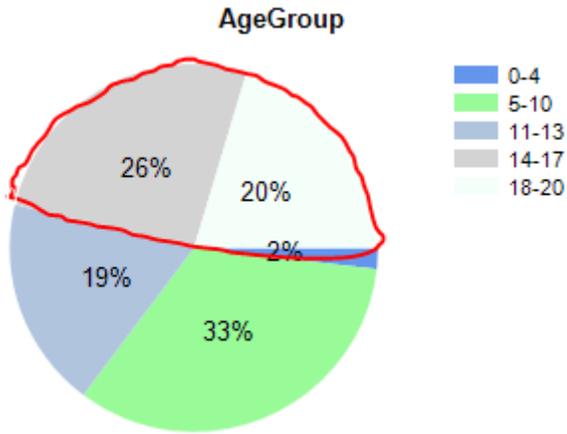
ID/DD-MI Pilot

Three hundred thirty-three (333) youth were enrolled in the ID/DD-MI pilot program, during the period covering July 2015 - June 2016.

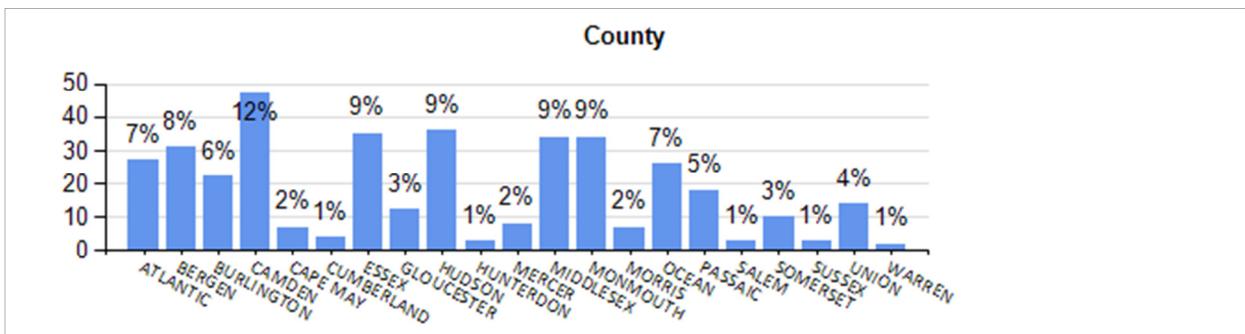
In the ID/DD-MI waiver, female representation was 23% (87). The race composition was similar, 20% vs. 21%, for the African American/Black representation across both waivers.



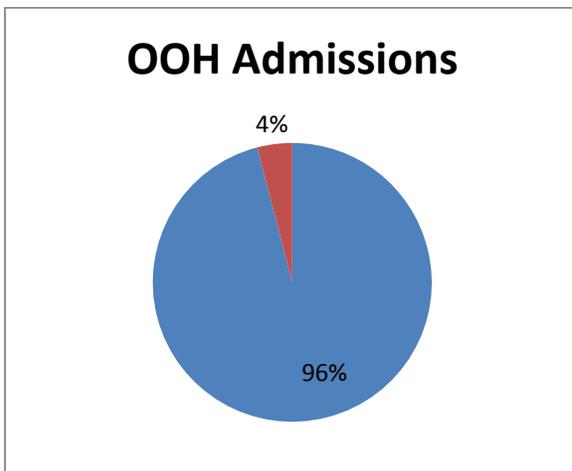
It should be noted that the ID/DD-MI waiver included youth beyond age 13 and those older youth represented 46% (177) of the youth served.



Youth were represented fairly evenly across the region in this review as well. The majority resided in Camden County, followed by Essex, Hudson, Middlesex, and Monmouth counties. These counties are typically where the major urban cities of NJ are located.



During this period the results were similar to the ASD waiver in that only 4% of the youth required being admitted into an Out of Home program (OOH).



All the youth identified in both waivers were those involved with a CMO and had been identified as youth which are at risk of being placed out of home. So it can be concluded that the waiver services are successful. With the supports and services placed into the home, for the 431 (333 ID/DD-MI & 98 ASD) waived youth, at least 95% of the youth were able to stay in their own home and in their own community.

Interim Managing Entity

In January 2015, Governor Chris Christie announced that the Department of Human Services was developing an interim managing entity (IME) for addiction services as the first phase in the overall reform of behavioral health services for adults in NJ. The state identified University Behavioral Health Care (UBHC) within Rutgers University to develop and implement the IME that was established through a Memorandum of Understanding with the Division of Mental Health and Addiction Services.

The IME was implemented and went live on July 1, 2015. During implementation, the IME opened the addiction services hotline which serves as the single point of entry for Medicaid and State funded clients seeking treatment for Substance Use Disorders. The IME has been designated to provide 24/7 availability to callers. The IME screens for risk and service needs, referrals using a bed management system, and care coordination to assist individuals to enter care and move through the continuum.

IME Call Center			
July 1, 2016 to June 30, 2016	Calls Received	Calls referred to treatment	Calls sent to Care Coordination
	56,887	4,317	1,837

From April 1, 2016 to June 30, 2016, Phase 2 of the IME implementation was in progress with extensive provider trainings to move toward the full utilization management for Medicaid and State funded SUD services. The IME also established a provider hotline for technical assistance to facilitate the implementation. The IME received 2,246 provider assistance calls. Once implementation began, the IME provided clinical review and issuance of Medicaid Prior Authorizations for treatment to ensure the right level of care, for the right duration, and for the right intensity of service. In addition, the IME also began clinical care reviews to authorize extending patient treatment requests by providers.

IME Utilization Management		
July 1, 2015 to June 30, 2016	PA Requests	Continuing Care Review for extended treatment.
	23,558	828

Evaluation of the Demonstration

The Rutgers Center for State Health Policy (CSHP) work during this year included the release of the DSRIP Mid-Point Evaluation in September 2015, and the Waiver Draft Interim Evaluation in June 2016. Both of these reports are included as Attachment A.

III. STC 102(d)(i): A Report of Service Use by Program Including Each HCBS Program (encounter data)

Service use data for the MLTSS, ASD, ID/DD-MI, SED, and Supports Programs is included in Attachment B at the end of this report.

IV. STC 102(d)(ii): A Summary of the Use of Self-directed Service Delivery Options in the State

Overview of Self-Direction

Self-Direction is a philosophy and an alternative service delivery mechanism for home and community based services whereby informed consumers gauge their own needs, determine how and by whom these needs should be met, and monitor the quality of services received. Consumers have both budget authority and employer authority to make choices that work for them. Budget authority allows consumers to choose how they wish to spend their monthly allowance within program guidelines. Employer authority allows consumers to become common law employers so that they can choose who they would like to hire to provide direct care.

Self-direction may exist in different degrees and span many types of services, ranging on a continuum from an individual making all decisions to an individual using a representative to manage needed services. Research has found that consumers who participate in self-directed service delivery models report increased satisfaction with their homecare services as well as increased quality of services.

Self-Directed PCA (Personal Preference)

New Jersey began providing self-directed services as an option to State Plan Medicaid Personal Care Assistance (PCA) Services in 1999 through the Cash and Counseling Demonstration Project, otherwise known as the Personal Preference Program (PPP). PPP became a permanent program under CMS 1915j authority in 2008. As of August 2016, 7,883 consumers were actively participating in PPP. The average monthly budget was \$1,621.86 which equates to approximately 27.70 hours of PCA services per week.

Participants use the majority of their monthly budgets to hire individual workers to provide assistance with Activities of Daily Living (ADLs). Some participants choose to purchase goods and services in lieu of personal care. For example, a consumer may choose to purchase a washer and dryer so he/she can do laundry on their own, allowing the consumer to be

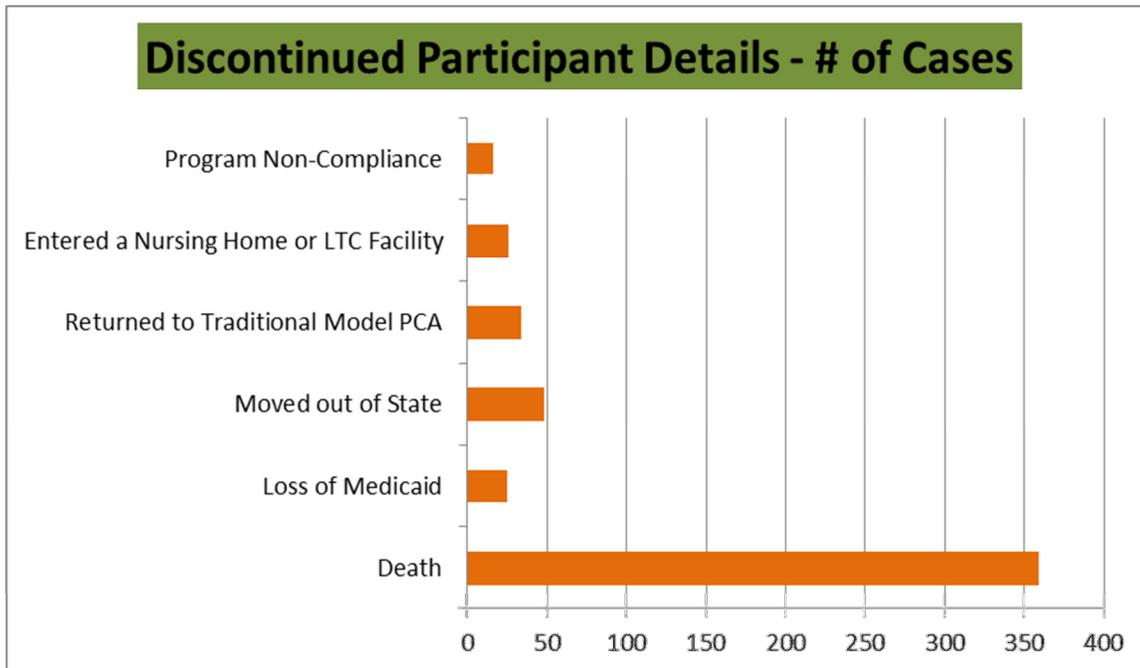
independent and the worker to complete additional care that would not have been possible otherwise. Participants that purchase goods and services most often purchase small appliances such as microwaves, washers/dryers, toaster ovens, and disposable medical supplies including wipes and gloves and other supports such as, transportation and laundry services. Approximately 22% of participants were purchasing these types of goods and services.

From 2008 to July 2011, approximately 30-50 new consumers enrolled each month. During this time, consumers only learned about Personal Preference through word of mouth. There were no formal marketing strategies to enroll consumers. With the inclusion of PCA services, including Personal Preference Program into Medicaid Managed Care in 2011, enrollment began to increase to about 75-100 new participants each month and has been increasing steadily to date. In the last 12 months, average enrollment has been approximately 227 participants each month. The highest month of enrollment in program history was in July 2016 with a total of 401 new participants. The reason behind increased enrollment continues to be due to the requirement of the Managed Care Organizations (MCOs) to inform their members of the option to self-direct home care services pursuant to CMS regulation.

As of August 2016, 1145 Personal Preference participants were enrolled in Managed Long Term Supports and Services (MLTSS).

Consumers often disenroll from Personal Preference for a variety of reasons. Reasons for disenrollment appear in Chart 1 below.

Chart 1



In reviewing data, for those consumers who returned to traditional agency model PCA services, the reason continues to most often be due to increased medical need/clinical deterioration and lack of family support to meet the responsibilities of self-direction. Please note that consumers

who have disenrolled due to a decline in health or hospitalization, may have subsequently returned to traditional agency model PCA services, entered a Long Term Care facility or may have passed away since their disenrollment from the program. These findings are proportionally similar for all consumers, whether or not they are enrolled in MLTSS. One difference from the previous year is an increase in the number of consumers who have been terminated due to program non-compliance. This is attributed to growth in enrollment as well as the Division's efforts to mitigate fraud and abuse.

Other significant information that does not appear on the above chart but deserves to be mentioned, relates to consumers who are referred to the Personal Preference Program, but do not complete the enrollment process. Each month there is approximately a half dozen consumers that complete the enrollment process but withdraw prior to their start date, and about 7 percent of consumers that are referred to PPP do not complete the enrollment process. The most common reasons include: not being able to find a worker; inability to identify a representative to assist in managing the program; the program is more responsible than previously realized; and the program was not what they thought it would be.

Chart 2 below indicates the most prevalent disabilities and/or diagnosis of self-directed participants.

Chart 2

Prevalent Disabilities and/or Diagnosis of Self-Directed Participants

Alzheimer's/Dementia	Traumatic Brain Injury (TBI)
Chronic Obstructive Pulmonary Disease (COPD)	Cerebral Ventricular Accident (CVA)
Spinal Cord Injury (SCI)	Elderly*
Intellectual Disability	Chronic Pain
Autism Spectrum Disorder	

*Elderly is a term used to describe the group of multi-system symptoms associated with aging and the routine deterioration of functional ability.

DDS speculates that Alzheimer's/Dementia and Autism Spectrum Disorder are included on the list due to the nature of the disabilities in that consumers require consistency among caregivers and routine. Self-direction affords a family the ability to self-hire caregivers of their choice with the requisite consistency and flexibility needed to maintain a loved one in decline in the community. These are not always elements that are available from the traditional home care agency.

Many participants experience co-morbid diagnoses which include: hypertension, diabetes, depression and anxiety.

Self-Direction under MLTSS

Based on the success of self-directed PCA services, DHS in its creation of MLTSS developed additional self-directed services to meet the various needs of the MLTSS population in a home

and community-based environment. One of the purposes of offering these self-directed options is to provide a consumer with the mechanism to purchase unique goods & services previously not available under the Medicaid program. For example, one of the MCOs determined that many of its members were having adverse health effects caused by their homes being excessively hot. In an effort to maintain the individual's health and safety while maintaining them in their home in lieu of an institutional setting, the MCO opted to purchase window air conditioners and were only able to use the self-directed mechanism which allowed for the purchase of non-routine items.

DDS administers the Self-Directed Service options available to consumers under MLTSS which include:

Chore Services – supports designed to help an individual maintain a clean and safe home environment. Chores covered by this service include: cleaning appliances, cleaning carpets and scrubbing floors, washing walls and windows, cleaning attics and basements to remove fire and health hazards, clearing walkways of ice, snow and leaves, replacing fuses, light bulbs, electric plugs, frayed cords, replacing door locks, window catches, faucet washers, installing safety equipment like smoke detectors, fire extinguishers and grab bars and “Spring Cleaning” and weatherization.

Non-Medical Transportation – is a service which helps individuals to gain access to community services, activities and resources which enhance the individual's life. This service is offered in addition to medical transportation. Transportation covered by this service include: shopping, beauty salon, financial institution and religious services.

Home Based Supportive Care (HBSC)- services are designed to assist MLTSS participants with Instrumental Activities of Daily Living (IADL). IADLs are support services such as, but not limited to: grocery shopping, money management, light housekeeping and laundry.

Since the inception of MLTSS, no requests have been submitted to DDS for the MLTSS self-directed services described above. Care Managers at each of the MCOs continue to report that because PCA services are inclusive of assistance with IADLs, the need for HBSC is being met under PCA. Care Managers have reported some interest for Non-Medical transportation and Chores services by their consumers, but have experienced barriers related to finding providers.

Issues & Trends

DDS has seen some challenges since the transition to managed care. Enrollment growth has impacted both DDS and the MCOs. DDS and the MCOs are working together to identify priority cases when necessary and to streamline processes and create a more efficient enrollment process for consumers.

Ongoing training to MCO staff is required. Although MCO staff reports having greater knowledge about self-direction since the implementation of MLTSS and further report seeing the benefits it has on their members, the benefits of continued training exists. DDS continues to offer training opportunities to address the noted issues of limited knowledge and MCO staff

attrition. Specifically, DDS is planning ancillary training for the use of the MLTSS self-directed services, Non-Medical Transportation and Chore Services, in order for Care Managers to gain an increased understanding of the services and help consumers begin to utilize these services.

DDS continues to work with MCO staff to keep communication lines open in order to better serve consumers. Working relationships between DDS and the MCOs continue to grow in a positive direction. Consumers who have been enrolled in self-directed services since the transition to managed care are beginning to understand the specific roles and responsibilities of both DDS and the MCO. This is attributed to DDS and the MCOs working together as a team.

V. STC 102(d)(iii): A General Update on the Collection, Analysis and Reporting of Data by the Plans at the Aggregate Level

The main data set that the DMAHS Office of Business Intelligence is responsible for is receiving encounter data from the MCOs. Section 3.9 of the managed care contract requires our plans to “collect, process, format, and submit electronic records for all services delivered to an enrollee.” The plans are required to submit encounter records on at least a monthly basis, although there are submissions that generally occur more frequently. DMAHS has a unique set of encounter claim edits to ensure consistency and readability of encounters across the varied MCOs. The Office of Business Intelligence also sets category of service utilization benchmarks in certain areas to ensure completeness of the data submitted by the plans and have contractual requirements related to duplicate encounter submissions and encounter MMIS denial rates. Failure to meet these requirements initially results in the withholding of capitation payments to the MCOs until the failure is resolved; if the contracted standards are not met after a specified period of withholding, the withheld amounts are liquidated and not recoverable by the plans. Plans are also required to submit encounters for payments to subcontractors and the service encounter claim information from these subcontractors.

The Division contracts for the operation of a shared data warehouse that includes all nearly all data available from the MMIS and some data from external sources (such as NJ Choice MLTSS assessment data and long term care recipient data from the Division of Aging Services, electronic birth certificate information from the Department of Health). Access to this warehouse is available to all Division staff and to certain select staff in other state departments/agencies (Department of Treasury – Office of Management and Budget, Office of State Comptroller – Medicaid Fraud Division, Department of Law and Public Safety – Division of Criminal Justice for example), with data expertise and consulting available through the Division’s Office of Business Intelligence and its shared data warehouse contractor. The warehouse allows for ad-hoc and production reporting of various data metrics and is also used as the source of data for various interactive data dashboards maintained by the Office of Business Intelligence. The Research and Performance Evaluation functions within the Office of Business Intelligence are the division’s “data experts” and are responsible for defining performance metrics from data available from the shared data warehouse and other sources and presenting this information in audience-specific formats, with products ranging from high

level slide presentations to senior level Governor's Office staff to detailed claims-based analysis in support of future policy making and fraud detection.

Another way we use data collected from the plans is for Quality Improvement Projects (QIPs), which is housed within the Office of Quality Assurance.

In December 2013, the MCOs, with the guidance of the External Quality Review Organization (EQRO), initiated a collaborative QIP with a focus on Identification and Management of Obesity in the Adolescent Population. Since inception, the EQRO had held regularly scheduled meetings with the MCOs to ensure a solid and consistent QIP foundation across all MCOs. In September 2015, the plans submitted a report to include a qualitative analysis of their recent activities and, based on the analysis, any revisions to the interventions for the upcoming year. Starting August 2015, the MCOs met monthly, independent of the EQRO, for continued collaborative activities. The MCOs are expected to show improvement and sustainability of this collaborative QIP. A routine QIP cycle consists of baseline data followed by two remeasurement years and then a sustainability year. Currently four MCOs are involved in the collaborative. For three of the MCOs, 2013 is their baseline data year for the project; results of calendar year 2014 reflect remeasurement year 1 and results of calendar year 2015 reflect remeasurement year 2. January of 2016 started the sustainability year for these plans. The fourth MCO entered into the NJ market in December of 2013, making their baseline year 2014, with results of calendar year 2015 as their first remeasurement year. January of 2016 was the start of remeasurement year 2 for this plan. All MCOs submitted a progress report in June 2016.

The MCOs are also involved in a non-collaborative Prenatal QIP with the focus on Reduction of Preterm Births. The initial proposals were submitted by the MCOs in October 2014 for review by the EQRO. The individual proposals were approved and project activities were initiated by the plans in early 2015. The June interim reports included the 2014 baseline data. The September 2015 reports included an analysis of plan specific activities and any revisions for the upcoming year. Results of calendar year 2015 measures represented remeasurement year 1. January of 2016 was the start of remeasurement year 2 for this QIP. All MCO's submitted a progress report in June 2016.

Additionally, all MCO's provided individual QIP proposals in September 2015 on Falls Prevention specific to members receiving managed long term support services. The individual proposals were approved and project activities were initiated by the plans in early 2016. The plans submitted a progress report in June 2016 which included the 2015 baseline data.

VI. STC 102(d)(iv): Monitoring of the Quality and Accuracy of Screening and Assessment of Participants who Qualify for HCBS/MLTSS

The NJ Aging and Disability Resource Connection (NJ ADRC) and the NJ Division of Disability Services (DDS) are the lead agencies responsible for screening non-MCO consumers seeking long term services and support. Through an intake process, consumers who trigger as at-risk for nursing home placement are encouraged to complete the Screen for Community Services (SCS)

during the initial intake telephone call. The SCS identifies service needs, clinical needs, and potential Medicaid financial eligibility. Individuals who do not score as potentially eligible or without identified needs are provided Options Counseling and Information and Assistance (I&A) on all publicly funded long term services and supports. Individuals who score as potentially eligible are encouraged to accept a referral for a comprehensive assessment and to apply at their local County Welfare Agency for financial screening and application.

During the period of July 1, 2015 through June 30, 2016 the below statistical data identifies the number of SCS that resulted in referrals for comprehensive assessments. 58% of screens that identified at risk individuals were referred for comprehensive assessment based on consumer consent.

SCS - I&A/Options Counseling	4,695
SCS – comprehensive assessment recommended	5,517
• SCS referred for comprehensive assessment	3,184
(58% referral rate)	
TOTAL	10,212

The NJ Family Care Managed Care Organizations (MCO) are the entities responsible for identifying and screening members who are identified as in need of long term services and supports. Members who screen positively are referred for a comprehensive assessment. The SCS has been shared with the MCOs for their programming and use. It is not a mandatory tool at this time.

The Department of Human Services utilizes a standardized comprehensive assessment to determine clinical eligibility for nursing facility level of care which is required for MLTSS eligibility. The standardized assessment is the interRAI Home Care Assessment, Version 9.1 which is referred to as “NJ Choice HC”. The NJ Choice HC is a comprehensive assessment and algorithms which identifies Care Assessment Protocols (CAP) which guide care planning.

During the period of July 1, 2015 through June 30, 2016, 35,336 assessments for MLTSS level of care determination were conducted for existing MCO members of which 90% have received a level of care determination. The final level of care determination was 31,920 Authorized/Approved and 273 Denied. The differential of 1,701 is comprised of duplicate submissions, request that MCO conduct new assessment, outcome pending more information/screening by another entity (i.e. DDD), or other non-determination outcome. There has been a 33% increase in assessment submissions from fiscal year 2015 to fiscal year 2016.

In the first several months of MLTSS implementation, the State identified issues with the quality of the comprehensive assessments conducted by the MCOs. This was most apparent through the high rate of Not Authorized review outcomes. Not Authorized is identified as an assessment

that is conducted by the MCO and reviewed by the State. The State review is unable to make a determination for level of care eligibility because the clinical criteria are not able to be validated. The State is responsible for conducting a face to face reassessment for the Not Authorized outcomes. Due to the high percentage (ranged 18-33%) identified, the State implemented an aggressive training strategy which was detailed in last year's report. The not authorized outcome percentages have dropped significantly in fiscal year 2016. There were a total of 1,442 not authorized outcomes which is an average of 5% of the assessments submitted with determinations. This is well within the initial established benchmark which was set at 7%. This rate is calculated after the State's final determination of nursing facility level of care.

NJ Choice HC Annual Recertification

Individuals who conduct assessment utilizing the state's standardized assessment tool were initially required to undergo annual recertification and demonstrate competency. The annual recertification for the MCOs was held in February 2015 for Care Management Supervisors and Master Trainers. The contract has been revised to require full recertification training every three years. The reason for the change is based on the following factors:

1. Significant improvements in assessment quality
2. Intensive annual training is not sustainable
 - a. Staffing levels
 - b. Staffing turnover
 - c. Annual recertification requires a minimum 5 business days

A workgroup was initiated to identify, define, and develop trainings and/or quality assurance activities that will be required to be conducted annually in order to monitor and track assessment quality in the absence of an annual recertification. The workgroup has met one time in fiscal year 2016 and will continue their efforts to implement new training and quality assurance modules.

VII. STC 102(d)(v): GEO Access Reports from Each Participating MCO

The Geo Access Report Summary is located under Attachment D.

It should be noted that there are a several access issues with acute care hospitals. Amerigroup and UnitedHealthcare have had difficulty reaching agreements with hospitals in certain counties and are continuing to work to include these hospitals in their networks. DMAHS has been in contact with the CMS Region II office regarding these issues and workarounds have been approved.

VIII. STC 102(d)(vi): Waiting List(s) Information by Program Including Number of People on the List and the Amount of Time it Takes to Reach the Top of the List Where Applicable

There are currently no waiting lists being used under the waiver.

IX. STC 102(d)(vii): The Various Service Modalities Employed by the State, Including Updated Service Models, Opportunities for Self-direction in Additional Program, etc.

Along with streamlining administrative inefficiencies, the Comprehensive Waiver also allowed the State to give different groups of individual's access to more services through MLTSS, and provide more services to children through the ASD, SED, and ID/DD-MI programs. The implementation of the Supports Program in demonstration year 4 is also giving the State the ability to provide home and community based services to developmentally or intellectually disabled individuals who do not meet institutional level of care, however, without these supports would likely deteriorate and would need institutional services.

The services in MLTSS were available prior to implementation; however, these services were only accessible depending on which waiver the individual was in. MLTSS combined four 1915(c) waivers and allowed individuals in those programs access to all available services. For example, private duty nursing services were only accessible in the Global Options (GO) waiver and the Community Resources for Persons with Disabilities (CRPD) waiver prior to implementation of MLTSS. Now individuals who would have been enrolled in the Traumatic Brain Injury (TBI) or AIDS Community Care Alternative Program (ACCAP) waivers can now access private duty nursing services. MLTSS removed the silos of services that were created with the individual 1915(c) waivers.

The ASD, SED, and ID/DD-MI programs are brand new to the State. Previously, children who were in need of intensive behavioral health or specialized services were served at a state only dollar, which restricted New Jersey's ability to adequately serve the needs of this population. With the waiver programs, and the maximization of federal dollars, the state is working to expand services and serve more children in these programs.

The Supports Program has extended the home and community based services available under the Community Care Waiver (CCW) to individuals who do not yet meet institutional clinical criteria. It also added new services such as Supported Employment and Support Coordination. The Division of Developmental Disabilities has started to move the services they offer into a Fee-for-Service model beginning with the Supports Program.

X. STC 102(d)(viii): Specific Examples of How HCBS Has Been Used to Assist Participants

Managed Long-Term Services and Supports

Since the implementation of MLTSS, the state has held regular operations meetings with each MCO. The below describes a specific example from each of the five operating MCOs of how HCBS has been used to assist participants with person centered planning.

Aetna:

Member is a 33 year-old married stepmom with three children. On July 20, 2015, the member suffered cardiorespiratory arrest during an outpatient surgical procedure that resulted in a TBI, also diagnosed with Lance Adams syndrome (rare complication of successful cardiopulmonary resuscitation and is often accompanied by action myoclonus) sustaining traumatic brain injury-respiratory arrest. Now the member is non-verbal, non-ambulatory, utilizes a status post tracheostomy, currently on tube feeding and experiences seizures.

The member was admitted to JFK, a TBI Special Care Needs Facility (SCNF) on October 7, 2015 and enrolled in NJ's MLTSS program in May 2016. During the member's initial MLTSS visit, with her husband present, she was identified for a nursing facility transition in May of 2016. The member, alert and responsive through nodding and eye contact and was an active participant in her interdisciplinary team (IDT) planning. The result of the IDT identified several services that would enable the member to return to her home in the community. Those services include private duty nursing (PDN), personal care assistance (PCA), a ramp installation, a customized wheelchair, motorized Hoyer lift, caregiver training at the SCNF, OT/PT, Speech, neurocognitive therapies, feeding pump, hospital bed and other durable medical equipment (DME).

The member was discharged home to her family on August 19, 2016.

Amerigroup:

"Dee" is a 57 year-old female living alone in her own apartment that transitioned to MLTSS from the Global Options Waiver. No psychiatric history was reported in the documentation. During the initial home visit, the member insisted that the MLTSS Care Manager (CM) stand in the middle of her empty living room as the member explained a long list of bizarre health concerns including being allergic to electricity and that certain things become "supercharged." She tried to insist that the Care Manager take out her garbage because it had become "supercharged." Member then began calling the Care Manager numerous times a day, leaving ten minute voicemails with inappropriate requests to be completed for her, all related to her delusions. Managing her phone calls was time consuming and concerning because she would make vague statement about being "at risk" when her requests were not granted. Numerous PCAs and agencies failed because of member's behavior and delusional thought content. Member was also visiting the ER at least once per month for somatic complaints.

The Behavioral Health Team conducted a home visit soon after her initial visit. Member lacked insight into her mental health issues, refused psychotropic medication, declined treatment, and got very agitated at the suggestion of any referrals (i.e. Integrated Case Management Services, ICMS). She specifically refused psychotropic medication because the nature of the delusions was a fixed belief that she suffered from a rare medical disorder and believed that psychotropic medication could not treat it. The MLTSS BH Team became her primary point of contact for all

needs. She briefly engaged with a Behavioral Health Home program, but was noncompliant and her case was closed. For almost a year, the member refused all BH treatment, but the MLTSS BH Team was able to reduce her excessive phone calls and manage her bizarre demands by setting clear and consistent boundaries. Member was enrolled into the Personal Preference Program (PPP). Her PPP worker struggled with her at times, but she managed to stay with her for the better part of the year. All MLTSS quarterly visits were conducted jointly by BH and the MLTSS Care Manager due to her extreme presentation. Member was managing in the community but it was a daily struggle for her. In the fall of 2015, she became increasingly delusional and paranoid, believing that her neighbors were outside her door 24/7 and trying to harm her. Her PPP worker began to really struggle to assist her and started missing work times with her. Ultimately, Amerigroup had to call Psychiatric Screening and member was hospitalized involuntarily. The inpatient unit was able to get member to accept psychotropic medication and the MLTSS BH Team asked them to refer her to the Program of Assertive Community Treatment (PACT).

At this writing, it has been ten months since her discharge, PACT sees her regularly, and she remains compliant with medication. She understands her medication as targeting the neurons in her brain and therefore helping decrease her “experience” of physical pain (rather than the meds targeting delusional thought process) and this motivates her compliance. She happily reports that the medication has reduced her experience of being “supercharged” and, in her words, makes her less “excitable.” She calls her BH CM every 2-3 weeks instead of daily. She is calm, with decreased delusional thought content, and able to function more independently. Quarterly visits are more productive and her PPP worker is now better able to help her. In a recent voicemail, she said that she just called “to say hello and let Amerigroup know that she was doing very well.” She reports that she feels great and that she herself is proud of her progress. She has only visited the ER once in the last ten months.

Horizon:

On April 29, 2015, the member, then age 22, was days from graduating from her college. An honors student with a degree in criminal justice and sociology and a job waiting for her with the Washington, D.C. police academy, was struck by a car while riding her bike. Member was taken to the hospital with severe head and leg injuries and a 20% chance of survival. Member stabilized but remained in the hospital for a couple weeks before transferring to Magee Rehabilitation where she received in-patient therapy for three months. After therapy was completed member was sent home to live with her parents.

Member became active with MLTSS January 1, 2016. At that time, she needed constant supervision and assistance. The MLTSS Care Manger (CM) frequently met with the member, member’s mother, and TBI provider, Independence Rehab, to develop the best plan of care to continue progression with treatment. Her plan of care includes therapy all day - 5 days per week. Her schedule varies by day but the member receives extensive structured day, physical therapy, speech therapy, occupational therapy and cognitive therapy. At 3 o’clock when she finishes with her scheduled therapies, her mom picks her up and takes her to the gym where she can practice and master what she learned that day in physical therapy. Her mom also

continues occupational therapy with her in everyday activities such as doing laundry, going grocery shopping, paying bills and writing checks – all the skills she would need to live independently. Throughout the whole ordeal, the family has remained positive, even when faced with such staggering hurdles.

Today, just over a year since the accident, the member is thriving thanks to the services provided through the MLTSS program. While she still has a way to go, she is now able to walk without assistance. This spring, she was honored at her college's graduation ceremony and she walked independently in the procession. She is able to respond to questions with less difficulty, and she can be left alone in a room without becoming upset. She is now able to start shopping and is paying for groceries with less and less assistance. Everyday activities we take for granted or as annoyances are causes for celebration for her. She is still a work in progress, but through her hard work and the support of those around her, she once again has an opportunity to join the Washington, D.C. police force. The family has received an amazing level of support from the community, and she was even honored by county freeholders for her strength in overcoming a life threatening injury.

United HealthCare:

In April, 2016, the member called his Care Manager (CM) to advise that his refrigerator was leaking and he did not have any money to fix it. His CM was able to obtain a contractor through a referral from the County Offices of Aging to fix the refrigerator pro bono. That repair only lasted three weeks and the contractor advised that the member will need a new refrigerator. The CM sought out the weatherization department in his residential county. The weatherization program is designed to address the needs of low-income residents, unable to afford the added expense of repairing or replacing items in their home that if repaired or replaced, could help them reduce or eliminate high energy bills. The program requires a four page form to be filled out with supporting evidence of income (SNAP award letter, social security income, bank statements). Due to a medical condition, the CM filled out the paperwork for the member and forwarded the required documents to the weatherization unit. The weatherization unit sent out an engineer who does not only evaluate the malfunctioning electric appliance, but also the entire home for issues that compromise efficient heating and cooling. The Member was able to get a new refrigerator, new windows, and energy efficient lightbulbs in every light fixture, a new hot water tank and heating system. The member is extremely grateful for his CM's effort in researching this program. He hopes to see a lowering in his heating and electric due to new energy efficient lightbulbs and new windows. He is happy to know that the water tank and heating system were replaced before showing visible signs of malfunctioning since he would not be able to afford replacements on his budget.

WellCare:

This is a member with a diagnosis of Parkinson's disease. The member had strict wishes that towards the end of his life that he not be moved to a nursing home, nor taken to the hospital if his health begins to fail, and no medical life sustaining measures. The member wanted to die in the home he shared with his wife, peacefully surrounded by family near and upon his death.

Nurses came in daily to check on the member and a PCA remained in place to assist the member and his wife as needed. The member has seven children and all but one child was there when the member passed on April 19, 2016 at 12:07am.

The member's wife and children all reported the member died peacefully with a smile on his face. This is a true testament to what MLTSS is all about. The MCO and Care Manager were able to grant the member's requests all along the way just as he wished so he could remain in his home until his very last breath. The family is forever grateful of the MCO's efforts to maintain member's quality of life.

Supports Program

Below is an example of how the Supports program has helped individuals with intellectual and developmental disabilities work towards achieving their goals:

An individual that accessed DDD supports in 2014 upon graduation had the outcome of wanting to own his own car wash business. At the time, he was attending a day program and did not have access to other services. There were a series of trials and challenges with this individual's journey, but the Support Coordinator worked diligently with the family to build a trusting relationship and a foundation for supports. In July of 2015, this individual had the opportunity to enroll into the Supports Program, where they could access additional support in achieving his employment outcome. This individual went from only having access to a day program to receiving services through Prevocational Training to build general employment skills and also Career Planning to take his employment outcome steps forward. Because of these new services available in the Supports Program, this individual has taken giant leaps toward competitive employment and involvement within the community.

ASD Pilot, ID/DD-MI Pilot, SED Program

CSOC is pleased to share two of the many success stories that we received from the CMO. Both detail the impact that the waivers had on the quality of life for the youth and family.

The first success story is a non-verbal, eleven year old male diagnosed with Autism. When the youth got involved with the CMO, he was physically aggressive towards his mother and siblings. This youth began working with an Intensive in Home (IIH) clinical provider to decrease angry outbursts and identify triggers. Individual Support Services (ISS) were also implemented to increase independence. Since these services have been implemented, the mother has been better able to manage the youth's behaviors. Physical aggression has significantly decreased. Youth is able to shower with prompts, make simple meals, dress himself and wash dishes. Due to progress made, IIH clinical services will be ending and he will continue to receive ISS services.

The second success story is a 16 year old male who has been participating in IIH Behavioral services since December 2015. He has autism, is nonverbal, legally blind, has epilepsy, and PICA. He is now out of adult diapers during the day for the first time in his life, and almost ready to transition out of them at night as well. He is learning a form of communication by using switches. His school has reported a huge change in behaviors now that he can

communicate more effectively. His teacher stated he has been doing incredibly well in the school environment. He has been going on outings with his family without incident, which he was unable to do before ABA services began. His family feels closer to him and closer as a family as a result. His behaviors previously severely limited their outings and mobility. These changes have made a huge positive impact for him and his family. He still has many goals to work toward but he is making wonderful progress.

XI. STC 102(d)(ix): A description of the intersection between demonstration MLTSS and any other State programs or services aimed at assisting high-needs populations and rebalancing institutional expenditures (e.g. New Jersey's Money Follows the Person demonstration, other Federal grants, optional Medicaid Health Home benefit, behavioral health programs, etc.)

State programs outside of MLTSS do intersect at times requiring coordination of services. One area where MLTSS intersects with another high need population is with the developmentally disabled individuals who require private duty nursing (PDN). NJ Medicaid allows individuals receiving Division of Developmental Disabilities (DDD) Supports Program services to access PDN if they meet clinical criteria. The Division of Developmental Disabilities provides services to maintain developmentally disabled individuals in the community and PDN is provided through MLTSS. These individuals are now identified in the system so that the capitation payment covers these services, allowing sufficient support to maintain the individual in the community setting while allowing them to receive a service package that is predominately focused on their developmental disability needs.

Individuals in a Health Home receive integrated behavioral and physical health needs along with care management. This care management works with the managed care plan to get services authorized and coordinated without duplicating case management services. The Health Home focuses on and addresses the client's immediate behavioral and physical health needs and engages the MCO case manager to address service needs outside of the health home environment.

Money Follows the Person/Nursing Facility Transitions

New Jersey participates in the federal demonstration project that assists individuals who meet CMS eligibility requirements to transition from institutions to the community. Under MLTSS, Nursing Facility Transition refers to the process applicable to all MLTSS members who are currently residing in a NF/SCNF facility regardless of the length of time the member has been in the facility. The managed care organizations (MCOs) are responsible for NF/SCNF transition planning and the cost of all assessed transitional service needs. The State is responsible for identifying FFS members and counseling them on enrolling in MLTSS in order to facilitate transition, providing guidance as needed to the MCOs, and tracking and completing Money Follows the Person (MFP) requirements for qualified NF/SCNF residents as identified by the

MCO or the State for the MFP demonstration. The Office of Community Choice Options or its designee participates in all MFP transitions.

First Quarter

MCO	# of Transitions
Aetna	0
Amerigroup	16
Horizon	70
United Health Care	11
Wellcare	5
Quarter Total	102

Second Quarter

MCO	# of Transitions
Aetna	5
Amerigroup	16
Horizon	58
United Health Care	15
Wellcare	10
Quarter Total	104

Third Quarter

MCO	# of Transitions
Aetna	1
Amerigroup	11
Horizon	68
United Health Care	13
Wellcare	6
Quarter Total	99

Fourth Quarter

MCO	# of Transitions
Aetna	8
Amerigroup	12
Horizon	77
United Health Care	23
Wellcare	10
Quarter Total	130

Grand Totals for DY4

MCO	# of Transitions
Aetna	14
Amerigroup	55
Horizon	273
United Health Care	62
Wellcare	31
Grand Total	435

Balancing Incentive Program (BIP)

New Jersey's award amount under the BIP was reinvested as of March 31, 2016 through the expansion of home and community based services (HCBS). New Jersey's most significant usage for the enhanced FMAP was to expand HCBS under the 1115 Comprehensive Medicaid Waiver Demonstration (CMW) for Medicaid recipients through Managed Long Term Services and Supports (MLTSS). The Supports program has also benefited.

The BIP provided New Jersey with an additional 2 percent in FMAP funding in exchange for expanding HCBS and decreasing reliance on institutionalization. New Jersey met its balancing benchmark of 50 percent on HCBS and 50 percent on institutions. New Jersey's overall percentage on HCBS is up from 26 percent in 2009 to 53.6 percent as of March 31, 2016

New Jersey has completed all of its required deliverables under the BIP. As part of the requirements, DHS was required to make structural changes including the expansion of the ADRC as the foundation for New Jersey's No Wrong Door/Single Entry Point; the assurance that conflict free case management services serves as a guiding principle in MLTSS; and the development of a core standardized assessment tool for the target populations.

PACE

Under the Comprehensive Waiver, individuals who qualify for MLTSS may select NJ FamilyCare Managed Care Organizations (MCOs) for Managed Long Term Services and Supports (MLTSS) or the Program of All-Inclusive Care for the Elderly (PACE) program. A PACE organization coordinates and provides all Medicare and NJ FamilyCare services, including nursing facility care and prescription drugs. Many participants are transported to a PACE center to receive services in addition to receiving services in the home. To participate in the PACE program, you must be 55 years of age or older and able to live safely in the community at the time of enrollment. There are currently five PACE organizations in eight counties. A sixth program is anticipated to open in 2017.

XII. STC 102(d)(x) A summary of the outcomes of the State's Quality Strategy for HCBS

The Quality Management Unit (QMU) under Office of Preventive Services conducts retrospective record review of participants of the ASD, IDD/MI, SED, Support Program, and IDD-Out of State (OOS) program to ensure that the functions related to the operations and performance of these HCBS programs are performed according to CMS' requirements. The data obtained from the QMU's comprehensive review of participant records measures the performance of the DDD and CSOC to ensure compliance to their Quality Management Strategy.

The QMU Audit assesses DDD and CSOC's compliance to assurances in areas of:

- Level of care need determinations and re-evaluations
- Responsiveness of Plans of Care to participants needs
- Assurance that individuals receive services from qualified providers
- Health and welfare of participants
- Implementation of an adequate system for insuring financial accountability
- Quality of life

The Comprehensive Audit also determines gaps in services, barriers to care, access to services, care coordination, tracking mechanisms, and networking capabilities. The QMU staff is currently conducting the comprehensive review of ASD and IDD/MI programs and will be completed on September 30, 2016. The Comprehensive Audit of the Supports Program is scheduled to start on September 12, 2016. Upon completion of the Comprehensive Audit of each program, QMU creates a report of system-wide strengths, weaknesses and recommendation and sends it to DDD and CSOC. Whenever a performance indicator for each sub-assurance is not fully met, DDD and DCF are expected to investigate and conduct initiatives to address a specific problem area. A Plan of Correction from DDD and CSOC is required when the performance measure for a sub-assurance falls below 86% compliance rate. The outcomes of the QMU's Quality Strategy for CSOC programs and Supports Program are expected to be available by December of 2016 after the scheduled audit of each program.

The Children's System of Care also monitors the programs it administers separately of the work performed by the QMU. The results from the performance metrics for the ASD and ID/DD-MI pilots can be found under Attachment E.1.

The MLTSS Quality Monitoring Unit under the DMAHS Office of Managed Health Care is responsible for the quality oversight of the MLTSS program. The outcomes and analysis for the performance measures pertaining to MLTSS can be found under Attachment E.2.

XIII. STC 102(d)(xi): Efforts and Outcomes Regarding the Establishment of Cost-effective MLTSS in Community Settings Using Industry Best Practices and Guidelines

The design incorporated into MLTSS is one where the state requires MCOs to provide service coordination and care management with a holistic perspective. All MLTSS members have an MCO assigned care manager who is responsible to coordinate acute care, long term care (MLTSS) and behavioral health services to ensure the member is as safe and independent in the community as possible. In addition, the state requires the MCO to ensure linkages to community based services (based on need) that do not necessarily fall into a covered benefit category.

XIV. STC 102(d)(xii): Policies for Any Waiting Lists Where Applicable

There are currently no waiting lists being used under the waiver.

XV. STC 102(d)(xiii): Other Topics of Mutual Interest Between CMS and the State Related to the HCBS Included in the Demonstration

New Jersey has continued to move forward with the development of its Statewide Transition Plan that was submitted to CMS in April 2015 with the preparation of an Addendum. The Addendum is the draft response to the October 2015 letter from CMS requesting supplemental information and clarifications to the proposed plan. With input from affected residents, providers and partner state agencies during the Demonstration Year 4, the Department has made revisions to its Statewide Transition Plan for which it will be accepting public comment from July 1, 2016 to August 31, 2016. There will also be three public listening sessions to get stakeholder input. The DHS has struck a balance of interests among its stakeholders that has resulted in a workable, reasonable blueprint for transition, with policies that comply with the HCBS rules and a level of flexibility and openness to reviewing innovative operations under certain circumstances.

XVI. STC 102(d)(xiv): The State may also provide CMS with any other information it believes pertinent to the provision of the HCBS and their inclusion in the demonstration, including innovative practices, certification activity, provider enrollment and transition to managed care special populations, workforce development, access to services, the intersection between the provision of HCBS and Medicaid behavioral health services, rebalancing goals, cost-effectiveness, and short and long-term outcomes.

Managed Long Term Services and Supports

New Jersey's MLTSS model is fully operational. Prior to MLTSS, individuals received their acute care, along with adult day care and personal assistant care services, through an MCO and other

LTSS in a Medicaid fee-for-service environment. Through MLTSS, New Jersey has provided its beneficiaries with more comprehensive and coordinated care, consolidated under a single MCO. And now, more people are receiving long term care in the community with New Jersey's rebalancing of its long term care system from a focus on institutionalization to an increase in home and community based services.

Although MLTSS has not yet determined whether this managed delivery system has led to improvements in care quality or outcomes, New Jersey is calculating 41 measures associated with MLTSS, including hospitalizations, emergency room admission and readmissions, and behavioral health diagnoses. As MLTSS matures, New Jersey will begin to use these monitoring systems to determine the impact of MLTSS on individuals' service arrays and healthcare quality and outcomes. It is this oversight and evaluation that will inform future policies and programs related to MLTSS.

Dual Integration

In January 2016, New Jersey added the full MLTSS Home and Community Based Services benefit to its single, unified Medicare-Medicaid benefit plan in 2016, following the addition of nursing facility services in 2015. NJ Fully Integrated Dually Eligible Special Needs Plan (FIDE SNP) now offers the full spectrum of services under Medicare Advantage, Part D, and Medicaid, including partial behavioral health for all members, full behavioral health for MLTSS and CCW Waiver enrollees and all long term services and supports.

DMAHS carved in partial behavioral health into the FIDE SNP wrap benefit around Medicare (all psychiatrist, inpatient, outpatient, partial care, etc., for duals) for non-MLTSS FIDE SNP enrollees. DMAHS continues to work on best practices for integrating physical and behavioral health care for FIDE SNP duals. DMAHS continues to build system alerts related to special populations (e.g., developmental disabilities, transitioning from psychiatric institution, long-term care, incarcerated) to help plans better triage health risk assessment timing and care planning for new FIDE SNP enrollees.

Managed Care and Operational State Relationships

MCOs are continuing to link with NJ's County Welfare Agencies for the purpose of assisting members with applying for programs such as utility assistance and NJ SNAP. MCOs also continue to connect with county based Aging and Disability Resource Connections (ADRCs) to assist members with linking to community based MLTSS services that are covered by the MCO.

In addition, the state is continuing to work with the MCOs on the nursing facility to community transition process as the Money Follows the Person (MFP) programs ends as of December 2018. While the MFP office will be available for technical assistance through 2020 the MCOs are responsible for performing this task as of January 2019. Currently, a member's interdisciplinary team (IDT) meets with him/her, the state, his/her MCO care manager and any member

identified informal supports to collaborate on a person centered transition plan. The MFP staff offers expertise as the MCOs learn how to effectively utilize available resources and person centered planning to execute sustainable transitions.

Communication Efforts that Ensure Provider Enrollment and Transitions

The State has continued to maintain its efforts to ensure that consumers, stakeholders, MCOs, providers and other community-based organizations are knowledgeable about MLTSS. The State has depended on its relationships with stakeholder groups to inform consumers about the changes to managed care over the past year.

The MLTSS Steering Committee meets quarterly; and includes representation from stakeholders, consumers, providers, MCOs and state staff to provide a continuous two-way forum to share feedback and collaborate and discuss issues of concerns about client experiences. The purpose of meetings is to discuss feedback from the Committee members about their experiences with MLTSS from their provider and consumer perspectives. In addition, the State presents information to the Committee on the major trends/operational issues, capitation rate setting and the proposed state fiscal year 2017 budget.

The Office of Managed Health Care (OMHC), with its provider relations unit, continues to provide communication to Providers to ensure smooth transition to managed care for members and providers.

FAQ's are regularly revised with information on issues such as reimbursement, clinical and financial eligibility, MCO contract parameters, cost share, and resources for providers. The FAQ's are posted on New Jersey's Medicaid Management Information Systems Site (NJMMIS) as well as the Department of Human Services site. They were also disseminated in the format of a newsletter to the more than 5,650 Medicaid-enrolled fee-for-service providers. In addition, they were sent directly to the industry trade associations for dissemination to their membership.

The provider-relations unit has continued to respond to individual provider inquiries through its email account on these issues among others: MCO contracting, credentialing, reimbursement, authorizations, appeals and complaint resolution.

The Office of Managed Health Care, the Managed Care Organization staff and New Jersey Medicaid Fraud Division hosted training for Home Health Providers on February 4, 2016. Over 200 home health administrators and/or direct service providers attended the training. The training titled *Home HealthCare Overview Helpful Hints for a Compliant Medicaid Practice*. Topics covered included:

- The Medicaid Regulatory Framework;
- Medicaid documentation requirements;
- Third Party Liability (TPL) requirements;
- Fraud, Waste & Abuse obligations;
- The consequences for non-compliance; and

- obligations as a home health care provider;

LTSS Summit: Building the Eligibility Superhighway

DHS held a one-day conference on March 17, 2016 (*LTSS Summit: Building the Eligibility Summit*) geared for DHS state staff and its local county partners at the 21 county offices on aging and the county welfare agencies.

The program focused on the issue of Medicaid eligibility determination for consumers seeking MLTSS. It was an opportunity to improve collaborative partnerships between the Aging and Disability Resource Centers (ADRCs) operated by the local Area Agencies on Aging (AAA) and community referral partners with the most important of those being the County Welfare Agencies (CWAs). Eligibility for MLTSS is a shared responsibility between the CWAs, who complete the financial eligibility determinations and the ADRC's who are responsible for the clinical eligibility determinations. Almost 200 professionals attended the conference, representing a diverse set of community partners, including AAAs/ADRCs, CWAs, managed care organizations, and PACE programs.

This forum was designed to bring together key community referral partners with the intent of opening lines of communication, developing a shared vision, expanding knowledge about all available state programs to support individuals and their families and to begin the process of enabling a culture of collaboration and member-centricity. The key message of the conference was "transformational change" as this was integral to having the ADRCs and the CWAs work more collaboratively and to understand the roles of their various community partners. This theme reflected the end goal of streamlining processes and communications to ensure individuals and their families received the necessary support in the timeliest fashion.

The Summit explored ways to enhance the member's experience, make linkages to appropriate services and improve the timeliness of eligibility determinations through greater collaboration among the ADRCs and their community referral partners. The following successes were identified:

- Opening communication pathways with the ADRCs who determine clinical eligibility and the CWAs who determine financial eligibility.
- Greater sharing of information among the ADRCs, CWAs and managed care organizations (MCOs).
- Expanding knowledge of the other groups' responsibilities.
- Greater focus on the consumer during the eligibility process.

ASD, ID/DD-MI Pilots

Provider Enrollment/Access to Services

The Children's System of Care (CSOC) actively recruited service providers through the following Request for Qualifications (RFQ).

- The Provision of Intensive in Home Individualized Clinical and Therapeutic Supports for Children with Intellectual and/or Developmental Disabilities (Intensive In-Community Services – Habilitation)
- The Provision of Intensive in Home Individualized Behavioral Intervention Supports for Children with Intellectual and/or Developmental Disabilities (Intensive In-Community Services – Habilitation)
- Respite Services for Families of Children with ID/DD
- Individual Support Services

The Children’s System of Care has operationalized the following ID/DD – MI and ASD waiver services.

- Intensive In-Community Services – Habilitation [Intensive in Home (IHH)]
 - Individual Behavioral Supports
 - Clinical/Therapeutic
 - Individual Supports
 - Respite

Total Number of Agencies Qualified by the Children’s System of Care to Deliver Waiver Services

Pilot Waiver	Waiver Service	Number of CSOC Qualified Agencies
ID/DD-MI ASD	Individual Supports	42
ID/DD-MI ASD	Intensive In- Community Services – Habilitation (IHH) (Clinical/Therapeutic)	47
ID/DD-MI ASD	Intensive In- Community Services – Habilitation (IHH) (Behavioral)	46
ID/DD-MI	Respite	80

Data and Reporting

Data reports were created through the CSA to assist the Children’s System of Care in measuring waiver outcomes, delivery of service and other required Quality Strategy Assurances.

- CSA NJ1218 New Enrollees, Quarterly Count and IOS Completed
- CSA NJ1219 Follow – Up Treatment Plan and Associated SNA
- CSA NJ1220 Waiver Services Provided
- CSA NJ1225 Strengths & Needs Assessment – Post SPC Start
- CSA NJ1289 Waiver ISP Aggregate Report All Youth

- CSA NJ2021 CANS Waiver Outcome

XVII. STC 102(d)(xv): A Report of the Results of the State’s Monitoring Activities of Critical Incident Reports

The results of the State’s monitoring activities of critical incidents can be found in Attachment E.2.

XVIII. STC 102(d)(xvi): An updated budget neutrality analysis, incorporating the most recent actual data on expenditures and member months, with updated projections of expenditures and member months through the end of the demonstration, and proposals for corrective action should the projections show that the demonstration will not be budget neutral on its scheduled end date.

The updated Budget Neutrality analysis is enclosed at the end of this report in Attachment F.

XIX. Enclosures

- A.1) 1115 Waiver Draft Interim Evaluation
- A.2) DSRIP Mid-term Evaluation
- B) 1115 Waiver Service Units and Claims
- C) MLTSS Assessment Statistics
- D) Geo Access Report by MCO
- E.1) ASD, ID/DD-MI Performance Measurement Report
- E.2) MLTSS Performance Measurement Report
- F) Budget Neutrality Analysis

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RUTGERS

Center for State Health Policy

A Unit of the Institute for Health, Health Care Policy and Aging Research

Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

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Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

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Executive Summary

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft interim evaluation report, we primarily examine the expansions in managed care and targeted home and community-based services occurring under the Waiver.¹ These policy changes motivated the first two of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

Hypothesis 1: "Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."

¹ The administrative simplifications will be evaluated in forthcoming reports, though some basic statistics on Qualified Income Trusts and self-attestations are presented in Chapter 2. The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities, will be evaluated qualitatively in our final report due in 2017. The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: **"Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."**

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**

Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Hypothesis 4: **"The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement."**

This report is comprised of four distinct chapters each covering one analytic component of our evaluation. Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e.

populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1: Managed Care Quality Indicators			
HEDIS® and CAHPS®, 2011-2014	Managed care beneficiaries and MCOs	1	1a
Chapter 2. MLTSS-related Measures			
Reports from MCOs, EQROs, and State Government, 2014-2016	Medicaid beneficiaries in MLTSS and their MCOs	1, 3	1b, 3a, 3b
Chapter 3. Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care			
Medicaid claims and encounter data, 2011-2014	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4. Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth			
Medicaid claims and encounter data, 2011-2014	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

Chapter 1: Managed Care Quality Indicators Based on HEDIS® and CAHPS®

This section examines the performance of NJ Medicaid managed care organizations (MCOs) comparing changes between the baseline period of the waiver evaluation (2011-2012) and the first two demonstration years (2013-2014). Monitoring these changes sheds light on how preparation for and full implementation of the Managed Long-Term Services and Supports (MLTSS) expansion may have affected quality of care for the overall Medicaid managed care population. The measures in the tables are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction with care. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA); and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems), an annual independent survey of members’ perceptions of the quality of care and services they receive in their Medicaid health plan. For the HEDIS® metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State’s EQRO and provided to us by DMAHS.

Preventive Care Quality Measures: These HEDIS® measures are related to immunizations, screenings, and visits to primary care practitioners.

- The rates for childhood vaccine combinations 2 (DTaP, IPV, MMR, HiB, HepB, and VZV) and 3 (DTaP, IPV, MMR, HiB, HepB, VZV, and PCV) did not significantly change from the baseline (2011-2012) to the waiver (2013-2014) period. The rates for adolescent meningococcal vaccination and Tdap or Td improved (1.7 percentage points (pp) and 3.0 pp, respectively).
- Rates significantly improved for wellness visits for both young children (2.5 pp in first 15 months of life and 0.99 pp in ages 3-6), and adolescents (3.7 pp), as did the rate for frequency of ongoing prenatal care (0.9 pp). However, rates declined for timeliness of prenatal (-1.3 pp) and postpartum care (-2.0 pp).
- Rates improved for all the access to primary care measures for children of all ages except for those between 12-24 months (1.6 pp for 25 months-6 years, 0.9 pp for 7-11 years, and 0.3 pp for 12-19 years).
- BMI assessment rates improved for both younger children (3.2 pp) and adolescents (5.5 pp). For adults, the BMI assessment rate also improved (10.2 pp), as did the breast cancer screening rate (1.3 pp). There was no change in the cervical cancer screening rate.
- For the CAHPS® measure for dental care utilization, the pattern of rates suggests a general improvement in dental care utilization among adults and children overall in Medicaid managed care from 2011 to 2014.

Behavioral Health Care Services Quality Measures: These HEDIS® measures are related to follow-up care for individuals with certain behavioral health diagnoses.

- There was no change in follow-up care for children prescribed ADHD medication from 2011-2012 to 2013-2014.
- There was also no change for 7-day follow-up for DDD beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness conditions, but there was a significant decline in 30-day follow-up for this population (-5.4 pp).

Treatment of Chronic Conditions Quality Measures: These HEDIS® measures are related to high prevalence chronic conditions like diabetes and asthma.

- Results were mixed for the measures for monitoring of patients on persistent medications (rates declined 17.5 pp for digoxin, but showed no significant change for ACE inhibitors, diuretics, or anti-convulsants).
- Results were mixed for measures for diabetes care (rates improved 3.3 pp and 3.9 pp respectively for the percentage of managed care beneficiaries 18-75 years of age with diabetes who received an annual HbA1c test or eye exam, but declined 3.1 pp for HbA1c control).
- The rates for blood pressure control improved (2.8 pp).

- The rates for the percentage of patients who had persistent asthma and were appropriately prescribed medication were mixed for different age groups (no change in those ages 5-11 or 19-50; rates improved 1.6 pp for those ages 12-18 but declined 2.6 pp for those ages 51-64).

Measures of Consumer Satisfaction: These CAHPS® measures relate to perceptions of care quality among adults and children in Medicaid managed care.

- The results were mixed across the different plans for children, but the overall trends for both adults and children showed improvements in all or most of the measures, as did the individual plan rates for adults.

With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in many cases improved, during the first two years of the demonstration period.

Chapter 2: MLTSS-related Measures

Overview. This chapter discusses a variety of measures from a number of sources that relate to the MLTSS post-implementation period from July 2014 until the present. Data sources include MCO reports to the Department of Human Services, data reported by divisions within the Department of Human Services—including the Division of Medical Assistance and Health Services (DMAHS), the Division of Aging Services (DoAS) and the Division of Disability Services (DDS)--and reports from the Department of Banking and Insurance. Data were selected to address our evaluation hypotheses and research questions regarding the effect of MLTSS on consumers' access to care, quality of care, and care setting.

Measure Areas. We examined measures in the following topic areas: long-term care population by setting; the setting of former §1915(c) waiver enrollees; age groups of MLTSS and LTC recipients; timeliness of level-of-care assessments; reports on care plan characteristics (timeliness, alignment with member needs, person-centered, presence of back-up plan); critical incident numbers, categories and timeliness of reporting; appeals, grievances, complaints and service reductions; nursing facility admissions, transitions between nursing facilities and community settings; hospital and emergency department use; use of self-directed MLTSS services; network adequacy; and policy/administrative changes (qualified income trusts and self-attestation regarding asset transfer).

Discussion of Findings. This chapter discussed a number of trends or indications regarding New Jersey's Managed Long Term Services and Supports program.

Serving Enrollees in Community Settings

- The percentage of enrollees served in home and community settings has grown since implementation, from 27% in July 2014 to 35% in January of 2016. This may indicate progress in serving consumers in their preferred setting.
- An examination of the current setting of former enrollees shows that the majority who transitioned from the former §1915(c) home and community based services (HCBS) waivers remain in community settings, with only about 8% having transitioned to nursing facilities as of March 2016.

Level-of-Care Assessments and Care Planning

- Timeliness of nursing-facility level of care assessments, which are required for people to enroll into MLTSS, continues to trend upward.
- External quality review organization results from two audits of MCO care plans for individual MLTSS enrollees in the first year of MLTSS showed improvement on two of four items measured. One item showed that a small decline was high initially; the other was contested as to audit file selection.

Critical Incidents, Appeals, Grievances, Complaints, and Service Reductions

- MCO-reported critical incidents (unaudited) appear to affect a small number of members and to be reported in a timely fashion.
- MCO-reported appeals, grievances and complaints (unaudited) appear to affect a small number of members and appear realistic when compared with other indicators of member disputes (i.e., to the limited extent that it is possible to examine, we do not see any evidence that MCOs are underreporting appeals, grievances and complaints).
- MCO-reported appeals, grievances and complaints (unaudited) appear to be investigated within a timely manner. Most appeals appear to be upheld by the MCO, rather than overturned.
- The limited information presented on service reductions (MCO reports, one quarter, unaudited) indicates that such reductions affect a small number of enrollees. Most are not appealed in any way.

Hospital/Emergency Department (ED) Utilization

- MCO-reported hospital and ED use for MLTSS enrollees has been stable or declined over the first three quarters of MLTSS implementation.

Use of Self-Direction

- Close to 5% of MLTSS enrollees are using self-directed services, and enrollment continues to grow.

Network Adequacy

- Network adequacy for 17 acute care services, defined as the percentage of members with access to the service or provider, averages 99% overall and is generally 75% or higher (exceptions are for hospital services in some areas where an MCO does not include a nearby hospital).
- Network adequacy information for MLTSS services has not been provided publically, but MCO-reported grievance information appears to show, at most, 12 cases during 2015 of problems accessing MLTSS providers. We are uncertain of the comprehensiveness of this information.

Other Policy/Administrative Changes with MLTSS

- Policy/administrative changes put into place with MLTSS have allowed members to access services they would not have otherwise (qualified income trusts allow those slightly above Medicaid income limits to spend down for either HCBS or nursing facility services) and reduced the administrative burden for government staff and members (self-attestation).

We will continue to monitor MLTSS-related data for our final evaluation. There are limitations to many of the findings, and some findings raise questions or potential concerns.

Limitations to Current Findings

- The measures we examine in this chapter are not adjusted for member health conditions or levels of social support, making it difficult to know if MCO efforts are driving differences in performance versus underlying effects intrinsic to members that MCOs cannot change.
- We do not know the actual effects on consumers of many of the findings in this chapter. The forthcoming NCI-AD results may shed light on many of these issues.

Ongoing Questions/Concerns

- Timeliness of enrollment—the various timeliness measures do not tell us how long people are waiting from the time an LTSS need is identified until they are actually enrolled in MLTSS. This time is difficult to measure, but it is important to provide HCBS care quickly to stabilize people's health and prevent progression to a higher level of care where possible.
- There is limited information regarding service reductions to MLTSS members. This is a topic about which there is a good deal of stakeholder concern. The limited information presented so far suggests that reductions are not extensive—more regular reports could confirm this.
- External appeal data reported by DOBI may indicate an increase in appeals related to denials of private duty nursing with the implementation of MLTSS. The information so far is not certain, but we will watch for further developments regarding appeals of MLTSS services.
- Regarding network adequacy:

- Network adequacy for MLTSS services has not been reported publically, though MCOs are required to report this information to the state, which reviews it for any coverage gaps. MCOs are required to address gaps by doing single case agreements with nonparticipating providers or providing transportation to a participating provider. We do not know the extent to which this occurs. MCO-reported grievance information appears to show, at most, 12 instances of problems reported with accessing MLTSS providers. We will check on the comprehensiveness of this information.
- There are some acute care provider shortages that may affect the ability of some MLTSS members to access care (hospitals, general dentists, and adult and pediatric primary care physicians). Some of these shortages are due to a lack of providers in certain geographic areas arising from larger industry and economic issues related to provider supply.
- The accuracy of MCO provider directory information has been questioned nationally and in New Jersey. Though New Jersey is among the states with the strictest standards, we will continue to monitor developments in this area.

Chapter 3: Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care

This chapter assesses the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures related to access to care, quality of care, and health care spending for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2014. These measures include rates of avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmission rates overall, and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up rate after mental illness hospitalization that examines similar issues specifically for individuals with behavioral health conditions; ambulatory visit rates that reflect the quality of care transitions; and spending-related measures to examine potential changes in distribution of spending over time and across places-of-care.

We present tables with annual estimates of such metrics for Medicaid overall and specific subpopulations based on Medicaid eligibility and the focus of the managed care expansion. This is followed with results of multivariate regression analyses that use statistical techniques such as segmented regression analysis and difference-in-differences modeling to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver. Through these models we examine changes over time of specific metrics across all managed care beneficiaries to monitor overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide evidence for answering Research Question 1a. These findings supplement those

presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries that come under the managed care expansion immediately on July 1, 2014. This is primarily the long-term care (LTC) beneficiaries group meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS. We restrict our regression analysis to this population to ensure a six-month post-implementation period. These subpopulation analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b. Our final evaluation report extending until December 2015 will include the managed nursing facility population in the regression-based analysis.

Annual Descriptive Estimates: Our focus is on changes in these estimates during 2014, the year when the MLTSS implementation took place compared to the previous years. While these trends may broadly indicate effects of the Waiver on the overall managed care population or the HCBS population, it is important to remember that descriptive estimates are not adjusted for changing beneficiary characteristics (subsequent to the Medicaid expansion) or underlying trends in outcomes unrelated to the policy. Our regression-based analysis adjusts for these effects. Below we highlight the key findings related to the expansion of managed care and also those that highlight the differences across groups of Medicaid beneficiaries. To review comprehensive findings, Chapter 3 should be reviewed.

Avoidable and Overall Inpatient and Emergency Department Use and Spending:

- In 2014, avoidable inpatient hospitalization rates were the highest among the HCBS population with a BH condition (744 per 10,000 beneficiaries).
- For all managed care beneficiaries and those receiving HCBS, rates of avoidable inpatient hospitalizations in 2014 were the lowest among the four years. However, this may be driven by the decreasing trend in the rates of such utilization that started in 2012.
- In 2014, the ABD group had the highest rates of inpatient utilization among the different eligibility groups (2,025 per 10,000 beneficiaries), slightly lower than that in the long-term care population (2,770 per 10,000 beneficiaries).
- We see a decrease in ED visit rates from 4,942 visits per 10,000 population in 2013 to 4,170 per 10,000 population in 2014 for the HCBS population.
- Among all Medicaid beneficiaries, we find that total spending per beneficiary decreased sharply from \$5,744 in 2013 to \$5,164 in 2014. This was brought about by an equivalent decrease in non-hospital spending. Hospital-based spending per beneficiary remained at the same level from 2011-2014.
- Around three quarters of avoidable costs among the LTC population was incurred by NF residents. NF residents on average had higher avoidable costs in 2011 than the HCBS

population (\$193 vs. \$145), but the difference was almost non-existent in 2014 (\$130 vs. \$129) largely due to a steeper decline in avoidable costs per person for the NF population.

Hospital Readmissions:

- In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.
- For the overall managed care population, we find an improvement in quality reflected through a decrease in acute myocardial infarction (AMI) readmission rates. For the HCBS population hospital-wide and HF readmission rates exhibited an improvement, but pneumonia (PN) and AMI readmissions indicated worsening care.

Follow-up after Hospitalization for Mental Illness and Ambulatory Visit after Hospital Discharge:

- For Medicaid beneficiaries, overall, after declines over 2011-2013, rates of follow-up seven days and 30 days after discharge from a mental illness hospitalization start to pick up again in 2014.
- We notice a decrease in rates of ambulatory visits 14 days after discharge, for HCBS population over the period 2011-2014. Specifically, the visit rate for patients discharged to home, decreased from 20% in 2013 to 13% in 2014. A decline over this period is also seen for the managed care population overall.

LTSS, Non-LTSS, and Total Costs:

- Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending. The share of LTSS spending has shifted slightly more towards the HCBS population over 2011-2014, but the shift predominantly occurs prior to the MLTSS policy implementation.
- A progressive shift in the share of spending towards the HCBS population is not seen for non-LTSS spending over 2011-2014.
- Spending related to avoidable hospitalizations accounted for less than 1% of overall spending. Thus, while a decrease in avoidable inpatient hospitalizations and ED visits may signify better community-level care, it may not necessarily impact total spending in these populations.

MLTSS Impact on the Overall Medicaid Managed Care Population: Using segmented regression analysis, we examine changes in outcomes for the entire managed care population immediately after implementation of MLTSS and identify the impact of the policy on these outcomes during the first six months of the program. We assess immediate changes (changes in the level) as well as changes in time trend. These models adjust for individual and provider characteristics, geography/residence, and time trends unrelated to MLTSS.

Avoidable Inpatient and Emergency Department Use:

- There was a statistically significant drop in avoidable inpatient hospitalizations and avoidable ED visits immediately following the implementation (reflected in a drop in levels), but there was an increase in the trend. Thus, there was no definitive positive or negative impact on avoidable utilization as a result of MLTSS.

Hospital Readmissions:

- We find an immediate decrease in the probability of 30-day readmissions for all types of index admissions (hospital-wide, HF, PN, and AMI), though only the 1.1 percentage point decline in hospital-wide readmissions is significant.
- Among Medicaid managed care beneficiaries with a BH condition, there was also a decline in the probability of hospital-wide readmission. This level effect was significant but there was no significant effect of MLTSS on the trend.

Follow-up after Hospitalization for Mental Illness and Ambulatory Visit 14 Days after Discharge Home:

- There are decreases in the level and also the trend in follow-up rates within 30 days of hospitalization. Each of these decreases amount to approximately a 1 percentage point decrease in the rate of follow-up among managed care beneficiaries. This negative association between MLTSS and follow-up rates is statistically significant.
- We observe increases in the level and also the trend of ambulatory visits after discharge home. The changes are less than one percentage point and neither is statistically significant.

Overall there were no negative effects on access to care for the managed care population during the first six months of MLTSS implementation, but nor were there any definitive positive effects. The decrease in avoidable inpatient hospitalizations and avoidable ED visits were of very small magnitude, although significant statistically, and were followed by an increasing and thus offsetting trend. In terms of quality, efficiency, and coordination of care, decreases in readmission rates suggest improvements, further supported by small increases in ambulatory visits after discharge, though only the drop in hospital-wide readmission rates is significant. In terms of behavioral health quality, we see mixed results. Hospital-wide readmissions improved for individuals with behavioral health conditions, as they did for all managed care beneficiaries, as a result of MLTSS, but mental health-specific follow-up care after a hospitalization for mental illness showed a significant decline. This is the only significant negative impact observed for the entire managed care population coincident with MLTSS implementation.

MLTSS Impact on the HCBS Population: Using a difference-in-differences estimation strategy, we are able to examine average changes in outcomes for HCBS beneficiaries whose long-term

services and supports were integrated with their physical and behavioral health care after implementation of MLTSS. These models use the non-LTC ABD population as a comparison group to account for outcome trends unrelated to the MLTSS policy and further adjust for individual and provider characteristics, geography/residence to isolate the impact of MLTSS on these outcomes.

Avoidable Inpatient and Emergency Department Use and Associated Costs:

- MLTSS implementation decreased the probability of an avoidable inpatient hospitalization over a quarter by 8%, but increased the rate of avoidable ED visits per person by 10%. Both effects are statistically significant.
- We find that the MLTSS policy increases avoidable inpatient costs but decreases avoidable ED costs in the HCBS population. This implies that the avoidable inpatient stays became less likely, but more expensive, and the avoidable ED visits became more likely, but less expensive.

Hospital Readmissions:

- There was an 11.3 percentage point increase in pneumonia readmission rates among the HCBS population due to the MLTSS implementation. This effect is statistically significant at the 10% significance level.
- Heart failure and AMI readmissions increased by 5.6 and 5.1 percentage points, respectively, but these effects were not statistically significant.
- Hospital-wide readmission rates among the HCBS population decreased by less than 1 percentage point as a result of the policy, but this was not statistically significant.
- MLTSS implementation decreased the hospital-wide readmission rate among the HCBS population with a BH condition by 0.2 percentage points. The effect was not statistically significant.

Ambulatory Visit 14 Days after Discharge Home:

- MLTSS implementation decreased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 5.5 percentage points and this effect is statistically significant.

Access to care and quality of care for the HCBS population showed no definitive positive impacts during the first six months of MLTSS implementation. The probability of avoidable inpatient hospitalizations declined in magnitude by less than two-tenths of a percentage point but these hospitalizations also became more expensive. In terms of the managed care carve-in of behavioral health for the HCBS population under MLTSS, hospital-wide readmissions among those with a behavioral health condition also declined by two-tenths of a percentage point and follow-up after mental illness hospitalizations did show improvements, but neither of these were

statistically significant (We do not report the follow-up metric since it was based on a sample size lower than our minimum threshold, but we will have sufficient sample in the final evaluation with a larger follow-up period). On the other hand, some negative trends were apparent. Avoidable ED visits increased. Consistently, metrics relating to post-discharge care following hospitalizations for medical conditions worsened, though most of these results also did not reach conventional levels of statistical significance. It is important to remember that all of these findings are based on the six month period of July-December 2014 when some transitional issues relating to MLTSS were still being resolved. Additional data extending beyond the first six months of the post-MLTSS period will help us determine in our final report whether any of these findings persist or change.

Chapter 4: Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth

This chapter presents Medicaid claims-based metrics related to specific types of hospital utilization for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorizes the NJ Division of Children and Families' Children's System of Care (DCF's CSOC)² to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expands Medicaid eligibility for children with SED.

All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this interim report. Because of this, and due to small sample sizes in the ASD cohort, we present only descriptive results with no adjustment for patient or provider characteristics. Estimates based on small samples should be interpreted with the caveat that observed variation for the metrics between years might be the result of outliers in the data or random events unrelated to the policy change.

Avoidable Hospital Utilization, Overall Hospital Utilization, and Per Capita Hospital Costs

- Rates of avoidable hospital use were very low in the baseline and early demonstration period. Compared to 0.2 avoidable hospitalizations per 100 Medicaid youth in each year of the study period, the rate was higher in the ID-DD/MI cohort, reaching 1.8 per 100 ID-DD/MI youth in 2013. There were nearly no avoidable hospitalizations among the SED cohort in any year.
- We observe a slight downward trend in inpatient utilization for Medicaid youth overall over 2011-2014 which is mirrored in the ID-DD/MI cohort.

² By January of 2013, DCF assumed responsibility for all children previously managed by the Division of Developmental Disabilities (DDD).

- There is a decrease in inpatient utilization in the ASD population from 2013 to 2014, along with a decline in ED visits between these two years. This potentially reflects the impact of the new waiver services starting in spring 2014.
- A decline in inpatient utilization and ED visits between 2011 and 2014 is also seen in the SED cohort, but this may be in part due to hospitalizations not captured in the claims data for the SED at-risk portion of this cohort who, though Medicaid enrolled, are not eligible for State Plan services.
- Per-capita costs associated with hospital use are generally greater for the ID-DD/MI cohort in all years compared to the other cohorts, reflecting their higher rates of inpatient stays and ED visits.

Inpatient Hospital Use for Mental Health Conditions

- We observed net declines in mental illness hospitalizations for children with ID-DD/MI and SED from 2011-2014 and slight increases within the SED cohort (which is potentially underestimated due to the limitations in measurement mentioned above) in hospitalizations at psychiatric hospitals. The different trends between inpatient facility types (general acute care vs. psychiatric) is relevant to consider given the goal of expanded home and community-based services in reducing institutionalization.
- Hospitalizations for severe mental illness were infrequent in general, with rates of 1 or less per 100 for all cohorts in all years.

Post-acute Care Following Hospitalization

- We could not reach the minimum sample size for assessing utilization (hospital readmission or ED visits) subsequent to mental or severe mental illness hospitalizations in the ASD, ID-DD/MI, and SED cohorts.
- For all-cause hospitalizations, we found that the combined populations of youth eligible for the HCBS waiver programs started in 2012 with lower rates of readmissions and ED visits within 30 days of discharge than Medicaid youth overall, but had higher rates by 2014.

The rates of specific types of utilization calculated in this chapter inform the applicability of the proposed metrics to the various subpopulations of interest. As a key example, hospital use metrics do not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address this limitation, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Statistical testing, where feasible, will also be conducted. Additionally, we will consider the practicability of combining years of data in order to achieve minimum sample sizes for examining the impacts of waiver services on the pilot-enrolled

ASD cohort and separately, ED and readmission outcomes following hospitalization for mental and severe mental illness for all populations of youth receiving targeted HCBS.

Discussion

This interim report examines various sources of information to address the first three demonstration hypotheses and corresponding research questions set forth in the Special Terms and Conditions (CMS 2014) of the New Jersey Medicaid Comprehensive Waiver. Using a diverse range of data sources, this interim report primarily addresses the very early impacts of the policy changes occurring under the Waiver. Quality metrics included in this report extend through the end of calendar year 2014, capturing only the first six months of MLTSS implementation and preceding initiation of two out of the three targeted home and community-based waiver services programs for Medicaid children/youth with autism spectrum disorder, co-occurring intellectual and developmental disabilities and mental illness, and severe emotional disturbance. However, some of the MCO performance and process measures from secondary data sources presented in Chapter 2 cover more of the post-MLTSS period and extend as far as the first quarter of calendar year 2016. We discuss below findings related to the separate hypotheses, limitation and caveats, and some common crosscutting themes.

Hypothesis 1

Measures of quality of care and consumer satisfaction for the entire Medicaid managed care population indicate there were no substantial negative impacts evident during the first six months of the MLTSS program. The evidence for this conclusion is strongest in the preventive care domain captured by the HEDIS® metrics. These findings are concordant with rates of avoidable inpatient and avoidable ED visits which declined over 2011-2014 for the managed care population in our descriptive analyses and showed no net positive or negative effect as a result of MLTSS in the regression analyses. This is one of the more robust findings, although there may be several other areas such as hospital readmissions where there was potential improvement in terms of quality, efficiency, and coordination of care.

The one area with negative findings for the managed care population relates to ambulatory care for beneficiaries with behavioral health conditions. There were declines in the rate of 30-day follow-up with a mental health practitioner after discharge from a hospitalization for mental illness.

A broad goal of the managed care expansion under the Waiver was to serve more long-term care beneficiaries in their homes and communities, rebalancing spending away from nursing facilities. Based on DMAHS presentations to stakeholders and our own calculations, there is initial evidence

that the intended rebalancing is underway, and our final evaluation report spanning a longer follow up period will indicate whether these trends persist.

When we examine the impact of MLTSS specifically on beneficiaries meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS, both health outcomes and process measures paint a more complicated picture of quality, especially in the very early months of MLTSS implementation. Both claims-based annual estimates calculated by us and data in MLTSS performance measure reports from MCOs show declines for the HCBS population in overall inpatient and emergency department use rates. Further, overall rates of avoidable inpatient and avoidable ED visits declined from 2013 to 2014 for the HCBS population in annual claims-based estimates. However, when we undertake regression analysis that accounts for other factors and isolates trends in hospital use directly attributable to MLTSS, we find mixed effects. The likelihood of avoidable inpatient hospitalizations for a HCBS beneficiary declined significantly in the first six months of MLTSS, but the number of avoidable ED visits significantly increased. Additional metrics related to readmissions or ambulatory visits after hospitalizations worsened for HCBS individuals as a result of MLTSS, but were not statistically significant. It is important to note that quality measures calculated using claims data cover only the first six months of MLTSS in this interim report, which was a period of transition and coordination of all services under managed care was still underway. While this may have driven some of the negative findings, it also underscores the importance of uninterrupted HCBS care for maintaining or stabilizing people's health and preventing progression to a higher level of care where possible. Additional claims data analysis extending beyond the first six months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to a level of statistical significance thereby giving a comprehensive picture of the MLTSS policy impact.

Our assessment of Information provided by the Division of Aging Services and by MCOs yields several positive findings related to the implementation process. Timeliness of clinical assessments continues to improve, MCO-reports of potentially negative events, show that such events affect a small number of members and are generally reported in a timely fashion. The Division of Banking and Insurance did not show an increase in appeals of managed care decisions in 2014.

Limitations/Caveats: Our analysis of Medicaid claims and encounter data presents specific challenges related to capturing acute care utilization by the dual eligible population, identification of residents in nursing facilities, and measuring rates of follow up care for institutionalized beneficiaries. We have discussed in detail these data limitations and strategies to mitigate their impact in the main report. We believe that none of these issues create a bias in our findings.

Hypothesis 2

As observed in analyses related to Hypothesis 1, we also see declines in rates of inpatient utilization and ED visits between 2013 and 2014 for children enrolled in the ASD pilot program under the Waiver which started in the spring of 2014. The other two waiver policies under Hypothesis 2 were not in effect during the study period of this interim report precluding any assessment of policy impacts on health outcomes for the targeted populations. Our final evaluation report spanning a longer time period and additional measures will shed greater light on these effects.

Limitations: Small sample sizes limit our ability to evaluate the impact of waiver policies on populations of children and youth eligible for home and community-based services and the hospital use metrics proposed in our evaluation plan will not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address these limitations, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes.

Hypothesis 3

Information provided by the state indicates that as of the end of 2015, nearly 900 individuals had set up Qualified Income Trusts (QITs), which allow people whose income is above the level normally eligible for Medicaid but is not sufficient to pay the cost of long-term care services, to spend down their excess income and become eligible for Medicaid. Information provided by the state indicates that as of the end of 2015, about 627 individuals who were under the federal poverty level were able to self-attest that they had not transferred assets during the past five years, meaning that the county welfare agencies and the beneficiary were able to skip a comprehensive financial examination. Audits of the effectiveness of this process are not yet available.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. We will examine the direct effects of these administrative simplifications in a future report, but these changes also have implications for our evaluation of Hypothesis 1. They underscore the importance of adjusting for differing patient characteristics in determining the impact of the MLTSS policy on health outcomes.

Future Work

Our final evaluation report due in 2017 will build off the analyses presented here. We will have a longer post-MLTSS implementation for claims-based metrics which will increase our ability to

detect policy effects and will reflect the impacts of the program after the early transitional period. As more nursing facility residents come under MLTSS, we will explore the impact of MLTSS on this population as well, subject to a sufficient sample size. If data for the post-MLTSS period are sufficient to achieve minimum sample sizes, we will also explore stratification of metrics by demographic characteristics, such as race/ethnicity, and examine whether there are any differential impacts of MLTSS on outcomes by race/ethnicity in statistical models. Uniform billing hospital discharge data, if publically available, will be prepared for selected metrics to compare trends between Medicaid and other payers over the period of the demonstration. We will have data from the 2015 CAHPS® survey available which will reflect consumer perceptions of care for a time period when MLTSS was in effect and lend itself to potentially meaningful comparisons of trends within eligibility groups, in particular for the ABD population. HEDIS®, CAHPS®, and MCO performance reports will also include data for Aetna, a Medicaid MCO that entered the market in December of 2014. We will have conducted a second round of stakeholder interviews to gauge ongoing experiences with and perceptions of the MLTSS program, and will have qualitative interview data from stakeholders, state officials, and provider organizations regarding the Supports program, which began in the summer of 2015. Finally, data on the implementation and quality of the administrative simplifications process being collected by the State will be shared with us for the final report.

Examining the Effect of the NJ Comprehensive Waiver on Access to Care, Quality, and Cost of Care: Draft Interim Evaluation Report

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Introduction

The New Jersey Medicaid Comprehensive Waiver Demonstration was approved for the period October 1, 2012 through June 30, 2017. This §1115 waiver not only consolidated authority for several existing Medicaid waivers, but initiated a variety of health reforms in New Jersey's Medicaid program. The key changes authorized by the Waiver are an expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for populations of children and in-home community supports for individuals with intellectual and developmental disabilities, administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS, and the establishment of a hospital-based Delivery System Reform Incentive Payment (DSRIP) Program.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate New Jersey's Medicaid Comprehensive Waiver Demonstration. In this draft interim evaluation report, we primarily examine the expansions in managed care and targeted home and community-based services occurring under the Waiver.³ In brief, the Waiver authorized shifting the delivery of LTSS and behavioral health (BH) services for certain aged or physically disabled beneficiaries from a fee-for-service to managed care reimbursement system (referred to as MLTSS – Managed Long-term Services and Supports), a phase out of fee-for-service delivery of behavioral health services for Medicaid beneficiaries through the establishment of an Administrative Services Organization (ASO) that will manage behavioral health services,⁴ and the provision of new supportive services

³ The administrative simplifications will be evaluated in forthcoming reports, though some basic statistics on Qualified Income Trusts and self-attestations are presented in Chapter 2. The Supports program, which is part of the targeted home and community-based services expansion for individuals with intellectual and developmental disabilities, will be evaluated qualitatively in our final report due in 2017. The DSRIP program is evaluated as a separate component and the midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

⁴ This reform was not implemented during the study period covered in this interim evaluation. As of July 2015, Rutgers University Behavioral Health Care will be the Interim Managing Entity for addiction services.

for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expanded Medicaid eligibility for children with SED.⁵ These abovementioned policy changes motivate the first two of the four evaluation hypotheses and their supporting research questions as outlined in the waiver Special Terms and Conditions document (CMS 2014) and enumerated below.

Hypothesis 1: "Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 2: "Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."

Research Question 2a: **"What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"**

Research Question 2b: **"What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"**

Hypothesis 3: "Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved,**

⁵ The eligibility expansion for children with SED at-risk for hospitalization became effective on the Waiver approval date, October 1, 2012. The first roll-out of new services occurred in the spring of 2014 for the ASD population. All of the other services for the targeted populations of children did not begin until after the study period covered in this interim evaluation.

and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?”

Research Question 3b: **“What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?”**

Hypothesis 4: **“The Delivery System Reform Incentive Payment (DSRIP) Program will result in better care for individuals (including access to care, quality of care, health outcomes), better health for the population, and lower costs through improvement.”**

These hypotheses were tested utilizing a mix of quantitative and qualitative methods. Hypothesis 3 will be examined primarily in the final evaluation report, and Hypothesis 4 relating to the DSRIP program is covered in a separate set of reports. This report is comprised of four distinct chapters each covering one analytic component of our interim evaluation and supplements an earlier report with qualitative findings from key informant interviews of providers, consumer advocates, managed care organizations (MCOs) and state officials on MLTSS implementation.⁶

Organized by chapter, the following table presents a brief description of the contents of this report, the data sources used and time periods covered, the focus of the analyses (i.e. populations and/or plans), and the corresponding hypothesis(es) and research question(s) addressed to the extent possible given the available data and timing of policy implementation.

⁶ Farnham J, S Chakravarty, and K Lloyd. 2015. *Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports*. New Brunswick, NJ: Rutgers Center for State Health Policy. <http://www.cshp.rutgers.edu/Downloads/10740.pdf>.

Data Sources	Focus of Analysis	Hyp.	RQ
Chapter 1: Managed Care Quality Indicators			
HEDIS® and CAHPS®, 2011-2014	Managed care beneficiaries and MCOs	1	1a
Chapter 2. MLTSS-related Measures			
Reports from MCOs, EQROs, and State Government, 2014-2016	Medicaid beneficiaries in MLTSS and their MCOs	1, 3	1b, 3a, 3b
Chapter 3. Analysis of Medicaid Claims Data to Examine Access, Quality, and Cost of Care			
Medicaid claims and encounter data, 2011-2014	Medicaid beneficiaries and managed care beneficiaries, overall and by eligibility group, and those in long-term care (facility and community-based)	1	1a, 1b
Chapter 4. Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth			
Medicaid claims and encounter data, 2011-2014	Individuals with ASD, ID-DD/MI, and SED eligible for home and community-based waiver services, and all Medicaid youth	2	2a, 2b

Hyp.=Hypothesis; RQ=Research Question; MCO=Managed Care Organization; EQRO=External Quality Review Organization; ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

References

CMS (Centers for Medicare & Medicaid Services). 2014. *Technical Corrections to the New Jersey Comprehensive Waiver Section 1115 of the Social Security Act (the Act) Demonstration (Project No. 11-W-00279/2)*. Baltimore: CMS. <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/nj-1115-request-ca.pdf>.

Chapter 1: Medicaid Managed Care HEDIS® and CAHPS® Quality Indicators

Introduction

This section compares the performance of NJ Medicaid⁷ managed care organizations (MCOs) during calendar years 2011-2012, the baseline period of the waiver evaluation, and calendar years 2013-2014, the first two years of the waiver implementation period. It presents quality and utilization-based metrics from two sources: first, the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners; second, the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that on an annual basis assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. The specific Research Question and the overarching evaluation hypothesis outlined in the waiver Special Terms and Conditions document (CMS 2014) which guide our selection and assessment of metrics from the data sources in this chapter are:

Hypothesis 1: “Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.”;

Research Question 1a: “What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?”

The measures presented are related to preventive care, behavioral health care, treatment of chronic conditions, and consumer satisfaction.⁸ These outcome domains broadly reflect the goals of the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014). This strategy guides the State's healthcare monitoring, assessment, and improvement efforts for all Medicaid managed care services. Monitoring changes in these metrics sheds light

⁷ The term Medicaid will be used in this report to refer to NJ FamilyCare beneficiaries who are insured under the State's Medicaid or CHIP programs, including those covered by MCOs.

⁸ Evaluation of the impact of the managed care expansion on cost of care, which is part of Research Question 1a, will be assessed in Chapter 3 using claims-based analyses. HEDIS® and CAHPS® metrics do not address this domain.

on how preparation for and full implementation of the Managed Long-Term Services and Supports (MLTSS) expansion may have affected quality of care for the overall Medicaid managed care population.

Methods

Data Sources

The health plans covering Medicaid enrollees in New Jersey regularly collect and report quality indicators assessing care and service delivered to members that are consistent with the DMAHS Quality Strategy. These measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS[®]), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners. These measures have specific definitions governing data preparation and reporting to accurately measure members' care and service across several health domains. NJ Medicaid plans also have their HEDIS[®] results verified by an external quality review organization (EQRO).

On an annual basis, an independent survey organization also assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. The CAHPS[®] (Consumer Assessment of Healthcare Providers and Systems) survey, a part of the HEDIS[®] measurement set developed by the NCQA, is the instrument used for this survey. A sample of health plan members in three main Medicaid eligibility categories (FamilyCare recipients; Temporary Assistance for Needy Families recipients; and aged, blind, or disabled recipients) are interviewed using child and adult versions of the CAHPS[®] instrument.

Both types of quality measures, those from plan records (referred to in this report as HEDIS[®] measures) and those from member surveys (referred to in this report as CAHPS[®] measures) are presented in this chapter for the years 2011, 2012, 2013, and 2014⁹. For the HEDIS[®] metrics, in addition to select measures which are publicly reported, we also used data from the annual Performance Measure Validation reports created by the State's EQRO and provided to us by DMAHS. The 2011 and 2012 CAHPS[®] Health Plan Survey 4.0 reports prepared by ACS Government Healthcare Solutions and the 2013 and 2014 CAHPS[®] Health Plan Survey 5.0 reports prepared by

⁹ Further information about HEDIS[®] and CAHPS[®] measures, such as measure development processes and details on measure specifications, can be found at www.ncqa.org. Additionally, information on methods specific to collection of these measures for NJ Medicaid MCOs can be found in the DMAHS's Annual Reports at <http://www.state.nj.us/humanservices/dmahs/news/>.

Xerox State Healthcare LLC and also provided to us by DMAHS were the source of the CAHPS® metrics reported for the years 2011-2014.¹⁰

Statistical Testing

In this chapter we present methods to examine whether there were any differences in quality between the two baseline years and the first two implementation years of the evaluation period.

Comparison of HEDIS® Measures: For HEDIS® measures, a weighted average of individual plan results based on the entire Medicaid managed care population is available for each year. To compare estimates between the baseline (2011-2012) and waiver periods (2013-2014), 95% confidence intervals (CI) of the difference between the 2011-2012 and 2013-2014 pooled estimates were calculated using the following formula:

$$(\text{plan rate}_{2011-2012} - \text{plan rate}_{2013-2014}) \pm 1.96 \times \text{SEDiff}$$

The formula for the standard error of the difference (*SEDiff*) is as follows:

$$\text{SEDiff} = \sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}$$

where

n_1 is the population denominator for years 2011-2012

n_2 is the population denominator for years 2013-2014

p_1 is the weighted pooled rate for years 2011-2012

p_2 is the weighted pooled rate for years 2013-2014

q_1 is $(1-p_1)$

q_2 is $(1-p_2)$

If the 95% CI was a range of only negative numbers, then the 2013-2014 pooled rate was considered below the 2011-2012 pooled rate indicating that performance based on that HEDIS® measure declined for the Medicaid managed care population. If the CI contained zero, the performance between the two years were not considered to be statistically different, and if the CI was a range of only positive numbers then performance based on that HEDIS® metric improved from 2011-2012 to 2013-2014. Due to very large sample sizes, small changes in rates may be significant.

¹⁰ The baseline period for the evaluation of the Medicaid Comprehensive Waiver (exclusive of the DSRIP) is 1/1/2011-9/30/2012. HEDIS® and CAHPS® measures are collected annually using a calendar year performance period that, while not exactly matching our proposed baseline, tracks with and is representative of care and services delivered during that period.

Certain HEDIS® measures were not required to be reported by plans in 2011. For these, estimates are available for year 2012 only, and this single year served as the baseline.

Comparison of CAHPS® Measures: CAHPS® data-based metrics are available from samples that are representative of individual plans.¹¹ However, the reported overall average across plans does not reflect the differences in enrollment across plans and this precludes statistical tests of differences across the years for the entire managed care population. Accordingly, we adopted a descriptive approach where we examined estimates separately for each plan and also the overall average across plans, examining changes from 2011-2012 to 2013-2014.¹² Differences of 1% or less were ignored since these could be due to rounding. Changes were color coded to indicate whether the point estimates improved, stayed the same/showed a mixed trend, or declined.

Results

Results are organized by the following domains – preventive health, behavioral health services, treatment of chronic conditions, and consumer satisfaction. Below, a brief discussion of findings is presented.

Preventive Care Quality Measures: Tables 1.1 and 1.2 show quality measures related to preventive care for adults and children in Medicaid managed care during the baseline and waiver periods spanning years 2011-2014. The HEDIS® measures in Table 1.1 are predominantly National Quality Forum (NQF) endorsed measures related to immunizations, screenings, and visits to primary care practitioners. For 2011-2012, 82.23% of adolescents in managed care received both their meningococcal vaccination and their Tdap or Td (tetanus, diphtheria toxoids and acellular pertussis vaccine or tetanus, diphtheria toxoids) vaccine by their 13th birthday. For 2013-2014, the pooled rate was 85.30% and this represented a statistically significant improvement in the vaccination rate for this population. The rates for vaccine combinations 2 and 3 did not significantly change. Rates significantly improved from 2011-2012 to 2013-2014 for wellness visits for both young children and adolescents, as did the rate for frequency of ongoing prenatal care. However, rates declined for the prenatal and postpartum care metric which assesses visit timeliness surrounding delivery. Rates improved for all the access to primary care measures for children of all ages except for those ages 12-24 months. BMI assessment rates for both younger

¹¹ Effective July 1, 2014, Healthfirst's Medicaid beneficiaries were migrated to WellCare. The field period for the 2014 CAHPS began in April 2014 and respondents were required to have been enrolled with their health plan for at least the prior 6 months to be eligible for the survey. Therefore, the 2014 estimates relate to beneficiaries enrolled in Healthfirst, and are thus comparable to previous years.

¹² Other limitations relating to CAHPS® survey include low response rates making sample sizes small for some questions for some plans. Differential non-response, particularly in small samples, can create unquantifiable bias in estimates.

children and adolescents improved. For adults, the BMI assessment rate also improved, as did the breast cancer screening rate. There was no change in the cervical cancer screening rate.

Table 1.2 shows the CAHPS® measure for dental care utilization. In each plan and separately for adults and children, the percentage of respondents who self-report that they have received care from a dental office or clinic in the past six months is shown for 2011, 2012, 2013, and 2014. The pattern of rates suggests a general improvement in dental care utilization among both adults and children in Medicaid managed care. For example, the overall rates for adults who received care from a dental office or clinic in the past six months were 28% and 31% for 2011 and 2012, respectively, while the rates were 32% and 43% for 2013 and 2014, respectively. The rates improved from 2011-2012 to 2013-2014 for adults in all four Medicaid managed care plans and in two of the four plans for children.

Behavioral Health Care Services Quality Measures: Table 1.3 shows quality measures related to behavioral health care services for adults in Medicaid managed care. The HEDIS® measures in Table 1.3 are also National Quality Forum (NQF) endorsed measures related to follow-up care for individuals with certain behavioral health diagnoses. The rates shown for *Initiation Phase* under *Follow-up Care for Children Prescribed ADHD Medication* refer to the percentage of 6-12 year old children newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication who had at least one face-to-face follow-up care visit within 30 days of when ADHD medication was first dispensed. In 2011-2012, the pooled rate was 31.81% among the eligible population. In 2013-2014, the pooled rate was 32.50%. There was no statistically significant difference in rates between these two periods. The measure, *Follow-Up After Hospitalization for Mental Illness*, applies only to the DDD Medicaid managed care beneficiaries ages 6 and older who were hospitalized for treatment of certain mental illness diagnoses. In 2011-2012, 38.28% of this population had a qualifying follow-up visit within 30 days after discharge. In 2013-2014, the rate was 32.87% representing a significant decline in this quality measure. There was no change in the 7-day follow-up rates between the two periods.

Treatment of Chronic Conditions Quality Measures: Table 1.4 shows quality measures related to treatment of chronic conditions for adults and children in Medicaid managed care. These HEDIS® measures are all National Quality Forum (NQF) endorsed measures related to high prevalence chronic conditions like diabetes and asthma. Results were mixed for the measures under *Annual Monitoring for Patients on Persistent Medications* (rates declined for digoxin¹³, but showed no significant change for ACE inhibitors, diuretics, or anti-convulsants) and for measures under *Comprehensive Diabetes Care* (rates improved for the percentage of adult managed care

¹³ The NQFA specification was changed to no longer allow a blood urea nitrogen therapeutic monitoring test to count as evidence of annual monitoring of kidney function.

beneficiaries with diabetes who received a Hemoglobin A1c (HbA1c) test or an eye exam during the year, but declined for HbA1c control). The rates for blood pressure control improved. The rates for the percentage of patients who had persistent asthma and were appropriately prescribed medication were mixed for different age groups (no change in those ages 5-11 or 19-50; rates improved for those ages 12-18 but declined for those ages 51-64).

Measures of Consumer Satisfaction: Tables 1.5 and 1.6 show a variety of CAHPS® measures related to perceptions of care quality among adults and children in Medicaid managed care. The first three measures in the tables are composite measures which group together questions on similar topics to simplify interpretation of the data and to enhance the reliability of results (ACS Government Healthcare Solutions 2011). For example, the *Getting Needed Care* composite is a combination of beneficiaries' responses to questions on the ease of getting appointments and the ease of getting the care, tests, and treatment needed under their health plan. In Table 1.5 for adults, all measures with data for all four years showed improved rates from 2011-2012 to 2013-2014 both overall and for all four Medicaid managed care plans. This includes these measures: *Getting Needed Care* composite, *Getting Care Quickly* composite, *How Well Doctors Communicate* composite, *Overall Rating of Personal Doctor*, and *Ease of Getting Appointments with Specialists*. For children in Medicaid managed care plans in Table 1.6, the rates improved overall from 2011-2012 to 2013-2014 for four of the five measures with data for all four years (*Getting Needed Care* composite, *Getting Care Quickly* composite, *Overall Rating of Personal Doctor*, and *Ease of Getting Appointments with Specialists*). There was no change in the *How Well Doctors Communicate* composite. Three of the four individual plans showed improvement in at least four of the measures.

Table 1.1: HEDIS® measures of preventive care quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012 Pooled Rate	2013-2014 Pooled Rate	2013/2014- 2011/2012 Difference	SE	95% Confidence Interval		Performance 2013/2014- 2011/2012	
	Population	Rate	Population	Rate	Population	Rate	Population	Rate					LCI	UCI		
Childhood Immunization Status																
Vaccine Combination 2 ^a	31,174	70.61%	30,025	70.49%	29,515	69.86%	28,725	70.94%	70.55%	70.40%	-0.00154	0.00264	-0.00672	0.00363	Same	
Vaccine Combination 3 ^b	31,174	65.74%	30,025	64.97%	29,515	64.63%	28,725	65.16%	65.36%	64.89%	-0.00472	0.00276	-0.01013	0.00068	Same	
Immunizations for Adolescents																
Meningococcal	24,258	82.94%	26,133	86.16%	28,328	86.36%	27,900	86.28%	84.61%	86.32%	0.01711	0.00216	0.01287	0.02135	Improved	
Tdap/Td	24,258	90.00%	26,133	88.50%	27,328	90.72%	27,900	93.79%	89.22%	92.27%	0.03044	0.00179	0.02693	0.03394	Improved	
Vaccine Combination 1 ^c	24,258	81.05%	26,133	83.33%	27,328	84.92%	27,900	85.68%	82.23%	85.30%	0.03073	0.00227	0.02628	0.03519	Improved	
Well-Child Visits in First 15 Months of Life	20,818	66.83%	21,036	66.74%	20,798	68.71%	19,654	69.98%	66.78%	69.33%	0.02545	0.00325	0.01909	0.03182	Improved	
Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life	138,289	78.97%	142,930	78.48%	133,964	81.36%	137,429	78.10%	78.72%	79.71%	0.00988	0.00109	0.00774	0.01202	Improved	
Adolescent Well-Care Visits	179,870	57.76%	195,050	62.33%	190,350	64.00%	205,676	63.72%	60.14%	63.86%	0.03719	0.00111	0.03502	0.03935	Improved	
Frequency of Ongoing Prenatal Care ^d	17,815	56.22%	18,387	62.20%	21,979	59.14%	21,945	61.18%	59.26%	60.16%	0.00903	0.00348	0.00221	0.01586	Improved	
Prenatal and Postpartum Care																
Timeliness of Prenatal Care	20,457	83.44%	21,631	83.95%	21,975	79.42%	21,945	85.42%	83.71%	82.42%	-0.01284	0.00256	-0.01786	-0.00783	Declined	
Postpartum Care	20,457	58.16%	21,631	61.16%	21,975	57.86%	21,945	57.61%	59.70%	57.74%	-0.01968	0.00336	-0.02626	-0.01310	Declined	
Children and Adolescents' Access to Primary Care Practitioners																
12-24 months	-- ^e	-- ^e	31,332	97.42%	30,468	97.73%	28,222	96.57%	97.42%	97.17%	-0.00255	0.00113	-0.00476	-0.00035	Declined	
25 months - 6 years	-- ^e	-- ^e	173,075	91.20%	162,659	92.95%	167,569	92.61%	91.20%	92.78%	0.01578	0.00082	0.01418	0.01738	Improved	
7-11 years	-- ^e	-- ^e	124,755	93.24%	124,466	93.68%	130,909	94.60%	93.24%	94.15%	0.00908	0.00085	0.00741	0.01074	Improved	
12-19 years	-- ^e	-- ^e	145,363	91.55%	147,962	91.59%	154,598	92.15%	91.55%	91.88%	0.00332	0.00088	0.00159	0.00505	Improved	
BMI Assessment for Children/Adolescents ^d																
3 - 11 years	214,846	51.10%	255,415	51.60%	250,689	49.01%	262,524	59.84%	51.37%	54.55%	0.03179	0.00101	0.02982	0.03377	Improved	
12 - 17 years	98,731	53.49%	121,820	47.80%	122,091	53.22%	130,029	58.36%	50.35%	55.87%	0.05522	0.00145	0.05237	0.05807	Improved	
Total	313,577	51.87%	377,235	50.40%	372,780	50.43%	392,533	59.18%	51.07%	54.92%	0.03847	0.00083	0.03685	0.04009	Improved	
Adult BMI Assessment	-- ^e	-- ^e	145,123	65.41%	149,284	74.73%	148,786	76.58%	65.41%	75.66%	0.10246	0.00148	0.09957	0.10536	Improved	
Breast Cancer Screening	36,948	52.80%	40,684	52.73%	17,811	53.58%	16,237	54.67%	52.76%	54.10%	0.01342	0.00324	0.00707	0.01977	Improved	
Cervical Cancer Screening	139,926	64.82%	145,436	64.23%	136,535	67.12%	163,017	62.16%	64.52%	64.42%	-0.00103	0.00125	-0.00348	0.00143	Same	

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

^aCombination 2 includes DTaP, IPV, MMR, HiB, HepB, and VZV vaccinations.

^bCombination 3 includes DTaP, IPV, MMR, HiB, HepB, VZV, and PCV vaccinations.

^cCombination 1 indicates receipt of both component vaccinations (Meningococcal and Tdap/Td).

^dExcludes members in one health plan due to differing methodology in the calculation of this measure.

^eThis metric was not reported in 2011.

Difference is weighted, pooled 2013-2014 estimate minus weighted, pooled 2011-2012 estimate.

Table 1.2: CAHPS® measures of preventive care quality, 2011–2014

New Jersey Medicaid Managed Care Population

		Amerigroup				Healthfirst				Horizon				United Healthcare				Overall Plan Average			
		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Received Care from Dental Office or Clinic in Past 6 Months	Adults	n=684	n=474	n=528	n=277	n=543	n=238	n=464	n=286	n=723	n=580	n=572	n=486	n=766	n=556	n=560	n=369	n=2716	n=1848	n=2124	n=1418
		26%	33%	30%	42%	28%	24%	32%	37%	30%	33%	36%	45%	28%	32%	29%	48%	28%	31%	32%	43%
	Children	n=733	n=558	n=499	n=516	n=750	n=290	n=474	n=587	n=810	n=676	n=613	n=505	n=834	n=701	n=610	n=428	n=3127	n=2225	n=2196	n=2036
		60%	68%	69%	69%	60%	63%	56%	56%	59%	67%	64%	64%	58%	63%	65%	65%	59%	65%	64%	64%

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved
No Change or Mixed Trend
Declined

Table 1.3: HEDIS® measures of behavioral health care services quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012	2013-2014	2013/2014-	SE	95% Confidence Interval		Performance
	Population	Rate	Population	Rate	Population	Rate	Population	Rate	Pooled	Pooled	2011/2012		LCI	UCI	
Follow-up Care for Children Prescribed ADHD Medication															
Initiation Phase	4,806	31.25%	5,805	32.27%	5,755	32.49%	5,638	32.51%	31.81%	32.50%	0.00693	0.00630	-0.00542	0.01927	Same
Continuation and Maintenance Phase	-- ^a	-- ^a	1,364	34.61%	1,147	35.92%	1,088	37.32%	34.61%	36.60%	0.01994	0.01642	-0.01225	0.05213	Same
Follow-Up After Hospitalization for Mental Illness (DDD only)															
7 Day Follow-up	300	14.66%	421	22.80%	453	14.35%	262	28.25%	19.42%	19.44%	0.00025	0.02088	-0.04068	0.04118	Same
30 Day Follow-up	300	31.00%	421	43.47%	453	28.70%	262	40.08%	38.28%	32.87%	-0.05413	0.02522	-0.10357	-0.00469	Declined

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

^aThis metric was not reported in 2011.

Table 1.4: HEDIS® measures of chronic condition treatment quality, 2011–2014

New Jersey Medicaid Managed Care Population

	2011		2012		2013		2014		2011-2012	2013-2014	2013/2014-	SE	95% Confidence Interval		Performance 2013/2014-2011/2012
	Population	Rate	Population	Rate	Population	Rate	Population	Rate	Pooled	Pooled	Difference		LCI	UCI	
									Rate	Rate					
Annual Monitoring for Patients on Persistent Medications															
ACE Inhibitors or ARBs	-- ^a	-- ^a	25,145	86.03%	25,518	86.52%	28,275	85.78%	86.03%	86.13%	0.00104	0.00265	-0.00415	0.00623	Same
Digoxin	-- ^a	-- ^a	537	90.13%	532	91.92%	392	46.42%	90.13%	72.62%	-0.17510	0.01952	-0.21335	-0.13685	Declined
Diuretics	-- ^a	-- ^a	17,477	85.72%	17,326	86.18%	19,416	84.91%	85.72%	85.51%	-0.00208	0.00322	-0.00839	0.00423	Same
Anti-convulsants	-- ^a	-- ^a	4,848	63.41%	4,683	62.55%	-- ^b	-- ^b	63.41%	62.55%	-0.00858	0.00989	-0.02797	0.01081	Same
Total	-- ^a	-- ^a	48,007	83.68%	48,059	84.12%	48,083	85.11%	83.68%	84.62%	0.00938	0.00205	0.00536	0.01339	Improved
Comprehensive Diabetes Care															
HbA1c Testing	23,821	79.38%	27,585	78.12%	27,582	80.68%	28,699	82.95%	78.70%	81.84%	0.03136	0.00243	0.02660	0.03612	Improved
HbA1c Poor Control (>9.0%)	23,821	45.25%	27,585	45.68%	27,582	45.40%	28,699	39.40%	45.48%	42.34%	-0.03143	0.00303	-0.03737	-0.02550	Declined
Eye Exam	23,821	54.41%	27,585	54.09%	27,582	56.97%	28,699	59.21%	54.24%	58.11%	0.03869	0.00303	0.03276	0.04462	Improved
Controlling High Blood pressure	-- ^a	-- ^a	41,599	51.70%	42,231	50.53%	45,525	58.25%	51.70%	54.54%	0.02832	0.00297	0.02250	0.03415	Improved
Use of Appropriate Medications for People with Asthma															
5-11 Years	5,646	87.58%	7,335	83.50%	4,658	85.34%	4,515	85.03%	85.28%	85.18%	-0.00091	0.00484	-0.01040	0.00858	Same
12-18 Years	3,010	82.46%	3,993	78.64%	3,675	82.15%	3,690	81.65%	80.28%	81.90%	0.01622	0.00654	0.00341	0.02904	Improved
19-50 Years	2,963	75.63%	3,507	74.25%	3,627	74.86%	3,654	75.67%	74.89%	75.26%	0.00377	0.00739	-0.01072	0.01826	Same
51-64 Years	748	79.01%	1,019	77.43%	1,266	75.75%	1,279	75.21%	78.10%	75.48%	-0.02616	0.01302	-0.05168	-0.00064	Declined
Total	12,367	82.95%	15,854	79.84%	13,226	80.66%	13,109	80.53%	81.21%	80.60%	-0.00610	0.00337	-0.01271	0.00050	Same

Notes: Data shown indicate performance during year indicated; SE=standard error; LCI=lower bound of 95% confidence interval; UCI=upper bound of 95% confidence interval.

^aThis metric was not reported in 2011.

^bThis metric was not reported in 2014.

Table 1.5: CAHPS® measures of consumer satisfaction with adult health care services, 2011–2014

New Jersey Medicaid Managed Care Population

Adult Survey	Amerigroup				Healthfirst				Horizon				United Healthcare				Overall Plan Average			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Getting Needed Care composite	n=355	n=255	n=436	n=436	n=306	n=109	n=472	n=472	n=406	n=330	n=493	n=493	n=430	n=335	n=492	n=492	n=1497	n=1029	n=1893	n=1893
Always	40%	42%	57%	53%	46%	46%	50%	56%	41%	47%	52%	56%	45%	43%	51%	53%	43%	45%	53%	54%
Usually	32%	32%	27%	28%	27%	23%	28%	29%	34%	29%	32%	28%	32%	30%	29%	29%	31%	28%	29%	28%
Never/Sometimes	27%	26%	16%	19%	27%	31%	21%	15%	25%	24%	16%	16%	22%	27%	20%	19%	25%	27%	18%	17%
Getting Care Quickly composite	n=513	n=363	n=435	n=230	n=433	n=178	n=386	n=259	n=583	n=474	n=491	n=393	n=607	n=453	n=476	n=290	n=2136	n=1468	n=1788	n=1172
Always	50%	52%	60%	58%	50%	47%	55%	60%	55%	57%	60%	62%	54%	56%	60%	61%	52%	53%	59%	60%
Usually	28%	26%	22%	25%	23%	28%	22%	24%	26%	23%	24%	22%	25%	25%	24%	25%	26%	26%	23%	24%
Never/Sometimes	22%	21%	18%	17%	27%	24%	22%	16%	19%	20%	16%	16%	22%	19%	17%	14%	22%	21%	18%	16%
How Well Doctors Communicate composite	n=476	n=344	n=416	n=225	n=407	n=185	n=366	n=252	n=531	n=442	n=470	n=386	n=574	n=432	n=466	n=285	n=1988	n=1402	n=1718	n=1148
Always	68%	64%	75%	74%	68%	70%	73%	73%	65%	68%	71%	77%	67%	65%	72%	75%	67%	67%	73%	75%
Usually	22%	25%	18%	17%	21%	22%	19%	21%	21%	21%	20%	18%	22%	25%	19%	19%	21%	23%	19%	19%
Never/Sometimes	10%	10%	7%	9%	12%	8%	8%	6%	14%	12%	9%	5%	11%	10%	8%	6%	11%	10%	8%	6%
Overall Rating of Personal Doctor	n=576	n=412	n=485	n=241	n=460	n=209	n=411	n=266	n=622	n=494	n=547	n=441	n=653	n=494	n=525	n=329	n=2311	n=1609	n=1968	n=1148
Best Doctor (9-10 Rating)	56%	53%	68%	71%	63%	61%	69%	73%	54%	59%	66%	73%	61%	55%	67%	73%	58%	57%	67%	72%
7-8 Rating	25%	29%	23%	16%	23%	27%	22%	20%	29%	22%	21%	22%	24%	31%	22%	18%	25%	27%	22%	19%
Worst Doctor (0-6 Rating)	19%	18%	9%	13%	14%	12%	9%	7%	17%	19%	13%	6%	15%	15%	12%	9%	16%	16%	11%	9%
Ease of Getting Appointments with Specialists	n=258	n=204	n=238	n=137	n=238	n=86	n=230	n=165	n=328	n=262	n=309	n=231	n=331	n=235	n=286	n=174	n=1155	n=787	n=1063	n=707
Always	41%	42%	56%	50%	42%	47%	45%	50%	39%	45%	51%	55%	44%	40%	47%	51%	42%	43%	50%	52%
Usually	32%	30%	26%	26%	26%	23%	29%	32%	34%	29%	29%	25%	31%	29%	28%	28%	31%	28%	28%	28%
Never/Sometimes	27%	28%	18%	23%	32%	30%	26%	18%	27%	27%	20%	20%	24%	31%	24%	21%	28%	29%	22%	21%
Personal Doctor Informed about Other Providers	n=210	n=163	n/a	n/a	n=184	n=77	n/a	n/a	n=285	n=242	n/a	n/a	n=293	n=209	n/a	n/a	n=972	n=691	n/a	n/a
Always	48%	44%			48%	52%			50%	47%			49%	46%			49%	47%		
Usually	30%	29%			27%	26%			24%	27%			29%	31%			27%	28%		
Never/Sometimes	23%	26%			24%	22%			26%	26%			22%	23%			24%	24%		

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved
No Change or Mixed Trend
Declined

Table 1.6: CAHPS® measures of consumer satisfaction with child health care services, 2011–2014

New Jersey Medicaid Managed Care Population

Child Survey	Amerigroup				Healthfirst				Horizon				United Healthcare				Overall Plan Average			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Getting Needed Care composite	n=242	n=195	n=195	n=429	n=248	n=101	n=101	n=474	n=276	n=288	n=288	n=417	n=298	n=242	n=242	n=348	n=1064	n=826	n=826	n=1668
Always	51%	50%	55%	59%	44%	55%	48%	54%	48%	49%	55%	59%	49%	50%	59%	56%	48%	51%	54%	57%
Usually	25%	32%	27%	23%	29%	25%	25%	21%	31%	31%	30%	21%	29%	24%	26%	25%	28%	28%	27%	22%
Never/Sometimes	24%	18%	19%	18%	26%	20%	27%	25%	22%	21%	15%	20%	22%	25%	15%	20%	24%	21%	19%	21%
Getting Care Quickly composite	n=765	n=603	n=546	n=423	n=771	n=317	n=562	n=473	n=874	n=751	n=742	n=402	n=884	n=773	n=711	n=342	n=3294	n=2244	n=2561	n=1640
Always	67%	62%	67%	65%	57%	57%	54%	60%	66%	64%	65%	70%	65%	62%	68%	65%	64%	61%	63%	65%
Usually	16%	16%	17%	16%	17%	19%	23%	18%	15%	15%	18%	14%	19%	17%	18%	13%	17%	17%	19%	15%
Never/Sometimes	17%	22%	16%	19%	27%	25%	23%	22%	19%	21%	17%	17%	16%	21%	15%	23%	20%	22%	18%	20%
How Well Doctors Communicate composite	n=573	n=450	n=450	n=423	n=591	n=232	n=232	n=475	n=641	n=542	n=542	n=421	n=655	n=557	n=557	n=348	n=2640	n=1781	n=1781	n=1667
Always	74%	74%	75%	80%	76%	79%	74%	76%	73%	72%	73%	75%	74%	78%	75%	76%	74%	76%	74%	77%
Usually	18%	20%	20%	17%	18%	16%	20%	20%	20%	21%	20%	19%	19%	16%	19%	16%	19%	18%	20%	18%
Never/Sometimes	8%	5%	5%	4%	6%	5%	6%	5%	8%	7%	7%	6%	7%	6%	6%	8%	7%	6%	6%	6%
Overall Rating of Personal Doctor	n=663	n=494	n=476	n=461	n=654	n=257	n=437	n=532	n=718	n=608	n=570	n=466	n=737	n=637	n=581	n=387	n=2772	n=1996	n=2064	n=2064
Best Doctor (9-10 Rating)	70%	70%	73%	82%	74%	74%	70%	74%	67%	69%	72%	74%	70%	73%	75%	73%	70%	72%	72%	76%
7-8 Rating	21%	22%	21%	14%	21%	23%	22%	21%	22%	22%	22%	18%	21%	20%	19%	20%	21%	22%	21%	18%
Worst Doctor (0-6 Rating)	8%	8%	7%	4%	5%	3%	8%	5%	11%	9%	6%	7%	9%	6%	6%	7%	8%	6%	7%	6%
Ease of Getting Appointments with Specialists	n=199	n=185	n=153	n=153	n=175	n=82	n=121	n=121	n=227	n=250	n=193	n=193	n=288	n=237	n=241	n=241	n=889	n=754	n=708	n=708
Always	46%	44%	45%	45%	38%	44%	38%	38%	44%	47%	51%	51%	49%	47%	56%	56%	44%	45%	48%	48%
Usually	27%	36%	27%	27%	29%	30%	23%	23%	30%	30%	30%	30%	26%	26%	23%	23%	28%	31%	26%	26%
Never/Sometimes	28%	20%	28%	28%	34%	26%	39%	39%	25%	23%	19%	19%	25%	27%	20%	20%	28%	24%	26%	26%
Personal Doctor Informed about Other Providers	n=218	n=190	n/a	n/a	n=196	n=83	n/a	n/a	n=235	n=236	n/a	n/a	n=267	n=207	n/a	n/a	n=916	n=716	n/a	n/a
Always	57%	52%			47%	47%			51%	47%			52%	49%			52%	49%		
Usually	25%	33%			29%	37%			29%	34%			26%	29%			27%	34%		
Never/Sometimes	18%	15%			24%	16%			20%	18%			21%	21%			21%	18%		

Note: Shading scheme does not indicate statistically significant differences, only the direction of change (>1%) in point estimates from 2011 to 2012 to 2013 to 2014 as follows:

Improved
No Change or Mixed Trend
Declined

Discussion

In this chapter, we presented HEDIS® and CAHPS® managed care performance data for the baseline (2011-2012) and first two implementation years (2013-2014) of the Comprehensive Medicaid Waiver Demonstration. We assessed differences between these two time periods to evaluate the broad impact of the managed care expansion in long-term services and supports on access to care, and the quality, efficiency, and coordination of care for Medicaid managed care beneficiaries overall.¹⁴ With a few exceptions, the findings presented in this chapter support the conclusion that overall quality of care for Medicaid managed care beneficiaries was at the least maintained, and in many cases improved, during the first two years of the demonstration period.

The evidence for this conclusion is strongest in the preventive care domain. Here, most metrics demonstrate improvement and the few declines are, on average, of a smaller magnitude than the improvements. For most of the quality metrics for chronic conditions, we observed unchanged or improved quality. There were some declines but the magnitudes were smaller than those related to improvements.¹⁵ It is important to note that the availability of data pertaining to behavioral health care quality was limited to only two HEDIS® metrics calculated for individuals with developmental disabilities and children prescribed ADHD medication. CAHPS® metrics in this domain were from a standalone survey module which was not administered in 2013 or 2014 and consequently not reported here.¹⁶ Metrics pertaining to behavioral health care quality were conceived in our evaluation plan to capture the impact of the behavioral health-related policy changes, namely the establishment of an ASO/MBHO, as part of the waiver demonstration. However, this change was not implemented during the study period presented in this report. Claims-based analyses presented in Chapter 3 will include additional findings in the behavioral health domain for Medicaid overall, as a way to gauge overall adherence to quality standards during the waiver demonstration period, and for recipients of MLTSS whose behavioral health was integrated under their MCOs.

Consumer satisfaction with care showed improvement across health plans during the first two years of waiver implementation (compared to the baseline period), especially for adults. Among children, improvements in satisfaction are also evident, most consistently among the health plans covering the largest number of lives.

¹⁴ Evaluation of the impact of the managed care expansion on cost of care, which is part of Research Question 1a, will be assessed in Chapter 3 using claims-based analyses. HEDIS® and CAHPS® metrics do not address this domain.

¹⁵ Excluding the digoxin component of the *Annual Monitoring for Patients on Persistent Medications* metric, which was re-specified in 2014.

¹⁶ Please see our baseline report for the 2011-2012 estimates.

While examining the findings presented in this chapter it is important to remember that they are descriptive and do not adjust for beneficiary characteristics. Some of the observed differences may reflect changes in beneficiary characteristics given the change in Medicaid coverage from fee-for-service to managed care during 2011-2012 for certain eligibility groups and the statewide Medicaid expansion in 2014. CAHPS® metrics are not reported for the population of Medicaid managed care beneficiaries as a whole and the statistical significance of changes seen over the interim time period in the overall plan average or within plans could not be assessed. Nevertheless, examining unadjusted trends in the metrics presented in this chapter is an essential part of monitoring progress toward the goals of the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014) during the waiver demonstration period. While our final report will include an additional year of data fully after the July 2014 implementation of MLTSS, the interim evidence from the metrics we examined in this chapter suggests that quality of care has not been compromised for most managed care beneficiaries during the demonstration period.

References

ACS Government Healthcare Solutions. 2011. *2011 CAHPS® Health Plan Survey 4.0*. Dallas: ACS Government Healthcare Solutions.

CMS (Centers for Medicare & Medicaid Services). 2014. *Technical Corrections to the New Jersey Comprehensive Waiver Section 1115 of the Social Security Act (the Act) Demonstration (Project No. 11-W-00279/2)*. Baltimore: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/nj-1115-request-ca.pdf>.

DMAHS (Division of Medical Assistance and Health Services). 2014. *Quality Strategy*. Trenton: New Jersey Department of Human Services. http://www.state.nj.us/humanservices/dmahs/home/MLTSS_Quality_Strategy-CMS.pdf.

Chapter 2: An Examination of MLTSS-related Measures Reported by Managed Care Organizations, External Quality Review, and State Government

Introduction and Background

To prepare for the transition in July 2014, when New Jersey brought four §1915(c) home and community based services (HCBS) waivers into managed care with its comprehensive §1115 waiver,¹⁷ the state updated its Quality Strategy¹⁸ to include 40 measures addressing several aspects of managed long-term services and supports (MLTSS). This chapter will discuss these measures, in addition to other data that has been presented in a variety of reports and settings. An earlier report we authored, completed in July of 2015, provides more details about MLTSS implementation in New Jersey—in it we discuss stakeholder feedback from providers, consumer advocates, managed care organizations (MCOs) and state officials on MLTSS implementation.¹⁹ We have considered suggestions from stakeholders with respect to the data we draw upon in our evaluation. This chapter focuses on describing data and performance measures collected and reported by MCOs, external quality review organizations and state government offices relating to a post-implementation period spanning SFY 2015-16.

Note on Chapter Structure

The main text of this chapter is quite detailed and lengthy. A summary section at the end of the chapter provides a summary of findings from each section of the chapter. It differs from a conventional format in that it also contains some policy background and metric definition/conceptualization to give a greater context to those findings. The chapter ends with a discussion of these findings and implications for the MLTSS implementation.

¹⁷ See NJ Department of Human Services, Division of Medical Assistance and Health Services, “Comprehensive Medicaid Waiver” web page with links to descriptive documents at <http://www.nj.gov/humanservices/dmahs/home/waiver.html>.

¹⁸ See a copy of the Quality Strategy as updated June 12, 2014 at http://www.nj.gov/humanservices/dmahs/home/MLTSS_Quality_Strategy-CMS.pdf.

¹⁹ Farnham J, Chakravarty S and K Lloyd. 2015. “Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports.” New Brunswick, NJ: Rutgers Center for State Health Policy. <http://www.cshp.rutgers.edu/Downloads/10740.pdf>.

Description of MLTSS Quality Oversight and Member Appeal Mechanisms

MCOs are required to report regularly on a number of measures, and to report all claims and encounter data to the state. There are monthly meetings of an MLTSS—MCO Quality Workgroup with membership from each MCO as well as the Division of Medical Assistance and Health Services (DMAHS) and the Division of Aging Services (DoAS) to discuss details around reporting and ensure comparability. In addition to these measurement-focused meetings, MCOs and state divisions have more frequent standing meetings to discuss general operational issues. DMAHS and DoAS maintain hotlines for consumers and providers to report quality issues. An external quality review organization (EQRO) does annual audits of MCO case files. New Jersey participates in the NCI-AD Survey, which involves face-to-face surveys of long-term care consumers.²⁰ On a quarterly basis, the state reports quality measure data to CMS.²¹ It also reports regularly to the MLTSS Steering Committee and the Medical Assistance Advisory Committee.²² Finally, as discussed in Chapter 1 of this report, New Jersey MCOs participate in the Healthcare Effectiveness Data and Information Set (HEDIS®), a system of standardized performance measures developed by the National Committee for Quality Assurance (NCQA) in conjunction with a variety of public and private partners and the CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey that, on an annual basis, assesses members' perceptions of the quality of care and services they receive in their Medicaid health plan. These measure sets apply to all MCO enrollees, not just those receiving MLTSS services.

MLTSS members looking to appeal an MCO decision may appeal directly to the MCO, call the state quality hotlines, request an independent review in some cases through New Jersey's Division of Banking and Insurance,²³ or file a Medicaid fair hearing request.²⁴

MLTSS Measure Domains

The measures in the state's Quality Strategy span six areas of focus: *participant access* (timeliness of assessments and evidence of options counseling), *participant-centered service planning and delivery* (examination of care plans along several dimensions), *provider capacity* (network adequacy and credentialing timeliness), *participant safeguards* (critical incident reporting), *participant rights and responsibilities* (complaints, grievances and appeals), and *effectiveness of*

²⁰ See <http://www.nasuad.org/initiatives/national-core-indicators-aging-and-disabilities>; results were collected through the summer and fall of 2015 should be available sometime in 2016.

²¹ Most of these reports are posted here: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/Waivers_faceted.html?filterBy=New%20Jersey.

²² Agendas, Presentations and Meeting Minutes are posted here: <http://www.state.nj.us/humanservices/dmahs/boards/maac/>.

²³ See http://www.state.nj.us/dobi/division_insurance/managedcare/i incap.htm.

²⁴ See <http://www.state.nj.us/humanservices/dmahs/info/fads.html>.

MLTSS activities (hospital use, transitions between facilities and community settings, and followup after hospitalization for mental illness).

MLTSS Measure Frequency

The frequency of measure calculation and reporting varies from monthly to annually. There is also variation in the lag time needed to calculate measures due to claim filing windows that apply to some measures.

MLTSS Measure Sources

Data to calculate the measures in the Quality Strategy comes from three sources: Managed Care Organization (MCO) reports to the state, External Quality Review Organization (EQRO) review of MCO files, and state government departments, based on the data that they collect.

In addition to measures included in the Quality Strategy, the state has calculated a variety of other measures to describe LTSS-related programs and populations and included them in presentations to the MLTSS Steering Committee²⁵ or the Medical Assistance Advisory Council (MAAC).²⁶ These additional measures were calculated in response to stakeholder inquiries or as part of state efforts to describe the program and affected populations.

Analytic Objective

This chapter will examine selected measures reported in the state's reports to CMS, the MLTSS Steering Committee, or the Medical Assistance Advisory Council (MAAC), and draw implications where possible on what they reflect regarding the MLTSS implementation process. Based on a review of all available data, we have selected those that seem to have the most bearing on our evaluation hypotheses and research questions, listed below.

Hypothesis 1: **"Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions."**

Research Question 1a: **"What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"**

²⁵ See http://www.nj.gov/humanservices/dmahs/home/mltss_committee.html for more information about the MLTSS Steering Committee, including a description of members and recommendations made prior to MLTSS implementation.

²⁶ See <http://www.state.nj.us/humanservices/dmahs/boards/maac/> for more information about the MAAC, including agendas, minutes, and presentations.

Research Question 1b: **"What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"**

Hypothesis 3: **"Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity."**

Research Question 3a: **"What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Research Question 3b: **"What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?"**

Table 1 describes the measures we examine and their sources.

Table 1: Secondary metric list

	Metric	Metric Source	CSHP's Source	Description
1	Long-term care population by setting	NJ DMAHS	MLTSS Steering Committee Presentations	Based on the available numbers of HCBS, PACE, and Nursing Facility Residents, we have calculated the percent of the LTC population every 3 months from July 2014 to January 2016 in each setting.
2	Setting, former waiver enrollees	NJ DMAHS	MAAC/MLTSS Steering Committee Presentations	Tracks the current status of waiver enrollees who transitioned in July 2014 as of November 2015, February 2016, and March 2016
3	MLTSS Demographics	NJ DMAHS	MAAC Presentation	Shows the ages of participants in MLTSS and long-term care generally, in October 2015
4	Assessment Timeliness	NJ OCCO, ²⁷ MCOs	DMAHS reports to CMS	<ul style="list-style-type: none"> • Number and timeliness of level of care assessments (required to receive

²⁷ Division of Aging Services, Office of Community Choice Options.

	Metric	Metric Source	CSHP's Source	Description
				MLTSS services), monthly from July 2014 to October 2015 <ul style="list-style-type: none"> Number of assessments by MCO in the period July 2014 to October 2015 and % authorized by OCCO (OCCO must approve)
5	Care plan characteristics	EQRO	DMAHS reports to CMS	For the annual period July 2014 to June 2015, the extent to which care plans were completed within 30 days of enrollment, were aligned with member needs as per assessment data, were developed using person-centered care principles, and had a back-up plan to ensure safety
6	Critical incidents	DoAS	DMAHS reports to CMS	Number, timeliness (monthly July 2014 to November 2015) and categories of reporting (Year 1 and Q1 of Year 2) of incidents that had or could have adverse effects on members
7	Appeals, Grievances Complaints and Service Reductions	MCOs, DMAHS, DOBI	DMAHS reports to CMS, MLTSS Steering Committee presentations, DMAHS final agency decisions, DOBI IHCAP reports	<ul style="list-style-type: none"> Quarterly MCO appeals, grievances and complaints from January 2015 to September 2015, including outcomes of home health and private duty nursing appeals. MCO service reduction reports in Q3, 2015 Fair Hearing Outcomes 2014, 2015, and Q1 of 2016, based on all Medicaid enrollees, by plan NJ DOBI, Independent Health Care Appeals Program (IHCAP), Jan 16, 2010 to July 15, 2015 (semiannual)
8	Nursing Facility admissions	MCOs	DMAHS reports to CMS	The percentage of members in a NF living arrangement at any time, out of unique members with an eligibility start date during the measurement year (excludes previous FFS NF residents), for July 2014 to June 2015

	Metric	Metric Source	CSHP's Source	Description
9	Transitions between nursing facility and community	MCOs	DMAHS reports to CMS	<ul style="list-style-type: none"> • Transitions from NF to community and back to NF within 90 days • Transitions from community to NF, short-term and long-term Quarterly, July 2014 to September 2015, continuously enrolled members
10	Hospital and ED Use	MCOs	DMAHS reports to CMS	Any hospitalization or ED visit by continuously enrolled MLTSS members: quarterly, HCBS (July 2014-March 2015) and NF (October 2014-March 2015)
11	Use of self-directed MLTSS services	Division of Disability Services	DMAHS reports to CMS	Use of MLTSS self-directed services, by plan, as of August 2015
12	Network adequacy	MCOs	DMAHS reports to CMS	GeoAccess reports of the percent of members with access to 17 acute care services as of June 30, 2015.
13	Policy/Administrative changes	DMAHS	DMAHS reports to CMS	Take-up of Qualified Income Trusts; self-attestations regarding asset transfer. Both from July 2014 to December 31, 2015.

Results

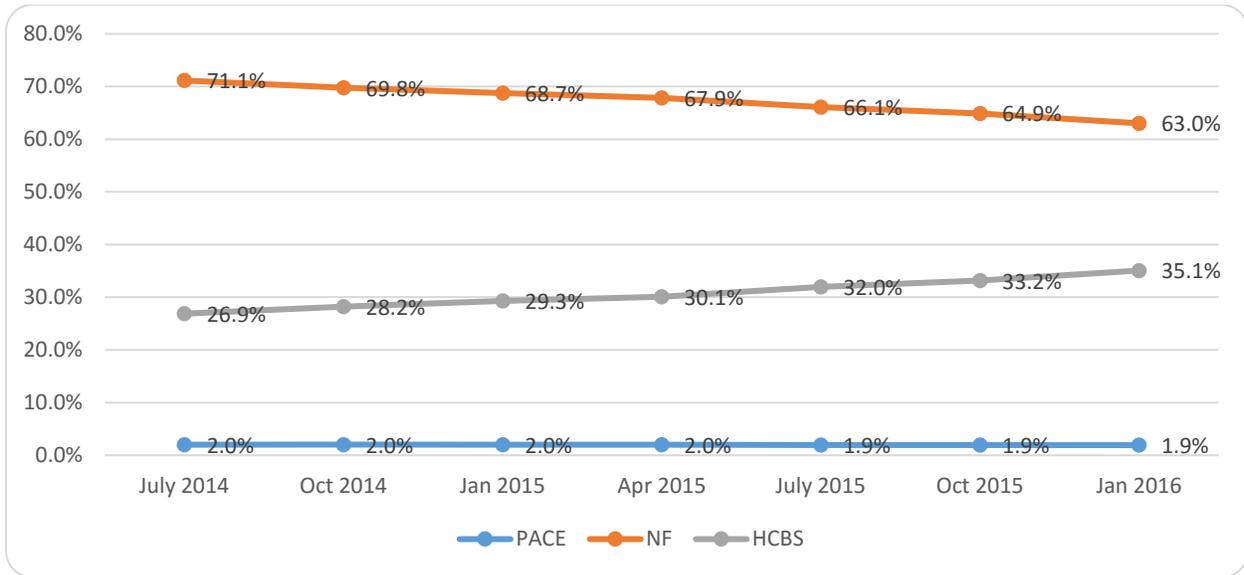
Setting, All LTC Enrollees

As shown in Figure 1, the share of the population receiving long-term care services in home and community-based settings (not including PACE) increased from 27% in July 2014 to 35% in January 2016. The share of the same population in nursing facilities has dropped from 71% in July 2014 to 63% in January 2016. This appears to indicate that the state is moving toward providing more services in home and community settings. PACE has remained steady at about 2% of the long-term care population.²⁸ Among the HCBS population, about 20% are in assisted living facilities and the remaining 80% are in other types of community settings.²⁹

²⁸ The Program of All-inclusive Care for the Elderly (PACE) enrolls people initially in community settings, but will provide nursing facility care if it becomes necessary. For more information, see <http://www.state.nj.us/humanservices/doas/services/pace/>.

²⁹ Calculated from data in MLTSS Steering Committee Slides – Feb 2016 (slide 5), which is based on “DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 2/9/2016.”

Figure 1: NJ Medicaid LTC population by setting, July 2014–January 2016



Source: Calculated from MLTSS Steering Committee Slides - Feb 2016 (slide 3), which is based on “Monthly Eligibility Universe (MMX) in Shared Data Warehouse (SDW), accessed on 2/9/2016.”

Setting, Former Waiver Enrollees

Among the group of people enrolled in the former §1915(c) waiver programs who transitioned to managed care in July 2014, 65% were still receiving HCBS services through MLTSS as of March 2016. About 8% are now in nursing facilities, and the remaining 28% are no longer enrolled in MLTSS or no longer enrolled in Medicaid. Many of the latter category have likely passed away. This appears to indicate that people who begin receiving services in community settings are largely able to remain there. Table 2 shows the change from November 2015 to March 2016 in the status of former waiver enrollees (on June 30, 2014 all of these enrollees were receiving HCBS waiver services).

Table 2: Current status of former waiver enrollees

Current Service Status	Percent, July 2014	Percent, November 2015	Percent, February 2016	Percent, March 2016
MLTSS HCBS	100%	69%	67%	65%
MLTSS Nursing Facility	n/a	7%	7%	8%
No Longer Enrolled	n/a	20%	23%	25%

Current Service Status	Percent, July 2014	Percent, November 2015	Percent, February 2016	Percent, March 2016
Other (Non MLTSS Medicaid)	n/a	4%	3%	3%

Sources: MAAC Meeting Presentation 4/20/16, based on “DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 3/11/16.”; MLTSS Steering Committee Slides - Feb 2016 (slide 8), based on “DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 2/9/16”; MLTSS Presentation for Steering Committee December 2015 (slide 12), based on “DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 11/16/15.”

Demographics

Table 3 shows the distribution across age groups for individuals in the New Jersey Medicaid long-term care (LTC) population and those enrolled in MLTSS. The long-term care population includes those “grandfathered” consumers residing in nursing facilities under a fee-for-service arrangement—about 61% of nursing facility residents in October 2015.³⁰ The largest share of the population in both general long-term care and MLTSS is comprised of people ages 65 and over (a breakdown of the long-term care population shows that the largest share here is people ages 85 and over). MLTSS has a slightly larger share of consumers under age 65 than the general long-term care population. In December 2015, about 89% of the long-term care population was dually eligible for both Medicare and Medicaid (people under age 65 with disabilities may be eligible for Medicare).³¹

Table 3: Ages of NJ long-term care³² and MLTSS populations, October 2015

Age Group	Percent of Population		% of LTC population in MLTSS
	LTC	MLTSS	
0-21	1.1%	1.4%	61.1%
22-64	22.4%	24.5%	51.9%
65+	76.5%	74.1%	46.0%
65-74	17.1%	n/a	n/a
75-84	23.1%	n/a	n/a

³⁰ Calculated from data from MAAC_Meeting_Presentations_1_20_16 (slide 23), which is based on “Monthly Eligibility Universe (MMX) in Shared Data Warehouse (SDW), accessed on 12/8/2015.”

³¹ MLTSS Presentation for Steering Committee— December 2015 (slide 4).

³² Including fee-for-service nursing home residents as well as those served by MLTSS.

Age Group	Percent of Population		% of LTC population in MLTSS
	LTC	MLTSS	
85+	34.0%	n/a	n/a

Sources: Calculated from MAAC_Meeting_Presentations_1_20_16 (slide 23), which is based on “NJ DMAHS Shared Data Warehouse Regular MMX Eligibility Summary Universe, accessed 12/8/15” and slide 25, which is based on “DMAHS Shared Data Warehouse Monthly Eligibility Universe, accessed 12/8/15.”

Assessment Timeliness

Two of the Quality Strategy measures examine the timeliness of the assessment to determine whether or not the consumer meets a nursing facility level of care. In order to enroll into MLTSS, consumers must meet this level of care. This assessment is done by the Department of Human Services, Division of Aging Services, Office of Community Choice Options (OCCO) for consumers who are not already both on Medicaid and enrolled in managed care and by MCOs for consumers who are enrolled with them through Medicaid.

The metric measures whether or not the assessment is completed within 30 days of the referral date (there is no measure of duration to assess the magnitude of delay beyond 30 days). Figure 2 shows the results for OCCO, the MCO average, and the individual MCO results (dashed lines). The MCOs with the most variability also have the lowest enrollment. OCCO began reporting this metric upon implementation in July 2014; MCOs began reporting this data in January 2015 due to the need for system development.³³

The OCCO average climbed from 49% in July 2014 to 76% in October 2015. There is some regional variability in this, though specific numbers are not available. It has been historically more difficult to recruit and retain staff in Northern New Jersey because of more alternative employment opportunities and a higher cost of living. Working conditions for staff making numerous home visits are frequently more onerous in the North because of greater difficulty with transportation and parking. Where possible, OCCO has shifted work to the Southern office (e.g., electronic approvals). OCCO staffing resources were strained during the initial implementation of MLTSS because they had to conduct re-assessments for after MCO assessment submissions could not be authorized (discussed in more detail in Table 4 and surrounding text).³⁴ OCCO has hired new staff and conducted training for MCO assessors to address the issue.³⁵

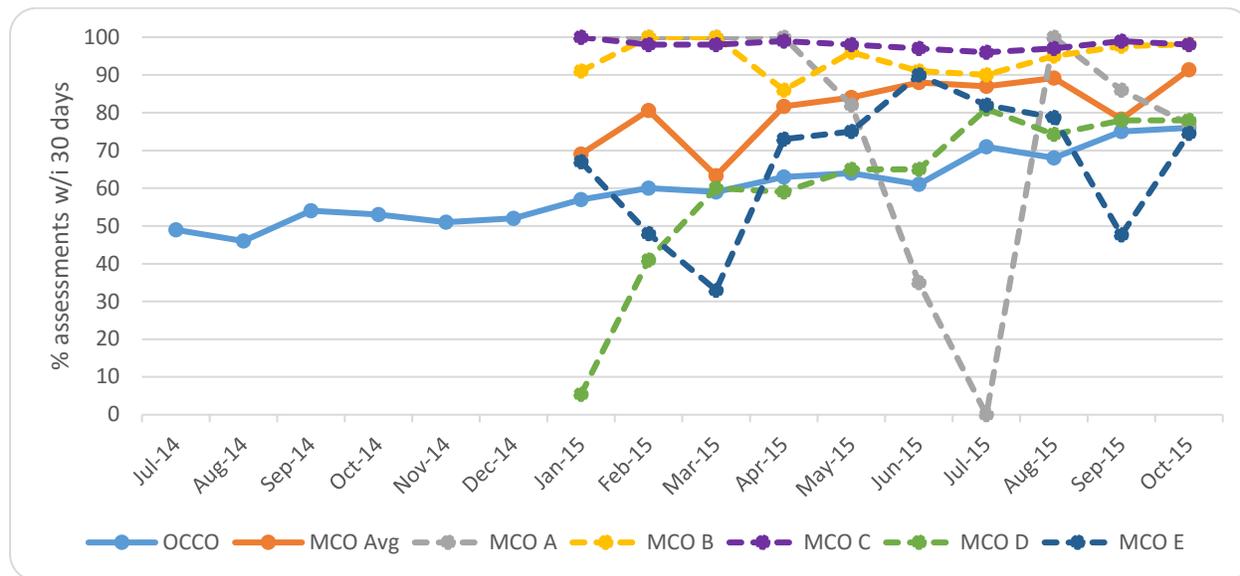
³³ DMAHS, MLTSS Performance Measure Report, 1/1/2015 – 3/31/2015, p. 1.

³⁴ OCCO is responsible for authorizing all MCO level of care assessments. If it looks from the MCO-submitted documents as if the client does not qualify, OCCO does its own face-to-face assessment of the client before ruling them ineligible.

³⁵ DMAHS, MLTSS Performance Measure Report, 7/1/14-6/30/15, p. 4.

The MCO overall monthly average for this metric increased from 69% in January 2015 to 91% in October 2015. Individual averages showed considerable range. For the period January 2015 to October 2015, individual MCO averages ranged from 61% to 94% per average month, with an 81% average for all MCOs together. During the same period, OCCO’s monthly average was 65%.

Figure 2: Timeliness of nursing facility level of care assessment, by month

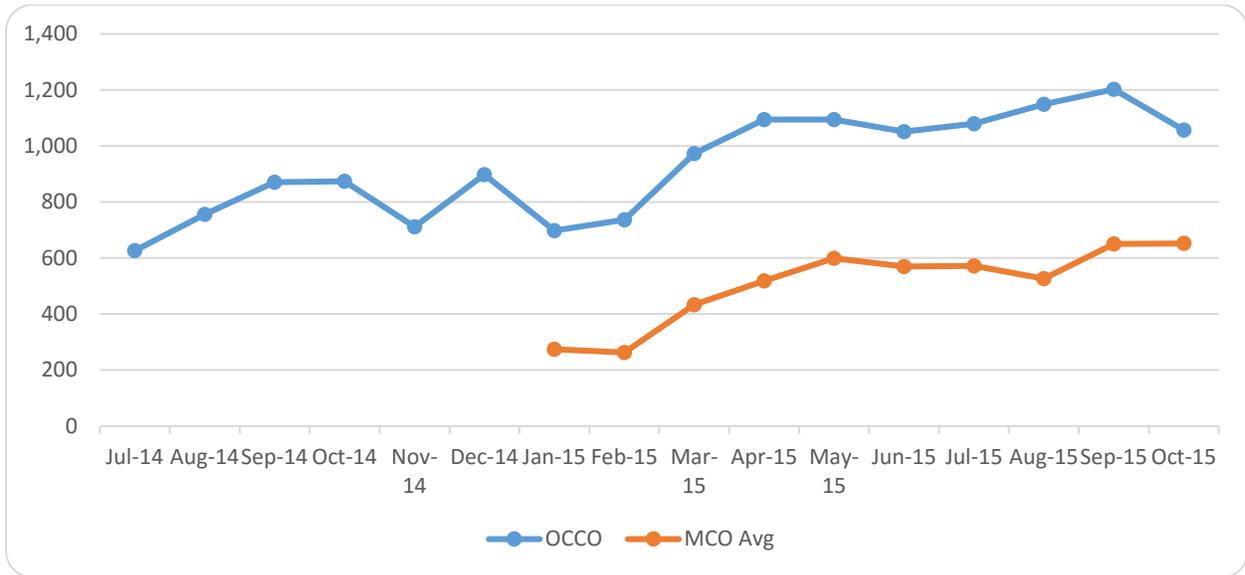


Source: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15.

OCCO conducts a larger volume of assessments (about double) compared with all MCOs combined, as shown in Figure 3. For the period of January 2015 to October 2015, OCCO conducted an average of 1,013 assessments per month, as compared with 506 for all MCOs combined. OCCO staff report that referrals have increased since the implementation of MLTSS. OCCO receives referrals for anyone applying for long-term care services through Medicaid as well as anyone entering a nursing home for any reason (including rehab) who may become eligible for Medicaid within 180 days. As of April 2016, OCCO was receiving an average of 5,800 referrals a month—many of these referrals do not result in an assessment because the consumer is discharged quickly or passes away before an assessment can be done.³⁶ This means that OCCO is able to triage referrals when they are aware of people who need to be assessed quickly.

³⁶ This information as well as some other facts in this section were gathered by a telephone conversation with staff from the Division of Aging Services in April of 2016.

Figure 3: Number of level of care assessments conducted, by month

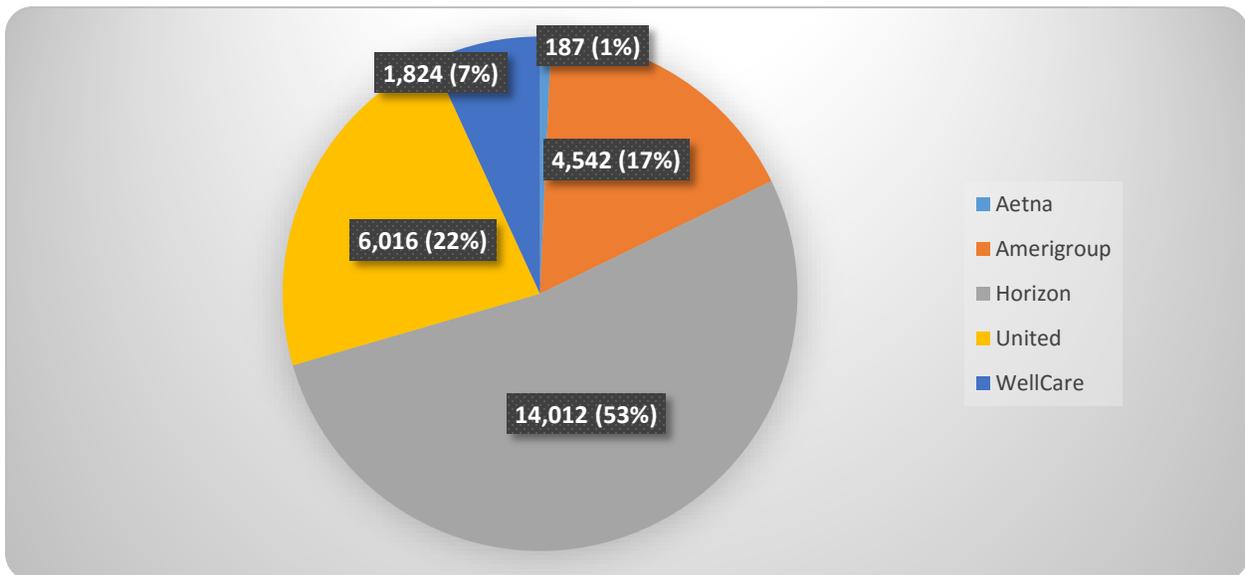


Source: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15.

MLTSS Level of Care Assessments by Plan

Figure 4 shows the number of MLTSS assessments done by each plan from January 2014 to June 2015. More than half of the assessments are done by Horizon, meaning that their results are very influential in the overall MCO average.

Figure 4: Number of MLTSS level of care assessments conducted July 2014–June 2015, by plan



Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment C.2.

Table 4 shows the number of assessments, the percentage share of assessments for each plan, the percentage of each plan’s assessments that were authorized by OCCO (this means that OCCO was able to certify that the client met nursing facility level of care requirements based on the information provided by the MCO) and the percentage of not authorized assessments that were ultimately approved for each plan. Most clients (95%) are ultimately approved. Across all plans for the first year of MLTSS, 5% of the not authorized assessments were ultimately denied³⁷ (this represented 209 individuals). There were only minor variations by plan in the extent to which assessments were authorized and ultimately approved, as shown in Table 4.³⁸ The extent to which assessments are not authorized by OCCO depends upon the completeness of the assessment information provided by the MCO as well as the acuity level or extent of care needs of the client being assessed. OCCO has provided and continues to provide training to MCOs to ensure that assessors provide all necessary information. They have seen improvements in the authorized rate, and future contracts will require it to be at or above 93%, which four of five MCOs were meeting as of October 2015.³⁹ When plans submit assessments to OCCO that cannot be authorized, this means that OCCO has to do its own face-to-face assessment, which is required before any denial of eligibility. Higher than expected rates of not authorized submissions early in MLTSS implementation resulted in an unexpected level of workload for OCCO, straining staff resources.

Table 4: MLTSS level of care assessments and assessment outcomes July 2014–June 2015, by plan

	Number of Assessments, July 2014-June 2015	% of Total Assessments	% of Assessments Authorized by OCCO	% of Not Authorized Assessments Ultimately Approved
Aetna	187	0.7%	40.0%	88.9%
Amerigroup	4,542	17.1%	70.0%	97.6%
Horizon	14,012	52.7%	70.0%	93.8%
United	6,016	22.6%	65.0%	93.9%
WellCare	1,824	6.9%	73.0%	96.4%
<i>Total</i>	<i>26,581</i>	<i>100.0%</i>	<i>68.4%</i>	<i>94.5%</i>

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment C.2.

³⁷ Shown in Table 4 as 95% ultimately approved.

³⁸ We include Aetna’s numbers for the sake of completeness, but they only began operations in January 2015 and had a small number of assessments, so they should not be compared with the others.

³⁹ Trainings held during the first year are documented in New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section VI and Attachment C.1.

Care Plan Characteristics

An external quality review organization audited MCO records (100 from each of the four MCOs that were operating upon implementation) and calculated metrics based on several aspects of consumers' care plans for the first year of MLTSS, as shown in Figure 5 and discussed in more detail below. For the first year of implementation, there were two audits done—one for each six month period. The first audit had few cases involving individuals new to MLTSS (12 to 17 per MCO), so comparisons between the first and second audits should be made with caution.⁴⁰ The audit results were combined to give an annual average. Going forward, audits will be done annually. Because the reported metrics are seen as important to ensure quality, MCOs are required to submit a work plan to improve rates less than 85%.

1. **Timeliness**—Care plans established within 30 days of enrollment into MLTSS/HCBS are considered timely. Examining the percent of care plans that were timely (out of all care plans audited) reveals that the average for all MCOs was 51.7%, with the values for individual MCOs ranging from 25% to 72%. All MCOs were below the 85% threshold where a corrective action plan is required. The EQRO reported improvement in the second half of the year. We do not know how services to consumers were affected by this.
2. **Aligned with Needs**—This measure looks at the percentage of plans of care that were aligned with assessment results of the NJ Choice⁴¹ in type, scope, amount, frequency and duration. MCOs were higher on this measure, ranging from 87% to 97% (93% overall). However, all MCOs showed a decline in this measure from the first to the second review period. For individuals new to MLTSS, the rate declined from 96% to 91% from the first period to the second. We do not have any further information about the ways in which care plans were aligned or not, or what this meant for consumers.
3. **Person-Centered Principles**—This measure examines whether plans of care were developed using person-centered principles.⁴² This measure showed a large range for individual MCOs--from 10% to 97%-- with a 61% average across all MCOs. The overall rate for individuals new to MLTSS showed an increase from the first to the second periods. MCO E's results are low due to the lack of documented member goals in the service plan.
4. **Back-up Plan**—This measure documents the presence of a back-up plan (i.e., what happens if a home care aide is out sick for services delivered in a private home where

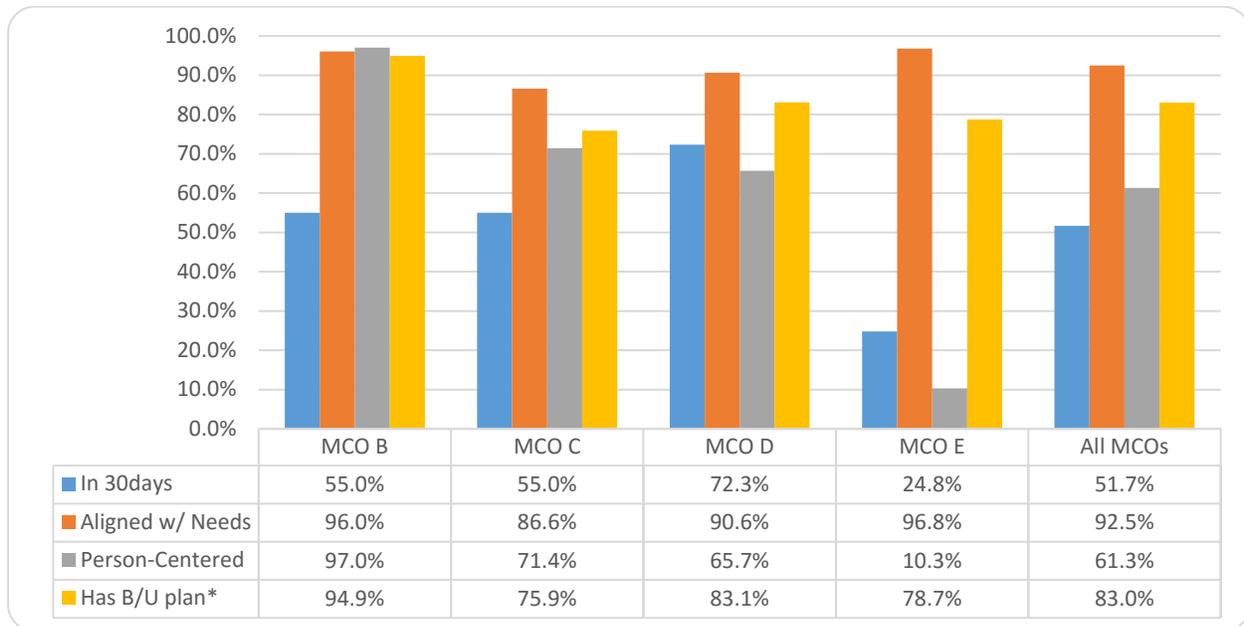
⁴⁰ "Methodology of MLTSS-CM Focus Study," extract from EQRO report provided to authors by DMAHS.

⁴¹ NJ Choice is an assessment tool used by OCCO and MCOs to determine whether a consumer meets a nursing facility level of care. See http://www.state.nj.us/humanservices/dmahs/home/NJ_Level_of_Care_and_Assessment_Training.pdf for more details.

⁴² Reports do not specify how person-centered principles were measured by the EQRO. A report that discusses person-centered planning in the context of MLTSS and New Jersey is Orlowski, G and J Carter. 2015. *A Right to Person-Centered Care Planning*. Washington, DC: Justice in Aging http://justiceinaging.org/wp-content/uploads/2015/04/FINAL_Person-Centered_Apr2015.pdf.

there is no regularly scheduled staff). As implemented in the initial audit, this was calculated for all files selected, rather than just those in an HCBS setting without regular staffing, and the results are still under discussion for that reason. The overall results for individuals new to MLTSS decreased from 88% in the first review to 81% in the second, with an overall average for all cases of 83% (range 76%-95%).

Figure 5: Care plan characteristics, July 2014–June 2015



*Results still under discussion.

Source: DMAHS, MLTSS Performance Measure Report, 10/1/15–12/31/15.

Critical Incidents

Critical incidents are defined in the managed care contract as “an occurrence involving the care, supervision, or actions involving a Member that is adverse in nature or has the potential to have an adverse impact on the health, safety, and welfare of the Member or others. Critical incidents also include situations occurring with staff or individuals or affecting the operations of a facility/institution/school.”⁴³ Figure 6 shows the number and timeliness⁴⁴ of reporting for critical incidents from July 2014 to November 2015. The monthly average for timeliness ranged from 67% in October 2014 to 99% in February and June of 2015. The overall average for timeliness is 93% and the average number of reports per month is 79 for July 2014 to November 2015. The smallest number of incidents (14) were reported in July 2014 and the largest number in October

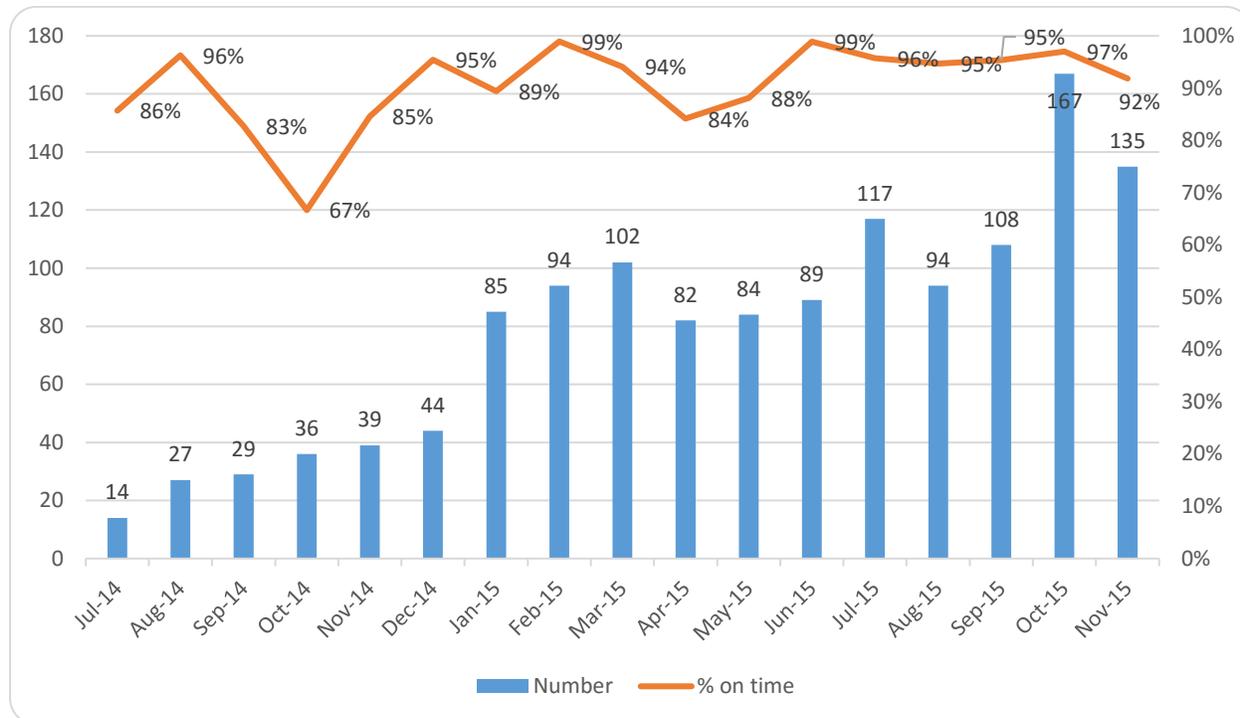
⁴³ Quote from Article 1, Page 8 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from <http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf>.

MLTSS-related critical incidents are detailed in Article 9, Pages 55-56.

⁴⁴ Timeliness is defined as within one business day for unexpected deaths or media/potential media involvement and two business days otherwise.

2015 (167). The October number translates into about 0.8% of 20,321 MLTSS enrollees reported in October.⁴⁵

Figure 6: Critical incident numbers and timeliness, July 2014–November 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15, combined measures 17 and 17a.

Table 5 details the categories of incidents in Year 1 and the first quarter of Year 2. The most common incidents are injuries or falls and medical or psychiatric emergencies. Together, these account for more than half of incidents.

Table 5: Critical incident categories

Critical Incident Categories	Year 1 (July 2014- June 2015)	Percent	Year 2, Q1 (July 2015- Sep 2015)	Percent
Severe injury/fall requiring treatment	262	36.7%	115	37.5%
Medical/psychiatric emergency	122	17.1%	64	20.8%
Missing/unable to contact or wandering from home/facility	70	9.8%	34	11.1%
Other/media involvement/medication error with serious consequences	59	8.3%	25	8.1%
Inappropriate conduct by provider	37	5.2%	9	2.9%

⁴⁵ Slide 3, MLTSS Presentation for Steering Committee December 2015.

Critical Incident Categories	Year 1 (July 2014- June 2015)	Percent	Year 2, Q1 (July 2015- Sep 2015)	Percent
Theft/exploitation	35	4.9%	12	3.9%
Neglect/mistreatment, including self, caregiver overwhelmed, environmental	35	4.9%	15	4.9%
Abuse-suspected or evidenced	34	4.8%	12	3.9%
Backup plan failure	30	4.2%	6	2.0%
Eviction/utility cutoff	17	2.4%	9	2.9%
Unexpected death	13	1.8%	6	2.0%
Total	714		307	

Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15, 7/1/15–9/30/15 and 10/1/15–12/31/15, combined measures 17 and 17a.

There aren't many differences by MCO. Overall rates of reporting by MCO enrollment seemed to suggest that one MCO was quite a bit lower than the others for the first year, but this seemed to equalize in the first quarter of the second year.⁴⁶ There were two differences that we found notable, but we were not able to determine whether or how these differences impacted services to members. These differences may reflect reporting differences by these MCOs, differences in the populations they are serving, or different procedures in dealing with members:

1. One MCO stood out for the share of incidents involving missing persons or unable to contact (this MCO accounts for 74% of the reports in this category for the combined periods, and the specific incident category accounts for 27% of the MCO's incidents in year 1 versus 0%-3% for others; and 36% of the MCO's incidents in quarter 1 of year 2 versus 0%-7% for others). This could be due to any (or a combination) of the following: 1) a higher likelihood to report clients missing relative to other MCOs (regardless of whether they are actually missing), 2) a true higher percentage of clients who the MCO is unable to contact, or 3) a reduced likelihood relative to other MCOs of updating the critical incident reporting when a missing client is found. State staff were not sure why this MCO stood out, but said that most unable-to-contact cases occurred in the context of the initial meeting with the client, where care managers may have minimal contact information. This MCO performed better than average with respect to timeliness of care planning, so it wasn't clear whether or how this difference affects member service.
2. Another MCO stood out for the share of incidents in an undefined "other" category, accounting for 74% of reports in this category for the combined periods, with "other" being 40% of this MCO's incidents in year 1 versus 0%-6% for others and 38% of incidents in quarter 1 of year 2 versus 0%-2% of others. State staff did not believe that this MCO

⁴⁶ Calculations not shown because we are not completely sure about the appropriate denominator.

was significantly different in the types of incidents it reported, but believed that it tended to report incidents as “other” whenever the situation crossed multiple categories, instead of choosing just one.

Appeals, Grievances and Complaints

MCOs are required to report Appeals, Grievances and Complaints for MLTSS members.⁴⁷ An appeal is a request for review of an action. A complaint is a protest regarding the MCO or contractor that could be resolved within five business days. A grievance is a complaint that could not be resolved within five business days.

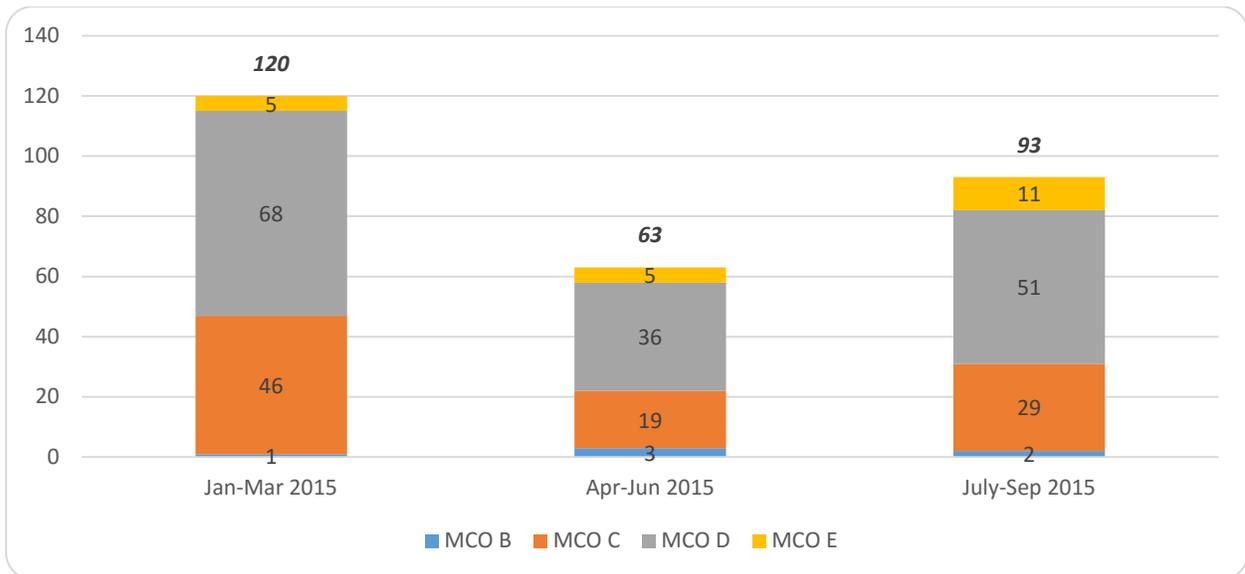
It is important to note that there are nuances with this type of measure such that lower numbers or rates do not necessarily reflect positive member experiences relative to other organizations and higher numbers or rates may not always reflect relatively negative experiences. With respect to MCO reporting of appeals/grievances/complaints they receive, members must be able to reach the MCO, make the MCO understand that the member has an issue, and the MCO must then document and report the issue (and hopefully, address it). An MCO with fewer reported issues may actually have fewer issues, or there may be communication barriers within their organization such that they are not recognizing the issues that they have. In addition, some members are more likely to complain or to be able to complain, and this kind of reporting does not adjust for these factors.

Until January 2015, MCOs reported all Medicaid members together. As of January 2015, MLTSS members are reported as a separate category. Appeals and grievances are reported separately from complaints. Despite the five day language above, investigation is considered timely when complete within 30 days. A completed investigation does not mean that the matter has been resolved to the member’s satisfaction, but rather that the MCO has considered the issue and rendered an opinion as to its merit. Timeliness for appeals, grievances and complaints is very high, with only two complaints going slightly beyond 30 days to resolve.⁴⁸ Figure 7 shows the number of appeals and grievances in the first three quarters of 2015 by MCO and overall. Figure 8 shows the number of complaints in the first three quarters of 2015 by MCO and overall. There is no clear trend in the data over time. MCO A did not have any appeals, grievances or complaints during this period.

⁴⁷ See detailed definitions in Article 1 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from <http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf>. Appeals in Article 1, p.2; Complaints in Article 1, p.6 and Grievances in Article 1, p.13.

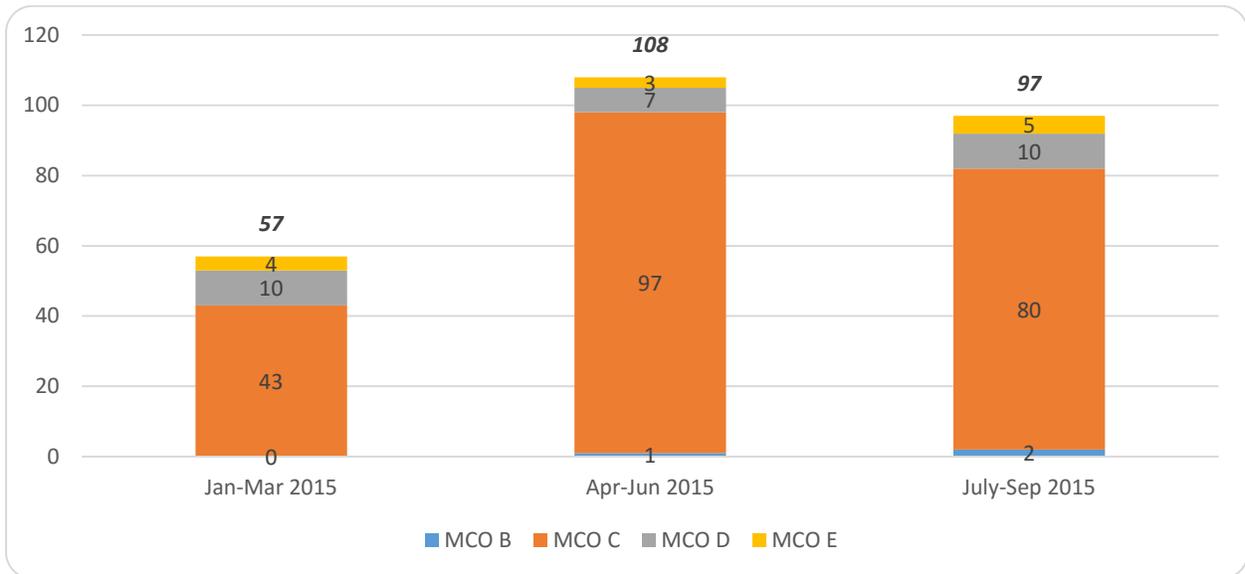
⁴⁸ One complaint took 33 days (DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15); another 42 days (DMAHS, MLTSS Performance Measure Reports, 10/1/15–12/31/15).

Figure 7: Quarterly number of MLTSS member appeals and grievances by MCO (total at top), 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any appeals/grievances in this time.

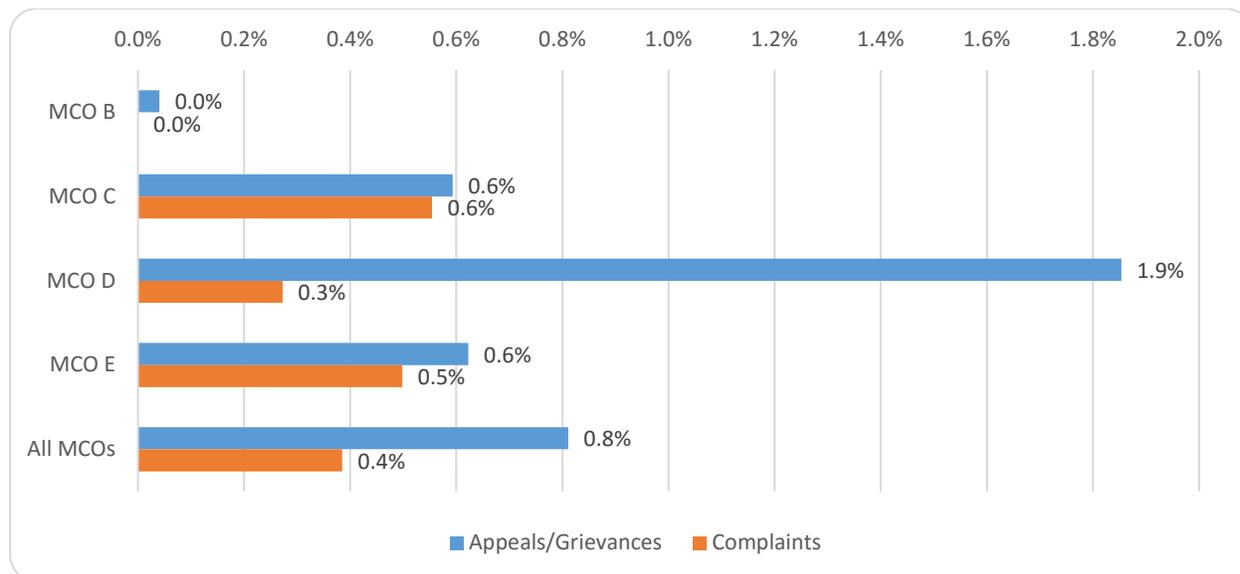
Figure 8: Quarterly number of MLTSS member complaints by MCO (total at top), 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any complaints in this time.

Because the different MCOs have different enrollment totals, the raw numbers shown in the previous figures do not give a sense of the rate of appeals/grievances and complaints among the MCO's members. Figure 9 presents our calculation of the appeals and grievances for the first quarter of 2015 per each 1,000 enrolled MLTSS members for each MCO. Enrollment totals were not available for subsequent quarters.

Figure 9: Estimated percentage of MLTSS members eligible for services with appeals/grievances and complaints, January–March 2015



Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15 Note: MCO A did not have any appeals, grievances or complaints in this time.

Figure 9 shows that the rate of appeals and grievances for MCO D appears higher than for other MCOs (by about 3 times), and its rate of complaints appears somewhat lower (by about half). Assuming these are unique (they may not be—that is, some people may register multiple issues) and adding appeals/grievances and complaints together, as many as 1.9% of MCO D’s MLTSS members registered an issue, compared with less than 1% of the other two MCOs’ members. It is important to consider a few caveats while interpreting these numbers. First, these complaints and the number of enrolled members are reported by the MCOs and have not been verified. It may be that MCO D is more likely to encourage appeals by members, and/or more likely to classify a complaint as an appeal or grievance. It may be that MCO D has understated its enrollment relative to other MCOs, which could make the rates look higher. Finally, these rates are for one quarter only—appeal data collected by the Department of Banking and Insurance (discussed later) show substantial variability over semiannual periods. As Figure 7 shows, MCO D’s appeals and grievances were smaller over the next two quarters.

Outcome of Appeals

DMAHS examined not only the MCO-reported timeliness of appeal resolution (i.e., those investigated within 30 days) but also the MCO-reported outcome of appeals regarding denials of home health (215 appeals) and private duty nursing services (40 appeals) for 2015. With home

health services, the MCO upheld 197 of the denials (92%) and overturned 18 (8%) in full or part. With private duty nursing, all but one of the denials were upheld.⁴⁹

Relation of Appeals and Fair Hearings to Service Reductions

Service reductions and the extent to which they are associated with appeals or fair hearings has been reported publicly for one quarter, to our knowledge (Q2 of 2015).⁵⁰ MCOs reported one full reduction in physical therapy, one partial reduction in private duty nursing, 7 reductions in adult medical day (4 full; 3 partial) and 41 reductions in personal care assistance (9 full; 32 partial). There is no indication of the number or percentage of hours involved. The presentation noted that none of the 14 full reductions were appealed. Of the 36 partial reductions, 4 (11%) went to a first level appeal, 1 (3%) went to a second level appeal and 1 (3%) went to a fair hearing. It is not clear whether service reductions have an effect on client outcomes. A lack of appeals and fair hearings cannot be assumed to indicate client satisfaction. Another presentation from this time period notes that there were a total of 10,866 MLTSS HCBS members in August of 2015, plus another 3,027 in Assisted Living.⁵¹ This is the population to which reductions would apply. While these results are not audited, it would appear that reductions affected a small proportion of members in this quarter. Without information on other time periods, it is impossible to know how typical this quarter was.

Fair Hearings

Another potential measure of member complaints is the extent to which members file Medicaid fair hearing requests with the Department of Human Services. The outcomes of fair hearing requests that proceed through to a final decision are posted on the Department of Human Services web site. It is not possible to determine the extent to which these decisions relate to members enrolled in MLTSS and often it is not possible to tell the ultimate outcome—i.e., often, the result is that the MCO is told to do a new assessment, and the reader cannot tell whether they ultimately approved the desired service. Table 6 shows the number of final agency decisions by MCO along with information on the number of total Medicaid enrollees as well as MLTSS enrollees.⁵² It is possible that some individuals are represented more than once in the fair hearing data. In addition, this table does not adjust for member factors that could affect the probability of filing a fair hearing request—that is, a larger number of final agency decisions could mean that an MCO is more likely to serve members that are more likely to file a fair hearing request as well as the more straightforward interpretation that larger numbers mean more members with

⁴⁹ Calculated from data from MAAC_Meeting_Presentations_4_20_16 (slides 28-30), which notes that the data is pending state and IPRO validation.

⁵⁰ Slide 8 in 9.24.15 Quality Slides for MLTSS Steering Committee.

⁵¹ Slide 3 in MLTSS Presentation Steering Committee 9.24.15.

⁵² See Department of Human Services, DMAHS Final Agency Decisions, accessed April 1, 2016 from <http://www.state.nj.us/humanservices/dmahs/info/fads.html>.

disputes. In addition, MCOs inform their members of the right to file a request—while efforts are made by the state to ensure standard minimum language used in disclosures, it is possible that better efforts by an MCO to inform members could result in more requests.

All MCOs have small numbers of fair hearing outcomes posted given the size of their enrollment. United appears to have higher numbers than might be expected given their enrollment, but it is difficult to establish patterns with certainty given the short amount of time, potential for duplicate cases in the data, and other issues mentioned that could affect the number of cases filed. In the MAAC meeting on April 20, an advocate who files fair hearing requests on behalf of members noted that she had felt pressure at times from MCOs to withdraw cases before a final outcome would be posted—if there are differential efforts in this regard, that could affect the numbers as well.

Though the names of MCOs are not included in the data on MCO-reported appeals, grievances and complaints, precluding us from directly comparing MCO-reported results with fair hearing outcomes, these results appear to match reasonably well with the pattern of MCO-reported incidents discussed earlier, which reflects positively on the validity of the MCO reports. In general, and subject to all the caveats discussed above, an MCO reporting low numbers of member disputes but showing up with a high number of fair hearing requests could be discouraging or undercounting member disputes in some way, calling their reporting into question. Alternatively, an MCO with high levels of reported member disputes (particularly if they are not resolved to members’ satisfaction) but no fair hearing requests may not be adequately informing members of their right to a fair hearing.

Table 6: Fair hearing outcomes and enrollment by MCO

MCO	# of DMAHS Final Agency Decisions, 2014*	# of DMAHS Final Agency Decisions, 2015**	# of DMAHS Final Agency Decisions, 2016 (Jan-Mar)**	Average Total Medicaid Enrollees, 2015***	Enrollees eligible to receive MLTSS Services, Jan-Mar 2015****
Aetna	0	0	0	8,512	84
Amerigroup	1	2	1	210,303	2,486
Horizon	1	11	3	833,872	7,758
United	4	27	3	492,951	3,669

MCO	# of DMAHS Final Agency Decisions, 2014*	# of DMAHS Final Agency Decisions, 2015**	# of DMAHS Final Agency Decisions, 2016 (Jan-Mar)**	Average Total Medicaid Enrollees, 2015***	Enrollees eligible to receive MLTSS Services, Jan-Mar 2015****
WellCare	0	0	0	58,748	803

Sources: * DMAHS Final Agency Decisions 2014, accessed April 18, 2016 from

<http://www.state.nj.us/humanservices/providers/rulefees/decisions/dmahs2014.html>.

** DMAHS Final Agency Decisions, accessed April 27, 2016 from <http://www.state.nj.us/humanservices/dmahs/info/fads.html>.

***NJ Department of Banking and Insurance, Carrier Enrollment Reports (Calculated from 2015 quarters), accessed April 18, 2016 from http://www.state.nj.us/dobi/division_insurance/lhactuar.htm#HMOReports.

****MLTSS Performance Measure Report, 10/1/25–12/31/2015.

Independent Health Care Appeals Program (IHCAP)

IHCAP⁵³ began in 1997 and is an external review program administered by the NJ Department of Banking and Insurance (DOBI) to review adverse determinations made by insurance carriers for any health benefit. DOBI contracts with multiple Independent Utilization Review Organizations (IURO) to perform reviews. Insurance carriers bear the costs even if they reverse their decision prior to the IURO rendering a decision, or the individual or health care provider withdraws the appeal. Since 1997, DOBI has issued semi-annual reports tracking appeals and their resolution. Reports do not break out results by type of product—thus, these data contain all lines of business for each carrier (Medicaid and commercial). Self-insured and Medicare Advantage plans are not included, nor is Medicare.

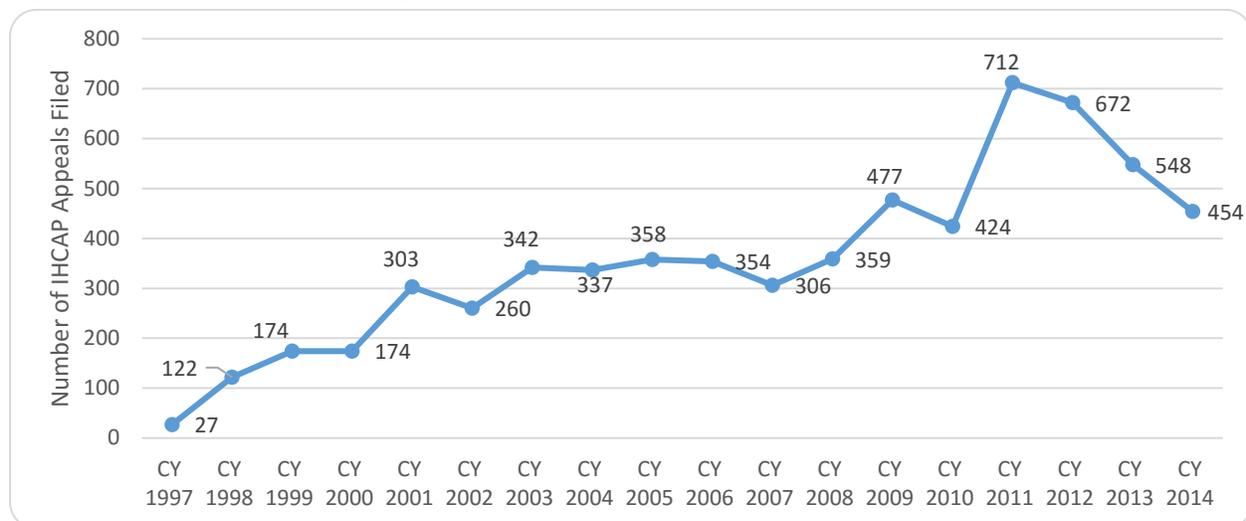
Figure 10 shows the number of appeals filed by calendar year since the program began in 1997. There was a spike in appeals filed in 2011, which coincides with a period in which many health services under Medicaid, including personal care assistance (PCA) and adult day health services, were moved into managed care. Appeals have declined since that time. It is probably too early to see the effects of MLTSS implementation in these data, though it is clear that there was no immediate spike in the number of cases upon implementation in 2014 (changes in the time period of 2014 and forward could also be due to increases in insured people due to the Affordable Care Act).

One potentially notable change, however, is the kinds of determinations that are appealed, though we are not sure how significant this is. It is only in the past year that DOBI has broken out the issues appealed with specific frequency numbers. The report for the first half of 2014 has a list of issues by declining frequency and notes that the first category, inpatient hospital, accounts

⁵³ See http://www.state.nj.us/dobi/division_insurance/managedcare/ihcp.htm.

for “substantially more denials than any other category.”⁵⁴ Similar language is used in prior reports. In the second half of 2014 the report lists a frequency table for the issues involved. Inpatient hospital has 40 appeals (18% of the total), followed by dental issues (21, 9%), behavioral services (21, 9%), prescription drugs (19, 8.5%), reduction in acuity level (19, 8.5%), and home health services (17, 7.6%).⁵⁵ In the following report for the first half of 2015, denial of home health care is the top category (32 appeals, 12% of the total). The report says “These denials involved the reduction of private duty nursing services by Medicaid HMOs.” It goes on to note that hospital-appealed filings for several categories total 78 (29%) and behavioral health/substance abuse appeals were at 38.⁵⁶ So, there does appear to be an increase in the number and share of appeals filed involving home health services, but it is difficult to tell how significant it is because the categories are not broken over time. A near doubling of cases in a semi-annual period seems high, but the percentage increase from 7.6% of the total to 12% isn’t as alarming, and we don’t know what the normal period-to-period variation for this or other categories is.

Figure 10: Number of IHCAP appeals filed, 1997–2014



Source: Semi-Annual Legislative Report, Independent Health Care Appeals Program, Department of Banking and Insurance, January 16, 2015–July 15, 2015, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/omc/34thihcaprpt.pdf.

To provide a longer historical context for the complaints data presented earlier, Figure 11 presents, for four of the carriers discussed above, a comparison between their semi-annual share of appeals compared with their market share from 2010 through mid-July of 2015. A result above 1 means that the carrier’s appeals exceeded their market share. A result of 1 means that the

⁵⁴ See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/32ndihcaprpt.pdf.

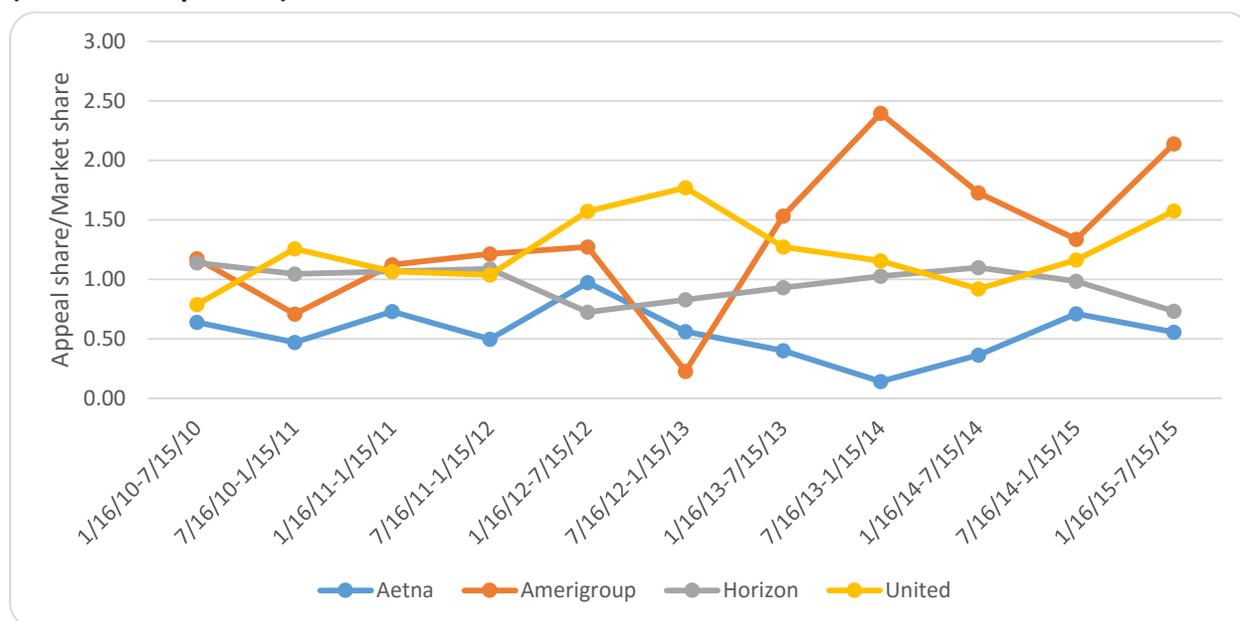
⁵⁵ See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/33rdihcaprpt_tbl3.pdf.

⁵⁶ See http://www.state.nj.us/dobi/division_insurance/managedcare/omc/34thihcaprpt.pdf.

carrier had an appeal rate equivalent to its market share. A result below 1 means that the carrier had an appeal rate below the level of its market share.

We are interested in the amount of variation across periods to assess the variation we might expect to see in other measures assessing MLTSS appeals (MCO reports and fair hearings). Figure 11 shows that there is a fairly large amount of year-to-year variability in appeals, particularly for the carrier with the smallest market share. Horizon has the steadiest rate—its average share of appeals filed for the period of 2010 through the first half of 2015 is slightly below its average market share in the same period. Aetna’s share of appeals is generally well below its market share. Amerigroup and United (includes AmeriChoice and Oxford) generally have shares of appeals that are greater than their market share. In addition to being a measure of the extent to which carrier policyholders disagree with their decisions, the share of appeals may reflect the kinds of business lines that carriers are in as well as their propensity to inform their members of the right to pursue an independent review. Thus, interpretation of this measure is not straightforward as it has potentially neutral (business lines), positive (carrier efforts to inform members of rights) and negative (aggrieved member) interpretations regarding members’ experiences with the carrier. Average results for the period shown for all carriers as well as their market shares at the beginning and end of the period are shown in Table 7.

Figure 11: Carrier share of IHCAP appeals compared with market share, 2010–2015 (semiannual periods)

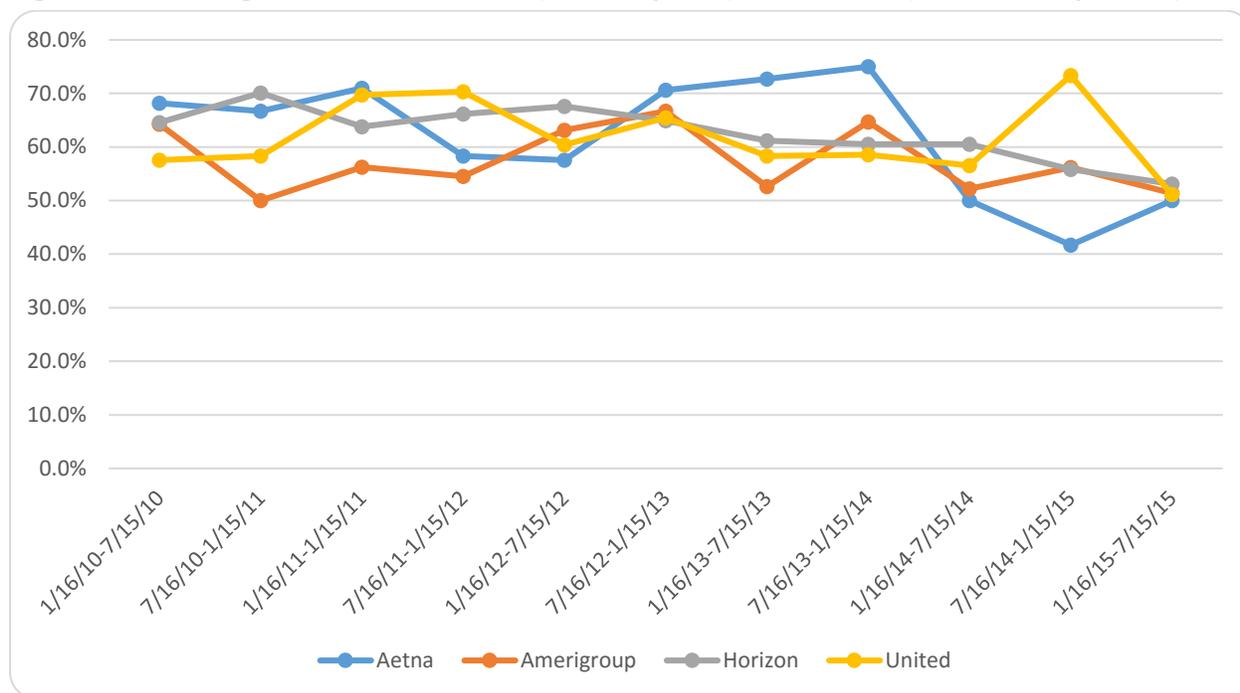


Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcpareports.htm (the latest report covering the period in question was always used—generally Table 2).

Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Figure 12 denotes the extent to which the Independent Utilization Review Organization (IURO) agrees with the carrier once the review is complete (that is, the denial is upheld), and averages over the period are presented in Table X. Average rates of agreement between the IURO and carriers over the period range from 57.5% (Amerigroup) to 62.6% (Horizon), but there is a lot of year-to-year variability in this measure, so we would not call this a significant difference.

Figure 12: IURO agreement with carrier (denial upheld), 2010–2015 (semiannual periods)



Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/iacapreports.htm (the latest report covering the period in question was always used—generally Table 2).

Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Table 7: Independent health care appeals averages 2010–2015 (semiannual periods), by market share and IURO agreement with carrier (denial upheld)

Carrier	Market Share		Appeal share/Market Share	IURO Agreement
	2015	2010	Average of semiannual periods, 2010-2015 (1st half)	
Aetna	9.6%	14.7%	0.55	62.0%
Amerigroup	6.6%	5.1%	1.35	57.5%
Horizon	51.0%	47.7%	0.97	62.6%
United	21.8%	17.9%	1.23	61.8%

Source: Semi-Annual Legislative Reports, Independent Health Care Appeals Program, Department of Banking and Insurance, accessed April 26, 2016 from http://www.state.nj.us/dobi/division_insurance/managedcare/ihcpareports.htm (the latest report covering the period in question was always used—generally Table 2).

Note: We have added together the appeals for United member organizations AmeriChoice, Oxford and United because market share is reported jointly.

Other State Hotlines

We are aware that DMAHS has hotlines for Medicaid members and providers and have heard positive feedback from stakeholders about the responsiveness of staff there. At times, presentations to the MAAC or MLTSS Steering Committee appear to contain some data collected from these hotlines. We know that there are other state points of contact for consumers and aren't sure to what degree data may be collected there. We will inquire about these as potential sources of data for the final evaluation report.

CAHPS® Survey

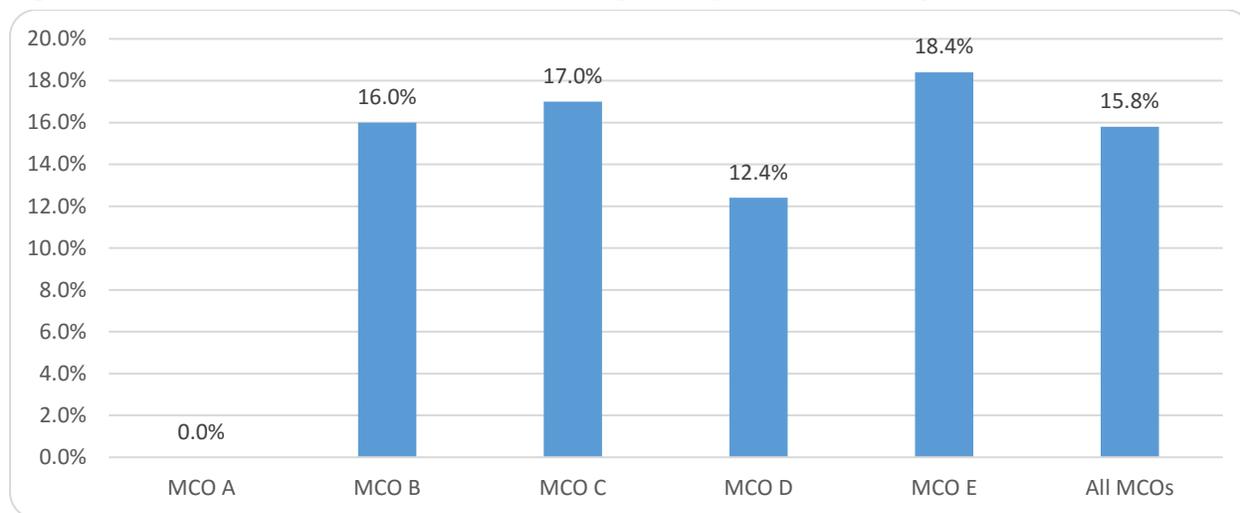
The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey mentioned in Chapter 1 was mailed out in April 2014, before MLTSS was initiated, so the results would not reflect on member's experiences with MLTSS. The 2014 CAHPS Survey of general Medicaid enrollees showed no significant differences in member satisfaction with plans.⁵⁷

Nursing Facility Admissions

Figure 13 shows the percent of new MLTSS members during the measurement year who had a nursing facility admission (it appears that all former HCBS waiver enrollees are counted as new in the first year, while any individuals transitioning from fee-for-service nursing facility care to MLTSS nursing facility care are not included). There is some variance by MCO, which may reflect differences in the health conditions or social supports of the underlying population, the ways people may enroll into MLTSS and select or be auto-enrolled into an MCO, and the care provided by MCO care managers and providers, which can prevent or shorten facility admissions.

⁵⁷ Laster-Bradley M. September 2014. 2014 NJ CAHPS® Survey 5.0 Analysis & Health Plan Comparison Report. Xerox State Healthcare for The New Jersey Division of Medical Assistance and Health Services.

Figure 13: New MLTSS members with a nursing facility admission, July 1, 2014–June 30, 2015



Source: DMAHS, MLTSS Performance Measure Report, 7/1/14–6/30/15.

Transitions between Nursing Facility and Community⁵⁸

The reporting of member transitions between nursing facility and community settings is complicated by members who may pass away or switch between MCOs. It appears that some MCOs may interpret a requirement to report only continuously enrolled members somewhat differently, so we have not presented tables or figures for this section. The state is implementing a nursing facility transition incentive payment initiative that will require a minimum of 120 calendar days of residence in the community after the transition.

1. **Transitions from Nursing Facility to Community and Back within 90 Days:** MCOs report to the department the number of MLTSS members per quarter who have transitioned from a nursing facility to a community setting. There were 227 transitions out of nursing facilities in the first year of MLTSS and another 122 from July 2015 to September of 2015 for a total of 349 transitioned. Fifteen of those transitioned in the first year of MLTSS returned to a nursing facility for more than 90 days. There do not appear to be large differences among the MCOs on these measures.
2. **Transitions from Community to Nursing Facility, Short-Term (less than or equal to 180 days) and Long-Term (greater than 180 days):** In the first quarter after MLTSS implementation, about 90 individuals transitioned from the community to a nursing facility, the majority (about 74%) for a long-term stay of greater than 180 days. This pattern held for all of the MCOs. For each of the following two quarters, nearly 420 MLTSS-enrolled individuals transitioned from the community to a nursing facility. In these

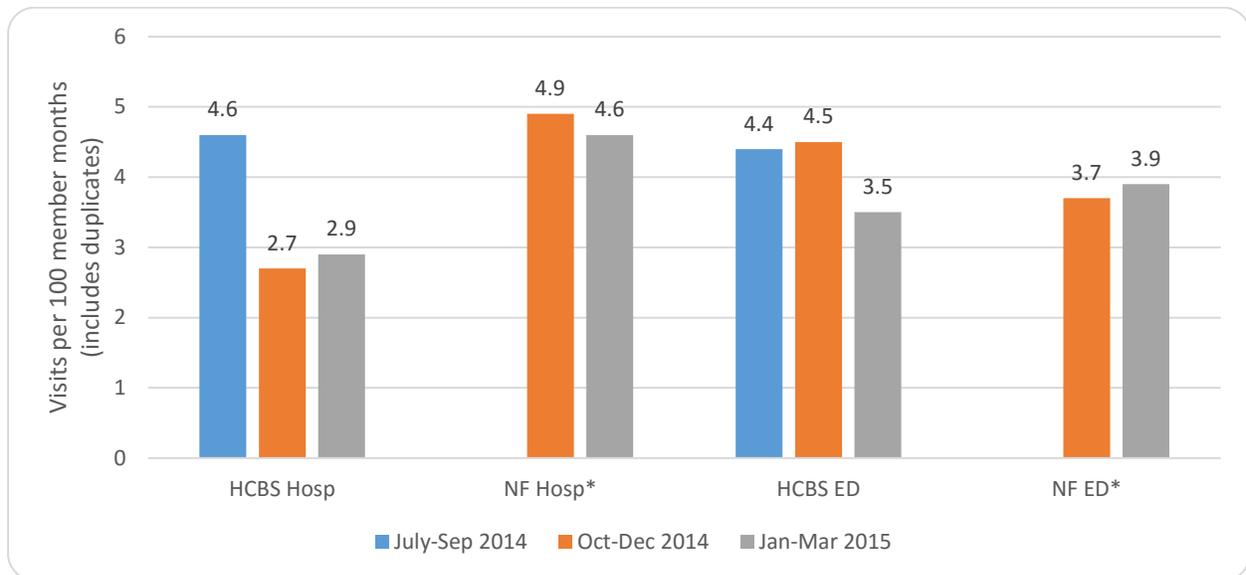
⁵⁸ Sources for this section are DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15, plus communication with DMAHS about updates MCOs have made to these reports.

quarters, the majority (54% and 59%) were only there for a short-term stay. However, this pattern was only seen in one MCO (because it has the largest number of enrollees, it affects the total more than the others). For the other MCOs, more than 60 percent of their nursing facility admissions were long-term. Without knowing the health and social support status of the MLTSS members involved, it is impossible to know whether these differences are due to underlying differences in members in these MCOs or differences in the way that MCOs are assisting members.

Hospital and Emergency Department Use

As shown in Figure 14, hospital and ED use has been stable or declined over the first three quarters of MLTSS implementation. Hospitalizations are somewhat higher for the nursing facility population, which is expected given the often more fragile health of these MLTSS enrollees. Hospitalizations for the HCBS MLTSS population declined from 4.6% of enrollees in the first quarter after implementation to slightly below 3% in the next two quarters. ED use among HCBS enrollees appeared to decline in the third quarter of implementation. We do not include data on nursing facility enrollees for the first quarter because there were only around 50 of them reported by the MCOs as continuously enrolled during that period.

Figure 14: Rate of hospital and ED use among continuously enrolled MLTSS members, quarterly, by setting (nursing facility or HCBS)



*Too few enrollees in the July–Sep 2014 period to include.

Note: Percent is calculated as the number of events (hospital/ED visits) divided by the number of continuously enrolled members. Individuals are counted for each event they had.

Sources: DMAHS, MLTSS Performance Measure Reports, 7/1/14–6/30/15 and 10/1/15–12/31/15.

Use of Self-Directed MLTSS Services

Self-directed services are those where consumers receive a cash budget based on assessed needs which they can use to purchase goods and services or hire workers. MCO case managers may suggest items they believe will enhance members' quality of life, as did one NJ MCO who determined that its members were having health problems due to excessive heat. The MCO purchased window air conditioning units to assist clients using the self-direction option. Where there is a worker providing services to the member, the member is the employer of the worker and directs their own care (or a representative may do this for them). For MLTSS, services available for self-direction include personal care assistance (PCA), chore services, non-medical transportation (e.g., shopping, religious services, etc.) and home-based supportive care (e.g., grocery shopping, money management, housekeeping).

The opportunity to self-direct PCA services has been available since 1999 for all those receiving state plan services, though enrollment grew with the movement of PCA to managed care in 2011 and continues to grow. MCOs are required to inform members of the option to self-direct.

With the inception of MLTSS in July 2014, the PCA rate was reduced from \$15.50 per hour to \$15.00 per hour, leading to a reduction in purchases of goods and services and an increase in the proportion of the budget going toward worker pay. Table 8 shows the number and percent of MLTSS members using self-directed services for each MCO as of August 2015, as well as the percentage of MLTSS members eligible to receive services during January-March of 2015.⁵⁹ Figure 15 shows a graphic depiction of the number of self-directed service users per 1,000 members. Horizon's members constitute 61% of self-directed service users. An estimated 5.3% of Horizon's MLTSS members use self-directed services. This is the largest percentage of all MCOs, though the three other MCOs who were active at implementation are close behind.

Table 8: MLTSS self-directed services by MCO as of August 2015

MCO	Number of members using MLTSS self-directed services	Share of total self-directed service use	Estimated percent of enrollees eligible for MLTSS services Jan-Mar 2015 using MLTSS self-directed services*
Aetna	0	0%	0%
Amerigroup	111	16%	4.5%

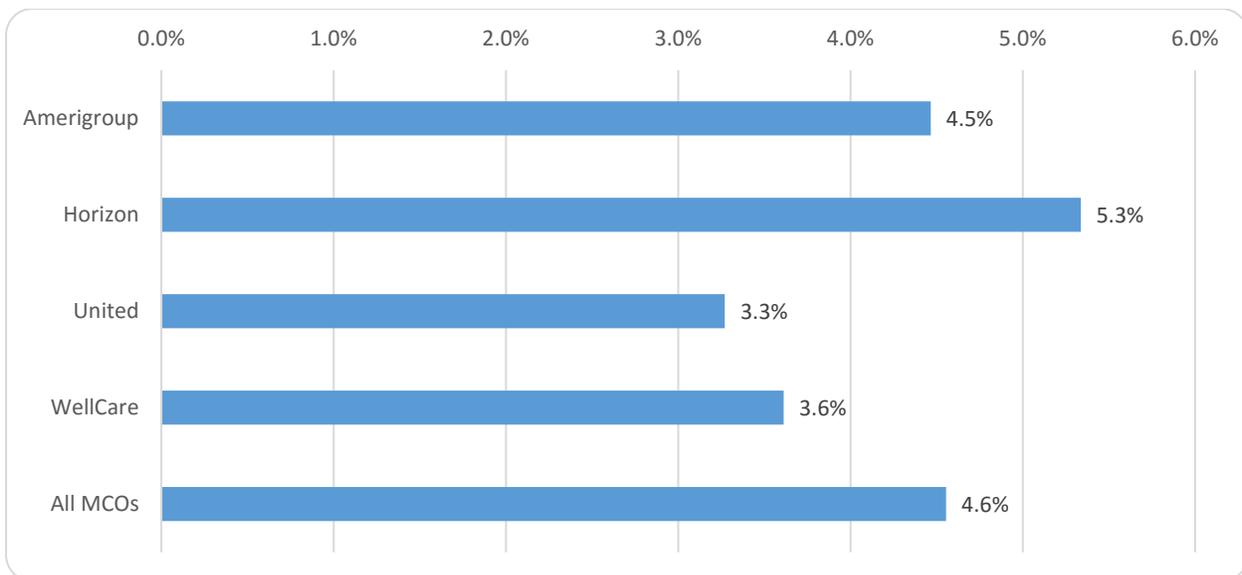
⁵⁹ We would like to have used a later time period for the number of eligible members, but this was the latest available to us. A slide presented in the MLTSS Steering Committee on June 9, 2016 shows the percentages in the first year (July 2014-June 2015) by those eligible to self direct but does not show the MCO names. The patterns look similar to our Figure 15, but the overall estimate would be about 10% of enrollees self-directing when the denominator is those in services that allow self-direction.

MCO	Number of members using MLTSS self-directed services	Share of total self-directed service use	Estimated percent of enrollees eligible for MLTSS services Jan-Mar 2015 using MLTSS self-directed services*
Horizon	414	61%	5.3%
United	120	18%	3.3%
WellCare	29	4%	3.6%
Total	674	100%	4.6%

*Note: This includes all MLTSS enrollees, even those in settings where they are unable to self-direct

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section IV.

Figure 15: Percent of enrollees eligible for MLTSS services Jan–Mar 2015 using MLTSS self-directed services



Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Section IV and Attachment E (for enrollee numbers).

Network Adequacy

The New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report for Demonstration Year 3 (covering the period of July 1, 2014 to June 30, 2015) contains GeoAccess reports for 17 acute care services as of June 30, 2015.⁶⁰ For MLTSS services, MCOs are required to have at least two providers for each home and community-based service (other than community-based residential alternatives)—for services provided in members’ residences, the provider does not need to be located in the member’s county but must be willing and able to

⁶⁰ See Section VII and Attachment D <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf>.

serve residents of that county.⁶¹ Presumably for this reason, GeoAccess reports are not available for MLTSS services. However, the annual report notes that MCOs submit network files (including MLTSS providers) on a quarterly basis to DMAHS, which reviews them for potential gaps in coverage. In addition, MCOs report any potential gaps in coverage and the action they are taking to mitigate impacts on members during regular conference calls with the State. According to the annual report, should there be a gap in services for a member, MCOs will complete a single case agreement with a nonparticipating provider and/or arrange for transportation to a participating provider in a contiguous county.⁶² We do not know how often this occurs. A summary of detailed grievance information reported by the MCOs covering the period of January to December 2015 shows 12 instances of difficulty obtaining access to MLTSS providers.⁶³ We are uncertain about the comprehensiveness of this number.

For the 17 acute care services shown in the report, there are only very slight differences among the MCOs, with all reporting 99% or higher levels of access overall. Services with less than 99.9% coverage (averaged among all MCOs in all counties served by the MCO) include hospitals (94% overall, 15 counties), general dentists (95% overall, 19 counties), and both adult and pediatric primary care physicians (97% overall, 13 counties for adults and 15 for pediatrics). Table 9 shows the counties in order of access coverage. Rates are generally 75% or higher, with only 10 instances in 7 counties of a rate for any provider below 80%.

Table 9: Average rate of GeoAccess coverage for 17 acute care services as of June 30, 2015

Rate	Counties
Less than 97%	Cumberland
97% - 98.49%	Sussex, Hunterdon, Atlantic, Morris, Warren
98.5%-99.49%	Ocean, Gloucester, Burlington, Somerset, Mercer
99.5% and higher	Cape May, Monmouth, Passaic, Middlesex, Camden, Bergen, Salem, Union, Essex, Hudson

Source: New Jersey Comprehensive Waiver Demonstration Section 1115 Annual Report, Demonstration Year 3: July 1, 2014–June 30, 2015, Attachment D.

The accuracy of provider directories, on which these data are based, has been questioned nationally and in New Jersey. One recent examination notes that New Jersey is among the most strict group of states with respect to provider directory requirements.⁶⁴ It is unclear whether

⁶¹ See Section 4.8.10 MLTSS Network Requirements (Article 4, p.101 of the 01/2015 Accepted contract), <http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf>.

⁶² See Attachment E, PM#14 on p.8 <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nj/Comprehensive-Waiver/nj-1115-request-Annl-rpt-demo-yr3-11102015.pdf>.

⁶³ MAAC Meeting Presentations 4 20 16, slide 28.

⁶⁴ Hoyt B. 2015. Provider Directories: Litigation, Regulatory, And Operational Challenges. Washington, DC: Berkeley Research Group. http://www.thinkbrg.com/media/publication/579_Hoyt_DirectoryWhitePaper_032015_WEB.pdf.

recent changes to requirements will be sufficient to overcome the problems found by the Mental Health Association in New Jersey in 2013 where researchers found that 33% of 525 psychiatrists had incorrect listings and that only 61% were able to provide information on their ability to accept new patients, many after multiple contact attempts.⁶⁵

Policy and Administrative Changes

Qualified Income Trusts. As part of the comprehensive waiver, New Jersey now allows individuals whose monthly income exceeds 300% of the SSI rate (recently \$2,199) but who are clinically and otherwise eligible for Medicaid, to set up a Qualified Income Trust with a separate bank account for income above the threshold, which is used for cost-sharing expenses. This replaces the medically needy category, which was only available to individuals entering nursing facilities. As of the end of 2015 almost 900 beneficiaries had set up QITs.⁶⁶ We are not sure how many are in community settings. In October of 2015, there were 89 people receiving MLTSS HCBS services who had QITs (about 17% of the total—43% were in nursing facilities and the remaining 40% were classified in other ways where we cannot determine their setting).⁶⁷

Self-attestation of Asset Transfer. Another policy/administrative change with the comprehensive waiver involved allowing individuals under 100% of the federal poverty level who are applying for long-term care to self-attest as to whether or not they have transferred assets in the past five years, rather than undergoing a detailed examination of all of their assets over this time period—a process that is burdensome for government staff as well as individuals who are applying. As of the end of 2015 approximately 627 individuals had utilized the self-attestation process.⁶⁸

Summary

Overview. This chapter examines MLTSS-related measures reported by managed care organizations (MCOs), External Quality Review Organizations (EQRO) and New Jersey state government offices across a variety of domains affecting members. None of these measures represent a direct survey of member satisfaction or quality of life. There will be separate sources for measures like this for MLTSS members and other consumers of long-term care services when the NCI-AD results from data collected in the summer and fall of 2015 are released in 2016.

⁶⁵ Mental Health Association in New Jersey. July 2013. Managed Care Network Adequacy Report. <http://www.mhanj.org/wp-content/uploads/2014/09/Network-Adequacy-Report-Final.pdf>.

⁶⁶ NJ Department of Human Services, Renewal 1115 Waiver Concept Paper.

⁶⁷ MLTSS Presentation for Steering Committee December 2015, listing a source of NJ DMAHS Shared Data Warehouse Regular MMX Eligibility Summary Universe & Recipient Universe, accessed 11/13/15.

⁶⁸ NJ Department of Human Services, Renewal 1115 Waiver Concept Paper.

Quality Oversight Efforts/Member Appeal Mechanisms. There are a variety of quality oversight efforts and member appeal mechanisms that were described in this section. Member appeal mechanisms include direct appeals with MCOs, complaints to state quality hotlines, independent review requests through the Division of Banking and Insurance, and Medicaid fair hearing requests.

Long-Term Care Population by Setting. Data showed an increase in the share of the population receiving services in home and community-based settings from 27% in July 2014 to 35% in January 2016. Given the general preference of consumers for HCBS over facility services, this is a positive development. The share of the same population in nursing facilities dropped from 71% in July 2014 to 65% in January 2016. PACE (which always starts in a community setting but can progress to nursing facility care) remained constant at about 2% of the long-term care population. Among the HCBS population, about 20% are in assisted living facilities and the remaining 80% are in other types of community settings.

Setting of Former Waiver Enrollees. Among the group of people enrolled in the former §1915(c) home and community based services (HCBS) waivers that were combined in the §1115 comprehensive waiver, 65% were still receiving HCBS services through MLTSS in March 2016. About 8% were in nursing facilities and the remaining 28% are no longer enrolled in either MLTSS or Medicaid (most have passed away). This seems to suggest that people who begin receiving services in community settings are largely able to remain there.

Age Groups in MLTSS and LTC. MLTSS has a slightly larger share of consumers under age 65 than the general long-term care population, which includes those individuals receiving fee-for-service nursing facility services. This trend will likely continue as MLTSS has new enrollees and the fee-for-service population does not.

Assessment Timeliness. There are positive trends in the timeliness (defined as completion within 30 days of referral) of level-of care assessments. These are conducted by the Department of Human Services, Division of Aging Services, Office of Community Choice Options (OCCO) for consumers who are not already both on Medicaid and enrolled in managed care and by MCOs for consumers who are enrolled with them through Medicaid. OCCO's timeliness suffered early on in MLTSS implementation when they had to do a large number of face-to-face reassessments for MCO enrollees after the MCO assessments could not be authorized (OCCO authorizes all level of care assessments done by MCOs and must do its own face-to-face assessment before anyone is denied a nursing facility level of care designation). Additional training of MCO assessors seems to have addressed the issue. As of October 2015, 76% of OCCO assessments and 91% of MCO assessments were completed within 30 days of referral. Individual MCO values ranged from 75%

to 98% in October 2015. Horizon conducts more than half of the assessments for all five MCOs combined, so their results influence the MCO average most heavily. In terms of assessment volume, OCCO conducts about double the assessments of all MCOs combined. As of April 2016, OCCO was receiving an average of 5,800 referrals a month—many of these referrals do not result in an assessment because the consumer is discharged quickly or passes away before an assessment can be done. This means that OCCO is able to triage referrals when they are aware of people who need to be assessed quickly.

Care Plan Characteristics. An external quality review organization audited MCO records (100 from each of the four MCOs that were operating upon implementation) and calculated metrics based on several aspects of consumers' care plans for the first year of MLTSS. For this first year, there were two audits done—one for each six month period. The results were combined to give an annual average. The first audit had few cases involving individuals new to MLTSS (12 to 17 per MCO), so comparisons between the first and second audits should be made with caution. Going forward, audits will be done annually. Four aspects of care planning were evaluated, as shown below. MCOs were required to submit a work plan to address any rates below 85% on any of these measures. We do not know how results on these measures affected consumers.

1. *Timeliness (established within 30 days of enrollment)*—MCO values ranged from 25% to 72%, with an average of 52%. Corrective action plans for improvement were required for all MCOs on this measure. The EQRO reported improvement in the second half of the year. We do not know how services to consumers were affected by this.
2. *Aligned with Needs (as assessed with NJ Choice in type, scope, amount, frequency and duration)*—MCOs were higher on this measure, ranging from 87% to 97% (93% average, all MCOs). However, all MCOs showed a decline in this measure from the first to the second review period. For individuals new to MLTSS, the rate declined from 96% to 91% from the first period to the second. We do not have any further information about the ways in which care plans were aligned or not, or what this meant for consumers.
3. *Person-Centered Principles*—We do not know exactly how this measure was defined or how these results affected consumers. It showed a large range for individual MCOs--from 10% to 97%-- with a 61% average across all MCOs. Based on the 85% threshold, 3 plans would have been required to provide corrective action plans. The overall rate for individuals new to MLTSS showed an increase from the first to the second periods. One MCO's results are low due to the lack of documented member goals in the service plan.
4. *Percent of Consumers with a Back-up Plan*—As implemented in the initial audit, this was calculated for all files selected, rather than just those in an HCBS setting without regular staffing, and the results are still under discussion for that reason. The overall results for individuals new to MLTSS decreased from 88% in the first review to 81% in the second,

with an overall average for all cases of 83% (range 76%-95%). Based on the 85% threshold, 3 plans would have been required to provide corrective action plans. As with the other care plan measures, we do not know how these results affected consumers.

Critical Incidents. Critical incidents are defined in the managed care contract as “an occurrence involving the care, supervision, or actions involving a Member that is adverse in nature or has the potential to have an adverse impact on the health, safety, and welfare of the Member or others. Critical incidents also include situations occurring with staff or individuals or affecting the operations of a facility/institution/school.”⁶⁹ The number of critical incidents has grown as enrollment has increased, but the percentage of enrollees affected is small. Timeliness of reporting (1-2 business days, depending on the nature of the event) has generally been very good, with an overall average of 93% from July 2014 to November 2015. Falls and medical or psychiatric emergencies accounted for more than half of incidents. Table 5 provided a detailed list of categories.

We found only two persistent differences by MCO—one in the share of incidents involving missing or unable to contact members and the other with respect to the share of reports classified as “other.” We were not able to determine whether or how these differences impacted services to members. Differences may reflect reporting differences by these MCOs, differences in the populations they are serving, or different procedures in dealing with members.

Appeals, Grievances and Complaints. It is important to note that there are nuances with this type of measure such that lower numbers or rates do not necessarily reflect good member experiences relative to other organizations and higher numbers or rates may not always reflect relatively bad experiences. With respect to MCO reporting of appeals/grievances/complaints they receive, members must be able to reach the MCO, make the MCO understand that the member has an issue, and the MCO must then document and report the issue (and hopefully, address it). An MCO with fewer reported issues may actually have fewer issues, or there may be communication barriers within their organization such that they are not recognizing the issues that they have. With respect to external appeals/grievances/complaints, in many cases it is the MCO informing members of their rights to such appeals. Despite state efforts to require minimal standard disclosures, there may be differences in the effectiveness with which MCOs inform their members of their rights. In addition to these considerations, some members are more likely to

⁶⁹ Quote from Article 1, Page 8 of the Managed Care Contract, 01/2015 Accepted, accessed March 31, 2016 from <http://www.state.nj.us/humanservices/dmahs/info/resources/care/hmo-contract.pdf>. MLTSS-related critical incidents are detailed in Article 9, Pages 55-56.

complain or to be able to complain, and this kind of reporting does not adjust for these factors. With these caveats in mind, we attempted to look at a number of indicators.

MCO Reports. MCOs report appeals and grievances separately from complaints, all on a quarterly basis. Until January 2015, MCOs reported all Medicaid members together. In January 2015, they began reporting MLTSS members separately.

Timeliness. They report the number of incidents and the timeliness of their investigations of the incidents (within 30 days is considered timely). As of September 2015, only two incidents (both complaints) took longer than 30 days to investigate (33 and 42 days).

Outcome of Investigations. It is important to note that a completed investigation does not mean that the member is satisfied—the MCO may deny the appeal request or decide that the complaint or grievance is without merit. DMAHS requests for the outcome of appeals regarding home health and private duty nursing services showed that 92% of denials were upheld (197 of 215) for home health and that all but one of the 40 private duty nursing-related appeals were upheld.

Volume and Rate of Investigations by MCO. Appeals and grievances were at their largest in the January-March 2015 quarter (120), declining to 63 and 93 in the following two quarters. Complaints peaked in April-June 2015 (108), from 57 the previous quarter and declining to 97 the following. These numbers are not adjusted for the number of enrollees in MLTSS. However, we can roughly estimate that appeals/grievances and complaints affected a small percentage of enrollees—around 1-2% at the most. We were only able to calculate MCO rates adjusted for the member population for one quarter—January-March 2015, shown in Figure 9. One MCO had rates of appeals/grievances that was about 3 times higher than the other MCOs, along with rates of complaints that were about half as high—assuming these are unique (they may not be) and adding appeals/grievances and complaints together, as many as 2% of this MCO's MLTSS members registered an issue, compared with about 1% in the two other MCOs that had significant numbers to report. With only one quarter, this may be an outlier or affected by reporting error in some way.

Service Reductions and Relation to Appeals. DMAHS also asked MCOs to report service reductions and the extent to which they were associated with appeals or fair hearings, and data are available for the third quarter of 2015. Across physical therapy, private duty nursing, adult medical day and personal care assistance, there were 14 full reductions and 36 partial reductions. None of the full reductions were appealed. Of the partial reductions, 4 (11%) went to a first level appeal, 1 (3%) went to a second level appeal and 1 (3%) went to a fair hearing.

It is not clear whether these service reductions have an effect on client outcomes. A lack of appeals and fair hearings cannot be assumed to indicate client satisfaction. There were a total of 10,866 MLTSS HCBS members in August of 2015, plus another 3,027 in Assisted Living. This is the population to which reductions would apply. While these results are not audited, it would appear that reductions affected a small proportion of members in this quarter. Without information on other time periods, it is impossible to know how typical this quarter was.

Fair Hearings. All Medicaid members can request fair hearings through the Department of Human Services. Outcomes that proceed to a final decision are posted on the Department's web site. It is not possible to determine the extent to which these decisions relate to members enrolled in MLTSS; however, the MCO name appears and we used that to count the number of cases in 2014, 2015 and the first quarter of 2016. These counts are not adjusted for duplicate filings, MCO efforts to inform members of fair hearing rights, or MCO efforts to get cases withdrawn before a final decision so that it does not appear. All MCOs have small numbers of fair hearing outcomes posted given the size of their total Medicaid enrollment. We cannot match MCO names since the MLTSS Performance Report identifies them only by letter. However, the patterns in the fair hearing data seem to match up with the pattern of appeals/grievances and complaints reported by MCOs, which reflects positively on the validity of those reports. The MCO with the highest number of fair hearing outcomes relative to its membership in 2014 and 2015 is much closer to other MCOs in the first quarter of 2016. Data examined from the Independent Health Care Appeals Program (IHCAP) suggests that there is period-to-period variation in this kind of data.

Independent Health Care Appeals Program (IHCAP). Another source of appeal data is IHCAP, an external review program administered by the NJ Department of Banking and Insurance (DOBI) to review adverse determinations made by insurance carriers for any health benefit (self-insured plans and Medicare plans are not eligible, but Medicaid and many commercial insurance lines are). We examined the total appeals filed by year from 1997-2014. There is a large spike in 2011 when many Medicaid services, including adult day health and personal care assistance (PCA) were moved into managed care. However, 2014 did not show an increase in filings, despite the implementation of the MLTSS and expanded eligibility for insurance generally under the Affordable Care Act. While effects in these data probably would not show until 2015, the lack of immediate increase in filings would appear to be a positive sign.

We also examined appeal data by carrier from 2010 to 2015 (11 semiannual periods) to provide additional context for the findings above—we were interested in the period to period

variation as well as the extent to which there may be patterns by carrier in the data. Specifically, we looked at the level of appeals for each carrier compared with their market share as well as the extent to which the independent reviews upheld their findings. It was not possible to restrict this analysis to Medicaid only, so this is across all business lines. In addition to being a measure of the extent to which carrier policyholders disagree with their decisions, the share of appeals may reflect the kinds of business lines that carriers are in as well as their propensity to inform their members of the right to pursue an independent review. Thus, interpretation of this measure is not straightforward.

We find that there is a good deal of period-to-period variation in the level of appeals filed relative to market share. A couple of the carriers appear to have higher levels of appeals than would be expected given their market share, but that could be due to different lines of business they may be in. With respect to the level of agreement, the external review organization generally agrees at least half the time with the carrier. We did not feel there were significant differences among the carriers for the time periods examined.

There is a potentially notable change in the types of issues appealed that could relate to MLTSS. The report for the first half of 2015 lists denials of home health care as the top issue in their frequency table of filings and notes that “These denials involved the reduction of private duty nursing services by Medicaid HMOs.” While there were 17 of these cases in the latter half of 2014 (numbers were not given before then), there were 32 such cases in the first half of 2015 (this represented an increase from 7.6% of the total filings to 12%). However, because there isn’t historical detail in the reports, it is impossible to know how typical this kind of change is. It does appear that the first half of 2015 is the first time that any category has been higher than inpatient admissions. However, it also appears that there are potentially different ways to group the appeal categories, some of which could make the growth in home health care seem less significant.

Other Potential Data Sources: State Hotlines, CAHPS® Surveys. We are aware that there are different state offices that interact with members and providers and sometimes discuss data they have collected in MAAC and MLTSS Steering Committee meetings. We have heard positive feedback from stakeholders about the responsiveness of state staff to inquiries made to various offices. We will inquire about these as potential sources of data for the final evaluation report. The CAHPS® (Consumer Assessment of Healthcare Providers and Systems) survey mentioned in Chapter 1 was mailed out in April 2014, before MLTSS was initiated, so the results would not reflect on member’s experiences with MLTSS (reported results of the

survey showed no significant differences in overall Medicaid member satisfaction with plans).⁷⁰

Nursing Facility Admissions. About 16% of new MLTSS members (including waiver transitionees) had a nursing facility admission in the first year of MLTSS. Individual MCO rates varied from 12.4% to 18.4%. There may be different factors driving that variation including differences in the health conditions or social supports of the underlying population, the ways people may enroll into MLTSS and select or be auto-enrolled into an MCO, and the care provided by MCO care managers and providers, which can prevent or shorten facility admissions.

Transitions between Nursing Facility and Community. The state is implementing a nursing facility transition incentive payment initiative that will require a minimum of 120 calendar days of residence in the community after the transition. Performance measures ask MCOs to report about a 90 day residence.

Transitions from Nursing Facility to Community and Back within 90 Days. There were 227 transitions out of nursing facilities in the first year of MLTSS and another 122 from July 2015 to September of 2015 for a total of 349 people transitioned. Fifteen of those transitioned in the first year of MLTSS returned to a nursing facility for more than 90 days. There do not appear to be large differences among the MCOs on these measures.

Transitions from Community to Nursing Facility, Short-Term (less than or equal to 180 days) and Long-Term (greater than 180 days). In the first quarter after MLTSS implementation, about 90 individuals transitioned from the community to a nursing facility, the majority (about 74%) for a long-term stay of greater than 180 days. This pattern held for all of the MCOs. For the following two quarters, nearly 420 MLTSS-enrolled individuals transitioned from the community to a nursing facility. In these quarters, the majority (54% and 59%) were only there for a short-term stay. However, this pattern was only seen in one MCO (because it has the largest number of enrollees, it affects the total more than the others). For the other MCOs, more than 60 percent of their nursing facility admissions were long-term. Without knowing the health and social support status of the MLTSS members involved, it is impossible to know whether these differences are due to underlying differences in members in these MCOs or differences in the way that MCOs are assisting members.

Hospital and Emergency Department Use. MCO-reported hospital and ED use has been stable or declined over the first three quarters of MLTSS implementation. Hospitalizations are somewhat

⁷⁰ Laster-Bradley M. September 2014. 2014 NJ CAHPS® Survey 5.0 Analysis & Health Plan Comparison Report. Xerox State Healthcare for The New Jersey Division of Medical Assistance and Health Services.

higher for the nursing facility population, which is expected given the often more fragile health of these MLTSS enrollees. Hospitalizations for the HCBS MLTSS population declined from 4.6% of enrollees in the first quarter after implementation to slightly below 3% in the next two quarters. ED use among HCBS enrollees appeared to decline in the third quarter of implementation.

Use of Self-Directed MLTSS Services. Self-directed services are those where consumers receive a cash budget based on assessed needs which they can use to purchase goods and services or hire workers. For MLTSS, services available for self-direction include personal care assistance (PCA), chore services, non-medical transportation (e.g., shopping, religious services, etc.) and home-based supportive care (e.g., grocery shopping, money management, housekeeping). The opportunity to self-direct PCA services has been available since 1999 for all those receiving state plan services, though enrollment grew with the movement of PCA to managed care in 2011. MCOs are required to inform members of the option to self-direct. With the inception of MLTSS in July 2014, the PCA rate was reduced from \$15.50 per hour to \$15.00 per hour, leading to a reduction in purchases of goods and services and an increase in the proportion of the budget going toward worker pay. Horizon's members constitute 61% of self-directed service users. An estimated 5.3% of Horizon's MLTSS members use self-directed services. This is the largest percentage of all MCOs, though the three other MCOs who were active at implementation are close behind.

Network Adequacy. For MLTSS services, MCOs are required to have at least two providers for each home and community-based service (other than community-based residential alternatives). For services provided in members' residences, the provider does not need to be located in the member's county but must be willing and able to serve residents of that county. MCOs submit network files (including MLTSS providers) on a quarterly basis to DMAHS, which reviews them for potential gaps in coverage. In addition, MCOs report any potential gaps in coverage and the action they are taking to mitigate impacts on members during regular conference calls with the State. Should there be a gap in services for a member, MCOs will complete a single case agreement with a nonparticipating provider and/or arrange for transportation to a participating provider in a contiguous county. GeoAccess reports were not provided by DMAHS for MLTSS services. MCO-reported grievance information covering all of 2015 shows 12 instances of difficulty obtaining access to MLTSS providers. We are not sure of the comprehensiveness of this information.

For the 17 acute care services shown in the GeoAccess report, there are only very slight differences among the MCOs, with all reporting 99% or higher levels of access overall. Services with less than 99.9% coverage (averaged among all MCOs in all counties served by the MCO) include hospitals, general dentists, and both adult and pediatric primary care physicians. Rates

are generally 75% or higher, with only 10 instances in 7 counties of a rate for any provider below 80%.

The accuracy of provider directories, on which these data are based, has been questioned nationally and in New Jersey. A recent examination notes that New Jersey is among the most stringent group of states with respect to provider directory requirements.

Policy and Administrative Changes. As of the end of 2015, almost 900 beneficiaries had set up *qualified income trusts* (QIT), which allow clinically eligible individuals whose monthly income is above 300% of the SSI rate (recently \$2,199) to spend down their resources on long-term supports and services (HCBS or nursing facility) to become eligible for Medicaid. Prior to the comprehensive waiver, this was only available for nursing facility residents (a medically needy designation), which may have led people who could not afford to pay the full cost of HCBS care themselves into nursing facilities at a higher cost to the state.

Self-Attestation of Asset Transfer. Another policy/administrative change with the comprehensive waiver involved allowing individuals under 100% of the federal poverty level who are applying for long-term care to self-attest as to whether or not they have transferred assets in the past five years, rather than undergoing a detailed examination of all of their assets over this time period—a process that is burdensome for government staff as well as individuals who are applying. As of the end of 2015 approximately 627 individuals had utilized the self-attestation process.

Discussion

This chapter discussed a number of positive trends or indications regarding New Jersey's Managed Long Term Services and Supports program.

- The percentage of enrollees served in home and community settings has grown since implementation, from 27% in July 2014 to 35% in January of 2016. This may indicate progress in serving consumers in their preferred setting.
- An examination of the current setting of former enrollees shows that the majority who transitioned from the former §1915(c) home and community based services (HCBS) waivers remain in community settings, with only about 8% having transitioned to nursing facilities as of March 2016.
- Timeliness of nursing-facility level of care assessments, which are required for people to enroll into MLTSS, continues to trend upward. The state has taken a proactive approach in training MCO assessors to prevent state assessors from having to do a second assessment to facilitate enrollment, and has placed a requirement into the managed care contract that a target percentage of MCO assessments must meet approvable standards.

- External quality review organization results from two audits of MCO care plans for individual MLTSS enrollees in the first year of MLTSS showed improvement on two of four items measured. One item that showed a small decline was high initially; the other was contested as to audit file selection.
- MCO-reported critical incidents (unaudited) appear to affect a small number of members and to be reported in a timely fashion.
- MCO-reported appeals, grievances and complaints (unaudited) appear to affect a small number of members and appear realistic when compared with other indicators of member disputes (i.e., to the limited extent that it is possible to examine, we do not see any evidence that MCOs are underreporting appeals, grievances and complaints).
- MCO-reported appeals, grievances and complaints (unaudited) appear to be investigated within a timely manner. Most appeals appear to be upheld by the MCO, rather than overturned.
- The limited information presented on service reductions (unaudited MCO reports, one quarter) indicates that such reductions affect a small number of enrollees. Most are not appealed in any way.
- One MCO that had a high number of Fair Hearing Outcomes posted 2015 relative to other MCOs appears to be trending downward in 2016 (though this is difficult to say with certainty as the numbers are small and subject to variation, and cases may be withdrawn before an outcome is posted).
- MCO-reported hospital and ED use for MLTSS enrollees has been stable or declined over the first three quarters of MLTSS implementation.
- Close to 5% of MLTSS enrollees are using self-directed services, and enrollment continues to grow.
- Network adequacy for 17 acute care services, defined as the percentage of members with access to the service or provider, averages 99% overall and is generally 75% or higher (exceptions are for hospital services in some areas where an MCO does not contract with a nearby hospital).
- Network adequacy information for MLTSS services has not been provided publically, but MCO-reported grievance information appears to show, at most, 12 cases during 2015 of problems accessing MLTSS providers. We are uncertain of the comprehensiveness of this information.
- Policy/administrative changes put into place with MLTSS have allowed members to access services they would not have otherwise (qualified income trusts allow those slightly above Medicaid income limits to spend down for either HCBS or nursing facility services) and reduced the administrative burden for government staff and members (self-attestation).

Other findings we present are neutral:

- The percent of MLTSS members with a nursing facility admission during the first year provides a baseline against which other years can be compared.

We will continue to monitor MLTSS-related data for our final evaluation. There are limitations to many of the findings, and some findings raise questions or potential concerns:

- The measures we examine in this chapter are not adjusted for member health conditions or levels of social support, making it difficult to know if MCO efforts are driving differences in performance versus underlying effects intrinsic to members that MCOs cannot change.
- We do not know the actual effects on consumers of many of the findings in this chapter. The forthcoming NCI-AD results may shed light on many of these issues.
- Timeliness of enrollment—the various timeliness measures do not tell us how long people are waiting from the time an LTSS need is identified until they are actually enrolled in MLTSS. This time is difficult to measure, but it is important to establish HCBS care quickly to stabilize people’s health and prevent progression to a higher level of care where possible.
- There is limited information regarding service reductions to MLTSS members. This is a topic about which there is a good deal of stakeholder concern. The limited information presented so far suggests that reductions are not extensive—more regular reports could confirm this.
- External appeal data reported by DOBI may indicate an increase in appeals related to denials of private duty nursing with the implementation of MLTSS. The information so far is not certain, but we will watch for further developments regarding appeals of MLTSS services.
- State hotline data on consumer/provider complaints—we have heard about other potential sources of consumer or provider complaints beyond those we have explored in this chapter. We will continue to monitor for additional sources of data we should be considering.
- Regarding network adequacy:
 - Network adequacy for MLTSS services has not been reported publically, though MCOs are required to report this information to the state, which reviews it for any coverage gaps. MCOs are required to address gaps by doing single case agreements with nonparticipating providers or providing transportation to a participating provider. We do not know the extent to which this occurs. MCO-reported grievance information appears to show, at most, 12 instances of problems reported with accessing MLTSS providers. We will check on the comprehensiveness of this information.
 - There are some acute care provider shortages that may affect the ability of some MLTSS members to access care (hospitals, general dentists, and adult and pediatric primary care physicians). Some of these shortages are due to a lack of providers in certain geographic areas related to larger industry and economic issues.

- The accuracy of MCO provider directory information has been questioned nationally and in New Jersey. Though New Jersey is among the states with the strictest standards, we will continue to monitor developments in this area.

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Chapter 3: Analysis of Medicaid Claims Data to Examine Access to Care, Quality, and Cost of Care for the Baseline and Early Demonstration Period

Introduction

In this chapter, we assess the impact of the expansion of managed care to Long Term Services and Supports (LTSS) and behavioral health (for selected LTSS-eligible populations) by examining measures of access to care, quality of care, and cost of health care for NJ Medicaid beneficiaries calculated from Medicaid fee-for-service (FFS) claims and managed care encounter data over 2011-2014. We examine the effects of the policy change on the targeted LTSS-eligible population, and we also examine potential changes in the quality of care for the entire managed care population as a result of this expansion in the services. All effects are identified by examining changes in selected quality metrics from the pre- to the post-implementation period of the MLTSS program.

Our research strategy is guided by the Division of Medical Assistance and Health Services (DMAHS) Quality Strategy (DMAHS 2014b) which includes quality issues relevant to the expansion in managed care and more generally, guides the State's healthcare monitoring, assessment, and improvement efforts for all Medicaid managed care services. The following goals are put forth in the Quality Strategy:

- To improve timely, appropriate access to primary, preventive, and long term services and supports for adults and children;
- To improve the quality of care and services;
- To promote person-centered health care and social services and supports;
- To assure member satisfaction with services and improve quality of life.

These goals align with the specific evaluation hypothesis and research questions enumerated in the waiver Special Terms and Conditions document (CMS 2014) relating to the managed care

expansion. These evaluation aims guide our selection, analysis, and presentation of metrics in this chapter⁷¹:

Hypothesis 1: "Expanding Medicaid managed care to include long-term care services and supports will result in improved access to care and quality of care and reduced costs, and allow more individuals to live in their communities instead of institutions.";

Research Question 1a: "What is the impact of the managed care expansion on access to care, the quality, efficiency, and coordination of care, and the cost of care for adults and children?"

Research Question 1b: "What is the impact of including long-term care services in the capitated managed care benefit on access to care, quality of care, and mix of care settings employed?"

To answer and address these research questions, we examine changes over time of specific metrics for the overall Medicaid and Medicaid managed care populations. Examining potential changes across all managed care beneficiaries examines overall adherence to the Quality Strategy by Medicaid managed care organizations (MCOs) undertaking the MLTSS reforms and provide the evidence needed for answering Research Question 1a. These findings also supplement those presented in Chapter 1. We also examine selected metrics for specific groups of Medicaid beneficiaries targeted by the managed care expansion. These are groups of long-term care (LTC) beneficiaries meeting an institutional level of care and residing either in a nursing facility or in their homes and communities under the former §1915(c) waiver programs or, after July 1, 2014, under MLTSS. These subpopulation analyses supplement the findings presented in Chapter 2 and provide the evidence needed for answering Research Question 1b.

In contrast to Chapters 1 and 2 where the data come from secondary sources, here we calculate selected metrics using Medicaid claims data for populations of Medicaid beneficiaries, including the LTC population, and additionally those who had a behavioral health (BH) diagnosis. Stratification of quality metrics to these specific subpopulations contributes to answering Research Questions 1a and 1b and more generally, Hypothesis 1. These results thus examine any indirect effects of MLTSS implementation on the quality of care for the overall Medicaid managed care population, and additionally, the direct effects of the MLTSS policy on the LTSS-eligible population that includes effects from integration of physical, behavioral, and long-term care services under MCOs. Further, the findings establish a pre-implementation⁷² baseline period for

⁷¹ Separate from this report we have also presented findings from stakeholder interviews that sheds light on member satisfaction and potential provider and payer issues that may not be captured in some of the claims-based metrics. Member satisfaction related to the overall managed care population is also analyzed in Chapters 1.

⁷² It was not until July 2015 when an Interim Managing Entity for addiction services was operationalized.

the reforms in behavioral health care delivery (for populations outside MLTSS) authorized under the Waiver and falling under the purview of Hypothesis 1.

Broadly, this chapter is divided into two sections. Section A contains tables with annual estimates of selected quality metrics. Section B contains multivariate regression analyses that use statistical techniques such as Segmented Regression Analysis and Difference-in-Differences Modeling (see Methods section for details) to account for individual, geographic and provider characteristics while identifying the impacts of the managed care expansion under the Waiver.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid FFS claims and managed care encounter data for January 1, 2011 through January 31, 2015. We used recipient and claims-level information to allow for stratification of quality metrics to relevant subpopulations. All utilization and spending estimates reflect claims adjustments and updates through 6 months from the date of service.

Metrics

The metrics in this chapter are monthly, quarterly or annual estimates over the period 2011–2014⁷³ and can be broadly organized into several categories of outcomes: avoidable hospital use reflecting inadequate quality of ambulatory care; hospital readmissions that may reflect inadequate inpatient and outpatient care as well as gaps in care coordination; and rates of follow-up care in the post-acute phase that may reveal gaps in care coordination or care transition. We also examine spending relating to hospital use overall, avoidable hospital use, and total spending by the LTSS-eligible population. We examine whether the share of this last category of spending between community-living beneficiaries and those staying in nursing facility changes over time focusing on specific components of spending such as those relating LTSS services and avoidable/preventable hospitalizations. These cost trends illustrate savings potentially realized from increased efficiencies in care delivery and assess progress in rebalancing spending from institutions to the community under MLTSS. Appendix A contains additional details on each of these measures.

Table A outlines the broad categories of metrics calculated using the Medicaid FFS claims and managed care encounter data. Metrics 1-4 are population-based and rates are assessed per unit

⁷³ While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

population. Metrics 5-7, on the other hand, are based on index events that arise in a hospital setting. Metrics 8-11 measure costs and are assessed overall and per unit population.

Table A: Metrics related to quantitative evaluation of Hypothesis 1

	Metrics	Description/Motivation
	Utilization	
1	Prevention Quality Indicators (ages 18+)	Ambulatory care sensitive hospitalizations by adults that reflect inadequate community-level care.
2	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.
3	Avoidable emergency department (ED) visits (all ages)	ED visits that occur due to inadequate access to primary care.
4	Hospital utilization (all ages)	Inpatient and hospital emergency department utilization.
5	30-day readmissions (ages 18+)	All-cause unplanned readmissions following all hospital admissions and following hospital admissions specifically for heart failure, pneumonia, and acute myocardial infarction. All of these may reflect gaps in inpatient care and/or care coordination following discharge.
6	Follow-up after hospitalization for mental illness (ages 6+)	Follow-up with a mental health practitioner within 7 days and 30 days of an acute care hospitalization for mental illness.
7	Ambulatory visit 14 days after discharge (all ages)	Follow-up with a health practitioner after a hospital stay for medical reasons.
	Cost/Spending	
8	Cost related to avoidable hospitalizations and ED visits	Assesses potential savings by avoiding preventable hospital utilization.
9	Costs related to all inpatient hospitalizations and ED visits	Assess the effects of the managed care expansion on acute care spending overall.
10	Long-term care spending in community and nursing facilities	Spending ratio assesses whether there is rebalancing of resources from the institutional setting to the community.
11	Total spending	Assess any effects on spending including long-term care, non-long-term care, avoidable and non-avoidable.

Table B enumerates the populations for which the above metrics are calculated. It also provides a brief description of the purpose of each population stratification with additional details on definitions and motivations for the stratifications in the narrative below.

Table B: Medicaid populations related to evaluation of Hypothesis 1

Populations	Purpose/Motivation for Inclusion
All beneficiaries	Examine overall trends in quality and costs for the entire Medicaid population.
All managed care (MC) beneficiaries	Examine trends in quality and costs for all beneficiaries in managed care.
Specific Eligibility Categories <ul style="list-style-type: none"> - Aged/Blind/Disabled (ABD), - NJ FamilyCare, - General Assistance (GA), - Children’s Services, - All Other Eligibility Categories 	Eligibility categories offer a natural stratification for metrics based on age (e.g., Children’s Services), disability-impacted health (e.g., ABD), or age and income (ABD, GA) for determining how trends vary based on these beneficiary characteristics.
Beneficiaries with behavioral health conditions	Examine quality of care for these beneficiaries since behavioral health care is carved into MCOs under MLTSS. Additionally, the demonstration plans to transition behavioral health services for all Medicaid beneficiaries out of FFS to management under an ASO.
Long-term care (LTC) beneficiaries	Examine quality and costs of care for beneficiaries directly impacted by the MLTSS demonstration program.
LTC beneficiaries residing in a nursing facility	Examine quality and costs of care for institutionalized long-term care beneficiaries undergoing a modified transition to MLTSS and remaining FFS until the transition is triggered.
LTC beneficiaries receiving home and community-based services (HCBS)	Examine quality and costs of care for community-residing beneficiaries transitioning to MLTSS under the Comprehensive Waiver. This population is comprised of the original §1915(c) waiver populations who had their acute care transitioned to MCOs in 2011 and any individuals joining MLTSS on or after July 1, 2014 and residing in their homes or in the community (assisted living).

Population Definitions

Medicaid Eligibility: Beneficiaries with any period of active enrollment in a particular year, as indicated by the effective dates of their Program Status Codes, made up the beneficiary cohort for that year. If there was any period during the year when the beneficiary had a managed care plan code, the beneficiary was considered part of the managed care population for that year. Assignment to eligibility categories was based on the protocol used for Medicaid’s monthly public reporting. Using the first program status code in the calendar year along with age and any concurrent special program codes, each beneficiary was assigned to one of the following categories: Aged/Blind/Disabled, NJ FamilyCare, Children’s Services, General Assistance,⁷⁴ and Other. Classification into these eligibility groups will allow us to consider differing beneficiary

⁷⁴ In 2014, adult beneficiaries enrolling as part of the statewide Medicaid expansion under the Affordable Care Act are classified in the General Assistance eligibility category.

characteristics while assessing the impact of the Waiver on Medicaid beneficiaries overall during the demonstration period.

Long-Term Care Population: The Waiver combined several §1915(c) waivers serving people in the community with care needs at an institutional level into MLTSS. The largest historical §1915(c) waiver, Global Options (GO), had served older adults, and three smaller waivers included or targeted younger individuals. The Traumatic Brain Injury (TBI) waiver included people diagnosed with acquired brain injury after age 21 but before age 65. Community Resources for People with Disabilities (CRPD) served individuals of any age, including children, and the AIDS Community Care Alternatives Program (ACCAP) waiver served individuals of any age with AIDS and children under the age of 13 who were HIV positive. In addition to bringing these populations under the MLTSS umbrella, the Waiver also required new entrants to nursing facilities to enroll in MLTSS (residents of nursing facilities at the time of MLTSS implementation remain in a fee-for-service arrangement unless they have a change in the status of their level of care).

We developed an algorithm for defining the LTC population and designating each LTC beneficiary as either part of the nursing facility or home and community-based LTC population.⁷⁵ This was done on both an annual and monthly basis. The annual assignment results in a more stably defined cohort⁷⁶ and is used in descriptive tables of metrics by year. The monthly assignment is more refined, capturing transitions between different statuses within a year and allowing a more granular categorizing of claims and associated spending for a beneficiary at the time of service delivery. The monthly assignment is used in statistical models. The algorithm for these assignments is detailed in Appendix D.

In both enrollment volume and beneficiary characteristics (e.g. age, health), the original §1915(c) waiver programs (CRPD, ACCAP, TBI, or GO) were distinct. While the original waiver under which HCBS beneficiaries were entitled to services could be identified in 2011-2013, these distinct categories ceased to exist when MLTSS went into effect on July 1, 2014. In order to examine whether there were different trajectories of quality or spending for these four original populations across the interim study period, we isolated a cohort of §1915(c) waiver enrollees by their status in January 2014 and present some metrics for all years for this cohort (as allowed by sample size).

⁷⁵ The LTC population evaluated in this report does not include PACE enrollees or individuals with developmental disabilities residing in developmental centers or receiving services under the Community Care Waiver, which was carved out of MLTSS. It includes only the MLTSS-eligible populations.

⁷⁶ This implies that a LTC-eligible beneficiary who received HCBS services for a small period during the year but was a NF resident for the most of the year would be designated NF resident for that year.

Behavioral Health Conditions: In order to assess coordination of behavioral and physical health services occurring as part of the managed care expansion under the Waiver, we defined the cohort of beneficiaries in each year with a BH condition. Using the 2014 AHRQ clinical classifications software (CCS), we scanned all claims for a diagnosis of mental health condition or substance use disorder (see Appendix A and Appendix E for additional details). Beneficiaries with any claim flagged using this methodology were considered part of the BH population in the year of the diagnosis.

Metric Definitions: Inclusion and Exclusion Criteria

Each metric has inclusion and exclusion criteria specified by the measure steward. If not already part of the metric specification, we imposed on all metrics (except for total and LTSS/non-LTSS spending) the requirement that a claim was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Costs

Data on costs come from the payment fields in the Medicaid claims data. We only tabulated costs to Medicaid and Medicaid HMOs incurred via direct payment for services. Payments made by Medicare or from any other source are not included. Capitation payments, which include costs for the organization and procurement of services, are also excluded from totals. Costs for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All costs were inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippey 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015, 165).

Costs for LTSS were collected from both FFS and encounter claims for beneficiaries included in the LTC population (as defined above) for the time of their LTC assignment (which may be monthly or annual depending on analysis). Facility costs were counted from NF FFS claims across the entire study period, and NF encounter claims with a specific custodial revenue code were counted after July 1, 2014. Costs for community-based LTSS were counted on claims having LTSS

service codes as described in the MLTSS Service Dictionary (DMAHS 2014a) and enumerated in the spreadsheet of uniform billing codes shared with us by DMAHS.^{77,78}

Reporting Criteria

For Metrics 1-4 and 8-11, which are population-based rates, denominators and estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining metrics (5-7), denominators and estimates are suppressed when denominators are less than 30.

Analytic Approach

In Section A we calculated and present mostly annual estimates to examine time trends in utilization and spending-related metrics over the period 2011-2014. Specific metrics include annual rates of inpatient hospitalizations and ED visits, rates of avoidable/preventable hospitalizations and ED visits, readmission rates, rates of follow up and ambulatory visits after hospitalization. We also examine categories of spending including that associated with hospital encounters, avoidable/preventable hospitalizations and LTSS-related spending among the nursing facility residents, and community based long term care individuals receiving home and community-based services.

In addition to annual estimates, for examining changes in the share of spending by the LTSS-eligible population between HCBS and NF, we examined monthly estimates of overall spending, LTSS spending, and non-LTSS spending identifying the component related to avoidable/preventable hospital use.

In our discussion of descriptive findings we will focus on the 2014 annual estimates to examine the effect of the MLTSS program on LTSS-eligible beneficiaries or the overall managed care population. The subgroups of interest in regard to Research Questions 1 and 2 will be the overall group of managed care beneficiaries and the HCBS population that shifted to managed care on July 2014.

It is important to note that for descriptive analyses, observed variation for the metrics between two points in time might sometimes be the result of outliers in the data, small sample sizes within certain subpopulations, or changes in characteristics of the beneficiary population.

⁷⁷ An earlier version of this spreadsheet is included on the DMAHS website among its MLTSS Resources for Consumers, Providers, and Stakeholders.

http://www.nj.gov/humanservices/dmahs/home/MLTSS_Code_Crosswalk_Old_to_New.pdf.

⁷⁸ Medical day care and personal care assistance were both State plan long-term care services that remained unchanged under MLTSS and so were not included in the service code crosswalk spreadsheet. However, we did include costs for these services in our LTSS spending tabulations across the study period.

In Section B, we report findings from multivariate regression analysis conducted to isolate and identify the effect of the managed care expansion policy on the stated outcomes (after adjusting for patient, provider and area-level characteristics). We primarily utilize two statistical techniques, namely Segmented Regression Analysis (SRA) (Wagner et al. 2002) and Difference-in-Differences (DD) estimation (Chakravarty et al. 2015; Ashenfelter and Card 1985) to determine any statistically significant effect of these policies on outcomes. Each statistical technique is distinctively suited to answer one of the two research questions under Hypothesis 1. The SRA is utilized to examine Research Question 1a and the DD is utilized to examine Research Question 1b.

For examining the effect of the MLTSS program on the overall managed care population we utilize the SRA. Such a model assumes that the policy effect leads to a change in level, and also a change in the existing time trend of the metric measuring quality or any other relevant outcome of interest. For our analysis examining the effect of the MLTSS policy on the overall managed care population, we utilize the model described in equation (1)

$$\begin{aligned}
 Y_{it} = & \beta_0 + \beta_1(\text{time})_t + \beta_2(\text{waiver post})_t + \beta_3(\text{waiver time})_t \\
 & + \beta_4(\text{expansion post})_t + \beta_5(\text{expansion time})_t + \beta_6(\text{MLTSS post})_t \\
 & + \beta_7(\text{MLTSS time})_t + \gamma X_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{1}$$

Here, Y_{it} reflects the outcome related to the i^{th} managed care enrollee at time t . On the right hand side of the equation, time is a continuous variable indicating time in months (or in some cases calendar quarters) from the start of the study period. The variables *waiver*, *expansion* and *MLTSS* are indicator (0/1) variables for the period subsequent to these policy changes. The variables *waiver time*, *expansion time* and *MLTSS time*, are continuous variables equaling the number of months (or quarters) after the corresponding policy change. Coefficient β_0 estimates the baseline level of the outcome at the first time period, and coefficient β_1 indicates the baseline trend, i.e., the change in the outcome that occurs prior to the first policy change. Coefficients β_2 , β_4 and β_6 estimate the level changes after each of the policy changes i.e., start of the waiver, the Medicaid expansion, and the MLTSS implementation in October 2012, January 2014 and July 2014 respectively. Similarly β_3 , β_5 , and β_7 estimate the change in trend in the outcome after each of these changes. The specification detailed above, while examining the change in outcome due to the MLTSS program, is able to identify changes in outcomes that may have occurred due to the waiver implementation or the Medicaid expansion and isolate those effects from that of MLTSS implementation.

In this model, the specific effect of the MLTSS program on the overall managed care population is given by the magnitude of β_6 that gives the change in level and β_7 that gives the change in trend after the MLTSS implementation and we further test whether these values are statistically significant. Accordingly in our results section, we report the magnitudes of these two coefficients and their joint statistical significance. Lack of significance will indicate that the effect of the MLTSS implementation while not necessarily zero in magnitude is not statistically credible. For interpretability purposes, we further compare predicted values of outcomes post-MLTSS with counterfactual values (that simulate a scenario where the MLTSS implementation did not occur by setting the MLTSS variables to zero in our regression analysis). The line graphs are reported for each of outcomes in the results section. We will see that each line graph bifurcates into two after June 2014 one providing the values with MLTSS implementation and the other for the counterfactual scenario without MLTSS implementation.

While examining these effects we adjust for patient characteristics that are represented by the variable X_{it} . We incorporate hospital fixed effects (to account for time-invariant differences across hospitals) for inpatient quality-based measures and zip code fixed effects (to account for time-invariant measures across geographic locations) for measures reflecting ambulatory care. ε_{it} is the random error term utilized in such regression analysis and that governs the statistical distribution of the outcome variable.

For examining the effect of the MLTSS implementation on the community-based population receiving HCBS services, which was also the population primarily impacted by the change in the short run,⁷⁹ we utilize the DD regression model. We define a comparison group to this population comprised of individuals who are not NF residents and are categorically eligible for Medicaid (i.e. Aged, Blind, or Disabled). The DD estimation process examines changes in outcome for the HCBS population from the pre- to the post-MLTSS implementation period and compares this change to the comparison group. Such an estimation strategy is able to identify changes in outcomes that are due to program impact and distinct from secular trends. It accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other do not change over time. Equation (2) illustrates the general DD specification.

$$Y_{it} = \beta_0 + \beta_1(HCBS)_i + \beta_2(post\ MLTSS)_t + \beta_3(HCBS_i * post\ MLTSS_t) + \gamma X_{it} + \varepsilon_{it} \quad (2)$$

The variable Y_{it} represents the utilization or cost-based outcomes enumerated in Table A for the i^{th} patient at time t. Post MLTSS is an indicator (0/1) variable that identifies the period starting July 2014. HCBS indicates if the individual was LTSS-eligible (due to requiring a NF level of care)

⁷⁹ Existing NF residents continue to have their services covered by the FFS system until they experience specific triggers related to acute care events. New NF residents will be under MLTSS.

and living in the community receiving HCBS services. In this model, β_3 is the DD estimate measuring the program impact. X_{it} is a vector of other control variables relating to the patient, and ε_{it} represents the random error term.

THE DD approach assumes that there are no unmeasured factors due to which the outcomes would change relatively between the intervention and comparison groups. If this assumption is not fulfilled and the two groups have differential trends, the effect size includes this difference over time. Accordingly, we test to see whether there existed significant differences in trends between the HCBS and comparison group prior to MLTSS implementation. If this difference is in the same direction of the DD estimate, and of comparable magnitude, that would imply that the DD model may be overestimating the effect.

As before, we incorporate hospital fixed effects for inpatient quality-based measures and zip code fixed effects for measures reflecting ambulatory care. We also include indicator variables to distinguish the pre-implementation period into pre-waiver, post-waiver, and post Medicaid expansion periods.

In our findings section we first report the unadjusted DD estimate. This is based on the difference between the pre-post change in the HCBS population and the pre-post change in the comparison group. We follow this with the adjusted difference that estimates the policy effect after accounting for patient and provider or geographical characteristics. This corresponds to the coefficient of the regression interaction term between HCBS and post-MLTSS. The magnitude of this interaction term is reported along with its statistical significance. In the footnote to the table, we note if the pre-trends between the HCBS and comparison group are significantly different.

For index-event based metrics, (Metrics 5-7) the vector of patient characteristics includes individual-level control variables such as beneficiary elderly status (age 65 and older), sex, and health status. For the non-readmission metrics in this group (*Follow-up after Hospitalization for Mental Illness* and *Ambulatory Visit 14 Days after Discharge*), the measure of health status used was a categorization of the diagnosis-based Chronic Illness and Disability Payment System (CDPS) risk score that measures disease diagnoses and burden of illness with higher values indicating greater disease burden. For readmission metrics we used the full set of risk-adjustment variables that are defined by the 2014 CMS methodology related to Risk Standardized Readmission Rates (QualityNet 2016). Appendix F lists all the risk-adjustment variables for each of the readmission outcomes.

When modeling population-based metrics (Metrics 1-4, and 8) at the person-quarter level, the vector of patient control variables includes beneficiary sex, elderly status (age 65 and older), and

number of days enrolled in Medicaid during the quarter. We also account for any change in disease diagnoses and burden of illness over time within the analytic population by adjusting for the CDPS risk score category for each individual.

Our estimation procedures were conducted using STATA MP 14 or SAS Enterprise Guide 7.11 software.

Results

Section A

In this descriptive analysis section, we examine our quality measures for the overall group of Medicaid beneficiaries and specific subgroups related to eligibility or place of service.

These findings will document differences across subgroups, and also differences across time. We will highlight notable differences in estimates over the years. Our primary focus would be on any substantive changes in these estimates during 2014, the year when the MLTSS implementation took place compared to the previous years. We will also highlight specific subgroups of beneficiaries where these estimates are disproportionately high. While that does not directly relate to our first order objective of examining changes in outcomes over time to identify the policy effect, documenting specific populations where spending is high or quality of care is low informs policy formulation and identifies follow up areas for our final evaluation report, an year after this interim report.

Table 3A.1 reports the percentage of NJ Medicaid beneficiaries who were MC enrollees at some point during the calendar year. While the NF residents remained FFS until the implementation of MLTSS in July 2014, mandatory enrollment into an MCO for acute care services became effective for the HCBS population (existing and new entrants) in late 2011. This is reflected in the higher percentage of managed care enrollment in this population in 2012 (95%) compared to the previous year. Among NJ beneficiaries overall and among managed care enrollees those enrolled in NJ Family care accounted for the greatest share. This was followed by those in the ABD category for 2011-2013. In 2014 there is an increase in the share of the General Assistance (GA) category that included the Medicaid expansion population from that year.

It is also important to note that the residual 'other' category comprising all other eligibility categories accounted for less than half percentage point of the overall Medicaid population. Because of its small base, we will not consider this category while making comparisons in metrics between different eligibility categories.

Table 3A.2-3A.9 report rates of avoidable inpatient hospitalizations and primary care avoidable/preventable ED visits per 10,000 population. Rates of hospitalizations per 10,000 population are reported for all Medicaid beneficiaries, the managed care population, for the LTC population, and beneficiaries with a behavioral health condition.

In 2014, avoidable inpatient hospitalization rates were the highest among the long-term care population with a behavioral health (BH) condition, especially those with a BH condition receiving HCBS (744 per 10,000 beneficiaries; Table 3A.3). However, this rate decreased from 2013 to 2014. High rates are also observed in the ABD population (367; Table 3A.2), the long term care population especially those receiving HCBS services in the community (581) and among all beneficiaries with BH conditions (352; Table 3A.2).

The GA and the ABD population in managed care had the highest rates of avoidable ED utilization. Avoidable ED rates among the LTC population were much lower, roughly half the overall Medicaid rate (Tables 3A.4 and 3A.5).

Figure 3A.1 examines the trend in avoidable hospitalizations for the overall population of Medicaid managed care beneficiaries and the HCBS population. We see that rates in 2014 were the lowest among the four years. However, this may be driven by the decreasing trend in the rates of such utilization that started in 2012 and thus, may not be attributable to the 2014 MLTSS policy effect.

Tables 3A.6-3A.7 document rates of specific types of preventable hospitalizations including those relating to diabetes, COPD/asthma, hypertension, heart failure, dehydration, bacterial pneumonia and urinary tract infection.

Tables 3A.8-3A.9 report rates of pediatric avoidable hospitalizations. These are substantially lower than the rates among adults, with the pediatric rate equaling one-eighth of the adult rate for all Medicaid beneficiaries and Medicaid managed care beneficiaries. For the LTC population, the pediatric rate of avoidable inpatient hospitalizations was one-seventh the rate among adults.

Tables 3A.10-3A.11 report inpatient and ED utilization rates per 10,000 beneficiaries. In 2014, the ABD group had the highest rates of inpatient and ED utilization among the different eligibility groups (except for the 'other' category). The long term care population had a substantially higher rate of inpatient utilization compared to the overall Medicaid rate (2,770 versus 797 per 10,000 beneficiaries), but had a slightly lower rate of ED utilization compared to Medicaid beneficiaries overall (3,381 versus 4,961 per 10,000 beneficiaries).

Figure 3A.2 exhibits the trends in these rates for the overall managed care population and separately, the HCBS population. We see a sharp decrease in ED visit rates from 4,942 visits per 10,000 population in 2013 to 4,170 per 10,000 population in 2014 for the HCBS population.

Tables 3A.12-3A.14 report annual levels of total spending per person, and also avoidable and overall hospital spending per person for the years 2011-2014. The ABD eligibility group enrolled in managed care has the highest per-person avoidable spending (\$238) and also overall hospital spending (\$1481) in 2014. Also among managed care enrollees, the ABD category also has the highest overall per-person spending, \$16,246 per beneficiary in 2014.

Figure 3A.3 examines trends in different categories of hospital and overall spending over 2011-2014 among all Medicaid beneficiaries. We find that total spending per beneficiary decreased sharply from \$5,744 in 2013 to \$5,164 in 2014. This was brought about by an equivalent decrease in non-hospital spending. Hospital-based spending per beneficiary remained at the same level from 2011-2014.

Table 3A.15 examines avoidable hospital costs by LTC beneficiaries in NF and in the community receiving HCBS services. Avoidable inpatient costs were higher than avoidable ED costs, per person. Around three quarters of total avoidable costs among the LTC population was incurred by NF residents. NF residents on average had higher avoidable costs per person in 2011 than the HCBS population (\$193 vs. \$145), but the difference was almost non-existent in 2014 (\$130 vs. \$129) largely due to a steeper decline in avoidable costs per person for the NF population.

Tables 3A.16 reports 30-day hospital-wide all-cause readmission rates as well as 30-day all-cause readmission rates after an index hospitalization for heart failure (HF), pneumonia (PN), and acute myocardial infarction (AMI) for Medicaid beneficiaries overall, for long term care eligible beneficiaries, and those with a behavioral health condition. Heart failure readmission rates were the highest among all readmission rates for every category and year except for the LTC population in 2014. In every category of readmission, and every year, beneficiaries with a BH condition had a higher readmission rate compared to those who were LTC-eligible and also Medicaid beneficiaries overall.

Tables 3A.17-3A.24 report these readmission rates for the different Medicaid eligibility groups and separately for NF residents and the beneficiaries receiving HCBS services among the LTC population. Figures 3A.4-3A.7 report trends in each type of readmission for the overall managed care population and the LTC HCBS population. We compare the change in readmission rates from 2013 to 2014 to the underlying trend between 2012 and 2013. For the overall managed care population, we find an improvement in quality reflected through AMI readmission rates. For the

HCBS population hospital-wide and HF readmission rates exhibited an improvement, but PN and AMI readmissions indicated worsening care.

Tables 3A.25-26 report rates of follow-up visit during the seven and thirty-day period following a mental illness hospitalization for beneficiaries in different Medicaid eligibility categories and LTC beneficiaries. Separate estimates for this metric were not generated for beneficiaries in nursing facilities since these beneficiaries may have follow-up care provided within the facility itself. For Medicaid beneficiaries overall, after declines over 2011-2013, rates of follow-up seven days and thirty days after discharge from a mental illness hospitalization start to pick up again in 2014. Tables 3A.27-28 report rates of ambulatory visit within 14 days of hospital discharge for these same beneficiary categories. Recognizing that ambulatory visit rates may vary depending on where the patient was discharged, rates of ambulatory visits are distinguished based on whether the patient was discharged to home, to a rehabilitation facility, or to another facility.

Figure 3A.8 exhibits rates of these two types of follow-up for all managed care beneficiaries, overall, and additionally for the LTC HCBS population. The noticeable trend is a decrease in ambulatory rate visits for HCBS population over the period 2011-2014. Specifically, the visit rate for patients discharged to home, decreased from 20% in 2013 to 13% in 2014. A decline over this period is also seen for the managed care population overall.

Table 3A.29 examines three quality metrics for a cohort of beneficiaries enrolled under one of the §1915(c) HCBS waivers in January 2014. Improvements in hospital-wide 30-day readmission rates are seen for CRPD waiver enrollees between 2013 and 2014, but not for those in the TBI or GO waivers. While declines in the rate of avoidable inpatient hospitalizations is evident between 2013 and 2014 for those in CRPD and GO, those in the TBI waiver again demonstrate a worsening of quality between 2013 and 2014, as do those in the ACCAP waiver. Qualifying index hospitalizations for mental illness are rare in these small cohorts, so trends in follow-up care cannot be examined through 2014.

Tables 3A.30 shows the total and per person LTSS, non-LTSS, and total spending for the LTC population. Total spending is higher for the NF population compared to the HCBS population and this is largely driven by their high LTSS spending. The share of LTSS spending has shifted slightly more towards the HCBS population over 2011-2014, but that same shift is not seen for non-LTSS spending.

Figure 3A.9 shows the proportion of total Medicaid spending on the LTC population attributable to the HCBS and NF populations on a monthly basis over the study period. Here we observe a slight increase in the proportion of HCBS spending from January 2011 to December 2014, but

that shift predominantly occurs prior to the MLTSS policy initiation in July 2014. A temporary increase in the NF share of spending is seen at the point of MLTSS implementation which subsequently erodes again to an increasing HCBS proportion.

Figure 3A.10 shows the amount (in millions of dollars) of total spending for the NF and HCBS populations. While spending on the NF population clearly makes up the largest proportion of total spending, overall spending has declined over the study period mostly as a result of declines in the magnitude of spending for the NF population, but again that decline is evident prior to the MLTSS policy initiation.

Figure 3A.11 shows the components of total spending by month over the study period for the NF and HCBS populations. Most of this spending is accounted for by NF LTSS (77.6% in December 2014). HCBS LTSS spending accounted for 11.1%. We see a slight decrease in the NF LTSS share and a slight increase in the HCBS LTSS share over the period 2011-2014. Spending related to avoidable hospitalizations accounted for less than 1% of overall spending.

Table 3A.1: New Jersey Medicaid population total enrollment and percentage in managed care, 2011–2014

	2011		2012		2013		2014	
	Total	% MC						
All Medicaid Beneficiaries	1,569,730	86%	1,581,262	88%	1,592,727	89%	1,954,216	90%
Aged/Blind/Disabled	319,150	80%	327,344	86%	332,339	89%	331,784	91%
NJ FamilyCare	1,120,576	95%	1,138,332	95%	1,153,344	95%	1,246,307	94%
General Assistance	88,495	8%	76,637	6%	67,955	6%	335,282	78%
Children's Service	34,519	66%	31,709	71%	31,959	71%	33,672	68%
Other	6,990	3%	7,240	3%	7,130	2%	7,171	21%
Long-Term Care Beneficiaries	49,912	37%	49,534	53%	49,337	63%	47,721	69%
Nursing Facility	37,009	20%	36,011	38%	35,384	50%	34,373	58%
HCBS	12,903	85%	13,523	95%	13,953	95%	13,348	99%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: MC=Managed Care; HCBS=Home and Community-Based Services.

Table 3A.2: Rates of avoidable inpatient hospitalizations per 10,000 adults by Medicaid eligibility category and among adults with a behavioral health condition

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	786,549	229	228	196	1,111,300	145
Aged/Blind/Disabled	293,507	530	521	439	304,909	367
NJ FamilyCare	391,159	53	46	41	459,258	42
General Assistance	88,489	41	32	25	335,274	89
Children's Services	6,424	23	19	63	4,705	26
Other	6,970	10	22	17	7,154	38
Managed Care	602,394	256	264	225	958,785	160
Aged/Blind/Disabled	231,027	566	565	471	276,360	387
NJ FamilyCare	360,855	57	50	44	416,400	45
General Assistance	6,861	363	339	296	261,384	104
Children's Services	3,446	38	27	92	3,157	38
Other	205	195	369	679	1,484	162

Medicaid Overall	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Behavioral Health Condition	237,715	553	510	440	321,604	352

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.3: Rates of avoidable inpatient hospitalizations per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,654	625	591	495	47,435	422
Nursing Facility	36,850	535	461	388	34,217	361
HCBS	12,804	886	938	767	13,218	581
With a Behavioral Health Condition	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	33,923	800	730	594	32,013	518
Nursing Facility	26,510	696	594	484	25,173	456
HCBS	7,413	1,170	1,174	966	6,840	744

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Rates are calculated per 10,000 adults age 18 and above.

Table 3A.4: Rates of avoidable emergency department visits per 10,000 population by Medicaid eligibility category

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	1,569,730	2,643	2,717	2,659	1,954,216	2,637
Aged/Blind/Disabled	319,150	3,308	3,334	3,146	331,784	2,973
NJ FamilyCare	1,120,576	2,677	2,745	2,703	1,246,307	2,658
General Assistance	88,495	458	387	313	335,282	2,388
Children's Services	34,519	1,482	1,544	1,527	33,672	1,436
Other	6,990	180	172	170	7,171	850
Managed Care	1,347,033	2,995	3,032	2,936	1,759,459	2,869
Aged/Blind/Disabled	255,504	3,819	3,691	3,418	302,743	3,178
NJ FamilyCare	1,061,569	2,803	2,871	2,818	1,170,882	2,801
General Assistance	6,863	4,838	4,702	4,344	261,391	2,878
Children's Services	22,889	2,144	2,127	2,143	22,955	2,076
Other	208	4,603	3,841	6,439	1,488	3,817

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

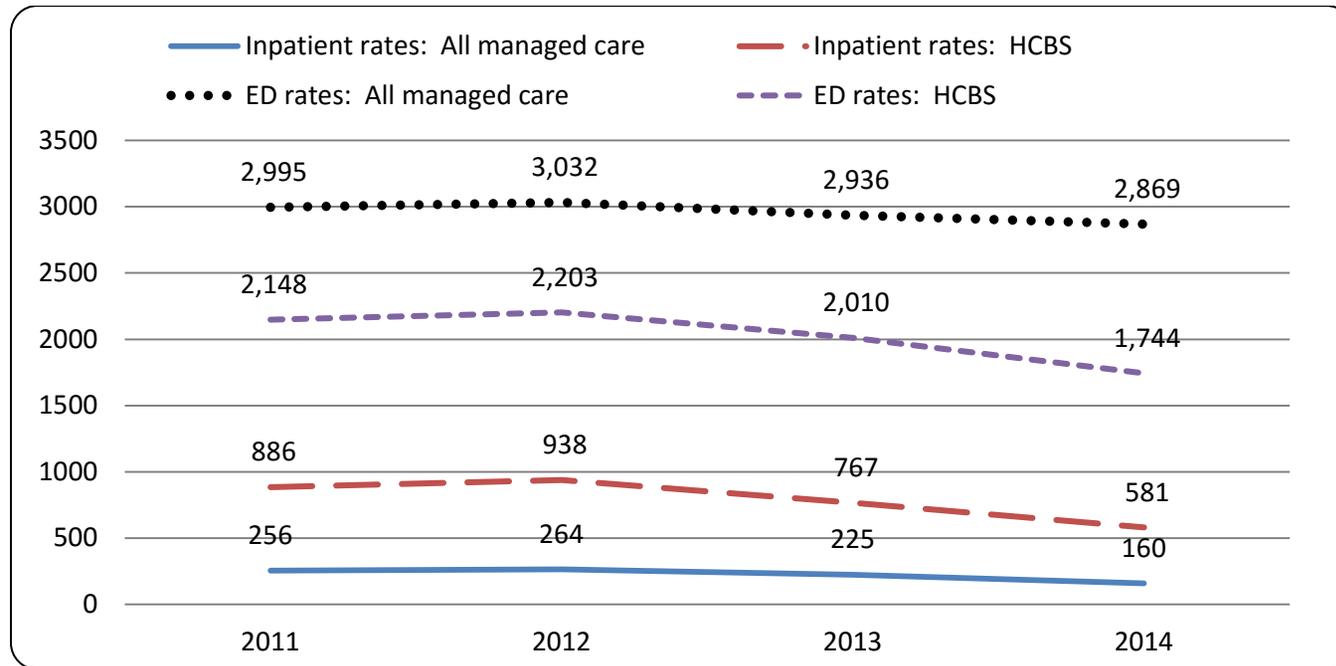
Table 3A.5: Rates of avoidable emergency department visits per 10,000 population among LTC-eligible populations

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	49,912	1,395	1,319	1,245	47,721	1,134
Nursing Facility	37,009	1,133	987	943	34,373	898
HCBS	12,903	2,148	2,203	2,010	13,348	1,744

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Figure 3A.1: Rates of avoidable hospital utilization per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
 Notes: HCBS=Home and Community-Based Services.

Table 3A.6: Rates of avoidable inpatient hospitalization components per 10,000 adults for Medicaid overall, Medicaid managed care overall, and adults with a behavioral health condition

	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	229	228	196	145	73	71	59	42	156	157	136	103
Behavioral Health Condition	553	510	440	352	180	163	133	102	373	347	308	250
Managed Care Overall	256	264	225	160	77	79	66	45	179	186	159	115

	Diabetes Composite ^a				COPD/Asthma Composite ^b				PQI 07: Hypertension			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	35	37	32	27	68	66	59	42	8	8	7	6
Behavioral Health Condition	84	84	75	67	177	159	143	114	17	16	14	14
Managed Care Overall	40	43	37	30	79	78	70	47	9	9	8	7

	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	42	44	36	26	16	13	10	7	32	31	27	18
Behavioral Health Condition	89	82	70	51	38	30	23	18	77	72	61	45
Managed Care Overall	47	51	42	29	16	14	11	8	34	35	31	20

	PQI 12: UT Infection				PQI 13: Angina			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	26	27	22	16	3	3	2	2
Behavioral Health Condition	64	61	49	38	6	5	5	4
Managed Care Overall	27	30	24	17	3	4	2	2

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.

Rates are calculated per 10,000 adults age 18 and above.

^aPQI 01, 03, 14, or 16.

^bPQI 05 or 15.

Table 3A.7: Rates of avoidable inpatient hospitalization components per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition

	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	625	591	495	422	296	277	226	199	329	314	269	223
Nursing Facility	535	461	388	361	281	249	202	189	254	212	187	172
HCBS Population	886	938	767	581	341	350	289	225	544	589	477	356
	Diabetes Composite^a				COPD/Asthma Composite^b				PQI 07: Hypertension			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	78	77	65	54	127	113	103	85	10	11	10	7
Nursing Facility	71	65	55	55	91	69	57	53	3	5	7	5
HCBS Population	96	110	90	49	230	231	219	166	30	25	19	11
	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	111	111	89	77	65	43	35	33	102	105	87	72
Nursing Facility	87	72	66	58	58	40	32	31	96	98	76	69
HCBS Population	180	215	146	126	84	53	44	38	119	121	114	79
	PQI 12: UT Infection				PQI 13: Angina							
	2011	2012	2013	2014	2011	2012	2013	2014				
Long Term Care Population	130	128	105	94	4	3	2	1				
Nursing Facility	127	111	94	88	2	1	2	0				
HCBS Population	138	175	132	109	9	7	3	4				

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.

Rates are calculated per 10,000 adults age 18 and above.

^aPQI 01, 03, 14, or 16.

^bPQI 05 or 15.

Table 3A.7: Rates of avoidable inpatient hospitalization components per 10,000 adults among LTC-eligible populations overall and with a behavioral health condition (continued)

With a Behavioral Health Condition	PQI 90: Overall				PQI 91: Acute				PQI 92: Chronic			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	800	730	594	518	394	357	284	255	406	372	310	263
Nursing Facility	696	594	484	456	370	321	257	244	327	273	230	212
HCBS Population	1,170	1,174	966	744	479	477	384	295	691	697	582	449
	Diabetes Composite ^a				COPD/Asthma Composite ^b				PQI 07: Hypertension			
With a Behavioral Health Condition	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	97	94	79	64	166	142	123	104	12	11	11	6
Nursing Facility	92	84	68	67	120	88	72	69	4	7	9	4
HCBS Population	113	126	115	56	329	317	295	234	39	25	20	13
	PQI 08: Heart Failure				PQI 10: Dehydration				PQI 11: Bacterial Pneumonia			
With a Behavioral Health Condition	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	127	123	94	87	87	57	44	43	133	135	106	88
Nursing Facility	108	92	79	72	76	51	42	41	126	126	95	89
HCBS Population	196	222	147	142	124	75	54	54	161	165	142	83
	PQI 12: UT Infection				PQI 13: Angina							
With a Behavioral Health Condition	2011	2012	2013	2014	2011	2012	2013	2014				
Long Term Care Population	174	165	134	124	5	3	3	1				
Nursing Facility	168	143	118	114	3	2	2	0				
HCBS Population	194	237	189	158	13	8	5	4				

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: PQI=Prevention Quality Indicator; UT=Urinary Tract.

Rates are calculated per 10,000 adults age 18 and above.

^aPQI 01, 03, 14, or 16.

^bPQI 05 or 15.

Table 3A.8: Rates of avoidable pediatric hospitalizations per 10,000 children by Medicaid eligibility category

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Medicaid Overall	479,503	24	24	23	539,136	19
Aged/Blind/Disabled	20,985	73	79	78	22,178	76
NJ FamilyCare	435,687	22	22	21	493,307	17
General Assistance	*	*	*	*	*	*
Children's Services	22,809	16	35	33	23,630	20
Other	*	*	*	*	*	*
Managed Care	456,961	25	25	24	514,326	20
Aged/Blind/Disabled	20,289	75	79	79	21,929	76
NJ FamilyCare	422,039	23	22	21	477,398	18
General Assistance	*	*	--	*	*	*
Children's Services	14,629	25	34	33	14,991	13
Other	*	*	*	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Rates calculated per 10,000 children ages 6 to 17.

*Estimate suppressed due to insufficient sample size.

--population denominator equals 0.

Table 3A.9: Rates of avoidable pediatric hospitalizations per 10,000 children among LTC-eligible populations

	2011		2012	2013	2014	
	Population (N)	Rate	Rate	Rate	Population (N)	Rate
Long-Term Care Population	152	329	190	179	173	58
Nursing Facility	102	294	288	92	99	101
HCBS	50	400	0	339	74	0

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS= Home and Community-Based Services.

Rates calculated per 10,000 children ages 6 to 17.

Table 3A.10: Rates of inpatient and emergency department use per 10,000 population by Medicaid eligibility category

	Inpatient Utilization Rate				Emergency Department Visit Rate			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	1,028	1,018	898	797	4,931	5,070	4,950	4,961
Aged/Blind/Disabled	2,742	2,741	2,339	2,025	7,050	7,058	6,715	6,412
NJ FamilyCare	620	594	542	501	4,719	4,858	4,762	4,688
General Assistance	348	287	224	746	892	777	619	4,760
Children's Services	340	363	322	270	3,502	3,637	3,643	3,487
Other	259	280	175	349	402	337	290	1,526
Managed Care	1,032	1,051	930	827	5,537	5,627	5,442	5,377
Aged/Blind/Disabled	2,797	2,857	2,429	2,077	7,947	7,690	7,207	6,782
NJ FamilyCare	604	578	529	498	4,942	5,082	4,963	4,942
General Assistance	3,287	3,243	2,868	887	9,308	9,419	8,417	5,722
Children's Services	484	496	450	388	5,062	5,010	5,094	5,029
Other	4,760	5,023	5,122	1,405	10,096	7,149	11,159	6,808

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

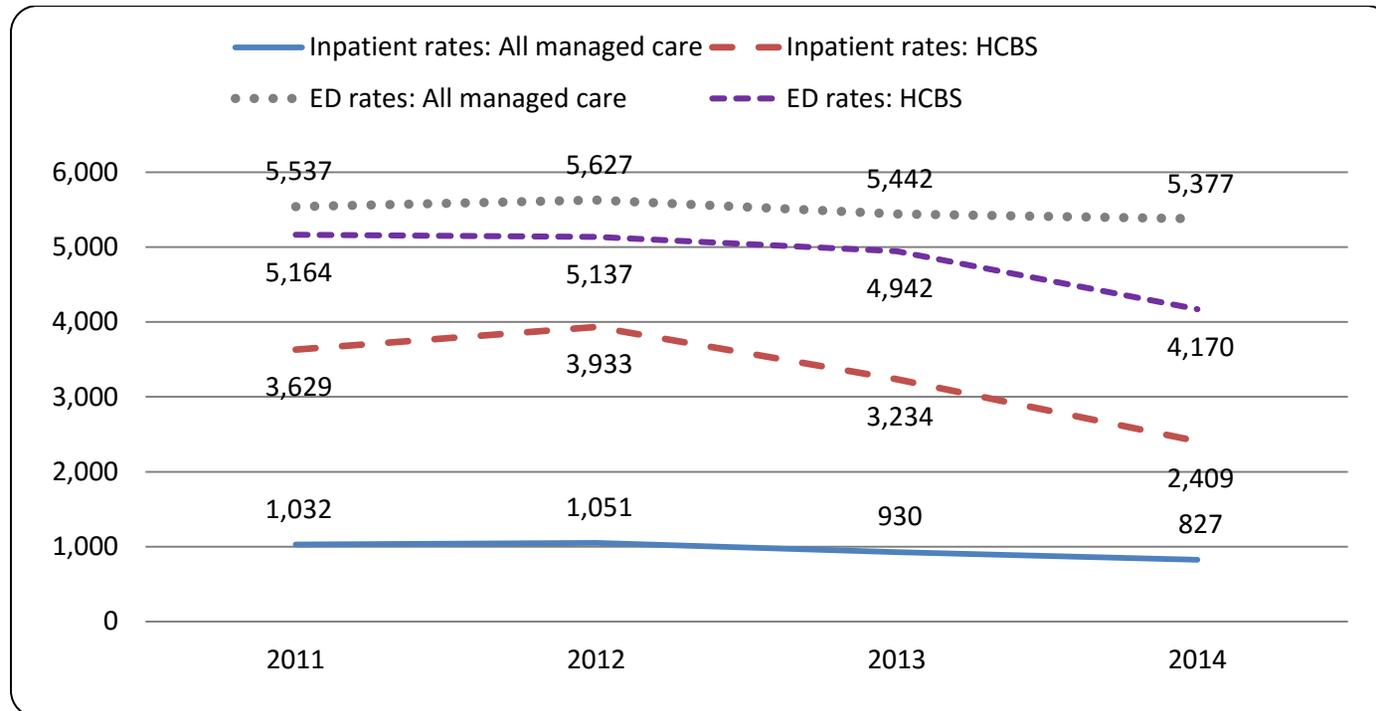
Table 3A.11: Rates of inpatient and emergency department use per 10,000 population among LTC-eligible populations

	Inpatient Utilization Rate				Emergency Department Visit Rate			
	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population	3,703	3,555	3,126	2,770	3,915	3,696	3,548	3,381
Nursing Facility	3,729	3,413	3,084	2,911	3,480	3,155	2,998	3,075
HCBS	3,629	3,933	3,234	2,409	5,164	5,137	4,942	4,170

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Figure 3A.2: Rates of inpatient and emergency department use per 10,000 beneficiaries for the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
 Notes: HCBS=Home and Community-Based Services; ED=Emergency Department.

Table 3A.12: Costs per person associated with avoidable hospital use by Medicaid eligibility category

	Per Person Avoidable				Per Person Avoidable ED Costs				Per Person All Avoidable			
	Inpatient Costs								Costs (IP+ED)			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	\$ 47	\$ 46	\$ 41	\$ 42	\$ 65	\$ 69	\$ 72	\$ 81	\$ 112	\$ 115	\$ 113	\$ 123
Aged/Blind/Disabled	\$ 178	\$ 176	\$ 154	\$ 147	\$ 68	\$ 65	\$ 66	\$ 77	\$ 245	\$ 241	\$ 220	\$ 223
NJ FamilyCare	\$ 12	\$ 11	\$ 11	\$ 11	\$ 69	\$ 75	\$ 78	\$ 85	\$ 82	\$ 87	\$ 89	\$ 96
General Assistance	\$ 29	\$ 26	\$ 20	\$ 57	\$ 14	\$ 12	\$ 10	\$ 77	\$ 43	\$ 38	\$ 31	\$ 134
Children's Services	\$ 6	\$ 5	\$ 12	\$ 4	\$ 38	\$ 43	\$ 44	\$ 46	\$ 44	\$ 47	\$ 56	\$ 50
Other	\$ 11	\$ 14	\$ 10	\$ 24	\$ 6	\$ 6	\$ 6	\$ 27	\$ 17	\$ 21	\$ 16	\$ 51
Managed Care	\$ 49	\$ 49	\$ 44	\$ 45	\$ 74	\$ 77	\$ 79	\$ 88	\$ 122	\$ 126	\$ 123	\$ 133
Aged/Blind/Disabled	\$ 194	\$ 189	\$ 164	\$ 155	\$ 79	\$ 72	\$ 72	\$ 82	\$ 273	\$ 261	\$ 236	\$ 238
NJ FamilyCare	\$ 13	\$ 12	\$ 11	\$ 12	\$ 73	\$ 79	\$ 81	\$ 89	\$ 86	\$ 91	\$ 92	\$ 101
General Assistance	\$ 239	\$ 263	\$ 241	\$ 66	\$ 146	\$ 145	\$ 139	\$ 94	\$ 385	\$ 407	\$ 380	\$ 160
Children's Services	\$ 9	\$ 7	\$ 17	\$ 7	\$ 55	\$ 59	\$ 62	\$ 67	\$ 64	\$ 65	\$ 79	\$ 73
Other	\$ 127	\$ 127	\$ 404	\$ 100	\$ 145	\$ 122	\$ 228	\$ 122	\$ 271	\$ 249	\$ 632	\$ 222

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department.

Avoidable hospital costs are tabulated for all ages.

All costs are in 2012 dollars.

Table 3A.13: Costs per person associated with overall hospital use by Medicaid eligibility category

	Per Person Inpatient Costs				Per Person ED Costs				Per Person All Hospital Costs			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	\$ 547	\$ 549	\$ 513	\$ 515	\$ 121	\$ 127	\$ 132	\$ 152	\$ 668	\$ 676	\$ 645	\$ 668
Aged/Blind/Disabled	\$1,342	\$1,349	\$1,261	\$1,247	\$ 145	\$ 138	\$ 141	\$ 163	\$1,488	\$1,486	\$1,402	\$1,410
NJ FamilyCare	\$ 349	\$ 346	\$ 323	\$ 312	\$ 122	\$ 133	\$ 138	\$ 150	\$ 472	\$ 478	\$ 461	\$ 462
General Assistance	\$ 316	\$ 270	\$ 229	\$ 581	\$ 28	\$ 25	\$ 20	\$ 157	\$ 344	\$ 295	\$ 249	\$ 737
Children's Services	\$ 260	\$ 308	\$ 251	\$ 215	\$ 91	\$ 98	\$ 105	\$ 111	\$ 351	\$ 406	\$ 355	\$ 326
Other	\$ 364	\$ 286	\$ 198	\$ 367	\$ 15	\$ 13	\$ 10	\$ 48	\$ 379	\$ 299	\$ 208	\$ 415
Managed Care	\$ 568	\$ 577	\$ 539	\$ 544	\$ 136	\$ 141	\$ 146	\$ 166	\$ 704	\$ 718	\$ 684	\$ 710
Aged/Blind/Disabled	\$1,438	\$1,426	\$1,323	\$1,307	\$ 165	\$ 149	\$ 151	\$ 174	\$1,603	\$1,574	\$1,474	\$1,481
NJ FamilyCare	\$ 349	\$ 347	\$ 324	\$ 319	\$ 128	\$ 139	\$ 144	\$ 158	\$ 478	\$ 485	\$ 467	\$ 477
General Assistance	\$2,538	\$2,933	\$2,675	\$ 688	\$ 283	\$ 292	\$ 272	\$ 189	\$2,820	\$3,225	\$2,947	\$ 877
Children's Services	\$ 349	\$ 424	\$ 347	\$ 313	\$ 130	\$ 135	\$ 146	\$ 160	\$ 479	\$ 559	\$ 493	\$ 473
Other	\$6,438	\$4,679	\$4,943	\$ 1,435	\$ 334	\$ 236	\$ 393	\$ 214	\$6,772	\$4,915	\$5,336	\$1,649

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Costs are tabulated for all ages.

All costs are in 2012 dollars.

Table 3A:14: Total costs per person by Medicaid eligibility category

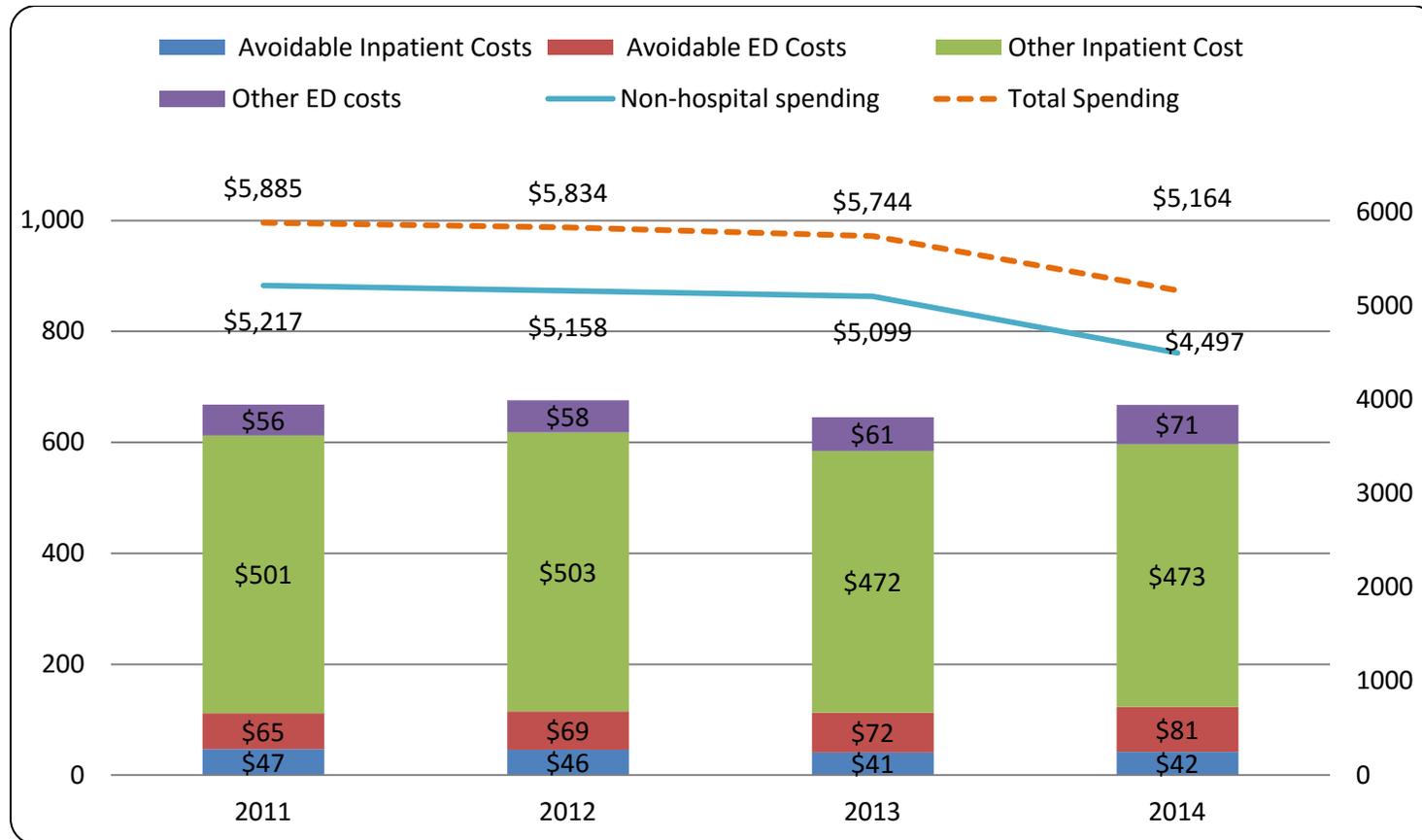
	2011	2012	2013	2014
Medicaid Overall	\$ 5,885	\$ 5,834	\$ 5,744	\$ 5,164
Aged/Blind/Disabled	\$ 19,503	\$ 19,007	\$ 18,637	\$ 18,213
NJ FamilyCare	\$ 2,253	\$ 2,272	\$ 2,224	\$ 2,241
General Assistance	\$ 2,680	\$ 2,560	\$ 2,601	\$ 3,050
Children's Services	\$ 7,039	\$ 6,660	\$ 6,450	\$ 6,124
Other	\$ 1,254	\$ 1,322	\$ 960	\$ 3,872
Managed Care	\$ 5,048	\$ 5,260	\$ 5,300	\$ 5,007
Aged/Blind/Disabled	\$ 15,865	\$ 16,038	\$ 16,207	\$ 16,246
NJ FamilyCare	\$ 2,300	\$ 2,326	\$ 2,273	\$ 2,323
General Assistance	\$ 10,341	\$ 11,292	\$ 10,754	\$ 3,607
Children's Services	\$ 9,985	\$ 9,065	\$ 8,952	\$ 8,800
Other	\$ 23,677	\$ 25,940	\$ 21,681	\$ 17,565

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Costs are tabulated for all ages.

All costs are in 2012 dollars.

Figure 3A.3: Trends in avoidable and overall hospital costs and total spending for the Medicaid population overall



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
 Notes: ED=Emergency Department.
 Costs are tabulated for all ages.
 All costs are in 2012 dollars.

Table 3A.15: Total and per person costs associated with avoidable hospital use among LTC-eligible populations

	Total Avoidable Inpatient (IP) Costs								Per Person Avoidable Inpatient Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
	Long-Term Care Pop.	\$7,879,992	100%	\$6,534,098	100%	\$5,781,438	100%	\$5,290,153	100%	\$158	\$132	\$117
Nursing Facility	\$6,382,956	81%	\$4,836,681	74%	\$4,078,996	71%	\$3,862,378	73%	\$172	\$134	\$115	\$112
HCBS	\$1,497,036	19%	\$1,697,418	26%	\$1,702,442	29%	\$1,427,775	27%	\$116	\$126	\$122	\$107

	Total Avoidable Emergency Department (ED) Costs								Per Person Avoidable ED Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
	Long-Term Care Pop.	\$1,118,722	100%	\$ 925,985	100%	\$ 893,851	100%	\$ 923,407	100%	\$ 22	\$ 19	\$ 18
Nursing Facility	\$ 750,243	67%	\$ 683,925	74%	\$ 639,611	72%	\$ 622,896	67%	\$ 20	\$ 19	\$ 18	\$ 18
HCBS	\$ 368,479	33%	\$ 242,061	26%	\$ 254,240	28%	\$ 300,510	33%	\$ 29	\$ 18	\$ 18	\$ 23

	Total Avoidable Hospital Costs (Inpatient + ED)								Per Person Total Avoidable Hospital Costs			
	2011		2012		2013		2014		2011	2012	2013	2014
	Long-Term Care Pop.	\$8,998,714	100%	\$7,460,084	100%	\$6,675,289	100%	\$6,213,559	100%	\$180	\$151	\$135
Nursing Facility	\$7,133,200	79%	\$5,520,605	74%	\$4,718,607	71%	\$4,485,274	72%	\$193	\$153	\$133	\$130
HCBS	\$1,865,515	21%	\$1,939,478	26%	\$1,956,682	29%	\$1,728,285	28%	\$145	\$143	\$140	\$129

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; ED=Emergency Department.

All costs are in 2012 dollars.

Table 3A.16: Thirty-day readmission rates among groups of Medicaid beneficiaries

	2012			2013			2014		
	Medicaid Overall	Long-Term Care	Behavioral Health	Medicaid Overall	Long-Term Care	Behavioral Health	Medicaid Overall	Long-Term Care	Behavioral Health
Hospital-Wide	12.7%	10.9%	15.9%	11.7%	9.6%	14.9%	11.4%	11.8%	14.5%
Heart Failure	18.7%	11.0%	23.5%	15.6%	11.7%	19.7%	15.3%	6.1%	18.7%
AMI	11.4%	10.2%	12.0%	11.7%	6.8%	14.1%	9.4%	5.8%	11.4%
Pneumonia	11.3%	8.8%	12.3%	10.2%	6.9%	11.5%	10.4%	9.9%	11.9%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: AMI=Acute Myocardial Infarction.

Table 3A.17: Hospital-wide 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	12.7%	11.7%	11.4%
Aged/Blind/Disabled	15.0%	13.7%	13.8%
NJ FamilyCare	6.0%	6.3%	5.6%
General Assistance	17.3%	17.5%	14.0%
Children's Services	9.6%	13.4%	13.9%
Other	27.8%	18.0%	10.2%
Managed Care	12.9%	11.9%	11.6%
Aged/Blind/Disabled	15.6%	14.2%	14.2%
NJ FamilyCare	6.0%	6.2%	5.6%
General Assistance	15.0%	17.1%	14.0%
Children's Services	9.8%	13.5%	14.2%
Other	24.6%	19.0%	8.3%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

Table 3A.18: Hospital-wide 30-day readmission rates among LTC-eligible populations

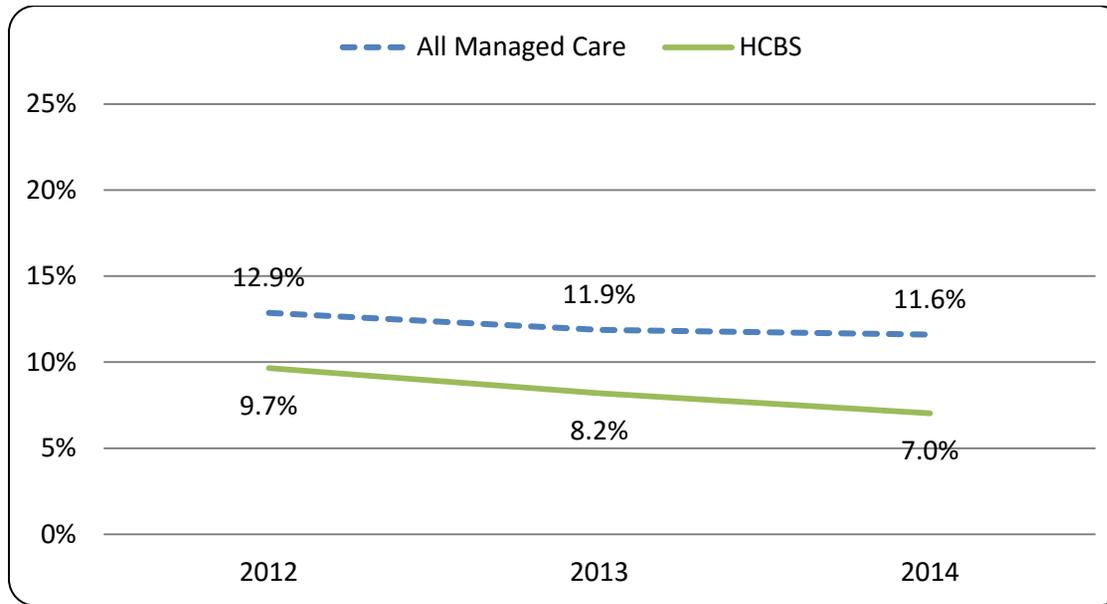
	2012	2013	2014
Long-Term Care Population	10.9%	9.6%	8.6%
Nursing Facility	11.4%	10.2%	9.0%
HCBS	9.7%	8.2%	7.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.4: Trends in hospital-wide readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.19: Heart failure 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	18.7%	15.6%	15.3%
Aged/Blind/Disabled	18.8%	15.3%	15.0%
NJ FamilyCare	15.2%	21.8%	16.2%
General Assistance	*	*	21.6%
Children's Services	--	--	--
Other	*	--	*
Managed Care	19.2%	15.8%	15.7%
Aged/Blind/Disabled	19.4%	15.7%	15.4%
NJ FamilyCare	15.2%	20.4%	16.2%
General Assistance	*	*	21.6%
Children's Services	--	--	--
Other	*	--	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.20: Heart failure 30-day readmission rates among LTC-eligible populations

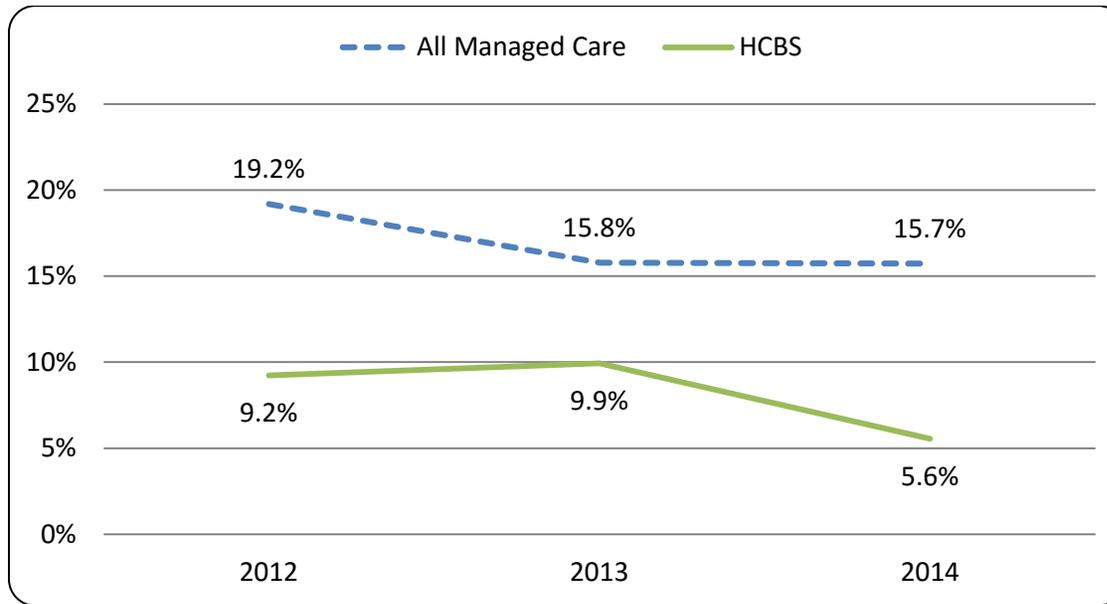
	2012	2013	2014
Long-Term Care Population	11.0%	11.7%	6.1%
Nursing Facility	12.2%	12.6%	6.3%
HCBS	9.2%	9.9%	5.6%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.5: Trends in heart failure readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.21: Acute myocardial infarction 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	11.4%	11.7%	9.4%
Aged/Blind/Disabled	11.5%	11.0%	10.8%
NJ FamilyCare	9.9%	16.3%	3.9%
General Assistance	*	*	3.4%
Children's Services	--	--	--
Other	--	--	*
Managed Care	11.3%	12.0%	9.5%
Aged/Blind/Disabled	11.5%	11.3%	11.1%
NJ FamilyCare	9.9%	16.3%	3.9%
General Assistance	*	*	3.4%
Children's Services	--	--	--
Other	--	--	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.22: Acute myocardial infarction 30-day readmission rates among LTC-eligible populations

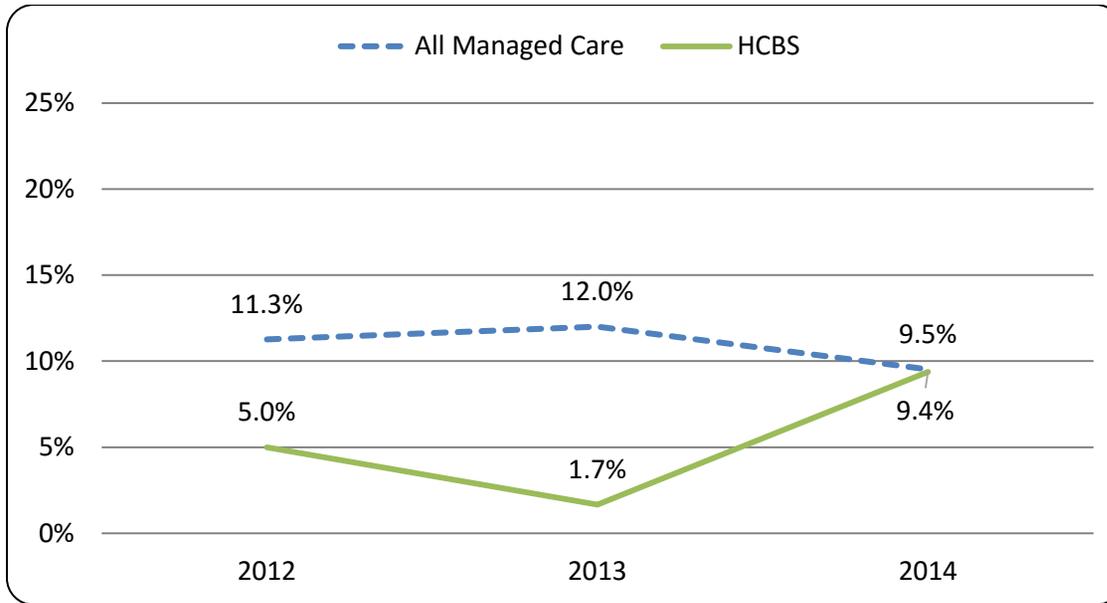
	2012	2013	2014
Long-Term Care Population	10.2%	6.8%	5.8%
Nursing Facility	12.8%	10.2%	4.5%
HCBS	5.0%	1.7%	9.4%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.6: Trends in acute myocardial infarction readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.23: Pneumonia 30-day readmission rates by Medicaid eligibility category

	2012	2013	2014
Medicaid Overall	11.3%	10.2%	10.4%
Aged/Blind/Disabled	11.8%	10.4%	10.4%
NJ FamilyCare	5.1%	7.1%	8.2%
General Assistance	*	*	14.9%
Children's Services	*	--	*
Other	*	*	*
Managed Care	11.9%	10.5%	10.7%
Aged/Blind/Disabled	12.6%	10.8%	10.8%
NJ FamilyCare	5.1%	7.1%	8.2%
General Assistance	*	*	14.9%
Children's Services	*	--	*
Other	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Readmission rates are calculated for adults ages 18 and above.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.24: Pneumonia 30-day readmission rates among LTC-eligible populations

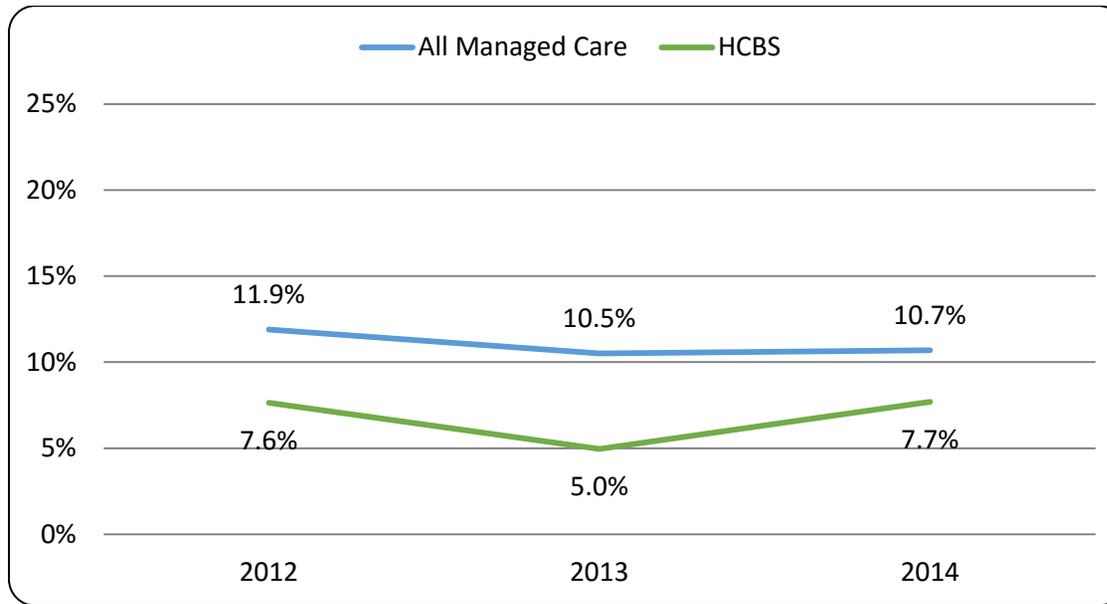
	2012	2013	2014
Long-Term Care Population	8.8%	6.9%	9.9%
Nursing Facility	9.1%	7.5%	10.5%
HCBS	7.6%	5.0%	7.7%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Figure 3A.7: Trends in pneumonia readmission rates among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Readmission rates are calculated for adults ages 18 and above.

Table 3A.25: Follow-up after hospitalization for mental illness by Medicaid eligibility category

	7-Day Follow-up				30-Day Follow-up			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	16.7%	15.8%	15.0%	16.3%	28.2%	27.5%	26.1%	27.8%
Aged/Blind/Disabled	15.8%	14.7%	14.0%	14.7%	27.5%	26.4%	24.9%	26.7%
NJ FamilyCare	19.1%	18.8%	17.5%	20.5%	30.8%	30.6%	29.4%	34.1%
General Assistance	11.6%	16.1%	6.0%	14.7%	19.7%	24.1%	14.7%	23.1%
Children's Services	15.7%	12.5%	12.8%	15.7%	26.2%	25.3%	22.9%	26.5%
Other	*	*	*	*	*	*	*	*
Managed Care	15.3%	16.1%	15.0%	16.5%	28.6%	27.9%	26.2%	28.1%
Aged/Blind/Disabled	15.7%	15.0%	14.0%	14.8%	27.6%	26.7%	24.8%	26.7%
NJ FamilyCare	19.2%	18.9%	17.5%	20.5%	30.9%	30.8%	29.4%	34.3%
General Assistance	15.7%	18.2%	8.1%	15.2%	25.6%	27.3%	17.6%	23.7%
Children's Services	15.3%	12.7%	12.5%	15.8%	25.8%	25.5%	22.7%	26.2%
Other	*	*	*	*	*	*	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.

*Estimate suppressed due to insufficient sample size.

Table 3A.26: Follow-up after hospitalization for mental illness among LTC-eligible populations

	7-Day Follow-up				30-Day Follow-up			
	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population								
HCBS	18.8%	8.7%	6.4%	*	21.9%	21.7%	12.8%	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Follow-up after hospitalization for mental illness is calculated for the population ages 6 and older.

Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.

*Estimate suppressed due to insufficient sample size.

Table 3A.27: Ambulatory visit within 14 days of discharge by Medicaid eligibility category

	All Discharges				Discharged Home			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	33.0%	34.2%	33.1%	30.1%	38.5%	39.5%	38.2%	33.7%
Aged/Blind/Disabled	25.0%	26.4%	24.7%	22.0%	31.5%	32.8%	30.7%	27.3%
NJ FamilyCare	50.2%	49.9%	49.3%	46.5%	50.6%	50.3%	49.7%	47.0%
General Assistance	23.5%	23.2%	21.7%	26.1%	24.5%	24.8%	24.3%	26.6%
Children's Services	27.8%	35.6%	37.4%	33.7%	28.7%	36.5%	37.7%	34.2%
Other	12.3%	12.2%	27.0%	7.9%	14.3%	13.8%	29.4%	25.9%
Managed Care	36.6%	36.7%	34.8%	31.5%	40.0%	40.6%	39.0%	34.7%
Aged/Blind/Disabled	28.8%	29.2%	26.5%	23.3%	33.0%	33.9%	31.5%	27.9%
NJ FamilyCare	50.6%	50.3%	49.6%	47.0%	51.0%	50.7%	50.0%	47.5%
General Assistance	27.8%	29.9%	25.5%	27.8%	29.2%	32.3%	28.7%	28.4%
Children's Services	28.1%	35.6%	37.7%	34.2%	29.0%	36.5%	38.1%	34.7%
Other	17.6%	20.0%	34.6%	25.3%	20.0%	24.2%	*	25.6%

	Discharged to Facility-based Rehabilitation				Discharged to Other Facility			
	2011	2012	2013	2014	2011	2012	2013	2014
Medicaid Overall	5.2%	5.1%	5.4%	5.0%	11.7%	16.8%	14.2%	15.5%
Aged/Blind/Disabled	5.1%	5.0%	5.4%	4.6%	8.0%	14.6%	11.1%	11.9%
NJ FamilyCare	12.5%	16.7%	16.1%	9.8%	34.9%	33.8%	32.2%	28.9%
General Assistance	11.5%	8.5%	0.0%	12.1%	*	*	*	20.6%
Children's Services	*	--	*	*	*	*	*	0.0%
Other	*	*	*	*	*	*	*	33.3%
Managed Care	6.1%	5.8%	5.9%	5.0%	17.1%	20.4%	15.9%	17.1%
Aged/Blind/Disabled	5.9%	5.6%	5.8%	4.6%	12.2%	18.1%	12.5%	13.5%
NJ FamilyCare	12.8%	16.9%	16.7%	9.1%	35.1%	33.8%	32.4%	29.1%
General Assistance	13.3%	11.5%	0.0%	12.7%	*	*	*	20.8%
Children's Services	0.0%	--	*	*	*	*	*	*
Other	0.0%	*	*	*	*	--	*	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.

*Estimate suppressed due to insufficient sample size.

--No qualifying index admissions in this category.

Table 3A.28: Ambulatory visit within 14 days of discharge among LTC-eligible populations

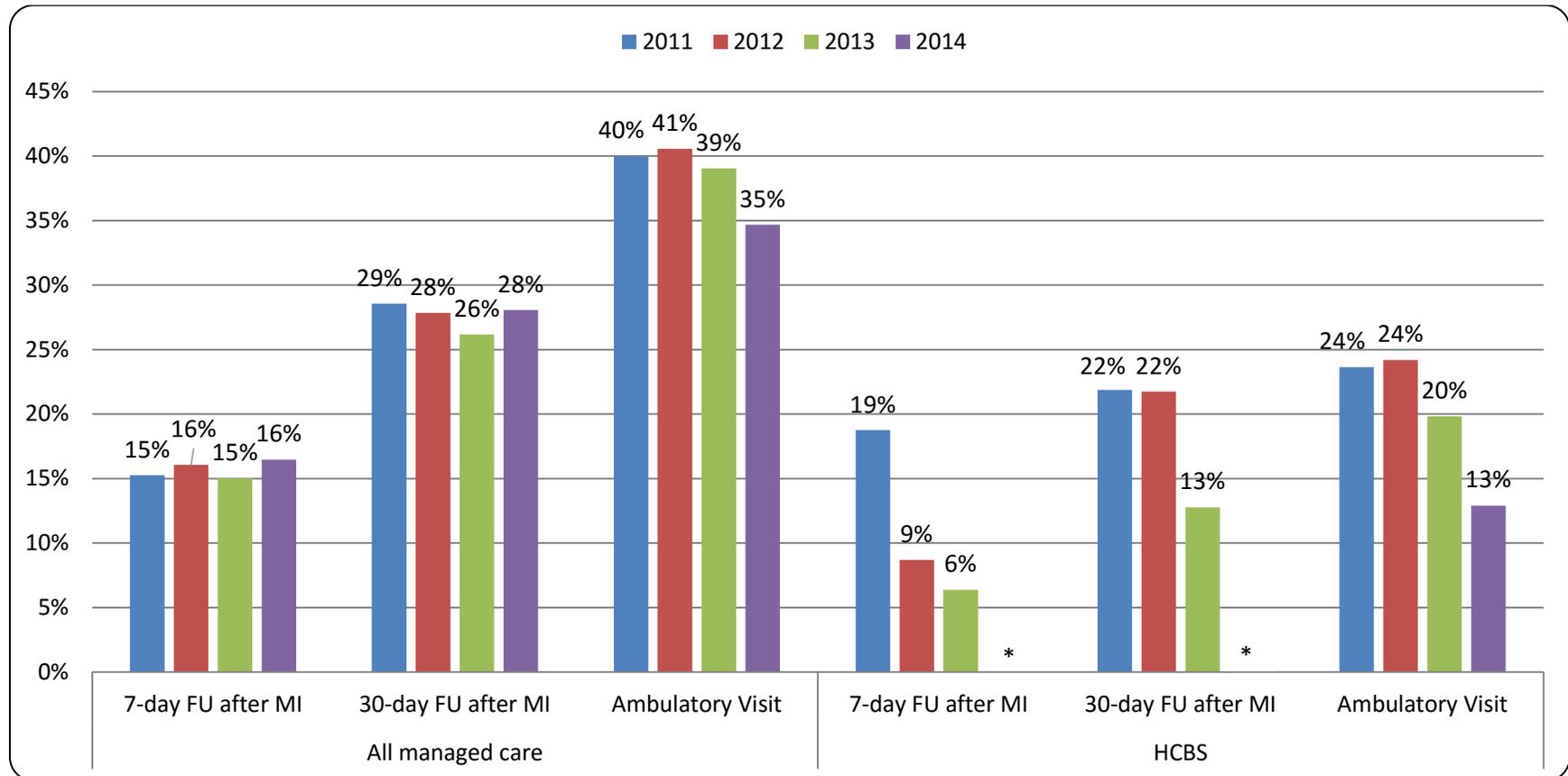
	All Discharges				Discharged Home			
	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population								
HCBS	17.9%	19.4%	15.7%	9.7%	23.6%	24.2%	19.8%	12.9%
	Discharged to Facility-based Rehabilitation				Discharged to Other Facility			
	2011	2012	2013	2014	2011	2012	2013	2014
Long-Term Care Population								
HCBS	4.9%	4.9%	4.5%	2.2%	9.6%	14.4%	6.5%	1.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: Only one hospitalization per person is randomly chosen in each year to be an index hospitalization.

Estimates not calculated for the nursing facility population since follow-up visits must occur in the community to meet metric specifications.

Figure 3A.8: Rates of follow-up and ambulatory visits after hospitalization among the Medicaid managed care and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; FU=Follow-up; MI=Mental Illness.

*Estimate suppressed due to insufficient sample size.

Table 3A.29: Selected quality metrics for a cohort of HCBS beneficiaries by pre-MLTSS §1915(c) waiver program

	Hospital-Wide 30-Day Readmission Rate			Avoidable Hospitalizations (per 10,000 beneficiaries)				Follow-up After Hospitalization for Mental Illness							
	2012	2013	2014	2011	2012	2013	2014	7-day				30-Day			
								2011	2012	2013	2014	2011	2012	2013	2014
1915(c) Enrollees	9.1%	6.9%	7.4%	738	788	686	609	18.4%	11.1%	4.4%	*	26.3%	27.8%	11.1%	*
CRPD	15.9%	15.9%	2.4%	526	358	479	208	--	--	--	--	--	--	--	--
ACCAP	13.3%	6.7%	*	387	449	179	298	--	*	*	--	--	*	*	--
TBI	4.9%	8.1%	16.0%	135	132	225	257	*	*	*	--	*	*	*	--
GO	8.9%	6.6%	7.3%	777	830	713	636	16.7%	10.0%	4.9%	*	25.0%	23.3%	12.2%	*

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

*Estimate suppressed due to insufficient sample size.

-- No qualifying index admissions in this category.

Table 3A.30: Total and per person costs of LTSS and non-LTSS services among LTC-eligible populations

	LTSS Costs (in millions of dollars)								LTSS Costs Per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	\$2,011.7	100%	\$1,927.1	100%	\$1,899.7	100%	\$1,839.4	100%	\$ 54,356	\$ 53,514	\$ 53,688	\$ 53,512
Nursing Facility	\$1,805.0	90%	\$1,707.4	89%	\$1,672.3	88%	\$1,627.7	88%	\$139,894	\$126,257	\$119,854	\$121,940
HCBS	\$ 206.6	10%	\$ 219.7	11%	\$ 227.4	12%	\$ 211.7	12%	\$ 16,012	\$ 16,247	\$ 16,296	\$ 15,860

	Non-LTSS Costs (in millions of dollars)								Non-LTSS Costs Per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	\$ 253.1	100%	\$ 253.1	100%	\$ 249.4	100%	\$ 244.2	100%	\$ 6,839	\$ 6,956	\$ 7,048	\$ 7,105
Nursing Facility	\$ 171.5	68%	\$ 171.5	68%	\$ 159.0	64%	\$ 167.8	69%	\$ 13,290	\$ 11,948	\$ 11,394	\$ 12,571
HCBS	\$ 81.6	32%	\$ 81.6	32%	\$ 90.4	36%	\$ 76.4	31%	\$ 6,327	\$ 6,574	\$ 6,479	\$ 5,726

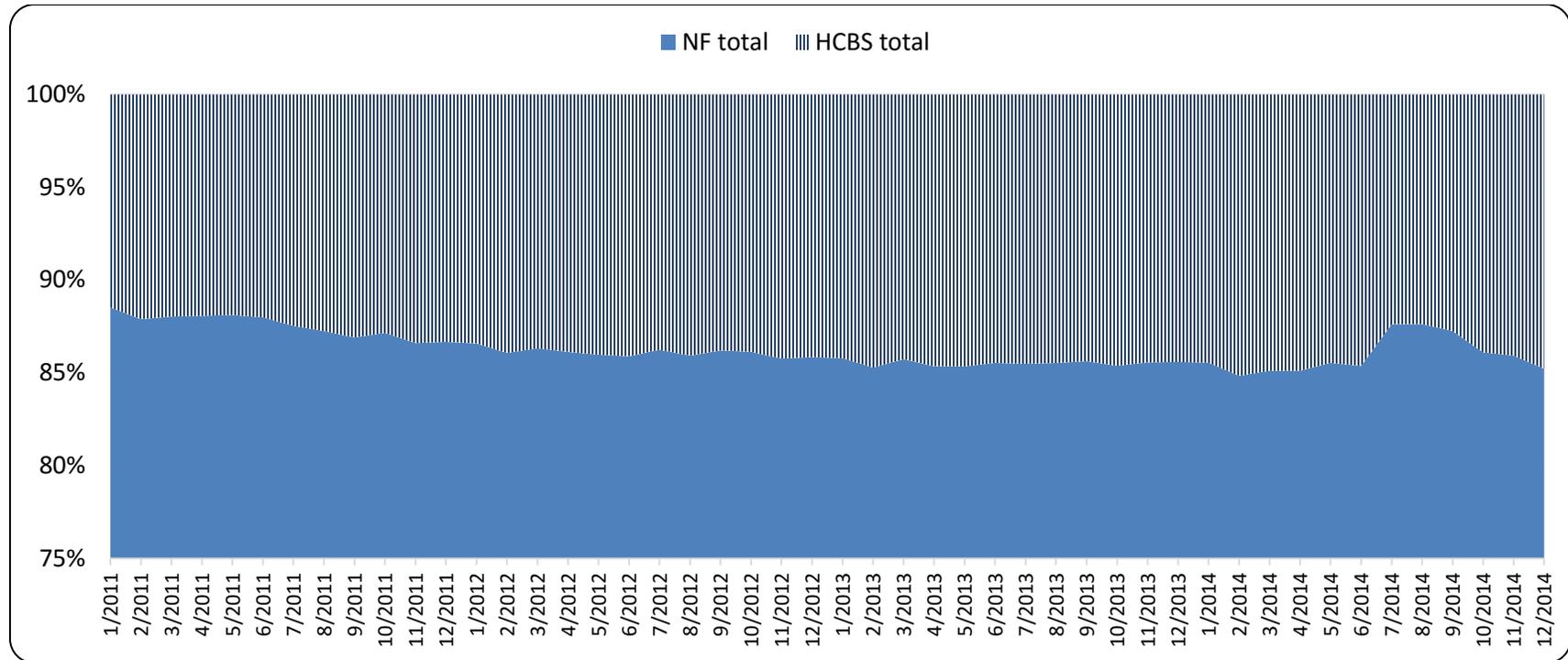
	Total Costs (in millions of dollars)								Total Costs per LTC Person			
	2011		2012		2013		2014		2011	2012	2013	2014
Long-Term Care Pop.	\$2,264.8	100%	\$2,177.6	100%	\$2,149.1	100%	\$2,083.6	100%	\$ 61,195	\$ 60,469	\$ 60,736	\$ 60,617
Nursing Facility	\$1,976.5	87%	\$1,869.0	86%	\$1,831.3	85%	\$1,795.4	86%	\$153,184	\$138,205	\$131,249	\$134,511
HCBS	\$ 288.2	13%	\$ 308.6	14%	\$ 317.8	15%	\$ 288.1	14%	\$ 22,339	\$ 22,821	\$ 22,775	\$ 21,587

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: LTSS=Long-term services and supports; LTC=Long-term care; HCBS=Home and Community-Based Services.

All costs are in 2012 dollars.

Figure 3A.9: Share of total LTC costs for the nursing facility and HCBS populations

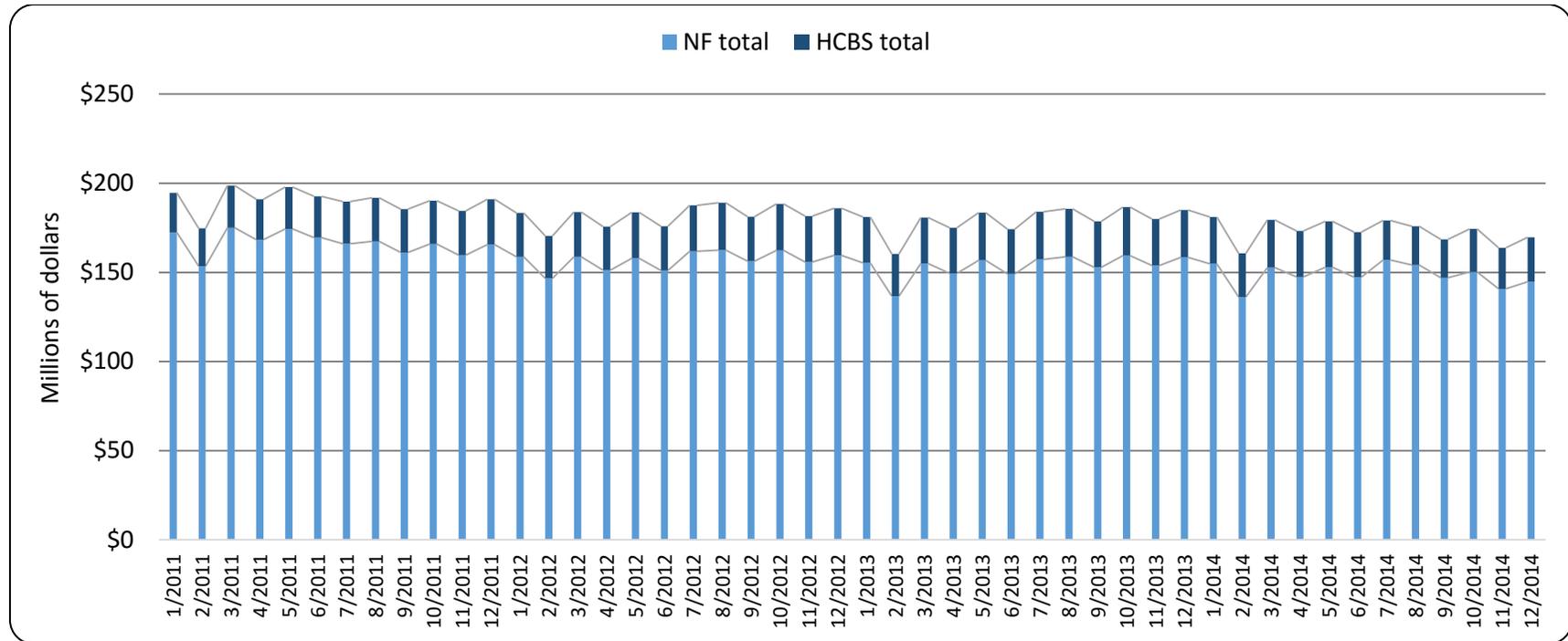


Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.

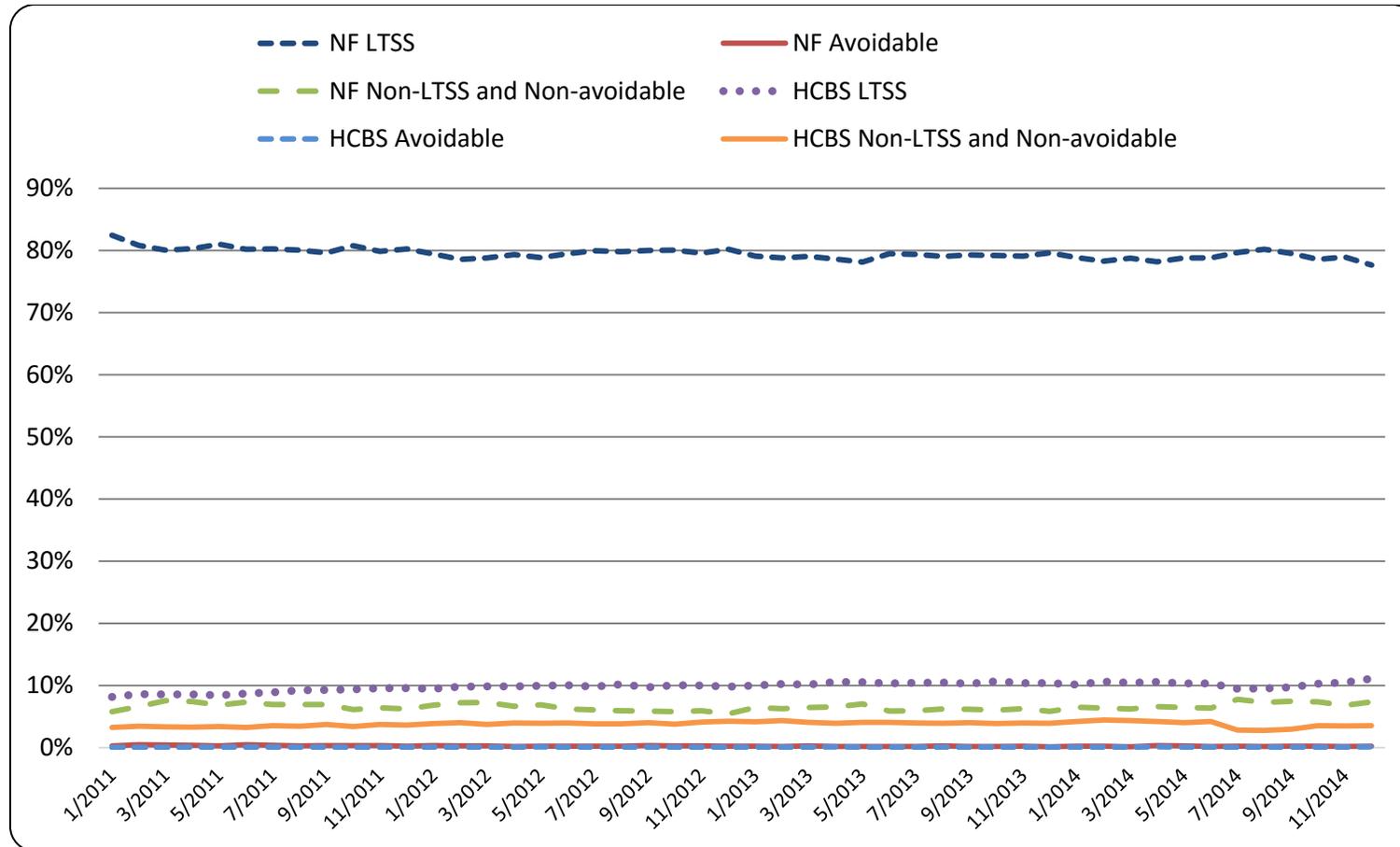
Vertical axis begins at 75%.

Figure 3A.10: Total costs for the nursing facility and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
 Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services.
 All costs are in 2012 dollars.

Figure 3A.11: Shares of different components of costs for the NF and HCBS populations



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.
 Notes: NF=Nursing Facility; HCBS=Home and Community-Based Services; LTSS=Long-Term Services and Supports.
 All costs are in 2012 dollars.

Section B

Avoidable Inpatient Hospitalizations, ED Visit Rates, and Associated Costs: Table 3B.1 reports the Segmented Regression Analysis-based effect of the MLTSS program on the overall managed care population reflected in potential changes in rates of avoidable inpatient hospitalizations and ED visits among the universe of managed care enrollees. While there is a statistically significant drop in such avoidable events immediately following the implementation (reflected in a drop in levels), there is an increase in the trend. The magnitude of all these changes are less than one-tenth of a percentage point, but the percentage change over baseline differs for avoidable inpatient and avoidable ED visits. The average probability of a managed care beneficiary having any avoidable inpatient visit in any one quarter of 2012 was 0.0031 (0.31%). The change in this probability due to MLTSS is -0.00028 (-0.028 percentage point), as shown by the *MLTSS post* coefficient in Table 3B.1. Thus, the change from baseline in this probability due to MLTSS is the quotient of these: $-0.00028/0.0031$ which yields a decline of 9% in the per beneficiary per quarter probability of avoidable IP hospitalization. The analogous calculation for avoidable ED visits indicates a 15% decline in the number of avoidable ED visits per beneficiary per quarter from baseline.

Figures 3B.1 and 3B.2 provide graphical interpretations of the effects reported in Table 3B.1 by line graphs denoting probability of avoidable hospitalization based on the regression modeling. In the post-implementation period spanning July-December 2014, the solid line graph gives the values taking into account the MLTSS implementation, and the dotted line graph gives counterfactual values without MLTSS implementation. The difference between the two line graphs gives the effect of the MLTSS program. Specifically, if at any point of time the dotted line is above the solid line (implying that the counterfactual value is higher than the MLTSS-based value) this reflects a decrease in avoidable utilizations signifying a positive effect on ambulatory/primary care-related quality. It is important to note that this difference may change over the post-implementation period.

Table 3B.2 provides the unadjusted DD estimate based on the observed rates of avoidable events for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figures 3B.3 and 3B.4. Table 3B.3 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to the comparison group. Based on this estimate, the MLTSS implementation decreased the probability of an avoidable inpatient hospitalization over a quarter by 0.2 percentage point, but increased the number of avoidable ED visits per person over a quarter by 0.6 percentage point. Both effects are statistically significant. There was a statistically significant difference in avoidable ED visit trends between HCBS and the comparison group prior to MLTSS, but this was around one-tenth the magnitude of the DD-estimated effect size and does not necessitate modification of our inference of the policy effect.

Translating the estimated effect size into percentage changes over baseline, we divide the regression coefficient reflecting the change in the probability of an avoidable inpatient admission (-0.0019) by the baseline probability (0.0245) to arrive at an 8% decline from baseline in the probability of an HCBS beneficiary having any avoidable inpatient visit in a quarter due to MLTSS. For ED visits, a baseline number of visit per beneficiary per quarter of 0.063 in the HCBS population means the MLTSS impact was a nearly 10% increase (0.006/0.063) in the number of avoidable ED visit per HCBS beneficiary per quarter.

Table 3B.4, and Figures 3B.5 and 3B.6 report per person, per quarter costs associated with avoidable inpatient hospitalizations or ED visits for the HCBS and comparison groups for the pre- and post-MLTSS periods. Table 3B.4 further reports the ratio of ratios (ROR) of these costs where a magnitude greater than one reflects a positive association between the policy and avoidable costs. Table 3B.5 reports a similar ROR estimate that is calculated using a gamma regression with a log link that adjusts for patient and area level characteristics. We find that the MLTSS policy increases avoidable IP costs but decreases avoidable ED costs in the HCBS population.

Hospital Readmissions: Table 3B.6 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in readmission rates among the universe of managed care enrollees. The coefficients corresponding to the variable *MLTSS post* give the change in the *level* of readmission likelihood immediately after the MLTSS implementation, and we find a decrease in this for all types of readmissions. The change in trend given by the coefficients corresponding to *MLTSS time* are less than 1 percentage point in absolute magnitude and may be positive or negative. We assess the joint statistical significance of these effects and find that there is a significant negative effect ($p < 0.1$) on hospital-wide readmissions. This can be interpreted as an improvement in readmission related quality for the Medicaid managed care population as a whole.

As explained above, Figures 3B.7-3B.10 compare the MLTSS rates to the counterfactual rate.

Table 3B.7 provides the unadjusted DD estimate capturing the effect of the MLTSS implementation on the HCBS population that is based on the observed readmission rates for the HCBS and comparison population in the pre- and post-MLTSS implementation period (See Figures 3B.11-3B.14). While these estimates do not take into account the differing beneficiary and provider characteristics that are important to account for while examining the policy effect, they are informative since in addition to providing a starting estimate, they further demonstrate the way DD estimates are computed. Taking the case of pneumonia readmissions, the unadjusted DD estimate is the change in readmission rate for the HCBS population from pre to post-MLTSS

implementation period less the change for the comparison group over the same period. The difference in these two differences reflects the unadjusted policy effect, in this case a 10.7 percentage point increase in readmissions following hospitalization for pneumonia among the HCBS population. Table 3B.8 reports the adjusted effects that take into account differences in patient and provider characteristics. These may be different from the unadjusted estimates and are relevant for estimating the true policy effect. For pneumonia readmissions, the effect size increases slightly (compared to the unadjusted estimate) to 0.113. This should be interpreted as an 11.3 percentage point increase in pneumonia readmission rates among the HCBS population due to the MLTSS implementation. This effect is statistically significant at the 10% significance level. Heart failure and AMI readmissions increased by 5.6 and 5.1 percentage points, respectively, but these effects were not statistically significant. Hospital-wide readmission rates among the HCBS population decreased by less than 1 percentage point as a result of the policy, but this was not statistically significant.

Table 3B.9 shows the SRA-based effect of the MLTSS policy on hospital-wide readmissions among Medicaid managed care beneficiaries with a behavioral health condition. The 1.3% decline in the probability of readmission for this population is statistically significant at the 10% level. There was no significant effect of MLTSS on the trend. The combined effect of both the level and trend changes was also not significant. Figure 3B.15 depicts the probability of readmission for a managed care beneficiary with a behavioral health condition with the MLTSS effect and alongside, the calculated counterfactual.

Table 3B.10 provides the unadjusted DD estimate based on the observed rates of hospital-wide readmission for the HCBS population with a behavioral health condition and the comparison group in the pre- and post-MLTSS periods. Figure 3B.16 shows these rates graphically. The unadjusted difference in the differences is a 1.3 percentage point decline in the readmission rate among the HCBS population with a BH condition in the post-MLTSS period. Table 3B.11 reports the adjusted effects based on the DD estimation comparing changes over time of hospital-wide readmissions for the HCBS population with a BH condition compared to that in the comparison group. Based on these estimates, the MLTSS implementation decreased the hospital-wide readmission rate among the HCBS population with a BH condition by 0.2 percentage points. The effect is not statistically significant.

Follow-up after Hospitalization for Mental Illness: Table 3B.12 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in follow-up after hospitalizations for mental illness among the universe of managed care enrollees. Residents of nursing facilities or intermediate care facilities were excluded in the regression model since follow-up care provided in the facility might not be captured in claims data. There

are decreases in level and also the trend in follow up rates within 30 days of hospitalization as indicated by the coefficients of *MLTSS post* and *MLTSS time*. Each of these decreases amount to approximately a 1 percentage point decrease in the rate of follow up among managed care beneficiaries. This is also reflected in Figure 3B.17 where the rates after MLTSS are lower than the calculated counterfactual rates.

Table 3B.13 provides the unadjusted DD estimate based on the observed rates of follow up for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figures 3B.18 and 3B.19. Table 3B.14 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to that in the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data. Based on these estimates, the MLTSS implementation increased the follow up rate within 7 and 30 days of a mental illness hospitalization by 17 and 9 percentage points respectively. Neither effect is statistically significant and due to small numbers of HCBS beneficiaries with a qualifying mental illness index hospitalization in the post-MLTSS period, there are statistical issues with the reliability of these results.

Ambulatory Visit after Hospitalization: Table 3B.15 reports the SRA-based effect of the MLTSS program on the overall managed care population reflected in potential changes in ambulatory visit rates after discharge home from hospitalization among the universe of managed care enrollees. The increases in the level and also the trend of such visits as indicated by the coefficients of *MLTSS post* and *MLTSS time* respectively are positive, less than one percentage point, and neither is statistically significant. Figure 3B.20 demonstrates that the rates based on MLTSS are higher than the calculated counterfactual rates.

Table 3B.16 provides the unadjusted DD estimate based on the observed rates of post-discharge ambulatory visits for the HCBS population and the comparison group in the pre- and post-MLTSS period which are also reported in Figure 3B.21. Table 3B.17 reports the adjusted effects based on the DD estimation comparing changes over time in the HCBS population compared to the comparison group. Residents of intermediate care facilities were excluded from the comparison population in the regression model since follow-up care provided in the facility might not be captured in claims data. Based on this estimate, the MLTSS implementation decreased the probability of an ambulatory visit 14 days following discharge from a medical hospitalization by 5.5 percentage points and this effect is statistically significant. There was a statistically significant difference in visit trends between HCBS and the comparison group prior to MLTSS, but this was around one-fiftieth the magnitude of the DD-estimated effect size and does not modify the policy effect.

Table 3B.1: MLTSS impact on avoidable hospitalizations and ED visits among the Medicaid managed care population

MLTSS Impact Estimates <i>(n=21,802,509)</i>	Avoidable Inpatient Utilization	Avoidable ED Utilization
mltss_post	-0.00028*** (0.00008)	-0.01197*** (0.001)
mltss_quarter	0.00013* (0.00007)	0.00542*** (0.001)
mltss_post and mltss_quarter	***	***

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Person-quarter level segmented regression analysis with zip code fixed effects.

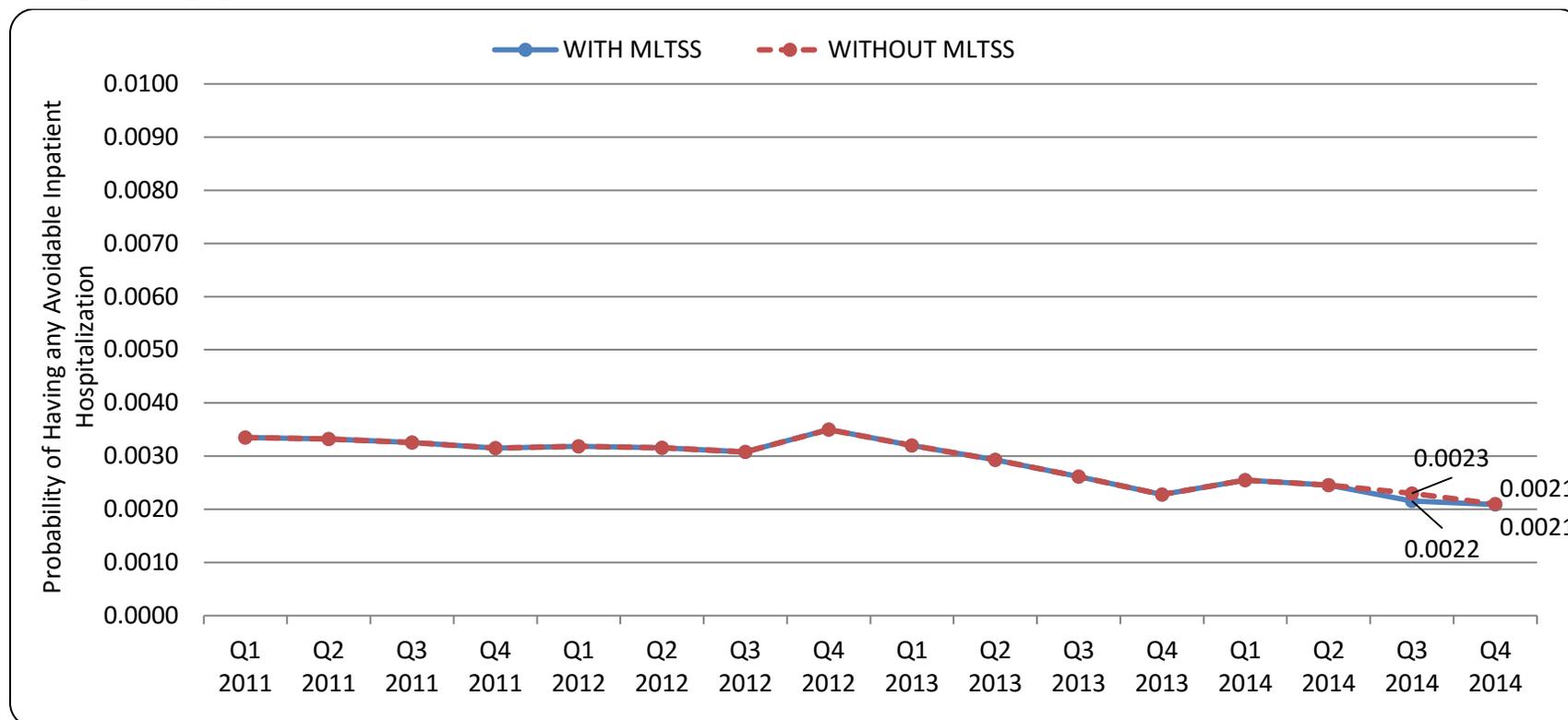
Avoidable inpatient utilization rate denotes the likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter. Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.

Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

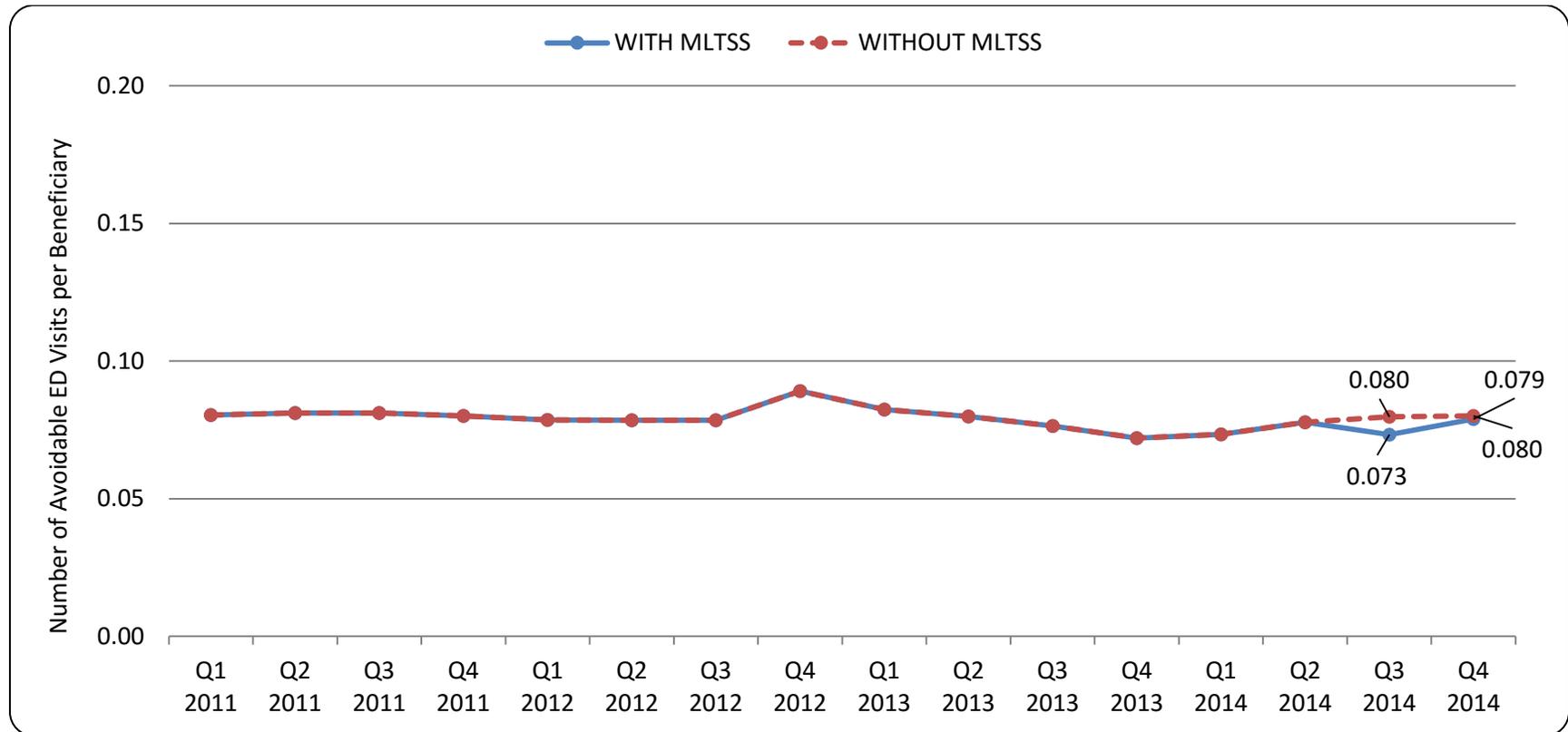
Figure 3B.1: Regression-based rates of avoidable inpatient hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: The vertical axis denotes the numerical probability of hospitalization. This ranges from zero to a maximum of 1 denoting 100% probability. Here, the probability of an avoidable inpatient hospitalization is <1% in every quarter.

Figure 3B.2: Regression-based rates of avoidable ED visits with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department.

Table 3B.2: Unadjusted MLTSS impact on avoidable hospitalizations and ED visit rates among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS (a)	post-MLTSS (b)	pre-MLTSS (c)	post-MLTSS (d)	
Average rate of avoidable inpatient hospitalizations per quarter	1.0%	0.7%	2.2%	1.3%	-0.6
Average number of avoidable ED visits per quarter	0.10	0.08	0.06	0.05	-0.0004

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.

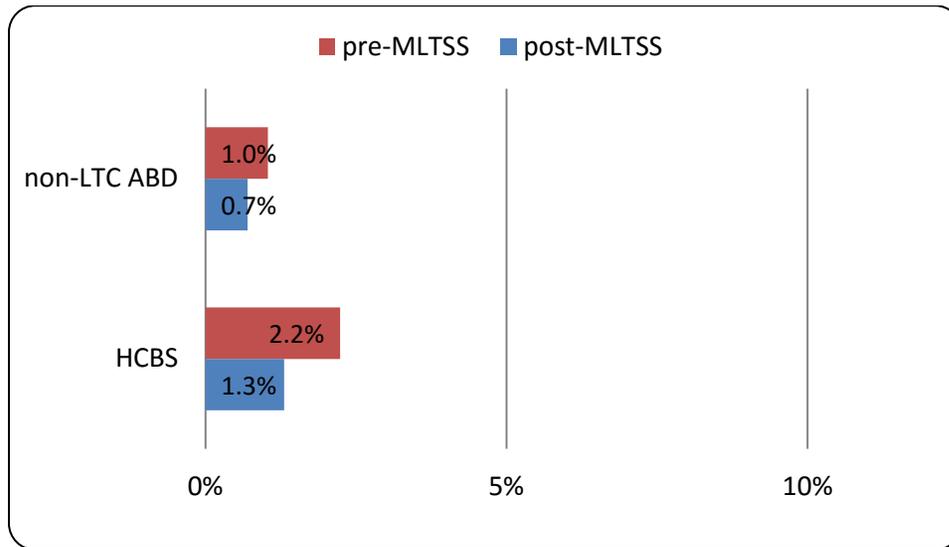
Avoidable inpatient utilization rate denotes the average likelihood of at least one avoidable hospitalization by a Medicaid beneficiary during the quarter.

Avoidable ED utilization rate denotes the sum total of ED visits by a person during a quarter.

Not adjusted for beneficiary or area characteristics.

*Calculated as $[d-c]-[b-a]$; For avoidable inpatient hospitalizations the unadjusted difference in differences is a percentage point change.

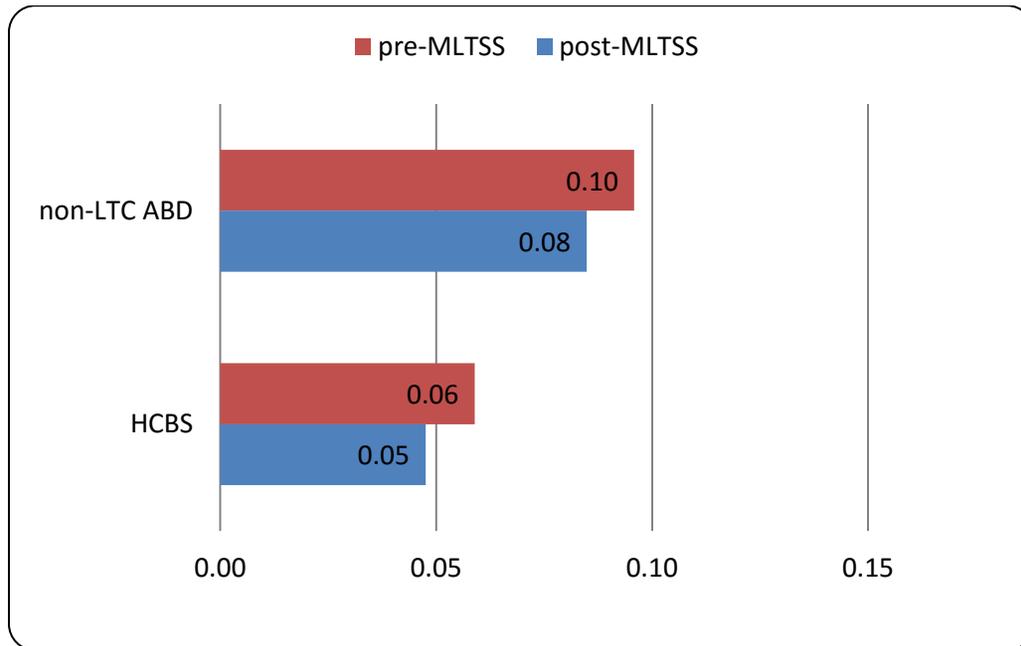
Figure 3B.3: Percentage experiencing avoidable inpatient hospitalizations over a quarter among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.4: Avoidable ED visits per beneficiary over a quarter among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.

Table 3B.3: Adjusted MLTSS impact on avoidable inpatient hospitalizations and ED visit rates among the HCBS population

MLTSS Impact Estimates (n=4,357,861)	Avoidable Inpatient Utilization	Avoidable ED Utilization
HCBS * Post-MLTSS	-0.00187** (0.00082)	0.00601*** (0.002)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department; HCBS=Home and Community-Based Services.

Person-quarter level difference-in-differences regression analysis with zip code fixed effects.

Models adjusted for sex, elderly status, quarterly time trends, waiver initiation, Medicaid expansion, CDPS risk category, and enrollment days per quarter.

Significant difference in pre-trends between HCBS and comparison group equaling 0.0006

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 3B.4: Unadjusted MLTSS impact on average per person, per quarter costs related to avoidable inpatient hospitalizations and ED visits among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Ratio of Ratios*
	pre-MLTSS (a)	post-MLTSS (b)	pre-MLTSS (c)	post-MLTSS (d)	
Avoidable inpatient cost	\$ 47.18	\$ 34.45	\$ 35.33	\$ 28.49	1.10
Avoidable ED cost	\$ 20.60	\$ 22.16	\$ 6.32	\$ 5.65	0.83

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

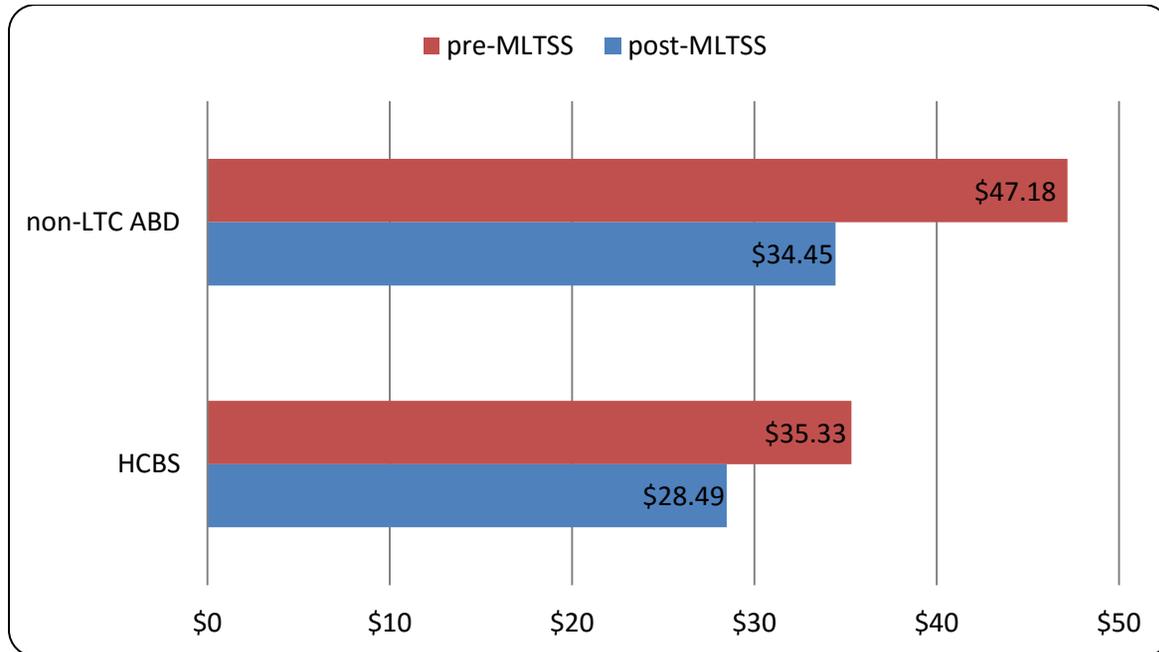
Notes: ED=Emergency Department; HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Unadjusted observed costs calculated by dividing total costs relating to a group by the number of person-quarters in the period.

Not adjusted for beneficiary or area characteristics.

*Calculated as $[d/c]/[b/a]$.

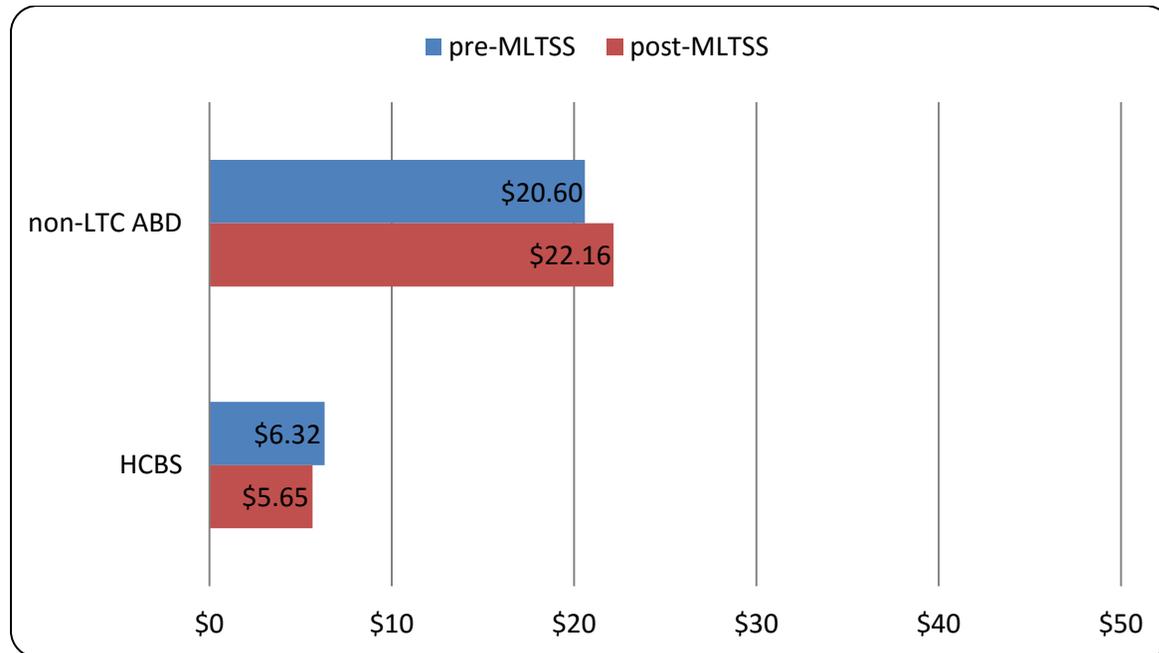
Figure 3B.5: Per person, per quarter costs due to avoidable inpatient hospitalizations among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.6: Per person, per quarter costs due to avoidable ED visits among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; ED=Emergency Department.

Table 3B.5: Adjusted MLTSS impact on avoidable inpatient and avoidable ED costs among the HCBS population

MLTSS Impact Estimates <i>(n=4,357,861)</i>	Avoidable Inpatient Costs	Avoidable ED Costs
HCBS * Post-MLTSS	2.9648*** (1.02600)	0.79673** (0.07048)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department; HCBS=Home and Community-Based Services.

Person-quarter level gamma regression analysis with log link and zip code fixed effects. Table reports the exponentiated coefficient of the interaction term giving the ratio of the two ratios as described in Table 3B.4, but after adjusting for patient and geographic factors.

Models adjusted for sex, elderly status, CDPS risk category, and enrollment days per quarter.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 3B.6: MLTSS impact on hospital readmissions among the Medicaid managed care population

MLTSS Impact Estimates	Hospital-Wide (n=212,525)	Heart Failure (n=6,691)	AMI (n=2,533)	Pneumonia (n=6,072)
mltss_post	-0.01125** (0.005)	-0.04435 (0.031)	-0.05700 (0.048)	-0.02689 (0.041)
mltss_time	-0.00029 (0.001)	0.00801 (0.009)	-0.00589 (0.011)	0.00427 (0.008)
mltss_post and mltss_time	*			

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: AMI=Acute Myocardial Infarction.

Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.

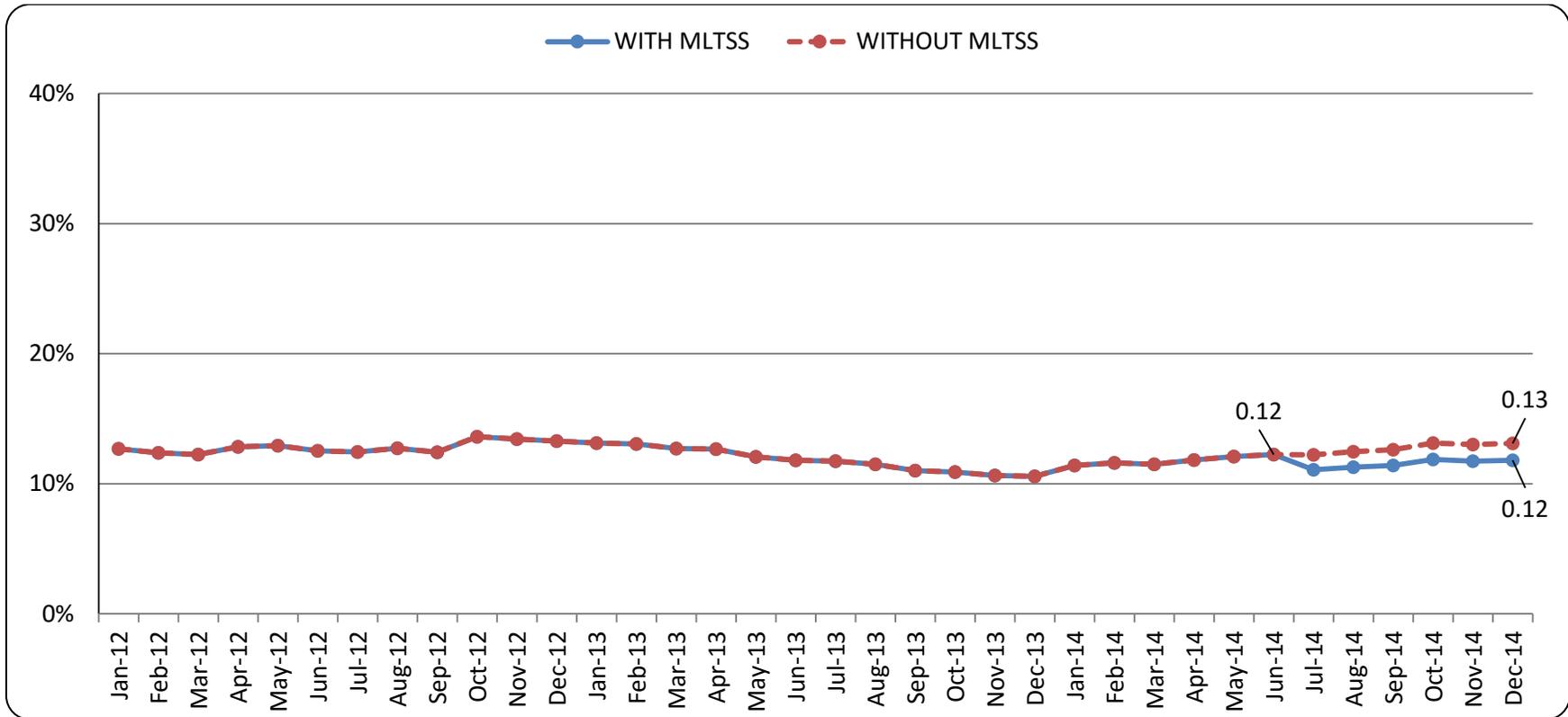
Discharge-level segmented regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.

Robust standard errors in parentheses.

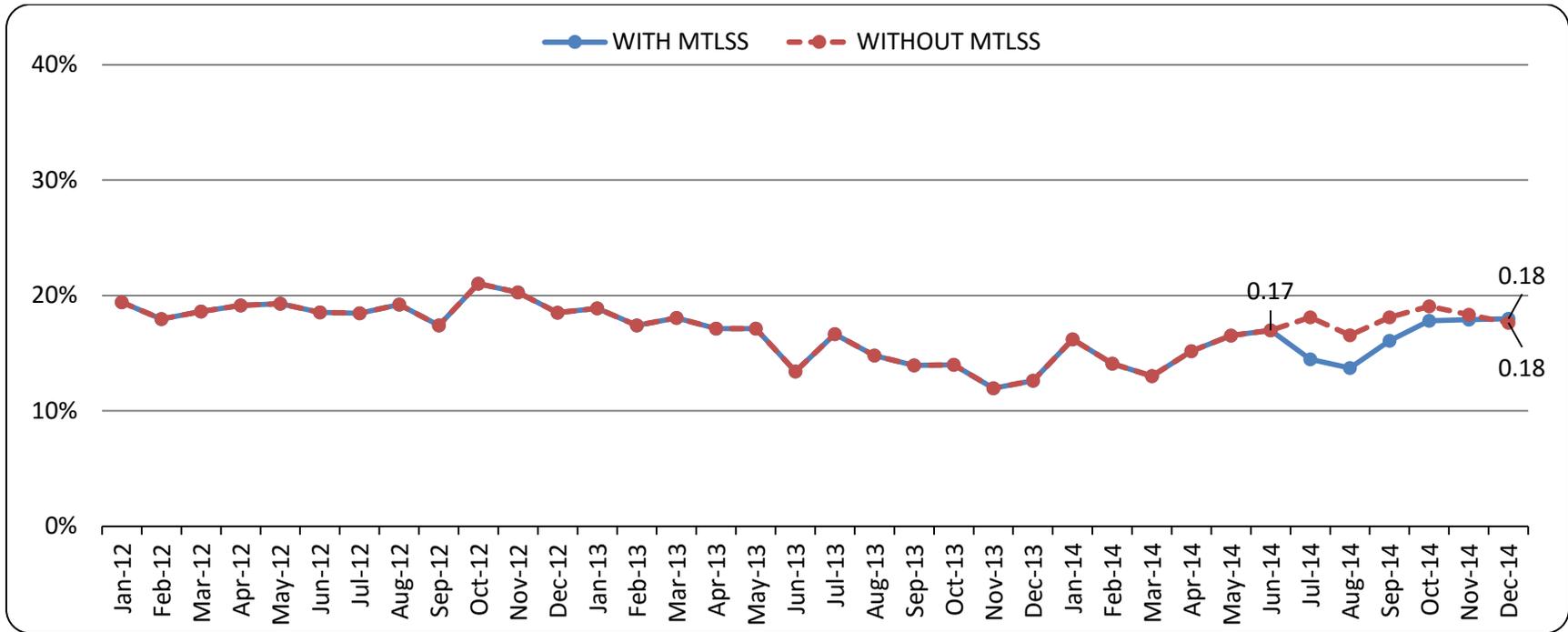
*** p<0.01, ** p<0.05, * p<0.1

Figure 3B.7: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect among the Medicaid managed care population



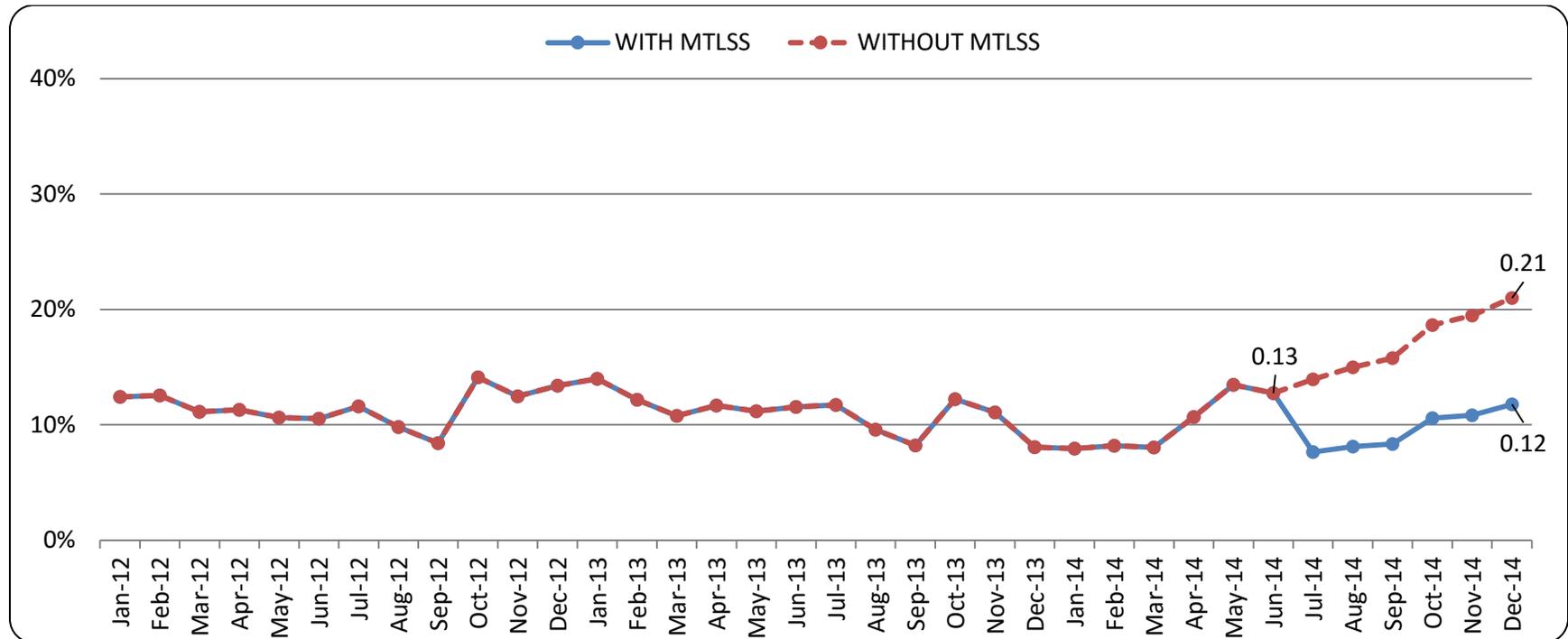
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.8: Regression-based probability of 30-day readmission following heart failure hospitalizations with and without MLTSS effect among the Medicaid managed care population



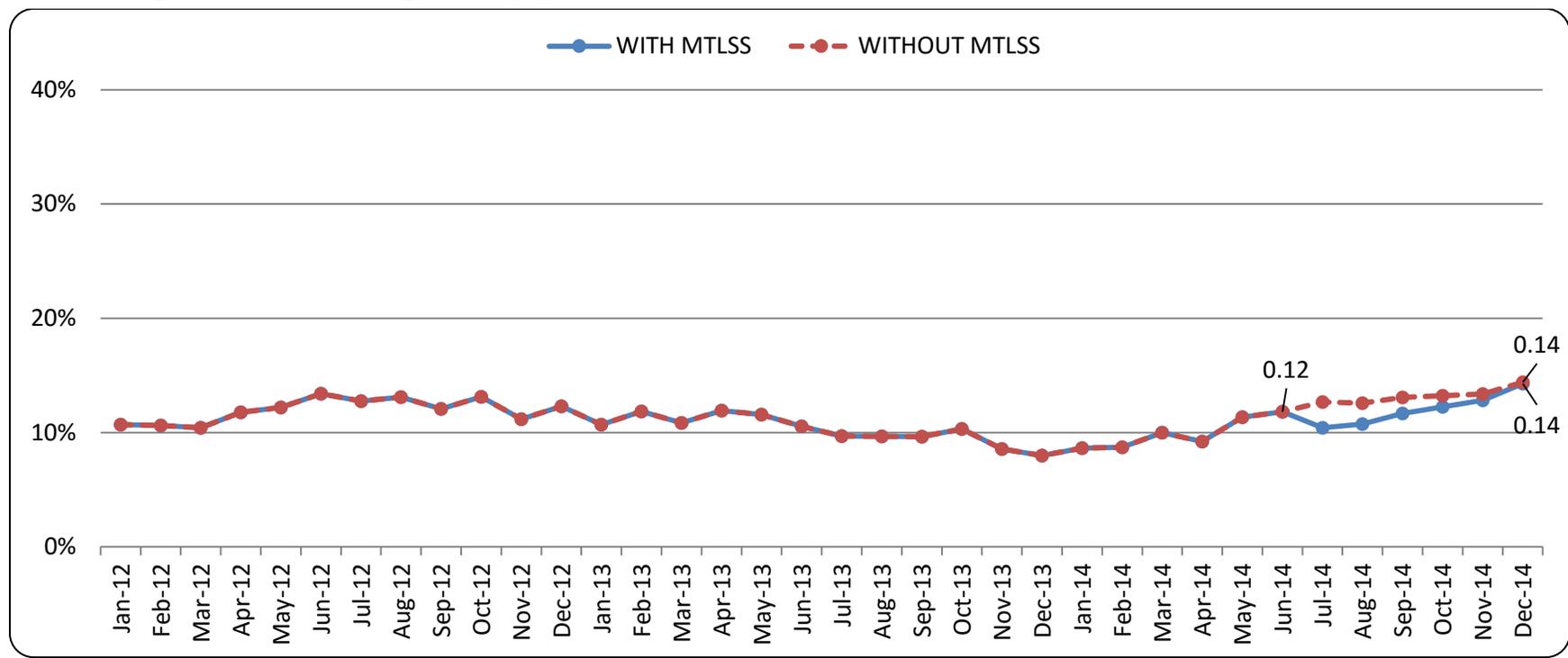
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.9: Regression-based probability of 30-day readmission following acute myocardial infarction hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Figure 3B.10: Regression-based probability of 30-day readmission following pneumonia hospitalizations with and without MLTSS effect among the Medicaid managed care population



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.7: Unadjusted MLTSS impact on 30-day hospital readmission rates among the HCBS population

Readmission Type	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS (a)	post-MLTSS (b)	pre-MLTSS (c)	post-MLTSS (d)	
Hospital-wide	15.4%	15.2%	8.8%	7.1%	-1.4
Heart failure	18.3%	16.9%	8.7%	9.5%	2.2
Acute myocardial infarction	12.4%	11.1%	4.5%	**	
Pneumonia	12.0%	11.5%	5.9%	16.1%	10.7

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

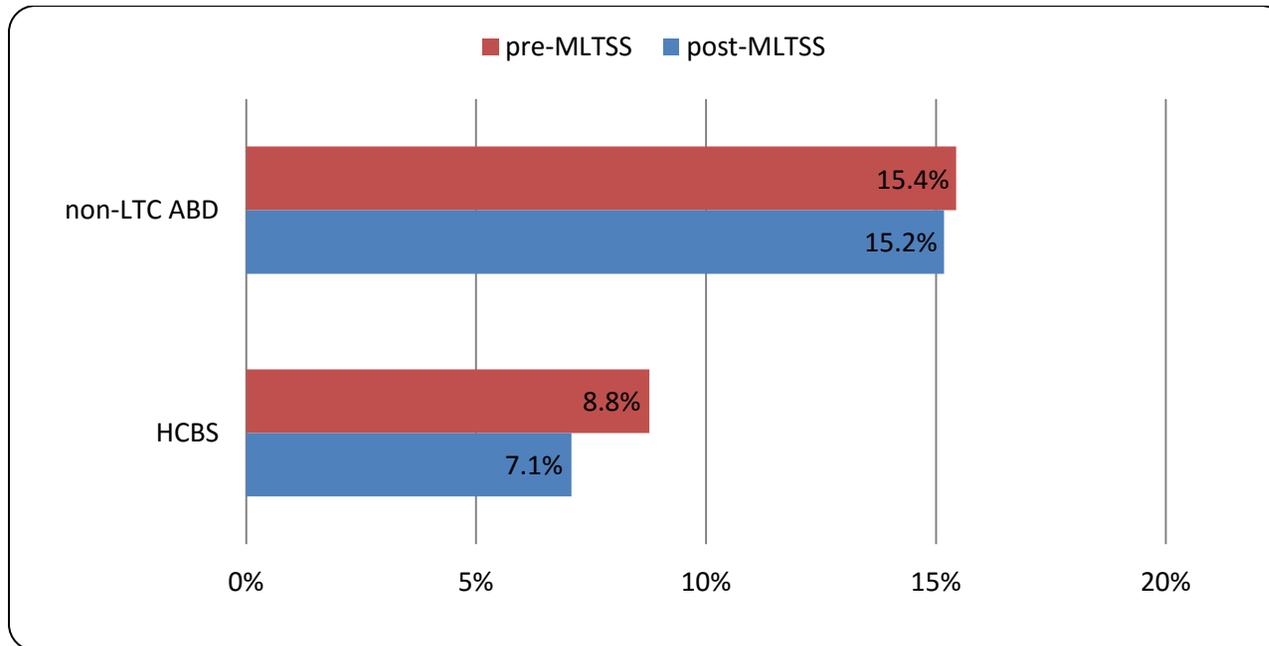
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Not adjusted for beneficiary or provider characteristics.

*Calculated as $[d-c]-[b-a]$; Units of unadjusted difference in differences is a percentage point change.

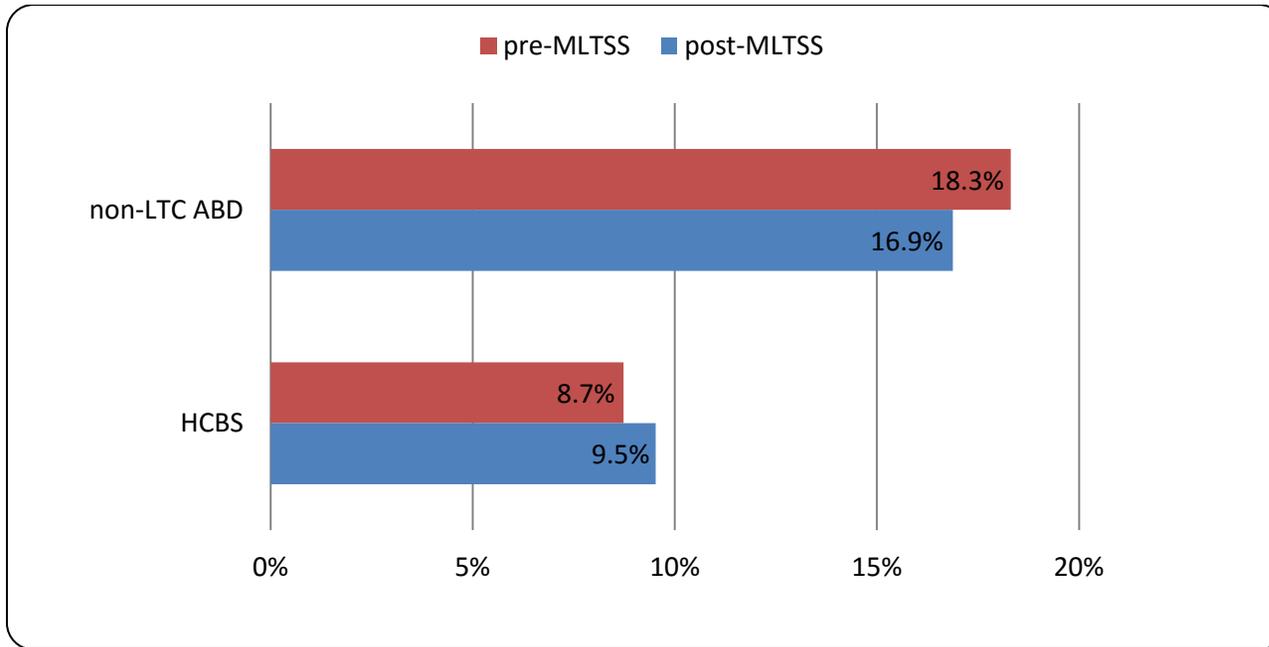
**Estimate suppressed due to insufficient sample size.

Figure 3B.11: Thirty-day hospital-wide readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



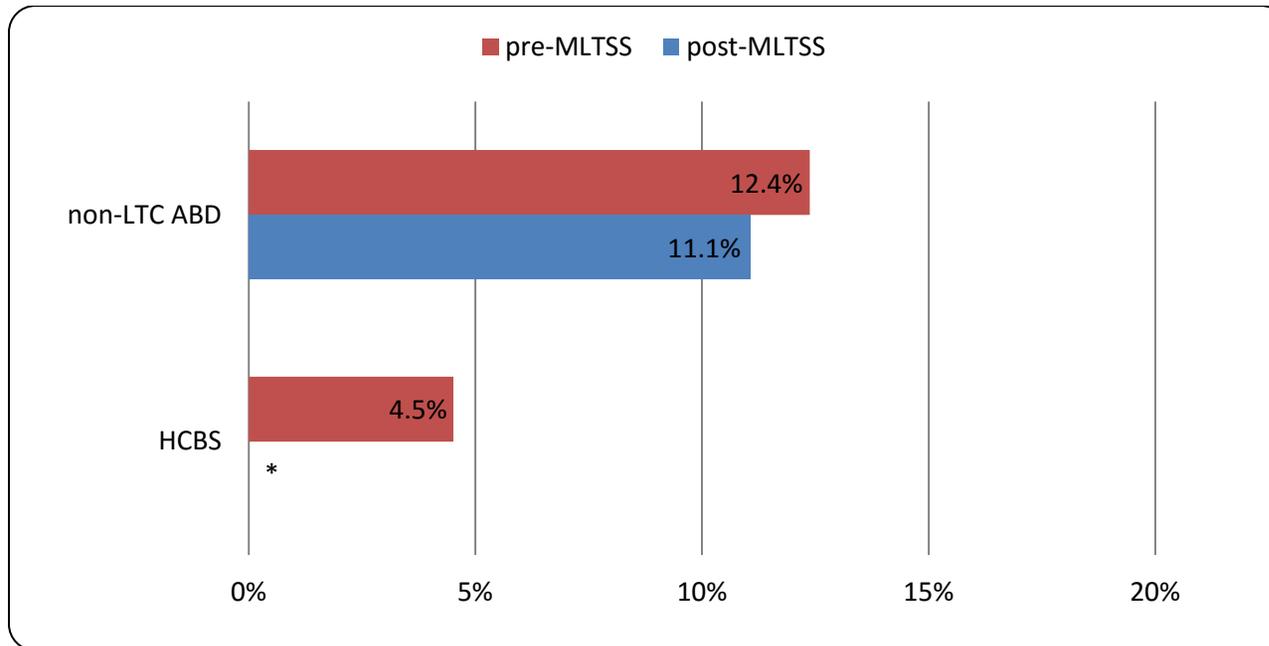
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.12: Thirty-day heart failure readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



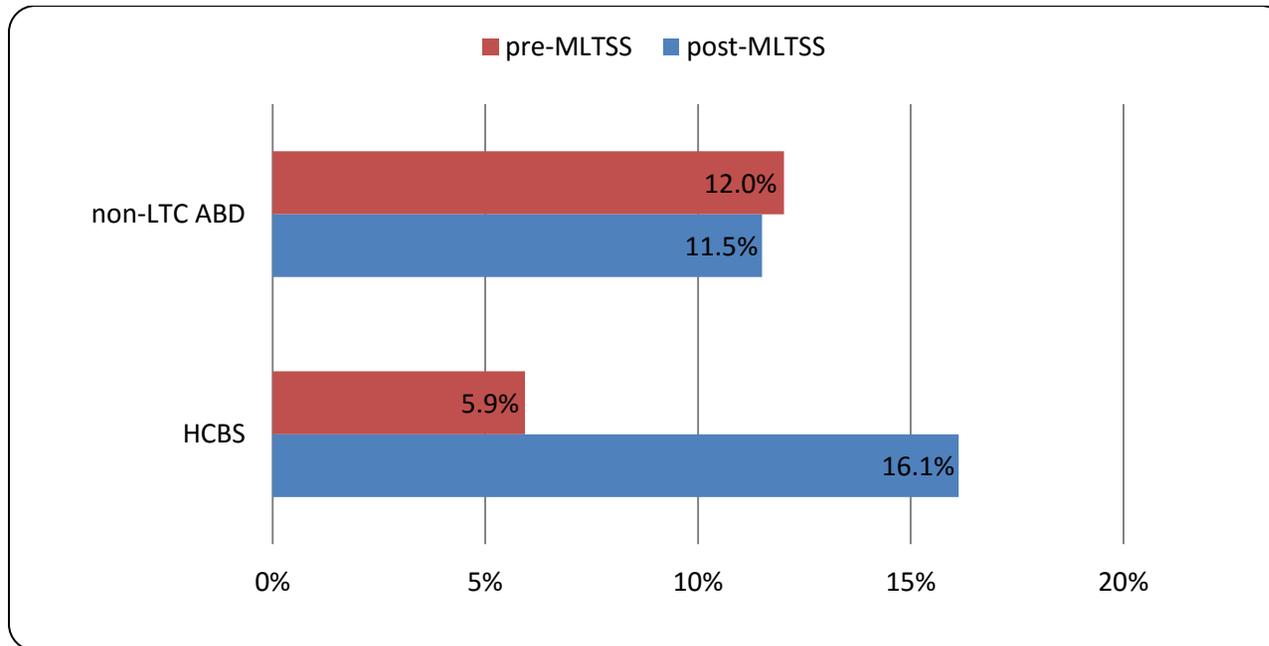
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Figure 3B.13: Thirty-day AMI readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: AMI=Acute Myocardial Infarction; HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.
*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Figure 3B.14: Thirty-day pneumonia readmission rates among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Table 3B.8: Adjusted MLTSS impact on hospital readmission rates among the HCBS population

MLTSS Impact Estimates	Hospital-Wide (n=132,791)	Heart Failure (n=5,938)	AMI (n=2,011)	Pneumonia (n=4,798)
HCBS * Post-MLTSS	-0.00428 (0.013)	0.05633 (0.048)	0.05124 (0.079)	0.11282* (0.059)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: AMI=Acute Myocardial Infarction; HCBS=Home and Community-Based Services.

Hospital readmissions for initial index hospitalizations that may be all-cause or related to heart failure, AMI, or pneumonia.

Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F.

Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.

Robust standard errors in parentheses.

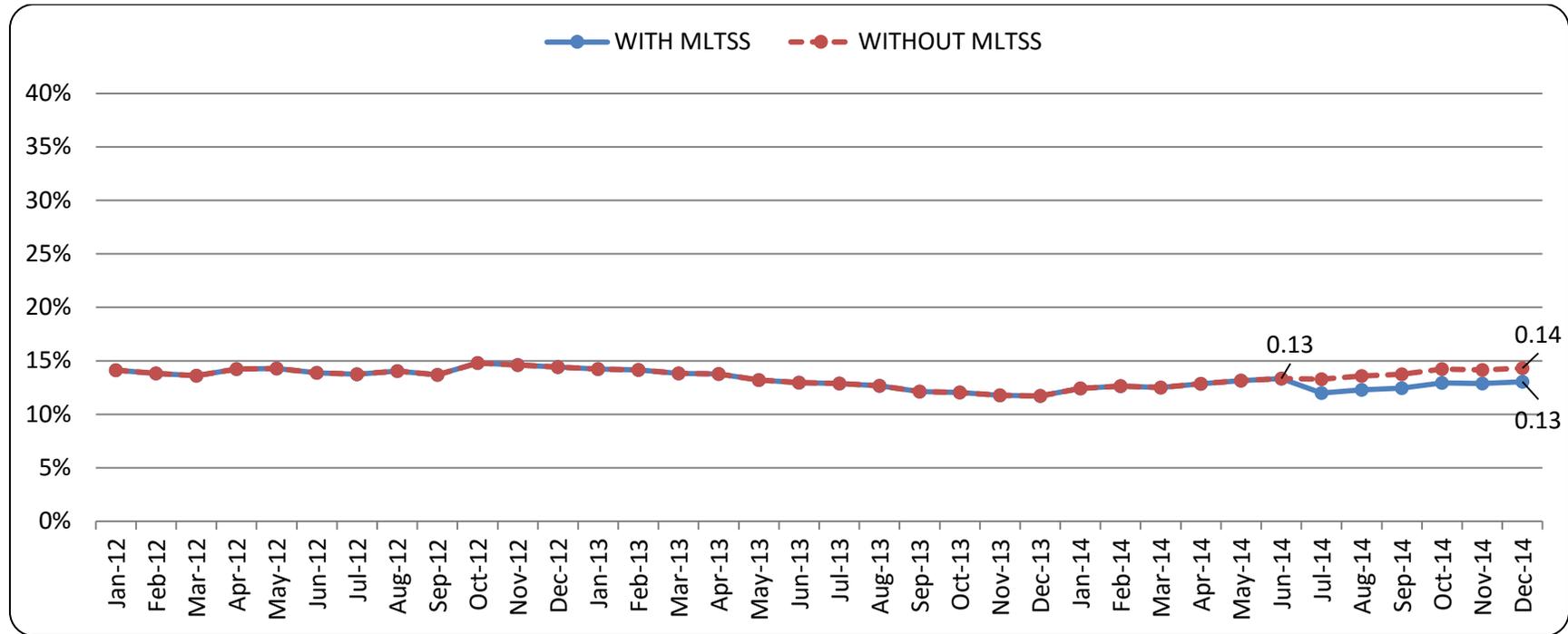
*** p<0.01, ** p<0.05, * p<0.1

Table 3B.9: MLTSS impact on hospital-wide readmissions among the Medicaid managed care population with a behavioral health condition

MLTSS Impact Estimates	Hospital-Wide Readmissions <i>(n=133,906)</i>
mltss_post	-0.01303* (0.007)
mltss_time	0.00006 (0.002)
mltss_post and mltss_time	

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy. Discharge-level segmented regression analysis with hospital fixed effects. Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and all condition-specific risk factors listed in Appendix F. Robust standard errors in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1

Figure 3B.15: Regression-based probability of 30-day readmission following all-cause hospitalizations with and without MLTSS effect for the Medicaid managed care population with a behavioral health condition



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.10: Unadjusted MLTSS impact on 30-day hospital-wide readmission rates among the HCBS population with a behavioral health condition

	non-LTC ABD with a BH condition		HCBS with a BH condition		Unadjusted Difference in Differences*
	pre-MLTSS	post-MLTSS	pre-MLTSS	post-MLTSS	
	(a)	(b)	(c)	(d)	
Hospital-wide readmissions	18.4%	18.5%	10.3%	9.1%	-1.3

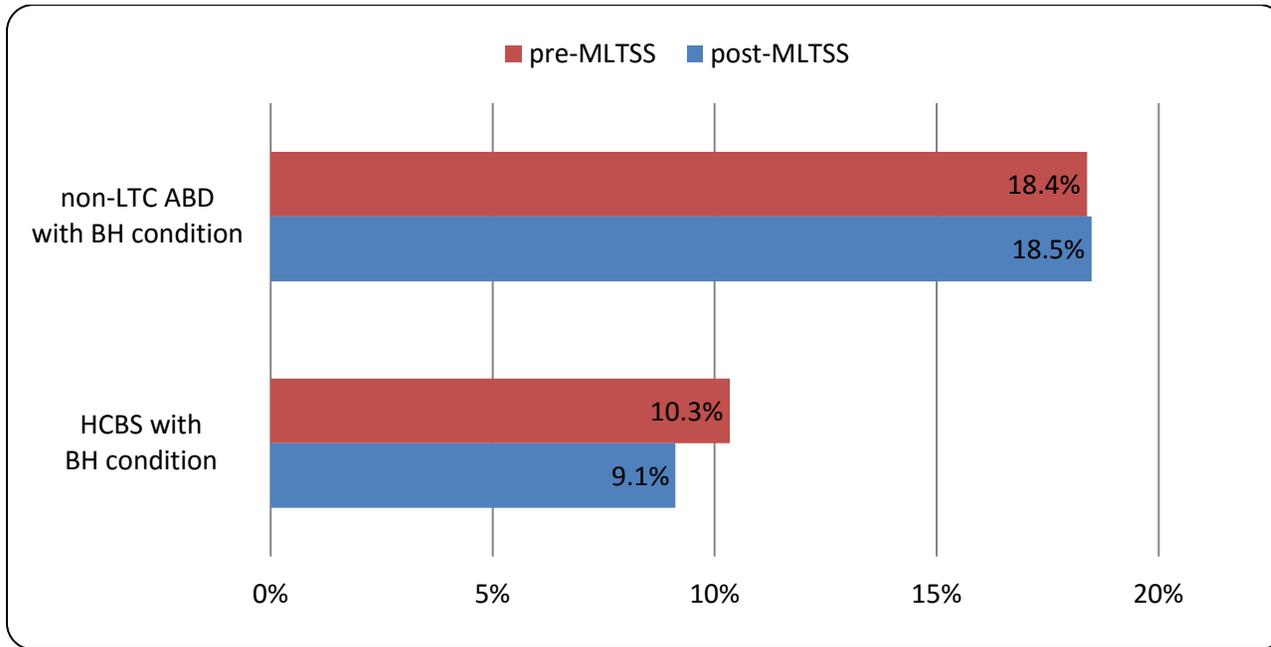
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; BH=Behavioral Health.

Not adjusted for beneficiary or provider characteristics.

*Calculated as $[d-c]-[b-a]$; Units of unadjusted difference in differences is a percentage point change.

Figure 3B.16: Thirty-day hospital-wide readmission rates among HCBS beneficiaries and a comparison population with a behavioral health condition during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled; BH=Behavioral Health.

Table 3B.11: Adjusted MLTSS impact on hospital-wide readmission rates among the HCBS population with a behavioral health condition

MLTSS Impact Estimate	Hospital-Wide Readmissions (<i>n</i> =92,273)
HCBS * Post-MLTSS	-0.00203 (0.019)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014;
Analysis by Rutgers Center for State Health Policy.

Notes: Discharge level difference-in-differences regression analysis with hospital fixed effects.
Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion,
and all condition-specific risk factors listed in Appendix F.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3B.12: MLTSS impact on follow-up after mental illness hospitalization among the Medicaid managed care population

MLTSS Impact Estimates (<i>n</i> =33,557)	Follow-up within 7 days	Follow-up within 30 days
mltss_post	0.00798 (0.016)	-0.01467 (0.021)
mltss_time	-0.00690 (0.004)	-0.01182** (0.005)
mltss_post and mltss_time		**

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

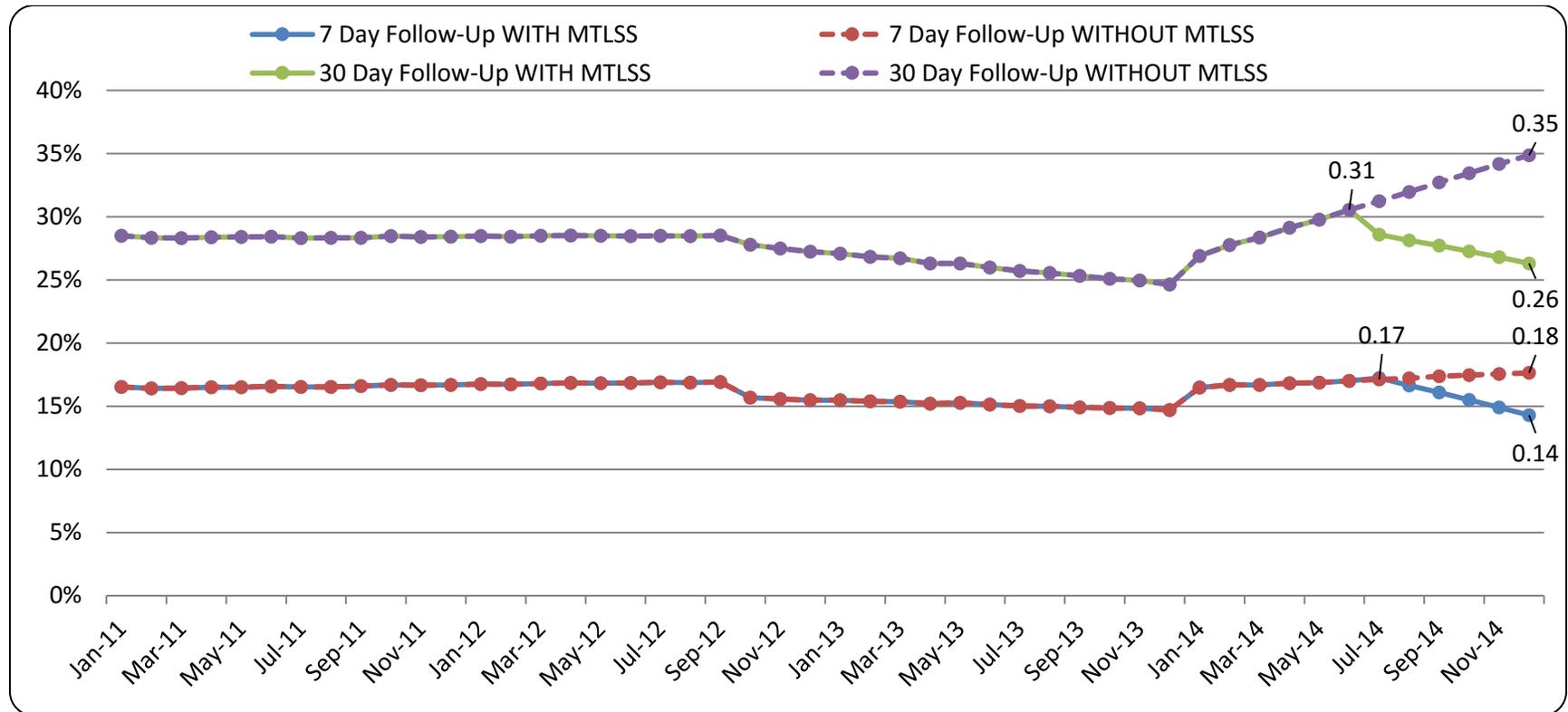
Notes: Discharge-level segmented regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure 3B.17: Regression-based rates of follow-up after mental illness hospitalization with and without MLTSS effect



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.13: Unadjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS (a)	post-MLTSS (b)	pre-MLTSS (c)	post-MLTSS (d)	
Follow-up within 7 days	14.9%	14.7%	10.7%	**	**
Follow-up within 30 days	26.4%	26.7%	19.3%	**	**

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

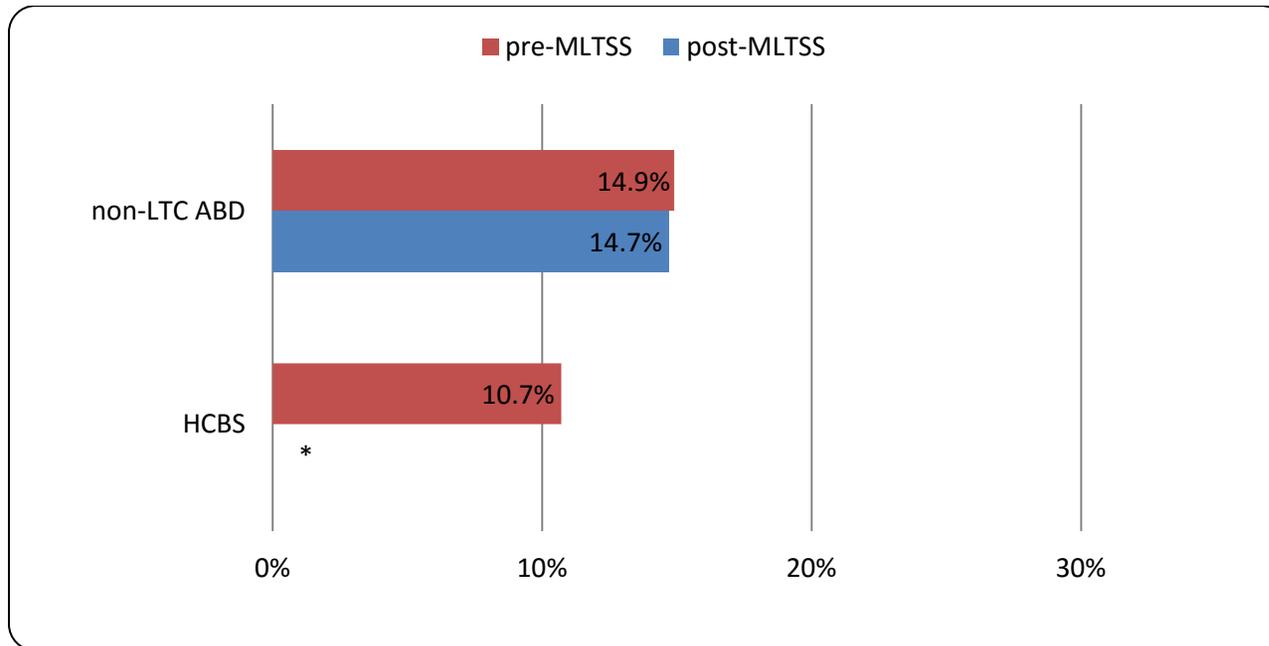
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Not adjusted for beneficiary and provider characteristics.

*Calculated as $[d-c]-[b-a]$; Units of unadjusted difference in differences is a percentage point change.

**Estimate suppressed due to insufficient sample size.

Figure 3B.18: Seven-day follow-up after mental illness hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods

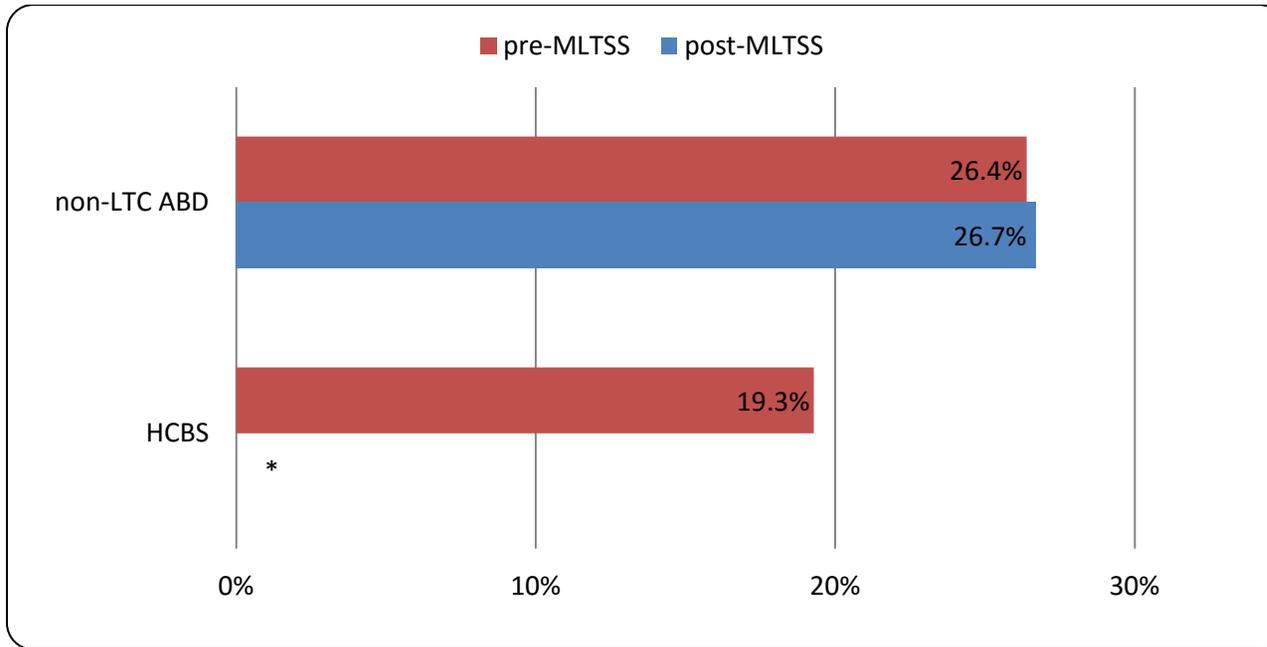


Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled

*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Figure 3B.19: Thirty-day follow-up after mental illness hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled

*Post-MLTSS estimate for the HCBS population suppressed due to insufficient sample size.

Table 3B.14: Adjusted MLTSS impact on follow-up after mental illness hospitalization among the HCBS population

MLTSS Impact Estimates (n=20,044)	Follow-up within 7 days	Follow-up within 30 days
HCBS * Post-MLTSS	0.16913 (0.232)	0.08933 (0.222)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 3B.15: MLTSS impact on 14-day ambulatory visit rates after hospitalization among the Medicaid managed care population

MLTSS Impact Estimates	Visit 14 Days After Discharge Home <i>(n=191,313)</i>
mltss_post	0.00318 (0.008)
mltss_time	0.00287 (0.003)
<u>mltss_post and mltss_time</u>	

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014;

Analysis by Rutgers Center for State Health Policy.

Discharge-level segmented regression analysis with hospital fixed effects.

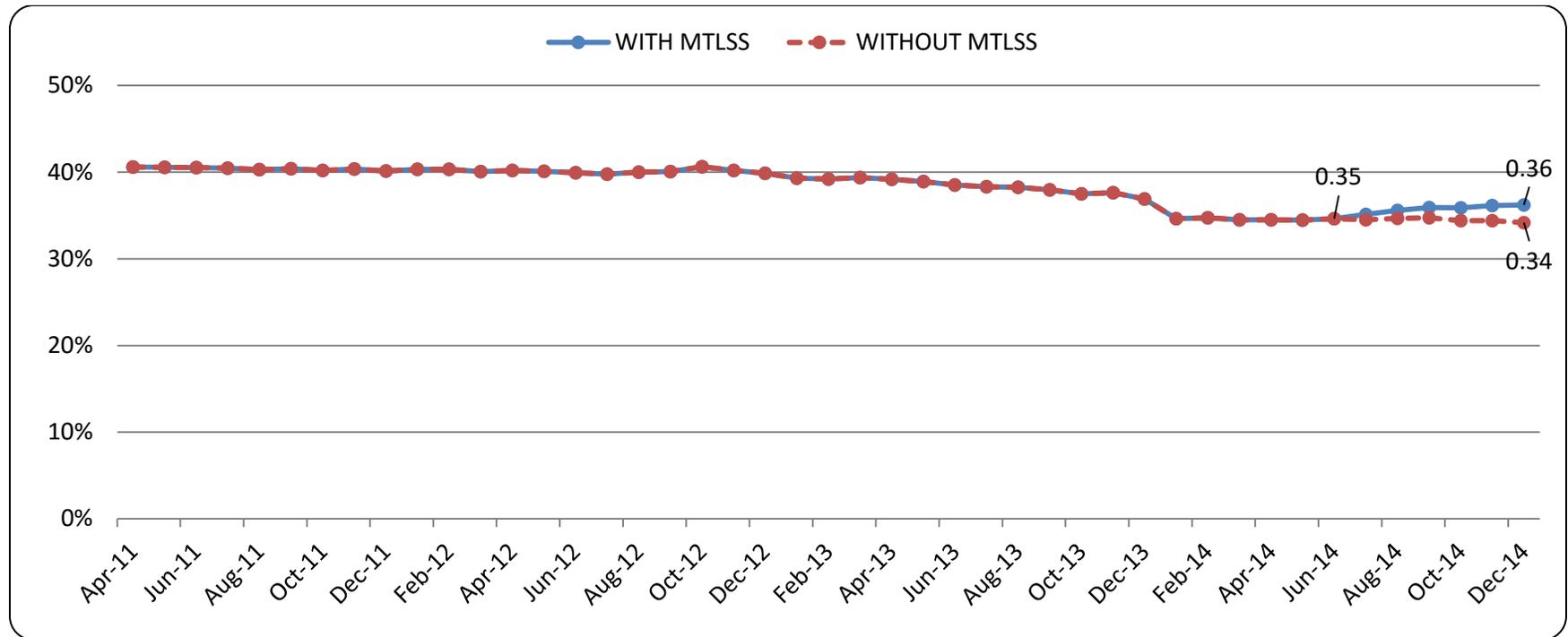
Models adjusted for sex, elderly status, monthly time trends, waiver initiation,

Medicaid expansion, and CDPS risk score category.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure 3B.20: Regression-based 14-day ambulatory visit rates after hospitalization with and without MLTSS effect



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Table 3B.16: Unadjusted MLTSS impact on 14-day ambulatory visit rates after hospitalization among the HCBS population

	non-LTC ABD		HCBS		Unadjusted Difference in Differences*
	pre-MLTSS (a)	post-MLTSS (b)	pre-MLTSS (c)	post-MLTSS (d)	
Ambulatory visit 14 days after discharge home	32.4%	28.5%	21.5%	11.5%	-6.1

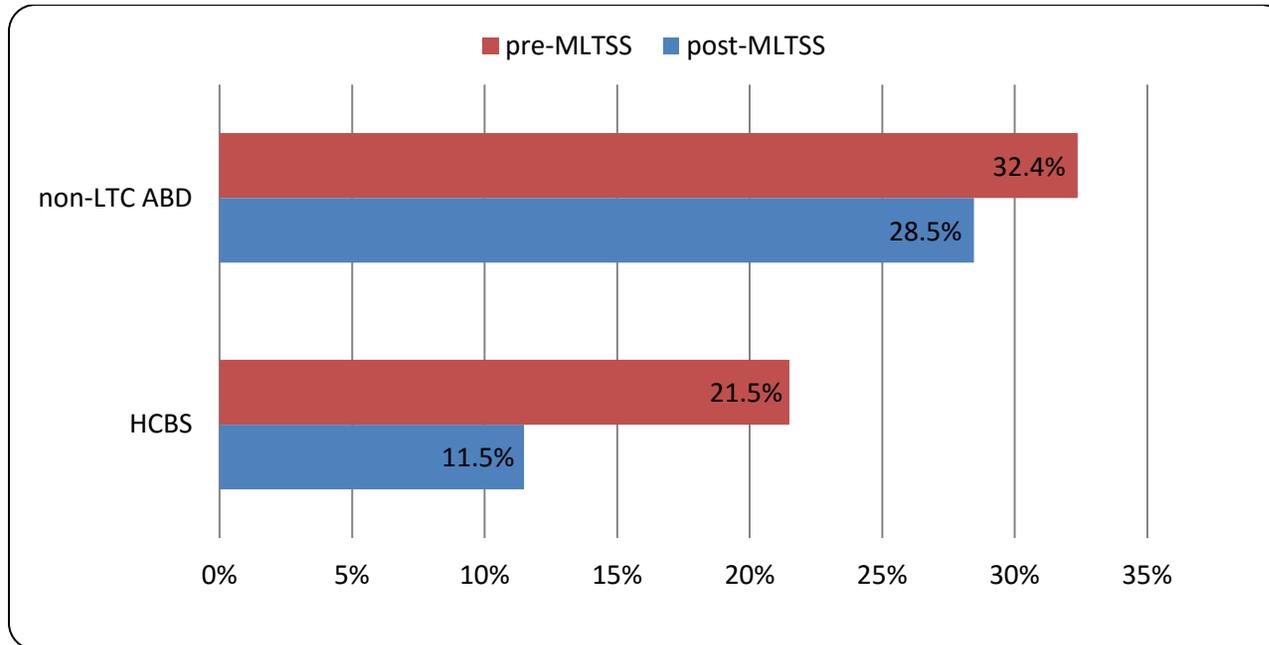
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Not adjusted for beneficiary and provider characteristics.

*Calculated as $[d-c]-[b-a]$; Units of unadjusted difference in differences is a percentage point change.

Figure 3B.21: Ambulatory visit 14 days after hospitalization among HCBS beneficiaries and a comparison population during the pre- and post-MLTSS periods



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.
Notes: HCBS=Home and Community-Based Services; LTC=Long-term Care; ABD=Aged/Blind/Disabled.

Table 3B.17: Adjusted MLTSS impact on ambulatory visit rates after hospitalization among the HCBS population

MLTSS Impact Estimate	Ambulatory Visit 14 Days After Discharge Home (<i>n=106,169</i>)
HCBS * Post-MLTSS	-0.05495*** (0.017)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: HCBS=Home and Community-Based Services.

Discharge level difference-in-differences regression analysis with hospital fixed effects.

Models adjusted for sex, elderly status, monthly time trends, waiver initiation, Medicaid expansion, and CDPS risk score category.

Significant difference in pre-trends between HCBS and comparison group equaling -0.001

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Discussion

In contrast to previous chapters where the data come from secondary sources, here we utilized Medicaid claims to calculate a set of metrics that capture the effect of specific waiver policies. These data are particularly valuable since in addition to calculating these measures, we are able to account for individual, provider, and area characteristics, and time periods while identifying the effect of policies on outcomes. For instance, while examining Research Question 1a, we are able to examine changes in outcomes for the months immediately after implementation of specific policies that allows identification of their effects and in addition account for the changes in beneficiary characteristics that occurs after the Medicaid expansion policy. Similarly, for Research Question 1b, claims-level information allows us to examine changes in outcome for the targeted LTC population before and after policy implementation and further compare these changes to our defined comparison group so that we can control for underlying trends in outcomes not connected to the policy effect.

For identifying the policy effects on the targeted LTC population and also the overall managed care population, we examined a broad range of outcomes for specific groups of Medicaid beneficiaries that relate to distinct aspects of care. Examples include avoidable inpatient hospitalizations and ED visits that arise due to inadequate ambulatory or primary care in the community; hospital readmissions overall and for specific diseases that reflect potentially inadequate inpatient care and lack of care coordination; follow-up after mental illness hospitalizations that examines similar issues specifically for individuals with behavioral health conditions; and ambulatory visit rates that reflect the quality of care transitions. We also construct several spending-related measures to see potential changes in distribution of spending over time and across places-of-care.

Descriptive Results

Our descriptive analysis examines mostly annual changes in measures from 2011 to 2014. While these trends may broadly indicate effects on the overall managed care population or the HCBS population, it is important to remember that these are not adjusted for changing beneficiary characteristics (subsequent to the Medicaid expansion) or underlying trends in outcomes unrelated to the policy. The value of these findings lie in outlining the levels of different measures (as opposed to magnitude of changes) for our years of analysis as well as specific eligibility groups. Partitioning our analysis into separate outcomes and distinct groups of Medicaid beneficiaries sheds light on whether the effects vary based on the aspect of care or specific Medicaid beneficiary characteristics which informs the current evaluation initiative as well as future rounds of policy formulation.

Some results also help establish baseline quality of care for individuals with behavioral health conditions prior to potential changes in care delivery for this population. We will highlight a few key findings.

Rates of avoidable inpatient hospitalizations were the highest among the LTC population receiving HCBS services and among them, those with behavioral health conditions. This makes this metric particularly important for examining changes in quality of care in this population. Rates of avoidable inpatient and ED visits were generally lowest in 2014 and this may at least partially be due to a decreasing trend that started in 2012. This highlights the utility of our regression models that account for pre-policy implementation trends.

Unlike avoidable inpatient hospitalizations, hospital readmissions were less prevalent among the HCBS population than among Medicaid managed care beneficiaries overall.

We also found that most of the total spending for Medicaid beneficiaries overall is related to non-hospital spending. Thus, while a decrease in avoidable inpatient hospitalizations and ED visits may signify better community-level care, it may not necessarily impact total spending in these populations. The spending estimates are also useful for examining the distribution of LTC spending across the different categories of spending by NF residents and HCBS beneficiaries. The bulk of spending related to the LTC population across 2011-2014 is accounted for by the NF LTSS spending. Focusing on policies to keep beneficiaries in the community and rebalancing spending is a promising strategy to control costs.

Adjusted Analysis: Overall Managed Care Population

For examining the effect of the managed care expansion on the overall managed care population our regression-based statistical analysis examined changes in outcomes since MLTSS implementation, but additionally accounted for underlying trends arising from previous policy changes such as the waiver implementation, and the Medicaid expansion.

Examining avoidable inpatient hospitalizations and avoidable ED visits we found neither exhibited consistent positive nor negative effects. There was an immediate decrease subsequent to MLTSS implementation (corresponding to about a 9% decline over baseline in the likelihood of an avoidable hospitalization in a quarter and a 15% decline over baseline in the number of avoidable ED visits per beneficiary per quarter) and then an increasing trend over the 6 months of implementation. While statistically significant, the absolute value of the rate decrease is very small. Further the increasing trend erodes the decrease in rates immediately after implementation.

For all four categories of hospital readmissions pertaining to the overall group of managed care beneficiaries, our analysis indicates a decrease in a managed care beneficiary's probability of a readmission subsequent to the MLTSS implementation, but only the decline related to hospital-wide readmissions is statistically significant. Hospital-wide readmissions also significantly decreased for those with behavioral health conditions. Overall the readmission effects suggest no worsening of overall managed care quality, in fact some potential improvements may have occurred, not all of which can be statistically verified.

Examination of follow-up after hospitalizations yielded mixed results. There is a statistically significant decrease in 30-day follow up after mental illness hospitalizations post-MLTSS, but a small and non-significant increase in ambulatory visits 14 days after discharge. It is likely that MLTSS effects on continuity of care vary across different patient groups.

Overall, there were no negative effects on access to care for the managed care population during the first six months of MLTSS implementation, but nor were there any definitive positive effects. The decrease in avoidable inpatient hospitalizations and avoidable ED visits immediately after implementation were of very small magnitude, although significant statistically. In terms of quality, efficiency, and coordination of care, decreases in readmission rates suggest improvements, further supported by small increases in ambulatory visits after discharge, though only the drop in hospital-wide readmission rates is significant. In terms of behavioral health quality, we see mixed results. Hospital-wide readmissions improved for individuals with behavioral health conditions, as they did for all managed care beneficiaries, as a result of MLTSS, but mental health-specific follow-up care after a hospitalization for mental illness showed a significant decline. This is the only significant negative impact observed for the entire managed care population coincident with MLTSS implementation.

Adjusted Analysis: HCBS Population

We examined the effect of the MLTSS policy on the HCBS population that transitioned to managed care on July 1, 2014. The effects on ambulatory/primary care are ambiguous since results differ based on place of treatment – the likelihood of avoidable hospitalizations per quarter decreased by about 8% and avoidable ED visits increased by about 10% per beneficiary per quarter for the HCBS population. Both these changes were statistically significant. However, the per-person costs related to such hospitalizations moved in the opposite direction. This implies that the avoidable inpatient stays became less likely, but more expensive, and the avoidable ED visits became more likely, but less expensive.

We find a large and marginally significant increase in 30-day readmissions following hospitalization for pneumonia among the HCBS population, and increases in AMI and HF

readmissions which are not statistically significant. This points to potential issues related to care coordination for HCBS beneficiaries hospitalized for pneumonia under MLTSS.

There was a substantial, but not statistically significant, increase in follow-up rates after mental illness hospitalizations, but the reliability of this finding is questionable due to small sample size. There was a statistically significant decrease in the likelihood of ambulatory visit after hospitalization. Based on the trends reported above, trends in these measures were in opposite direction to the overall managed care population.

In summary, access to care and quality of care for the HCBS population showed no definitive positive impacts due to the first six months of MLTSS implementation. The probability of avoidable inpatient hospitalizations declined slightly in magnitude but these hospitalizations also became more expensive. Consistently, metrics relating to post-discharge care following hospitalizations for medical conditions worsened, though most of these results also did not reach conventional levels of statistical significance. In terms of the managed care carve-in of behavioral health for the HCBS population under MLTSS, hospital-wide readmissions among those with a behavioral health condition declined, but the effect was neither substantial nor statistically significant. Follow-up after mental illness hospitalizations did show improvements, but the effects were not statistically significant and the model based on too small of a sample to be reliable. Additional data extending beyond the first six months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to the point that they can be conclusively considered MLTSS policy effects.

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or seek ambulatory care in the emergency department because of pregnancy and childbirth, for surgery, or for nonsurgical medical treatment. These measures of service use gather information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified inpatient and emergency department visits are also aggregated by beneficiary.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations and Avoidable/Preventable Emergency Department Visits: We calculate rates of ACS inpatient (IP) hospitalizations and avoidable treat-and-release ED visits that may occur due to inadequate ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Prevention Quality Indicators (PQI) for adults (ages 18 and above) and Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population. Appendix B also lists the constituents of the two other composite indicators (based on acute and chronic conditions).

We also calculate avoidable treat-and-release ED visits based on the methodology provided by the New York University, Center for Health and Public Service Research (Billings, Parikh, and Mijanovich 2000), which are part of AHRQ's Safety Net Monitoring Toolkit. These comprise three categories of avoidable ED visits that could have been treated in an outpatient primary care setting or could have been prevented with timely access to primary care. Detailed definitions of these classifications are provided with examples in Appendix C.

Our preparation of these metrics considers utilization at any general acute care hospital, inside or outside NJ. The costs associated with all identified avoidable inpatient and emergency department visits are also aggregated by beneficiary.

Readmissions: Because hospital readmissions can result from poor quality of care or inadequate transitional care, 30-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009). Such ‘potentially preventable’ readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014). The readmissions metrics we calculate (all-cause, heart failure, pneumonia, and acute myocardial infarction) are endorsed by the National Quality Forum (NQF) and are adapted from the 2014 Centers for Medicare and Medicaid Services methodology available at QualityNet.⁸⁰

We consider index admissions and readmissions at any general acute care hospital, inside or outside NJ. In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history for risk-adjustment. Therefore, estimates for year 2011 could not be calculated due to this restriction.

Follow-up After Hospitalization for Mental Illness: Following an acute hospitalization for mental illness, it is recommended that patients have an outpatient visit with a mental health practitioner to ensure appropriate and regular follow-up therapy and medication monitoring. This measure is used to assess the percentage of discharges for members hospitalized for the treatment of selected mental health disorders that were followed by a qualifying visit with a mental health practitioner within 7 and 30 days. Our preparation of this measure considers index admissions at any general acute care hospital or short-term psychiatric hospital, inside or outside NJ. This measure is endorsed by the NQF and is part of the Medicaid Adult Core and Child Core Sets of Health Care Quality Measures.

We followed the National Committee of Quality Assurance’s specifications for the calculation of this metric (NCQA 2014) with the exception that we identified follow-up visits for hospital discharges through December 31 of the calendar year (instead of through December 1) in order

⁸⁰ <https://www.qualitynet.org>.

to support time series regression analyses and were limited in our ability to identify partial hospitalizations which qualify as a follow-up visit due to the unavailability of the CMS place of service variable in our claims dataset.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Ambulatory Care Visit 14 Days After Discharge: Motivated by research showing that readmissions and ED visits are less likely to occur if patients are seen by a primary clinician or specialist shortly after discharge, this measure assesses the frequency of clinician follow-up visits within 14 days after patients are discharged from the hospital for medical conditions. It was developed by the Dartmouth Atlas Project for use in the Medicare population. Using their methodology and adapting it for the Medicaid claims data, access to ambulatory care is assessed among all discharges and then separately for discharges home (with or without home health services), to facility-based rehabilitation (SNFs, inpatient rehabilitation facilities, long-term acute care hospitals), and to other facilities (such as an intermediate care facility) (Goodman, Fisher, and Chang 2011).

In our preparation of this measure, we consider discharges from only general acute care hospitals in NJ. Hospitalizations outside NJ could not be included because this measure requires identification of medical discharges from AP-DRG billing codes. Hospitals in other states may use different DRG systems to which our crosswalk would not apply. Also, this measure requires a negative 90-day hospitalization history. Our claims database begins on January 1, 2011 so this negative history could not be established for hospitalizations in the first three months of 2011. Therefore, this metric was only based on April through December in year 2011.

Finally, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, metrics relating to post-acute ambulatory care cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. Therefore, populations in nursing facilities or intermediate care facilities were excluded from the analytic population when conducting regression analyses on this metric.

Behavioral Health Comorbidities: Behavioral health comprises two mutually exclusive categories: problems related to mental health (MH) and substance use disorders/substance abuse (SA). We adapt the Agency for Health Care Research and Quality (AHRQ) Clinical Classification Software (CCS) to identify BH problems among Medicaid beneficiaries. The software uses information from ICD-9-CM diagnosis and procedure codes to classify hospital discharges into a number of clinically meaningful disease categories (HCUP 2014). Mental health conditions include mood disorders; schizophrenia; anxiety disorder; delirium; dementia and substance abuse includes alcohol and substance-related disorders (See Appendix E for details).

Appendix B: AHRQ Prevention Quality Indicators and Pediatric Quality Indicators – Composites and Constituents

Overall Composite (PQI #90)

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Congestive Heart Failure (CHF) Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes

Acute Composite (PQI #91)

PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	

Chronic Composite (PQI #92)

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #07 Hypertension Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
PQI #08 Congestive Heart Failure (CHF) Admission Rate	

Source: Prevention Quality Indicators Technical Specifications - Version 5.0, March 2015;
http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx.

Overall Composite (PDI #90)

PDI #14 Asthma Admission Rate

PDI #15 Diabetes Short-Term Complications Admission Rate

PDI #16 Gastroenteritis Admission Rate

PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015;
http://www.qualityindicators.ahrq.gov/modules/PDI_TechSpec.aspx.

Appendix C: Classification of Emergency Department Visits

Type Description	Diagnoses
Non-Emergent: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.	Headache, Dental disorder, Types of migraine
Emergent, Primary Care Treatable: Conditions for which treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests)	Acute bronchitis, Painful respiration, etc.
Emergent, ED Care Needed, Preventable/Avoidable: Emergency department care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness	Flare-ups of asthma, diabetes, congestive heart failure, etc.
Emergent, ED Care Needed, Not Preventable/Avoidable: Emergency department care was required and ambulatory care treatment could not have prevented the condition	Trauma, appendicitis, myocardial infarction

The first three categories are considered to be avoidable/preventable.

Type descriptions taken from <http://wagner.nyu.edu/faculty/billings/nyued-background.php>.

Appendix D: Long-Term Care Assignment Algorithms

Monthly Assignment: For every month in which a beneficiary had at least one day of active enrollment as determined by the effective dates of the Program Status Code, assignment to one of the following categories was implemented hierarchically: facility, home and community-based services (HCBS), or other. The rules for assignment were: If at least one claim showed up for a nursing facility (Category of Service=07) in the month or the post-MLTSS Special Program Code (SPC) for facility resident (61,63-67) was effective at least one day in the month, the month was assigned as NF (nursing facility). For the remaining beneficiary-months, if there was ever an active pre-MLTSS SPC in the month indicating the beneficiary was in one of the §1915(c) waiver programs (3,4,6=CRPD, 5=ACCAP, 17=TBI, 32,33=GO) or an active post-MLTSS SPC code in the month indicating home or community-based residence (60=community, 62=assisted living), the month was designated as HCBS. The remaining months fell into the 'Other' category. Any month classified as facility or HCBS was a long-term care month (LTC). Months in the 'Other' category were non-LTC.

Quarterly Assignment: For any beneficiary ever having at least one day of active enrollment in the quarter as determined by the effective dates of the Program Status Code, a quarterly assignment to either NF, HCBS, or non-LTC was implemented using the monthly assignment and a majority rule. In cases where there was no majority, assignment was hierarchical based on the order: NF, HCBS, non-LTC.

Annual Assignment: For any beneficiary ever having at least one day of active enrollment in the calendar year as determined by the effective dates of the Program Status Code, 'X' was the number of months designated as facility months in the monthly assignment. 'Y' was the number of months designated HCBS. If at least half of the beneficiary's enrolled months during that year had one of these LTC designations then the beneficiary was classified as part of the LTC population for that year. If less than half, then the beneficiary was non-LTC. Within the LTC population, 'X' and 'Y' were compared to make an annual assignment to either the facility or community. If 'X' was greater than or equal to 'Y' then the beneficiary was in the facility population for the entire year. If 'X' was less than 'Y' then the beneficiary was designated as being a LTC HCBS recipient.

Appendix E: Definition of Mental Health and Substance Abuse

Mental Health	
5.1	Adjustment disorders [650]
5.2	Anxiety disorders [651]
5.3	Attention deficit conduct and disruptive behavior disorders [652]
5.3.1	Conduct disorder [6521]
5.3.2	Oppositional defiant disorder [6522]
5.3.3	Attention deficit disorder and Attention deficit hyperactivity disorder [6523]
5.4	Delirium dementia and amnesic and other cognitive disorders [653]
5.5	Developmental disorders [654]
5.5.1	Communication disorders [6541]
5.5.2	Developmental disabilities [6542]
5.5.3	Intellectual disabilities [6543]
5.5.4	Learning disorders [6544]
5.5.5	Motor skill disorders [6545]
5.6	Disorders usually diagnosed in infancy childhood or adolescence [655]
5.6.1	Elimination disorders [6551]
5.6.2	Other disorders of infancy childhood or adolescence [6552]
5.6.3	Pervasive developmental disorders [6553]
5.6.4	Tic disorders [6554]
5.7	Impulse control disorders not elsewhere classified [656]
5.8	Mood disorders [657]
5.8.1	Bipolar disorders [6571]
5.8.2	Depressive disorders [6572]
5.9	Personality disorders [658]
5.10	Schizophrenia and other psychotic disorders [659]
5.13	Suicide and intentional self-inflicted injury [662]
5.14.1	Codes related to mental health disorders [6631]
5.15	Miscellaneous mental disorders [670]
5.15.1	Dissociative disorders [6701]
5.15.2	Eating disorders [6702]
5.15.3	Factitious disorders [6703]
5.15.4	Psychogenic disorders [6704]
5.15.5	Sexual and gender identity disorders [6705]
5.15.6	Sleep disorders [6706]
5.15.7	Somatoform disorders [6707]
5.15.8	Mental disorders due to general medical conditions not elsewhere classified [6708]
5.15.9	Other miscellaneous mental conditions [6709]
Substance Abuse	
5.11	Alcohol-related disorders [660]
5.12	Substance-related disorders [661]
5.14.2	Codes related to substance-related disorders [6632]

Source: AHRQ Clinical Classification Software (CCS). Numbers in the first column denote multi-level CCS diagnostic categories. Numbers in the second column denote single-level categories.

Appendix F: Risk-Adjustment Variables for Readmissions Metrics

For the 30-day readmission metrics, control variables for health status come from a full year of data prior to the index admission date and encompass clinically relevant comorbidities (not complications) that have strong relationships with readmission for the specific condition being analyzed.

Heart Failure Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Pneumonia • Renal Failure • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Other Gastrointestinal Disorders • Acute Coronary Syndrome • Valvular or Rheumatic Heart Disease 	<ul style="list-style-type: none"> • Specified Arrhythmias • Asthma • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Cancer • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • End-Stage Renal Disease or Dialysis • Severe Hematological Disorders • Nephritis • Liver or Biliary Disease • Metastatic Cancer or Acute Leukemia • Stroke • Dementia or Other Specified Brain Disorders • Coronary Atherosclerosis or Angina • Other or Unspecified Heart Disease • Other Psychiatric Disorders • Fibrosis of Lung or Other Chronic Lung Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Depression
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Acute Myocardial Infarction (AMI) Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty 	<ul style="list-style-type: none"> • Vascular or Circulatory Disease • Disorders of Fluid/Electrolyte/Acid-Base • Coronary Atherosclerosis • History of infection • Cerebrovascular Disease
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Acute Myocardial Infarction (AMI) Readmissions (continued)

<ul style="list-style-type: none"> • Diabetes Mellitus (DM) or DM Complications • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Congestive Heart Failure • Valvular or Rheumatic Heart Disease • Chronic obstructive pulmonary disease • End-Stage Renal Disease or Dialysis • Other Urinary Tract Disorders • Specified Arrhythmias • Pneumonia • Renal Failure 	<ul style="list-style-type: none"> • Metastatic Cancer or Acute Leukemia • Cancer • Decubitus Ulcer or Chronic Skin Ulcer • Dementia or Other Specified Brain Disorders • Angina Pectoris/Old Myocardial Infarction • Stroke • Asthma • Acute Coronary Syndrome • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Protein-Calorie Malnutrition; • Anterior Myocardial Infarction • Other Location of Myocardial Infarction
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Pneumonia Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • History of infection • Septicemia/Shock • Metastatic Cancer or Acute Leukemia • Lung, Upper Digestive Tract, and Other Severe Cancers • Other Major Cancers • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Other Psychiatric Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability 	<ul style="list-style-type: none"> • Protein-Calorie Malnutrition • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Acute Coronary Syndrome • Coronary Atherosclerosis or Angina • Valvular or Rheumatic Heart Disease • Specified Arrhythmias • Stroke • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Fibrosis of Lung or Other Chronic Lung Disorders • Asthma • Pneumonia • Pleural Effusion/Pneumothorax • Other Lung Disorders • End-Stage Renal Disease or Dialysis • Renal Failure • Urinary Tract Infection • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Vertebral fractures • Other Injuries
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Hospital-Wide Readmissions

<ul style="list-style-type: none"> • Age • Metastatic cancer/acute leukemia • Severe Cancer • Other Cancers • Severe Hematological Disorders • Coagulation Defects and Other Specified Hematological Disorders • Iron Deficiency or Other Unspecified Anemia and Blood Disease • End-stage Liver Disease • Pancreatic Disease • Dialysis Status • Acute Renal Failure • Transplants • Severe Infection • Other Infectious Diseases and Pneumonias • Septicemia/Shock • Congestive Heart Failure • Polyneuropathy • Congestive Heart Failure • Chronic Atherosclerosis or Angina, Cerebrovascular Disease 	<ul style="list-style-type: none"> • Specified Arrhythmias • Cardio-respiratory Failure or Cardio-respiratory Shock • Chronic Obstructive Pulmonary Disease • Fibrosis of Lung or Other Chronic Lung Disorders • Protein-calorie Malnutrition • Disorders of Fluid, Electrolyte, Acid-Base • Rheumatoid Arthritis and Inflammatory Connective Tissue Disease • Diabetes Mellitus • Decubitus Ulcer or Chronic Skin Ulcer • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Seizure Disorders and Convulsions • Respirator Dependence/Tracheostomy Status • Drug and Alcohol Disorders • Psychiatric Comorbidity • Hip Fracture/Dislocation
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Chapter 4: Analysis of Medicaid Claims Data to Examine Care Outcomes for Populations of Children and Youth Eligible for Home and Community-Based Services

Introduction

In this chapter, we present metrics calculated from Medicaid claims and managed care encounter data for the baseline (2011-2012) and early demonstration period (2013-2014) for several populations of children targeted for additional home and community-based services (HCBS) under the Waiver. Specifically, the Waiver authorizes the NJ Division of Children and Families' Children's System of Care (DCF's CSOC)⁸¹ to coordinate new supportive services for children with Autism Spectrum Disorder (ASD), co-occurring intellectual/developmental disabilities and mental illness (ID-DD/MI), and Serious Emotional Disturbance (SED). The Waiver also expands Medicaid eligibility for children with SED.

Our selection, analysis, and presentation of quality metrics in this report is guided by the following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) relating to this expansion in targeted home and community-based services.

Hypothesis 2: "Providing home and community-based services to Medicaid and CHIP beneficiaries and others with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities will lead to better care outcomes."

Research Question 2a: "What is the impact of providing additional home and community-based services to Medicaid and CHIP beneficiaries with serious emotional disturbance, autism spectrum disorder, or intellectual disabilities/developmental disabilities?"

Research Question 2b: "What is the impact of the program to provide a safe, stable, and therapeutically supportive environment for children from age 5 up to age 21 with serious emotional disturbance who have, or who otherwise would be at risk for, institutionalization?"

⁸¹ By January of 2013, DCF assumed responsibility for all children previously managed by the Division of Developmental Disabilities (DDD).

All metrics in this chapter are calculated for the calendar years of the waiver baseline period, (2011-2012)⁸² and the first two years of the demonstration period (2013-2014). All of the services authorized under the Waiver for the DCF populations started being offered during calendar year 2014 or later, limiting the data on the post-implementation period available for this interim report. Our final evaluation report due in 2017, which will include calendar year 2015 in the study period, will compare the levels and trends in these metrics from baseline through the demonstration years and isolate, to the extent allowed by available data, the direct and indirect impacts of the waiver demonstration programs providing targeted home and community-based services to populations of Medicaid youth.

Background

A brief background on the service packages and target populations for each of the DCF CSOC waiver initiatives is provided here as context for the analytic methods and quantitative findings on quality of care we present in this chapter.

ASD

The services provided through the ASD pilot program are evidence-based habilitative services often covered under private insurance that improve adaptive behavior, language, and cognitive outcomes. The new components of the ASD service package authorized under the Waiver are:

- Behavior Consultative Supports
- Individual Behavior Supports

Up to 200 children under 13 years of age with ASD who are Medicaid/CHIP eligible and who have a functional behavioral assessment indicating their condition is of high or moderate acuity are eligible for these behavioral therapies through the ASD pilot program. This program became operational in the spring of 2014 with enrollment ongoing as newly eligible children were identified.⁸³

ID-DD/MI

The pilot program for children with ID-DD/MI provides intensive in-home and out-of-home services that help to stabilize children in the least restrictive setting. There are seven services in the ID-DD/MI package authorized under the Waiver:

- Case/Care Management

⁸² While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

⁸³ Service codes for the new behavioral therapies were not built into the administrative claims system of the State's fiscal agent (Molina) at the time the pilot program began. Claims were handled manually until March 2015 when the service codes become operational.

- Individual Supports
- Natural Supports Training
- Intensive In-Community Services – Habilitation
- Respite
- Non-medical Transportation
- Interpreter Services

Up to 200 children ages 5-20 years old with dual diagnoses of ID-DD/MI who are Medicaid/CHIP eligible, meet the level of care criteria, and are involved with a Care Management Organization are eligible for these services through the ID-DD/MI pilot program.⁸⁴ Three of the services started in March 2015, Individual Supports began in June 2015, and respite was operationalized in January 2016. Developing the provider network for some services is still ongoing and thus, non-medical transportation and natural supports are not operational yet.

SED

The SED component of the Waiver (1) expands Medicaid/CHIP eligibility to all youth with SED who are at-risk for hospitalization or who require a hospital level of care regardless of parental income, (2) federalizes general behavioral health services paid for on the state dollar for all SED children in Medicaid/CHIP, and (3) provides three new behavioral health services shown to be critical in supporting children with serious emotional disturbance in the community:

- Transitioning Youth Life Skill Building (ages 16-20)
- Youth Support and Training (ages 5-16)
- Non-medical Transportation

The expansion in eligibility for waiver services (though not State Plan services) to youth with SED at-risk for hospitalization and federalization of behavioral health services became effective immediately after approval of the Waiver in October 2012. The expansion granting youth at a hospital-level of care both Medicaid State Plan and waiver service eligibility is currently under development. The new services are targeted at children with SED ages 5-20 years old who are involved with a Care Management Organization. The Transitioning Youth Life Skill Building and Youth Support and Training services were operationalized in the fall of 2015.

Methods

Data Sources

The analyses in this chapter were generated using Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2014. We used recipient

⁸⁴ The services are delivered on a FFS basis as part of the Individual Service Plan implemented by the child's Care Management Organization.

-level program enrollment information through September 2015 to allow for stratification of quality metrics to relevant subpopulations.

Metrics

The metrics in this chapter span the baseline period (2011-2012) and first two years of the Waiver demonstration period (2013-2014).⁸⁵ They are intended to examine health care outcomes and associated costs for specific subpopulations of children directly affected by the changes implemented under the Waiver. The metrics we utilize are based on specific types of hospital utilization that reflect quality of care in the community. We examine inpatient (IP) utilization overall and for mental illness, avoidable hospital admissions, emergency department (ED) visits, and hospital readmissions or ED visits following an initial hospitalization (all-cause or specifically for mental illness). We also calculate annual costs relating to hospital use overall. This metric illustrates potential cost savings to be realized from the improved home and community-based support provided to children through waiver services.

Table A outlines the planned metrics calculated using the Medicaid FFS claims and managed care encounter data. Due to identification and accuracy concerns, only those metrics where the denominator criterion is fulfilled (see Reporting Criteria below) are reported. Because all metrics assess hospital use, the facility type(s) included in the calculation are also noted. Metrics 1-7 and 11 are population-based and rates are assessed per unit population. Metrics 8-10, on the other hand, are based on index events that arise in a hospital setting. Our purpose was to capture aspects of utilization relevant to the populations being evaluated and potentially impacted by changes under the Waiver. To achieve this, several of these metrics are adaptations of existing metrics. Appendix A contains additional details on each of these measures.

Table A: Metrics related to quantitative evaluation of Hypothesis 2

	Metrics	Description	Facility Type(s)
	Utilization		
1	Pediatric Quality Indicators (children 6-17)	Ambulatory care sensitive hospitalizations by children that reflect inadequate community-level care.	General acute care hospitals
2	Inpatient hospital utilization (all ages)	Admissions to general acute care hospitals.	General acute care hospitals
3	Inpatient days (all ages)	Total duration of hospital stays.	General acute care hospitals
4	Mental illness admissions (ages 6+)	Admissions to an acute inpatient facility with a primary diagnosis of mental illness.	General acute care hospitals
5	Severe mental illness admissions (ages 6+)	Admissions to an acute inpatient facility with a primary diagnosis of severe mental illness.*	General acute care hospitals

⁸⁵ While the waiver demonstration period starts on October 2012, our analytic findings here are based on full calendar years so that our estimates are not driven by seasonality differences.

	Metrics	Description	Facility Type(s)
6	Psychiatric hospital utilization (all ages)	Admissions to psychiatric hospitals.	Short-term and long-term psychiatric hospitals
7	Emergency department utilization (all ages)	Visits to emergency departments.	General acute care hospitals
Post-Acute Care			
8	All-cause: 30-day readmissions or 30-day post-discharge ED visits (all ages)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission. These may reflect post-discharge gaps in inpatient care and/or care coordination following discharge.	General acute care hospitals and short-term psychiatric hospitals
9	Mental illness: 30-day readmissions or 30-day post-discharge ED visits (age 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for mental illness. These may reflect post-discharge gaps in inpatient care and/or care coordination specific to patients with mental illness.	General acute care hospitals and short-term psychiatric hospitals
10	Severe mental illness: 30-day readmissions or 30-day post-discharge ED visits (ages 6+)	All-cause unplanned readmissions or ED visit(s) during a 30-day period following an initial hospital admission for severe mental illness (SMI). These may reflect post-discharge gaps in inpatient care and/or care coordination for patients with SMI.	General acute care hospitals and short-term psychiatric hospitals
Cost/Spending			
11	Costs related to all inpatient hospitalizations and ED visits	Assess the effects of the targeted HCBS on acute care spending overall.	General acute care hospitals

* This metric is assessed only among hospitalizations for beneficiaries meeting the criteria for a mental illness admission (metric 4). Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the diagnosis codes included in the definition of severe mental illness used in this chapter.

If not already part of the metric specification, an inclusion criteria imposed on all metrics was the requirement that a claim for utilization was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criteria eliminates events which might precipitate Medicaid enrollment and confound the effect of the demonstration.

Mental Illness Designations

We used information from the primary ICD9-CM diagnosis code present on inpatient claims to identify hospitalizations for mental illness and severe mental illness. Specifically, we used the National Committee for Quality Assurance’s 2014 HEDIS Mental Illness Value Set to identify hospitalizations for mental illness (NCQA 2014). Within this universe of designated mental illness hospitalizations we further identified those hospitalizations which were for severe mental illness conditions based on findings from the national comorbidity survey – replication (Kessler et al. 2005) and subsequent work by Coffey et al. (2011) at the Agency for Health Care Research and

Quality (AHRQ). Appendix C lists the diagnosis codes included in the definition of severe mental illness used in this chapter.

Costs

Data on costs come from the payment fields in the Medicaid claims data. We only tabulated costs to Medicaid and Medicaid HMOs incurred via direct payment for services to providers. Payments made by Medicare or from any other source are not included. Costs for hospital use only reflect facility charges and do not include any physician or lab charges associated with hospitalization or outpatient visits. All costs were inflation adjusted and expressed in year 2012 purchasing power using the Consumer Price Index for medical care from Table 1A (Crawford, Church, and Rippy 2013, 164; Crawford and Church 2014, 165; Crawford, Church, and Akin 2015, 165).

Population Definitions

Medicaid Youth: Beneficiaries, ages 0-20, with any period of active enrollment in a particular calendar year, as indicated by the effective dates of their Program Status Codes, made up the Medicaid youth cohort for that year. Metrics are presented for this population to capture any trends in quality metrics that impact all Medicaid children and youth.

ASD: The cohort of children enrolled in the ASD pilot program was identified starting with recipient-level data from January 2014 - September 2015. Any child with an active 'Special Program Code' (SPC) of 48 (indicating ASD moderate acuity) or 49 (indicating ASD high acuity) during this period was included in the ASD cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ASD study population for each of these years.

ID-DD/MI: The cohort of children enrolled in the ID-DD/MI pilot program was identified starting with recipient-level data from January 2014 - September 2015. Any child with an active SPC of 38 during this period was included in the ID-DD/MI cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the ID-DD/MI study population for each of these years.

SED: The cohort of children with SED and eligible to receive waiver services was identified starting with recipient-level data from September 2015. Any child age 5-20, with a SPC of 37 and a concurrently active Program Status Code of 641⁸⁶ was included in the SED cohort. All children in this cohort who were identified in years 2011-2014, as indicated by their presence in the respective Medicaid youth eligibility cohort, made up the SED population for each of these years.

⁸⁶ Program Status Code 641 indicates the program under the Division of Public Welfare for Medicaid beneficiaries eligible for Child Behavioral Health Services only.

Table B shows the number of children identified in each cohort using enrollment data and special program codes from the period(s) when the waiver services were operational and attrition of those population totals as enrollment was tracked back to the years in the interim report study period. Children with SED newly enrolled as a result of the eligibility expansion under the Waiver would not be in the recipient-level data in the baseline years, thus explaining the larger declines in the SED population.

Table B: Population totals for cohorts of children and youth eligible for home and community-based waiver services

	Identification	2014	2013	2012	2011
ASD	54	54	52	49	40
ID-DD/MI	220	219	202	187	180
SED*	2,780	1,369	767	546	507

*Only enrollment in September 2015, when waiver services for this population were operationalized, was considered when identifying the SED cohort.

Reporting Criteria

For Metrics 1-7 and 11, which are population-based rates, estimates are not shown when the denominator for IP hospitalizations or ED visits is less than 50. For the remaining three metrics, denominators and estimates are suppressed when denominators are less than 30. We calculated annual estimates over 2011-2014.

While we have already suppressed estimates based on small denominators, it is important to note due to small numbers of children in the ASD and ID-DD/MI cohorts, the observed variation for the metrics between years might be the result of outliers in the data or random events. Estimates based on small samples should be interpreted with this caveat. Additionally, the SED at-risk population was eligible only for waiver services starting in October 2012. Hospitalizations and emergency department use for these individuals would not be present in our claims data since they require eligibility for State Plan services. Consequently, the population-based metrics (Metrics 1-7 and 11) in the post-baseline years for the SED cohort will include more individuals in the denominator than we can capture numerator information for, resulting in lower rates.

Data Analysis

Due to small sample sizes in the ASD cohort and because waiver services for the other two cohorts were not delivered during the study period of this interim evaluation report, only descriptive results are shown. Statistical testing, where feasible, will be conducted in our final evaluation report due in 2017.

Results

Tables 4.1 and 4.2 show several rates of hospital utilization for populations of Medicaid youth eligible for home and community-based waiver services.⁸⁷ Our sample was insufficient to present these rates for the ASD waiver population for the baseline years and for some metrics in years 2013 and 2014. In general, rates of avoidable hospitalizations were very low (Table 4.1). There were 0.2 avoidable hospitalizations per 100 Medicaid youth in each year of the study period. The rate was higher in the ID-DD/MI cohort, reaching 1.8 per 100 ID-DD/MI youth in 2013. There were nearly no avoidable hospitalizations among the SED cohort in any year. We observe a slight downward trend in inpatient utilization for Medicaid youth overall over 2011-2014 which is mirrored in the ID-DD/MI cohort. To illustrate, in 2011 and 2014 there were 16.1 and 11.9 visits, respectively, per 100 youth in the ID-DD/MI cohort. A decline in inpatient utilization over this period is also seen in the SED cohort, but this may be because hospitalizations are not captured in the claims data for the SED at-risk portion of this cohort who, though Medicaid enrolled, are not eligible for State Plan services. The lowest emergency department visit rate for most cohorts is in year 2014, although this rate has not trended downward consistently for all the cohorts. Per-capita costs associated with hospital use are generally greater for the ID-DD/MI cohort in all years compared to the other cohorts, reflecting their higher rates of inpatient stays and ED visits. As an example, hospital costs were \$1,085 per 100 children in the ID-DD/MI cohort in 2012. The corresponding rate was \$350 per 100 for all Medicaid youth under 21 years of age in the same year.

Considering inpatient hospital use for mental health conditions (Table 4.2), rates for Medicaid youth overall were steady over the study period. Rates were higher among the cohorts of children eventually eligible for waiver services. There were 1.6 mental illness hospitalizations per 100 children in the SED cohort in 2011 and 0.5 such hospitalizations per 100 in 2014. This is lower than the corresponding rates among the ID-DD/MI cohort. Hospitalizations for severe mental illness were infrequent in general, with rates of 1 or less per 100 for all cohorts in all years. Admissions to either long-term or short-term psychiatric hospitals were greatest in each year for children in the ID-DD/MI cohort with no clear trend across the study period. There was 1.7 admissions per 100 in 2011 and 1.8 admissions per 100 in 2014 for this cohort.

Table 4.3 presents 30-day readmission rates and rates of ED treat-and-release visits within 30 days of discharge for different types of hospitalizations occurring in 2012, 2013, and 2014. These estimates are presented for the cohorts of children combined to ensure the minimum denominator of 30 index hospitalizations. In the one baseline year (2012), nearly 6% of

⁸⁷ It is important to note that rates are consistently presented as events per 100 population, but as shown in the tables accompanying each rate table, the relevant denominators are sometimes less than 100.

hospitalizations among all children eventually eligible for waiver home and community-based services were followed by a readmission within 30 days. Eleven percent were followed by an ED visit within the same window resulting in 14% being followed by either one or both of these outcomes. These rates were generally better (lower) than the corresponding rates for all Medicaid youth. However, in the early demonstration years this pattern inverts. Readmission and ED visits post-discharge improve slightly (reflected in lower percentages) among Medicaid youth overall, but appear to worsen among the combined ASD, ID-DD/MI, and SED cohort. In 2014, 16% of hospitalizations in this cohort were followed by a readmission within 30 days, 19% were followed by an ED visit within the same window resulting in nearly 26% being followed by either one or both of these outcomes. The infrequency of mental illness and serious mental illness hospitalizations in these cohorts prevent us from assessing their trends in the early demonstration years.

Table 4.1: Overall hospital utilization rates (per 100 population) and costs per beneficiary for Medicaid youth eligible for home and community-based waiver services

Overall Hospital Utilization	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Avoidable hospitalizations	*	*	*	*	1.4	0.0	1.8	0.6	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.2
Inpatient utilization	*	*	13.5	7.4	16.1	13.9	11.4	11.9	2.3	0.9	1.2	0.4	3.4	3.1	2.8	2.5
Inpatient days	*	*	44.2	16.7	69.4	43.3	57.4	158.0	14.1	2.0	5.7	3.1	11.9	11.3	10.7	9.6
ED visits	*	*	53.8	44.4	73.3	59.9	60.4	61.2	20.9	17.1	12.9	5.5	42.9	44.2	43.9	42.8
Hospital costs per beneficiary	*	*	\$954	\$656	\$1,117	\$1,085	\$903	\$2,847	\$128	\$136	\$119	\$58	\$336	\$350	\$352	\$350

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance; ED=Emergency Department.

Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.

*Estimate suppressed due to insufficient sample size.

Cohort Sizes	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Avoidable hospitalizations	15	23	35	43	143	153	169	173	437	513	727	1,274	479,503	497,129	512,211	539,136
Inpatient utilization	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512
Inpatient days	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512
ED visits	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512

These Ns reflect relevant denominators for rates reported in the top panel.

See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.2: Mental health inpatient utilization rates (per 100 population) for Medicaid youth eligible for home and community-based waiver services

Inpatient Hospital Utilization for Mental Health Conditions	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Mental illness hospitalizations	*	*	*	*	6.3	3.1	4.2	4.8	1.6	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Severe mental illness hospitalizations	*	*	*	*	0.7	0.6	0.0	1.0	0.9	0.2	0.4	0.4	0.2	0.2	0.3	0.3
Hospitalizations at psychiatric hospitals	*	*	0.0	0.0	1.7	2.1	1.5	1.8	0.4	1.3	1.0	0.7	0.1	0.1	0.1	0.1

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011–2014; Analysis by Rutgers Center for State Health Policy.

Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance.

Rates are per 100 population; Medicaid youth includes all beneficiaries ages 0–20.

*Estimate suppressed due to insufficient sample size.

Cohort Sizes	ASD				ID-DD/MI				SED				Medicaid Youth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Mental illness hospitalizations	15	23	35	44	143	162	189	207	437	513	732	1,326	565,150	581,855	596,448	637,731
SMI hospitalizations	15	23	35	44	143	162	189	207	437	513	732	1,326	565,150	581,855	596,448	637,731
Hospitalizations at psychiatric hospitals	40	49	52	54	180	187	202	219	516	556	767	1,369	868,829	886,595	897,412	941,512

Notes: SMI=Severe Mental Illness.

These Ns reflect relevant denominators for rates reported in the top panel.

See Appendix A for details on inclusion/exclusion criteria resulting in eligible population for each metric.

Table 4.3: Post-acute care following hospitalization of Medicaid youth eligible for home and community-based waiver services

Post-Acute Care Following Types of Hospitalizations	Combined Waiver Populations (ASD, ID-DD/MI, SED)			Medicaid Youth		
	2012	2013	2014	2012	2013	2014
All-Cause Hospitalizations						
Readmission within 30 days	5.7%	9.8%	16.1%	8.5%	8.2%	7.1%
ED Visit within 30 days	11.4%	14.6%	19.4%	14.1%	13.8%	14.0%
Either of above	14.3%	22.0%	25.8%	19.6%	19.0%	18.6%
Mental Illness Hospitalizations						
Readmission within 30 days	*	*	*	11.6%	10.7%	10.8%
ED Visit within 30 days	*	*	*	21.0%	18.8%	20.5%
Either of above	*	*	*	25.8%	23.1%	23.8%
Severe Mental Illness Hospitalizations						
Readmission within 30 days	*	*	*	11.3%	11.6%	11.7%
ED Visit within 30 days	*	*	*	20.6%	19.3%	21.3%
Either of above	*	*	*	24.9%	24.0%	25.2%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy.

Notes: ASD=Autism Spectrum Disorder; ID-DD/MI=Co-occurring intellectual/developmental disability and mental illness; SED=Serious Emotional Disturbance; ED=Emergency Department.

Medicaid youth includes all beneficiaries ages 0-20.

*Estimate suppressed due to insufficient sample size.

Discussion

This chapter presents estimates for the baseline and early demonstration years for the metrics we proposed to assess the impact of expanded home and community-based services authorized under the Comprehensive Medicaid Waiver for children with autism spectrum disorder, co-occurring intellectual disabilities/developmental disabilities and mental illness, and serious emotional disturbance. With respect to the waiver services for children with ASD and ID-DD/MI, it is worth noting that DCF delivers these services to more children than just those enrolled in the pilot programs established by the Waiver. Thus, while the scope of our evaluation is limited to the cohorts meeting the inclusion criteria for the pilot programs, our analytic strategy will not fully reflect the impact of these supportive home and community-based services on all children receiving them.

Below we highlight some key takeaway points from this chapter's findings. Due to small sample sizes in the ASD cohort and because waiver services for the other two cohorts were not delivered during the study period of this interim evaluation report, we mostly cannot assess the impact of these new services based on the analysis period 2011-2014. One exception to this is a decrease in overall hospital utilization rate in the ASD population from 2013 to 2014, potentially reflecting an improvement in quality of care that leads to a decrease in hospitalizations.

While we occasionally note differences between estimates for individual years or between populations, the intent is descriptive and should be interpreted with the caveat that the differences discussed have not been adjusted for patient and provider characteristics and can be influenced by outlier events in small populations.

Rates of avoidable hospital use paid for by Medicaid for children with ID-DD/MI and SED in our defined cohorts and for Medicaid youth overall were very low in the baseline and early demonstration period. Hospital use, as measured by overall inpatient stays, ED visit rates, mental illness hospitalizations, and admissions to psychiatric hospitals showed greater variation across subpopulations, and we observed higher rates of utilization and costs per beneficiary among children with ID-DD/MI. Their utilization was consistently greater in all years than the corresponding rates for other cohorts of children and youth for which estimates could be generated. Estimates of inpatient utilization and ED visits for the ID-DD/MI and SED cohorts are lower in 2014 than in 2011, and are lower in 2014 than in 2013 for the ASD cohort.

Measures of hospital use for mental health conditions remained steady for Medicaid youth overall between 2011 and 2014, but we observed declines in mental illness hospitalizations across this time period for children with ID-DD/MI and SED. Slight increases with the SED cohort

in hospitalizations at psychiatric hospitals are also evident. The different trends between inpatient facility types (general acute care vs. psychiatric) is relevant to consider given the goal of expanded home and community-based services in reducing institutionalization (with the caveat that some of the estimates of change may not represent a systematic trend due to small sample sizes).

Several of the exclusion criteria (e.g. lack of Medicaid enrollment history) for identifying qualifying index admissions for assessment of 30-day readmissions and ED visits within 30 days of discharge present challenges for small cohorts. We could not reach the minimum sample size for assessing utilization subsequent to mental or severe mental illness hospitalizations. For all-cause hospitalizations, we found that the combined populations of youth eligible for the HCBS waiver programs started with lower rates of readmissions and ED visits than Medicaid youth overall, but have a greater prevalence of these poor outcomes by 2014. This could be due to a steadily growing prevalence within all-cause hospitalizations of severe mental illness hospitalizations and hospitalizations at psychiatric hospitals among the waiver cohorts. As can be observed for Medicaid youth overall, the rate of readmissions or ED visits following discharge are highest following hospitalizations for severe mental illness.

The rates of specific types of utilization calculated in this chapter help shed light on the relative applicability of the proposed metrics to the various subpopulations of interest. As a key example, hospital use metrics do not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address this limitation, we will determine supplemental metrics for the SED cohort in our final evaluation report due in 2017. Specifically, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes for examining the ASD cohort and outcomes following hospitalization for mental and severe mental illness. Finally, subject to availability, we will examine relevant measures reported by DCF in accordance with their Quality Strategy for the Waiver. Within the limits of data availability and the timing of policy implementation, we will devise the optimal approach to answering the research questions under Hypothesis 2 of the waiver Special Terms and Conditions (CMS 2014).

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Appendix A: Description of Measures

Inpatient Utilization and Emergency Department Visits: These measures assess the extent to which individuals receive inpatient hospital treatment or care in the emergency department. These measures of acute care and emergency medical utilization shed light on overall health of individuals and capture potential policy impact on health and healthcare. It is however important to remember that use of inpatient and emergency department services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

Our preparation of these measures consider utilization at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). The days associated with all identified inpatient hospitalizations, and the costs associated with all identified inpatient and emergency department visits are also aggregated over cohort members.

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations: We calculate rates of ACS inpatient (IP) hospitalizations that may occur due to inadequate quality of ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population.

Our preparation of this metric considers avoidable hospitalizations occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth).

Mental Illness Admissions: This measure of inpatient utilization assesses the extent to which individuals receive inpatient hospital treatment for mental illness. Like general measures of hospital utilization, this measure of service use gathers information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient services is affected by many member characteristics such as age, sex, health, and socioeconomic status.

This metric was adapted from the National Committee of Quality Assurance's Follow-up after Hospitalization for Mental Illness (FUH) metric which is endorsed by NQF. Our preparation of this metric considers hospitalizations for mental illness occurring at any general acute care hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Severe Mental Illness Admissions: Preparation of this metric followed the same specifications as Mental Illness Admissions. The only difference was that the admissions counted were a subset of the mental illness admissions, defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS Mental Illness Value Set, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness in this report.

Admissions to Psychiatric Hospitals: This measures assesses the extent to which individuals receive inpatient treatment at a short-term or long-term psychiatric hospital. Our preparation of this metric considers utilization at any psychiatric hospital, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth).

Readmissions: Thirty-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009) and post-discharge care coordination. Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014).

We prepared readmission metrics considering hospitalizations at acute inpatient facilities, both general acute care hospitals and short-term psychiatric hospitals, inside or outside NJ, by members of our defined child cohorts (ASD, ID-DD/MI, SED, and Youth). In accordance with specifications for all Centers for Medicare and Medicaid Services (CMS) readmissions metrics, we required that the beneficiary be enrolled for 12 months prior to the index hospitalization (ignoring gaps of 45 days or less) to allow for sufficient claims history if risk-adjustment were to be undertaken. While estimates presented in this chapter are not risk-adjusted, estimates for year 2011 could not be calculated due to this restriction.

Hospital-Wide All-Cause Unplanned Readmissions: This readmission metric is endorsed by the National Quality Forum (NQF) and it was calculated by adapting the federal CMS methodology available at QualityNet⁸⁸ to the Medicaid FFS claims and encounter data. It was calculated for children ages 0-17 so it could be used to assess quality for the populations of children affected by the Waiver policies. Additionally, we included index admissions with a principal psychiatric diagnosis.

Readmission Following Hospitalization for Mental Illness: We adapted the National Committee of Quality Assurance's 'Follow up after hospitalization' (FUH) specifications for the identification of a hospitalization for mental illness in the calculation of this metric (NCQA 2014). For this metric, we considered admissions to any general acute care hospital or short-term psychiatric hospital with a diagnosis of mental illness. In accordance with the metric specification for FUH, index hospitalizations for mental illness were only identified for the population age 6 and older.

Readmission Following Hospitalization for Severe Mental Illness: Preparation of this metric followed the same specifications as *Readmission Following Hospitalization for Mental Illness*. The only difference was that the universe of index admissions considered was a subset of the mental illness index admissions defined as those admissions with a diagnosis qualifying as severe mental illness. Therefore, admissions for some of the diagnoses falling within the severe mental illness designation but outside of the HEDIS mental illness designation, specifically those related to substance abuse, are not included in this metric. See Appendix C for the list of diagnosis codes designated as severe mental illness.

Emergency Department Visits within 30 Days of Discharge: Return visits to the ED after a hospital discharge can be an important indicator of inadequate post-discharge follow-up and care coordination. Although not a validated quality metric, research on this topic is growing (DeLia et al. 2014). For each of the index admission universes identified for the readmission metrics described above, we also flagged whether there was an ED treat-and-release visit at any general acute care hospital inside or outside NJ within 30 days of discharge.

⁸⁸ <https://www.qualitynet.org>.

Appendix B: AHRQ Pediatric Quality Composite Indicator – Constituents

Overall Composite (PDI #90)

PDI #14 Asthma Admission Rate

PDI #15 Diabetes Short-Term Complications Admission Rate

PDI #16 Gastroenteritis Admission Rate

PDI #18 Urinary Tract Infection Admission Rate

Source: Pediatric Quality Indicators Technical Specifications - Version 5.0, March 2015;
http://www.qualityindicators.ahrq.gov/Archive/PDI_TechSpec_V45.aspx.

Appendix C: Severe Mental Illness Diagnoses

Severe Mental Illness	
295, 297, 298	Psychotic disorders
296.00-06, 296.10-16, 296.40-46, 296.50-56, 296.60-66, 296.7, 296.80-82, 296.89, 296.90, 296.99	Bipolar disorders
300.3	Obsessive compulsive disorder
300.4, 309.1, 301.11-12	Dysthymia (chronic depression)
313.81	Oppositional defiant disorder
296.20, 296.23, 296.24, 296.30, 296.33, 296.34	Depressive disorders
301.20	Personality disorder
312.03, 312.13, 312.21	Conduct disorder

Chapter 5: Discussion

This interim report examines various sources of information to address the first three demonstration hypotheses and corresponding research questions set forth in the Special Terms and Conditions (CMS 2014) of the New Jersey Medicaid Comprehensive Waiver. The key changes authorized by the Waiver and considered in this draft interim report are the expansion in managed care to Long-term Services and Supports (LTSS) and behavioral health (BH) services, targeted home and community-based services (HCBS) for specific populations of children, and administrative simplifications in the Medicaid eligibility process for low-income applicants seeking LTSS. We utilize data on NJ Medicaid MCO performance and processes from the Healthcare Effectiveness Data and Information Set (HEDIS[®]), the Consumer Assessment of Healthcare Providers and Systems (CAHPS[®]) survey, MCO reports to the Department of Human Services, data reported by divisions within the Department of Human Services (DMAHS, DoAS, and DDS), reports from the Department of Banking and Insurance, and four years of Medicaid FFS claims and managed care encounter data spanning the baseline and early demonstration years. This report supplements an earlier report with qualitative findings from key informant interviews of providers, consumer advocates, MCOs and state officials on MLTSS implementation⁸⁹ and the midpoint evaluation of the Delivery System Reform Incentive Payment (DSRIP) program which is part of the Waiver, but evaluated as a separate component.⁹⁰

On the whole, this interim report primarily addresses the very early impacts of the policy changes occurring under the Waiver. Quality metrics included in this report extend through the end of calendar year 2014, capturing only the first six months of MLTSS implementation and preceding initiation of two out of the three targeted home and community-based waiver services programs for Medicaid children/youth with autism spectrum disorder, co-occurring intellectual and developmental disabilities and mental illness, and severe emotional disturbance. Some of the MCO performance and process measures from secondary data sources presented in Chapter 2 cover more of the post-MLTSS period and extend as far as the first quarter of calendar year 2016.

⁸⁹ Farnham J, S Chakravarty, and K Lloyd. 2015. *Initial Stakeholder Feedback on Implementation of the Managed Care Expansion in Long-Term Services and Supports*. New Brunswick, NJ: Rutgers Center for State Health Policy. <http://www.cshp.rutgers.edu/Downloads/10740.pdf>.

⁹⁰ The DSRIP midpoint evaluation was submitted to the New Jersey Division of Medical Assistance and Health Services (DMAHS) on September 2015 with the final evaluation due in March 2018.

Hypothesis 1

Summary: While all of the findings have been discussed in detail in the individual chapters, we identify below some common themes related to Hypothesis 1 across these different components. Measures of quality of care and consumer satisfaction for the entire Medicaid managed care population indicate there were no substantial negative impacts evident during the first six months of the MLTSS program. The evidence for this conclusion is strongest in the preventive care domain. Here, most HEDIS® metrics demonstrate improvement and the few declines are, on average, of a smaller magnitude than the improvements. For most of the HEDIS® metrics related to chronic conditions, we observed unchanged or improved quality. These findings are concordant with rates of avoidable inpatient and avoidable ED visits which are designed to reflect inadequate ambulatory/primary care within communities that may lead to preventable hospital use due to unmanaged conditions. Both types of avoidable utilization declined over 2011-2014 for the managed care population in our descriptive analyses and showed no net positive or negative effect as a result of MLTSS in the regression analyses. This is one of the more robust findings, although there may be several other areas where there was potential improvement in terms of quality, efficiency, and coordination of care. Decreases in readmission rates, further supported by small increases in ambulatory visits after discharge were observed, though only the decrease in hospital-wide readmission rates was statistically significant.

The one area with negative findings for the managed care population relates to ambulatory care for beneficiaries with behavioral health conditions. In both the results from annual HEDIS® reports applying to the DDD population and our claims-based analysis of all managed care beneficiaries, there were significant declines in the rate of 30-day follow-up with a mental health practitioner after discharge from a hospitalization for mental illness. With the exception of the DDD population and the HCBS population in the second half of 2014, this follow-up care would occur on a FFS basis for most managed care beneficiaries over this time period because behavioral health was carved out of MCO contracts (though the mental health hospitalization would be under the purview of the MCO). Thus, this effect is not exclusively an issue with service delivery through managed care, but is an area where managed care beneficiaries and MCOs stand to benefit from innovations in behavioral health care delivery.

A broad goal of the managed care expansion under the Waiver was to serve more long-term care beneficiaries in their homes and communities, rebalancing spending away from nursing facilities. Presentations made by DMAHS at MLTSS stakeholder meetings show this shift in setting. Since MLTSS implementation in July 2014, the percentage of beneficiaries in nursing facilities has decreased as the share in home and community-based settings has increased, and those individuals transitioned from former HCBS waiver programs have generally stayed in HCBS settings. Our own analysis of claims-based monthly estimates of total spending partitioned

between the NF and HCBS populations also show an increasing proportion of total spending attributable to HCBS beneficiaries from July 2014 through December 2014. Both the LTSS spending and the non-avoidable portion of non-LTSS spending are the growing components for the HCBS population over this time period. Avoidable costs of care have no net growth and comprise less than 1% of total spending. Thus, there is initial evidence that the intended rebalancing is underway, and our final evaluation report spanning a longer follow up period will indicate whether these trends persist.

When we examine the impact of MLTSS specifically on beneficiaries meeting an institutional level of care and residing in their homes and communities under the former 1915(c) waiver programs or, after July 1, 2014, under MLTSS, both health outcomes and process measures paint a more complicated picture of quality, especially in the very early months of MLTSS implementation. Both claims-based annual estimates for the HCBS population and data in MLTSS performance measure reports from MCOs show declines in overall inpatient and emergency department use rates, over 2013-2014 in claims estimates and from July 2014 to March 2015 in performance reports. Further, overall rates of avoidable inpatient and avoidable ED visits declined from 2013 to 2014 for the HCBS population in annual claims-based estimates. However, when we undertake regression analysis that accounts for other factors and isolates trends in hospital use directly attributable to MLTSS, we find mixed effects. The probability of avoidable inpatient hospitalizations declined significantly in the first six months of MLTSS, but the number of avoidable ED visits significantly increased. Our statistical models also find increased growth in avoidable inpatient costs in the HCBS population due to MLTSS, but avoidable ED costs go down. In the aggregate, these marginal effects do not impact the share of avoidable hospital costs as mentioned above, but it will be important to monitor this further into the post-MLTSS period.

A number of metrics relating to inpatient and post-discharge care following hospitalizations for medical conditions (e.g. 30-day readmissions for heart failure, AMI, or pneumonia and ambulatory care visit within 14 days of discharge) worsened for HCBS individuals as a result of MLTSS, though most of these results did not reach conventional levels of statistical significance. It is important to note that quality measures calculated using claims data cover only the first six months of MLTSS in this interim report, which was a period of transition. In these early months of the program, there were issues with timeliness of assessment for new MLTSS enrollees and waiver transitionees. While continuity of care was ensured by State requirements and no changes were made to delivery of acute care services, this was an uncertain time for beneficiaries when the coordination of all services under managed care was not complete and, for existing enrollees, transitions to a new care manager working for their MCO were underway. Uninterrupted HCBS care is important to maintaining or stabilizing people's health and preventing progression to a higher level of care where possible. Additional claims data analysis extending beyond the first six

months of the post-MLTSS period will help us determine whether any of these findings persist or strengthen to a level of statistical significance thereby giving a comprehensive picture of the MLTSS policy impact.

Information provided by the Division of Aging Services and by MCOs indicates that the timeliness of clinical assessments continues to improve. MCO-reports of potentially negative events, such as critical incidents, complaints, grievances, appeals, and service reductions appear to show that such events affect a small number of members and are generally reported in a timely fashion. The Division of Banking and Insurance did not show an increase in appeals of managed care decisions in 2014. Network adequacy information has not been reported for MLTSS services, but MCO-reported grievances appear to show, at most, 12 cases in 2015 relating to problems accessing MLTSS providers.

Limitations/Caveats: The Medicaid claims and encounter data available to us for this evaluation presents specific challenges related to the dual eligible population. Duals in managed care plans may not have their utilization captured in the Medicaid claims data if there is no Medicaid liability in terms of a copayment or coinsurance for the acute care service. The HCBS portion of this population has been progressively moved into managed care starting in late 2011, with the NF population shifting slowly via attrition of grandfathered FFS beneficiaries starting in mid-2014. Therefore, any underestimate of utilization will be present in the both the pre- and the post-MLTSS period thereby allowing our difference-in-differences statistical model to correct for this while estimating policy impacts.⁹¹

Finally, there are two limitations of our data preparation related to the nursing facility population. First, we are unable to differentiate between custodial NF residents and individuals only temporarily in a NF for rehabilitation. Our algorithm for defining the NF population on an annual basis (Appendix D) reduces the possibility of misclassification of non-LTC or community-LTC beneficiaries as part of the NF population because of a rehab stay, but we also use a monthly classification in other models. We may be excluding some observations relating to HCBS individuals in those specifications. We will consider sensitivity tests relating to this in our final report. Second, since patients residing in medical facilities, such as a nursing homes, may have follow-up care provided within the facility itself, our analysis of metrics relating to post-acute ambulatory care (*Follow-up After Hospitalization for Mental Illness* and *Ambulatory Visit within 14 Days of Discharge*) cannot be accurately calculated for this population if follow-up services are not billed separately within these facilities. Specifically, some care provided by physicians to NF

⁹¹ Any under-representation of utilization (which we expect to be limited) in the claims data for duals would only bias our findings if it changed differentially across the pre and post-MLTSS period for the HCBS population compared to the non-LTC ABD population used as a control group.

residents in NJ are included in the facility per diem rate and thus claims are not generated for these services. We however can accurately calculate this metric for individuals discharged to home thereby retaining its importance as an important metric for the HCBS population.

Hypothesis 2

Summary: As observed in analyses related to hypothesis 1, we also see declines in rates of inpatient utilization and ED visits between 2013 and 2014 for children enrolled in the ASD pilot program under the Waiver which started in the spring of 2014. Rates of avoidable inpatient admissions were very low among cohorts of children eligible for home and community-based waiver services so we did not observe any overall declines between 2011 and 2014 as we did for the HCBS cohort under hypothesis 1. Additionally, most of the waiver policies under hypothesis 2 were not in effect during the study period of this interim report precluding any assessment of policy impacts. Thus, at this point, we cannot determine whether waiver services designed to support beneficiaries, both children with special needs and long-term care beneficiaries, in their homes and communities are generally positive, negative, or differ in their effects on health outcomes for these two targeted populations.

Limitations: Implementation timing and small sample sizes limit our ability to evaluate the impact of waiver policies on populations of children and youth eligible for home and community-based services. The hospital use metrics proposed in our evaluation plan will not reflect quality for the SED at-risk population since this utilization is not on the menu of services available to them under the Waiver. In order to address these limitations, we will investigate rates of residential treatment facility use and out-of-home placement in this cohort in our final evaluation report due in 2017. Additionally, we will consider the feasibility of combining years of data in order to achieve minimum sample sizes for examining the impacts of waiver services on the pilot-enrolled ASD cohort, and ED and readmission outcomes following hospitalization for mental and severe mental illness for all populations of youth receiving targeted HCBS.

Hypothesis 3

Information provided by the state indicates that as of the end of 2015, nearly 900 individuals had set up Qualified Income Trusts (QITs), which allow people whose income is above the level normally eligible for Medicaid but is not sufficient to pay the cost of long-term care services, to spend down their excess income and become eligible for Medicaid. Prior to the Comprehensive Waiver, this kind of designation (medically needy) was only possible for those in institutional settings. We do not know exactly how many of the 900 individuals are in HCBS settings, but we know from state presentations that some are.

Information provided by the state indicates that as of the end of 2015, about 627 individuals who were under the federal poverty level were able to self-attest that they had not transferred assets during the past five years, meaning that the county welfare agencies and the beneficiary were able to skip a comprehensive financial examination. Audits of the effectiveness of this process are not yet available.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. We will examine the direct effects of these administrative simplifications in a future report, but these changes also have implications for our evaluation of Hypothesis 1. They underscore the importance of adjusting for differing patient characteristics in determining the impact of the MLTSS policy on health outcomes.

Future Work

Our final evaluation report due in 2017 will build off the analyses presented here. We will have a longer post-MLTSS implementation for claims-based metrics which will increase our ability to detect policy effects and will reflect the impacts of the program after the early transitional period. As more nursing facility residents come under MLTSS, we will explore the impact of MLTSS on this population as well, subject to a sufficient sample size. If data for the post-MLTSS period are sufficient to achieve minimum sample sizes, we will also explore stratification of metrics by demographic characteristics, such as race/ethnicity, and examine whether there are any differential impacts of MLTSS on outcomes by race/ethnicity in statistical models. Uniform billing hospital discharge data, if publically available, will be prepared for selected metrics to compare trends between Medicaid and other payers over the period of the demonstration. We will have data from the 2015 CAHPS® survey available which will reflect consumer perceptions of care for a time period when MLTSS was in effect and lend itself to potentially meaningful comparisons of trends within eligibility groups, in particular for the ABD population. HEDIS®, CAHPS®, and MCO performance reports will also include data for Aetna, a Medicaid MCO that entered the market in December of 2014. We will have conducted a second round of stakeholder interviews to gauge ongoing experiences with and perceptions of the MLTSS program, and will have qualitative interview data from stakeholders, state officials, and provider organizations regarding the Supports program, which began in the summer of 2015. Finally, data on the implementation and quality of the administrative simplifications process being collected by the State will be shared with us for the final report.


The logo for Rutgers University, featuring the word "RUTGERS" in a red, serif font. The letter "R" is stylized with a long, sweeping tail that extends downwards and to the left.

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Supplement: Early Findings on the Impact of Waiver Reforms to Streamline Medicaid Eligibility Processes

Introduction

In this supplement to the draft interim evaluation report, we examine the reforms under the Medicaid Comprehensive Waiver intended to streamline eligibility processes for new applicants and existing beneficiaries in need of long-term care services. The following evaluation hypothesis and research questions in the waiver Special Terms and Conditions document (CMS 2014) are addressed:

Hypothesis 3: “Utilizing a projected spend-down provision and eliminating the look back period at time of application for transfer of assets for applicants or beneficiaries seeking long term services and supports whose income is at or below 100% of the FPL will simplify Medicaid eligibility and enrollment processes without compromising program integrity.”

Research Question 3a: “What is the impact of the projected spend-down provision on the Medicaid eligibility and enrollment process? What economies or efficiencies were achieved, and if so, what were they? Was there a change in the number of individuals or on the mix of individuals qualifying for Medicaid due to this provision?”

Research Question 3b: “What is the impact of eliminating the transfer of assets look-back period for long term care and home and community based services for individuals who are at or below 100% of the FPL? Was there a change in the number of individuals or in the mix of individuals qualifying for Medicaid due to this provision?”

To evaluate these reforms we draw on statistics from administrative records provided to us by State officials or available in public reports and presentations. We also rely on audit data collected by the State’s Bureau of Quality Control (BQC) and contextual information on the audit process and findings from direct communications with State officials. Although only limited data are available at the time of this interim evaluation, the final evaluation report due in 2017 will build upon the findings presented in this supplement.

Background

Transfer of Assets Self-Attestation

Medicaid eligibility for long-term care services requires that applicants have not transferred any assets or resources for less than fair market value during the five years preceding their date of application. Applicants are often required to furnish bank statements and financial documents proving compliance with this requirement before eligibility can be granted. If a transfer of assets did occur then a penalty period is imposed delaying eligibility for long-term care services.

Under the Waiver, individuals with income at or below 100% of the Federal Poverty Level (FPL) applying for institutional or home and community-based services are permitted to self-attest that they have made no disqualifying asset transfers during the past five years. This attestation is a sworn statement documented on an addendum to the Medicaid application used by County Welfare Agencies for new entrants, or collected during the financial eligibility determination conducted by Managed Care Organizations for existing beneficiaries moving into Managed Long-term Services and Supports (MLTSS) after July 1, 2014. This form, which was approved for use in December 2012, eliminates the need for the time intensive five-year lookback process, and was intended to expedite eligibility approvals for very low-income applicants.

Qualified Income Trusts

The adoption of Qualified Income Trusts (QITs) in December 2014 fulfills the intent of the hypothetical spend-down provision for individuals having a nursing facility level-of-care which was originally proposed in the Waiver. QITs allow clinically eligible individuals whose monthly income is above 300% of the Supplemental Security Income rate (recently \$2,199) to spend down their resources on long-term supports and services (delivered in their homes/communities or in a nursing facility) to become eligible for Medicaid. Income above the threshold is deposited in a separate bank account which is used for cost-sharing expenses. Prior to the Waiver, spend-down for higher income applicants was only available for nursing facility residents (a medically needy designation), which may have led people who could not afford to pay the full cost of care delivered as home and community-based services (HCBS) to choose nursing facilities at a higher cost to the state. QITs effectively create a new eligibility pathway for long-term care services in home and community settings.

Methods

Data Sources

In this section, we use statistics collected by the State for public- and CMS-reporting purposes as well as data collected by the Bureau of Quality Control specifically for evaluation of the self-attestation policy. We also use Medicaid fee-for-service (FFS) claims and managed care encounter data for January 1, 2011 through December 31, 2014.

Measures

Drawing from quarterly reports from DMAHS to CMS, we present counts of self-attestation forms received by the State. Using data from the Department of Human Services' response to the Office of Legislative Services on the budget (state fiscal year 2016-2017), we present here the count of applicants using QITs. We also present trends in settings of care (HCBS v Nursing Facility) for long-term care beneficiaries calculated from Medicaid claims data. Finally, we report the error rate and average time to approval for applications with self-attestations resulting from the BQC's review process.

Quality Control Review of Transfer of Assets Self-Attestation

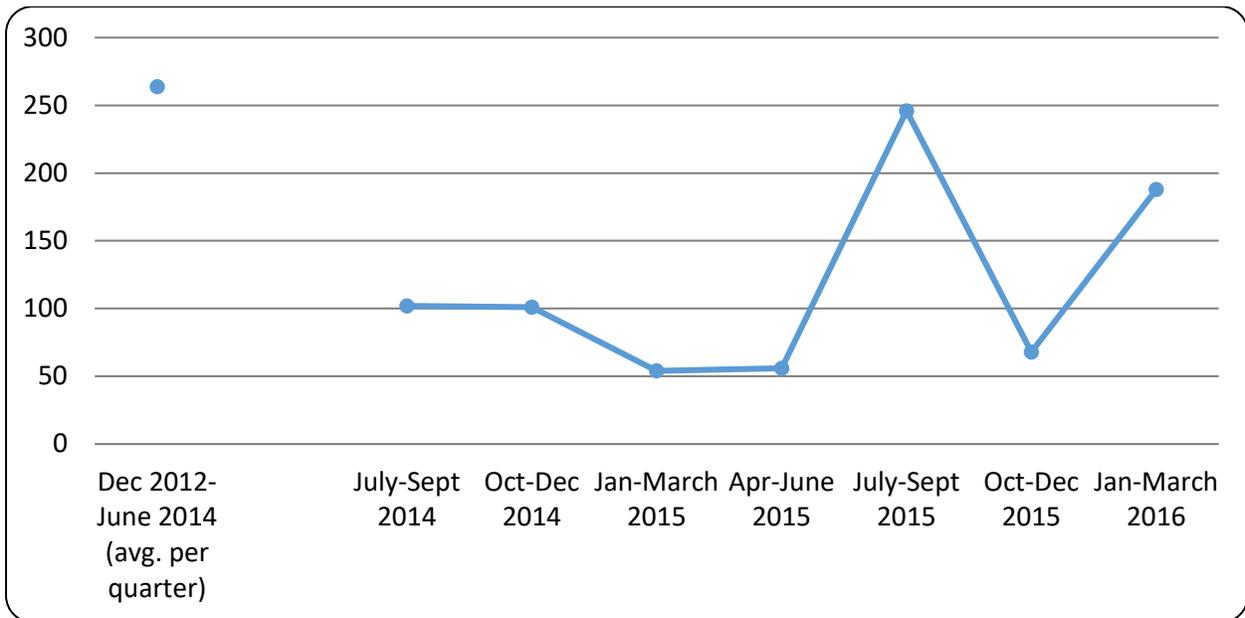
In July through September 2015, the BQC piloted a review protocol to measure the accuracy and effectiveness of the transfer of assets self-attestation procedure. Completed self-attestations provided to BQC each quarter from the Office of Eligibility were sampled for detailed review. First a random sample of 30 forms from each batch was selected, and then 8 of the 30 were randomly selected. The applicants on these 8 forms were then contacted and underwent an audit process. In this process, a representative sample of financial documents (i.e. information on bank accounts, properties, investments, and any other resource or asset) was requested for up to five years prior to the time of application in order to determine whether any assets had been transferred for less than fair market value. Any finding on the sample of 8 would trigger a review of all 30 of the sampled cases. The error rate was calculated as the percentage of all reviewed cases having a positive finding, meaning a transfer penalty would have been imposed under a pre-waiver financial eligibility determination.

At our request, BQC is adding to their protocol a procedure for determining the average time from application to approval in each quarter for all cases reviewed in the audit process. Since this information routes through CWAs and MCOs, depending on the application pathway, it is more challenging to implement in a standardized way and is therefore, not yet available for this interim report.

Results

Figure S.1 shows the number of self-attestations collected during each quarter after MLTSS implementation in July 2014. Prior to MLTSS, 1,670 self-attestations were collected from CWAs and this is presented as an average per quarter on the chart.

Figure S.1: Quarterly number of self-attestation forms received from Medicaid long-term care applicants, December 2012 to March 2016



Source: DMAHS, Quarterly reports to CMS

During fiscal year 2015,¹ 544 QIT applications were approved out of the 1,800 received (30%) (DHS 2016, p.23). Table S.1 shows the number of Medicaid Only beneficiaries with QITs in different settings from December 2014 until March 1, 2016. During that period, there were 1,054 QIT users, of whom 72% were in nursing facilities, 21% were in Assisted Living (considered a community setting) and 7% were living at home.

Table S.1: Cumulative amount of individuals eligible for Medicaid Only using a QIT from December 1, 2014 to March 1, 2016

Setting	Number	Percent
Nursing Facility	763	72%
Assisted Living	218	21%
Living at Home	73	7%
Total	1054	100%

Source: Department of Human Services response to Office of Legislative Services, State Fiscal Year 2016-2017

¹ July 1, 2014 through June 30, 2015 (QIT applications were accepted beginning December 1, 2014).

Table S.2 shows the number of long-term care (LTC) designated² recipients receiving services in nursing facilities or in their homes and communities (which includes assisted living) from 2011-2014. It also shows the percentage of all designated long-term care beneficiaries in an HCBS setting. This percentage increases after the Waiver was approved (2013-2014) compared to the baseline period (2011-2012). While our analysis of Medicaid claims data for the interim evaluation did not extend beyond 2014, data from secondary sources presented in Figure 1, Chapter 2 (p.25) of our draft interim evaluation report shows a continuing increase in the percentage of LTC beneficiaries receiving HCBS from July 2014-January 2016.

Table S.2: New Jersey long-term care population by setting of care, 2011-2014

	2011		2012		2013		2014	
	Total	%	Total	%	Total	%	Total	%
Long-Term Care Beneficiaries	49,912	100.0%	49,534	100.0%	49,337	100.0%	47,721	100.0%
Nursing Facility	37,009	74.1%	36,011	72.7%	35,384	71.7%	34,373	72.0%
HCBS	12,903	25.9%	13,523	27.3%	13,953	28.3%	13,348	28.0%

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, 2011-2014; Analysis by Rutgers Center for State Health Policy

Note: HCBS=Home and Community-Based Services

Table S.3 shows results of BQC’s self-attestation review process for two recent quarters. The error rate on the eight sampled applicants in each quarter was 0%. Data on timing to approval is still pending as of the writing of this supplement.

Table S.3: Error rate and time to approval from quality control review of self-attestation forms

Quarter	Self-attestations received	Number reviewed	Error rate	Time from application to approval
Oct-Dec 2015	67	8	0%	*
Jan-March 2016	183	8	0%	*
April-June 2016	*	*	*	*

Source: DMAHS, Communication from Bureau of Quality Control shared in October 2016

*data being collected, but unavailable for this report

Discussion

This supplemental section presents findings to date on the administrative simplifications approved under the Waiver and designed to ease the application and approval process for existing beneficiaries and new applicants in need of an institutional level of care. These new

² See Chapter 3 (pp.69 & 177) for definition of the long-term care assignment algorithm used in analysis of Medicaid claims data.

processes are being used and monitored, and they very likely have expanded and streamlined the eligibility process for a number of Medicaid applicants. As of March 2016, the availability of QITs has allowed nearly 300 new applicants to qualify for Medicaid home and community-based services who would have otherwise been ineligible at their current income level. With regards to self-attestation for transfer of assets, a 0% error rate on audited cases is promising evidence that the often burdensome five year lookback process can be safely eliminated for many low-income applicants.

Whether these new processes are being used uniformly and equitably is not yet clear. The BQC has noted that, although all CWAs have been provided with the self-attestation form, the counties drawn in the early samples were not representative of the distribution of the Medicaid population in the state, suggesting that some counties may not be regularly using the form. This would mean some applicants who should get the benefit of self-attestation may not be, depending on county-specific practices. The small sample of reviewed cases and uncertainty around its uniform use also mean the error rate may not be representative of the statewide error rate. With regard to QITs, stakeholders have expressed concerns about access to legal assistance for consumers with limited financial or social resources at a disadvantage for drawing up the trust documents and designating a representative to administer the trust over time.

The existence of these new avenues into the Medicaid long-term care system, particularly the establishment of QITs, has the potential to impact the number and mix of individuals in the MLTSS program. While self-attestation could potentially increase the number of eligible beneficiaries by streamlining the process, establishment of QITs would potentially increase the share of beneficiaries in the community. This motivates our examination of the percentage of long-term care beneficiaries receiving HCBS. This shift does appear to be taking place, although we cannot directly attribute it to these administrative changes implemented under the Waiver. We will continue to monitor the number and mix of individuals for our final report, examining changes in the share of beneficiaries requiring a nursing facility level of care being served in their homes and communities.

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A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

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A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

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Executive Summary

The Delivery System Reform Incentive Payment (DSRIP) Program was approved as part of the New Jersey Medicaid Comprehensive Waiver Demonstration in October 2012. The hospital-based DSRIP program uses resources transitioned from the previously existing Hospital Relief Subsidy Fund to establish a pay-for-performance and pay-for-reporting system to achieve specific health improvement goals for the state's low income population.

Over the course of this program participating hospitals receive payments for developing, implementing, and monitoring specific disease management projects; for reporting/verifying two sets of metrics: specific quality metrics related to their adopted projects (Stage 3 metrics) and also a universal set of metrics (known as Stage 4 metrics); for improving performance assessed on the basis of the project-specific Stage 3 metrics; and for improving or maintaining performance on a core set of metrics relating to inpatient care through funding available from a Universal Performance Pool.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate the effectiveness of New Jersey's DSRIP program in achieving its goals. We formulated specific testable hypotheses to examine the following six research questions from the DSRIP Planning Protocol (detailed in the Waiver Special Terms and Conditions document) that determine the scope of the evaluation:

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?
5. To what extent did stakeholders report improvement in consumer care and population health?
6. How do key stakeholders perceive the strengths and weaknesses of the DSRIP program?

This report, the DSRIP midpoint evaluation, presents qualitative and quantitative assessments of the impact of DSRIP program activities during the planning and early implementation period as well as stakeholder perceptions relating to implementation activities and future program potential. It is comprised of four distinct chapters each covering one analytic component of the evaluation plan. These specific components covered different time periods of the program depending on data availability and implementation of the specific evaluation activity, and range from the first DSRIP program year, which was calendar year 2013, through the spring of 2015.

The table below summarizes the content, assessment period, and research questions addressed by each chapter in this report.

Chapter	Evaluation Activity/ Study Period	Assessment Period	Research Question
1. Key informant interviews	10/2014–2/2015	1/2013–2/2015	5, 6
2. Hospital survey	3/2015–4/2015	1/2013–4/2015	5, 6
3. Analysis of Medicaid claims data	1/2011–12/2013	1/2013–12/2013	1, 2, 3, 4
4. Analysis of Stage 4 metrics	1/2013–3/2015	1/2013–12/2014	2

Key Informant Interviews

Chapter 1 reports findings from the key informant interviews that examined stakeholder perceptions of strengths and weaknesses of the program, whether stakeholders reported any improvements in consumer care and population health, and also their impressions relating to program potential to achieve such gains in the future. The findings from these interviews address the hypotheses associated with research questions 5 and 6, assisted in designing the hospital web survey, and will inform the second round of stakeholder interviews that will be a part of the summative evaluation due in March 2018.

Twelve key informants were interviewed between mid-October of 2014 and mid-February of 2015. These included staff members from DSRIP-participating and non-participating hospitals, and individuals involved in DSRIP committees and the Learning Collaboratives. We included safety net providers as well as those serving more income-secure populations, outpatient partners, state officials, and industry association representatives who have participated as stakeholders in program discussions.

Eight themes were distilled from the interviews.

- Theme 1: Hospitals are enthusiastic about chronic disease management and population health improvement, though uncertain about which specific interventions are best.
- Theme 2: The program’s evolving nature and delays in the finalization of approvals and details have caused anxiety and confusion.

- Theme 3: Reporting requirements are a significant burden that is unevenly distributed across hospitals and reporting partners due to differences in the level of technology and the number of low-income patients between hospitals.
- Theme 4: Reporting is an important component of the program tied to payments, yet many participants are unsure of the value of measures to be reported.
- Theme 5: It is too early to determine definite outcomes from the program, either positively or negatively.
- Theme 6: Participants spoke very positively of the Learning Collaboratives.
- Theme 7: The effect of concurrent policy developments on DSRIP program objectives is uncertain.
- Theme 8: Suggestions for future rounds of DSRIP (included more advance knowledge of program requirements prior to rollout, a smaller set of measures with a clearly defined purpose, more involvement of outpatient partners and careful monitoring of the attribution model).

In general, hospitals were enthusiastic about interventions to improve chronic disease management and population health, but had concerns about the burdens of reporting, which fell most heavily on safety-net hospitals. The evolving nature of the program created uncertainty for participants.

Hospital Survey

Chapter 2 reports findings from a web survey of DSRIP-eligible hospitals in New Jersey that was conducted in the spring of 2015. The survey was designed to explore issues relevant to answering research questions 5 and 6 related to stakeholder perceptions. Accordingly, it included questions relating to hospitals' motivations for applying to the program; their experiences while implementing preparatory activities based on program requirements; and whether the hospitals felt that the program improved access to care, quality of care, and population health.

Key findings include:

- Support for the disease management goals of the DSRIP program was cited as the most important reason for applying.
- Hospitals with higher shares of Medicaid beneficiaries were much more likely to need the DSRIP funds to finance existing operations.
- The hospitals did not feel that any of the program specifications/requirements were clear from the beginning. While most of these were clarified over time, requirements related to reporting activities, outpatient partners, and the attribution model continued to remain unclear.

- Over 2/3 of the hospitals felt that the requirements related to the collection/verification of the universal Stage 4 metrics increased over time.
- The hospitals reported that only 42.7% of the Stage 4 hospital inpatient/ED chart-based metrics were obtainable from their electronic health record (EHR). For the hospitals' data reporting partners, an even lower percentage (27.4%) of their outpatient chart-based metrics were obtainable from an EHR.
- On average, the hospitals estimated that just under half (45.9%) of the attributed patients are or will be included in their DSRIP program intervention.
- The chronic disease management programs were rated as having the most positive impact while reporting of the Stage 4 universal metrics was rated as having the lowest impact on quality of care and population health.
- Overall, the hospitals gave a slightly negative rating to the financial impact of DSRIP on their own hospital's finances.
- Hospitals found useful the Learning Collaborative activities such as networking with other hospitals, DSRIP training webinars, and Frequently Asked Questions (FAQs) on the DSRIP website.

In summary, most of the hospitals felt that the DSRIP program had the potential to improve quality of care and population health and that the Stage 3 care management programs aligned well with these population health improvement goals. However, the reporting requirements were too onerous and resource-intensive, especially the Stage 4 universal metrics. The hospitals were concerned about the increase in program requirements and delays in receiving key information. EHR interoperability with program partners was also cited as a major issue, particularly for obtaining the outpatient metrics required for Stage 3 and Stage 4 reporting. Networking with other hospitals and being able to share challenges were rated as the most useful aspects of the Learning Collaborative.

Analysis of Medicaid Claims Data

Chapter 3 examines the very early impact of the DSRIP program on patient care, patient health, costs of care, and hospital finances through quantitative analysis of quality metrics calculated primarily from Medicaid fee-for-service claims and encounter data, and an analysis of hospital-level financial information. Multiple metrics were used to test the first four evaluation hypotheses aligned with research questions 1 through 4 that were the focus of this chapter. We compared changes in outcomes from a baseline period of 2011–2012 to the first program year, 2013, between DSRIP-participating hospitals (or areas with such hospitals) and appropriate comparison groups. It is important to note that no hospital projects had formally launched in 2013 and the program was in transition at this time. Our methods thus identify effects of DSRIP hospitals' activities on chronic disease outcomes, health outcomes, ambulatory care quality,

disparities, and costs, as well as on hospital financial margins during the first program year as they prepared their DSRIP applications and planned for the potential implementation of chronic disease management projects.

Findings relevant to each hypothesis were as follows:

Hypothesis 1: DSRIP hospital projects improve related care and outcomes.

- There were statistically significant improvements reflected in decreasing rates of avoidable asthma and diabetes hospitalizations attributable to the respective disease management programs, but also a worsening in other areas reflected in increasing rates of emergency department visits for asthma among adults. Quality indicators for other chronic diseases showed no significant changes attributable to DSRIP activities.

Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on population health.

- As a geographic area's exposure to DSRIP-participating hospitals increased, rates of avoidable inpatient hospitalizations improved (decreased in magnitude) from baseline to the first DSRIP program year, and this change was statistically significant. At the same time, there was a significant worsening (i.e., an increase) of costs associated with avoidable emergency department (ED) visits, although the corresponding negative impact on avoidable ED visits (reflected in an increase in rates) was not statistically significant. Results for readmission rates and inpatient mental health utilization were mixed and none were statistically significant.

Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.

- Changes in racial/ethnic disparities in 30-day readmissions or avoidable hospital use that could be attributed to DSRIP generally showed a reduction in disparities, but most of these improvements were not statistically significant. There was a statistically significant ($p < 0.05$) worsening of disparities in readmissions for COPD for minority populations (as a group) compared to whites attributable to DSRIP activities. There were no significant changes in gender disparities for any of the quality metrics examined.

Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

- There was no evidence of an adverse impact of DSRIP activities on hospitals' total or operating margins through the first program year.

In general, reductions in rates of avoidable inpatient hospital use among Medicaid beneficiaries was the most consistent outcome attributable to DSRIP-participating hospitals' activities in 2013. No other statistically significant positive or negative trends were notable at this early point in

implementation. As we incorporate data pertaining to later demonstration years when hospitals fully implement their chronic disease management projects, these same statistical techniques applied on additional years of data will allow measurement of full DSRIP program effects.

Analysis of Stage 4 Metrics

Chapter 4 presents results from an analysis of several Stage 4 reported metrics for all DSRIP-participating hospitals in New Jersey. Derived from Medicaid administrative claims data and provided to CSHP by the State, these measures reflect changes in preventive and recommended care over 2013–2014 for hospitals’ attributed patients. These metrics provide additional data for evaluating the hypothesis aligned with research question 2 regarding DSRIP’s success in achieving better health. Specific metrics that we analyze include rates of: screening, child and adolescent access to primary care practitioners, potentially preventable hospitalizations relating to chronic obstructive pulmonary disease (COPD) and heart failure, and childhood vaccination rates and well-child visits for infants. Paired t-tests assessed statistical significance of change over time for each of the metrics across all 50 New Jersey hospitals participating in the DSRIP program.

Key findings include:

- Significant improvements over time in access to primary care practitioners were reported for children ages 7 years to 11 years and adolescents ages 12 years to 19 years.
- Hospital admission rates for COPD and heart failure significantly improved (decreased in magnitude) from 2013 to 2014. The percentage of HIV patients with 2+ CD4 T-cell count taken during the year significantly improved from 2013 to 2014. Preventive screening rates for both cervical cancer and chlamydia improved slightly from 2013 to 2014, but the changes were not statistically significant.
- There was a slight improvement in the metric measuring percentage of newborns with low birth weight from 2013 to 2014, but the change was not statistically significant.
- Rates for the Hepatitis B vaccination improved significantly from 2013 to 2014. The Rota virus vaccination rate improved slightly from 2013 to 2014, but it was not a statistically significant increase. Rates of all remaining vaccinations significantly decreased from 2013 to 2014.
- Although well-child visits in the first 15 months of life increased slightly, it was not statistically significant.

Discussion

This report examines various sources of information to identify the effects of the NJ DSRIP program using a combination of qualitative and quantitative research techniques. The assessment periods differ across the different components, but collectively span the time from the first DSRIP program year (calendar year 2013) until the spring of 2015. All of these findings

thus relate to the period prior to the full implementation of the DSRIP hospital projects that occurs in Demonstration Year 4, and will not capture the effects (or lack thereof) of these specific disease management activities on access, quality and efficiency of care, and more generally overall population health.

The primary value of the findings in this report lies in documenting stakeholder experiences during the application and early implementation phases and in examining their perceptions relating to the potential of the program to achieve its stated objectives. In addition, detailed analyses of DSRIP quality metrics based on Medicaid fee-for-service claims and managed care encounter data provide useful baseline estimates for the summative evaluation and also estimates of any first-year program effects that may arise from preparatory/anticipatory activities by the hospitals.

Some common themes emerged across the different components of this evaluation exercise. Both the hospital survey and stakeholder interviews identified common issues and challenges that included lack of clarity on program specifications (many of these issues were subsequently resolved); enthusiasm relating to the chronic disease management programs; the significant burden of the reporting requirements that increased over time; and program requirements that did not take into account differing capabilities across hospitals such as EHR capability or lack of interoperability with reporting partners that caused disproportionate burden on some.

The findings from our quantitative analyses offer some insights into which programs offered the greatest opportunity, an issue articulated by some interviewees. We found some evidence of improvements in diabetes care reflected in decreasing rates of ambulatory care sensitive diabetes-related hospitalizations, but based on similar metrics we found mixed results in the case of asthma care in areas where hospitals were planning to implement programs in this chronic disease area. These were the only two conditions for which there was some evidence for an early and significant impact attributable to DSRIP in areas where hospitals planned on these activities. There were improvements in several metrics for preventive and recommended care over 2013–2014 that reflected stakeholder expectations that the program will improve care.

In summary, the range of methods and related findings from this report vary in the nature of their contribution to the assessment of the DSRIP program. Many are valuable in their own right such as those that detail stakeholder and hospital experiences in the early phases of the DSRIP program which can guide continued implementation. Others such as the results from the quantitative analysis, in addition to assessing very early impacts from the first program year, provide valuable information relating to baseline year estimates and measurement techniques that will guide analyses conducted in the summative evaluation.

A Midpoint Evaluation of the New Jersey DSRIP Program: Findings from Stakeholder Interviews, Hospital Survey, Medicaid Claims Data, and Reported Quality Metrics

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Introduction

The Delivery System Reform Incentive Payment (DSRIP) Program was approved as part of the New Jersey Medicaid Comprehensive Waiver Demonstration in October 2012. The hospital-based DSRIP program uses resources transitioned from the previously existing Hospital Relief Subsidy Fund to establish a pay-for-performance and pay-for-reporting system to achieve specific health improvement goals for the state's low income population.

The objective of the DSRIP program is aligned to a large extent with the Healthy New Jersey 2020 (HNJ 2020) plan that sets the pathway for comprehensive disease prevention and health promotion for New Jersey residents. Under DSRIP, implementation of specific disease management projects relate to three of the five leading health indicators in HNJ 2020 (NJDOH 2013, 6). Specifically, the eight focus areas including a) asthma b) behavioral health c) cardiac care d) chemical addiction/substance abuse e) diabetes f) HIV/AIDS g) obesity and h) pneumonia may potentially impact three areas of HNJ 2020 health promotion or disease prevention namely, access to primary care; heart disease related outcomes; and obesity prevention. The focus of performance improvement and measurement in the DSRIP program is however, restricted to the low income population group that includes Medicaid, CHIP (Children's Health insurance Program) and the charity care population.

The incentive payment structure of the DSRIP program is based on both hospital performance as well as hospital reporting. Over the course of five demonstration years (DYs), participating hospitals receive payments for developing, implementing, and monitoring specific disease management projects; for reporting/verifying two sets of metrics: specific quality metrics related to their adopted projects (Stage 3 metrics), and also a universal set of metrics (known as Stage 4 metrics); for improving performance assessed on the basis of the project-specific Stage 3 metrics;

and for improving or maintaining performance on a core set of metrics relating to inpatient care through funding available from a Universal Performance Pool.

The Rutgers Center for State Health Policy (CSHP) was engaged to evaluate the effectiveness of New Jersey's DSRIP program in achieving its goals. We formulated specific testable hypotheses to examine the following six research questions from the DSRIP Planning Protocol (detailed in the Waiver Special Terms and Conditions document) that determine the scope of the evaluation:

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?
5. To what extent did stakeholders report improvement in consumer care and population health?
6. How do key stakeholders perceive the strengths and weaknesses of the DSRIP program?

The hypotheses were tested utilizing a mix of quantitative and qualitative methods. The findings would be presented in two reports: a midpoint evaluation focusing on the DSRIP planning and early implementation period (through the first half of DY3), and a summative evaluation covering the full implementation period (through the end of DY5).

This report, the DSRIP midpoint evaluation, presents qualitative and quantitative assessments of the impact of DSRIP program activities during the planning and early implementation periods as well as stakeholder perceptions relating to implementation activities and future program potential. It is comprised of four distinct chapters each covering one analytic component of our evaluation plan. These specific components covered different time periods of the program depending on data availability and implementation of the specific evaluation activity, and range from the first DSRIP program year (administrative data analysis for calendar year 2013) to approximately one and half years after the start of the implementation period (hospital web survey fielded during March–April 2015).

Fielded during the third demonstration year, the key informant interview and the hospital web survey components assess stakeholder experiences with DSRIP program implementation and perceptions relating to future potential by examining individual stakeholder and hospital-level responses to structured questions relating to research questions 5 and 6. To examine specific hypotheses related to research questions 1-4, we conduct a quantitative analysis of independently-calculated metrics related to patient access to care, quality of care, patient health, and costs of providing care using Medicaid claims and managed care encounter data,. Due to lags in data availability, we are restricted to an analysis period of 2011–2013 comprising a baseline

period of 2011–2012 and the first DSRIP program year of 2013. The results from this specific analysis thus capture the early impact of planning/preparatory activities for the DSRIP program on changes in outcomes that are reflected in administrative data. We also examine for any program effect on hospital finances based on Medicare Cost Reports over the period 2011–2013. Finally, we use hospital reported data through the end of the first half of DY3 to examine whether specific trends existed in metrics reported by all hospitals that indicated a positive or negative impact of the program.

The table below summarizes the content, assessment period, and research questions addressed by each chapter in this report.

Chapter	Evaluation Activity/ Study Period	Assessment Period	Research Question
1. Key informant interviews	10/2014–2/2015	1/2013–2/2015	5, 6
2. Hospital survey	3/2015–4/2015	1/2013–4/2015	5, 6
3. Analysis of Medicaid claims data	1/2011–12/2013	1/2013–12/2013	1, 2, 3, 4
4. Analysis of Stage 4 metrics	1/2013–3/2015	1/2013–12/2014	2

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Chapter 1: Key Informant Interviews: Examining Stakeholder Perceptions Relating to the DSRIP Program

Introduction

Key informant interviews are part of the qualitative evaluation of the DSRIP program. They are designed to 1) directly address research questions specified in the Waiver Special Terms and Conditions document related to stakeholder perceptions of improvements in consumer care and population health as well as stakeholder perceptions of strengths and weaknesses of the program, 2) assist in designing other components of the evaluation, such as the web survey and 3) inform the final, summative evaluation of the program by querying stakeholders for program issues some of which may not have been anticipated at the time of the initial research design.

Methods

Subject Recruitment

The research protocol was approved by the Institutional Review Board at Rutgers. Telephone interviews with twelve key informants were conducted from mid-October of 2014 through mid-February of 2015. Interviewees included hospital staff members participating in the various DSRIP Program committees and collaboratives, hospital staff from hospitals that decided not to participate or withdrew from the program, outpatient partners, officials from the New Jersey Department of Health, and industry association representatives who have participated as stakeholders in program discussions and facilitated communications among hospitals and the New Jersey Department of Health, Myers and Stauffer, and CMS. Our candidate list included Quality and Measures Subcommittee members since they could speak to the program's development as well as their individual hospital's experience and Learning Collaborative leaders, who organized group discussions providing information and support to hospitals selecting similar chronic disease projects. We included safety net providers as well as those serving more income-secure populations.

Question Development

The interview questions (available in the Appendix) were constructed so as to address the research questions detailed in DSRIP Planning Protocol based on the Waiver Special Terms and Conditions. Question formulation was informed by knowledge gained by CSHP researchers through participation in various meetings, conference calls, and printed materials distributed

regarding the DSRIP program. An initial draft of questions was piloted in the summer of 2014 in three informal telephone interviews conducted with stakeholders knowledgeable about program operations. These pilots facilitated refinements to the initial draft resulting in the final version of questions.

Questioning Strategy

Interviewers used a semi-structured list of basic questions with detailed potential follow-up questions noted in advance and also created new follow-up questions at the time of the interview if appropriate.

Documentation and Analysis

One CSHP researcher participated in all interviews and created a preliminary summary of each interview that was reviewed and edited by the other two research team members to ensure agreement across the team on the content of each interview. The interviews were audio-recorded and the recordings were consulted in any case where the researchers' notes were unclear. Each research team member independently analyzed the interviews to identify what they believed to be the themes that emerged from the interviews. The team then met as a group to discuss their individual analyses and any differences were discussed. There were no basic disagreements about themes, though there were a few minor differences in emphasis.

Findings

In this section we discuss the themes that emerged in our discussions with stakeholders regarding various elements of the DSRIP program. In brief, participants were generally enthusiastic about chronic disease management interventions and the Learning Collaboratives, where they were able to discuss their intervention programs. They were generally unsatisfied with reporting requirements, because most stakeholders found them to be a significant burden and also questioned the purpose or value of the metrics. Participants generally thought it was too early to determine outcomes from the DSRIP program and were uncertain about the effects of concurrent policy developments. Finally, participants offered suggestions for future rounds of DSRIP.

Theme 1: Hospitals are enthusiastic about chronic disease management and population health improvement, though uncertain about which specific interventions are best

Most hospitals are moving forward with some kind of chronic disease management and/or population health initiatives with or without the DSRIP program (i.e., even those who withdrew or did not participate still engaged in such programs). Many were not able to single out one or more of the project types (asthma, diabetes, heart disease, etc.) as more potentially

transformative than others. When interviewees noted distinctions, their thinking was based on the hospital's target population and related prevalence of specific conditions, or on existing health needs and return on investment from healthcare programs. For instance, one interviewee felt that some conditions had already been targeted for some time (asthma, diabetes, heart disease) and that more gains could be achieved from those that had not been targeted in the past (e.g., obesity, behavioral health). Another interviewee agreed on the need for behavioral health-related projects, but questioned the capacity of the current health system infrastructure to adequately treat such needs because of a lack of available support services, particularly regarding substance abuse treatment. One framed the issue of comparability between disease-specific DSRIP projects in terms of the time that would be necessary to show clinical outcomes and cost reduction. This interviewee felt that asthma interventions offered the best hope for a quick improvement in clinical outcomes through reduced asthma attacks and in cost reduction through reduced visits to the emergency department. From this perspective, cardiac interventions ranked second and diabetes-improvement projects lagged because of the necessity for ongoing monitoring and treatment and the extended time horizon needed to show improvements in clinical outcomes such as reduced amputations.

Theme 2: The program's evolving nature and delays in the finalization of approvals and details have caused anxiety and confusion

Because the program's design was not complete at the beginning of the application process, all involved have dealt with uncertainty. For safety-net hospitals with already tight budgets standing to lose significant financial resources, the anxiety has been significant. Some of the specific factors cited causing anxiety or confusion included:

- The fast turnaround time required to submit complicated DSRIP applications left hospitals scrambling to complete the applications.
- Difficulty getting answers about program requirements led to the involvement of a hospital advocacy group to resolve confusion.
- Significant delays in notification of project awards caused uncertainty regarding whether hospitals should move ahead with planned projects. Hospitals worried that if they did not move forward they might face future penalties by not meeting targets if timelines were not adjusted. On the other hand, if they moved ahead with an unapproved project, they might have to change it significantly in a way that could cause a loss of scarce resources.
- There was a significant increase (perception was at least a tenfold increase) in the number of measures to be reported. In cases where measures have to be manually abstracted from medical charts, this involves significant costs for hospitals. Many interviewees felt that the character of the program changed as it was implemented from a chronic disease management intervention focus to a heavy reporting focus. As will be discussed in more detail later, many stakeholders are dubious about the value of the measures to be

reported, and reporting requirements create a burden that is uneven across hospitals due to their differing capabilities.

- The delay in design and notification to hospitals of their attributed populations caused uncertainty and anxiety about whether their intervention populations were different from the populations based on whom the performance payments would be calculated. Some interviewees were dubious about the use of attribution modeling for a low income population that may move around and get care from different places, making it difficult to assign them with certainty.
- Uncertainty about requirements for project partners led some to go without any, despite seeing the value of partnerships. There was concern that the requirement that a reporting project partner only participate with one hospital could disrupt existing relationships.

Theme 3: Reporting requirements are a significant burden that is unevenly distributed across hospitals and reporting partners

Some hospitals are much further along in the implementation of electronic records than others, and some have interoperable systems with outpatient partners. For these hospitals and their partners, chart-based measures pose a smaller burden than for others lacking such systems. Other hospitals and their reporting partners for whom the measures in question are not recorded electronically have to hire abstractors to extract the metrics from paper-based charts. This is a significant cost for these hospitals and partners. In addition, the program did not set aside resources for reporting partners, so these requirements discouraged the formation of reporting partner relationships. Though no definitive data was available, it seems likely that safety net hospitals are more adversely affected by the reporting requirements since they have the largest low-income populations to report on and also tend to have tight budgets.

Theme 4: Reporting is an important component of the program tied to payments, yet many participants are unsure of the value of measures to be reported

Most interviewees were unsure of the reasons for reporting measures beyond those related to their specific interventions, and also the selection process for such measures. Many claimed they had asked and had not received an answer. In some cases the measures are collected for other purposes such as accreditation or hospital reports to CMS, but in other cases the measures required by the DSRIP program have been dropped by other reporting stewards, leading interviewees to question why they are required to report them for this program.

Theme 5: It is too early to determine definite outcomes from the program, either positively or negatively

Most chronic disease projects had only been operating for a few months at the time of our interviews, so there was not yet definitive data as to their outcomes. Many reported positive

preliminary results for the patients in their programs. There was also concern that the cost burden of reporting and the uncertainties of dealing with patient attribution lists would sap hospital resources that could otherwise be used to improve care.

Theme 6: Participants spoke very positively of the Learning Collaboratives

The Learning Collaboratives give participants a chance to network with others working on similar projects, sharing information and knowledge, and also providing peer support. Interviewees felt that the knowledge exchanged through the Learning Collaboratives would help participants improve their chronic disease management programs and improve consumer health. State-official interviewees noted that Learning Collaboratives have been well-attended.

Theme 7: The effect of concurrent policy developments on DSRIP program objectives is uncertain

In many ways, concurrent policy developments such as the expansion of Medicaid, Medicare penalties for readmission, and the formation of accountable care organizations, reinforce similar principles as DSRIP.

Medicaid Expansion: Interviewees were uncertain as to the effect of the Medicaid expansion on hospital patient care and available resources. While formerly uninsured people will gain coverage with the expansion, it is unclear whether this will make up for decrease in availability of funds formerly dedicated to the uninsured. Interviewees believe that Medicaid not paying for the full cost of care, and some low-income individuals not being eligible for the expansion due to immigration status means that there will be continuing shortfalls in financing care; interviewees are also unsure how these shortfalls will be met.

Readmission Penalties: Medicare penalties for readmissions, while attempting to encourage quality of care, will decrease available resources for hospitals. One interviewee noted that these penalties do not adjust for the socio-economic status of the patient population served by hospitals, which affects the potential for readmission independent of the care received at the hospital.

Other Policies: Several existing quality and reimbursement related programs require measures reporting, and interviewees hoped that these requirements could be aligned across programs to reduce the reporting burden faced by hospitals.

Theme 8: Suggestions for future rounds of DSRIP

- It would be preferable to have the program requirements finalized before the rollout for the next round.

- Most interviewees would like a smaller set of measures (that need to be reported) with a clearly defined rationale and purpose for each measure collected (i.e., how will the data from these measures be used to improve care).
- A few interviewees mentioned the need to involve outpatient partners during the development of the program in the future, and to set aside resources for outpatient partners in addition to hospitals.
- The attribution model should be carefully monitored given the complexities of the patient population. Lower-income populations tend to be more geographically mobile and may have changes in insurance coverage as income levels fluctuate, leading to utilization and payment patterns that make them harder to track than higher-income populations.

Appendix: Interview Question Guides

DSRIP Interview Question Guide, Participating Hospitals

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate to the experience of hospitals participating in these programs and perceptions of the program's potential to improve access, healthcare and health.

- 1. What are the hospital experiences to date in understanding the DSRIP program requirements?**
- 2. What are the hospital experiences to date in implementing the initial requirements of the DSRIP program relating to application, approval, planning and other early implementation processes?**
- 3. Do the hospitals feel that the DSRIP program will facilitate their ability to improve access and quality of care? If so, do they feel these improvements will result in positive effects on population health?**
- 4. What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
- 5. Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
- 6. Among the eight chronic disease project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
- 7. What improvements in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
- 8. What problems in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
- 9. Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**

- 10. What has been the experience of the hospitals related to the learning collaborative and rapid cycle improvement tools? Have these program features aided in the process of project implementation and advanced DSRIP health improvement goals? If so, in what ways?**
- 11. Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, Nonparticipating Hospitals

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

- 1. Our understanding is that your hospital, along with several others, chose not to participate in DSRIP. What factors would you say led to your decision not to participate?**
- 2. How involved did you get in the process before deciding not to submit an application?**
- 3. What do you think about the potential of the DSRIP program to improve access and quality of care in the state as a whole? Do you think it could improve population health? How relevant is this to your own patient population?**
- 4. What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
- 5. Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
- 6. Among the eight project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
- 7. What improvements in care and health, if any, have already been noted as a result of the DSRIP activities?**
- 8. What problems in care and health, if any, have already been noted as a result of the DSRIP activities?**
- 9. Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
- 10. In terms of future program design, what kinds of changes would make you more likely to participate?**
- 11. Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, Nonparticipating Hospitals (Withdrawn)

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

- 1. Our understanding is that your hospital initially participated but then withdrew from the program. What factors would you say led to your decision to withdraw?**
- 2. How involved did you get in the process before deciding to withdraw? How difficult was it to arrive at that decision?**
- 3. What do you think about the potential of the DSRIP program to improve access and quality of care in the state as a whole? Do you think it could improve population health? How relevant is this to your own patient population?**
- 4. What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
- 5. Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals in terms of implementation and consequently achieving the desired outcomes?**
- 6. Among the eight project areas, are there some that offer the greatest potential for improvement through this program? Which ones?**
- 7. What improvements in care and health, if any, have already been noted as a result of the DSRIP activities?**
- 8. What problems in care and health, if any, have already been noted as a result of the DSRIP activities?**
- 9. Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
- 10. In terms of future program design, what kinds of changes would make you more likely to participate?**
- 11. Is there anything else that we should know about hospital experiences and potential of the DSRIP but have not asked about?**

DSRIP Interview Question Guide, FQHCs

As you know, the NJ DSRIP program introduces a hospital incentive payment system based on pay-for-reporting and pay-for-performance. The program's objective is to improve access and quality of care in communities served by hospitals participating in the DSRIP program, resulting in better health and lower costs. Our questions relate the experience of hospitals and other stakeholders participating in these programs and perceptions on the program's potential to improve access, improve health and lower costs.

- 1. What are the FQHC experiences to date with the DSRIP program?**
- 2. Do the FQHCs feel that the DSRIP program will improve access and quality of care with positive effects on population health? How would the hospitals and the outpatient partners contribute to achieving these aims?**
- 3. What specific components of the program, if any, will make the greatest contribution to promoting one or more of the triple aims: better care, better health, and lower costs? Which of the triple aim(s) will the program promote? Can you give some specific examples of program components that will promote the aims?**
- 4. Similarly, what program requirements/characteristics, if any, pose challenges to participating hospitals/FQHCs/partnerships in terms of implementation and consequently achieving the desired outcomes?**
- 5. Among the project areas (asthma/pneumonia, behavioral health/chemical addiction/substance abuse, cardiac care, diabetes and obesity) are there some that offer the greatest potential for improvement through this program? Which ones?**
- 6. What improvements in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
- 7. What problems in care and health, if any, have already been noted in your communities as a result of the DSRIP activities?**
- 8. Will other concurrent policy changes (e.g., Medicaid expansion, readmission penalties, ACOs) impact DSRIP activities or outcomes? If so, in what ways?**
- 9. As a part of the DSRIP process hospitals are involved in learning collaboratives and rapid cycle improvement tools. Are FQHCs involved in these hospital-related activities in any way?**
- 10. Is there anything else that we should know about FQHC experiences related to the DSRIP program, but have not asked about?**

Chapter 2: Hospital Survey on Experiences and Perceptions Relating to DSRIP Application Process, Implementation, and Program Potential

Introduction

In this chapter, we examine the results from the web survey of DSRIP-eligible hospitals in New Jersey. This survey evaluates the DSRIP program implementation and potential impact based on hospital perceptions and experiences. It examines whether the hospitals faced any barriers in implementing the program's requirements and whether the hospitals felt that the program was beneficial and contributed to the Triple Aim of better care, better health, and lower cost through improvement. A copy of the web survey questionnaire can be found in Appendix A.

Methods

The hospital midpoint web survey was designed by CSHP staff in January and February, 2015, and included feedback from the key informant telephone interviews conducted earlier and information from the Learning Collaboratives. The final version of the questionnaire was programmed into Survey Monkey and pretested by CSHP staff. The DSRIP contact persons at all DSRIP-eligible hospitals in New Jersey were provided to CSHP by the New Jersey Department of Health. These hospitals were emailed an advance endorsement letter on State letterhead from an official at the New Jersey Department of Health on March 3, 2015. This advance letter described the survey and its purpose, encouraged the hospitals to provide feedback on the program via the survey, and indicated that Rutgers Center for State Health Policy researchers would be conducting the survey. DSRIP participating and non-participating hospitals (including hospitals that withdrew from the program) received slightly tailored versions of the advance letter. The email accompanying the advance letter requested that the hospitals contact CSHP staff if the survey should be sent to a different hospital representative, and CSHP followed up on these contact person changes.

The fieldwork for the web survey of DSRIP-eligible hospitals (N=63) was conducted from March 12, 2015, to April 24, 2015. The first email sent on March 12 described the survey and contained informed consent information and a link to the web survey. Reminder emails with the consent

information and survey link were sent on March 23, April 1, and April 15. The survey fieldwork closed on April 24. The advance letter and email reminders can be found in Appendix B.

There were 41 responses to the web survey for a response rate of 65%. Of these, 35 were from hospitals participating in the DSRIP program, 4 were from non-participating hospitals, and 2 were from hospitals who initially signed up for the DSRIP program but then withdrew. Eight additional hospitals started the survey but did not complete it and we did not receive any response from 14 hospitals. Most of the hospital officials who responded to the survey were either vice presidents, department directors, or program managers.

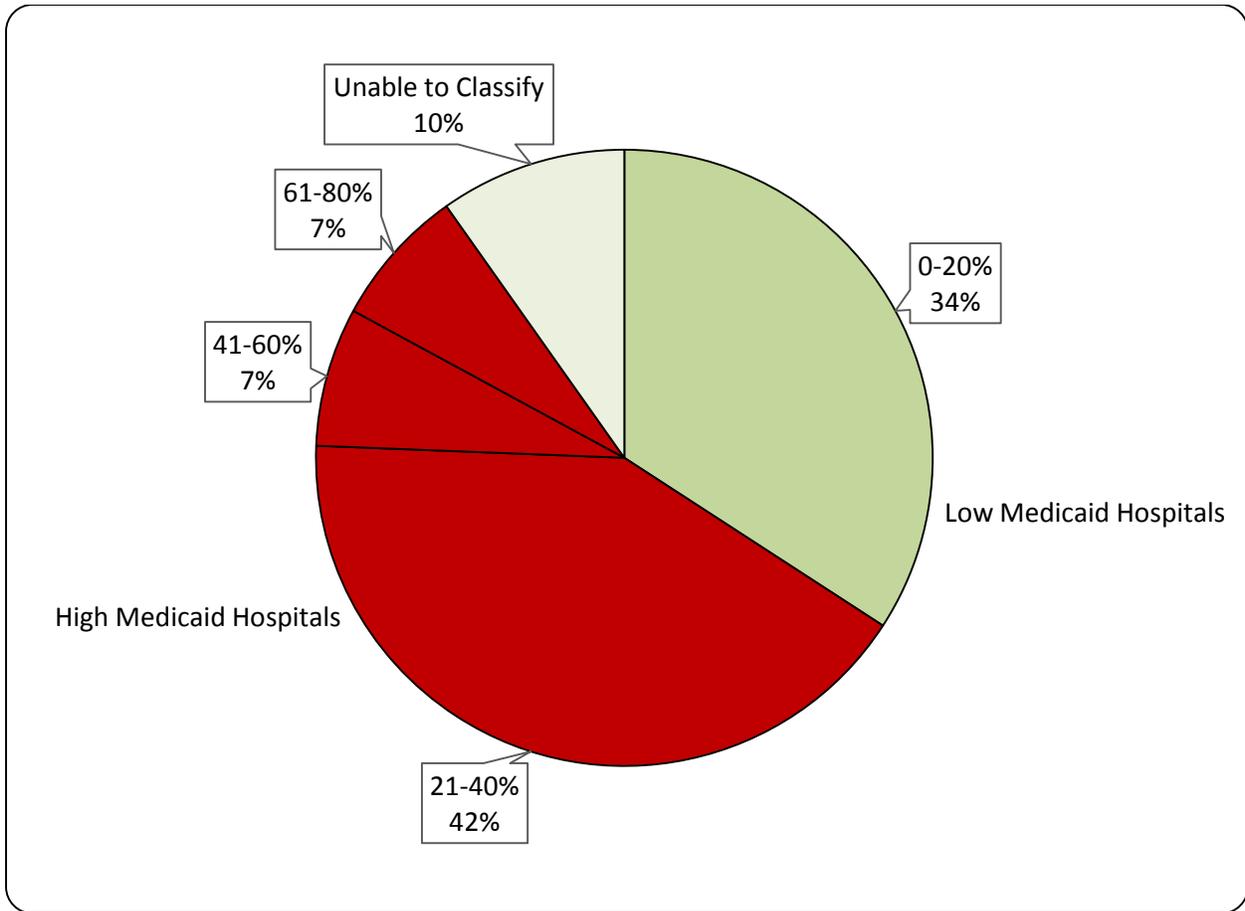
Survey topics included hospital characteristics such as percent of patients on Medicaid/CHIP or charity care, factors in the decision to apply/not apply for the DSRIP program, perceptions regarding DSRIP program requirements, number and selection of DSRIP project partners, metrics obtainable from EHRs, percent of attributed patients in the DSRIP intervention, experience with Stage 1 and Stage 2 activities, experience with preparing Stage 3 and Stage 4 metrics, hospital perceptions relating to the effect of the DSRIP program on health outcomes, changes in community health and hospital finances due to the DSRIP program, perceptions of Learning Collaborative activities, use of rapid-cycle evaluation tools, and difficulty with accomplishing DSRIP activities. The hospital respondents were also given the opportunity to provide open-ended comments on DSRIP project best practices, recommended future changes to the DSRIP program, and any other comments.

To understand whether the DSRIP program had a differential impact on safety net versus non-safety net hospitals, the responding hospitals were divided into two “Medicaid groups” based on the percent of their patients who were Medicaid/CHIP or charity care (see Figure 2.1). The “Low Medicaid” hospitals reported 0-20% of their patients were Medicaid/CHIP or charity care (n=14), and the “High Medicaid” hospitals reported more than 20% of their patients were Medicaid/CHIP or charity care (n=22). This group division correlated well with a report from the Hospital Alliance of New Jersey as to which NJ hospitals are considered safety net hospitals (Ianni 2006).

Frequencies of all measures are presented at the end of the chapter (see Table 2.1). In the Findings section, p-values for significant differences ($p < .05$) between the Low and High Medicaid hospital groups are presented. Due to low sample size, marginally significant differences ($p < .10$) are also mentioned as tending to differ, but p-values are not presented. Charts for selected measures are presented in the text.

Most survey questions had item non-response below 5%. For these variables, missing values are excluded from the analysis.

Figure 2.1: Percent of Medicaid/CHIP/Charity Care Patients in DSRIP Hospitals, n=41



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Findings

Reasons Hospitals Did Not Apply/Withdrew for the DSRIP Program

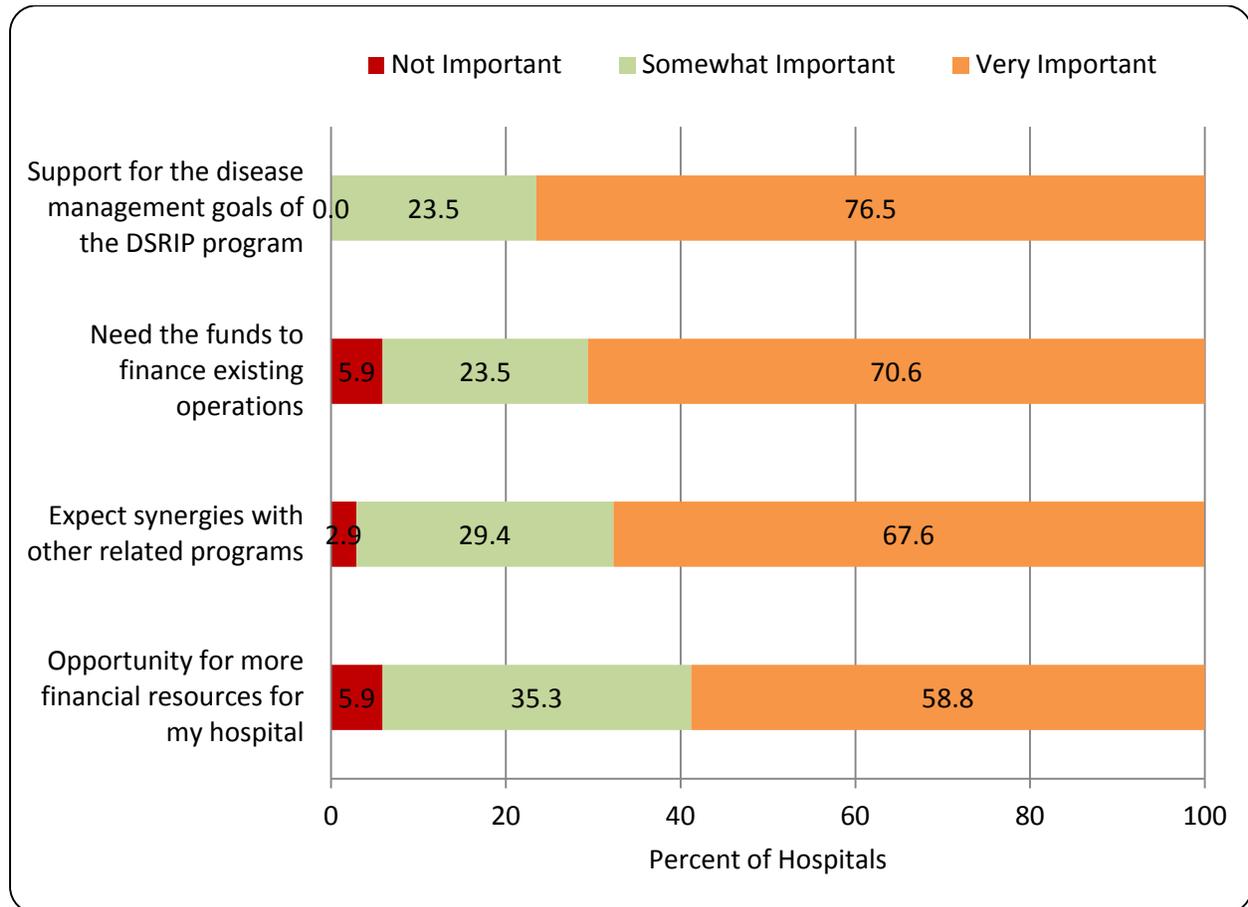
For the responding hospitals that did not apply for or withdrew from the DSRIP program reported, among the reasons cited for not applying or withdrawing included that they did not have enough Medicaid/CHIP/charity care patients, the infrastructure requirements for the program were too expensive, the incentive payment was not enough to justify costs, and the implementation process was too burdensome (the question allowed them to select all applicable responses).

Reasons Hospitals Applied for the DSRIP Program

Most of the responding hospitals applied for the DSRIP program (89.7% applied) (see Table 2.1). High Medicaid hospitals tended to be more likely to apply.

For those responding hospitals that did apply for the DSRIP program, support for the disease management goals of the DSRIP program was cited as the most important reason for applying (76.5% rated this reason as very important in the decision to apply) (see Figure 2.2). This was followed by needing the DSRIP funds to finance existing operations (70.6% rated this very important) and expecting synergies with other related programs such as hospital readmissions, ACOs, and value-based purchasing programs (67.6% rated this very important). Seeing the DSRIP program as an opportunity for more financial resources was cited as very important less often (58.8%).

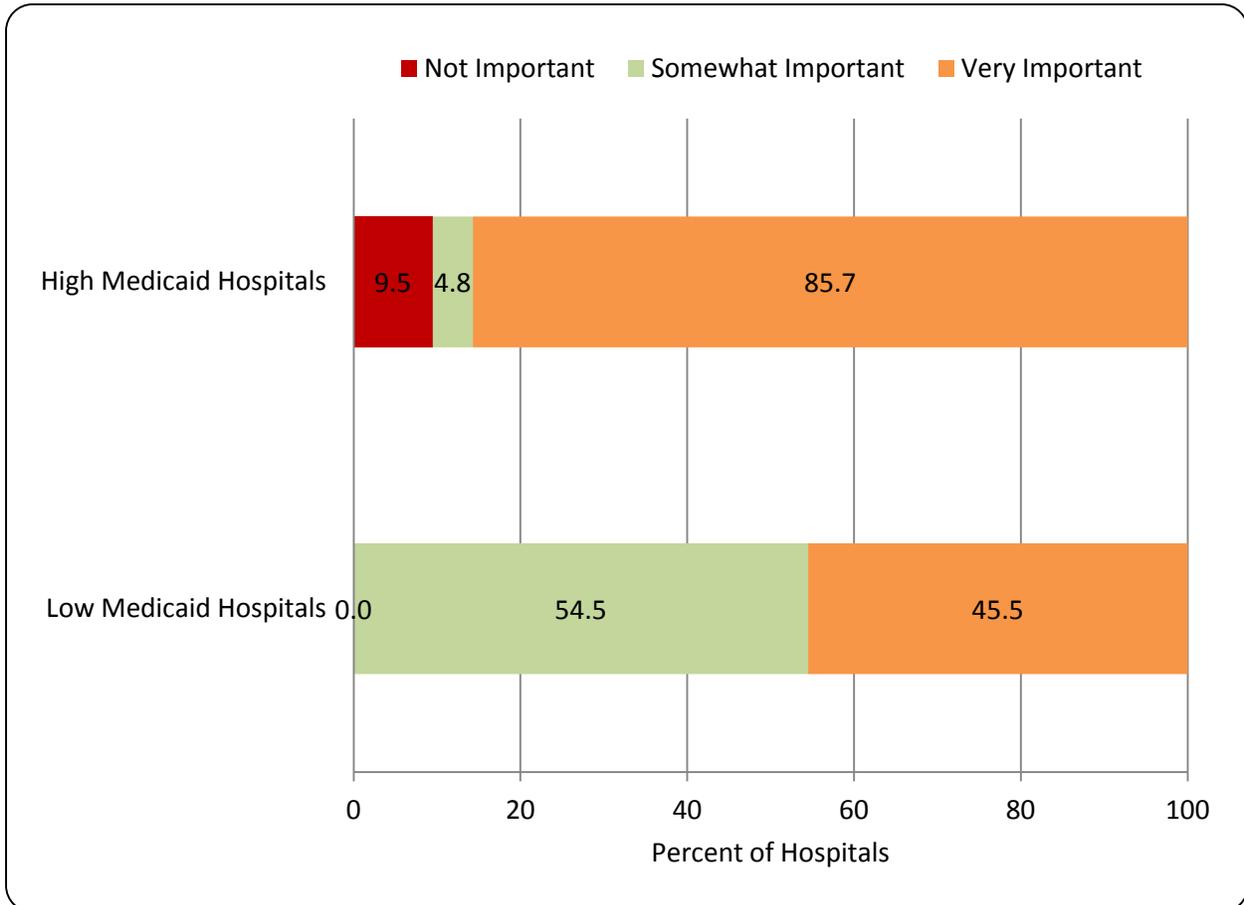
Figure 2.2: Importance of Factors in Decision to Apply for DSRIP



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

High Medicaid hospitals were much more likely than Low Medicaid hospitals to rate as very important needing the DSRIP funds to finance existing operations (High Medicaid: 85.7%, Low Medicaid: 45.5%, $p < .004$) (see Figure 2.3).

**Figure 2.3: Importance of Factors in Decision to Apply for DSRIP:
Need the Funds to Finance Existing Operations by Medicaid Hospital Group, $p < .004$**



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Perceptions about the DSRIP Program Specifications/Requirements

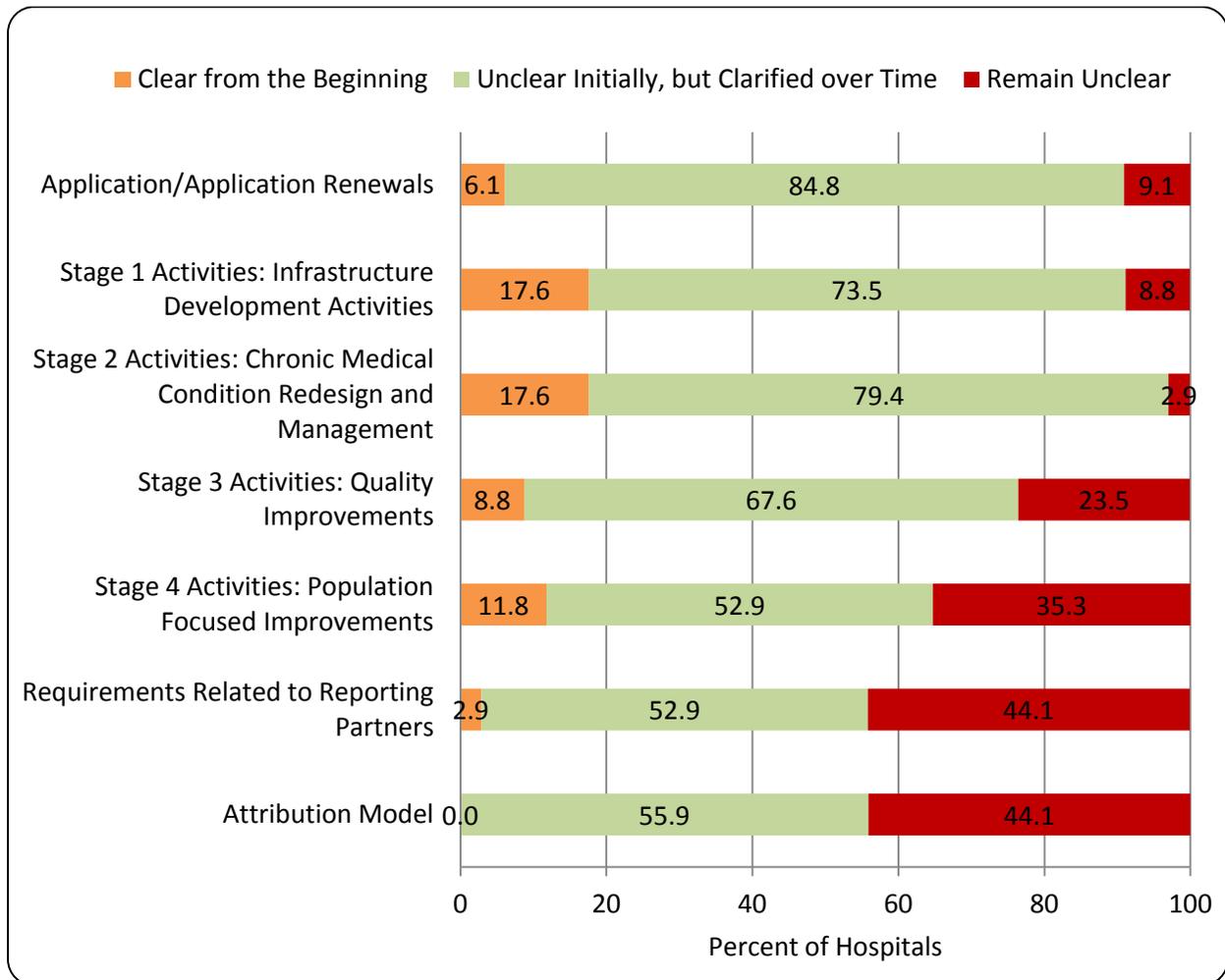
The hospitals were asked their perceptions regarding the following DSRIP program specifications/requirements, and whether they were clear from the beginning, they were unclear initially but clarified over time, or they remained unclear:

- Application and application renewals
- Stage 1 Activities: Infrastructure Development
- Stage 2 Activities: Chronic Medical Condition Redesign and Management
- Stage 3 Activities: Quality Improvements
- Stage 4 Activities: Population Focused Improvements

- Requirements related to reporting Partners
- Attribution model

In general, the hospitals did not feel that any of these program specifications/requirements were clear from the beginning (see Figure 2.4). However, most hospitals felt that the application and renewals, Stage 1 Activities, Stage 2 Activities, and Stage 3 Activities clarified over time (84.8%, 73.5%, 79.4%, and 67.6% of the hospitals, respectively, reported improved clarification over time). The hospitals rated the Stage 4 Activities, Reporting Partner Requirements, and Attribution Model as less clear, with 35.3%, 44.1%, and 44.1% of the hospitals, respectively, reporting that these requirements remain unclear. These perceptions did not differ between the High and Low Medicaid hospitals.

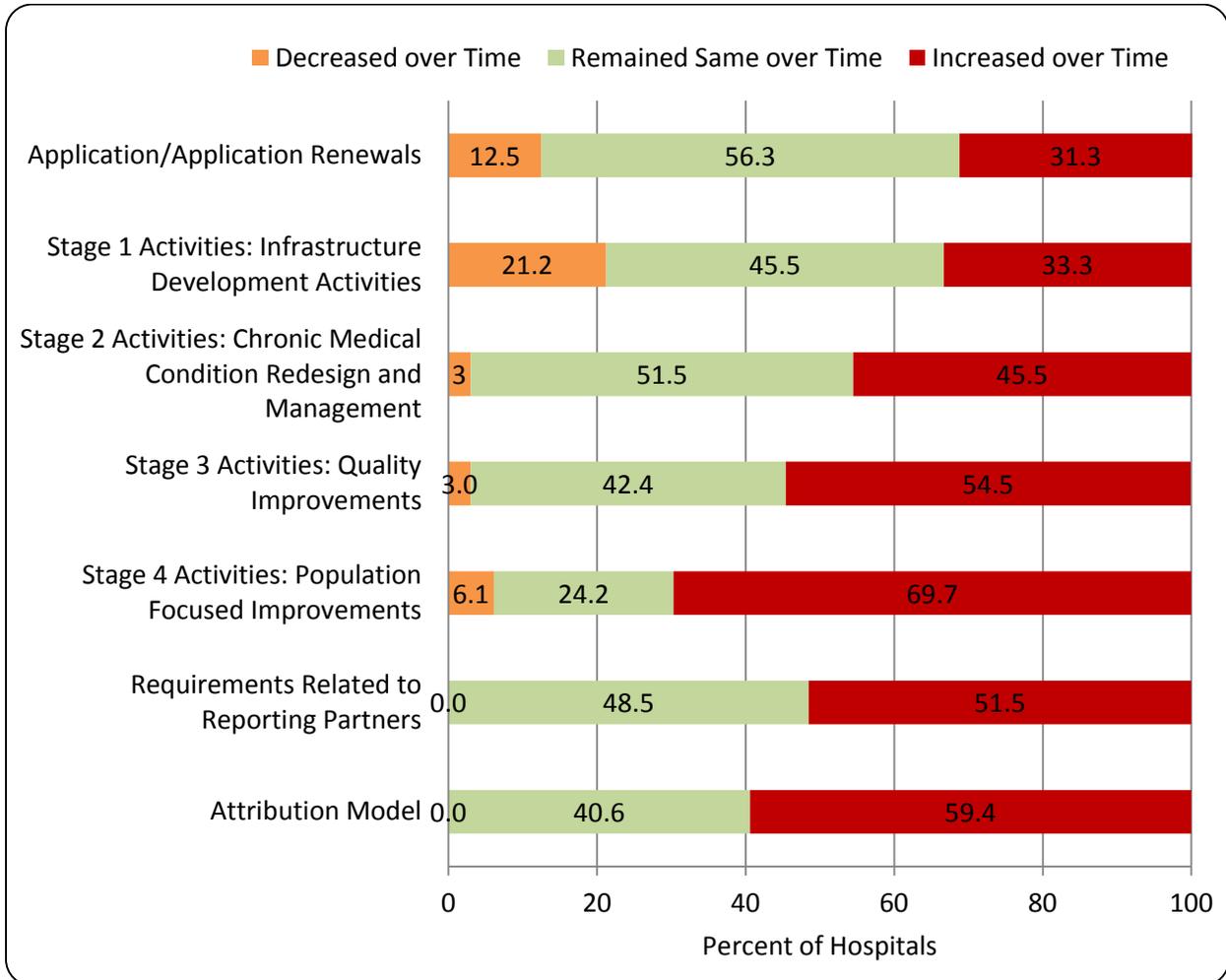
Figure 2.4: Perceptions of DSRIP Specifications/Requirements over Time, Part 1: Clarity



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were then asked to rate these same program requirements as to whether they increased, decreased, or remained the same over time (see Figure 2.5). Over 2/3 (69.7%) of the hospitals felt that the requirements for the Stage 4 Activities increased over time, 59.4% felt that the requirements for the Attribution Model increased, and 54.5% felt that the requirements for the Stage 3 Activities had increased. These perceptions also did not differ between the High and Low Medicaid hospitals.

Figure 2.5: Perceptions of DSRIP Specifications/Requirements over Time, Part 2: Volume

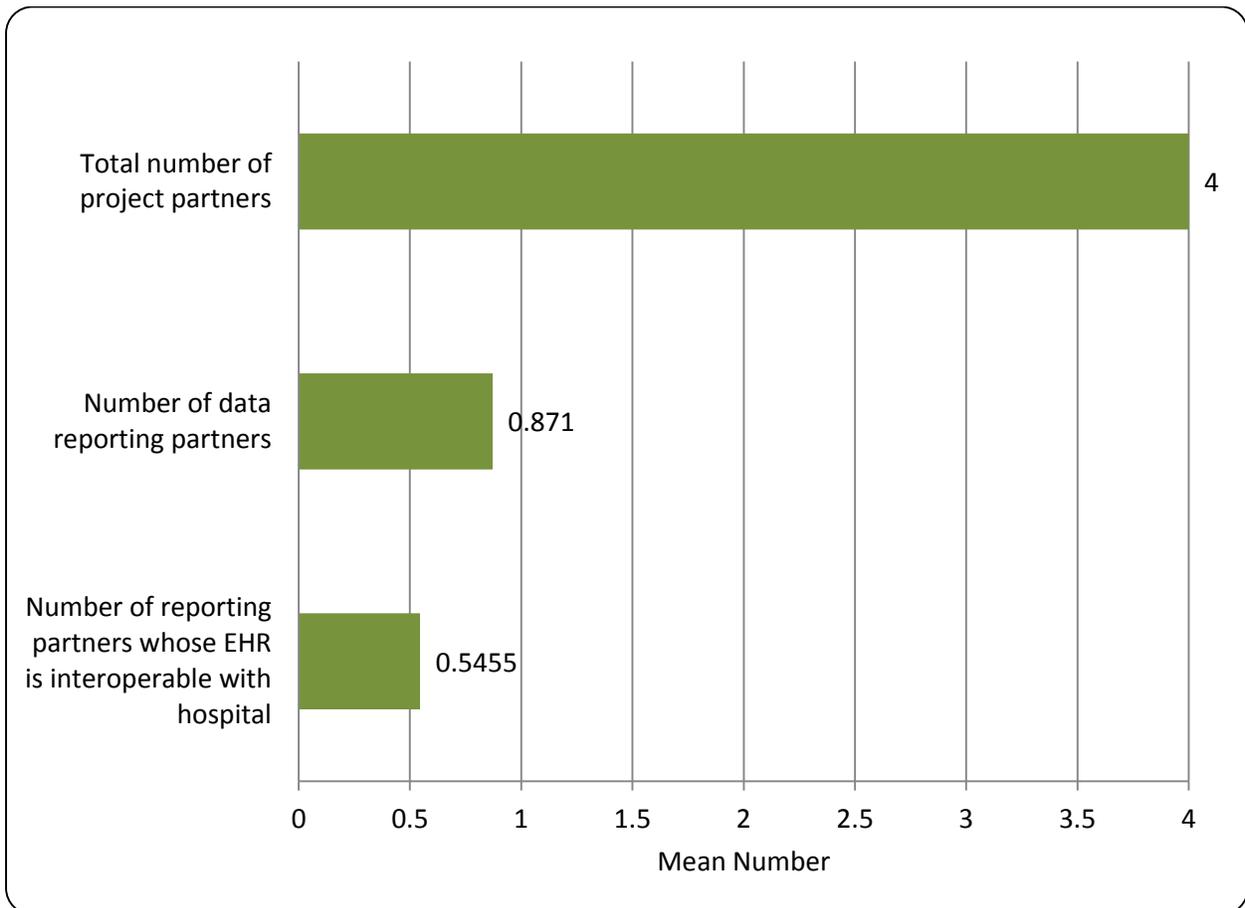


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Project Partners

The hospitals were asked about their DSRIP project partners, how many of these were data reporting partners, and whether these partners had an interoperable electronic health record (EHR) with the hospital (see Figure 2.6). The participating hospitals average 4.0 project partners. Of those with partners, about 1/3 (32.7%, average=0.87 partners) of these partners are data reporting partners and ¼ (25.0%, average=0.55 partners) have an interoperable EHR with the hospital. There was no differences between the Medicaid hospital groups for these measures.

Figure 2.6: Number of Project Partners – Overall, Data Reporting, EHR Interoperable with Hospital

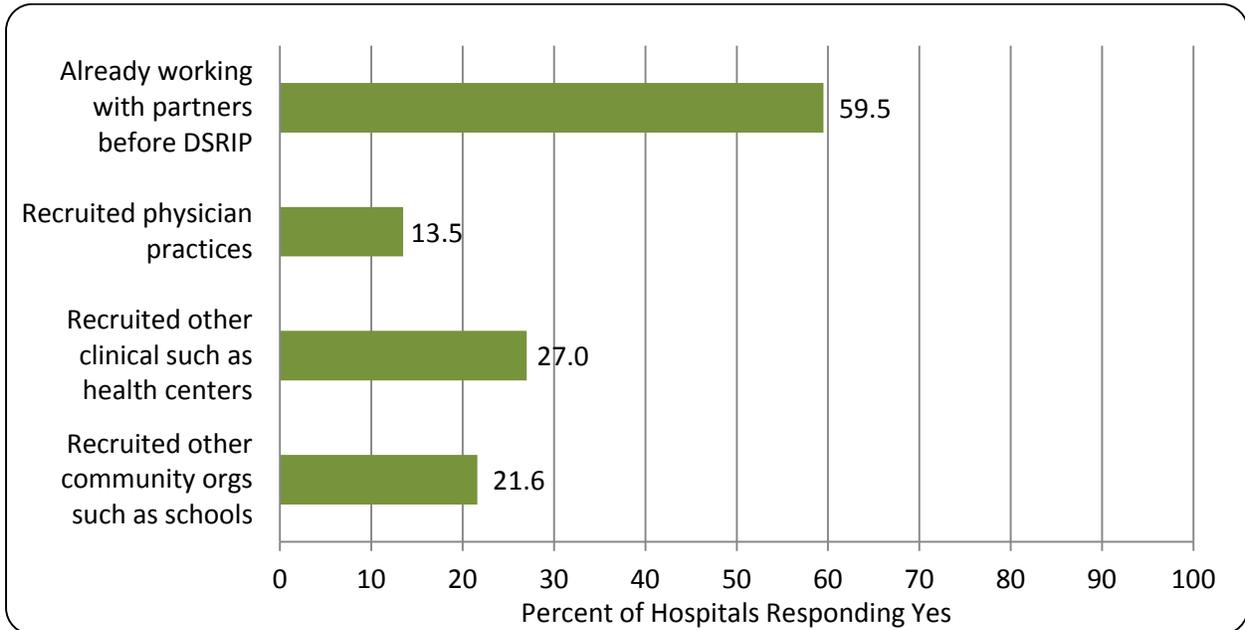


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were asked how they identified these partners and if they were unable to recruit some partners because the organizations were unable to share the necessary data or were already participating in the DSRIP program with a different hospital (see Figure 2.7). A majority of the hospitals (59.5%) reported that they were already working with the partners before DSRIP was implemented. High Medicaid hospitals were much more likely than Low Medicaid hospitals to report that they were already working with the partners before DSRIP (73.9% vs. 35.7%,

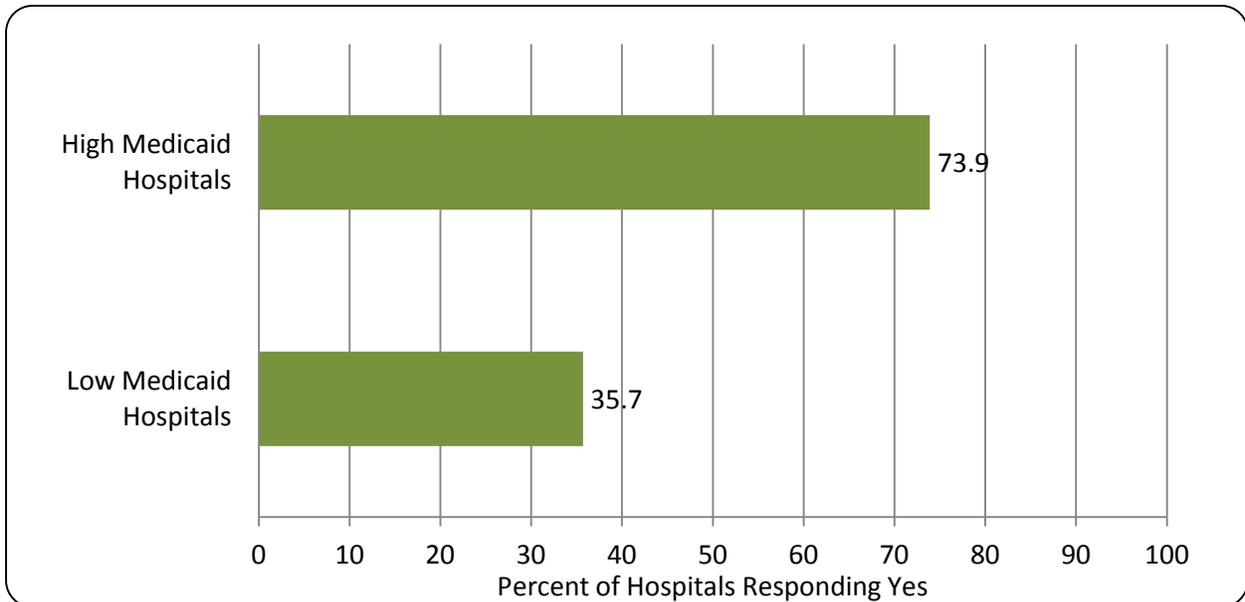
p<.022) (see Figure 2.8). Just over ¼ (27.0%) of the hospitals recruited other clinical partners such as community health centers and 21.6% recruited other community organizations such as schools to be partners. Only 13.5% recruited physician practices as partners. These did not differ between the Medicaid hospital groups.

Figure 2.7: Hospital Identification of Project Partners (select all that apply)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.8: Identification of Project Partners, Already Working with Partners before DSRIP by Medicaid Hospital Group, p<.022



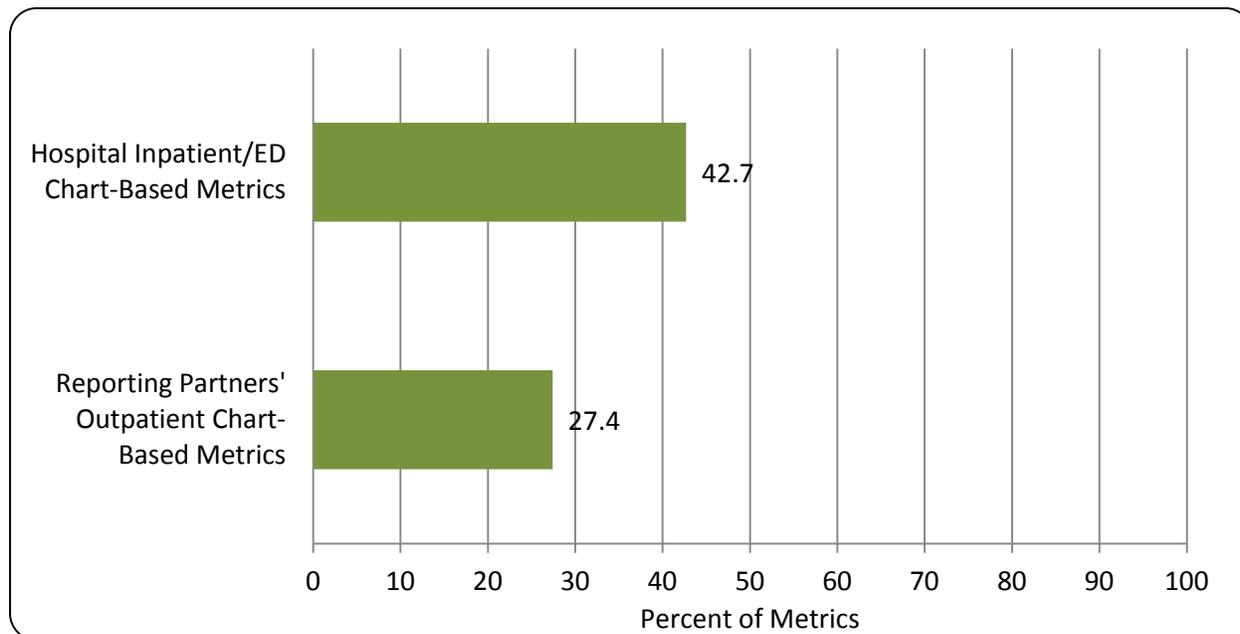
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

About one in six hospitals (17.2%) reported that they were unable to recruit at least one partner because the organization was not able to share the necessary data. Only a few hospitals (6.9%) reported that they were unable to recruit a partner because the organization was already participating in the DSRIP program with a different hospital (see Table 2.1). Neither of these recruiting issues differed between the High and Low Medicaid hospitals.

EHR Interoperability with DSRIP Metrics

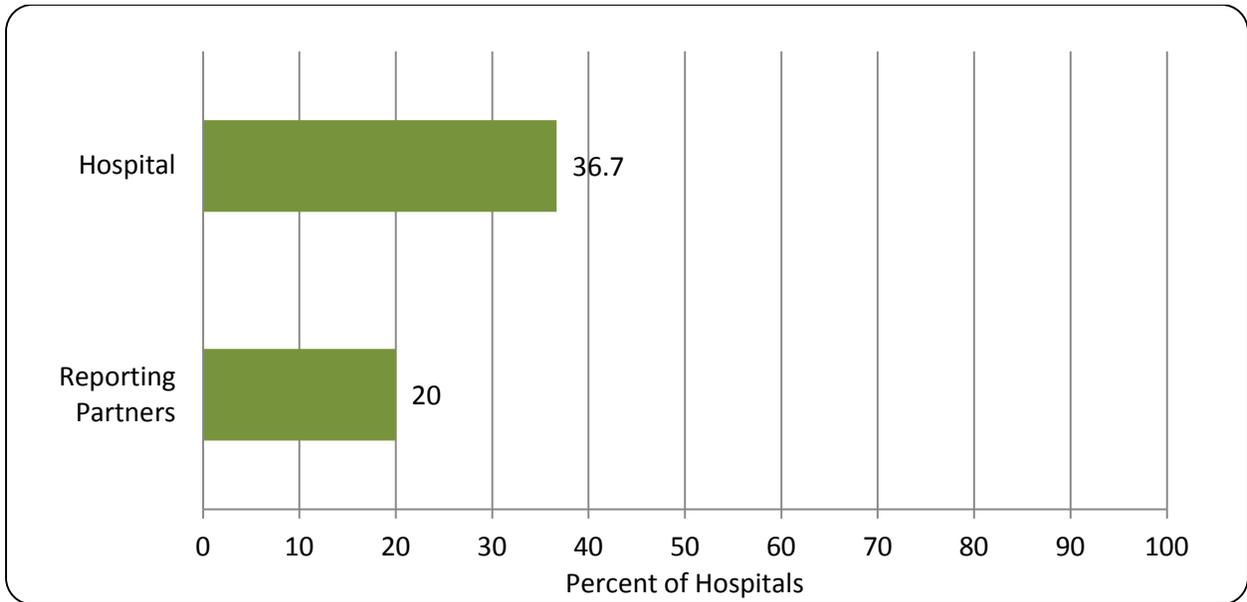
The hospitals reported that only 42.7% of the Stage 4 hospital inpatient/ED chart-based metrics were obtainable from their EHR (see Figure 2.9), and this did not differ between the High and Low Medicaid hospitals (the midpoint value of the response category chosen was assigned to each hospital). For the hospitals' data reporting partners, an even lower percentage (27.4%) of their outpatient chart-based metrics were obtainable from an EHR, and this also did not differ between the Medicaid hospital groups. Just over 1/3 (36.7%) of the hospitals reported an increase in their EHR capability since the time of their DSRIP application, and about 1/5 (20.0%) of the reporting partners had increased their EHR capability (see Figure 2.10). This did not differ between the Medicaid hospital groups.

Figure 2.9: Percent of Required Metrics Obtainable from Electronic Health Record (EHR)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.10: Percent Reporting an Increase in EHR Capability since DSRIP Application

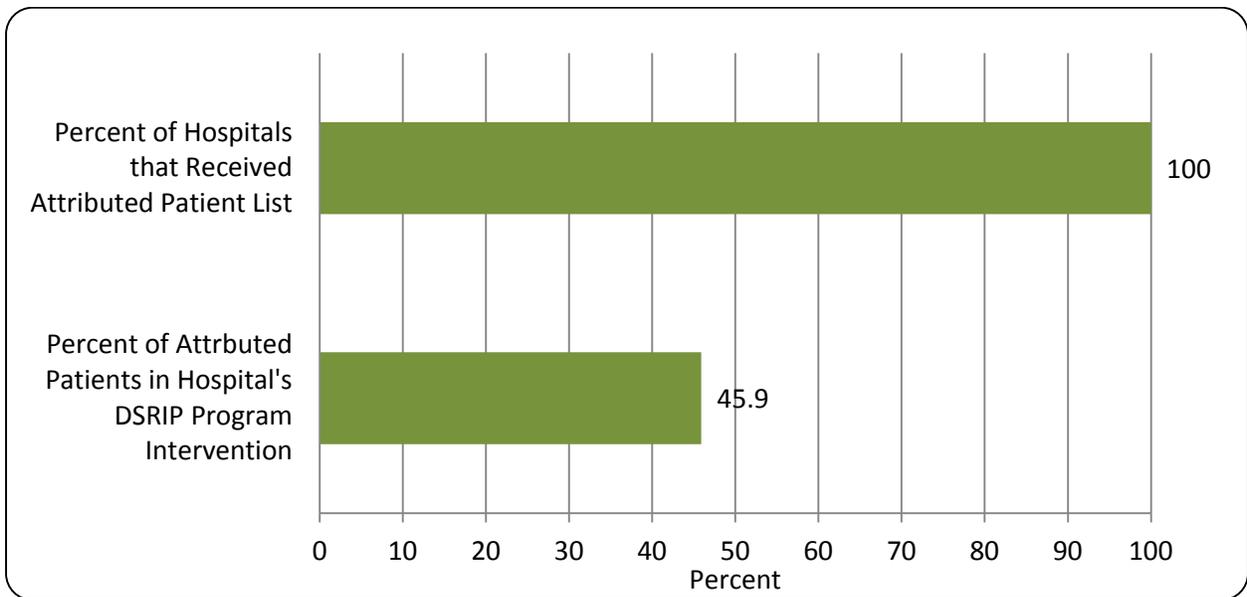


Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Attribution Model

All of the hospitals reported that they had received their list of attributed patients at the time of the survey (see Figure 2.11). On average, the hospitals estimated that just under half (45.9%) of the attributed patients are or will be included in their DSRIP program intervention. This did not differ between High and Low Medicaid hospitals.

Figure 2.11: Attributed Patient List



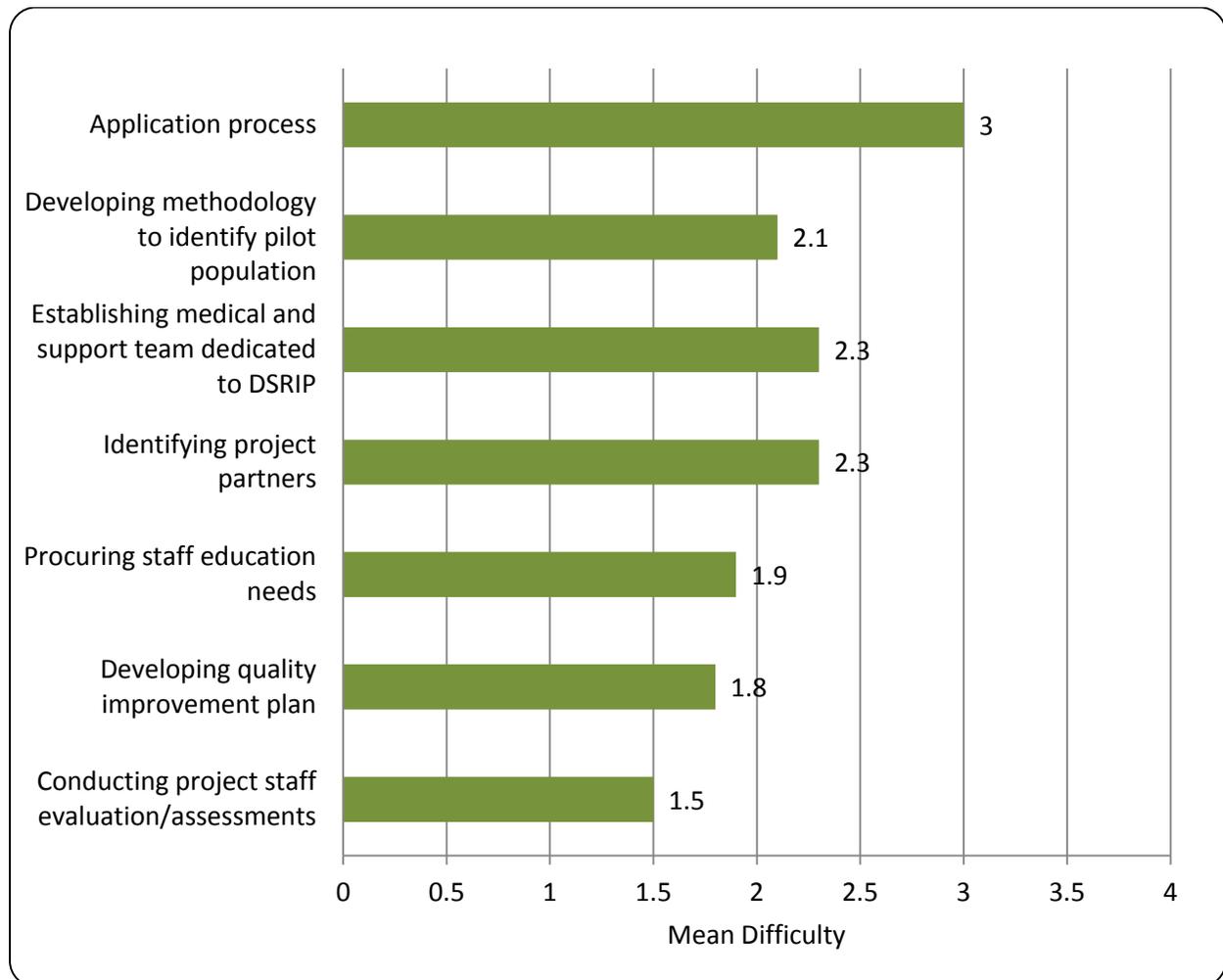
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Perceptions about Specific Aspects of the DSRIP Program

The hospitals were asked to rate the level of difficulty experienced on a four-point scale (no difficulty=1, minor difficulty=2, moderate difficulty=3, major difficulty=4) in dealing with the following different aspects of the DSRIP program: application process, Stage 1 activities, Stage 2 activities, Stage 3 project-specific metrics, and Stage 4 universal metrics.

The application process was rated by the hospitals as moderately difficult (average rating=3.0) and this did not differ between the High and Low Medicaid hospitals (see Figure 2.12).

Figure 2.12: Difficulty with Application & DSRIP Stage 1 Activities (1=none, 4=major difficulty)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The following Stage 1 activities were rated:

- Developing methodology to identify pilot population
- Establishing multi-therapeutic medical and support team dedicated to DSRIP
- Identifying project partners

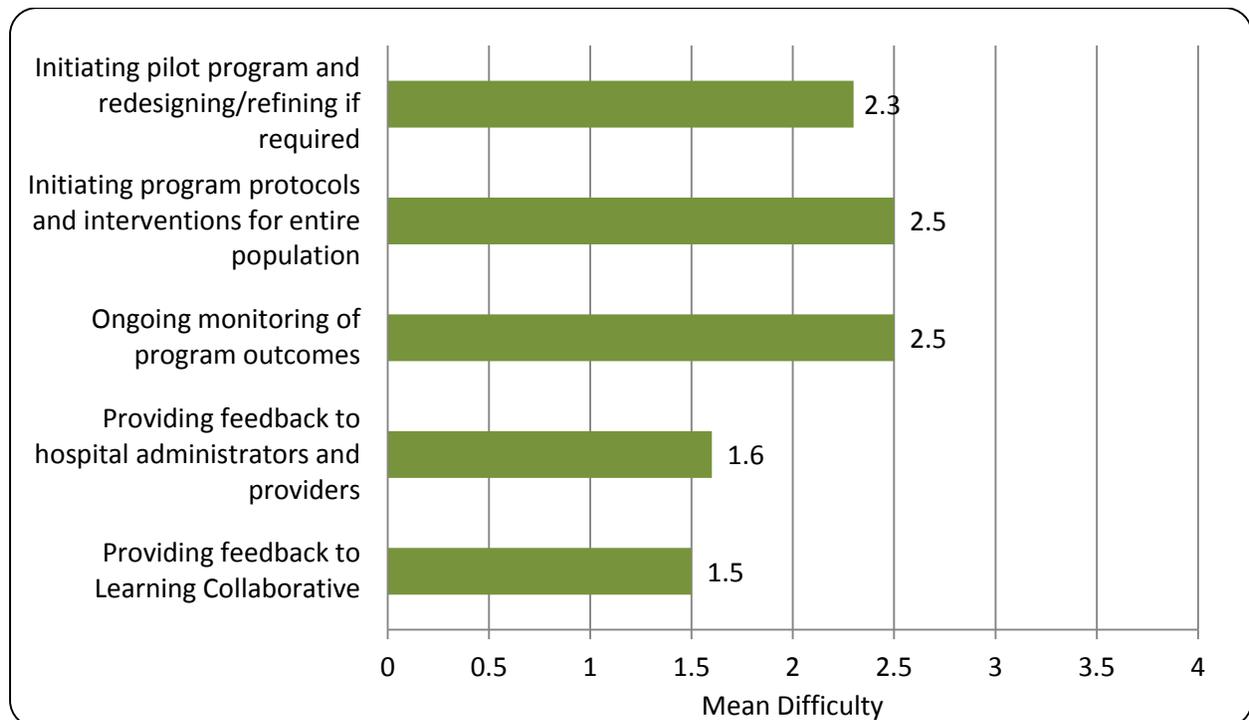
- Procuring staff education needs
- Developing quality improvement plan
- Conduct project staff evaluations/assessments

All the Stage 1 activities combined were given a minor difficulty rating (average rating=2.0) by the hospitals. Among these activities, establishing a medical and support team dedicated to DSRIP and identifying project partners were rated as slightly more difficult (both ratings=2.3) (also see Figure 2.12). Conducting project staff evaluations/assessments was rated as least difficult (rating=1.5), followed by developing a quality improvement plan (rating=1.8). High Medicaid hospitals tended to rate conducting project staff evaluations/assessments as somewhat more difficult than the Low Medicaid hospitals. Difficulty ratings for the other Stage 1 activities did not differ between the High and Low Medicaid hospitals.

The following Stage 2 activities were rated:

- Initiating pilot program redesigning/refining if needed
- Initiating program protocols and intervention for entire population
- Ongoing monitoring of program outcomes
- Providing feedback to hospital administrators and participating providers
- Providing feedback to Learning Collaborative

Figure 2.13: Difficulty with DSRIP Stage 2 Activities (1=none, 4=major difficulty)



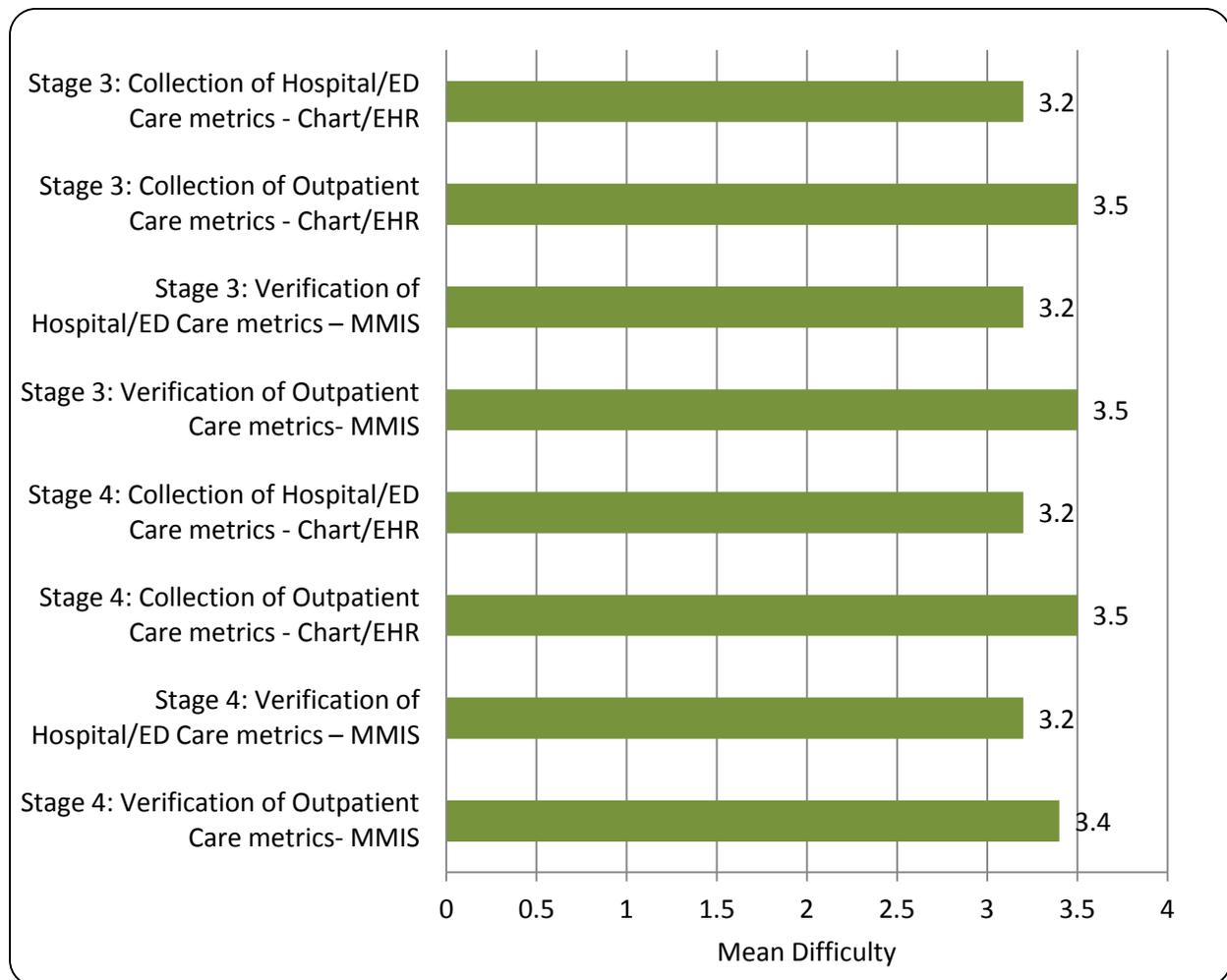
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

All the Stage 2 activities combined were given a minor difficulty rating (average rating=2.1) by the hospitals (see Figure 2.13). Among these Stage 2 activities, initiating program protocols/intervention for the entire population and ongoing monitoring of program outcomes were rated as slightly more difficult (both ratings=2.5). Providing feedback to the Learning Collaborative was rated as least difficult (rating=1.5), followed by providing feedback to hospital administrators and participating providers (rating=1.6). None of the difficulty ratings for the Stage 2 activities differed between High and Low Medicaid hospitals.

The following Stage 3 project-specific metrics were rated:

- Collection of hospital/inpatient or ED care metrics from chart/EHR
- Collection of outpatient care metrics from chart/EHR
- Verification of hospital/inpatient or ED care metrics from MMIS
- Verification of outpatient care or multi-setting care metrics from MMIS

Figure 2.14: Difficulty with DSRIP Data Requirements (1=none, 4=major difficulty)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

All of the Stage 3 project-specific metrics combined were rated as higher than moderate difficulty (average rating=3.3) (see Figure 2.14). Collection and verification of the outpatient project-specific metrics (both ratings=3.5) were rated by the hospitals as more difficult than collection and verification of the hospital/ED project-specific metrics (both ratings=3.2). High Medicaid hospitals tended to rate collection of the hospital/ED project-specific metrics as more difficult than the Low Medicaid hospitals. The others did not differ between the High and Low Medicaid hospitals.

The following Stage 4 universal metrics were rated:

- Collection of hospital/inpatient or ED care metrics from chart/EHR
- Collection of outpatient care metrics from chart/EHR
- Verification of hospital/inpatient or ED care metrics from MMIS
- Verification of outpatient care or multi-setting care metrics from MMIS

All of the Stage 4 universal metrics combined were also rated as higher than moderate difficulty (average rating=3.4) (also see Figure 2.14). Likewise, collection and verification of the outpatient universal metrics (ratings=3.5 and 3.4, respectively) were rated by the hospitals as more difficult than collection and verification of the hospital/ED universal metrics (both ratings=3.2). High Medicaid hospitals tended to rate collection of the hospital/ED universal metrics as more difficult than the Low Medicaid hospitals. The other measures did not differ between the High and Low Medicaid hospitals.

Overall Impact of DSRIP Components on Quality of Care and Population Health

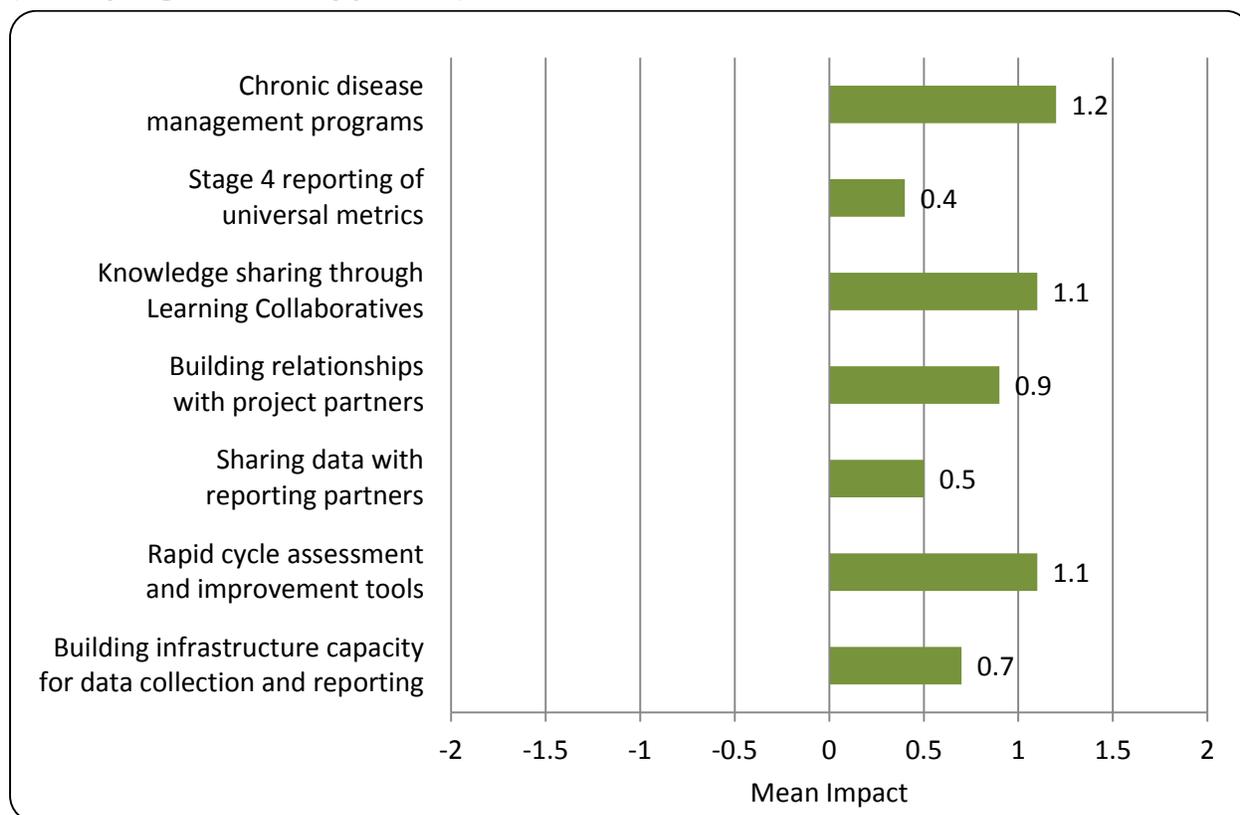
The hospitals were asked to rate on a five-point scale (-2=substantially negative, -1=moderately negative, 0=little or no impact, 1=moderately positive, 2=substantially positive) the following aspects of the DSRIP program for their impact on quality of care and population health (or health outcomes):

- Chronic disease management programs
- Stage 4 reporting of universal metrics
- Knowledge sharing through Learning Collaboratives
- Building relationships with project partners
- Sharing data with reporting partners
- Rapid cycle assessment and improvement tools
- Building infrastructure capacity for data collection and reporting

Impact ratings for all of the program aspects were positive (average impact rating=0.8) (see Figure 2.15). The chronic disease management programs were rated as having the most positive impact on quality of care and population health (impact rating=1.2), followed by knowledge sharing through the Learning Collaboratives and rapid cycle assessment/improvement tools (both ratings=1.1). The Stage 4 reporting of universal metrics was rated as having the lowest

impact on quality of care and population health, although it was still rated as positive on average (impact rating=0.4). This was followed by sharing data with reporting partners (impact rating=0.5). None of these program aspects differed between the High and Low Medicaid hospitals.

Figure 2.15: Impact of DSRIP Components on Quality of Care and Population Health (-2=very negative, 2=very positive)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Overall Impact of DSRIP Program on Hospital Finances

The hospitals were asked to also rate on a five-point scale (-2=very negative, -1=negative, 0=no impact, 1=positive, 2=very positive) the impact of the DSRIP program on their hospital’s finances. Overall, the hospitals gave a slightly negative rating (rating=-0.1) to the financial impact of DSRIP on their own hospital’s finances, and this did not differ between the High and Low Medicaid hospitals.

Community Health-Related Changes as a Result of DSRIP Activities

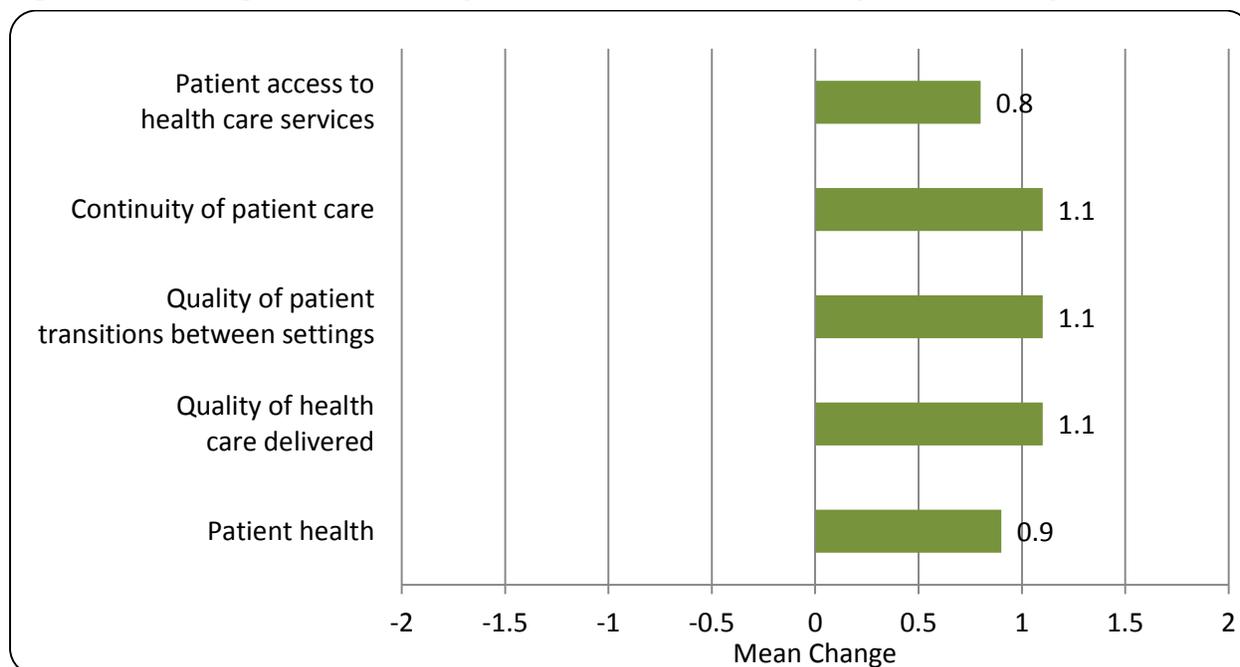
The hospitals were asked to rate on a five-point scale (-2=substantial worsening, -1=some worsening, 0=little or no impact/too early to assess, 1=some improvement, 2=substantial

improvement) changes in the following health-related aspects of their community as a result of DSRIP activities:

- Patient access to health care services
- Continuity of patient care
- Quality of patient transitions between settings
- Quality of health care delivered
- Patient health

All of these measures of change were rated positively by the hospitals and as some improvement (average rating=1.0) (see Figure 2.16). Changes in the continuity of patient care, quality of patient transitions between settings, and quality of health care delivered were rated slightly more positively (all three ratings=1.1) than changes in patient access to health care services (rating=0.8) and patient health (rating=0.9) as a result of DSRIP activities. None of these change ratings differed between the High and Low Medicaid hospitals.

Figure 2.16: Changes in Community Health Due to DSRIP (-2=very worse, 2=very better)



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Usefulness of Learning Collaborative Activities and Other DSRIP Resources

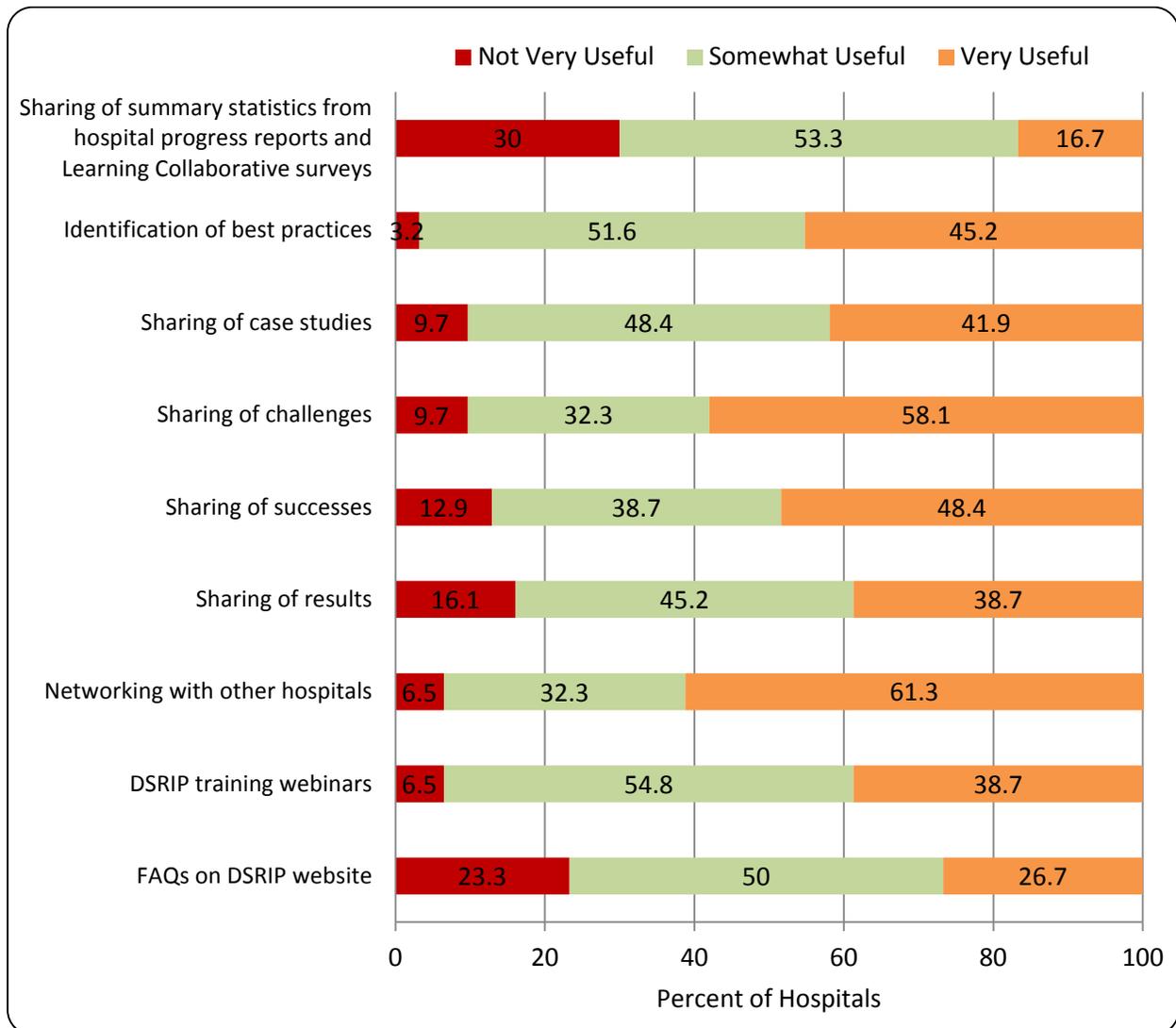
The hospitals were then asked to rate how useful the following Learning Collaborative activities were to their hospital:

- Sharing of summary statistics based on data from hospitals' progress reports and monthly Learning Collaborative surveys
- Identification of best practices

- Sharing of case studies
- Sharing of challenges
- Sharing of successes
- Sharing of results
- Networking with other hospitals

Networking with other hospitals was rated as most useful (61.3% of the hospitals rated this as very useful), followed by sharing of challenges (58.1% rated this as very useful) (see Figure 2.17). Only 16.7% of the hospitals rated as very useful the sharing of summary statistics from hospital progress reports and Learning Collaborative surveys. None of these measures differed between High and Low Medicaid hospitals.

Figure 2.17: Usefulness of Learning Collaborative Activities and Other DSRIP Resources



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals rated the usefulness to their hospital of two other DSRIP resources:

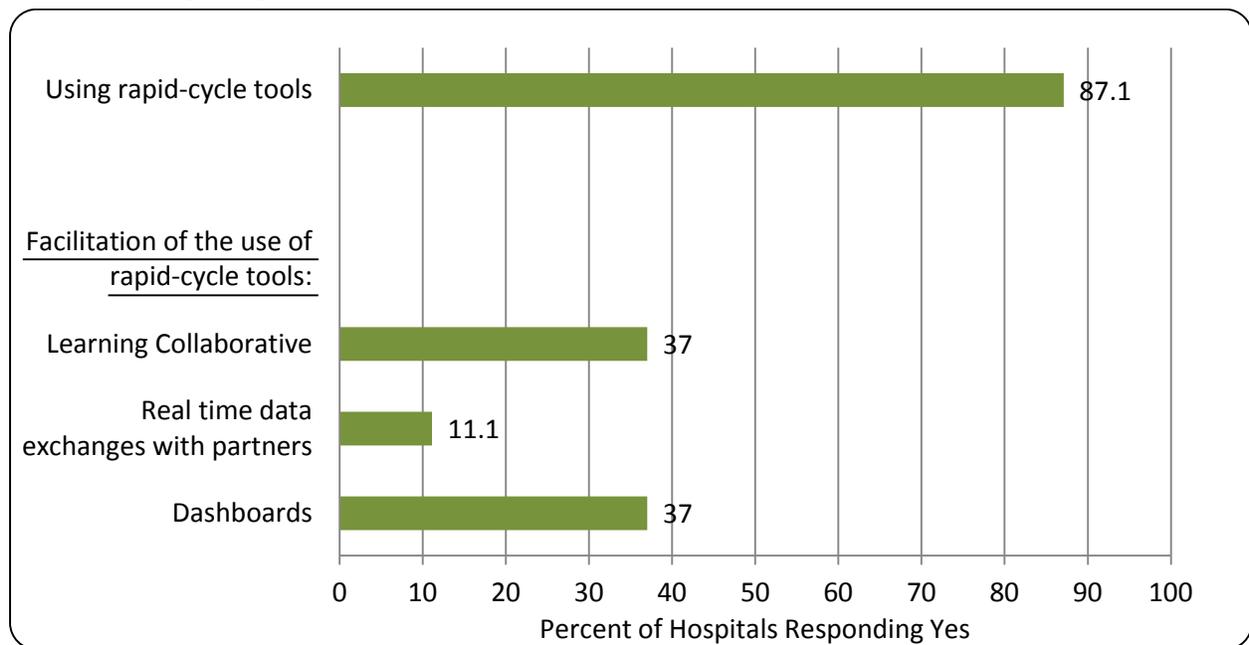
- DSRIP Training Webinars
- Frequently Asked Questions (FAQs) on DSRIP website

These resources were rated moderately useful, with 38.7% rating the webinars as very useful and 26.7% rating the FAQs as very useful (also see Figure 2.17). Neither measure differed between the High and Low Medicaid hospitals.

Rapid-Cycle Evaluation Tools

Almost all (87.1%) of the hospitals were using rapid-cycle evaluation tools, and this did not differ between the High and Low Medicaid hospitals (see Figure 2.18).

Figure 2.18: Percent Reporting Use of Rapid-Cycle Evaluation Tools and Factors Facilitating the Use of Rapid-Cycle Tools



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

The hospitals were then asked if the following facilitated their use of rapid-cycle tools:

- Learning Collaborative
- Real time data exchanges with partners
- Dashboards

The Learning Collaborative facilitated the use of rapid-cycle tools for 37.0% of the hospitals, and dashboards also facilitated the use of rapid-cycle tools for 37.0% of the hospitals (also see Figure 2.18). Only 11.1% of the hospitals reported that real time data exchanges with their project partners facilitated the use of rapid-cycle tools. None of these measures differed between High and Low Medicaid hospitals.

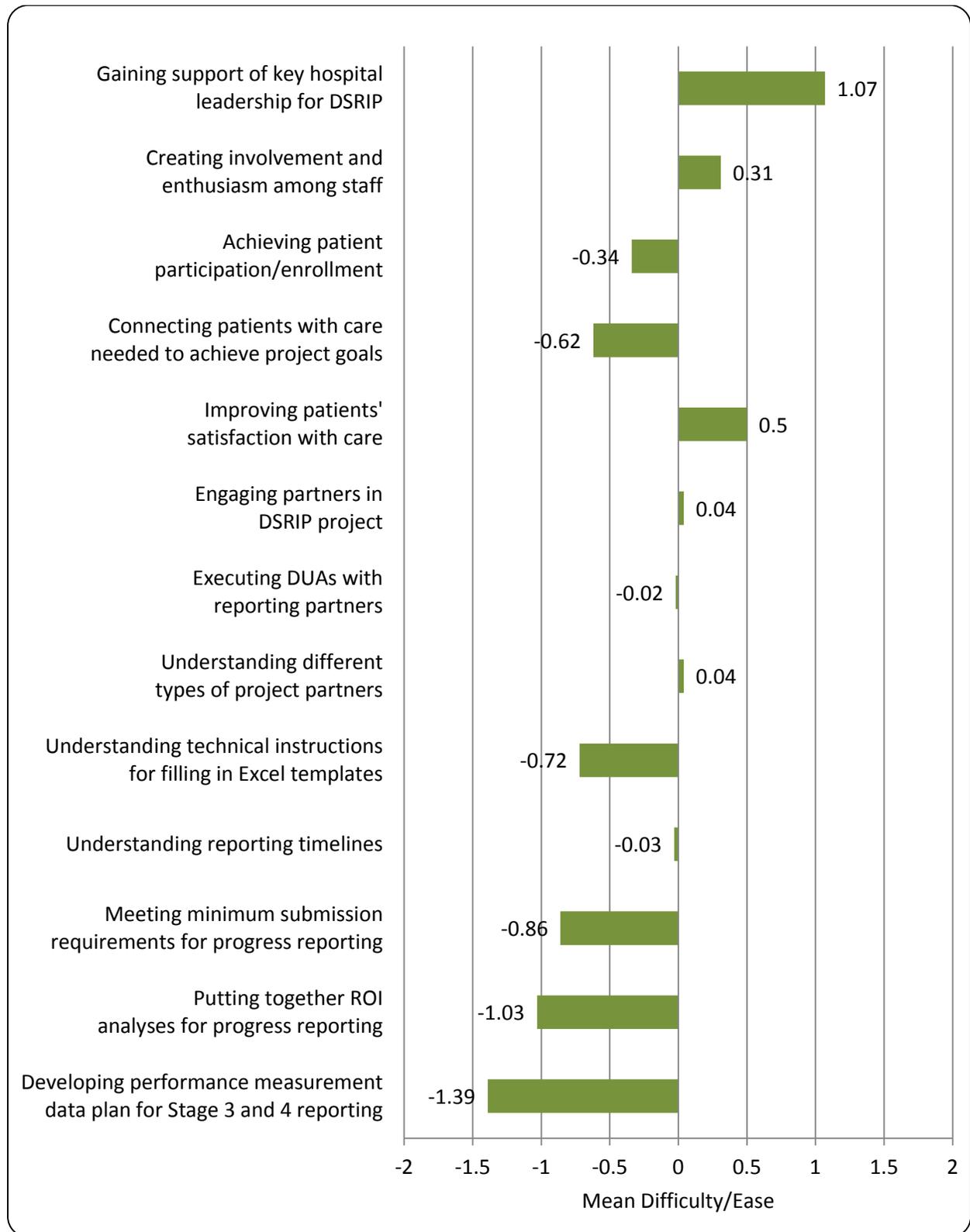
Level of Ease/Difficulty in Accomplishing DSRIP Activities

The hospitals were asked to rate on a four-point scale (-2=very difficult, -1=somewhat difficult, 1=somewhat easy, 2=very easy) how easy or difficult it had been for their hospital to accomplish the following DSRIP activities:

- Gaining support of key hospital leadership for DSRIP
- Creating involvement and enthusiasm among staff
- Achieving patient participation/enrollment
- Connecting patients with care needed to achieve project goals
- Improving patients' satisfaction with care
- Engaging partners in your DSRIP project
- Executing DUAs with reporting partners
- Understanding different types of project partners
- Understanding technical instructions for filling in Excel templates
- Understanding reporting timelines
- Meeting minimum submission requirements for progress reporting
- Putting together return on investment (economic value) analyses as part of progress reporting
- Developing a performance measurement data plan for Stage 3 and 4 reporting

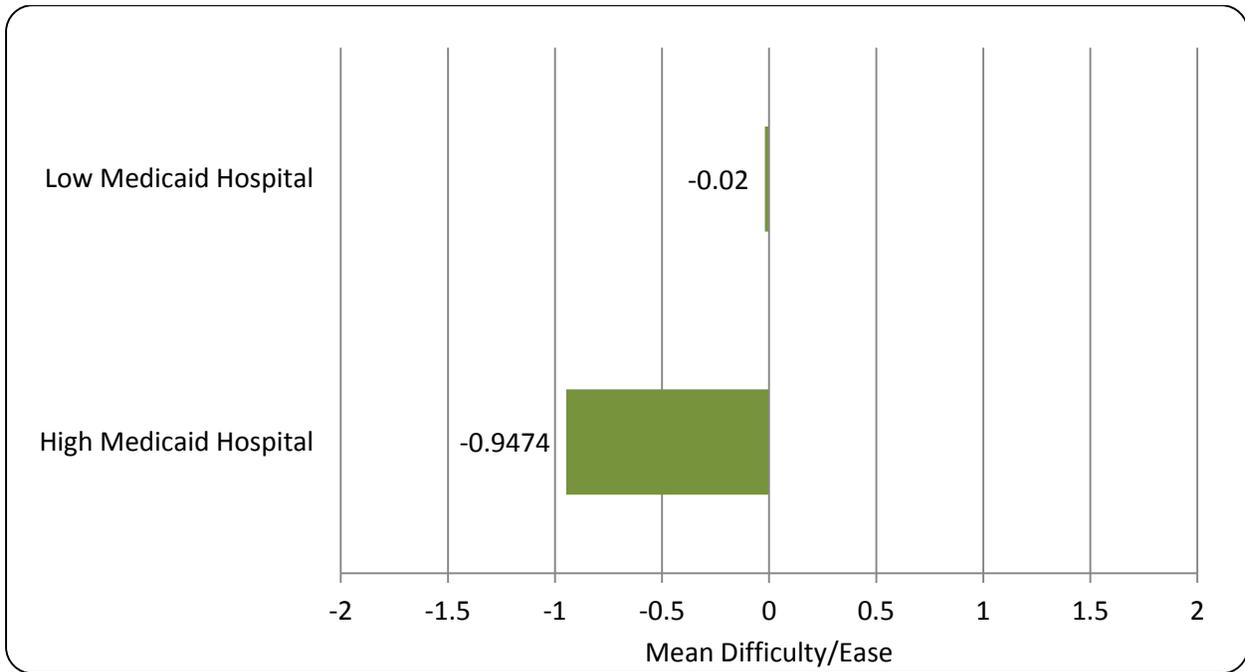
The average rating across all measures was slightly difficult (average rating=-0.2). Gaining support of key hospital leadership for DSRIP was rated as the easiest to accomplish (rating=1.1), followed by improving patients' satisfaction with care (rating=0.5) and creating involvement and enthusiasm among staff (rating=0.3). Developing a performance measurement data plan for Stage 3 and 4 reporting was rated as most difficult to accomplish with a rating of -1.39, followed by putting together return on investment analyses for progress reporting (rating=-1.03), meeting minimum submission requirements for progress reporting (rating=-0.86), and understanding technical instructions for filling in Excel templates (rating=-0.7) (see Figure 2.19). High Medicaid hospitals rated connecting patients with care needed to achieve project goals as more difficult than Low Medicaid hospitals (High Medicaid hospital rating: -0.9, Low Medicaid hospital rating: 0.0, $p<.037$) (see Figure 2.20), but Low Medicaid hospitals rated executing DUAs with reporting partners as more difficult than High Medicaid hospitals (Low Medicaid hospital rating: -1.0, High Medicaid hospital rating: 0.5, $p<.044$) (see Figure 2.21). None of the other measures differed between High and Low Medicaid hospitals.

Figure 2.19: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy)



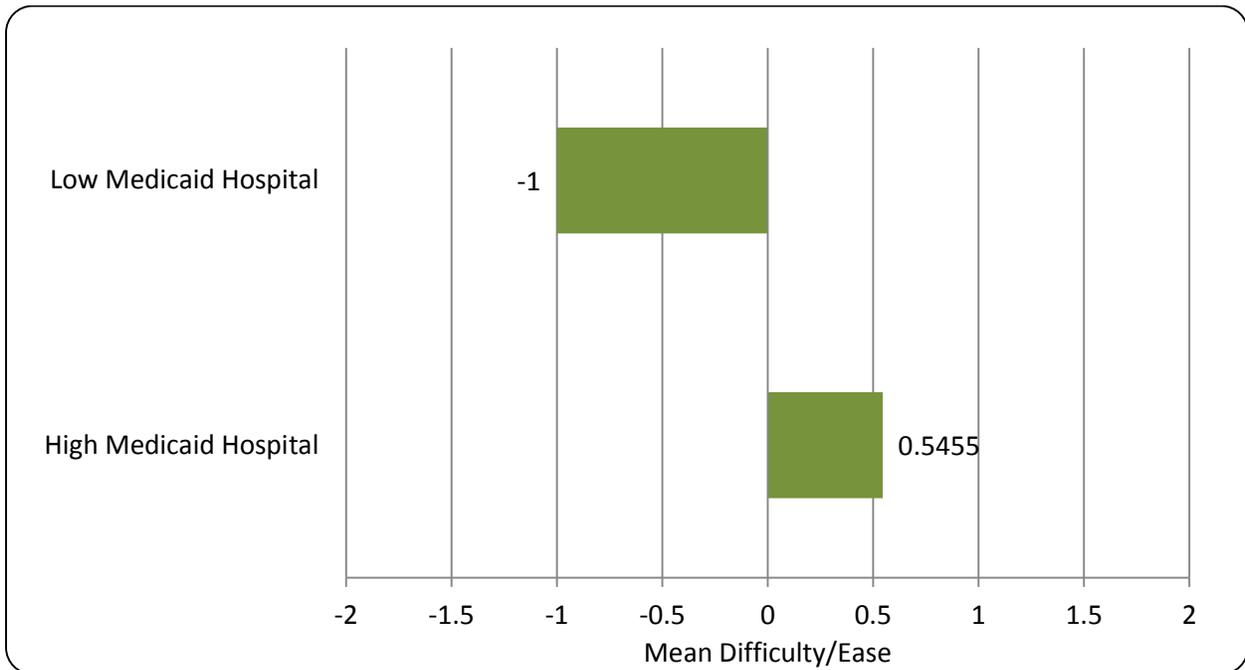
Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.20: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy): Connecting Patients with Care Needed to Achieve Project Goals by Medicaid Hospital Group, $p < .037$



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Figure 2.21: Difficulty/Ease of Accomplishing DSRIP Activities (-2=very difficult, 2=very easy): Executing DUAs with Reporting Partners by Medicaid Hospital Group, $p < .044$



Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Additional Comments about the DSRIP Program

The hospitals were asked the following three open-ended questions about the DSRIP program:

- Please detail any lessons learned or best practices identified to date by your project team.
- Other comments including those relating to the implementation or impact of the DSRIP project on your hospital.
- What changes would you like to see in future implementations of DSRIP?

About 1/3 of the hospitals provided comments for each of these open-ended questions. For summary purposes, the comments were grouped into themes as reported below.

For lessons learned, the comments were grouped into the following themes:

- Communication
- Staff and partner issues
- Specific care management strategies
- Patients make or break the program
- Need to address social and access issues of patients
- Patient recruitment
- Challenges with data collection and the attribution list

For other comments related to DSRIP implementation or impact on hospital, the following themes were identified:

- Data collection issues/reporting is overly burdensome
- DSRIP delays, unclear direction
- Resource intensive
- Positive impact of DSRIP program
- DSRIP program reorganization

For suggestions as to future implementations of DSRIP, the following themes were identified:

- Fewer data metrics/less onerous reporting/Excel template issues
- Better or clearer directions and requirements/better management from State and consultant
- Need attribution list and data templates earlier/timely communication from DSRIP
- Need to restructure communication/interaction forums
- Re-organization of DSRIP programs/hospital burdens/collaborations

Conclusions

Most of the hospitals who responded to the survey felt that the DSRIP program had the potential to improve quality of care and population health. They felt that the Stage 3 care management

programs aligned well with the population health improvement objectives. However, the reporting requirements were too onerous and resource intensive, especially the metrics required for Stage 4, the reporting partner requirements, and the attribution model. The hospitals were concerned about shifting requirements and information not being provided to them early enough for the reporting requirements. Networking with other hospitals and being able to share challenges were rated as the most useful aspects of the Learning Collaboratives.

EHR interoperability with program partners was also cited as a major issue, particularly for obtaining the outpatient metrics required for Stage 3 and Stage 4 reporting. There has been some increase in EHR capability over time, but more for the hospitals than for the partners.

There were only a few statistically significant differences between hospitals based on the share of Medicaid patients; however this could be due to small sample sizes. High Medicaid hospitals were more likely than Low Medicaid hospitals to report needing DSRIP funds to finance existing programs and that they were already working with their programs partners before DSRIP was implemented. High Medicaid hospitals also reported more difficulty connecting patients with the care needed to achieve project goals. However, High Medicaid hospitals reported less difficulty executing DUAs with their project reporting partners.

References

Ianni S. 2006. *Examining the State of Our Healthcare System: The Unique Challenges Facing Urban Hospitals and Their Importance in Our State*. Trenton: Hospital Alliance of New Jersey. http://www.nj.gov/health/rhc/documents/hospital_alliance.pdf.

Table 2.1: Item Frequencies and Means

	N	%
Total	41	100.0
Percentage of hospital's patients on Medicaid/CHIP or charity care		
0-20%	14	34.2
21-40%	17	41.5
41-60%	3	7.3
61-80%	3	7.3
Unable to classify	4	9.8
Did your hospital apply for the DSRIP program?		
Yes	35	89.7
No	4	10.3
Importance to decision to apply for DSRIP		
Support for the disease management goals of the DSRIP program		
Very Important	26	76.5
Somewhat Important	8	23.5
Not Important	0	0.0
Need the funds to finance existing operations		
Very Important	24	70.6
Somewhat Important	8	23.5
Not Important	2	5.9
Expect synergies with other related programs, e.g., hosp readmissions, ACOs, value-based purchasing		
Very Important	23	67.6
Somewhat Important	10	29.4
Not Important	1	2.9
Opportunity for more financial resources for my hospital		
Very Important	20	58.8
Somewhat Important	12	35.3
Not Important	2	5.9
Perceptions of DSRIP specifications/requirements over time		
Application/Application Renewals		
Specs/Reqs clear from the beginning	2	6.1
Specs/Reqs unclear initially but clarified over time	28	84.8
Specs/Reqs remain unclear	3	9.1
Stage 1 Activities: Infrastructure Development Activities		
Specs/Reqs clear from the beginning	6	17.6
Specs/Reqs unclear initially but clarified over time	25	73.5
Specs/Reqs remain unclear	3	8.8

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	41	100.0
Stage 2 Activities: Chronic Medical Condition Redesign and Management		
Specs/Reqs clear from the beginning	6	17.6
Specs/Reqs unclear initially but clarified over time	27	79.4
Specs/Reqs remain unclear	1	2.9
Stage 3 Activities: Quality Improvements		
Specs/Reqs clear from the beginning	3	8.8
Specs/Reqs unclear initially but clarified over time	23	67.6
Specs/Reqs remain unclear	8	23.5
Stage 4 Activities: Population Focused Improvements		
Specs/Reqs clear from the beginning	4	11.8
Specs/Reqs unclear initially but clarified over time	18	52.9
Specs/Reqs remain unclear	12	35.3
Perceptions of DSRIP specifications/requirements over time (continued)		
Requirements related to Reporting Partners		
Specs/Reqs clear from the beginning	1	2.9
Specs/Reqs unclear initially but clarified over time	18	52.9
Specs/Reqs remain unclear	15	44.1
Attribution Model		
Specs/Reqs clear from the beginning	0	0.0
Specs/Reqs unclear initially but clarified over time	19	55.9
Specs/Reqs remain unclear	15	44.1
Perceptions of DSRIP specifications/requirements over time		
Application/Application Renewals		
Specs/Reqs decreased over time	4	12.5
Specs/Reqs remained same over time	18	56.3
Specs/Reqs increased over time	10	31.3
Stage 1 Activities: Infrastructure Development Activities		
Specs/Reqs decreased over time	7	21.2
Specs/Reqs remained same over time	15	45.5
Specs/Reqs increased over time	11	33.3
Stage 2 Activities: Chronic Medical Condition Redesign and Management		
Specs/Reqs decreased over time	1	3.0
Specs/Reqs remained same over time	17	51.5
Specs/Reqs increased over time	15	45.5
Stage 3 Activities: Quality Improvements		
Specs/Reqs decreased over time	1	3.0
Specs/Reqs remained same over time	14	42.4
Specs/Reqs increased over time	18	54.5

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	41	100.0
Stage 4 Activities: Population Focused Improvements		
Specs/Reqs decreased over time	2	6.1
Specs/Reqs remained same over time	8	24.2
Specs/Reqs increased over time	23	69.7
Requirements related to Reporting Partners		
Specs/Reqs decreased over time	0	0.0
Specs/Reqs remained same over time	16	48.5
Specs/Reqs increased over time	17	51.5
Attribution Model		
Specs/Reqs decreased over time	0	0.0
Specs/Reqs remained same over time	13	40.6
Specs/Reqs increased over time	19	59.4
Is your hospital still participating in the DSRIP program?		
Yes	33	94.3
No	2	5.7
# of project partners	31	4.0 (mean)
# of data reporting partners	31	0.9 (mean)
# of data reporting partners with interoperable EHR with hospital	22	0.5 (mean)
How did your hospital identify project partners? (Select all that apply)		
Already working with partners before DSRIP was implemented	23	59.5
Recruited physician practices as partners	6	13.5
Recruited other clinical partners such as community health centers	10	27.0
Recruited other community organizations as partners	9	21.6
# of organizations not partner because unable to share necessary data		
None	24	82.8
One	2	6.9
Two	3	10.3
# of organizations not partner because working with another hospital		
None	27	93.1
One	2	6.9
Two		
		(Mean)
% hospital's inpatient/ED chart-based metrics obtainable from EHR	30	42.7
% reporting partners' outpatient chart-based metrics from EHR	23	27.4
Increase in hospital's EHR capability since DSRIP application	11	36.7
Increase in reporting partner's EHR capability since DSRIP application	4	20.0

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	41	100.0
Have you received your attributed patient list?	32	100.0
% attributed patients included in DSRIP program intervention (Mean %)	29	45.9
Difficulty dealing with DSRIP program (1=none, 4=major diffic)		(Mean)
Application process	29	3.0
Stage 1: Developing methodology to identify pilot population	29	2.1
Stage 1: Establishing medical and support team dedicated to DSRIP	29	2.3
Stage 1: Identifying project partners	29	2.3
Stage 1: Procuring staff education needs	29	1.9
Stage 1: Developing quality improvement plan	29	1.8
Stage 1: Conducting project staff evaluation/assessments	29	1.5
Stage 2: Initiating pilot program and redesigning/refining if required	29	2.3
Stage 2: Initiating program protocols and interventions for entire population	27	2.5
Stage 2: Ongoing monitoring of program outcomes	29	2.5
Stage 2: Providing feedback to hospital administrators and providers	29	1.6
Stage 2: Providing feedback to Learning Collaborative	29	1.5
Difficulty with DSRIP data requirements (1=none, 4=major diffic)		(Mean)
Stage 3: Collection of Hospital/ED Care metrics - Chart/EHR	29	3.2
Stage 3: Collection of Outpatient Care metrics - Chart/EHR	29	3.5
Stage 3: Verification of Hospital/ED Care metrics – MMIS	28	3.2
Stage 3: Verification of Outpatient Care metrics- MMIS	28	3.5
Stage 4: Collection of Hospital/ED Care metrics - Chart/EHR	29	3.2
Stage 4: Collection of Outpatient Care metrics - Chart/EHR	29	3.5
Stage 4: Verification of Hospital/ED Care metrics – MMIS	28	3.2
Stage 4: Verification of Outpatient Care metrics- MMIS	27	3.4
Impact of DSRIP on quality of care, pop health (-2=v. neg, 2=v.pos)		(Mean)
Chronic disease management programs	29	1.2
Stage 4 reporting of universal metrics	29	0.4
Knowledge sharing through Learning Collaboratives	29	1.1
Building relationships with project partners	29	0.9
Sharing data with reporting partners	25	0.5
Rapid cycle assessment and improvement tools	29	1.1
Building infrastructure capacity for data collection and reporting	29	0.7

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Table 2.1: Item Frequencies and Means (continued)

	N	%
Total	41	100.0
Changes in community health due to DSRIP (-2=v. worse, 2=v.better)		(Mean)
Patient access to health care services	29	0.8
Continuity of patient care	29	1.1
Quality of patient transitions between settings	29	1.1
Quality of health care delivered	29	1.1
Patient health	29	0.9
Mean impact of DSRIP on hospital's finances (-2=v. neg, 2=v. pos)	29	-0.1
Usefulness of DSRIP to Hospitals (% reporting very useful)		(%)
Sharing of summary stats from hosp prog repts, learning collab surveys	5	16.7
Identification of best practices	14	45.2
Sharing of case studies	13	41.9
Sharing of challenges	18	58.1
Sharing of successes	15	48.4
Sharing of results	12	38.7
Networking with other hospitals	19	61.3
DSRIP training webinars	12	38.7
FAQs on DSRIP website	8	26.7
Using rapid-cycle evaluation tools (% yes)	27	87.1
Facilitated use of rapid cycle tools (% yes)		
Learning collaborative	10	37
Real time data exchanges with partners	3	11.1
Dashboards	10	37
Ease/difficulty accomplishing DSRIP activities (-2=v. diffic, 2=v. easy)		(Mean)
Gaining support of key hospital leadership for DSRIP	29	1.1
Creating involvement and enthusiasm among staff	29	0.3
Achieving patient participation/enrollment	29	-0.3
Connecting patients with care needed to achieve project goals	29	-0.6
Improving patients' satisfaction with care	28	0.5
Engaging partners in DSRIP project	27	0.0
Executing DUAs with reporting partners	17	0.0
Understanding different types of project partners	24	0.0
Understanding technical instructions for filling in Excel templates	29	-0.7
Understanding reporting timelines	29	0.0
Meeting minimum submission requirements for progress reporting	29	-0.9
Putting together ROI analyses for progress reporting	29	-1.0
Developing performance measurement data plan for Stage 3, 4 reporting	28	-1.4

Source: 2015 New Jersey DSRIP Midpoint Hospital Survey, Rutgers Center for State Health Policy.

Appendix A: Hospital Midpoint Web Survey, Questionnaire

* 1. Introduction and Consent:

This hospital-based survey aims to provide feedback about the planning and implementation of the DSRIP program. Please complete this survey on the basis of your hospital's experience with the DSRIP application, approval, planning and implementation process. All information will remain confidential, and only summary data will be released from survey responses.

If you are 18 years of age or older, understand the statements in the email containing this survey link, and will consent to participate in the study, click on the "I Agree" button to begin the survey. If not, please click on the "I Do Not Agree" button after which you will exit this program.

- I Agree
 I Do Not Agree

2. Survey Respondent

Your Work Title:

3. Hospital Name

Hospital Name

Select your hospital name from the drop-down box to the right:

Other (please specify)

4. Please estimate the overall percentage of your hospital's patients who are on Medicaid/CHIP or charity care.

- 0-20%
 21-40%
 41-60%
 61-80%
 81-100%

5. Did your hospital apply for the DSRIP program?

Yes

No

6. Which of the following are reasons your hospital did not apply? (Select all that apply)

Not enough Medicaid/CHIP/charity care patients

Application process too burdensome

Infrastructure requirements too expensive

Other (please specify)

7. Please rate each of the following with regard to their importance to your hospital's decision to apply:

	Very Important	Somewhat Important	Not Important
Support for the disease management goals of the DSRIP program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Need the funds to finance existing operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expect synergies with other related programs, such as hospital readmissions, ACOs, Hospital Value-Based Purchasing Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity for more financial resources for my hospital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Specify other here

8. How would you characterize the DSRIP program specifications/requirements over time?

	Specs/Reqs clear from the beginning	Specs/Reqs unclear initially but clarified over time	Specs/Reqs remain unclear
Application/Application Renewals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 1 Activities: Infrastructure Development Activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 2 Activities: Chronic Medical Condition Redesign and Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 3 Activities: Quality Improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 4 Activities: Population Focused Improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirements related to reporting Partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attribution model	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Part 2 to "How would you characterize the DSRIP program specifications/requirements over time?"

	Specs/Reqs decreased over time	Specs/Reqs remained same over time	Specs/Reqs increased over time
Application/Application Renewals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 1 Activities: Infrastructure Development Activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 2 Activities: Chronic Medical Condition Redesign and Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 3 Activities: Quality Improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 4 Activities: Population Focused Improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirements related to reporting Partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attribution model	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. What project area did your hospital select?

- Asthma
- Behavioral Health
- Substance Abuse
- Pneumonia
- Obesity
- Diabetes
- Cardiac

11. Is your hospital still participating in the DSRIP program?

- Yes
- No

12. Which of the following are reasons your hospital withdrew from the program? (Select all that apply)

- Not enough Medicaid/CHIP/charity care patients
- Incentive payment was not enough to justify costs
- Too difficult to find project partners or fulfill project partner requirements
- Implementation process too burdensome
- Change in hospital ownership
- Reorganization as a result of mergers and acquisitions

Other (please specify)

13. A project partner is any organization helping your hospital and your patients achieve the aims of the DSRIP program (e.g., schools, clinics, physician practices, etc.).

How many project partners does your hospital have?

of project partners:

14. A reporting partner is a project partner included in the attribution model and required to collect and report outpatient data.

Out of your project partners, how many are data reporting partners?

of data reporting partners:

15. With how many of these reporting partners does your hospital have an interoperable EHR? (Skip if your hospital does not have any reporting partners)

of reporting partners:

16. How did your hospital identify project partners? (Select all that apply)

- Already working with partners before DSRIP was implemented
- Recruited physician practices as partners
- Recruited other clinical partners such as community health centers/FQHCs
- Recruited other community organizations as partners (for example, schools)

17. In addition to your reporting partners, with how many other organizations did you want to establish a reporting partner relationship but could not because they were unable to share the necessary data?

- None
- One
- Two
- Three or more

18. With how many organizations did you want to establish a reporting partner relationship but could not because they were participating in the DSRIP program with a different hospital?

- None
- One
- Two
- Three or more

19. At the time of your DSRIP application, what percent of Stage 4 metrics were obtainable from EHRs?

	No EHR	1-20%	21-40%	41-60%	61-80%	81-100%
Your hospital's inpatient/ED chart-based metrics from EHR	<input type="radio"/>					
Your outpatient reporting partners' outpatient chart-based metrics from EHR	<input type="radio"/>					

20. Has there been a change in EHR capability since the time of application?

	Decrease in capability	No change	Increase in capability
Your hospital's EHR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reporting partners' EHR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. Have you received your attributed patient list?

- Yes
- No

22. Please estimate the percentage of the attributed patients that are or will be included in your DSRIP program intervention.

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

23. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Application Process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

Stage 1 Activities: Infrastructure Development

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Developing methodology to identify pilot population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing multi-therapeutic medical and support team dedicated to DSRIP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying project partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Procuring staff education needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing quality improvement plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting project staff evaluation/assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Please rate your hospital's experience in dealing with the following aspects of the DSRIP program:

Stage 2 Activities: Chronic Medical Condition Redesign and Management

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Initiating pilot program and redesigning/refining if required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiating program protocols and interventions for entire population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ongoing monitoring of program outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing feedback to hospital administrators and participating providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing feedback to Learning Collaborative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Please rate your hospital's experience in preparing for the data-related aspects of the DSRIP program:

Stage 3 Project-Specific Metrics (Chart/EHR or MMIS-based):

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Collection of Hospital/Inpatient or ED Care metrics - Chart/EHR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collection of Outpatient Care metrics - Chart/EHR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verification of Hospital/Inpatient or ED Care metrics – MMIS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verification of Outpatient Care or Multi-Setting Care metrics- MMIS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Please rate your hospital's experience in preparing for the data-related aspects of the DSRIP program:

Stage 4 Universal Metrics (Chart/EHR or MMIS-based):

	No difficulty	Minor difficulty	Moderate difficulty	Major difficulty
Collection of Hospital/Inpatient or ED Care metrics - Chart/EHR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collection of Outpatient Care - Chart/EHR metrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verification of Hospital/Inpatient or ED Care metrics – MMIS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verification of Outpatient Care or Multi-Setting Care metrics- MMIS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. What overall impact do you think the following aspects of the DSRIP program have on quality of care and population health (or health outcomes)?

	Substantially positive	Moderately positive	Little or no impact	Moderately negative	Substantially negative
Chronic disease management programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stage 4 reporting of universal metrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge sharing through Learning Collaboratives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building relationships with project partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing data with reporting partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rapid cycle assessment and improvement tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building infrastructure capacity for data collection and reporting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. How would you characterize changes in the following health-related aspects of your community as a result of DSRIP activities?

	Substantial improvement	Some improvement	Little or no impact	Some worsening	Substantial worsening	Too early to assess
Patient access to health care services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Continuity of patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of patient transitions between settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of health care delivered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patient health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. What impact, if any, has the DSRIP program had on your hospital's finances?

- Very positive
- Positive
- No impact
- Negative
- Very negative

31. How useful were the following Learning Collaborative activities to your hospital?

	Very useful	Somewhat useful	Not very useful
Sharing of summary statistics based on data from hospitals' progress reports and monthly Learning Collaborative surveys	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identification of best practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing of case studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing of challenges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing of successes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing of results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Networking with other hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. How useful were the following other activities to your hospital?

	Very useful	Somewhat useful	Not very useful
DSRIP Training Webinars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequently Asked Questions on DSRIP website	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. Are you using any rapid-cycle evaluation tools?

Yes

No

34. Have the following facilitated your use of rapid cycle tools?

	Yes	No	Not applicable
Learning Collaborative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Real time data exchanges with partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dashboards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specify other here	<input type="text"/>		

35. How easy or difficult has it been for your hospital to accomplish each of the following DSRIP activities?

	Very Easy	Somewhat Easy	Somewhat Difficult	Very Difficult	N/A
Gaining support of key hospital leadership for DSRIP	<input type="radio"/>				
Creating involvement and enthusiasm among staff	<input type="radio"/>				
Achieving patient participation/enrollment	<input type="radio"/>				
Connecting patients with care needed to achieve project goals	<input type="radio"/>				
Improving patients' satisfaction with care	<input type="radio"/>				
Engaging partners in your DSRIP project	<input type="radio"/>				
Executing DUAs with reporting partners	<input type="radio"/>				
Understanding different types of project partners	<input type="radio"/>				
Understanding technical instructions for filling in Excel templates	<input type="radio"/>				
Understanding reporting timelines	<input type="radio"/>				
Meeting minimum submission requirements for progress reporting	<input type="radio"/>				
Putting together return on investment (economic value) analyses as part of progress reporting	<input type="radio"/>				
Developing a performance measurement data plan for Stage 3 and 4 reporting	<input type="radio"/>				

36. Please detail any lessons learned or best practices identified to date by your project team:

1.
2.
3.

37. Other comments including those relating to the implementation or impact of the DSRIP project on your hospital:

1.
2.
3.

38. What changes would you like to see in future implementations of DSRIP?

1.
2.
3.

THANK YOU!!

Appendix B: Hospital Midpoint Web Survey, Advance Letters and Email Reminders

Continued on next page.

Advance Letter from State for Participating Hospitals



State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360

www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

Dear DSRIP Participant:

Thank you for your participation in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program, a program of the New Jersey Comprehensive Waiver (NJCW). As you may know, and referenced in section XX of Centers for Medicare & Medicaid Services (CMS) Special Terms and Conditions (STCs) and in section X.c. of the NJ DSRIP program Planning Protocol, one requirement of the waiver is submission of an evaluation of the NJ DSRIP program to the Centers for Medicare & Medicaid Services (CMS).

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, <http://dsrip.nj.gov>.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in transforming the health care delivery system through the NJ DSRIP program.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael D. Conca".

Michael D. Conca
Hospital Consultant

Advance Letter from State for Non-Participating Hospitals



State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360

www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

January 14, 2015

Dear NJ Hospital Official:

Although your hospital is not participating in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW) from the Centers of Medicare & Medicaid Services (CMS), we would like to understand more about your views on the program and how it could be improved should CMS offer the program again in the future. We plan to include suggestions from both participating and non-participating hospitals in the program evaluation required by CMS.

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, <http://dsrip.nj.gov>.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in this program evaluation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael D. Conca".

Michael D. Conca
Hospital Consultant

Advance Letter from State for Withdrawn Hospitals



State of New Jersey
DEPARTMENT OF HEALTH
PO BOX 360
TRENTON, N.J. 08625-0360

www.nj.gov/health

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

MARY E. O'DOWD, M.P.H.
Commissioner

January 14, 2015

Dear NJ Hospital Official:

Although your hospital is no longer participating in the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW) from the Centers of Medicare & Medicaid Services (CMS), we would like to understand more about your views on the program and how it could be improved should CMS offer the program again in the future. We plan to include suggestions from both participating and non-participating hospitals in the program evaluation required by CMS.

In the coming weeks, the Rutgers Center for State Health Policy (CSHP) will proceed with the evaluation, reaching out to you for interviews and/or web surveys. The Rutgers Institutional Review Board requires any comment or information you provide to the CSHP evaluators remain confidential. No specific comment or data will be attributed to an individual hospital or interviewee.

Please find additional information about the evaluation in the NJ DSRIP program Planning Protocol. The protocol is available under the Resources tab of the NJ DSRIP website, <http://dsrip.nj.gov>.

If you have any questions about the evaluation, please contact me at 609-292-7874 or by email at michael.conca@doh.state.nj.us. Thank you again for your participation in this program evaluation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael D. Conca".

Michael D. Conca
Hospital Consultant

Advance Email Accompanying Advance Letter from State

Dear Hospital Official,

Attached is a letter from Michael Conca at the New Jersey Department of Health inviting you to participate in an online survey relating to the evaluation of the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW). This evaluation is being conducted by the Center for State Health Policy at Rutgers University for the NJ Department of Health. The purpose of this evaluation is to understand your hospital's experiences and perceptions with implementation of the DSRIP program.

We will be sending you another email in the coming weeks with a link to the online evaluation survey. Your feedback is vital to understanding the benefits and challenges to DSRIP implementation in your hospital. We thank you in advance for your time and input.

Sincerely,
Susan Brownlee, PhD
Senior Research Manager
Rutgers Center for State Health Policy

Email with Survey Link and Consent Information

Dear hospital official,

You recently received an email from the Center of State Health Policy at Rutgers University with an attached letter from Michael Conca at the New Jersey Department of Health inviting you to participate in an online survey relating to the evaluation of the New Jersey Delivery System Reform Incentive Payment (NJ DSRIP) program that is part of the NJ Comprehensive Waiver (NJCW). This evaluation is being conducted by the Center for State Health Policy at Rutgers University and the purpose of this web survey is to understand your hospital's experiences with implementation of the DSRIP program.

This research is confidential. Confidential means that the research records will include some information about you and your hospital and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes the name and address of your hospital and your title. Please note that we will keep this information confidential by limiting access to the research team and keeping it in a secure location. The data gathered in this study are confidential with respect to your personal identity unless you specify otherwise. The survey should take about 15 minutes to complete and is being sent to all 64 DSRIP-eligible New Jersey hospitals.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this evaluation is published, or the results are presented at a professional conference, only group results will be stated. All study data will be kept for a minimum of three years.

There are no foreseeable risks to participation in this evaluation. In addition, you may receive no direct benefit from taking part in this evaluation. Participation in this evaluation is voluntary. You may choose not to participate, and you may withdraw at any time during the survey without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the evaluation or survey, you may contact Susan Brownlee at Rutgers Center for State Health Policy, 112 Paterson St, New Brunswick, NJ 08901, 848-932-4666, sbrownlee@ifh.rutgers.edu.

If you have any questions about your rights as a research subject, please contact an IRB Administrator at the Rutgers University, Arts and Sciences IRB:

Institutional Review Board, Rutgers University, the State University of New Jersey
Liberty Plaza / Suite 3200, 335 George Street, 3rd Floor, New Brunswick, NJ 08901
Phone: 732-235-9806, Email: humansubjects@orsp.rutgers.edu

Please retain a copy of this form for your records. By participating in the above stated procedures, then you agree to participation in this evaluation.

**Click on this link to access the survey: [insert survey hyperlink]

Thank you in advance for your assistance,
Susan Brownlee, PhD
Senior Research Manager
Rutgers Center for State Health Policy

Chapter 3: Analysis of Medicaid Claims Data to Examine Early DSRIP Impact on Patient Care, Health, Costs, and Hospital Finances

Introduction

This chapter examines four DSRIP program-related research questions detailed below using analysis, primarily based on Medicaid fee-for-service claims and managed care encounter data over the period 2011–2013.

1. To what extent does the DSRIP program achieve better care?
2. To what extent does the DSRIP program achieve better health?
3. To what extent does the DSRIP program lower costs?
4. To what extent did the DSRIP program affect hospital finances?

These research questions are addressed through four specific testable hypotheses related to DSRIP hospital programs, patient access and quality of care, cost of care, patient health, and hospital finances. Each hypothesis may shed light on multiple research questions. These four hypotheses are:

Hypothesis 1: The adoption of hospital projects in a specific focus area will result in greater improvements in related care and outcomes for patients from hospitals adopting these interventions compared to hospitals which do not adopt these interventions e.g., rates of 30-day heart failure/acute myocardial infarction readmissions will decrease in hospitals adopting cardiac care projects during the DSRIP program compared to hospitals not adopting cardiac care projects.

Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on access to care, quality and efficiency of care, and population health. These improvements would be reflected in a decrease in rates of avoidable inpatient hospitalizations and avoidable/preventable treat-and-release emergency department (ED) visits.

Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.

Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

Table A below is excerpted from our evaluation plan and presents the quality metrics examined in this report cross-walked to the one or more hypotheses that they serve to evaluate. The metrics are grouped to indicate those independently calculated by our study team and metrics calculated for hospitals by the state or by the hospitals themselves. In this chapter we present our analysis of evaluator-calculated metrics. Metrics provided to us by the state that were calculated by hospitals (for chart-based metrics) or a third-party contractor (for claims-based metrics) are presented in Chapter 4.¹

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2	3	4	
Evaluator-Calculated Metrics							
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	X				
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	X				
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	X				
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment	X				
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	X	X		X	

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

¹ The analysis in Chapter 4 is distinct since it is based on data aggregated at the hospital level, on metrics that are not independently calculated by the evaluator, on hospitals' attributed Medicaid and charity care patients, and relates to a different time period: calendar years 2013 and 2014. While these reported metrics shed light on hypothesis 2, specifically the overall impact of the DSRIP program on access to care and outcomes, one of these state-provided metrics, Children and Adolescents' Access to Primary Care Practitioners, is also used to evaluate hypothesis 1 related to the obesity project. That analysis is presented in this chapter.

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program (continued)

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2	3	4	
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	X	X		X	
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	X	X		X	
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization		X		X	
9	Asthma	Emergency Department (ED) Visits for Asthma	X				
10	DSRIP Overall	Mental Health Utilization - Inpatient			X		
11	Asthma	Young Adult Asthma Admission Rate (PQI-15)	X				
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)	X				
13	DSRIP Overall	Preventable Hospitalizations (PQI-90)		X	X	X	
14	DSRIP Overall	Preventable/Avoidable Treat-and-Release ED Visits		X	X	X	
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits			X		
16	DSRIP Overall	Hospital Total and Operating Margins					X
Hospital and State-Reported Metrics							
17	DSRIP Overall & Obesity	Children and Adolescents' Access to Primary Care Practitioners	X		X		

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

Table A: Metrics for the Quantitative Evaluation of the NJ DSRIP Program (continued)

	Program Focus of Evaluation	Metric	Chronic Disease Outcomes	Health Outcomes	Care	Disparities	Hospital Finances
			Hypothesis				
			1	2	3	4	
18	DSRIP Overall	COPD Admission Rate		X	X		
19	DSRIP Overall	Heart Failure Admission Rate		X	X		
20	DSRIP Overall	CD4 T-Cell Count			X		
21	DSRIP Overall	Hospital Acquired Potentially-Preventable Venous Thromboembolism (VTE)		X	X		
22	DSRIP Overall	Cervical Cancer Screening			X		
23	DSRIP Overall	Chlamydia Screening in Women Ages 21-24			X		
24	DSRIP Overall	Percentage of Live Births Weighing Less than 2,500 Grams		X	X		
25	DSRIP Overall	Pneumococcal Immunization (PPV 23)			X		
26	DSRIP Overall	Childhood Immunization Status			X		
27	DSRIP Overall	Well-Child Visits in the First 15 Months of Life			X		

PQI=Prevention Quality Indicator relating to ambulatory care sensitive hospitalizations.

Methods

Data Sources

We use Medicaid fee-for-service claims and managed care encounter data for calendar years 2011–2013 and also uniform billing (UB) all-payer hospital discharge data over the same period. The 2008–2012 American Community Survey (ACS) was our source for defining the list of populated zip codes in New Jersey and creating population denominators for all-payer rates in 2011–2012. The 2009–2013 ACS was used for population denominators for all-payer rates for 2013. Finally, we used 2011–2013 CMS hospital-level cost reports for data on hospital finances and one state-reported hospital performance metric for 2013–2014.

Study Period

The baseline years for evaluation of the DSRIP program are 2011–2012. Year 2013, which spans Demonstration Years 1 and 2, is the first DSRIP program year, although it is important to note that no hospital projects had formally launched in 2013 and the program was in transition at this time. Therefore, this midpoint assessment comparing outcomes in 2013 to 2011–2012 describes only the very early impact of DSRIP program activities as hospitals prepared their DSRIP applications and planned for the potential implementation of chronic disease management projects.

Selection and Calculation of Outcome Variables

Table B below presents the 17 quality metrics examined in this chapter of the report. We selected validated metrics such as those developed by the National Committee on Quality Assurance (NCQA) and National Quality Forum (NQF)-endorsed metrics that could be calculated from available data. We chose metrics that would reflect the effect of DSRIP program on the overall delivery system, both inpatient and ambulatory care, instead of narrower inpatient process-based measures. We focused on metrics that are being used to assess similar delivery system-related pay-for-performance efforts e.g., all-cause readmissions from initial hospitalizations of heart failure, acute myocardial infarction, and pneumonia. Appendix A provides additional information on these metrics and their relevance in assessing delivery system changes.

We followed the specifications of the measure steward for each metric as closely as possible given the data available. The set of metrics from the Healthcare Effectiveness Data and Information Set (HEDIS) were calculated using the 2014 HEDIS specifications. For calculating hospital readmissions we adapted the 2014 Centers for Medicare & Medicaid Services' 30-day readmission measures criteria for the Medicaid claims data. We used the August 2014 version 4.5A of the Agency for Healthcare Research and Quality's (AHRQ) Prevention Quality Indicators (PQI) program for analyzing avoidable/preventable inpatient hospitalizations and algorithms by Professor John Billings of New York University to calculate primary care preventable ED visits.

If not already part of the metric specification, an additional inclusion criteria imposed on all metrics was the requirement that a claim was only counted if the beneficiary had been continuously enrolled in Medicaid for at least 30 days preceding the claim date. As stated in our evaluation plan, this criterion eliminates events which might precipitate Medicaid enrollment and confound the effect of the DSRIP program.

Table B organizes the metrics used in our evaluation of chronic disease outcomes, access and quality of care, and racial/ethnic and gender disparities into three categories: index-event-based, population-based, and hospital-level metrics.

Index Event and Population-Based Metrics: The first category of *Index Event-Based Metrics* comprises outcomes related to an initial *index* event (an initial hospital stay or provider visit) experienced by the patient. Examples include whether the patient had a readmission within 30 days of an initial index hospitalization; had a follow up visit within 7 days of an index hospitalization for mental illness, or initiated and engaged in alcohol treatment shortly after an index diagnosis of alcohol or other drug dependence. The second category of *Population-Based Metrics* relates to outcome events where the relevant denominator is a population of Medicaid beneficiaries. This metric type could be assessed at an individual level (e.g., ED visit for asthma by any person) or aggregated at a geographic level (rate of avoidable hospitalizations per unit population in a zip code). When calculating zip code-level rates, we used the sum of enrollment periods for all Medicaid beneficiaries in that zip code for a particular year as the denominator. This accounts for differing lengths of enrollment time across zip codes that would influence the likelihood of the outcome event in Medicaid data. When calculating costs associated with avoidable inpatient and ED use, we put estimates for all years in 2012 dollars using consumer price indices (CPI) for medical care to adjust for medical care inflation over the study period (Crawford and Church 2014, 165; Crawford, Church, and Rippy 2013, 164).

Table B shows that the outcome variables may be binary (e.g., readmissions) or continuous (e.g., number of avoidable hospitalizations per unit population). It also includes provider or Medicaid beneficiary-related inclusion criteria that are adopted for calculating each of these metrics.

Hospital-Level Metrics: We utilized two sets of hospital-level metrics. The first relates to hospital financial performance and includes hospital total and operating margin. This assesses the financial impact of the DSRIP program on hospitals.

The second set of metrics relate to children and adolescents' access to primary care practitioners stratified by specific age groups. This metric belongs to both Stage 3 category (they are reported for hospitals in the obesity program) and Stage 4 category (reported for all hospitals). This outcome is used to assess the effect of the obesity program on improvement in access to primary care.

Table B: Metric Descriptions

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
Index Event-Based Metrics						
1	Behavioral Health	FUH-7	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	Ages 6+ at any NJ DSRIP-participating hospital	0/1	by hospital
2	Behavioral Health	FUH-30	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	Ages 6+ at any NJ DSRIP-participating hospital	0/1	by hospital
3	Chemical Addiction/ Substance Abuse	IT-AOD	Initiation of Alcohol and Other Drug Treatment	NJ residents ² ages 13+ at any NJ provider	0/1	by zip
4	Chemical Addiction/ Substance Abuse	ET-AOD	Engagement of Alcohol and Other Drug Treatment	NJ residents ² ages 13+ at any NJ provider	0/1	by zip
5	DSRIP Overall & Cardiac Care	RSRR-HF	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	Ages 18+ at any NJ hospital ¹	0/1	by hospital

¹ For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.

² For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zips with non-zero DSRIP exposure are included in analyses.

Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Table B: Metric Descriptions (continued)

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
6	DSRIP Overall & Cardiac Care	RSRR-AMI	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	Ages 18+ at any NJ hospital ¹	0/1	by hospital
7	DSRIP Overall & Pneumonia	RSRR-PN	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	Ages 18+ at any NJ hospital ¹	0/1	by hospital
8	DSRIP Overall	RSRR-COPD	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Ages 18+ at any NJ hospital	0/1	by hospital
Population-Based Metrics						
Person-Level						
9	Asthma	HDC-AC	Emergency Department (ED) Visits for Asthma	NJ residents ²	0/1	by zip
10	DSRIP Overall	MPT	Mental Health Utilization – Inpatient	NJ residents	0/1	by zip
Zip-Level						
11	Asthma	PQI-15	Younger Adult Asthma Admission Rate (PQI-15)	NJ residents ² ages 18+	count per 10K beneficiary years	by zip

¹ For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.

² For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zips with non-zero DSRIP exposure are included in analyses.

Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Table B: Metric Descriptions (continued)

	Program Focus of Evaluation	Metric Abbreviation	Metric	Inclusion Criteria	Outcome	DSRIP Exposure Assignment
12	Diabetes	PQI-01	Diabetes Short-Term Complications Admission Rate (PQI-01)	NJ residents ² ages 18+	count per 10K beneficiary years	by zip
13	DSRIP Overall	PQI-90	Preventable Inpatient Hospitalizations (PQI 90)	NJ residents ages 18+	count per 10K beneficiary years	by zip
14	DSRIP Overall	AVED	Preventable/Avoidable Treat-and-Release ED Visits	NJ residents ages 18+	count per 10K beneficiary years	by zip
15	DSRIP Overall	AV\$	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits	NJ residents ages 18+	costs per 10K beneficiary years	by zip
Hospital-Level Metrics						
16	DSRIP Overall	MGN	Hospital Total and Operating Margin	All NJ hospitals	percentage	by hospital
17	DSRIP Overall & Obesity	CAP	Children and Adolescents' Access to Primary Care Practitioners	NJ DSRIP-participating hospitals	percentage	by hospital

¹ For analysis of readmission metrics assessing DSRIP programs related to chronic conditions, only DSRIP participating hospitals are included.

² For population-based metrics assessing DSRIP programs related to chronic conditions, only NJ residents in zip with non-zero DSRIP exposure are included in analyses.

Notes: With the exception of the hospital financial metrics (#16) and Children and Adolescents' Access to Primary Care Practitioners metric (#17), all metrics are calculated using Medicaid claims and encounter data. Comparisons using uniform billing hospital discharge data are also conducted for preventable hospital use metrics (#13 and #14).

Defining Exposure to DSRIP Program

For all index event-based metrics, except initiation/engagement of AOD, the index event occurs in an inpatient hospital setting, and the patient was considered exposed to the DSRIP program overall (or a particular chronic disease management program) if the hospital where the index admission occurred was participating in the DSRIP program in 2013 (or participating in a chronic disease management program). Over the course of the DSRIP program, hospitals may discontinue participation and our analysis will incorporate such changes.

Assignment of DSRIP exposure for all population-based metrics and for initiation/engagement of AOD, (where the qualifying index event could occur at an outpatient provider setting) is based on the extent to which zip codes where the patients resided had DSRIP-participating hospitals. This was operationalized using a “choice set” methodology previously developed at CSHP (DeLia et al. 2009). Using 2011–2012 UB hospital discharge data for both inpatient stays and emergency department treat-and-release visits from 591 NJ zip codes (see Appendix G for details relating to zip code identification and selection), we created a “choice set” (or relevant set) of hospitals for each NJ zip code based on the volume of Medicaid discharges from area hospitals. The hospital choice set for a particular zip code is the smallest set of hospitals that accounts for at least 75% of all hospital discharges relating to Medicaid beneficiaries in that zip code. The purpose of the choice set thus, is to focus on those hospitals that individually account for the highest number of Medicaid-paid discharges relating to patients residing in a zip code, and also as a group account for the majority of Medicaid discharges relating to that zip code.

Based on the choice set hospitals, we considered three alternative measures of the zip code population’s (or a patient’s, in case of AOD metrics) exposure to DSRIP.

Exposure Measure 1: Equals 1 if any hospital in the choice set took part in the program, 0 otherwise

Exposure Measure 2: Equals the number of hospitals in the choice set that took part in the program

Exposure Measure 3: Percent of discharges relating to all hospitals in the choice set that belong to hospitals taking part in the program

Exposure Measure 3 was our primary indicator of DSRIP exposure at the zip code level. We also created an additional measure based on this to classify zip codes as having high or low exposure to DSRIP. Specifically, if for any zip code the DSRIP-participating hospitals in the choice set accounted for more than 50% of Medicaid discharges from all choice set hospitals, that zip code was considered a high DSRIP exposure zip code. If the percentage was less than or equal to 50%, that zip code was considered low exposure.

We conducted robustness checks where appropriate, alternatively defining the hospital choice set based on 90% of Medicaid discharges to a zip code.

Analytic Strategy

The effect of the DSRIP program is assessed by identifying its impact on individual patient outcomes as well as population-based outcomes that are aggregated across zip codes. The effect on patient outcomes that are related to hospital events (index event based metrics) is measured by the change in outcomes over time for hospitals that participated in the DSRIP program relative to comparison hospitals that did not participate in the program. Similarly the effect of specific disease management programs is examined by comparing hospitals that took part in the program to other DSRIP-participating hospitals that did not take part in the program. For instance, the effectiveness of the cardiac care program is examined by comparing related patient outcomes in DSRIP-participating hospitals adopting that program to those that did not adopt that program at two points of time-before and after the start of the DSRIP program.

For metrics that are population-based, we examine how patient outcomes vary across NJ zip codes and over time, as the DSRIP program is implemented. The zip codes are distinguished by their differing exposure to the DSRIP program based on the exposure measures defined above.

The statistical method utilized to identify the program effect is a difference-in-differences (DD) estimation technique that examines changes in selected outcomes in the study group, from pre- to post-program implementation, relative to a comparison group. Such an estimation strategy is able to identify changes in outcomes that are due to program impact, and distinct from secular trends. It further accounts for the effect of unobserved factors, as long as their impact on one of the groups relative to the other do not change over time.

$$Y_{it} = \beta_0 + \beta_1(program)_i + \beta_2(post)_t + \beta_3(program_i * post_t) + \gamma X_{it} + \varepsilon_{it} \quad (1)$$

Equation (1) illustrates the general DD specification. The variable Y_{it} represents the outcome for the i^{th} patient or zip code², depending on the metric, at year t . $Post=0$ for years 2011–2012 and $=1$ for year 2013 when the DSRIP program began in New Jersey³. $Program$ equals 0 or 1 (depending on hospital participation) when the outcome is a hospital-based metric, or equals the DSRIP exposure variable when the program effect operates based on the zip code where the

² For the obesity-related metrics or hospital financial margin the unit of analysis is the hospital.

³ 30-day readmissions metrics require a full year of retrospective data for risk adjustment and are therefore calculated only for years 2012 and 2013. Therefore, $post=0$ for year 2012 and $=1$ for year 2013 in models using readmissions outcomes.

patient resides. In this model, β_3 measures the program impact. X_{it} is a vector of other control variables relating to the patient, and ε_{it} represents the random error term.

Depending on the specific metric, Y_{it} can be modelled as a rate or a binary variable. Details relating to the unit of analysis which may be a patient, a hospital discharge, or zip code, and statistical modelling are detailed in Table C. The basic model in equation (1) is augmented with year, zip code or hospital fixed effects as applicable. For analysis of outcomes that have zip code Medicaid population-based denominators (adjusted by differing enrollment periods), regressions were weighted by total beneficiary-years in each zip code. This ensured that each zip code contributed to the estimation of DSRIP effects in proportion to the volume and enrollment duration of its Medicaid beneficiaries who met the inclusion criteria for the metric.

The model was also augmented to examine the effect of the DSRIP program on racial/ethnic and gender disparities. For readmission metrics, we introduced additional terms that included the interaction between the indicators for program, post period and race/ethnicity along with other related main and interaction effects.

When there was insufficient sample size for each of the individual racial/ethnic groups, we created a minority indicator variable that combined Blacks, Hispanics, and patients belonging to other-race/ethnicity into a single group. This variable was then used in models to estimate whether there was any differential effect of DSRIP on minorities as a group compared to Whites.

For assessing disparities based on avoidable hospitalizations and ED visits, we examined the effect of the program on the difference in the rate of these events between each racial/ethnic minority group and whites, and also between females and males. When assessing disparities based on these zip-code based metrics, the total beneficiary-years of the specific minority group, or females, were used as analytic weights to account for variability in these populations across zip codes.

The final two metrics that we analyze relate to hospital financial performance and assessment of the obesity program and the unit of analysis is the hospital. The outcome variables are hospital operating margin, hospital total margin, and percentage of hospital attributed population that had access to primary care physician. Within the previously described DD framework, the estimated coefficient of the interaction term between program and post measures the effect of the DSRIP program on the relevant outcome.

Results relating to event-based metrics are not reported when estimates are based on denominators are less than 30. Our estimation procedures were conducted using STATA MP 14 or SAS 9.2 software.

Explanatory Variables

Table C lists details on explanatory variables used in the multivariate regression analysis relating to the 15 metrics. For modelling outcomes related to the index-event based metrics, we used individual-level control variables such as beneficiary age and sex, and diagnosis-based Chronic Illness and Disability Payment System (CDPS) risk score that measures disease diagnoses and burden of illness with higher values indicating greater disease burden. For the FUH and AOD metrics, we used the individual's CDPS risk score category (≤ 1 , 1-2, 2-3, 3-5, and >5) during baseline and the post-implementation year to adjust for health status changes. For readmission metrics we used the full set of risk-adjustment variables that are defined by the CMS methodology related to Risk Standardized Readmission Rates (RSRR) (QualityNet 2015). Appendix E lists all the risk-adjustment variables for each of the readmission outcomes. For all of these metrics, except IT-AOD and ET-AOD, we utilize hospital fixed effects to adjust for the effect on outcomes of time-invariant differences across hospitals.

For population-based metrics and the IT-AOD and ET-AOD metrics where DSRIP exposure is assigned based on zip codes where patients reside, zip code fixed effects account for time-invariant differences across zip codes such as socio-demographic composition and disease prevalence. As before, we account for the change in disease diagnoses and burden of illness over time by adjusting for the CDPS risk score category for each individual for person-level metrics. For metrics that are averages based on zip-populations, such as avoidable hospitalizations or those relating to asthma or diabetes hospitalizations, we use the average CDPS score in the zip code for each year.

For all metrics, year fixed effects adjust for changes in outcomes over time that are common across all patients.⁴

⁴ 30-day readmissions metrics require a full year of retrospective data for risk adjustment and are therefore calculated only for years 2012 and 2013. For these, the *post* indicator for calendar year 2013 is the year fixed effect.

Table C: Modeling Details

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification¹	Control Variables
Index Event-Based Metrics						
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	index hospitalization	0/1	Linear Probability Model	gender, age, CDPS risk category, hospital and year FE
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge	index hospitalization	0/1	Linear Probability Model	gender, age, CDPS risk category, hospital and year FE
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	index event	0/1	Linear Probability Model ²	gender, CDPS risk category, zip and year FE
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment	index event	0/1	Linear Probability Model ²	gender, CDPS risk category, zip and year FE
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	Index hospitalization	0/1	Linear Probability Model	age, gender, clinical risk factors, hospital FE

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

¹ All models use robust standard errors.

² Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

³ Models are stratified by age (0-17, and 18+).

Table C: Modeling Details (continued)

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification¹	Control Variables
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Index hospitalization	0/1	Linear Probability Model	age, clinical risk factors, hospital FE
Population-Based Metrics						
Person-Level						
9	Asthma	Emergency Department (ED) Visits for Asthma	beneficiary	0/1	Linear Probability Model ³	gender, CDPS risk category zip and year FE
10	DSRIP Overall	Mental Health Utilization - Inpatient	beneficiary	0/1	Linear Probability Model	age, gender, CDPS risk category zip and year FE
Zip-Level						
11	Asthma	Younger Adult Asthma Admission Rate (PQI-15)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
13	DSRIP Overall	Preventable Inpatient Hospitalizations (PQI-90)	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE
14	DSRIP Overall	Preventable/Avoidable Treat-and-Release ED Visits	zip code	count per 10K beneficiary years	Weighted linear regression	CDPS average, zip and year FE

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

¹ All models use robust standard errors.

² Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

³ Models are stratified by age (0-17, and 18+).

Table C: Modeling Details (continued)

	Program Focus of Evaluation	Metric	Unit of Analysis	Outcome	Model Specification ¹	Control Variables
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and-Release ED Visits	zip code	costs per 10K beneficiary years	Weighted, generalized linear model with gamma log link	CDPS average, year FE
Hospital-level Metrics						
16	DSRIP Overall	Hospital Total and Operating Margin	hospital	percentage	Linear regression	—
17	DSRIP Overall & Obesity	Children and Adolescents' Access to Primary Care Practitioners	hospital	percentage	Weighted linear regression	—

CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

¹ All models use robust standard errors.

² Models are stratified by age (13-17, and 18+) as per HEDIS specifications for this metric.

³ Models are stratified by age (0-17, and 18+).

Results

In this section we report findings from quantitative analyses that capture the very early effects of the DSRIP program. It is important to remember that we compare outcomes between the pre-DSRIP baseline period comprising 2011–2012 and the first year of the DSRIP program which is 2013. This year precedes the official DSRIP implementation period that starts in January 2014 (Myers and Stauffer LC 2015), but we characterize and refer to hospitals by their participation status (including selected program area) effective in 2014. As additional data become available relating to periods of active implementation of the DSRIP projects, analyses based on that data could potentially yield substantively different findings from those found here. With that caveat, our estimates of program impact in this specific report will be based on the baseline period and first DSRIP program year. Finally, unless otherwise noted, findings reported do not differ substantively when sensitivity analyses are done using an alternative specification of the hospital choice set used to define DSRIP exposure (as discussed in the Methods section).

Impact of DSRIP Programs by Focus Area

Behavioral Health Program: Figures 3.1 and 3.2 report 7-day and 30-day follow up rates after a hospitalization for mental illness. These rates are shown separately for the group of hospitals

that are participating in the BH program and the comparison group of DSRIP hospitals that is not, for the baseline period spanning 2011–2012 and calendar year 2013 which is the first DSRIP program year.

Thirty-day follow up rates are expectedly higher than 7-day rates and this difference is higher for DSRIP hospitals participating in the BH programs (for these hospitals rates are twice as high). For both metrics, the follow up rates are higher among the hospitals not participating in the BH program.

Table 3.1 reports the findings based on a regression analysis examining the effect of the BH program on these outcomes by comparing hospitals that participated in the program to those that did not, for the baseline and the first year of the DSRIP program. We find that the effect of the BH program is reflected in a 1.5 percentage point decrease in both follow up rates, but these estimates are not statistically significant.

Chemical Addiction/Substance Abuse Program: Figures 3.3 reports rates of initiation in alcohol and other drug (AOD) treatment for two groups of patients classified based on whether at least one hospital in their zip codes was taking part in a chemical addiction/substance abuse program. These are reported for the baseline period spanning 2011–2012 and calendar year 2013 which is the first DSRIP program year. Figure 3.4 reports the corresponding rates for engagement in AOD.

We see that both groups of patients experienced an increase in both initiation and engagement rates from baseline to the first DSRIP program year. Rates for initiation for any group of patient during any year(s) were higher than the corresponding rates of engagement.

Table 3.2 reports the findings based on a regression analysis examining the effect of the chemical addiction and substance abuse program on these outcomes. The results are reported overall and separately for age stratifications 13-17 and 18+. The estimates reflect the average increase in the likelihood (ranging between 0 and 1) of initiation and engagement, due to a 1% increase in DSRIP exposure.

Compared to a zip code with zero exposure to the program (i.e. where none of the hospitals took part in the program), a patient in a zip code with 100% exposure to the program (where all hospitals took part in the program) had 1.3 percentage point higher likelihood of initiation in AOD.

The corresponding increase in engagement was by less than 1 percentage point. Neither of these effects were statistically significant. The pattern was similar for both age stratifications, although still not statistically significant.

Asthma Program: Figure 3.5 reports rates of ED visits for asthma among patients classified by whether their zip code had at least one hospital participating in the asthma program. Rates of ED visits for asthma decreased from the baseline to the first DSRIP program year for patients in both types of zip code.

Table 3.3 reports the results from a regression analysis stratifying patients by age. The effect of the program on the likelihood of ED visit for asthma was close to zero. Specifically, as a child's exposure to DSRIP asthma programs increased from 0% to 100%, the probability of an ED visit for asthma increased by 2/10 of a percentage point. For adults it increased by 3/10 of a percentage point and was significant at the 5% level.

Figures 3.6 and 3.7 report rates of population-based, younger adult hospital admission rates for asthma in zip codes distinguished by hospitals' participation in an asthma intervention project. Figure 3.6 classifies zip codes based on whether they had participation by at least one hospital and Figure 3.7 classifies zip codes on the extent of area hospital participation. We see that asthma admission rates were higher for both periods in zip codes that had greater hospital participation. Additionally, for every category of zip code, the admission rates decreased from the baseline to the first DSRIP program year.

Table 3.4 reports the results from a regression analysis examining the effect of the asthma program. We see a very small but statistically significant decrease in preventable asthma admissions due to the asthma program. The estimate indicates that compared to a zip code that had no exposure to the program, a zip code where all hospitals participated in the asthma program had 8.3 fewer preventable asthma hospitalizations per 10,000 Medicaid beneficiary-years (for ages 18-39).

Diabetes Program: Figures 3.8 and 3.9 report rates of population-based, diabetes short-term complications admission rates in zip codes distinguished by hospitals' participation in a diabetes intervention project. Figure 3.8 classifies zip codes based on whether they had participation by at least one hospital and Figure 3.9 classifies zip codes on the extent of area hospital participation. We see that diabetes short-term complications admission rates were higher for both periods in zip codes that had greater hospital participation. However, zips with the higher exposure to DSRIP hospitals in the diabetes program had a decrease in this preventable

admission rate from the baseline to the first DSRIP program year. Zips with no or low area hospital participation had an increase in the rate over this time period.

Table 3.5 reports the results from a regression analysis examining the effect of the diabetes program. We see a very small but statistically significant decrease in preventable diabetes admissions for short-term complications due to the diabetes DSRIP program. The estimate indicates that compared to a zip code that had no exposure to the program, a zip code where all hospitals participated in the diabetes program had 4.8 fewer of these preventable diabetes hospitalizations per 10,000 Medicaid beneficiary-years (for ages 18 and above).

Cardiac Care Program: Figures 3.10 and 3.11 report HF and AMI readmission rates in 2012 and 2013 for patients in hospitals classified by participation in the cardiac care program. Average HF readmission rates improved (decreased in magnitude) for patients in 2013 for both categories of hospitals; AMI readmission rates worsened slightly for hospitals taking part in the program but improved slightly for hospitals not taking part. All the AMI readmission-related changes were less than 0.5 percentage point.

Table 3.6 reports results from regression analyses examining the effect of the cardiac care program. The program effect is reflected in a 3.1 percentage point decrease in HF readmissions and a 1.6 percentage point increase in AMI readmissions. None of these changes were statistically significant.

Pneumonia Program: Figures 3.12 reports pneumonia readmission rates in 2012 and 2013 for patients in hospitals classified by participation in the pneumonia program. Average pneumonia readmission rates improved (decreased in magnitude) in 2013 for both categories of hospitals, and the improvement was greater for DSRIP hospitals not taking part in the pneumonia program.

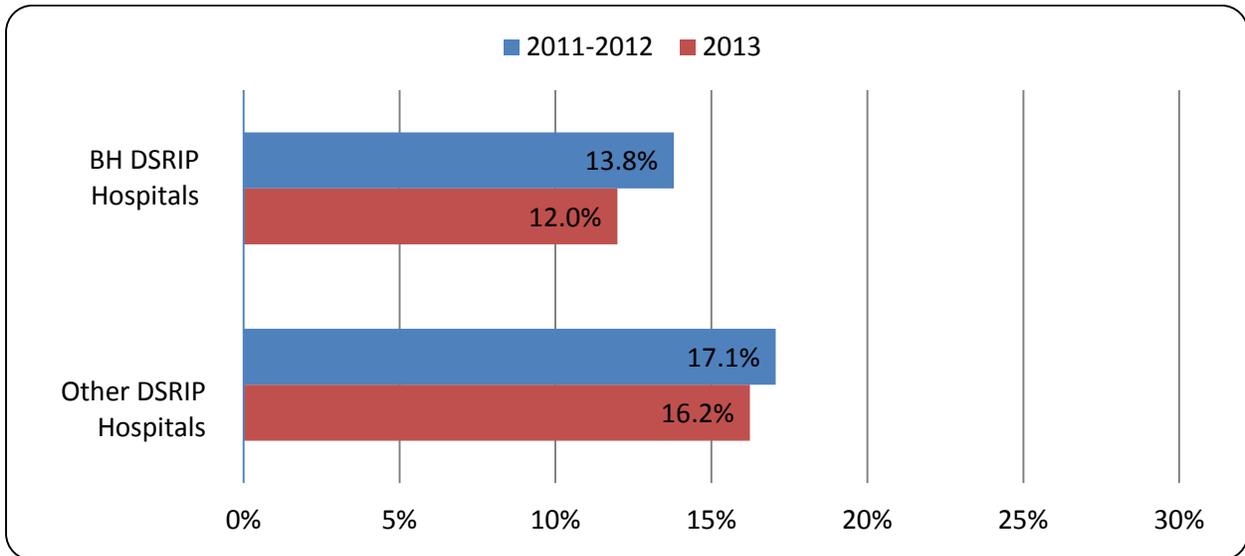
Table 3.7 reports results from regression analyses examining the effect of the pneumonia program. The program's effect is reflected in a 0.3 percentage point increase in pneumonia readmissions, but this change was not statistically significant.

Obesity Program: Figure 3.13 is an analysis of the hospital-level metric calculated and reported by the state on behalf of DSRIP-participating hospitals. It assesses the percentage of children ages 7-11 years old attributed to DSRIP hospitals with access to primary care physicians.

The hospital participating in the obesity program had slightly higher rates in both 2013 and 2014 than hospitals in DSRIP but participating in interventions for other chronic conditions. While both groups of hospitals had small increases in this metric from 2013 to 2014, the increase for the

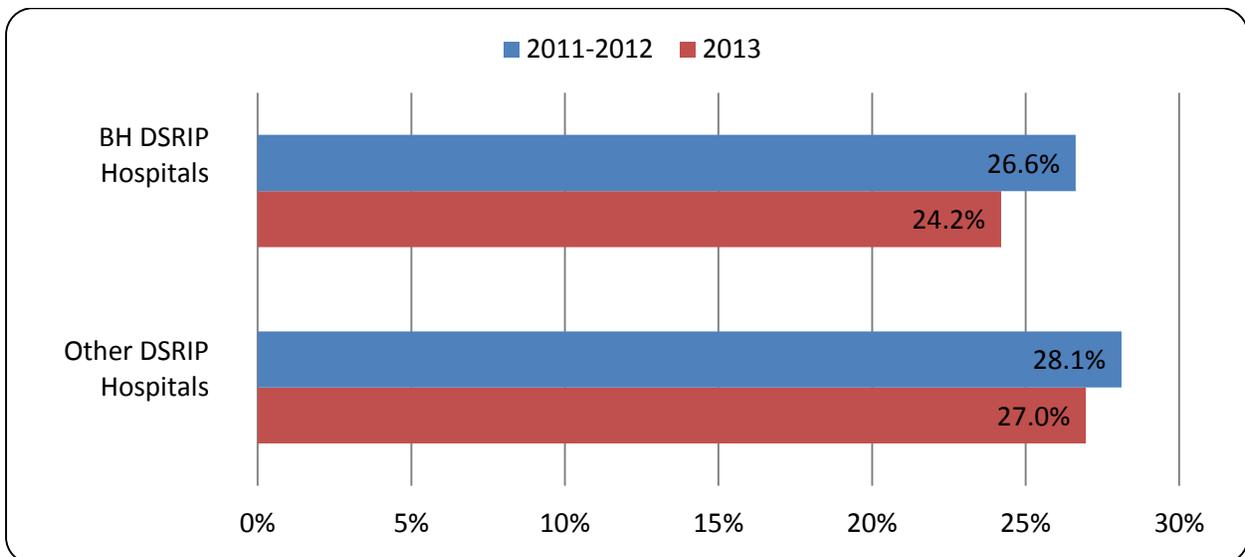
hospital with the obesity project was greater by 0.5 percentage points, though this was not statistically significant.

Figure 3.1: Rates of 7-Day Follow-up after Hospitalization for Mental Illness by DSRIP Hospital Participation in the Behavioral Health Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health.
Discharge-level analysis.

Figure 3.2: Rates of 30-Day Follow-up after Hospitalization for Mental Illness by DSRIP Hospital Participation in the Behavioral Health Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: BH=Behavioral Health.
Discharge-level analysis.

Table 3.1: DSRIP Behavioral Health Program’s Impact on Follow-up after Hospitalization for Mental Illness

<i>n=20,108</i>	DSRIP BH Program Impact Estimate
7-Day Follow-up	-0.015 (0.011)
30-Day Follow-up	-0.015 (0.013)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: BH=Behavioral Health.

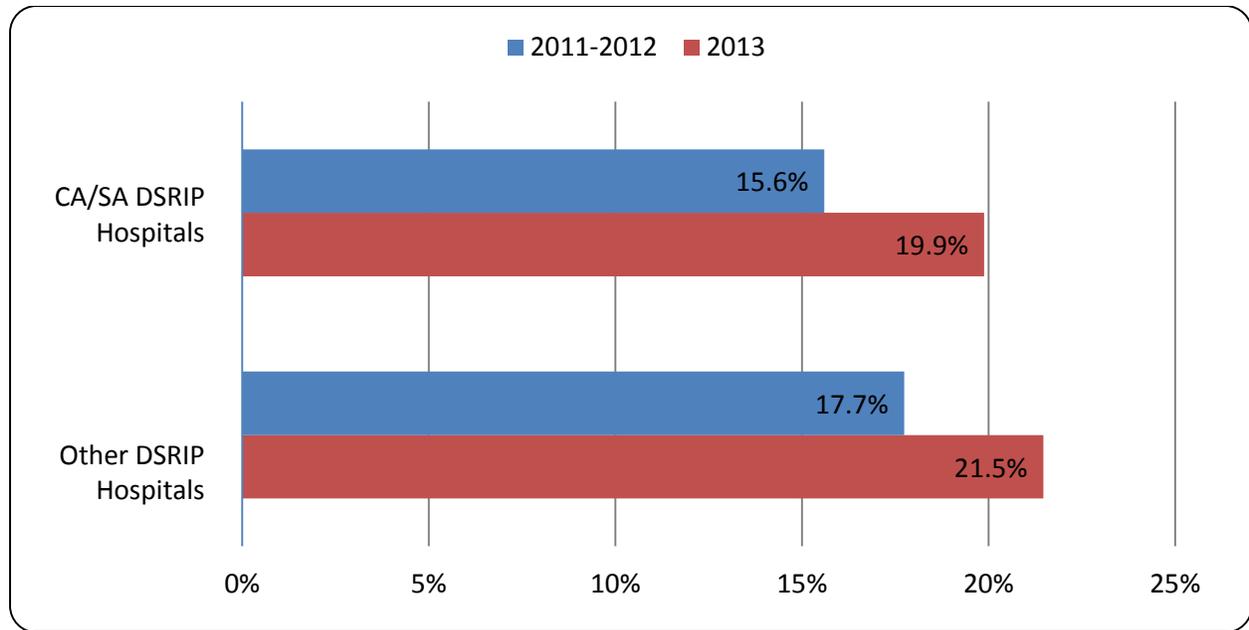
Discharge-level regression analysis with hospital fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

See Appendix G for full model results.

Figure 3.3: Rates of Initiation in Alcohol or Other Drug Treatment by DSRIP Hospital Participation in the Chemical Addiction/Substance Abuse Program

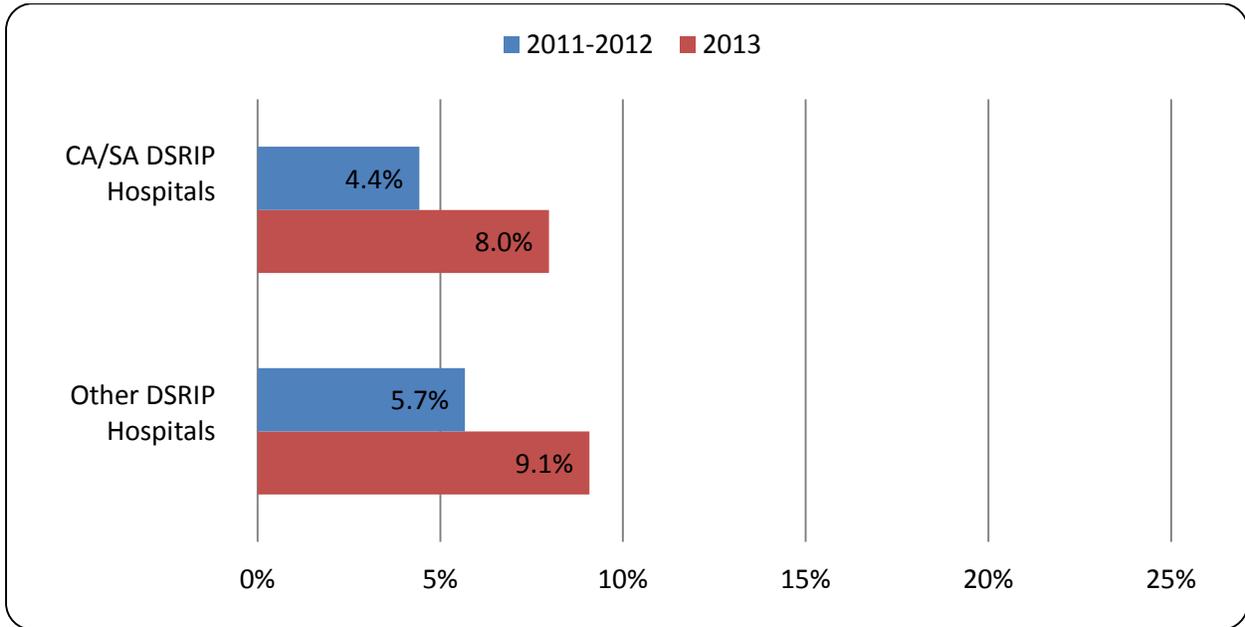


Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CA/SA=Chemical Addiction/Substance Abuse.

Rates are reported for patients in zip codes with DSRIP hospitals participating in the CA/SA program, and also zip codes where hospitals did not take part in the program.

Figure 3.4: Rate of Engagement in Alcohol or Other Drug Treatment by DSRIP Hospital Participation in the Chemical Addiction/Substance Abuse Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CA/SA=Chemical Addiction/Substance Abuse.

Rates are reported for patients in zip codes with DSRIP hospitals participating in the CA/SA program, and also zip codes where hospitals did not take part in the program.

Table 3.2: DSRIP Chemical Addiction/Substance Abuse Program’s Impact on Initiation and Engagement in Alcohol and Other Drug Treatment

	DSRIP CA/SA Program Impact Estimate		
	Overall (n=70,623)	Ages 13-17 (n=5,902)	Ages 18+ (n=64,721)
Initiation of AOD Treatment	0.00013 (0.00014)	0.00011 (0.00048)	0.00009 (0.00014)
Engagement in AOD Treatment	0.00004 (0.00008)	-0.00001 (0.00026)	0.00002 (0.00008)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CA/SA=Chemical Addiction/Substance Abuse.

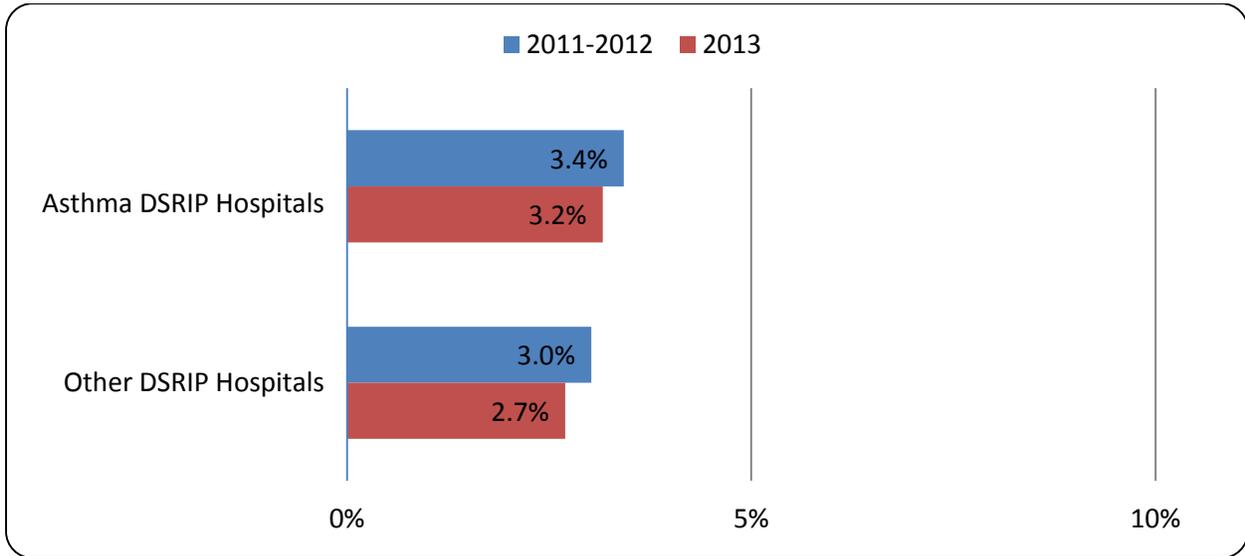
Patient-level regression analysis with zip code fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

See Appendix G for full model results.

Figure 3.5: Emergency Department Visit for Asthma by DSRIP Hospital Participation in the Asthma Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Bars reflect percentage of Medicaid beneficiaries with one or more ED visits for asthma during the year. Percentages in the 'Asthma DSRIP Hospitals' category represent patients in zip code areas where hospitals took part in a DSRIP asthma program. The 'Other DSRIP Hospital' category represents patients in zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP asthma program.

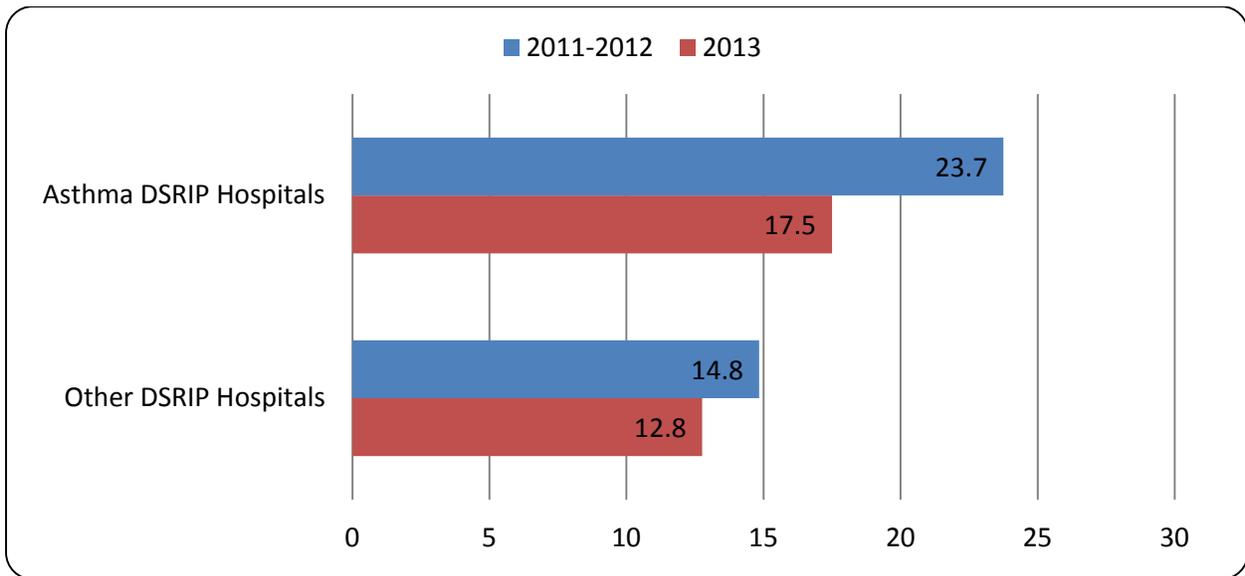
Table 3.3: DSRIP Asthma Program's Impact on Emergency Department Visits for Asthma

	DSRIP Asthma Program Impact Estimate	
	Ages 0-17 (n=2,186,925)	Ages 18+ (n=1,983,210)
ED Visit for Asthma	0.00002 (0.00001)	0.00003** (0.00001)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

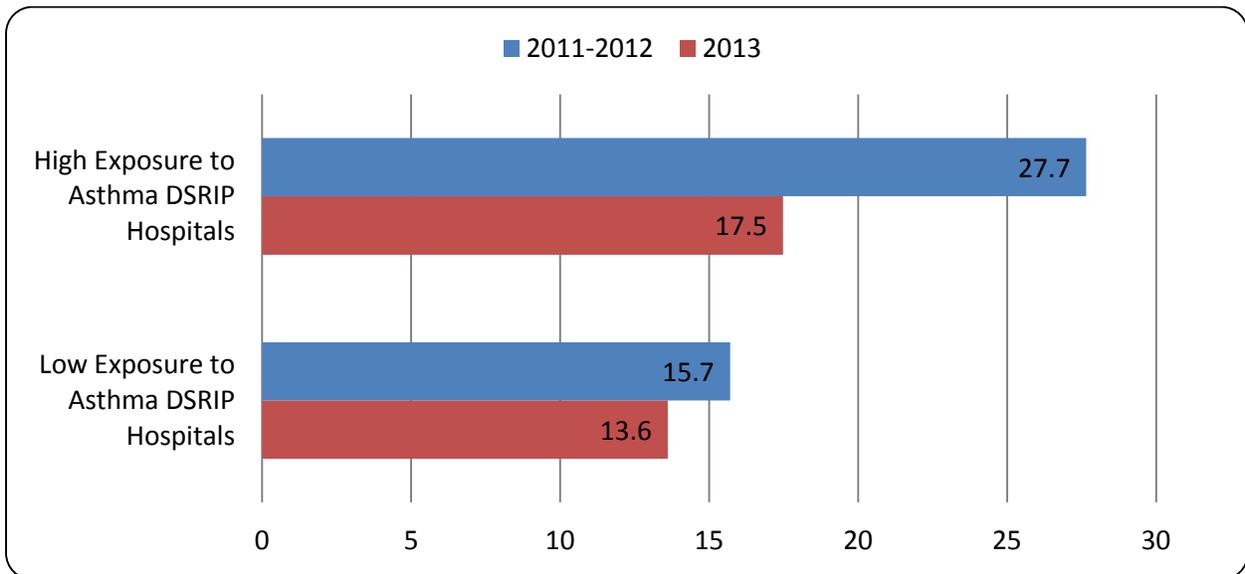
Notes: ED=Emergency Department.
 Person-level regression analysis with zip code fixed effects.
 Robust standard errors in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1
 See Appendix G for full model results.

Figure 3.6: Younger Adult Asthma Admission Rates by DSRIP Hospital Participation in the Asthma Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18-39. The 'Asthma DSRIP Hospital' category represents those zip codes that have at least one hospital participating in the DSRIP asthma program. The 'Other DSRIP Hospital' category represents those zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP asthma program.

Figure 3.7: Younger Adult Asthma Admission Rates by DSRIP Hospital High/Low Participation in the Asthma Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18-39. Rates are reported separately for zip code areas with high and low exposure to the DSRIP asthma program (see Methods).

Table 3.4: DSRIP Asthma Program’s Impact on Asthma in Younger Adults Admission Rate

<i>(n=1,722)</i>	DSRIP Asthma Program Impact Estimate
Younger Adults Asthma Admission Rate	-0.083** (0.039)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Zip-level regression analysis with zip code fixed effects.

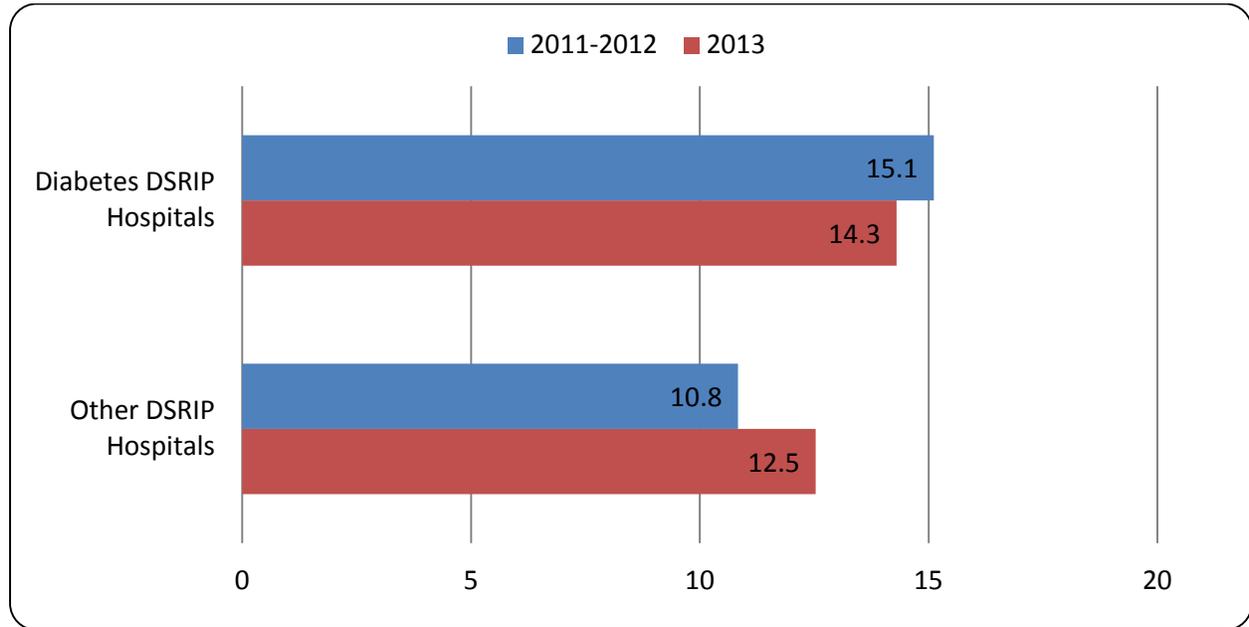
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18-39.

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

See Appendix G for full model results.

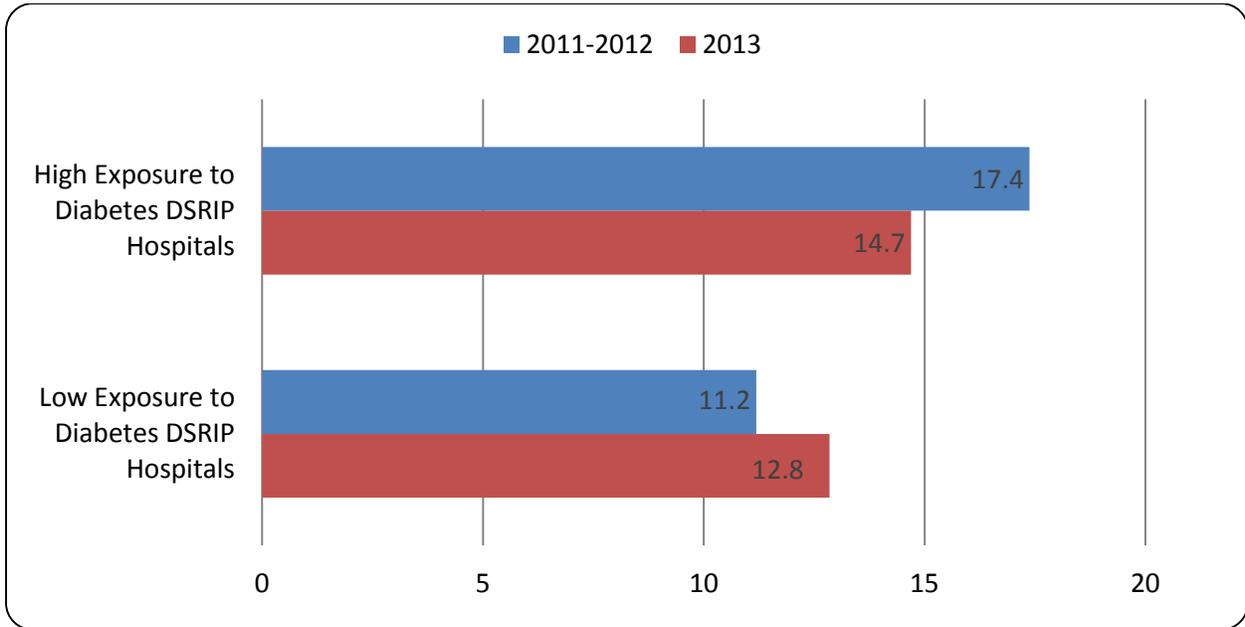
Figure 3.8: Diabetes Short-Term Complications Admission Rates by DSRIP Hospital Participation in the Diabetes Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of ages 18 and above. The ‘Diabetes DSRIP Hospital’ category represents those zip codes that have at least one hospital participating in the DSRIP diabetes program. The ‘Other DSRIP Hospital’ category represents those zip codes that have at least one hospital participating in DSRIP, but none participating in the DSRIP diabetes program.

Figure 3.9: Diabetes Short-Term Complications Admission Rates by DSRIP Hospital High/Low Participation in the Diabetes Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of ages 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP diabetes program (see Methods).

Table 3.5: DSRIP Diabetes Program’s Impact on Diabetes Short-Term Complications Admission Rate

<i>(n=1,731)</i>	DSRIP Diabetes Program Impact Estimate
Diabetes Short-term Complications Admission Rate	-0.048** (0.019)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Zip-level regression analysis with zip code fixed effects.

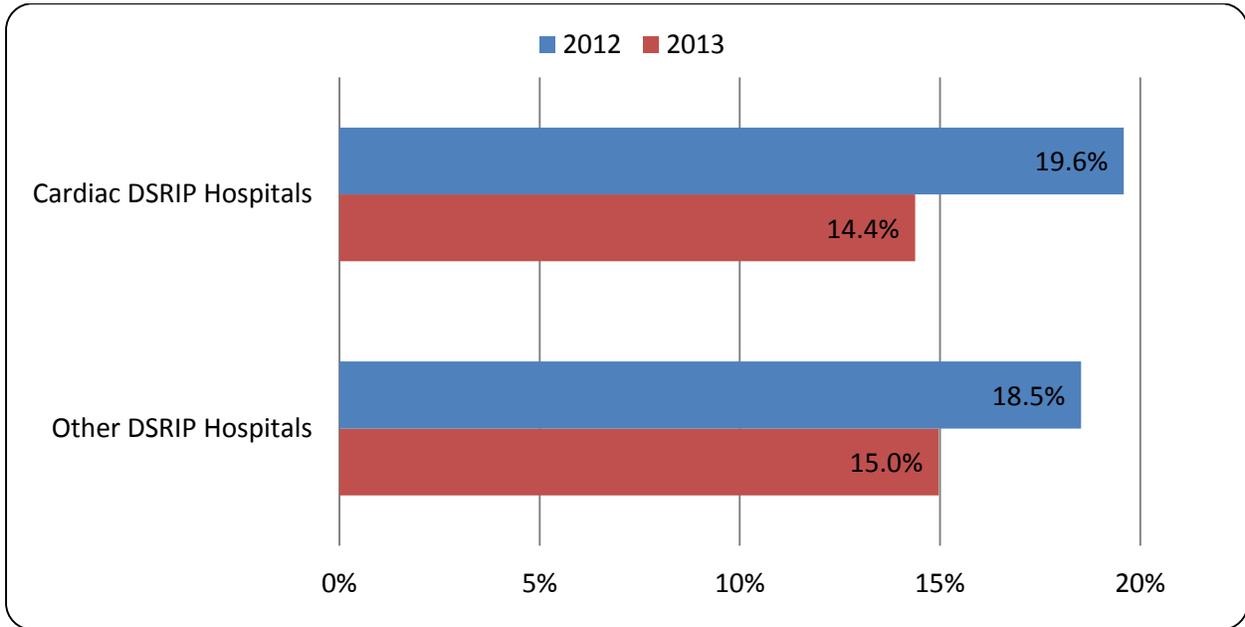
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18+.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

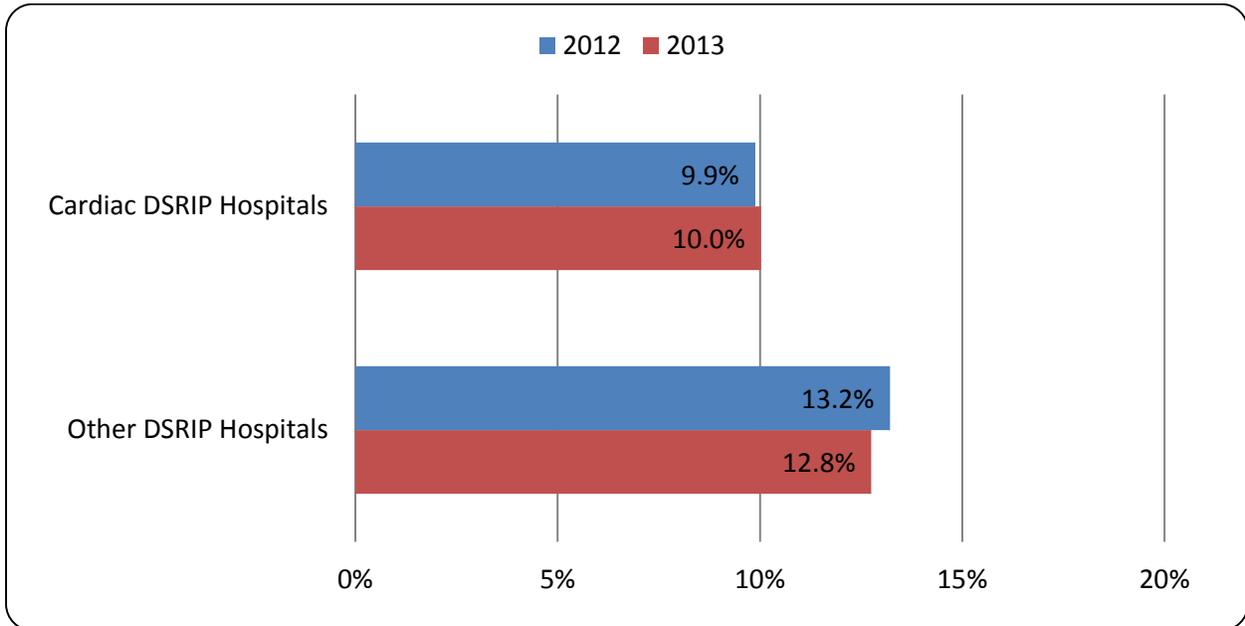
See Appendix G for full model results.

Figure 3.10: Heart Failure Readmission Rates by DSRIP Hospital Participation in the Cardiac Care Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.11: Acute Myocardial Infarction (AMI) Readmission Rates by DSRIP Hospital Participation in the Cardiac Care Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Table 3.6: DSRIP Cardiac Program’s Impact on 30-Day Readmissions for Heart Failure and Acute Myocardial Infarction

	DSRIP Cardiac Program Impact Estimate
HF Readmissions (<i>n</i> =4,526)	-0.031 (0.024)
AMI Readmissions (<i>n</i> =1,685)	0.016 (0.024)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

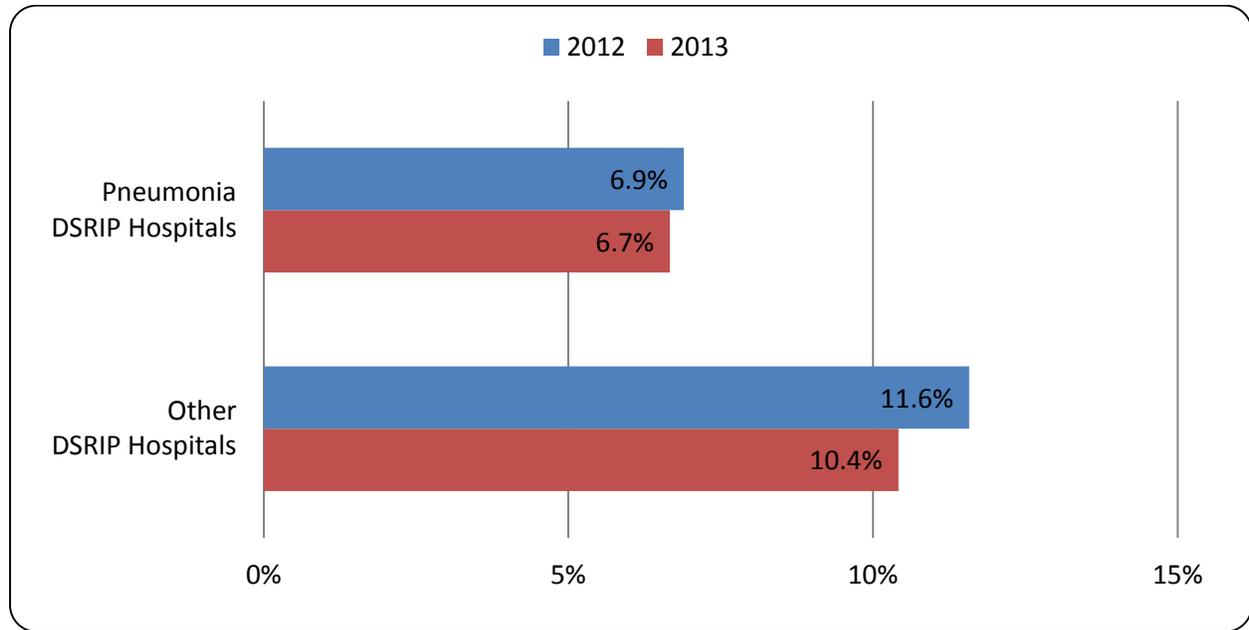
Notes: Discharge-level regression analysis with hospital fixed effects.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

See Appendix G for full model results.

Figure 3.12: Pneumonia Readmission Rates by DSRIP Hospital Participation in the Pneumonia Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Discharge-level analysis.

Table 3.7: DSRIP Pneumonia Program’s Impact on 30-Day Readmissions for Pneumonia

<i>(n=4,362)</i>	DSRIP Pneumonia Project Impact Estimate
Pneumonia Readmissions	0.003 (0.013)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

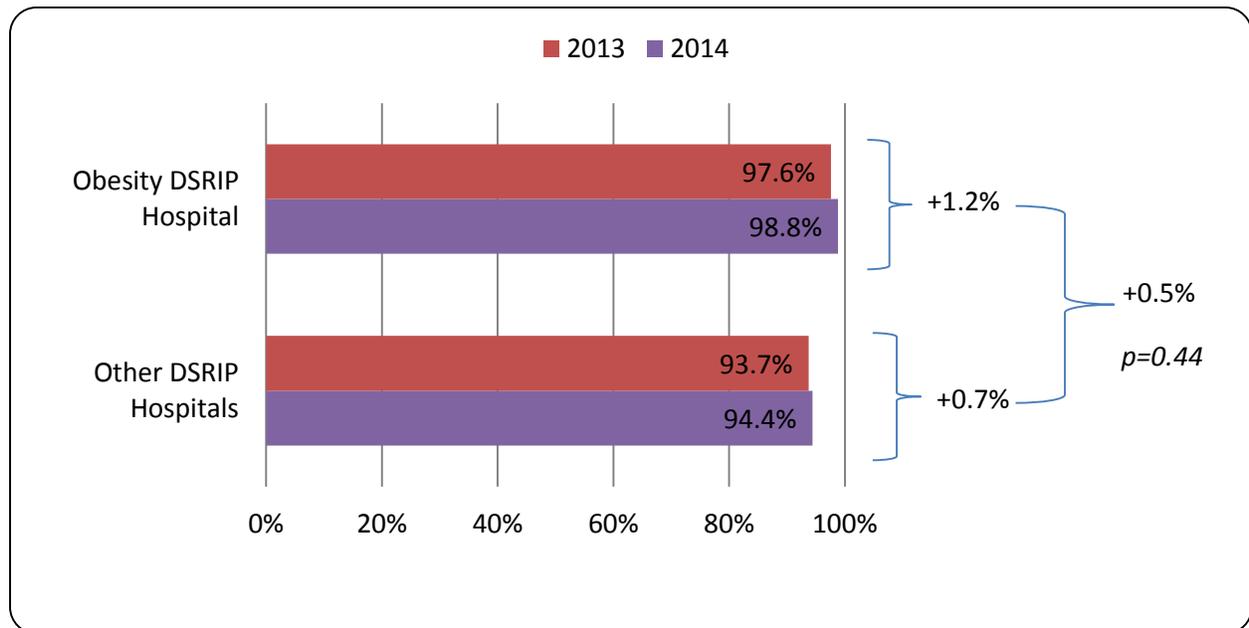
Notes: Discharge-level regression analysis with hospital fixed effects.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

See Appendix G for full model results.

Figure 3.13: Children and Adolescents’ Access to Primary Care Physicians (Ages 7-11) by DSRIP Hospital Participation in the Obesity Program



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

Notes: Hospital-level analysis weighted by hospitals’ attributed population ages 7-11 years.

Impact of DSRIP Program Overall

30-Day Readmissions: Figures 3.14-3.17 and Table 3.8 are based on 30-day readmission rates that are used to assess the overall effect of the DSRIP program. Figures 3.14-3.17 report average readmission rates for patients in hospitals distinguished by participation in the DSRIP program for the baseline 2012 calendar year and 2013, which is the first DSRIP program year. Readmission rates for pneumonia and COPD improved (decreased in magnitude) for both groups of hospitals from 2012 to 2013 (see Figures 3.16 and 3.17).

For HF and AMI, readmission rates decreased in magnitude (HF), or remained unchanged (AMI) for participating hospitals and worsened (increased in magnitude) for hospitals not participating in the DSRIP program (see Figures 3.14 and 3.15).

Regression analyses reveal that the overall effect of the DSRIP program measured in terms of changes in any of the four readmission rates was not statistically significant. In terms of magnitude the effect ranges from a 3.0 percentage point decrease in heart failure readmissions to a 2.0 percentage point increase in COPD readmissions.

Inpatient Mental Health Utilization: Figure 3.18 reports mental health utilization rates for beneficiaries in zip codes distinguished by whether the area hospitals participated in the DSRIP program. The utilization rates were less than 1%. Zip codes with DSRIP-participating hospitals had slightly lower rates in each year. The regression analysis shows a zero effect of DSRIP on inpatient mental health utilization (see Table 3.9).

Avoidable Hospital (Inpatient and ED) Utilization: Figures 3.19 and 3.20 report rates of avoidable hospitalizations aggregated across zip codes distinguished by their exposure to the DSRIP program. Rate of avoidable hospitalizations decreased over time in the zip codes where at least one hospital participated (see Figure 3.19) and zips where the hospitals accounting for the majority of discharges participated in DSRIP (See Figure 3.20). This trend was opposite to that in zip codes where area hospitals did not take part in the program where the rate of avoidable hospitalizations increased from the baseline period to 2013 (see Fig 3.19).

Figure 3.21 reveals that the rate of avoidable ED visits remained virtually unchanged in the group of zip codes which had at least one hospital participating in the DSRIP program. It increased in the remaining zip codes. The ED visit rate also remained unchanged in the zip codes that had high DSRIP exposure and decreased in those with low DSRIP exposure (see Figure 3.22).

Table 3.10 reports regression analyses examining the effect of the DSRIP program on avoidable inpatient hospitalizations and ED visits. The effect of the DSRIP program is reflected in a

statistically significant decrease in avoidable hospitalizations. On average, as a zip code goes from 0% to 100% exposure to DSRIP, rates of avoidable hospitalizations decreased by 36.8 per 10,000 Medicaid beneficiary years ($p < 0.05$). The corresponding avoidable ED visit rate however increased by 97.2, but this was not statistically significant.⁵

Avoidable Hospital Costs: Figures 3.23-3.26 report rates of costs associated with avoidable hospital use, both inpatient and ED, aggregated across zip codes distinguished by their exposure to the DSRIP program. The costs are reported per 10,000 Medicaid beneficiary-years.

These costs are higher in both the baseline and first DSRIP program year for zip codes with some (compared to none) or high (compared to low) exposure to the DSRIP program.

Avoidable inpatient costs decrease from the baseline period to the first program year for all categories of zip codes except those with no participating hospitals in the DSRIP program. For avoidable ED costs, we see an increasing trend except for zip codes with no exposure to DSRIP. Table 3.11 reports regression analyses examining the effect of the DSRIP program on avoidable inpatient hospitalization and ED visit costs. The effect of the DSRIP program on costs (measured as the effect of a zip code going from zero to full DSRIP exposure) is not statistically significant and results in virtually no change ($< \$1$ per 10,000 beneficiary-years) in avoidable hospitalization costs. The result for avoidable ED costs indicates that on average, as a zip code goes from 0% to 100% exposure to DSRIP, the costs increase by 7 cents per 10,000 beneficiary-years ($p < 0.05$).

Table 3.12 shows avoidable hospital costs per 10,000 Medicaid beneficiary-year for DSRIP exposed and non-exposed zip codes stratified by race/ethnicity and gender. Costs associated with preventable inpatient hospitalizations decreased across all racial/ethnic and gender groups from the baseline to the first program year in DSRIP zips. In contrast, those same zips over the same time period and within each of these population subgroups experienced an increase in the costs associated with avoidable ED visits.

The highest costs for both avoidable inpatient hospitalizations and ED visits are for blacks, and this population subgroup shows different trends when examining non-DSRIP zips across the study period. Specifically, costs per beneficiary-year for avoidable hospitalizations decrease from the baseline to the first DSRIP program year for the black population in zips with no participating DSRIP. However, we see increases in their avoidable ED costs from the baseline to the first DSRIP program year (2013) in those zip codes.

⁵ The impact estimate gets larger (125.6 avoidable ED visits per 10,000 Medicaid beneficiary-years) and is significant at the 10% level when basing DSRIP exposure on a choice set with a 90% threshold.

Racial/Ethnic Disparities in Hospital Readmissions: Figures 3.27-3.30 report changes in readmission rates for HF, AMI, pneumonia and COPD from the baseline to the first year of the DSRIP program separately for whites, blacks, Hispanics and other race/ethnicity. Rates are compared between hospitals participating in the DSRIP program and those that did not. Several of these estimates were not reported due to insufficient sample sizes that raise reliability as well as identifiability concerns.

We find that HF readmission rates decreased for whites and blacks in DSRIP-participating hospitals, and this decrease was greater than in the comparison group of non-participating hospitals.

AMI readmission rates in DSRIP-participating hospitals decreased over time for blacks and Hispanics, but increased for whites and patients belonging to the other race/ethnicity category. For both pneumonia and COPD, readmission rates in DSRIP-participating hospitals remained virtually unchanged for whites, decreased for patients who were black or belonged to the other race/ethnicity category, and increased for Hispanics.

Table 3.13 reports findings from analysis of racial disparities in readmission rates with separate estimates for patients belonging to each of the racial/ethnic categories (when sample size is adequate), and for minorities overall. The analysis compares changes in readmission rates over time for DSRIP participating hospitals relative to a comparison group of hospitals.

Considering minorities overall, racial/ethnic disparities based on HF, AMI and pneumonia readmission rates decreased, but the changes were not statistically significant. Based on COPD readmissions, there was a 7.9 percentage point increase in disparities which was statistically significant at the 5% level.

We also see that based on pneumonia readmissions, there was a substantial decrease in disparities for black patients reflected in a 13.7 percentage point reduction in readmission rates ($p < 0.01$), but this result is based on insufficient sample size and cannot be deemed reliable. All other changes were not statistically significant.

Gender Disparities in Hospital Readmissions: The decrease in readmission rates for females in DSRIP participating hospitals was greater than the decrease for males when it came to HF (Figure 3.31), pneumonia (Figure 3.33), and COPD (Figure 3.34). For AMI readmissions, readmission rates for females increased by 1.6 percentage points in DSRIP-participating hospitals, but the increase was substantially higher (6.4 percentage points) for hospitals that did not participate in the program (see Figure 3.32).

Table 3.14 reports findings from the regression analysis. Genders-based disparities decreased when measured in AMI and pneumonia readmissions, and increased marginally based on heart failure and COPD readmissions. None of these estimates were statistically significant.

Racial/Ethnic and Gender Disparities in Avoidable Inpatient Hospitalizations: Figure 3.35 reveals that when we considered all zip codes with at least one hospital participating in the DSRIP program, the difference in avoidable inpatient hospitalizations per 10,000 Medicaid beneficiary-years between blacks and whites decreased by 26 from baseline to the first year of the DSRIP program. The difference in this rate between Hispanics and whites however, increased by 23 over the same period.

The difference in rates of avoidable hospitalizations between females and males for zip codes with DSRIP participating hospitals remained virtually unchanged – it decreased by 1 hospitalization per 10,000 beneficiary-years.

Table 3.15 reports the extent to which racial/ethnic and gender disparities in avoidable hospitalizations were impacted by the DSRIP program. The coefficient estimates reported here represent the average effect of a 1% increase in DSRIP exposure on the difference in rates of avoidable hospitalizations between any minority group and whites, or correspondingly, the difference in rates of avoidable hospitalizations between females and males. We see that compared to a zip code with zero exposure to DSRIP, a zip code with 100% exposure to DSRIP (100% exposure means that all hospitals, and zero exposure means none of the hospitals serving a zip code, took part in the DSRIP program) had 130 fewer hospitalizations by black patients relative to hospitalizations by white patients, per 10,000 Medicaid beneficiary-years. Similarly the difference in hospitalization rates between Hispanics and whites decreased by 85.1. However, neither of these two estimates were statistically significant. There was a marginally significant ($p < 0.1$) decrease in the difference in hospitalization rates between Medicaid beneficiaries belonging to other racial/ethnic category and those who were whites amounting to 90.1 hospitalizations per 10,000 beneficiary-years.

We also found that females had higher rates of hospitalizations compared to males (difference in rates increased by 9.8 hospitalizations per 10,000 beneficiaries), but the magnitude of this change was not statistically significant.

Racial/Ethnic and Gender Disparities in Avoidable ED Visits: The difference in the rate of avoidable ED visits between each minority group and whites increased in zip codes where there was at least one DSRIP participating hospital from baseline to the first DSRIP program year (see

Figure 3.37). The corresponding difference in rates between females and males decreased by 70 hospitalizations over the same period (see Figure 3.38).

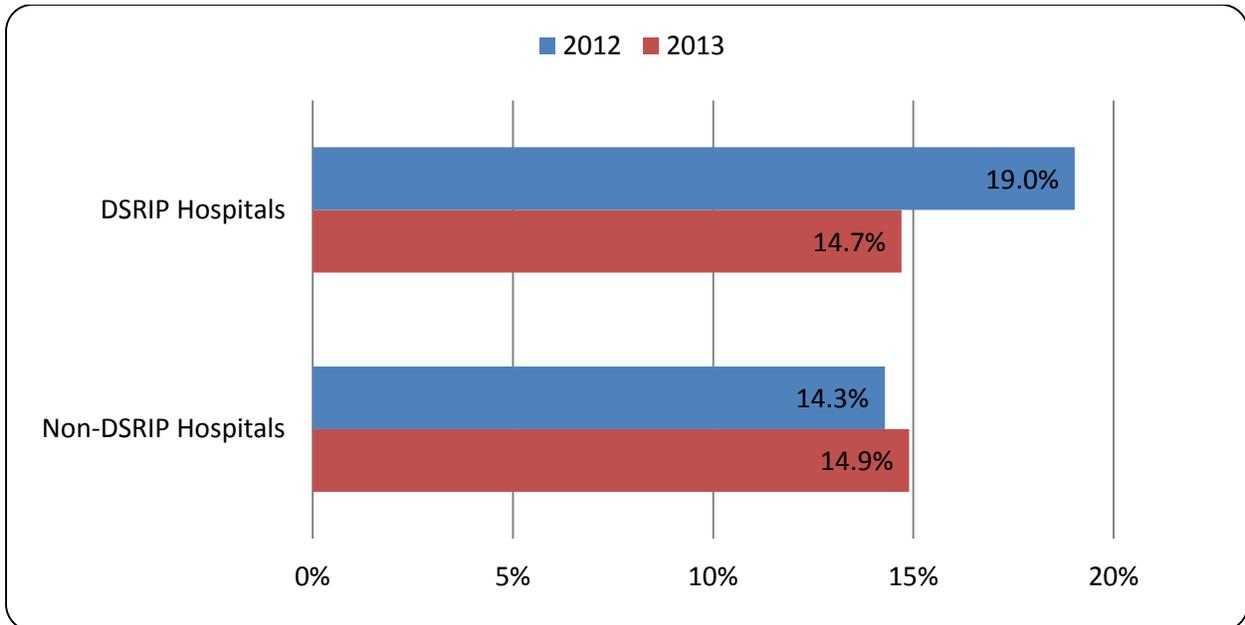
Table 3.16 reports the effect of the program on racial/ethnic and gender disparities in avoidable ED visits based on a regression analysis. The difference in rates of ED visits between blacks and whites decreased. Compared to a zip code with no DSRIP exposure, in a zip code with full DSRIP exposure, the difference in rates of avoidable ED visits (per 10,000 Medicaid beneficiary-years) between blacks and whites decreased by 86.5. Similarly, the difference indicating disparities increased for Hispanics, Medicaid beneficiaries belonging to other race/ethnicity groups, and females, but these changes were not statistically significant.

All-Payer Comparisons: Table 3.17 compares all-payer and Medicaid beneficiary rates of avoidable hospitalizations per 10,000 population. Statewide, both these rates decreased from the baseline period to the first year of the DSRIP program. The trends were also similar for zip codes where at least one hospital participated in the program, and also those zip codes which had high exposure to the program. Rates of avoidable hospitalizations were higher among Medicaid beneficiaries compared to all patients.

Table 3.18 reports similar comparisons based on rates of avoidable ED visits. In zip codes that had at least one hospital participating in the DSRIP program, the rate increased for the entire population, but went down marginally for the Medicaid population. The trends were similar for zip codes with high exposure to DSRIP.

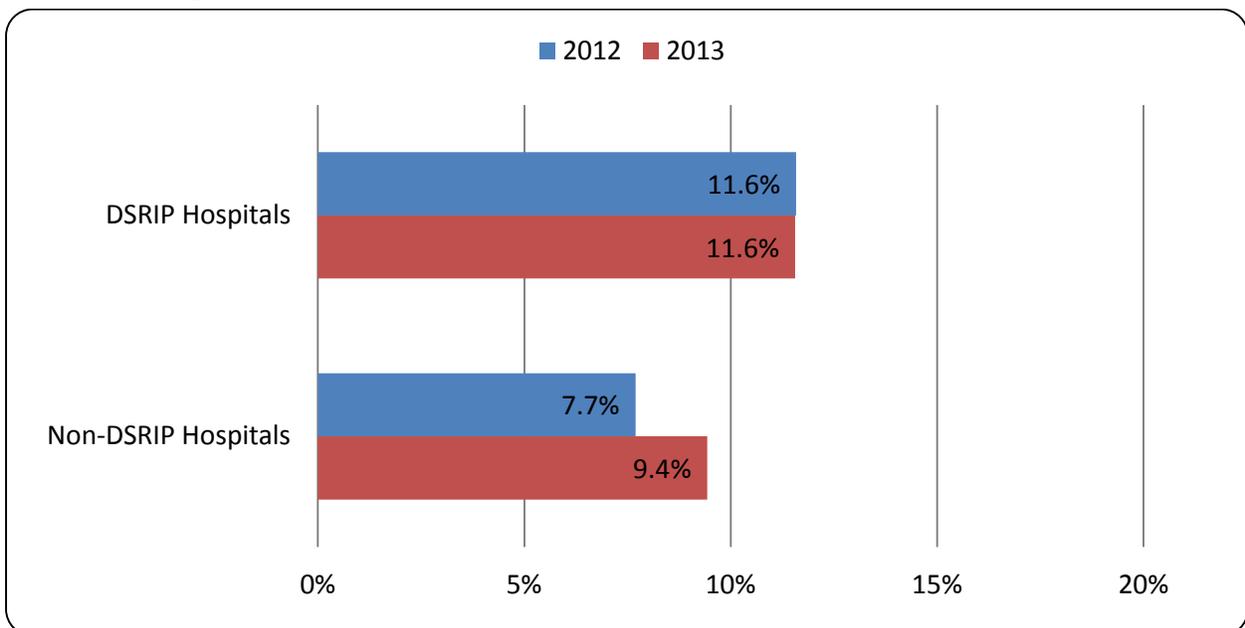
Hospital Finances: Figures 3.39 and 3.40 examine the effects of the DSRIP program on hospital financial performance measured by total margin and operating margin. Based on either metric, the effect after the first year of the program was positive, a 0.8 percentage point increase based on total margins and a 0.9 percentage point increase based on operating margins. It is worth noting that operating margins that reflect hospital financial performance that is directly related to patient care worsened for DSRIP participating hospitals. However the worsening was higher for the comparison group of hospitals that did not take part in the program.

Figure 3.14: Heart Failure Readmission Rates by Hospital Participation in the DSRIP Program



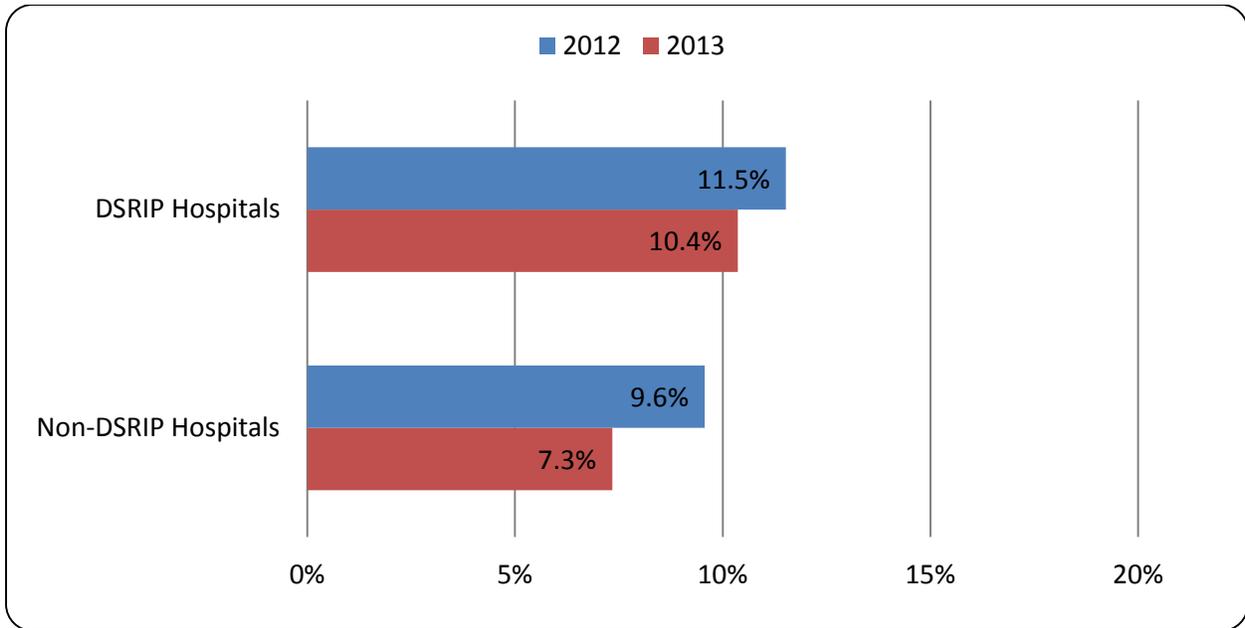
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.15: Acute Myocardial Infarction (AMI) Readmission Rates by Hospital Participation in the DSRIP Program



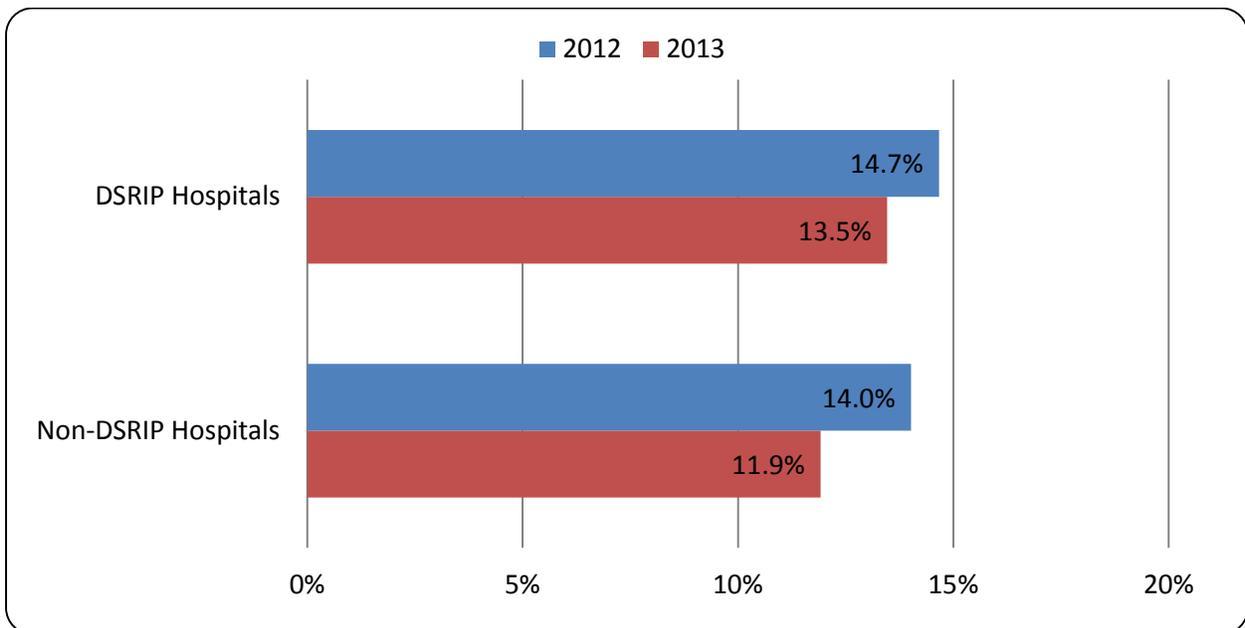
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.16: Pneumonia Readmission Rates by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Figure 3.17: Chronic Obstructive Pulmonary Disease (COPD) Readmission Rates by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: Discharge-level analysis.

Table 3.8: Overall DSRIP Program Impact on 30-Day Readmissions for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Overall DSRIP Impact Estimate
Heart Failure (<i>n</i> =4,896)	-0.030 (0.030)
Acute Myocardial Infarction (<i>n</i> =1,816)	0.005 (0.072)
Pneumonia (<i>n</i> =4,810)	0.019 (0.037)
COPD (<i>n</i> =6,475)	0.020 (0.026)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

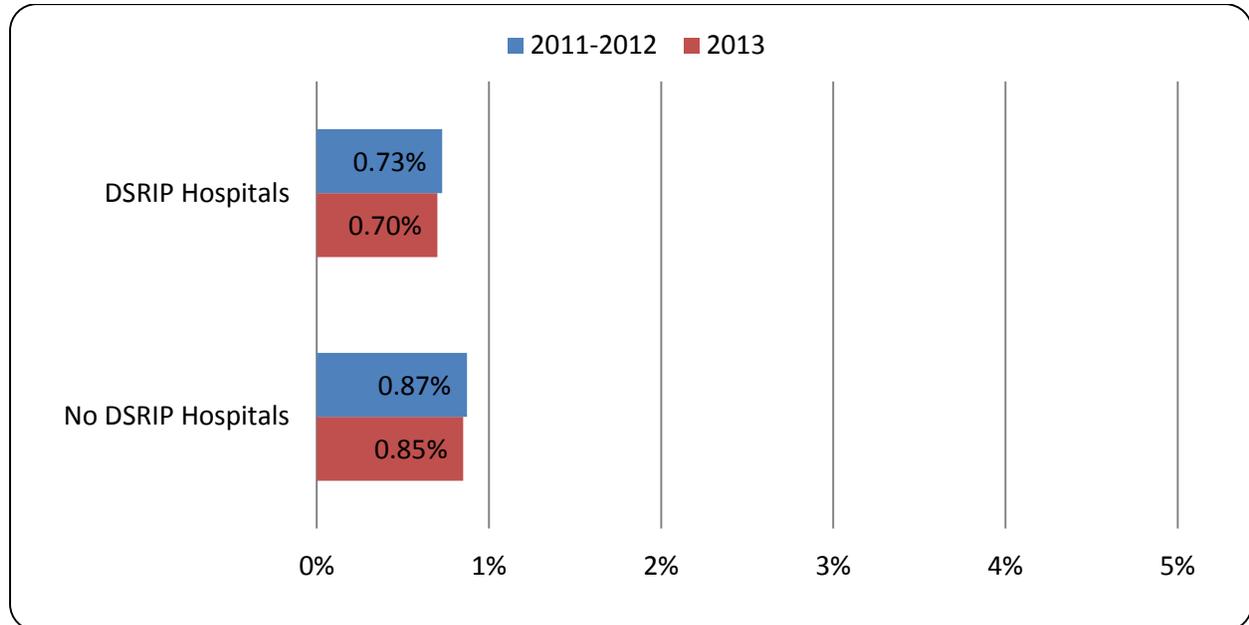
Notes: COPD=Chronic Obstructive Pulmonary Disease. Discharge-level regression analysis with hospital fixed effects.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

See Appendix G for full model results.

Figure 3.18: Inpatient Mental Health Utilization by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Note: Bars reflect percentage of Medicaid beneficiaries with one or more inpatient mental health stays during the year.

Percentages in the 'DSRIP Hospitals' category represent patients in zip code areas where at least one hospital took part in the DSRIP program.

Table 3.9: Overall DSRIP Program Impact on Inpatient Mental Health Utilization

<i>(n=4,199,977)</i>	Overall DSRIP Impact Estimate
Mental Health Utilization - Inpatient	-0.00000 (0.00000)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.

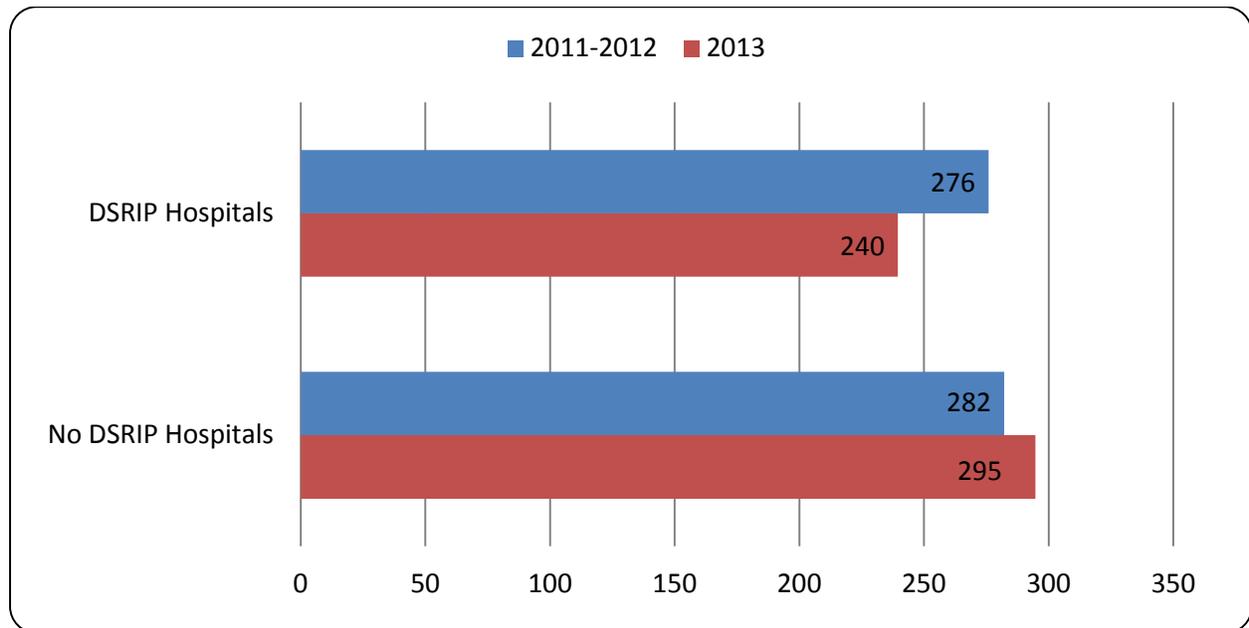
Notes: Person-level regression analysis with zip code fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

See Appendix G for full model results.

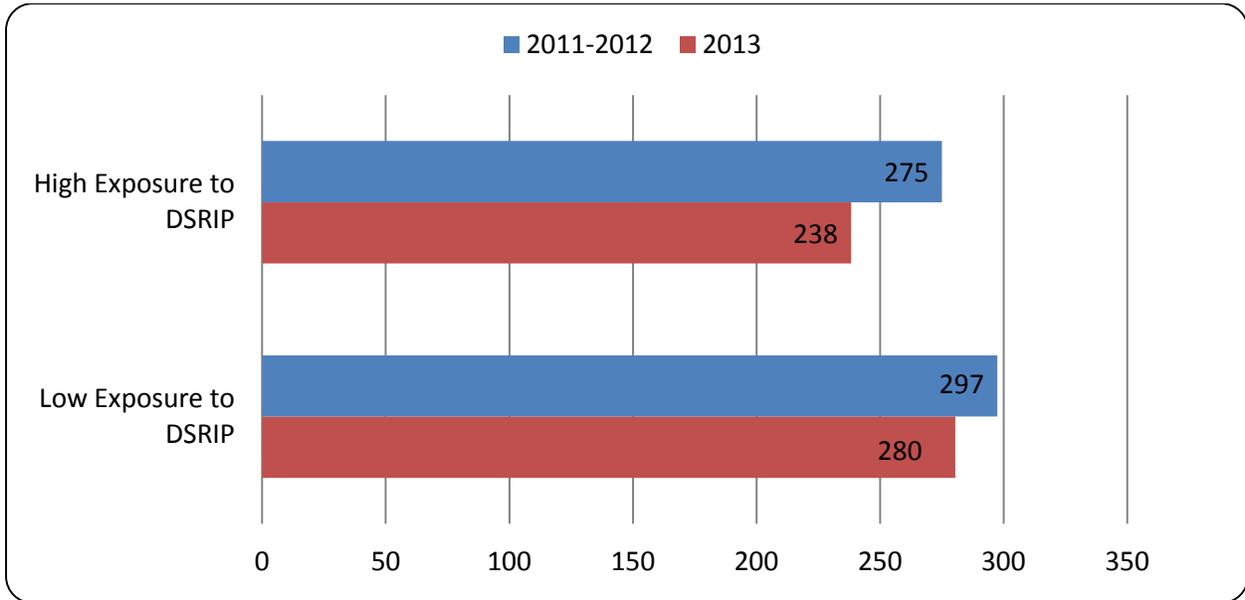
Figure 3.19: Rates of Avoidable Inpatient Hospitalizations by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

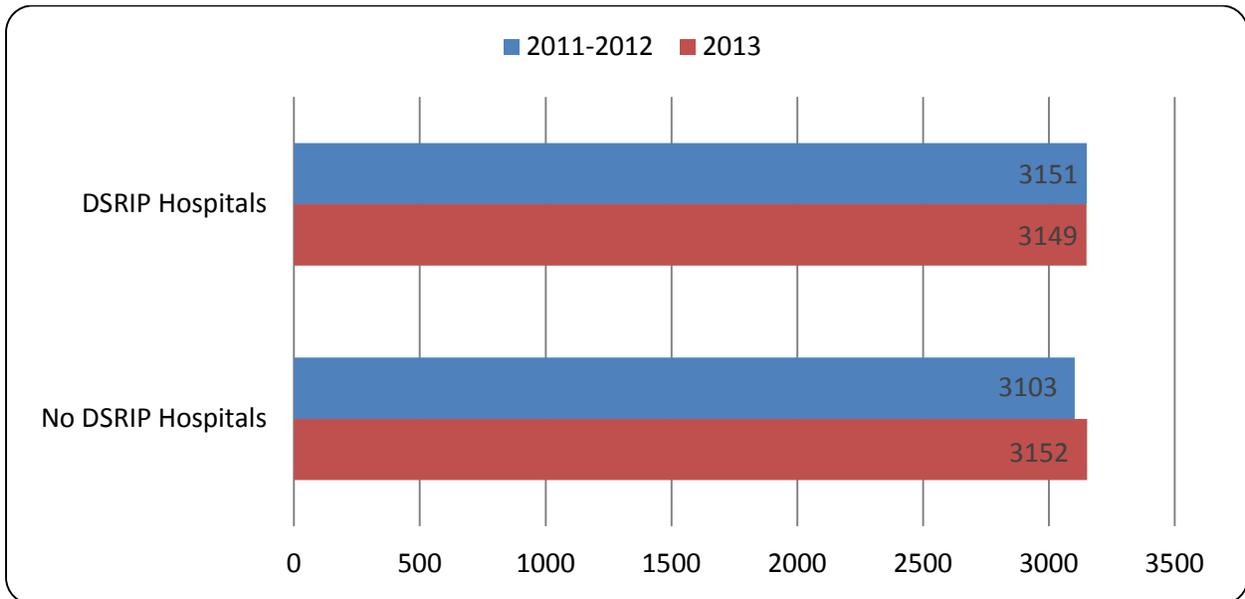
Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.20: Rates of Avoidable Inpatient Hospitalizations by Hospital High/Low Participation in the DSRIP Program



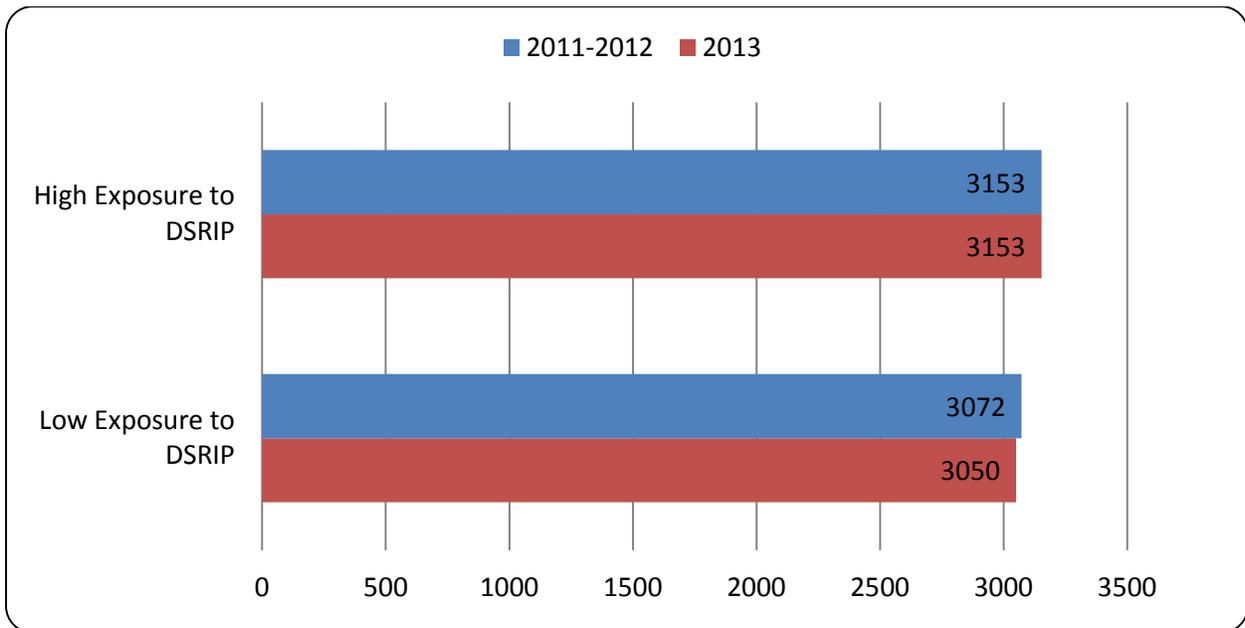
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalizations per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.21: Rates of Avoidable Emergency Department Visits by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED visits per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.22: Rates of Avoidable Emergency Department Visits by Hospital High/Low Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED visits per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Table 3.10: Overall DSRIP Program Impact on Rates of Avoidable Inpatient Hospitalizations and Emergency Department Visits

	DSRIP Overall Program Impact Estimate
Preventable IP Hospitalizations (<i>n</i> =1,770)	-0.368** (0.179)
Avoidable ED Visits (<i>n</i> =1,773)	0.972 (0.615)

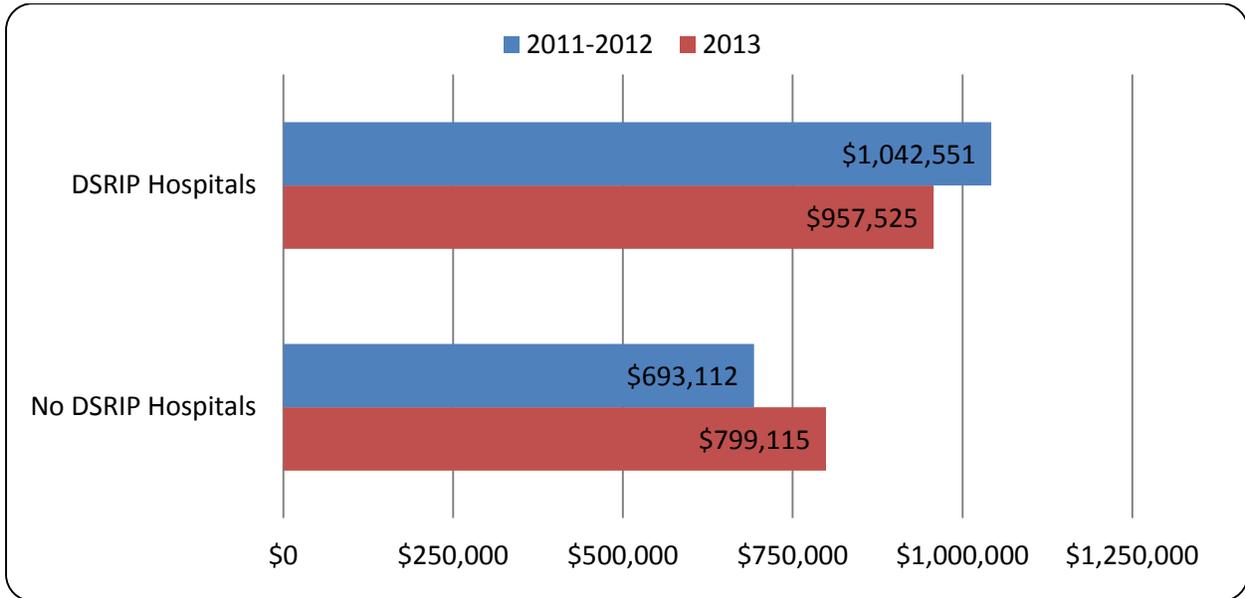
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department.
 Zip-level regression analysis with zip code fixed effects.
 Rates are per 10,000 Medicaid beneficiary-years.
 Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

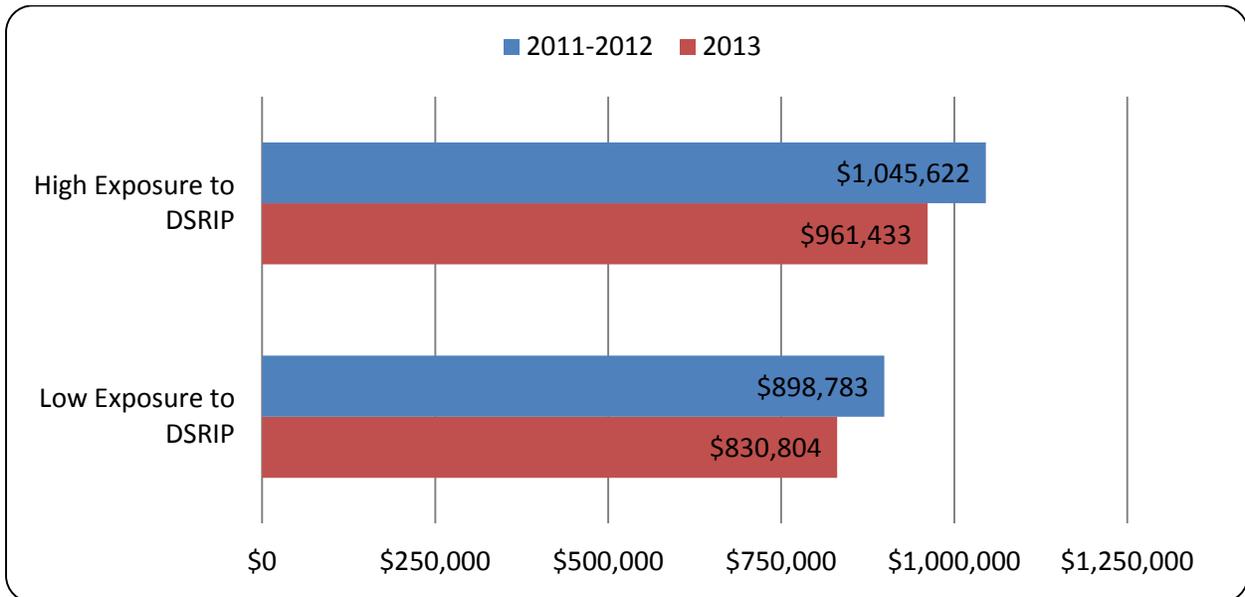
See Appendix G for full model results.

Figure 3.23: Avoidable Inpatient Hospitalization Costs by Hospital Participation in the DSRIP Program



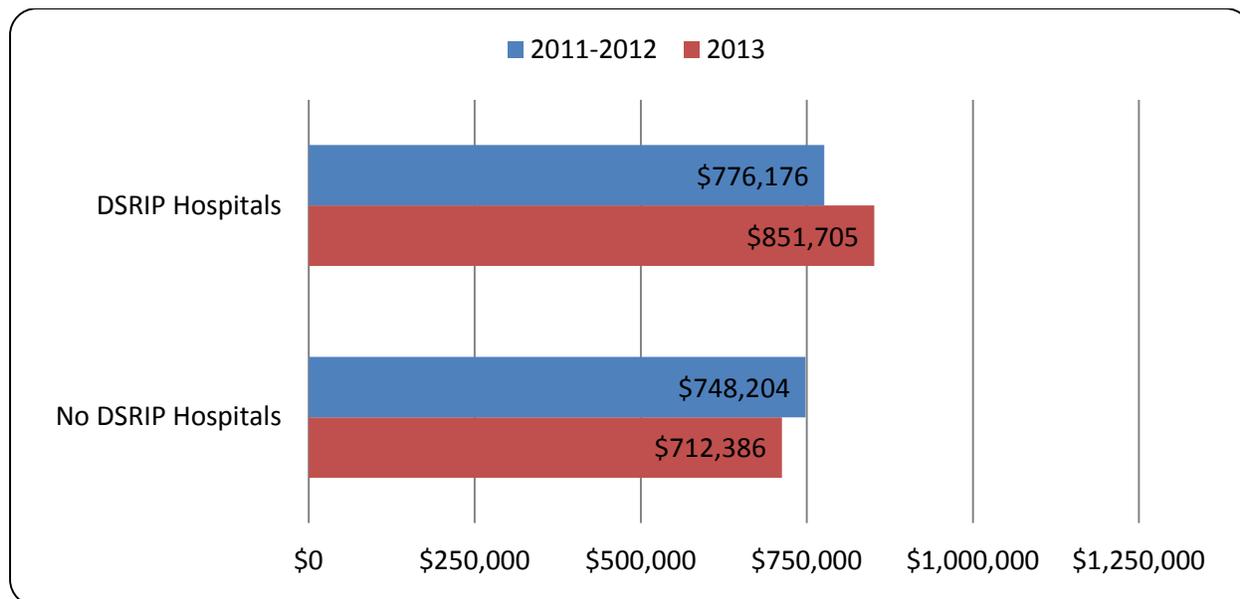
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalization costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.24: Avoidable Inpatient Hospitalization Costs by Hospital High/Low Participation in the DSRIP Program



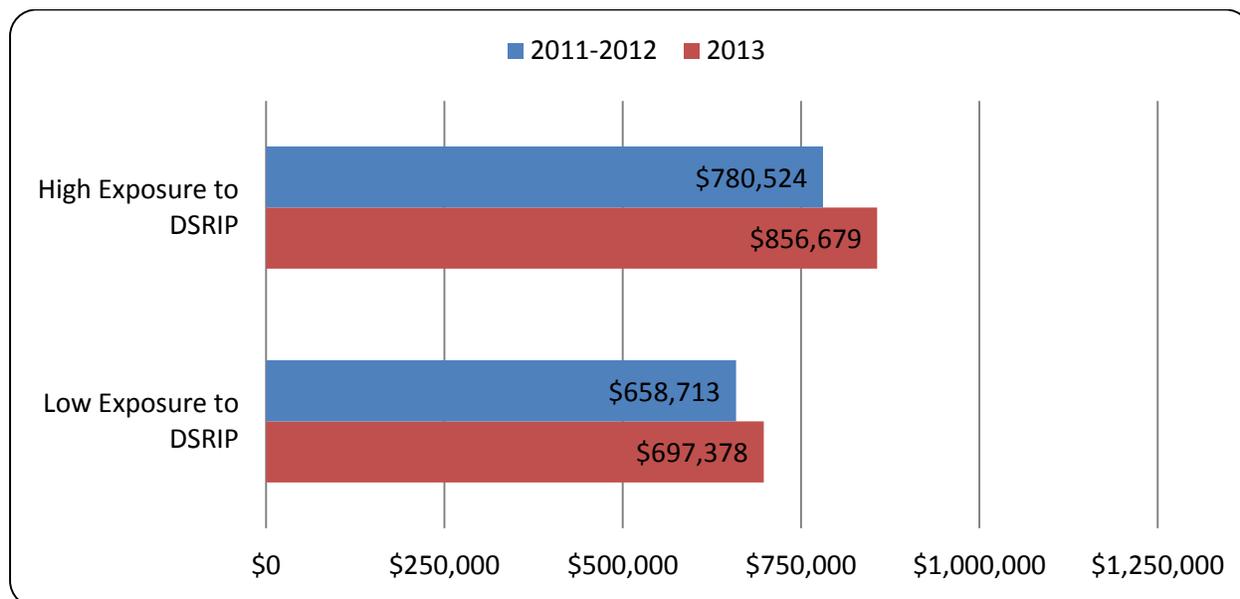
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable hospitalization costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of age 18 and above. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.25: Avoidable Emergency Department Visit Costs by Hospital Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program.

Figure 3.26: Avoidable Emergency Department Visit Costs by Hospital High/Low Participation in the DSRIP Program



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Each bar represents a weighted average of zip code-level rates of avoidable ED costs per 10,000 Medicaid beneficiary-years relating to beneficiaries of all ages. Rates are reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Table 3.11: Overall DSRIP Impact on Avoidable Inpatient Hospitalization and Emergency Department Visit Costs

	DSRIP Overall Program Impact Estimate
Preventable IP Hospitalization Costs (<i>n=1,770</i>)	0.00042 (0.00148)
Avoidable ED Visit Costs (<i>n=1,773</i>)	0.00072** (0.00032)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department.

Estimates based on a zip-level generalized linear model with gamma log link.

Costs are per 10,000 Medicaid beneficiary-years.

Standard errors in parentheses adjusted for clustering.

*** p<0.01, ** p<0.05, * p<0.1

See Appendix G for full model results.

Table 3.12: Avoidable Inpatient Hospitalization and Emergency Department Visit Costs by Race/Ethnicity, Gender, and Hospital Participation in the DSRIP Program

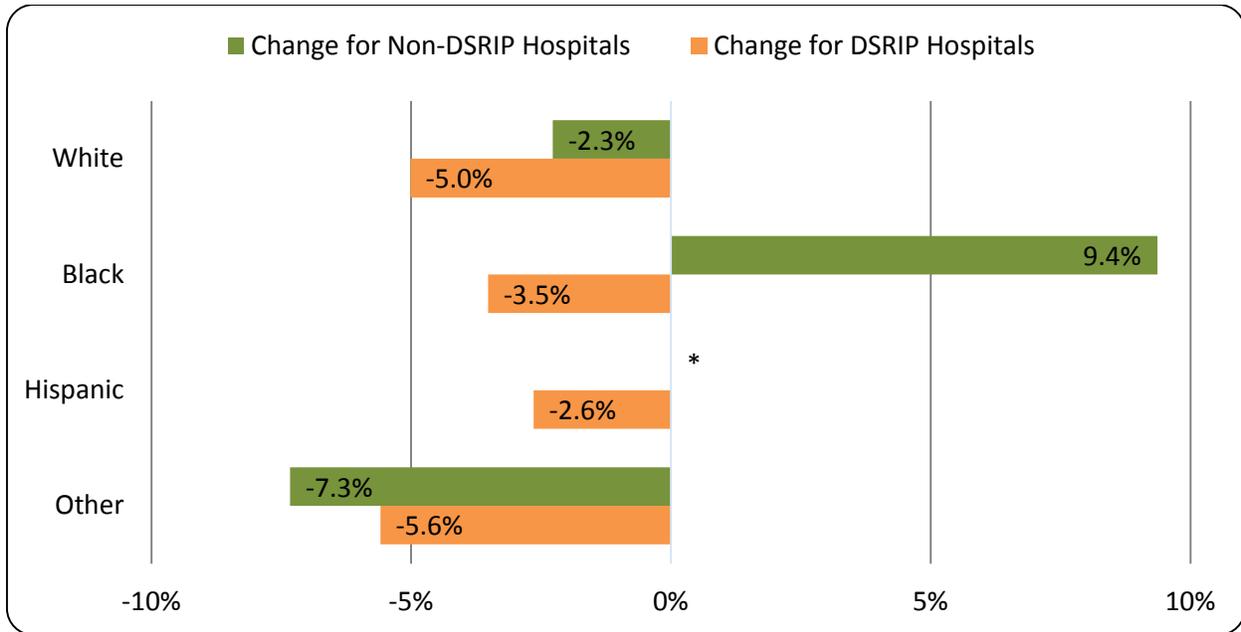
		Preventable IP Hospitalizations					
		White	Black	Hispanic	Other	Male	Female
DSRIP	2011-2012	\$826,849	\$1,499,229	\$676,881	\$1,173,853	\$1,126,216	\$996,415
	2013	\$774,424	\$1,375,578	\$626,753	\$1,050,188	\$1,048,611	\$907,258
No DSRIP	2011-2012	\$678,509	\$1,022,556	\$354,997	\$588,347	\$647,368	722,334
	2013	\$794,233	\$871,059	\$321,623	\$935,042	\$1,122,353	\$603,350
		Avoidable ED Visits					
DSRIP	2011-2012	\$706,793	\$1,027,315	\$777,437	\$441,364	\$621,686	\$899,734
	2013	\$770,607	\$1,139,327	\$860,171	\$482,219	\$692,130	\$980,092
No DSRIP	2011-2012	\$715,922	\$1,231,877	\$812,742	\$323,128	\$596,991	\$780,038
	2013	\$657,273	\$1,353,459	\$714,455	\$362,626	\$566,390	\$812,007

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department.

Each estimate represents a weighted average of zip code-level rates of avoidable IP costs per 10,000 Medicaid beneficiary-years for the population ages 18+ or avoidable ED Costs per 10,000 Medicaid beneficiary years for the population of all ages. The DSRIP category represents zip codes with at least one hospital participating in the DSRIP program

Figure 3.27: Change in Heart Failure Readmission Rates by Race/Ethnicity over 2012-2013



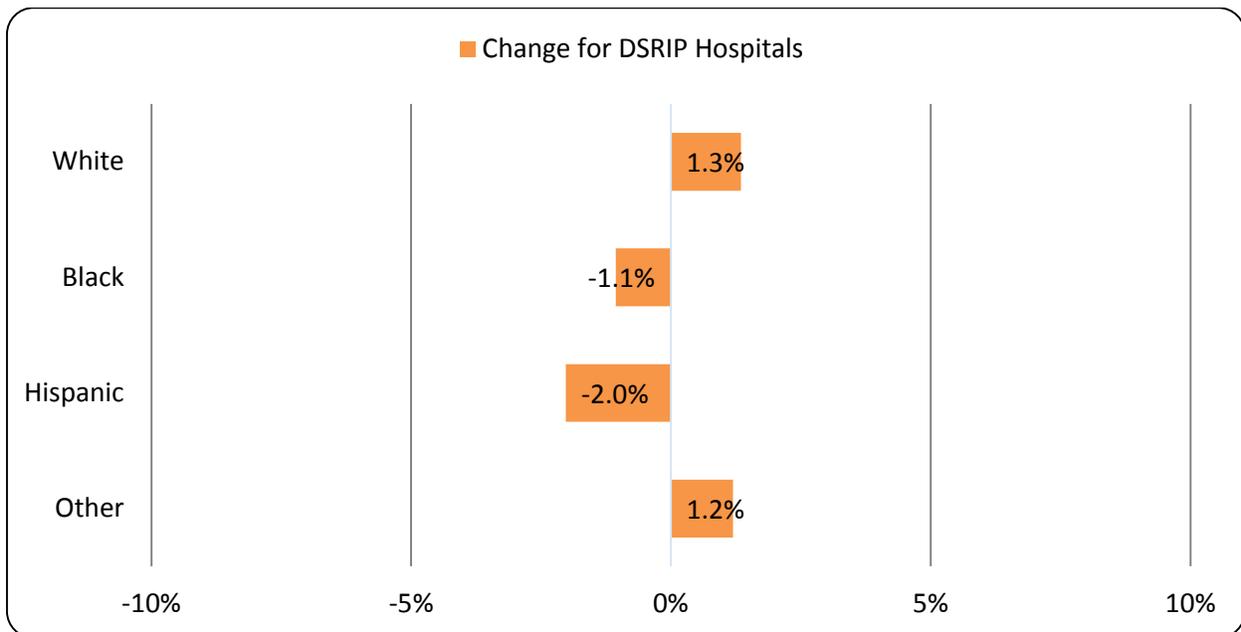
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Units of change are percentage points.

Discharge-level analysis.

*Estimate suppressed due to insufficient sample size.

Figure 3.28: Change in AMI Readmission Rates by Race/Ethnicity over 2012-2013



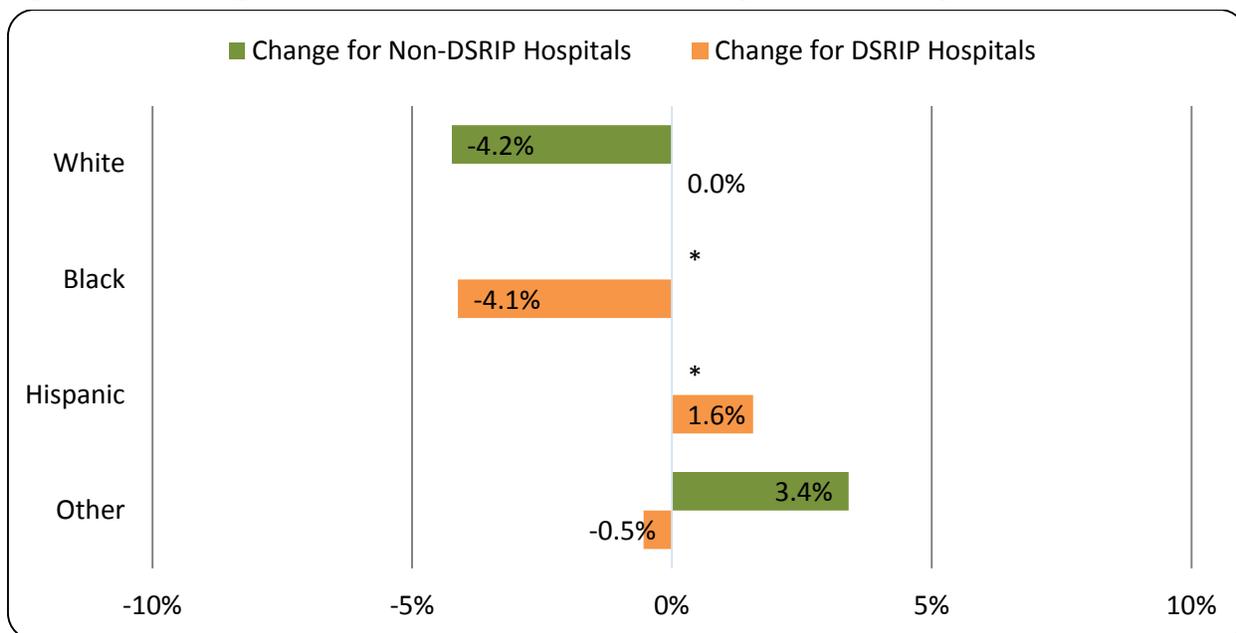
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: Units of change are percentage points.

Discharge-level analysis.

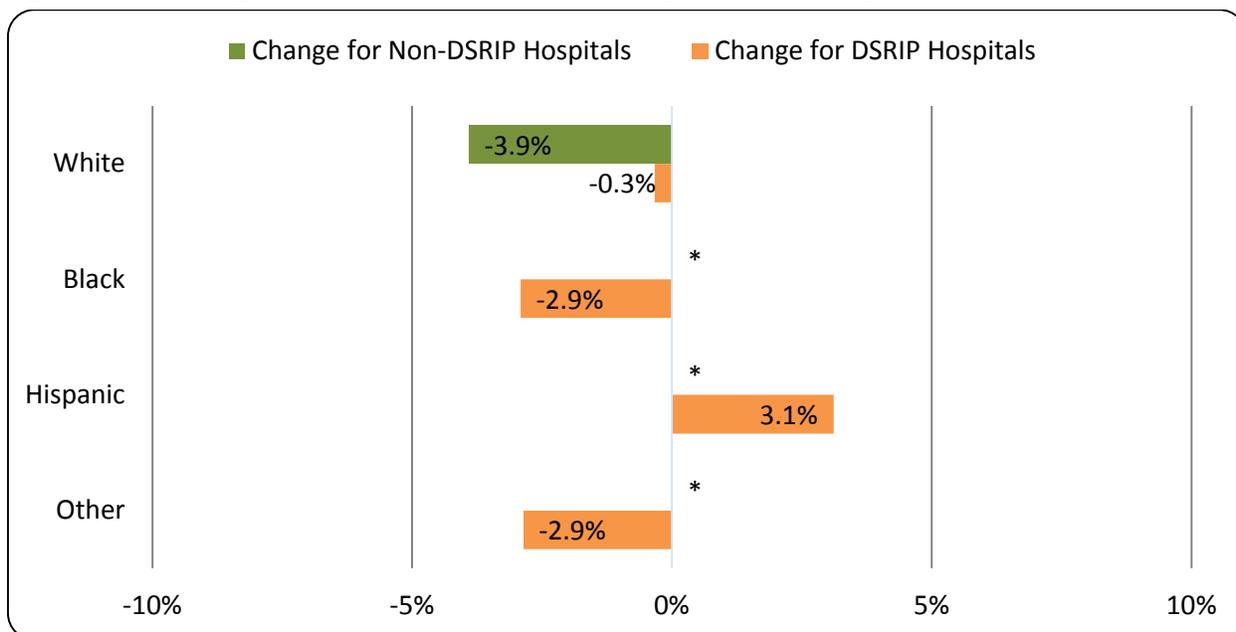
Estimates for non-DSRIP hospitals suppressed due to insufficient sample size.

Figure 3.29: Change in Pneumonia Readmission Rates by Race/Ethnicity over 2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: Units of change are percentage points.
 Discharge-level analysis.
 *Estimate suppressed due to insufficient sample size.

Figure 3.30: Change in COPD Readmission Rates by Race/Ethnicity over 2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are percentage points.
 Discharge-level analysis.
 *Estimate suppressed due to insufficient sample size.

Table 3.13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Combined Impact Estimate	Individual Impact Estimates		
	Minority Disparities	Black Disparities	Hispanic Disparities	Other Disparities
Heart Failure (<i>n</i> =4,896)	-0.031 (0.061)	-0.060 (0.096)	-0.055 (0.146)	0.002 (0.050)
AMI (<i>n</i> =1,816)	-0.010 (0.080)			
Pneumonia (<i>n</i> =4,810)	-0.055 (0.057)	-0.137*** (0.042)	0.118 (0.132)	-0.089 (0.063)
COPD (<i>n</i> =6,475)	0.079** (0.032)			

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: AMI=Acute Myocardial Infarction; COPD=Chronic Obstructive Pulmonary Disease.

Discharge-level regression analysis with hospital fixed effects.

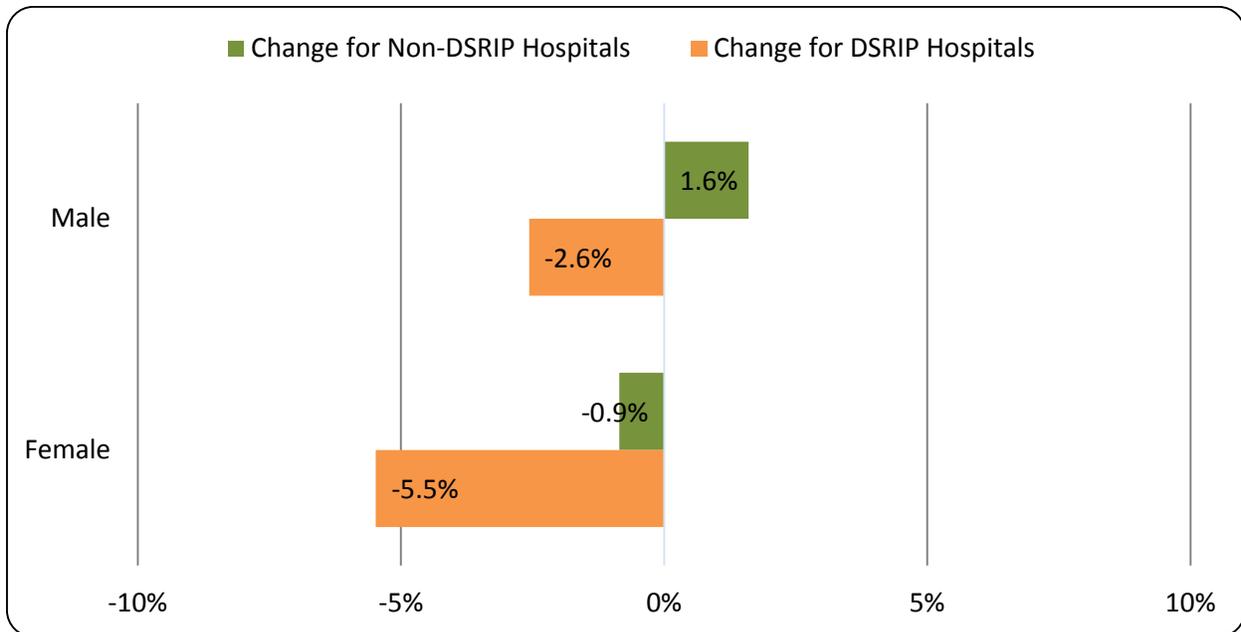
Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

See Appendix G for full model results.

Figure 3.31: Change in Heart Failure Readmission Rates by Gender over 2012-2013

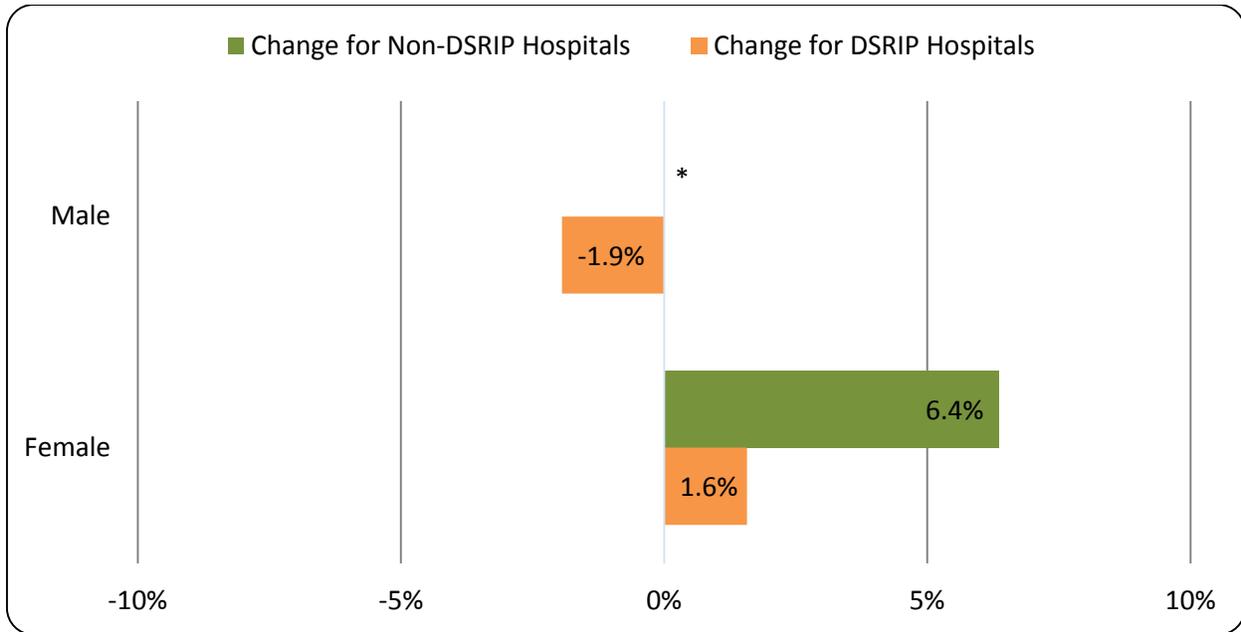


Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Note: Units of change are percentage points.

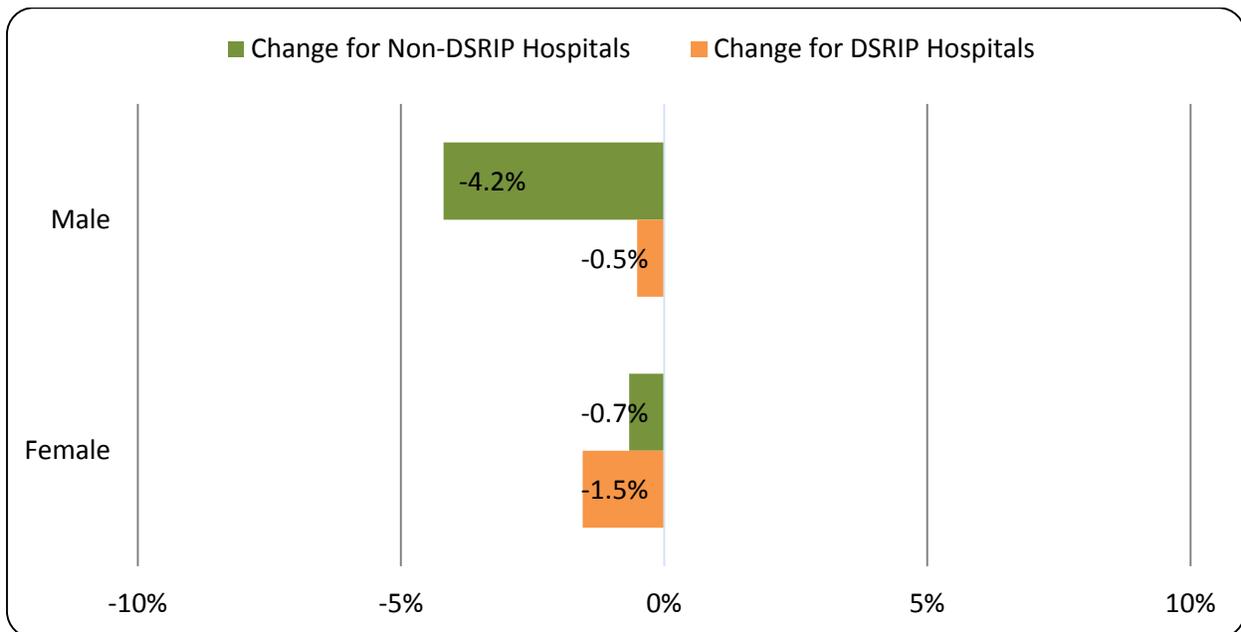
Discharge-level analysis.

Figure 3.32: Change in AMI Readmission Rates by Gender over 2012-2013



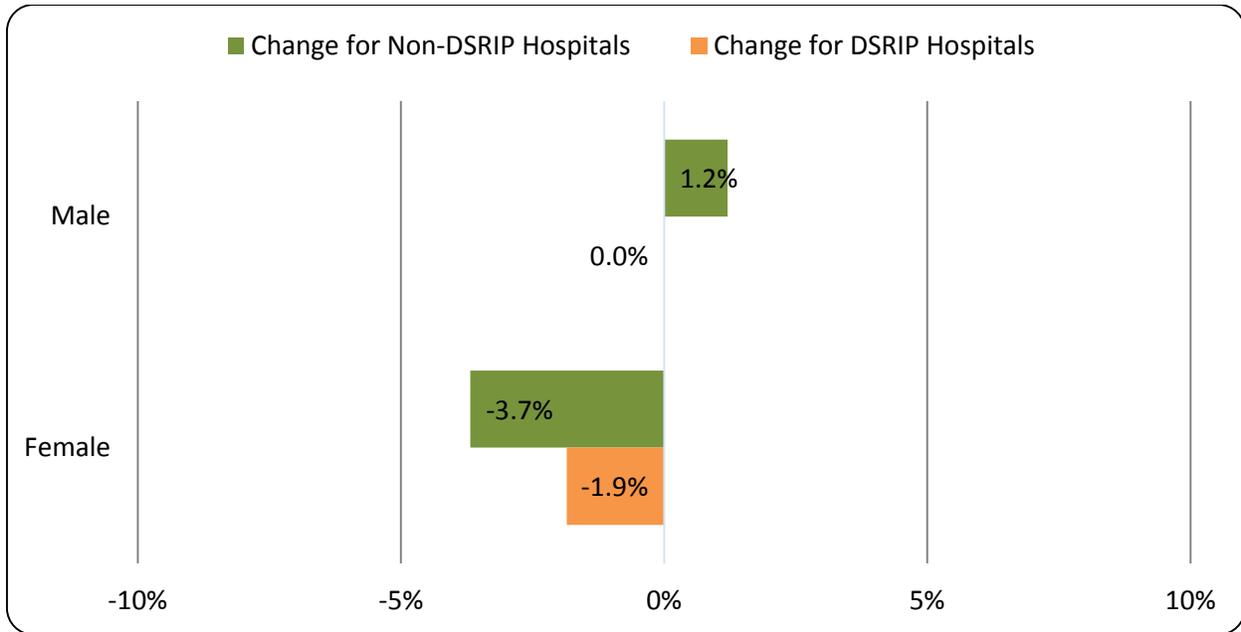
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are percentage points.
 Discharge-level analysis.
 *Estimate suppressed due to insufficient sample size.

Figure 3.33: Change in Pneumonia Readmission Rates by Gender over 2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are percentage points.
 Discharge-level analysis.

Figure 3.34: Change in COPD Readmission Rates by Gender over 2012-2013



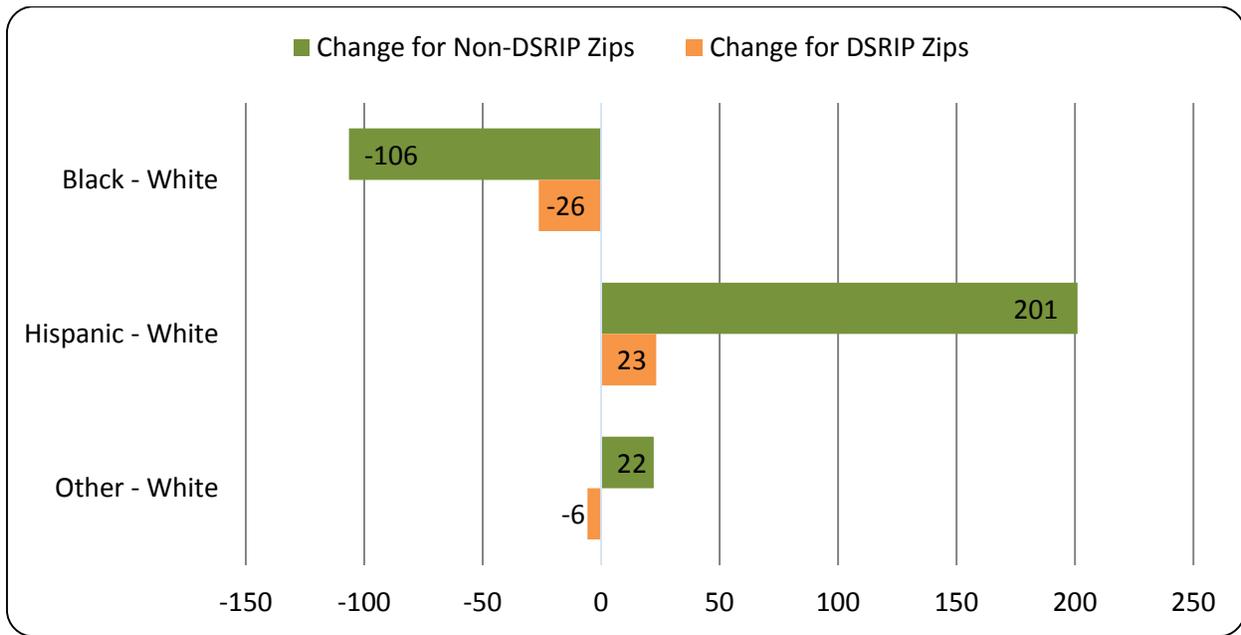
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are percentage points.
 Discharge-level analysis.

Table 3.14: Overall DSRIP Impact on Gender Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease

	Gender Disparities Impact Estimate
Heart Failure (<i>n</i> =4,896)	0.010 (0.048)
AMI (<i>n</i> =1,816)	-0.062 (0.129)
Pneumonia (<i>n</i> =4,810)	-0.054 (0.048)
COPD (<i>n</i> =6,475)	0.022 (0.052)

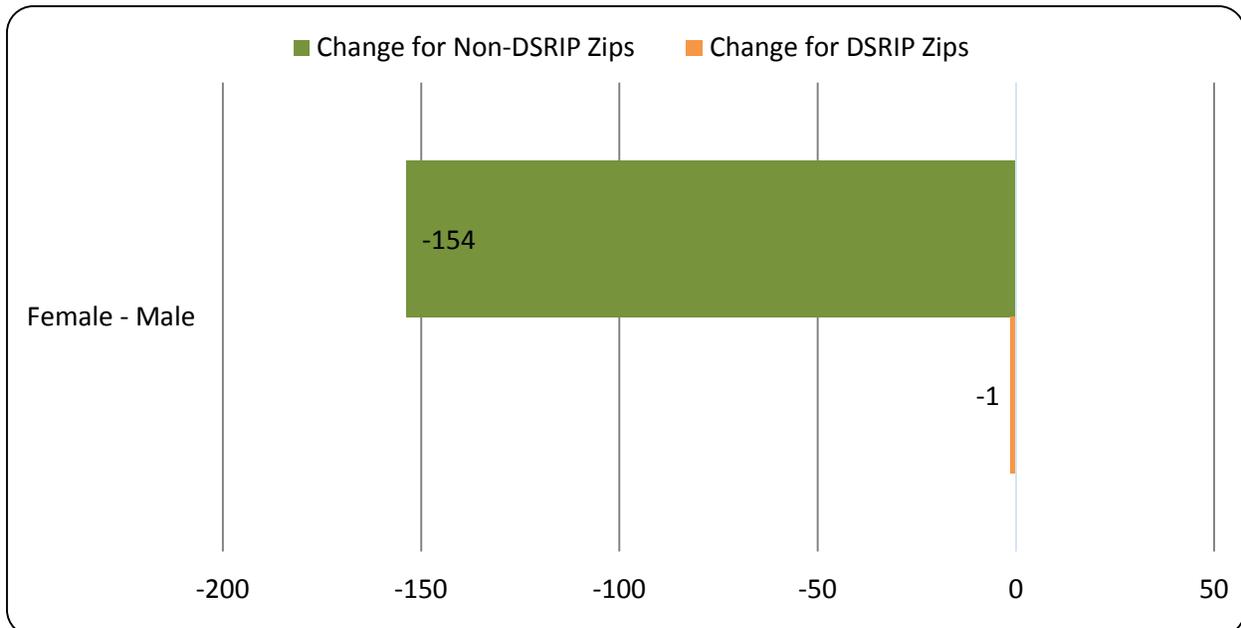
Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Notes: AMI=Acute Myocardial Infarction; COPD=Chronic Obstructive Pulmonary Disease.
 Discharge-level regression analysis with hospital fixed effects.
 Robust standard errors in parentheses.
 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
 Shaded estimates are based on small sample sizes that may affect the reliability of these estimates.
 See Appendix G for full model results.

Figure 3.35: Change in Avoidable Inpatient Hospitalization Rate Differences between Minority Populations and Whites over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are avoidable hospitalizations per 10,000 Medicaid beneficiary-years for the population age 18+. Zip-level analysis.

Figure 3.36: Change in Avoidable Inpatient Hospitalization Rate Differences between Females and Males over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are avoidable hospitalizations per 10,000 Medicaid beneficiary-years for the population age 18+. Zip-level analysis.

Table 3.15: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Preventable Inpatient Hospitalization Rates

	DSRIP Overall Impact Estimate
Black - White (<i>n</i> =1,641)	-1.303 (0.861)
Hispanic - White (<i>n</i> =1,611)	-0.851 (0.631)
Other - White (<i>n</i> =1,704)	-0.901* (0.490)
Female - Male (<i>n</i> =1,764)	0.098 (0.337)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.

Notes: Zip-level regression analysis with zip fixed effects.

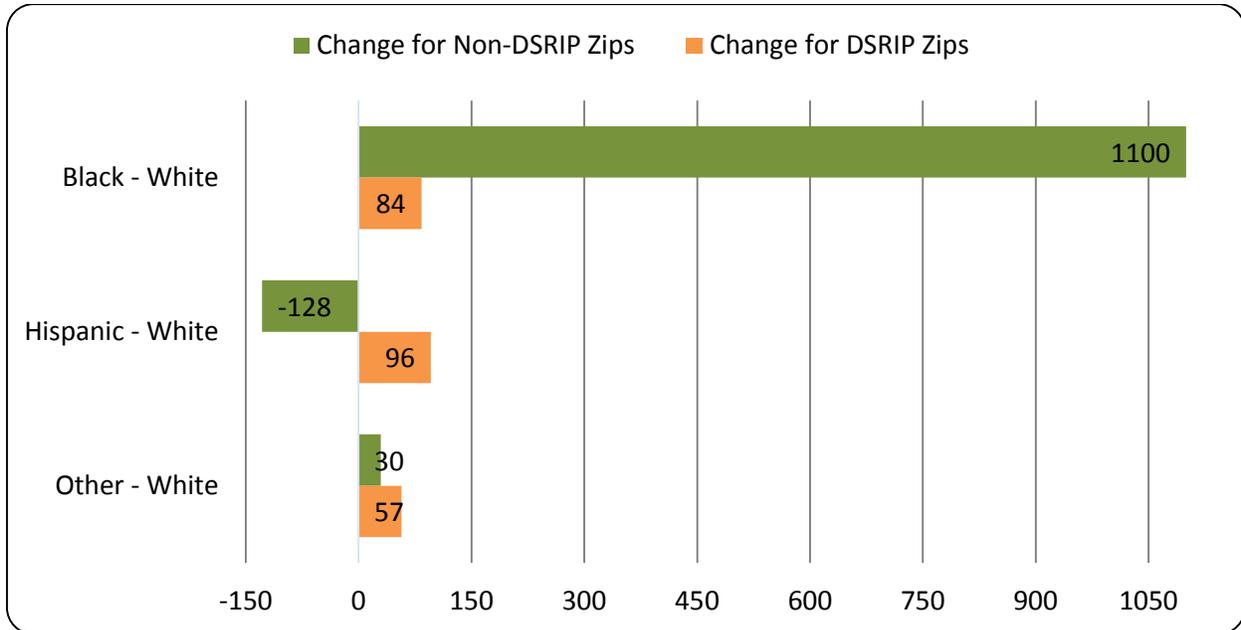
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and up.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

See Appendix G for full model results.

Figure 3.37 Change in Avoidable Emergency Department Visit Rate Differences between Minority Populations and Whites over 2011/2012-2013

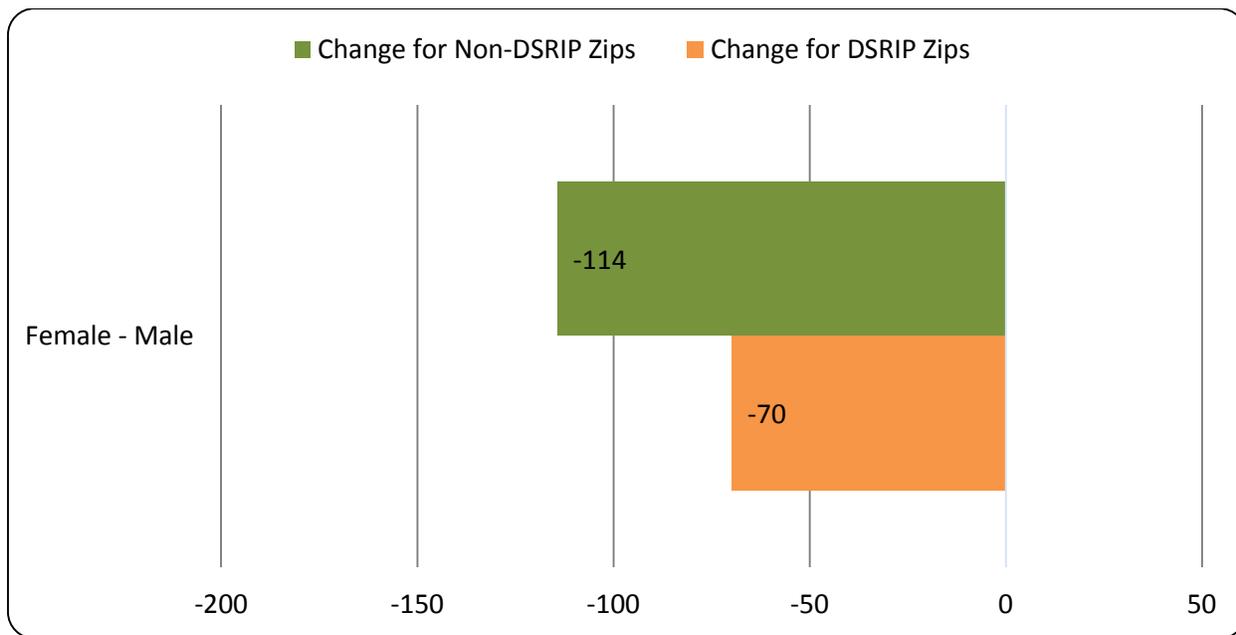


Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Note: Units of change are avoidable ED visits per 10,000 Medicaid beneficiary-years.

Zip-level analysis.

Figure 3.38: Change in Emergency Department Visit Rate Differences between Females and Males over 2011/2012-2013



Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
 Note: Units of change are avoidable ED visits per 10,000 Medicaid beneficiary-years.
 Zip-level analysis.

Table 3.16: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Avoidable Emergency Department Visit Rates

	DSRIP Overall Impact Estimate
Black - White (<i>n</i> =1,695)	-0.865 (1.987)
Hispanic - White (<i>n</i> =1,695)	1.109 (1.502)
Other - White (<i>n</i> =1,725)	1.498 (1.386)
Female - Male (<i>n</i> =1,773)	0.348 (0.865)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data, Analysis by Rutgers Center for State Health Policy.
 Notes: Zip-level regression analysis with zip fixed effects.
 Rates are per 10,000 Medicaid beneficiary-years.
 Robust standard errors in parentheses.
 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
 See Appendix G for full model results.

Table 3.17: All-Payer and Medicaid Rates of Avoidable Inpatient Hospitalizations by Hospital Participation in the DSRIP Program

	All Payers		Medicaid	
	2011-2012	2013	2011-2012	2013
No DSRIP Hospitals	147	141	282	295
DSRIP Hospitals	169	160	276	240
Low Exposure to DSRIP	143	140	297	280
High Exposure to DSRIP	171	161	275	238
NJ Overall	169	160	276	240

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data and Uniform Billing Hospital Discharge Data; Analysis by Rutgers Center for State Health Policy.

Notes: Each estimate represents a weighted average of zip code-level rates of avoidable hospitalizations. All-payer rates are per 10,000 population age 18 and above. Medicaid rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and above. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program. Rates are also reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

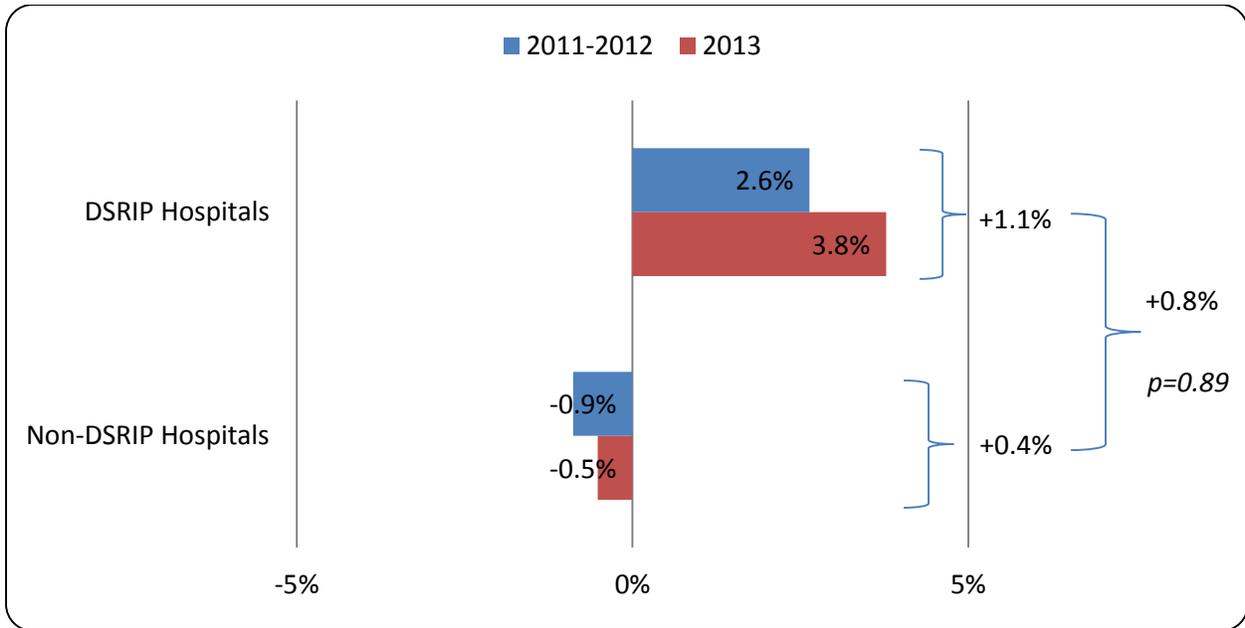
Table 3.18: All-Payer and Medicaid Rates of Avoidable Emergency Department Visits by Hospital Participation in the DSRIP Program

	All Payers		Medicaid	
	2011-2012	2013	2011-2012	2013
No DSRIP Hospitals	1,056	1,062	3,103	3,152
DSRIP Hospitals	1,535	1,565	3,151	3,149
Low Exposure to DSRIP	1,069	1,062	3,072	3,050
High Exposure to DSRIP	1,561	1,594	3,153	3,153
NJ Overall	1,529	1,559	3,150	3,149

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data and Uniform Billing Hospital Discharge Data; Analysis by Rutgers Center for State Health Policy.

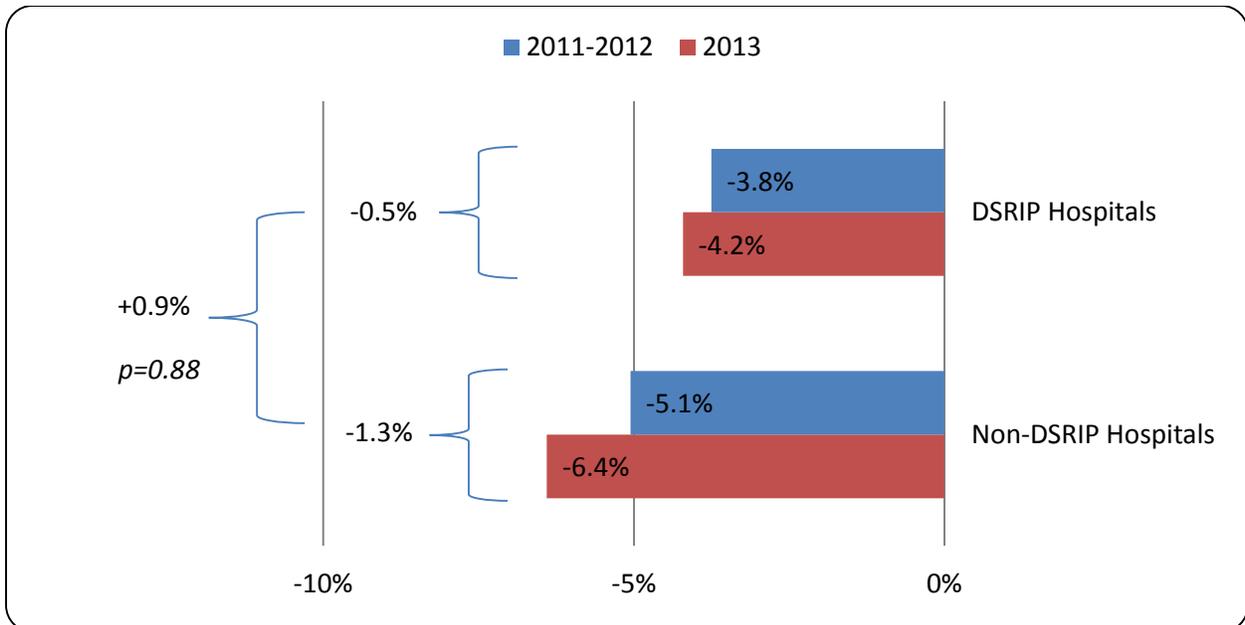
Notes: Each estimate represents a weighted average of zip code-level rates of avoidable ED visits. All-payer rates are per 10,000 population of all ages. Medicaid rates are per 10,000 Medicaid beneficiary-years for beneficiaries of all ages. The 'DSRIP Hospitals' category represents those zip codes that have at least one hospital participating in the DSRIP program. Rates are also reported separately for zip code areas with high and low exposure to the DSRIP program (see Methods).

Figure 3.39: Hospitals' Total Margin by DSRIP Participation



Source: CMS Hospital Cost Reports; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Hospital-level analysis.

Figure 3.40: Hospitals' Operating Margin by DSRIP Participation



Source: CMS Hospital Cost Reports; Analysis by Rutgers Center for State Health Policy.
Notes: Units of change are percentage points.
Hospital-level analysis.

Table D summarizes the direction and statistical significance of computed DSRIP effects based on all of the metrics analyzed in this chapter. This representation of results organized by each hypothesis, helps determine the presence or absence of evidence in support of each hypothesis for the first DSRIP program year.

Hypothesis 1: DSRIP hospital projects improve related care and outcomes.

- There were statistically significant improvements reflected in decreasing rates of avoidable asthma and diabetes hospitalizations attributable to the respective disease management programs, but also a worsening in other areas reflected in increasing rates of emergency department visits for asthma among adults. Quality indicators for other chronic diseases showed no significant changes attributable to DSRIP activities.

Hypothesis 2: The DSRIP program improves the quality of ambulatory care, both recommended and preventive, with positive effects on population health.

- As a geographic area's exposure to DSRIP-participating hospitals increased, rates of avoidable inpatient hospitalizations improved (decreased in magnitude) from baseline to the first DSRIP program year, and this change was statistically significant. At the same time, there was a significant worsening (i.e., an increase) of costs associated with avoidable emergency department (ED) visits, although the corresponding negative impact on avoidable ED visits (reflected in an increase in rates) was not statistically significant. Results for readmission rates and inpatient mental health utilization were mixed and none were statistically significant.

Hypothesis 3: The DSRIP program will reduce racial/ethnic and gender disparities in avoidable hospital admissions, treat-and-release ED visits, and hospital readmissions.

- Changes in racial/ethnic disparities in 30-day readmissions or avoidable hospital use that could be attributed to DSRIP generally showed a reduction in disparities, but most of these improvements were not statistically significant. There was a statistically significant ($p < 0.05$) worsening of disparities in readmissions for COPD for minority populations (as a group) compared to whites that could be attributable to DSRIP activities. There were no significant changes in gender disparities for any of the quality metrics examined.

Hypothesis 4: Hospitals receiving incentive payments do not experience adverse financial impacts.

- There was no evidence of an adverse impact of DSRIP activities on hospitals' total or operating margins through the first program year.

Table D: Summary of Results by Hypothesis

Hypothesis 1	
Metric	+/-
FU Hospitalization for MI – 7 days	-
FU Hospitalization for MI – 30 days	-
Initiation AOD	+
Age 13-17	+
Age 18+	+
Engagement AOD	+
Age 13-17	-
Age 18+	+
ED Asthma (0-17)	-
ED Asthma (18+)	-
Asthma Hospitalizations	+
Diabetes Hospitalizations	+
HF Readmissions	+
AMI Readmissions	-
PN Readmissions	-
Child Access to PCP	+

Hypothesis 2 ⁽¹⁾	
Metric	+/-
HF Readmissions	+
AMI Readmissions	-
PN Readmissions	-
COPD Readmissions	-
MH IP Utilization	+
Avoidable IP	+
Avoidable ED	-
Avoidable IP \$	-
Avoidable ED \$	-

Hypothesis 3		
Metric	Race/Eth.	Gender
	+/-	+/-
HF Readmissions	+	-
AMI Readmissions	+	+
PN Readmissions	+	+
COPD Readmissions	-	-
Avoidable IP	+ ⁽²⁾	-
Avoidable ED	+/- ⁽³⁾	-

Hypothesis 4	
Metric	+/-
Financial Margins	+

Notes: “+” means direction of the estimated impact indicates either no effect or an improvement; “-” means direction of the estimated impact indicates a worsening; p<0.1; p<0.05

¹ Metrics pertaining to preventive care are reported in Chapter 4.

² p<0.1 for change in Other-White rate difference.

³ Impact estimates indicate improvement in Black-White rate difference, but worsening of Hispanic-White and Other-White rate differences.

Conclusions

Our analysis of quality metrics related to patient care, health outcomes, costs, and hospital finances neither fully supports nor refutes any of our hypotheses regarding the success of the DSRIP program in achieving its stated goals. It is important to remember the program effects reported in this chapter are computed based on only the first year when none of the DSRIP activities had fully initiated and the hospitals were still in their application phase. As a result, these effectively reflect effects on outcomes as a result of potential DSRIP-preparatory activities by hospitals. As we incorporate data pertaining to later demonstration years when hospitals fully implement their chronic disease management projects, these same statistical techniques applied on additional years of data will allow measurement of full DSRIP program effect. As of now, the only patterns evident through the first program year are improvements in rates of avoidable inpatient hospitalizations (overall, and for asthma and diabetes short-term complications), and indication of increasing ED use and associated costs.

Our assessment is limited to examining DSRIP impact for the Medicaid population whose utilization is captured in the Medicaid claims and managed care encounter data. We do not include charity care patients, who are part of the DSRIP program low-income population and are included in the attributed population algorithm used for calculating pay-for-performance metrics. As we add later years of data to our evaluation, more of this low-income population will be captured in Medicaid claims and encounter data as they become newly eligible for Medicaid subsequent to the 2014 expansion. In the summative evaluation plan that is based on data through 2017, we will control for this change in the composition of the Medicaid beneficiary population compared to the baseline period.

We utilized CMS cost reports for the years 2011–2013 for examining hospital financial performance related to hypothesis 4. Since the pay for performance/reporting had not started in 2013, we could not yet assess whether hospital financial performance varied by performance in DSRIP program. The financial data are for universe of NJ hospitals (DSRIP-participating and non-participating) in the baseline and post-DSRIP periods. So the estimated effects reflect the impact of the first year of DSRIP program on hospital financial performance.

Limitations

The Medicaid data available to us contained beneficiaries' zip code of residence as of February 2015. We assumed this was the zip code of residence at the time of utilization in 2011–2013 as a criterion for restricting our cohorts to NJ residents for population-based metrics. Since we do not expect relocation across zip codes by Medicaid beneficiaries to be associated with hospitals' anticipated participation in DSRIP in 2011–2013, this potential misclassification creates no bias.

In future years of claims data, we will have information on beneficiaries' zip code of residence at more regular intervals for accurate assignment across time.

As described in detail in Appendix F, we use the ACS zip code tabulation areas (ZCTAs) as a source of NJ zip codes having non-zero population; however, this creates a problem when smaller zip codes are subsumed within the larger ZCTA and are not reported. As a result, for our analysis we are not able to include approximately 9000 Medicaid beneficiaries in these smaller zip codes amounting to 0.6% of the total number of Medicaid beneficiaries. We do not believe that this biases our findings since this exclusion is independent of the effects of the DSRIP program. For our summative evaluation, we will reconcile zip code changes over time, so we continue to capture and accurately characterize the NJ Medicaid population in our analyses.

The Medicaid claims and encounter data available to us for this assessment also present specific limitations related to the dual eligible population. Duals in managed care plans may not always have all of their utilization captured in the Medicaid claims data. Sometimes a claim related to specific utilization may not be generated depending on individual MCO policies and operations. This may underestimate utilization and also inaccurately measure health status and comorbidities when these measures are derived from claims (e.g., as is done for the CDPS and hospital readmission risk factors). We believe that the effect of these factors on our findings should be minimal. First, the dual eligible population comprises only 20% of the overall Medicaid population (KFF 2015) and this mismeasurement is limited to services that are not paid for by Medicaid MCOs. In addition, the last expansion in the managed care dual population occurred in NJ in 2011 and 2012 (relating to acute care services), prior to the implementation period of our evaluation. As a result our pre-post analysis should mitigate these effects to a large extent. Finally, our summative evaluation report will explore ways to account for this by comparing hospital utilization by dual-eligibles in claims and all-payer data to assess the magnitude of under-reporting.

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Appendix A: Description of Measures

Ambulatory Care Sensitive (ACS) Inpatient Hospitalizations and Avoidable/Preventable Emergency Department Visits: We calculate rates of ACS inpatient (IP) hospitalizations and avoidable treat-and-release ED visits that may occur due to inadequate ambulatory/primary care within communities. Avoidable hospitalizations have been widely used in previous research to measure access to primary care, and disparities in health outcomes (Basu, Friedman, and Burstin 2004; Billings et al. 1993; Bindman et al. 1995; Howard et al. 2007). The federal Agency for Healthcare Research and Quality (AHRQ) provides validated programming algorithms to calculate rates of avoidable ACS hospitalizations which are used in this analysis. These are known as the Prevention Quality Indicators (PQI) for adults (ages 18 and above) and Pediatric Quality Indicators for children (ages 6-17). Appendix B gives a list of ACS conditions that constitute a composite index that measures the overall rate of avoidable IP hospitalizations per unit of population. We also report two of the individual PQI rates that are specific to two of the chronic disease focus areas of the DSRIP program: PQI #01 Diabetes short-term complications admission rate and PQI #15 Adult asthma admissions rate. These two PQI component metrics are also part of the Medicaid Adult Core Set of Health Care Quality Measures.

We calculate avoidable treat-and-release ED visits based on the methodology provided by the New York University, Center for Health and Public Service Research (Billings, Parikh, and Mijanovich 2000), which are part of AHRQ's Safety Net Monitoring Toolkit. These comprise three categories of avoidable ED visits that could have been treated in an outpatient primary care setting or could have been prevented with timely access to primary care. Detailed definitions of these classifications are provided with examples in Appendix C.

Readmissions: Because hospital readmissions can result from poor quality of care or inadequate transitional care, 30-day readmissions metrics are used to broadly measure the quality of care delivered by hospitals (Benbassat and Taragin 2000; Jencks, Williams, and Coleman 2009). Such 'potentially preventable' readmissions are defined as readmission for any cause within 30 days of the discharge date for the index hospitalization, excluding a specified set of planned readmissions. While readmissions rates have been most heavily utilized to assess quality for the Medicare population, calculating these measures among the Medicaid population has received growing attention (Trudnak et al. 2014). The readmissions metrics we calculate (heart failure, pneumonia, acute myocardial infarction, and chronic obstructive pulmonary disease) are endorsed by the National Quality Forum (NQF) and are adapted from the federal Centers for Medicare and Medicaid Services methodology available at QualityNet (2015).

ED Visits for Asthma: Visits to the ED for asthma can result from inefficient or improper symptom management. This metric assesses the percent of patients who had a visit to an Emergency Department for asthma. It is based off a quality metric developed by the Health Resources and Services Administration’s Asthma Collaborative which was designed to help providers improve the care they provide to people with asthma and is part of an effort to reduce disparities in the treatment of chronic diseases. In our calculation of this metric we look at whether individuals had any visit in the year (the HRSA metric looks at 6 months) and we do not include visits to urgent care offices since these cannot be identified in claims data. We use the National Committee of Quality Assurance’s 2014 value sets to define ED visits and to define asthma diagnoses as done for the ED discharge component of the NCQA metric “Relative Resource Use for People with Asthma” (NCQA 2014).

Mental Health Utilization - Inpatient: This measure of inpatient utilization assesses the extent to which individuals receive inpatient hospital treatment for a mental health condition. Like general measures of hospital utilization, this measure of service use gathers information about the provision of care to individuals and how organizations managing that care use and allocate resources. Use of inpatient services is affected by many member characteristics such as age, sex, health, and socioeconomic status. We followed the National Committee of Quality Assurance’s specifications for the calculation of this metric (NCQA 2014).

Follow-up after Hospitalization for Mental Illness: Following a hospitalization for mental illness, it is recommended that patients have an outpatient visit with a mental health practitioner to ensure appropriate and regular follow-up therapy and medication monitoring (AHRQ 2015b). This measure is used to assess the percentage of discharges for members hospitalized for the treatment of selected mental health disorders that were followed by a qualifying visit with a mental health practitioner within 7 and 30 days. This measure is endorsed by the NQF and is part of the Medicaid Adult Core and Child Core Sets of Health Care Quality Measures. We followed the National Committee of Quality Assurance’s specifications for the calculation of this metric (NCQA 2014).

Initiation and Engagement in Alcohol and Other Drug Treatment: After identification of alcohol or drug (AOD) dependence, initiation and engagement in treatment for the condition is important for reducing illness and disability from substance abuse (AHRQ 2015a). The AOD initiation metric assesses the percentage of individuals ages 13 and older with a new episode of alcohol or other drug dependence who have an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of their diagnosis. The engagement AOD metric taps an intermediate point in care after initiation, but prior to completion of a full course of treatment. It measures the percentage of individuals with an AOD diagnosis who initiated

treatment and also had two or more inpatient admissions, outpatient visits, intensive outpatient encounters, or partial hospitalizations with any AOD diagnosis within 30 days after the date of the initiation encounter. Both of these measures are endorsed by the NQF and are part of the Medicaid Adult Core Set of Health Care Quality Measures. We followed the National Committee of Quality Assurance’s specifications for the calculation of this metric (NCQA 2014).

Table E enumerates the measure stewards, measure collections, and National Quality Forum numbers for all evaluator-calculated metrics used in this report.

Table E: Reference Information for Evaluator-Calculated Metrics

	Evaluation	Metric	Measure Steward;¹ Measure Collection(s)	NQF#² (if available)
1	Behavioral Health	Follow-up after Hospitalization for Mental Illness 7 Days Post Discharge	NCQA; HEDIS; Medicaid Adult Core #13; Medicaid Child Core	0576
2	Behavioral Health	Follow-up after Hospitalization for Mental Illness 30 Days Post Discharge		
3	Chemical Addiction/ Substance Abuse	Initiation of Alcohol and Other Drug Treatment	NCQA; HEDIS; Medicaid Adult Core #10	0004
4	Chemical Addiction/ Substance Abuse	Engagement of Alcohol and Other Drug Treatment		
5	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Heart Failure (HF) Hospitalization	CMS; Joint Commission National Hospital Inpatient Quality Measures	0330
6	DSRIP Overall & Cardiac Care	30-Day All-Cause Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization		0505

¹ CMS = Center for Medicare & Medicaid Services; AHRQ = Agency for Healthcare Research and Quality; NCQA = National Committee for Quality Assurance; HEDIS=Healthcare Effectiveness Data and Information Set; NYU = New York University; HRSA = Health Resources and Services Administration.

² NQF=National Quality Forum (<http://www.qualityforum.org/Home.aspx>).

³ HRSA metric includes visits to urgent care offices which cannot be identified in MC data.

Table D: Reference Information for Evaluator-Calculated Metrics (continued)

	Evaluation	Metric	Measure Steward;¹ Measure Collection(s)	NQF#² (if available)
7	DSRIP Overall & Pneumonia	30-Day All-Cause Readmission Rate Following Pneumonia (PN) Hospitalization	CMS; Joint Commission National Hospital Inpatient Quality Measures	0506
8	DSRIP Overall	30-Day All-Cause Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization		1891
9	Asthma	Emergency Department (ED) Visits for Asthma	HRSA ³	—
10	DSRIP Overall	Mental Health Utilization - Inpatient	NCQA; HEDIS	—
11	Asthma	Younger Adult Asthma Admission Rate (PQI-15)	AHRQ; Prevention Quality Indicators; PQI #15 and #1 also part of Medicaid Adult Core	0283
12	Diabetes	Diabetes Short-Term Complications Admission Rate (PQI-01)		0272
13	DSRIP Overall	Preventable Inpatient Hospitalizations (PQI-90)		
14	DSRIP Overall	Preventable/Avoidable Treat-and- Release ED Visits	NYU	—
15	DSRIP Overall	Hospital Costs Related to Avoidable Inpatient Stays and Treat-and- Release ED Visits	—	—
16	DSRIP Overall	Hospital Total and Operating Margin	—	—

¹ CMS = Center for Medicare & Medicaid Services; AHRQ = Agency for Healthcare Research and Quality; NCQA = National Committee for Quality Assurance; HEDIS=Healthcare Effectiveness Data and Information Set; NYU = New York University; HRSA = Health Resources and Services Administration.

² NQF=National Quality Forum (<http://www.qualityforum.org/Home.aspx>).

³ HRSA metric includes visits to urgent care offices which cannot be identified in Medicaid claims data.

Appendix B: AHRQ Prevention Quality Indicators – Composites and Constituents

Overall Composite (PQI #90)

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #11 Bacterial Pneumonia Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #07 Hypertension Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #08 Congestive Heart Failure (CHF) Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #10 Dehydration Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes

Acute Composite (PQI #91)

PQI #10 Dehydration Admission Rate	PQI #12 Urinary Tract Infection Admission Rate
PQI #11 Bacterial Pneumonia Admission Rate	

Chronic Composite (PQI #92)

PQI #01 Diabetes Short-Term Complications Admission Rate	PQI #13 Angina without Procedure Admission Rate
PQI #03 Diabetes Long-Term Complications Admission Rate	PQI #14 Uncontrolled Diabetes Admission Rate
PQI #05 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	PQI #15 Asthma in Younger Adults Admission Rate
PQI #07 Hypertension Admission Rate	PQI #16 Rate of Lower-Extremity Amputation Among Patients With Diabetes
PQI #08 Congestive Heart Failure (CHF) Admission Rate	

Source: Prevention Quality Indicators Technical Specifications - Version 4.4, March 2012;
http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx.

Appendix C: Classification of Emergency Department Visits

Type Description	Diagnoses
Non-Emergent: The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours.	Headache, Dental disorder, Types of migraine
Emergent, Primary Care Treatable: Conditions for which treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests)	Acute bronchitis, Painful respiration, etc.
Emergent, ED Care Needed, Preventable/Avoidable: Emergency department care was required based on the complaint or procedures performed/resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness	Flare-ups of asthma, diabetes, congestive heart failure, etc.
Emergent, ED Care Needed, Not Preventable/Avoidable: Emergency department care was required and ambulatory care treatment could not have prevented the condition	Trauma, appendicitis, myocardial infarction

The first three categories are considered to be avoidable/preventable.

Type descriptions taken from <http://wagner.nyu.edu/faculty/billings/nyued-background.php>.

Appendix D: Cost Report Data Elements and Calculations

Medicare-certified institutional providers are required to submit an annual cost report. The cost report information includes facility level utilization statistics, costs, charges, Medicare payments, and financial information. CMS maintains the cost report data in the Healthcare Provider Cost Reporting Information System (HCRIS). HCRIS includes subsystems for the Hospital Cost Report (CMS-2552-96 and CMS-2552-10), Skilled Nursing Facility Cost Report (CMS-2540-96), Home Health Agency Cost Report (CMS-1728-94), Renal Facility Cost Report (CMS-265-94), Health Clinic Cost Report (CMS-222-92) and Hospice Cost Report (CMS-1984-99). Detailed information on CMS cost reports and links to download the data by provider type and year are available at: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/CostReports/index.html>.

Hospitals' total margins and operating margins were extracted from CMS Hospital Cost Reports in order to evaluate whether participation in DSRIP has negatively affected hospital finances. Elements from Worksheet G-3: Statement of Revenues and Expenses were used to calculate total margin and operating margin for each general acute care hospital in NJ for years 2011–2013. The following are the CMS Cost Report items we used to produce estimates for hospitals' total and operating margins:

Total Margin			
Form	Worksheet	Item Description(s)	Formula
2552-10	G-3 Statement of Revenues and Expenses	Line 3: Net patient revenues Line 25: Total other income Line 29: Net income (or loss) for the period	Net income (line 29)
			Total revenue (line 3 + line 25)
Operating Margin			
2552-10	G-3 Statement of Revenues and Expenses	Line 3: Net patient revenues Line 4: Total operating expenses	Total operating revenue (line 3) – operating expenses (line 4) Total operating revenue (line 3)

Appendix E: Risk-Adjustment Variables for Readmissions Metrics

For the 30-day readmission metrics, control variables for health status come from a full year of data prior to the index admission date and encompass clinically relevant comorbidities (not complications) that have strong relationships with readmission for the specific condition being analyzed.

Heart Failure Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Pneumonia • Renal Failure • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Other Gastrointestinal Disorders • Acute Coronary Syndrome • Valvular or Rheumatic Heart Disease 	<ul style="list-style-type: none"> • Specified Arrhythmias • Asthma • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Cancer • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • End-Stage Renal Disease or Dialysis • Severe Hematological Disorders • Nephritis • Liver or Biliary Disease • Metastatic Cancer or Acute Leukemia • Stroke • Dementia or Other Specified Brain Disorders • Coronary Atherosclerosis or Angina • Other or Unspecified Heart Disease • Other Psychiatric Disorders • Fibrosis of Lung or Other Chronic Lung Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Depression
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Acute Myocardial Infarction (AMI) Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty 	<ul style="list-style-type: none"> • Vascular or Circulatory Disease • Disorders of Fluid/Electrolyte/Acid-Base • Coronary Atherosclerosis • History of infection • Cerebrovascular Disease
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Acute Myocardial Infarction (AMI) Readmissions (continued)

<ul style="list-style-type: none"> • Diabetes Mellitus (DM) or DM Complications • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Congestive Heart Failure • Valvular or Rheumatic Heart Disease • Chronic obstructive pulmonary disease • End-Stage Renal Disease or Dialysis • Other Urinary Tract Disorders • Specified Arrhythmias • Pneumonia • Renal Failure 	<ul style="list-style-type: none"> • Metastatic Cancer or Acute Leukemia • Cancer • Decubitus Ulcer or Chronic Skin Ulcer • Dementia or Other Specified Brain Disorders • Angina Pectoris/Old Myocardial Infarction • Stroke • Asthma • Acute Coronary Syndrome • Hemiplegia, Paraplegia, Paralysis, Functional Disability • Protein-Calorie Malnutrition; • Anterior Myocardial Infarction • Other Location of Myocardial Infarction
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Pneumonia Readmissions

<ul style="list-style-type: none"> • Age • Sex • History of Coronary Artery Bypass Graft • History of Percutaneous Transluminal Coronary Angioplasty • History of infection • Septicemia/Shock • Metastatic Cancer or Acute Leukemia • Lung, Upper Digestive Tract, and Other Severe Cancers • Other Major Cancers • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemias and Blood Disease • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Other Psychiatric Disorders • Hemiplegia, Paraplegia, Paralysis, Functional Disability 	<ul style="list-style-type: none"> • Protein-Calorie Malnutrition • Cardio-Respiratory Failure or Shock • Congestive Heart Failure • Acute Coronary Syndrome • Coronary Atherosclerosis or Angina • Valvular or Rheumatic Heart Disease • Specified Arrhythmias • Stroke • Vascular or Circulatory Disease • Chronic obstructive pulmonary disease • Fibrosis of Lung or Other Chronic Lung Disorders • Asthma • Pneumonia • Pleural Effusion/Pneumothorax • Other Lung Disorders • End-Stage Renal Disease or Dialysis • Renal Failure • Urinary Tract Infection • Other Urinary Tract Disorders • Decubitus Ulcer or Chronic Skin Ulcer • Vertebral fractures • Other Injuries
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Chronic Obstructive Pulmonary Disease (COPD) Readmissions

<ul style="list-style-type: none"> • Age • Fibrosis of Lung or Other Chronic Lung Disorder • Other Digestive and Urinary Neoplasms • Renal Failure • Decubitus Ulcer or Chronic Skin Ulcer • Cellulitis, Local Skin Infection • Vertebral Fractures • Protein-Calorie Malnutrition • Other Endocrine/Metabolic/Nutritional Disorders • Pancreatic Disease • Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders • Other Gastrointestinal Disorders • Severe Hematological Disorders • Iron Deficiency or Other Unspecified Anemia and Blood Disease • Depression • Anxiety Disorders • Other Psychiatric Disorders • Metastatic Cancer or Acute Leukemia • Cardio-Respiratory Failure or Shock • Lung, Upper Digestive Tract, and Other Severe Cancers 	<ul style="list-style-type: none"> • Polyneuropathy • Congestive Heart Failure • Hypertensive Heart and Renal Disease or Encephalopathy • Specified Arrhythmias • Other or Unspecified Heart Disease • History of Infection • Vascular or Circulatory Disease • Pneumonia • Diabetes Mellitus (DM) or DM Complications • Disorders of Fluid/Electrolyte/Acid-Base • Dementia or Other Specified Brain Disorders • Drug/Alcohol Abuse/Dependence/Psychosis • Major Psychiatric Disorders • Quadripelgia, Paraplegia, Functional Disability • Respirator Dependence/Respiratory Failure • Acute Coronary Syndrome • Chronic Atherosclerosis or Angina • Lymphatic, Head and Neck, Brain, and Other Major Cancers Breast, Colorectal and Other Cancers and Tumors; Other Respiratory and Heart Neoplasms • Stroke • Sleep Apnea • History of Mechanical Ventilation
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Appendix F: Zip Code Identification Methods

All analyses by zip code are based on a 591 NJ zip universe. These 591 zips are an intersection of the zip codes present in our three data sources. They are non-zero population zips identified using the zip code tabulation areas (ZCTAs) in the 2008–2012 ACS data, they occur as zips of residence for Medicaid beneficiaries in the recipient file accompanying the claims data, and they are also zips of residence on Medicaid discharge records in the UB data, which was our source for creating the hospital choice sets and DSRIP exposure variables. Using this intersection of zips helps us discard erroneous zips present in either UB or Medicaid data and was necessary for assuring non-missing exposure variables in zip-level analyses and a consistent geography for all-payer comparisons. Nevertheless, the ZCTA definition in the ACS results is not identical to the postal zip code definition. The implications of this for our analysis are discussed in the limitations section.

Appendix G: Full Model Results

Appendix Table 3.G1: DSRIP Behavioral Health Program’s Impact on Follow-up after Hospitalization for Mental Illness – Full Model Results

VARIABLES	7-Day Follow-up	30-Day Follow-up
DSRIP BH Program	-0.01468 (0.011)	-0.01491 (0.013)
Male	-0.00829 (0.007)	-0.00910 (0.007)
Age ≥ 65	-0.01274 (0.016)	-0.03952** (0.017)
CDPS Risk Category 2	-0.00113 (0.012)	0.00070 (0.015)
CDPS Risk Category 3	-0.00243 (0.013)	0.00738 (0.014)
CDPS Risk Category 4	0.00513 (0.011)	0.01809 (0.016)
CDPS Risk Category 5	-0.01058 (0.014)	-0.01036 (0.017)
Year 2012	-0.00329 (0.005)	-0.00600 (0.008)
Year 2013	-0.00742 (0.007)	-0.01498* (0.008)
Constant	0.16939*** (0.010)	0.28243*** (0.014)
Observations	20,108	20,108
R-squared	0.00055	0.00102
# of Hospital FE	52	52

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: BH=Behavioral Health; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

For CDPS risk categories, higher category numbers indicate higher health risk.

Discharge-level regression analysis with hospital fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G2: DSRIP Chemical Addiction/Substance Abuse Program’s Impact on Initiation and Engagement in Alcohol and Other Drug Treatment – Full Model Results

VARIABLES	Initiation			Engagement		
	Ages 13-17	Ages 18+	Overall	Ages 13-17	Ages 18+	Overall
DSRIP CA/SA Program Impact	0.00011 (0.00048)	0.00009 (0.00014)	0.00013 (0.00014)	-0.00001 (0.00026)	0.00002 (0.00008)	0.00004 (0.00008)
Male	0.03998*** (0.01409)	-0.01104*** (0.00286)	-0.00620** (0.00315)	0.03474*** (0.01143)	-0.02048*** (0.00206)	-0.01414*** (0.00234)
CDPS Risk Category 2	-0.06145*** (0.01741)	0.04261*** (0.00445)	0.03851*** (0.00429)	-0.03006** (0.01415)	-0.00283 (0.00290)	-0.00377 (0.00293)
CDPS Risk Category 3	0.04742*** (0.01781)	0.04780*** (0.00582)	0.04846*** (0.00563)	0.03221** (0.01399)	-0.00734** (0.00359)	-0.00346 (0.00354)
CDPS Risk Category 4	0.08035*** (0.01980)	0.03851*** (0.00551)	0.05156*** (0.00572)	0.06184*** (0.01808)	-0.01432*** (0.00323)	0.00448 (0.00504)
CDPS Risk Category 5	0.10275*** (0.01755)	0.03854*** (0.00671)	0.05649*** (0.00620)	0.04613*** (0.01457)	-0.03350*** (0.00332)	-0.01293*** (0.00420)
Year 2012	0.02120 (0.01311)	0.00023 (0.00372)	0.00468 (0.00353)	0.01197 (0.01000)	-0.00117 (0.00240)	0.00317 (0.00236)
Year 2013	-0.02704* (0.01598)	0.04794*** (0.00469)	0.04449*** (0.00432)	-0.01732 (0.01322)	0.03673*** (0.00321)	0.03571*** (0.00302)
Constant	0.16719*** (0.01568)	0.13989*** (0.00471)	0.13843*** (0.00460)	0.08438*** (0.01317)	0.06588*** (0.00323)	0.06263*** (0.00332)
Observations	5,902	64,721	70,623	5,902	64,721	70,623
R-squared	0.022	0.006	0.005	0.013	0.010	0.006
# of Zip Code FE	466	557	559	466	557	559

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CA/SA=Chemical Addiction/Substance Abuse; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

For CDPS risk categories, higher category numbers indicate higher health risk.

Patient-level regression analysis with zip fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G3: DSRIP Asthma Program’s Impact on Emergency Department Visits for Asthma – Full Model Results

VARIABLES	ED Visit for Asthma	
	Ages 0-17	Ages 18+
DSRIP Asthma Program Impact	0.00002 (0.00001)	0.00003** (0.00001)
Male	0.00873*** (0.00053)	-0.01524*** (0.00082)
CDPS Risk Category 2	0.04334*** (0.00206)	0.02573*** (0.00111)
CDPS Risk Category 3	0.04473*** (0.00248)	0.03676*** (0.00155)
CDPS Risk Category 4	0.03499*** (0.00171)	0.03970*** (0.00166)
CDPS Risk Category 5	0.06857*** (0.00271)	0.03308*** (0.00156)
Year 2012	0.00010 (0.00045)	0.00521*** (0.00049)
Year 2013	-0.00308*** (0.00049)	0.00244*** (0.00044)
Constant	0.01722*** (0.00075)	0.01919*** (0.00053)
Observations	2,186,925	1,983,210
R-squared	0.015	0.010
# of Zip Code FE	577	578

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects. For CDPS risk categories, higher category numbers indicate higher health risk. Person-level regression analysis with zip code fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G4: DSRIP Asthma Program’s Impact on Asthma in Younger Adults Admission Rate – Full Model Results

VARIABLES	Younger Adult Asthma Admission Rate
DSRIP Asthma Program Impact	-0.08326** (0.039)
Average CDPS Risk Score in Zip Code	11.22458 (9.353)
Year 2012	4.39072 (4.779)
Year 2013	3.23118 (4.693)
Constant	4.98199 (10.892)
Observations	1,722
R-squared	0.01915
# of Zip Code FE	575

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.
Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects. Increasing CDPS scores indicate increasing health risk.
Zip-level regression analysis with zip code fixed effects.
Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18-39.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G5: DSRIP Diabetes Program’s Impact on Diabetes Short-term Complications Admission Rate - Full Model Results

VARIABLES	Diabetes Short-term Complications Admission Rate
DSRIP Diabetes Program Impact	-0.04752** (0.019)
Average CDPS Risk Score in Zip Code	5.54470* (3.295)
Year 2012	5.37119** (2.507)
Year 2013	6.57605** (2.684)
Constant	2.00572 (5.972)
Observations	1,731
R-squared	0.00948
# of Zip Code FE	577

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

Increasing CDPS scores indicate increasing health risk.

Zip-level regression analysis with zip code fixed effects.

Rates are per 10,000 Medicaid beneficiary-years for beneficiaries ages 18+.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G6: DSRIP Cardiac Program’s Impact on 30-Day Readmissions for Heart Failure and Acute Myocardial Infarction – Full Model Results

VARIABLES	30-Day HF Readmissions	30-Day AMI Readmissions
DSRIP Cardiac Program Impact	-0.031 (0.024)	0.016 (0.024)
Year 2013	-0.027 (0.018)	-0.003 (0.017)
Male	-0.010 (0.011)	-0.010 (0.020)
Age 65-74	-0.080*** (0.017)	-0.056*** (0.018)
Age 75-84	-0.051*** (0.013)	-0.041** (0.020)
Age 85+	-0.036* (0.020)	-0.056* (0.030)
Constant	0.094** (0.039)	0.039 (0.027)
Observations	4,526	1,685
R-squared	0.079	0.054
# of Hospital FE	55	55

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G7: DSRIP Pneumonia Program’s Impact on 30-Day Readmissions for Pneumonia – Full Model Results

VARIABLES	30-Day Pneumonia Readmissions
DSRIP Pneumonia Program Impact	0.003 (0.013)
Year 2013	-0.010 (0.011)
Male	-0.002 (0.011)
Age 65-74	-0.058*** (0.010)
Age 75-84	-0.062*** (0.012)
Age 85+	-0.073*** (0.017)
Constant	-0.001 (0.013)
Observations	4,362
R-squared	0.107
# of Hospital FE	55

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G8: Overall DSRIP Program Impact on 30-Day Readmissions for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results

VARIABLES	30-Day Readmissions			
	HF	AMI	PN	COPD
DSRIP Overall Program Impact	-0.030 (0.030)	0.005 (0.072)	0.019 (0.037)	0.020 (0.026)
Year 2013	-0.011 (0.027)	-0.001 (0.070)	-0.029 (0.035)	-0.033 (0.025)
Male	-0.009 (0.010)	-0.018 (0.020)	-0.000 (0.011)	
Age 65-74	-0.083*** (0.016)	-0.062*** (0.017)	-0.058*** (0.010)	-0.059*** (0.012)
Age 75-84	-0.054*** (0.012)	-0.046** (0.020)	-0.059*** (0.012)	-0.049*** (0.015)
Age 85+	-0.040** (0.019)	-0.066** (0.030)	-0.066*** (0.016)	-0.063*** (0.015)
Constant	0.073** (0.035)	0.043 (0.026)	-0.005 (0.013)	0.020 (0.018)
Observations	4,896	1,816	4,810	6,475
R-squared	0.082	0.060	0.104	0.078
# of Hospital FE	64	64	65	65

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G9: Overall DSRIP Program Impact on Inpatient Mental Health Utilization- Full Model Results

VARIABLES	Mental Health Utilization - Inpatient
DSRIP Overall Program Impact	-0.00000 (0.00000)
Male	0.00053*** (0.00015)
CDPS Risk Category 2	0.01850*** (0.00070)
CDPS Risk Category 3	0.02126*** (0.00083)
CDPS Risk Category 4	0.02768*** (0.00106)
CDPS Risk Category 5	0.02764*** (0.00089)
Age 65-74	-0.00703*** (0.00041)
Age 75-84	-0.01270*** (0.00054)
Age 85+	-0.01566*** (0.00070)
Year 2012	0.00202*** (0.00012)
Year 2013	0.00208*** (0.00049)
Constant	-0.00004 (0.00029)
Observations	4,199,977
R-squared	0.014
# of Zip FE	591

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects. For CDPS risk categories, higher category numbers indicate higher health risk. Person-level regression analysis with zip fixed effects.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G10: Overall DSRIP Program Impact on Rates of Avoidable Inpatient Hospitalizations and Emergency Department Visits - Full Model Results

VARIABLES	Preventable IP Hospitalizations	Avoidable ED Visits
DSRIP Overall Program Impact	-0.36838** (0.179)	0.97202 (0.615)
Average CDPS Risk Score in Zip Code	83.40510*** (18.038)	215.39122* (112.038)
Year 2012	58.42653*** (12.587)	152.86623*** (50.746)
Year 2013	59.69625*** (21.662)	20.23152 (64.113)
Constant	126.86524*** (32.078)	2,799.75156*** (168.298)
Observations	1,770	1,773
R-squared	0.14258	0.03293
# of Zip Code FE	590	591

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department; CDPS=Chronic Illness and Disability Payment System; FE=Fixed Effects.

Increasing CDPS scores indicate increasing health risk.

Zip-level regression analysis with zip code fixed effects.

Rates are per 10,000 Medicaid beneficiary-years.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G11: Overall DSRIP Impact on Avoidable Inpatient Hospitalization and Emergency Department Visit Costs - Full Model Results

VARIABLES	Preventable IP Hospitalizations	Avoidable ED Visits
DSRIP Overall Program Impact	0.00042 (0.00148)	0.00072** (0.00032)
Zip DSRIP Exposure	0.00391*** (0.00138)	0.00377*** (0.00139)
Average CDPS Risk Score in Zip Code	0.58562*** (0.14906)	-0.23980 (0.25045)
Year 2012	0.42556*** (0.10659)	0.01776 (0.08385)
Year 2013	0.30322* (0.17647)	-0.00794 (0.08967)
Constant	12.41948*** (0.28728)	13.49504*** (0.38479)
Observations	1,770	1,773

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; ED=Emergency Department.

Estimates based on a zip-level generalized linear model with gamma log link.

Costs are per 10,000 Medicaid beneficiary-years.

Standard errors in parentheses adjusted for clustering.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G12: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results for Combined Impact on Minorities

VARIABLES	30-Day Readmissions			
	HF	AMI	PN	COPD
DSRIP Overall Program Impact on Minority Disparities	-0.031 (0.061)	-0.010 (0.080)	-0.055 (0.057)	-0.053 (0.059)
Minority*DSRIP Hospital	0.050 (0.052)	-0.002 (0.085)	0.059 (0.045)	0.079** (0.032)
Minority*Year 2013	0.051 (0.058)	-0.006 (0.074)	0.041 (0.053)	0.038 (0.057)
Minority	-0.033 (0.050)	0.015 (0.080)	-0.023 (0.043)	-0.056* (0.029)
DSRIP Hospital* Year 2013	-0.017 (0.048)	0.013 (0.078)	0.044 (0.030)	0.044 (0.039)
Year 2013	-0.037 (0.045)	0.000 (0.075)	-0.046* (0.027)	-0.048 (0.038)
Male	-0.008 (0.010)	-0.018 (0.020)	-0.001 (0.011)	
Age 65-74	-0.082*** (0.017)	-0.063*** (0.017)	-0.058*** (0.010)	-0.059*** (0.012)
Age 75-84	-0.054*** (0.012)	-0.047** (0.020)	-0.061*** (0.012)	-0.049*** (0.015)
Age 85+	-0.037* (0.019)	-0.067** (0.030)	-0.066*** (0.016)	-0.062*** (0.015)
Constant	0.063* (0.034)	0.036 (0.032)	-0.020 (0.015)	0.008 (0.021)
Observations	4,896	1,816	4,810	6,475
R-squared	0.083	0.060	0.106	0.079
# of Hospital FE	64	64	65	65

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure and Pneumonia - Full Model Results

VARIABLES	30-Day Readmissions	
	HF	PN
DSRIP Overall Program Impact on Black-White Disparities	-0.060 (0.096)	-0.137*** (0.042)
DSRIP Overall Program Impact on Hispanic-White Disparities	-0.055 (0.146)	0.118 (0.132)
DSRIP Overall Program Impact on Other-White Disparities	0.002 (0.050)	-0.089 (0.063)
Black*DSRIP Hospital	0.044 (0.061)	0.168*** (0.030)
Hispanic*DSRIP Hospital	0.088* (0.046)	-0.057 (0.102)
Other*DSRIP Hospital	0.058 (0.077)	0.057 (0.044)
Black*Year 2013	0.087 (0.095)	0.104*** (0.033)
Hispanic*Year 2013	0.081 (0.143)	-0.099 (0.128)
Other*Year 2013	-0.003 (0.037)	0.090 (0.057)
Black	-0.045 (0.058)	-0.133*** (0.024)
Hispanic	-0.069 (0.043)	0.096 (0.099)
Other	-0.011 (0.074)	-0.025 (0.041)
DSRIP Hospital* Year 2013	-0.017 (0.048)	0.045 (0.030)
Year 2013	-0.038 (0.045)	-0.047* (0.027)
Male	-0.009 (0.010)	-0.002 (0.011)
Age 65-74	-0.085*** (0.017)	-0.061*** (0.010)
Age 75-84	-0.059*** (0.012)	-0.065*** (0.012)

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; PN=Pneumonia; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G13: Overall DSRIP Impact on Racial/Ethnic Disparities in 30-Day Readmission Rates for Heart Failure and Pneumonia - Full Model Results (continued)

VARIABLES	30-Day Readmissions	
	HF	PN
Age 85+	-0.042** (0.020)	-0.069*** (0.016)
Constant	0.068* (0.034)	-0.017 (0.015)
Observations	4,896	4,810
R-squared	0.084	0.108
# of Hospital FE	64	65

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; PN=Pneumonia; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G14: Overall DSRIP Impact on Gender Disparities in 30-Day Readmission Rates for Heart Failure, Acute Myocardial Infarction, Pneumonia, and Chronic Obstructive Pulmonary Disease - Full Model Results

VARIABLES	30-Day Readmissions			
	HF	AMI	PN	COPD
DSRIP Overall Program Impact on Gender Disparities	0.010 (0.048)	-0.062 (0.129)	-0.054 (0.048)	0.022 (0.052)
Female*DSRIP Hospital	0.028 (0.031)	-0.088 (0.065)	0.040 (0.042)	-0.022 (0.027)
Female*Year 2013	-0.029 (0.043)	0.107 (0.127)	0.041 (0.045)	-0.037 (0.049)
Female	-0.009 (0.028)	0.077 (0.063)	-0.032 (0.040)	-0.000 (0.023)
DSRIP Hospital* Year 2013	-0.033 (0.043)	0.044 (0.044)	0.050 (0.038)	0.004 (0.053)
Year 2013	0.004 (0.039)	-0.066 (0.041)	-0.052 (0.035)	-0.007 (0.051)
Age 65-74	-0.083*** (0.017)	-0.062*** (0.017)	-0.058*** (0.010)	-0.059*** (0.012)
Age 75-84	-0.054*** (0.012)	-0.047** (0.019)	-0.059*** (0.012)	-0.048*** (0.015)
Age 85+	-0.040** (0.019)	-0.066** (0.029)	-0.067*** (0.016)	-0.059*** (0.015)
Constant	0.059 (0.038)	0.038 (0.024)	-0.007 (0.015)	0.030 (0.019)
Observations	4,896	1,816	4,810	6,475
R-squared	0.082	0.064	0.104	0.080
# of Hospital FE	64	64	65	65

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: HF=Heart Failure; AMI=Acute Myocardial Infarction; PN=Pneumonia; COPD=Chronic Obstructive Pulmonary Disease; FE=Fixed Effects.

Discharge-level regression analysis with hospital fixed effects.

Models adjusted for all condition-specific risk factors listed in Appendix E.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G15: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Preventable Inpatient Hospitalization Rates - Full Model Results

VARIABLES	Preventable IP Hospitalization Rate Differences			
	Black-White	Hispanic-White	Other-White	Female-Male
DSRIP Overall Program Impact on Disparities	-1.30328 (0.861)	-0.85100 (0.631)	-0.90087* (0.490)	0.09804 (0.337)
Average CDPS Risk Score in Zip Code	82.42129 (83.650)	-123.27266** (57.028)	-32.28529 (44.864)	-41.04983 (29.128)
Year 2012	69.46943 (59.302)	-79.03115** (40.214)	-19.70580 (35.312)	-40.56900* (21.523)
Year 2013	163.96152* (99.501)	19.81261 (73.771)	56.02259 (58.752)	-47.61264 (39.310)
Constant	-117.56907 (147.492)	144.08573 (100.343)	112.12346 (82.576)	77.88152 (52.149)
Observations	1,641	1,611	1,704	1,764
R-squared	0.01878	0.01997	0.00395	0.00455
# of Zip Code FE	547	537	568	588

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: IP=Inpatient; FE=Fixed Effects.

Zip-level regression analysis with zip fixed effects.

Rates are per 10,000 Medicaid beneficiary-years for beneficiaries age 18 and up.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 3.G16: Overall DSRIP Impact on Racial/Ethnic and Gender Disparities in Avoidable Emergency Department Visit Rates- Full Model Results

VARIABLES	Avoidable ED Visit Rate Differences			
	Black-White	Hispanic-White	Other-White	Female-Male
DSRIP Overall Program Impact on Disparities	-0.86482 (1.987)	1.10907 (1.502)	1.49758 (1.386)	0.34832 (0.865)
Average CDPS Risk Score in Zip Code	417.93088* (224.216)	-137.32082 (174.093)	-117.25448 (135.205)	121.59599 (96.696)
Year 2012	127.81783 (89.457)	-21.72147 (71.496)	-40.44544 (63.323)	69.30448* (36.455)
Year 2013	306.32694 (199.419)	-45.78176 (150.698)	-126.82717 (139.311)	-47.34176 (91.475)
Constant	-162.52 (320.738)	-133.23 (252.901)	-876.50*** (204.836)	809.82*** (139.831)
Observations	1,695	1,695	1,725	1,773
R-squared	0.01516	0.02434	0.00802	0.02358
# of Zip Code FE	565	565	575	591

Source: Medicaid Fee-for-Service Claims & Managed Care Encounter Data; Analysis by Rutgers Center for State Health Policy.

Notes: ED=Emergency Department; FE=Fixed Effects.

Zip-level regression analysis with zip fixed effects.

Rates are per 10,000 Medicaid beneficiary-years.

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Chapter 4: Analysis of Stage 4 Hospital-level Reported Metrics to Examine Trends in Preventive Care

Introduction

In this chapter, we examine the results from an analysis of the 2013 and 2014 Stage 4 Metrics for all DSRIP participating hospitals in New Jersey. These Stage 4 Metrics are derived from Medicaid Management Information System (MMIS) administrative claims data and include measures such as child and adolescent access to primary care practitioners, hospital admission rates for COPD and heart failure, CD4 T-cell counts for HIV, preventive screenings for cervical cancer and chlamydia, a number of childhood vaccination combinations, and well-child visits for infants. One additional measure for hospital acquired potentially preventable venous thromboembolism is derived from each hospital's medical chart or electronic health record (EHR) and was available only for the year 2014. A general description of each metric is provided in the Findings section below; a detailed description of each metric including exclusions can be found in the *DSRIP Performance Measurement Databook* (Myers and Stauffer LC 2015).

Methods

In this analysis, paired t-tests to assess change over time from 2013 to 2014 were conducted for each of the metrics across all 50 New Jersey hospitals participating in the DSRIP program. Some measures are reported as percentages and others as rates per 1,000. Averages for each metric for both 2013 and 2014 are shown in Table 4.1 at the end of this chapter. Significant changes over time are indicated at the $p < .05$ level. Changes in mean levels from 2013 to 2014 are also marked as to whether the metric improved or worsened, and charts are displayed indicating what percentage of hospitals improved for each metric.

Findings

Children and Adolescents' Access to Primary Care Practitioners

These metrics indicate what percentage of each hospital's eligible attributed children or adolescents visited a primary care practitioner (PCP) during each measurement year (or prior year for the two older age groups) and are reported at four age levels:

- 12 to 24 months, percentage with 1+ visits during measurement year
- 25 months to 6 years, percentage with 1+ visits during measurement year

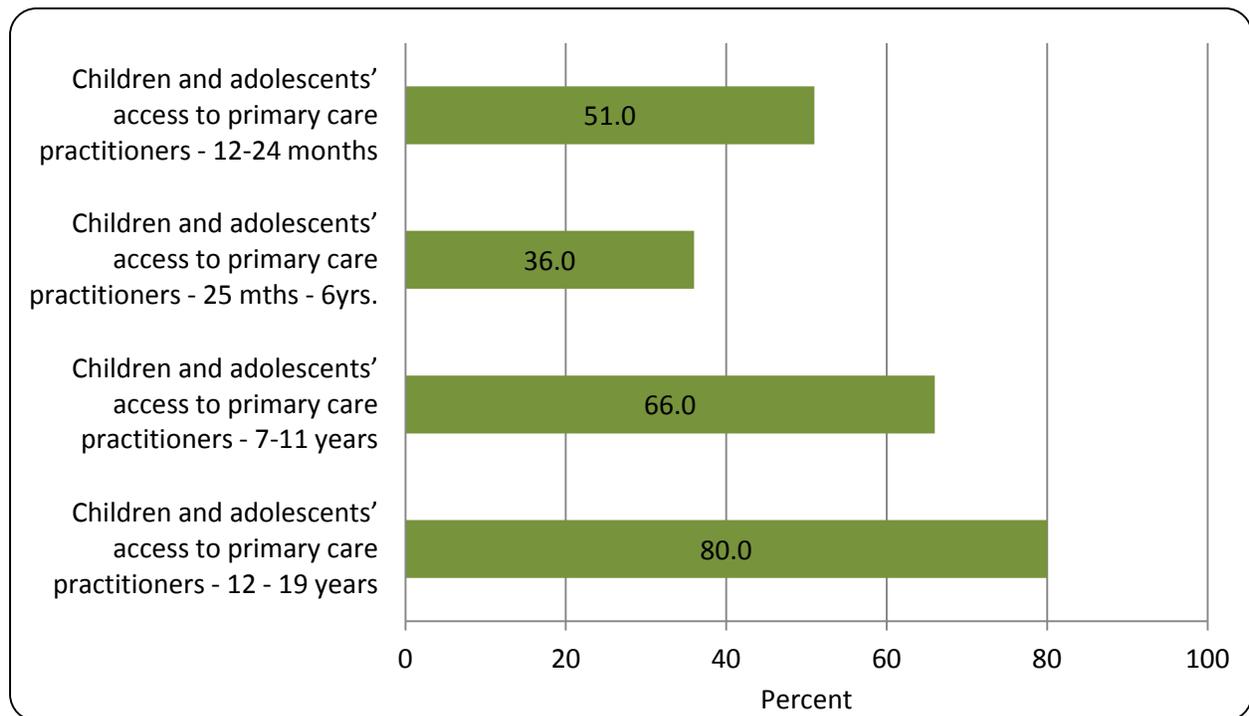
- 7 to 11 years, percentage with 1+ visits during measurement year or year prior
- 12 to 19 years, percentage with 1+ visits during measurement year or year prior

A PCP is defined to include physicians, nurse practitioners, or physician assistants in the following specialties:

- Family practice
- NP Family
- Internal Medicine
- Pediatrics
- NP Pediatric
- NP Community Health
- NP Adult Health

Significant improvements over time were reported for children ages 7 years to 11 years (2013 mean percentage: 93.37%, 2014 mean percentage: 94.45%, $p=.010$) and for adolescents ages 12 years to 19 years (2013 mean percentage: 89.74%, 2014 mean percentage: 91.16%, $p=.000$). Four out of every five hospitals (80%) showed improved PCP access from 2013 to 2014 for adolescents (ages 12 years to 19 years), whereas only 36% of hospitals showed improved PCP access for children ages 25 months to 6 years over the same time period (see Figure 4.1).

Figure 4.1: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 1



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

Hospital Admission Rates

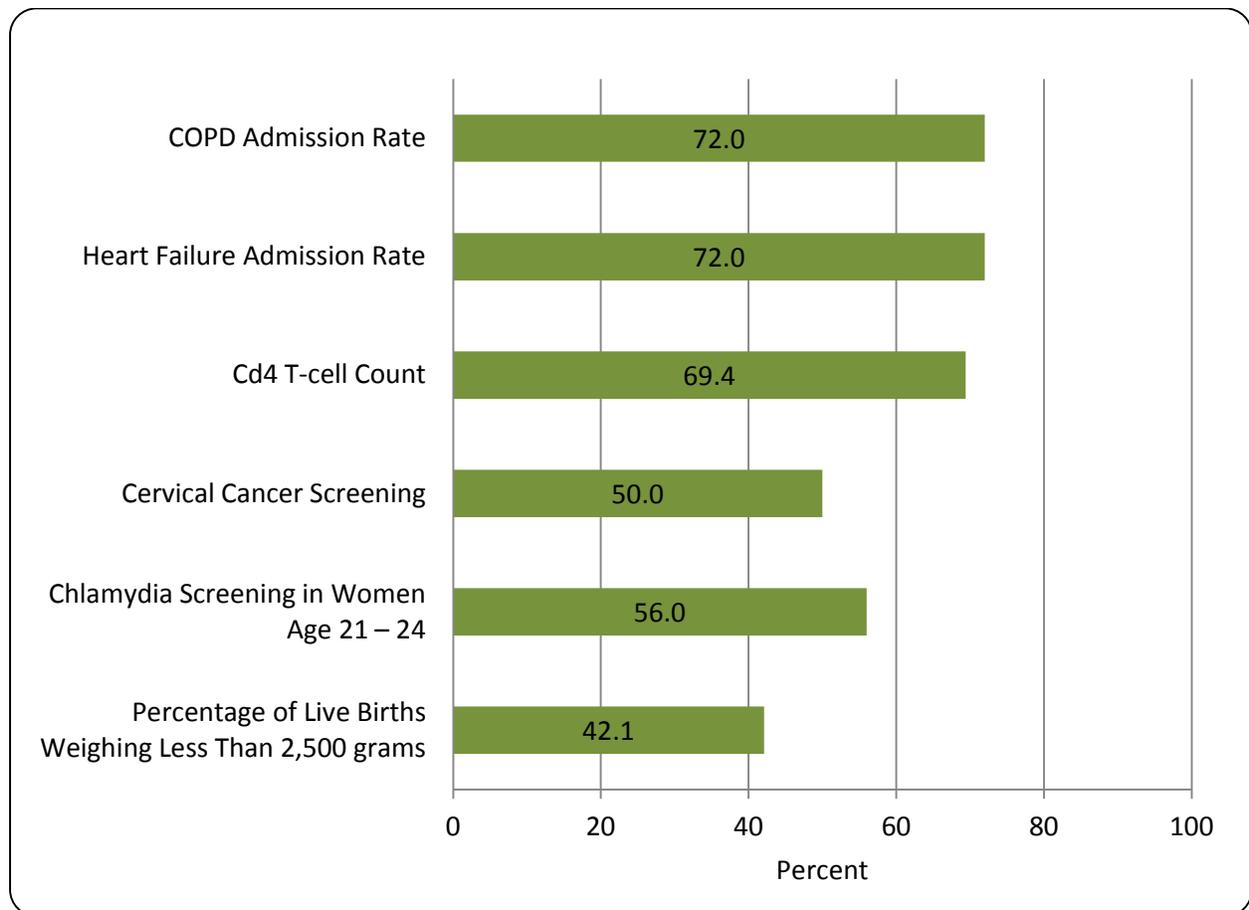
The Stage 4 Metrics included hospital admission rates for the following two conditions in each hospital's attributed patients ages 18 years and older:

- Chronic obstructive pulmonary disease (COPD)
- Heart failure

Both rates are expressed as number of admissions per 1,000 attributable population for each hospital. Certain exclusions such as transfers from other facilities apply.

Hospital admission rates for both conditions significantly improved (decreased in magnitude) from 2013 to 2014. For COPD, the average admission rate across hospitals decreased from 3.10 in 2013 to 2.37 in 2014 ($p=.001$). For heart failure, the admission rate decreased from 3.88 in 2013 to 3.10 in 2014 ($p=.000$). For both conditions, nearly 3 out of 4 hospitals (72% for both) showed improved admission rates (see Figure 4.2, top 2 bars).

Figure 4.2: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 2



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

CD4 T-cell Count for HIV-infected Patients

This metric assesses the percentage of each hospital's attributed patients who are infected with HIV that had two or more CD4 T-cell counts taken during each measurement year, and is calculated for all HIV-infected attributed patients who had at least one primary care visit with a physician or nurse practitioner during the year.

This metric significantly improved from 2013 to 2014. In 2013, 38.1% of HIV-infected patients had 2+ CD4 T-cell counts taken; that percentage improved to 46.9% in 2014 (P=.003). About seven in 10 hospitals (69.4%) showed an improvement in this metric from 2013 to 2014 (also see Figure 4.2, 3rd bar).

Preventive Screening

Preventive screening metrics were assessed for the following two conditions in women:

- Cervical cancer
- Chlamydia

For cervical cancer screening, the metric represents the percentage of women ages 24-64 years who received one or more PAP tests in the measurement year or the year prior, and is assessed as a percentage of all women ages 24-64 in each hospital's attributable population. The chlamydia screening metric represents the percentage of sexually active women ages 16-24 who had one or more chlamydia tests during the measurement year.

Both metrics improved slightly from 2013 to 2014, but the changes were not statistically significant. From 2013 to 2014, the cervical cancer screening percentage improved from 41.95% to 42.06%, and the chlamydia screening improved from 42.36% to 42.46%. Half of the hospitals showed an improvement in cervical cancer screening from 2013 to 2014, while 56% of hospitals showed an improvement in chlamydia screening (also see Figure 4.2, 4th and 5th bars).

Low Birth Weight Infants

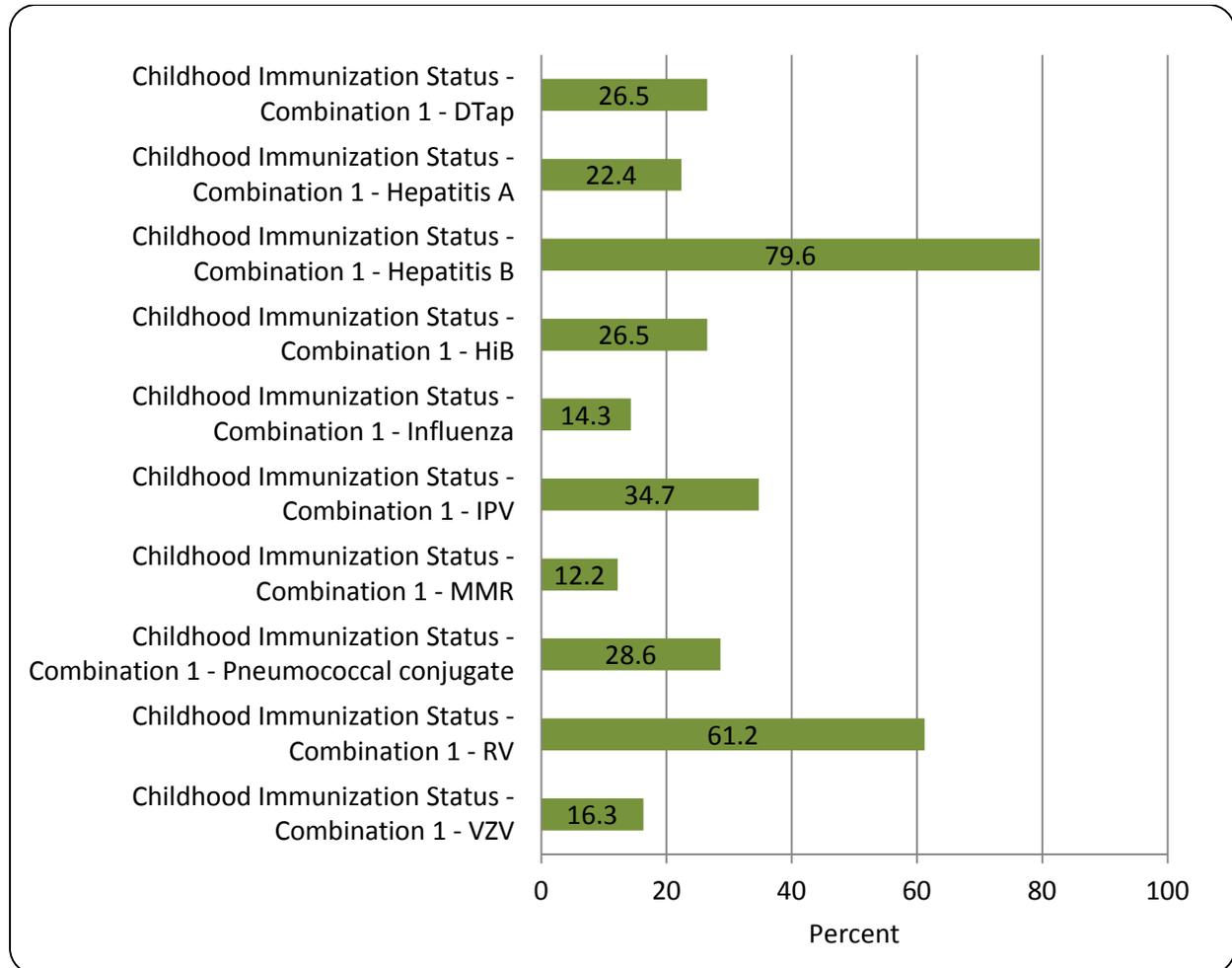
This metric represents the percentage of newborn infants attributed to each hospital who weigh less than 2,500 grams. There was a slight improvement in low birth weight from 2013 to 2014, but the change was not statistically significant. In 2013, 6.68% of newborns weighed less than 2,500 grams, while in 2014, 6.53% of newborns weighed less than 2,500 grams. Just over four in 10 hospitals (42.1%) showed an improvement in this metric from 2013 to 2014 (also see Figure 4.2, last bar).

Childhood Immunization Status

These metrics represent the percentage of two-year-old attributable children for each hospital who received each of the following vaccines:

- four diphtheria, tetanus and acellular pertussis (Dtap)
- three polio (IPV)
- one measles, mumps and rubella (MMR)
- three H influenza type B (HiB)
- three hepatitis B (HepB)
- one chicken pox (VZV)
- four pneumococcal conjugate (PCV)
- one hepatitis A (HepA)
- two or three rotavirus (RV)
- two influenza (flu)

Figure 4.3: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 3

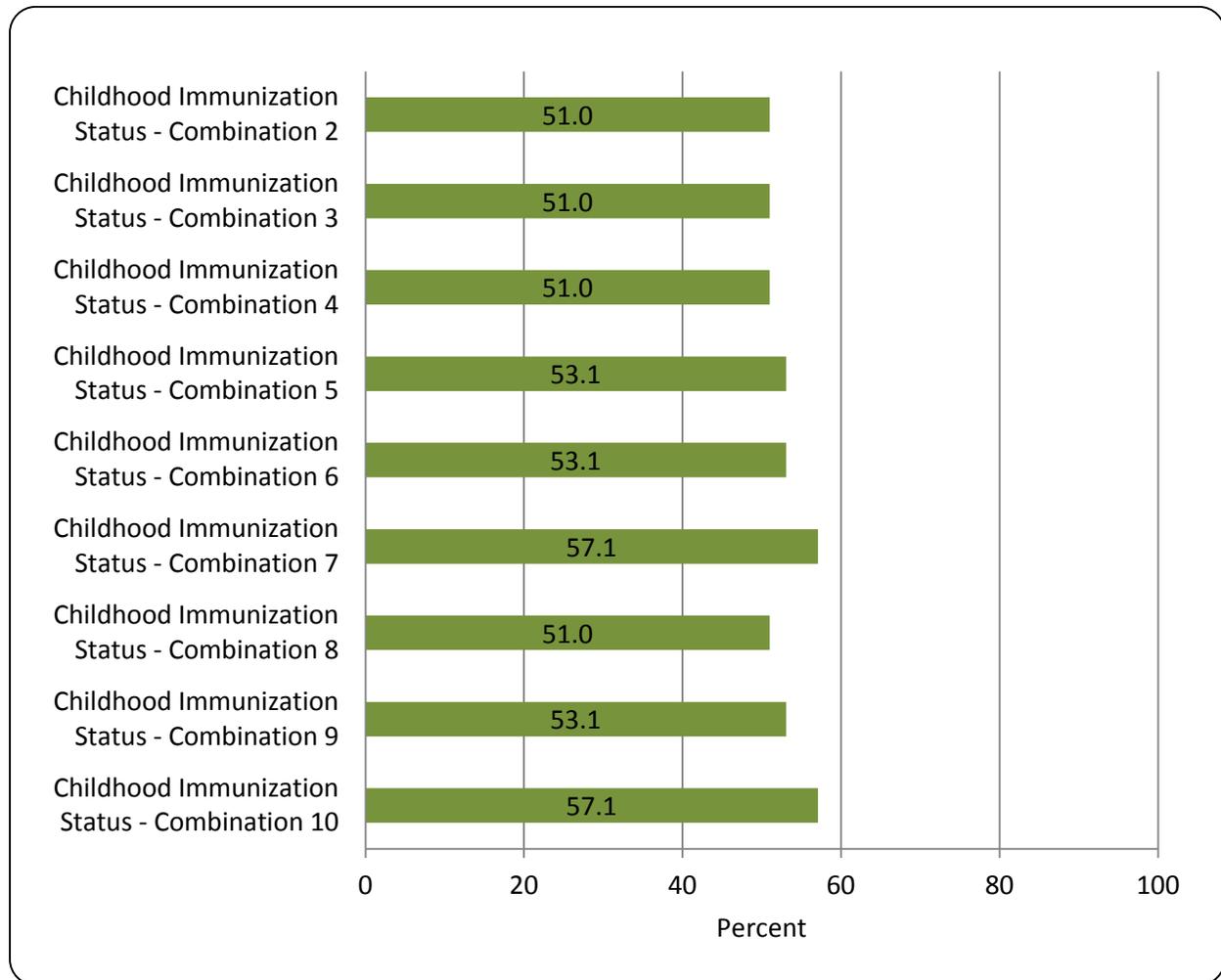


Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

The rate for the HepB vaccines improved significantly from 2013 to 2014 (2013 average rate: 5.76, 2014 average rate, 8.21, $p=.000$). The RV vaccine rate improved slightly from 2013 to 2014, but it was not a statistically significant increase. About eight in 10 hospitals (79.6%) showed an improvement for the HepB vaccine rate from 2013 to 2014, and about six in 10 hospitals (61.2%) showed an improvement for the RV vaccine rate (see Figure 4.3).

Rates for all the remaining vaccines significantly decreased from 2013 to 2014. These decreases were particularly large for the MMR (2013 average rate: 35.09, 2014 average rate: 25.54, $p=.000$), VZV (2013 average rate: 35.08, 2014 average rate: 26.16, $p=.000$), and HepA vaccines (2013 average rate: 32.22, 2014 average rate: 24.92, $p=.000$). Only 12.2% of the hospitals showed an improvement for the MMR vaccine rate from 2013 to 2014. Also, only 14.3% of the hospitals showed an improvement for the influenza vaccine rate and only 16.3% of the hospitals showed an improvement for the VZV vaccine rate from 2013 to 2014 (see Figure 4.3).

Figure 4.4: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 4



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

The remaining vaccine metrics were different combinations of the above vaccines. For example, “Childhood Immunization Status – Combination 2” represents the rate for receiving all of the first six vaccines listed above, and “Childhood Immunization Status – Combination 10” represents the rate for receiving all 10 of the vaccines listed above. Combinations 3-9 represent the rate for receiving different combinations of seven to nine of the vaccines listed above. Five of these combination vaccine metrics decreased slightly from 2013 to 2014, two of these combination vaccine metrics increased slightly from 2013 to 2014, and two more remained at the same rate. However, none of these changes were statistically significant. For all the combination vaccine metrics, roughly half of the hospitals showed improved rates from 2013 to 2014 (see Figure 4.4).

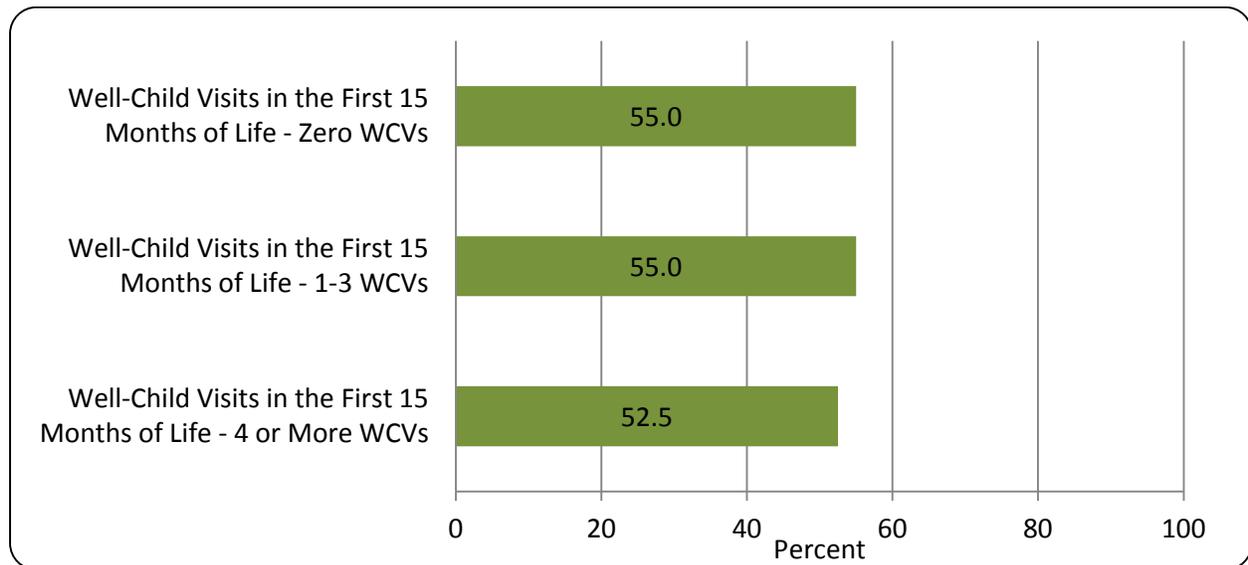
Well-Child Visits in the First 15 Months of Life

These metrics represent the percentage of children out of all of the hospital’s attributable children who had a well-child visit with a primary care provider during their first 15 months of life during the measurement year. Three different metrics were calculated:

- Percentage of children with zero well-child visits
- Percentage of children with one to three well-child visits
- Percentage of children with four or more well-child visits

A primary care provider could be a physician, nurse practitioner, or physician assistant with a primary care specialty.

Figure 4.5: DSRIP Metrics, Percent of Hospitals That Improved from 2013 to 2014, Part 5



Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

All three metrics improved slightly from 2013 to 2014 (i.e., during the first 15 months of life, the percentage of children with zero well-child visits decreased from 2013 to 2014, while the

percentage of children with one to three or four or more well-child visits increased from 2013 to 2014). However, none of these changes were statistically significant. Just over half of the hospitals showed improved rates from 2013 to 2014 (see Figure 4.5).

Hospital Acquired Potentially Preventable Venous Thromboembolism

This metric represents the percentage of each hospital's admitted patients who did not receive venous thromboembolism prophylaxis before being diagnosed with venous thromboembolism out of all of each hospital's attributable patients who developed venous thromboembolism following admission to the hospital. This is the only Stage 4 metric derived from the medical chart or EHR, and was collected by the hospitals for the year 2014 only. The mean percentage for this metric across the 29 DSRIP participating hospitals who reported it was 9.69%.

Conclusions

The hospitals showed improvement from 2013 to 2014 in many Stage 4 Metrics with the exception of the Combination 1 vaccination rates, which generally decreased, and the Combination 2-10 vaccination rates, which showed little change. About half of the improved metrics were statistically significant, as were the majority of the decreases in Combination 1 vaccine rates. None of the slight changes in Combination 2 vaccine rates were significant.

Specifically, from 2013 to 2014, access to primary care significantly improved for older children (ages 7-11 years) and adolescents (ages 12-19 years), hospital admission rates improved (decreased) for COPD and heart failure, and the percentage of HIV-infected patients receiving regular CD4 T-cell counts improved. Access to primary care for younger children (ages 12-24 months) and well-child visits for infants both improved from 2013 to 2014, but these were not statistically significant changes. For the Combination 1 vaccine rates, the only rate that showed a statistically significant improvement was for the HepB vaccines. The RV vaccine rate also improved slightly, but it was not statistically significant. The remaining Combination 1 vaccine rates showed statistically significant decreases from 2013 to 2014.

References

- Myers and Stauffer LC. 2015. *DSRIP Performance Measurement Databook, v1.0*. Trenton: New Jersey Department of Health.
https://dsrip.nj.gov/Documents/NJ%20DSRIP%20Databook_Standard%20Workbook_%20Jan%202015_v1.0.zip.

Table 4.1: Means of Reported Metrics, 2013 and 2014

	N	2013	2014	p-value	Sig.	Improved
Children and adolescents' access to primary care practitioners - 12-24 months						
Percentage	49	93.57	93.86	.532		Yes
Children and adolescents' access to primary care practitioners - 25 months - 6yrs.						
Percentage	50	88.93	88.59	.463		No
Children and adolescents' access to primary care practitioners - 7-11 years						
Percentage	50	93.37	94.45	.010	*	Yes
Children and adolescents' access to primary care practitioners - 12 - 19 years						
Percentage	50	89.74	91.16	.000	*	Yes
COPD admission rate						
Rate per 1,000	50	3.10	2.37	.001	*	Yes
Heart Failure Admission Rate						
Rate per 1,000	50	3.88	3.10	.000	*	Yes
Cd4 t-cell count						
Percentage	49	38.10	46.88	.003	*	Yes
Cervical cancer screening						
Percentage	50	41.95	42.06	.849		Yes
Chlamydia Screening in Women Age 21 – 24						
Percentage	50	42.36	42.46	.872		Yes
Percentage of Live Births Weighing Less Than 2,500 grams						
Percentage	38	6.68	6.53	.805		Yes
Childhood Immunization Status - Combination 1 - DTap						
Rate per 1,000	49	13.87	9.51	.000	*	No
Childhood Immunization Status - Combination 1 - Hepatitis A						
Rate per 1,000	49	32.22	24.92	.000	*	No
Childhood Immunization Status - Combination 1 - Hepatitis B						
Rate per 1,000	49	5.76	8.21	.000	*	Yes
Childhood Immunization Status - Combination 1 - HiB						
Rate per 1,000	49	27.11	22.05	.000	*	No
Childhood Immunization Status - Combination 1 - Influenza						
Rate per 1,000	49	20.32	14.62	.000	*	No
Childhood Immunization Status - Combination 1 - IPV						
Rate per 1,000	49	20.53	18.42	.029	*	No
Childhood Immunization Status - Combination 1 - MMR						
Rate per 1,000	49	35.09	25.54	.000	*	No
Childhood Immunization Status - Combination 1 - Pneumococcal conjugate						
Rate per 1,000	49	14.31	10.50	.000	*	No

Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

Based on DSRIP-participating hospitals; * implies significance at p<0.05

Table 4.1: Means of Reported Metrics, 2013 and 2014 (continued)

	N	2013	2014	p-value	Sig.	Improved
Childhood Immunization Status - Combination 1 - RV						
Rate per 1,000	49	14.17	14.50	.667		Yes
Childhood Immunization Status - Combination 1 - VZV						
Rate per 1,000	49	35.08	26.16	.000	*	No
Childhood Immunization Status - Combination 2						
Rate per 1,000	49	3.01	3.14	.774		Yes
Childhood Immunization Status - Combination 3						
Rate per 1,000	49	2.45	2.45	.999		Same
Childhood Immunization Status - Combination 4						
Rate per 1,000	49	2.16	2.16	.988		Same
Childhood Immunization Status - Combination 5						
Rate per 1,000	49	1.81	1.72	.791		No
Childhood Immunization Status - Combination 6						
Rate per 1,000	49	1.55	1.43	.699		No
Childhood Immunization Status - Combination 7						
Rate per 1,000	49	1.60	1.59	.990		No
Childhood Immunization Status - Combination 8						
Rate per 1,000	49	1.38	1.28	.750		No
Childhood Immunization Status - Combination 9						
Rate per 1,000	49	1.14	1.06	.755		No
Childhood Immunization Status - Combination 10						
Rate per 1,000	49	1.00	1.01	.986		Yes
Well-Child Visits in the First 15 Months of Life - Zero WCVs						
Percentage	40	6.59	5.18	.107		Yes
Well-Child Visits in the First 15 Months of Life - 1-3 WCVs						
Percentage	40	5.40	6.51	.073		Yes
Well-Child Visits in the First 15 Months of Life - 4 or More WCVs						
Percentage	40	88.01	88.31	.701		Yes
A4Hospital acquired potentially-preventable venous thromboembolism						
Percentage	29	n/a	9.69	n/a		

Source: 2015 New Jersey DSRIP Metrics Analysis 2013 and 2014, Rutgers Center for State Health Policy.

Based on DSRIP-participating hospitals; * implies significance at $p < 0.05$

Chapter 5: Discussion

This report examines various sources of information to identify the effects of the NJ DSRIP program using a combination of qualitative and quantitative research techniques. The study periods differ across the different components, but collectively span the period from the first DSRIP program year (calendar year 2013) until the spring of 2015.

All of these findings thus relate to the period prior to the full implementation of the DSRIP hospital projects that occurs in Demonstration Year 4, and will not capture the effects (or lack thereof) of these specific disease management activities on access, quality and efficiency of care, and more generally overall population health, which are the ultimate goals of the DSRIP program. Our summative evaluation that will be released in 2018 and based on analysis of information relating to future years will be able to identify these effects.

The primary value of the findings in this report, however, lies in documenting stakeholder experiences during the application and early implementation phases and in examining their perceptions relating to the potential of the program to achieve its stated objectives. In addition, detailed analyses of DSRIP quality metrics based on Medicaid fee-for-service claims and managed care encounter data provide useful baseline estimates for the summative evaluation and also estimates of any first-year program effects that may arise from preparatory/anticipatory activities by the hospitals. In that same vein, analysis of hospital reported metrics for the years 2013 and 2014 provide trends in preventive or recommended care that may be attributed to early DSRIP impact, but will provide more conclusive evidence when additional years of data become available.

While all of the findings have been discussed in detail in the individual chapters, we identify below some common themes across these different components.

The information from stakeholder interviews relating to specific hospital experiences in the initial years of the DSRIP program as well as emerging perceptions relating to program components and their potential were also echoed in the responses from the hospital survey. Both these sources identified common issues and challenges that included lack of clarity on program specifications (many of these issues were subsequently resolved); enthusiasm relating to the chronic disease management programs; the significant burden of the reporting requirements that increased over time; and program requirements that did not take into account differing capabilities across

hospitals such as EHR capability or lack of interoperability with reporting partners that caused disproportionate burden on some.

Stakeholders also highlighted the lack of planning and resource allocation to meaningfully engage and incorporate participation by outpatient partners who were crucial not only to fulfill the reporting requirements, but also with regard to the broader delivery system-related goal of treatment continuity and care coordination across providers in inpatient and outpatient settings.

Some of the interviewees were unsure as to which chronic disease programs offered the greatest opportunity for improvements in population health, and our quantitative analyses offer some insights into these issues. Based on the first program year there was some evidence of improvements in diabetes care reflected in decreasing rates of ambulatory care sensitive diabetes-related hospitalizations in areas where hospitals planned to implement diabetes programs. On similar metrics we found mixed results in the case of asthma care. There was a decrease in avoidable asthma inpatient admissions during 2013 reflecting an improvement in community-level care in areas where hospitals planned to implement DSRIP asthma projects, but a small, concurrent increase in ED visits for asthma. These two apparently contradictory findings may reflect differing impacts of hospital activities across the distinct patient groups that characterize the inpatient and ED treatment settings. Overall, these were the only two conditions for which there was some evidence for an early and significant impact attributable to DSRIP. These findings may foreshadow greater impact at the end of the DSRIP demonstration period for asthma and diabetes projects, or it may be that gains for other chronic diseases take a longer time to become apparent. There were improvements in several hospital reported metrics for preventive and recommended care over 2013-2014 that reflected stakeholder expectations that the program will improve care.

In summary, the range of methods and related findings from this report vary in the nature of their contribution to the assessment of the DSRIP program. Many are valuable in their own right such as those that detail stakeholder and hospital experiences in the early phase of the DSRIP program which can guide continued implementation. Others, such as the results from the quantitative analysis, in addition to assessing very early impacts from the first program year, provide valuable information relating to baseline year estimates and measurement techniques that will guide analyses conducted in the summative evaluation.


The Rutgers logo is rendered in a red, serif font. The letter 'R' is significantly larger and more stylized than the other letters, which are in a standard weight. The letters are closely spaced.

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FEE FOR SERVICE PAYMENTS, SERVICE UNITS, AND CLAIM COUNT FOR JULY 1, 2015 THROUGH MARCH 31, 2016 FOR ASD, IDD-MI, AND SED FEDERALLY MATCHED WAIVER SERVICES

Waiver Category and Proc Name	Proc Code	Proc Mod 1	Proc Mod 2	Prov Type	Prov Spec Cde	Claim Payment	Service Units	Sum of Net Paid
						Amt	Qty	Claims
ASD						576,126	42,670	2,598
COMM BASED WRAP AROUND SERV(II HABIL	T2021	HA	HO	44	826	191,323	9,221	734
COMM BASED WRAP AROUND(II HABILITATI	T2021	HA	HN	44	826	11,886	634	84
COMP COMM SUPP SERV(INDIV SUPPORTS)	H2015	HA	HN	44	826	5,831	935	94
COMP COMM SUPP SERV(INDIV SUPPORTS)	H2016					354,701	31,667	1,645
MENTAL HEALTH ASSESSMENT(BCBA)	H0031	HA	22	44	826	6,035	71	27
MENTAL HEALTH ASSESSMENT(FUNCT BEHAV	H0031	HA	-	44	826	4,500	60	4
MENTAL HEALTH ASSESSMENT, BY NON-PHY	H0031	HA	HO	44	826	1,850	82	10
IDD/MI						2,725,679	179,325	9,372
COMM BASED WRAP AROUND SERV(II HABIL	T2021	HA	HO	44	826	535,566	26,081	1,770
COMM BASED WRAP AROUND(II HABILITATI	T2021	HA	HN	44	826	23,006	1,237	110
COMMUN BASED WRAP AROUND SERV(II HAB	T2021	HA	22	44	826	4,012	145	15
COMP COMM SUPP SERV(HAB IN HOME)	H2016					210,413	18,727	724
COMP COMM SUPP SERV(INDIV SUPPORTS)	H2015	HA	HN	44	826	17,575	2,826	165
COMP COMM SUPP SERV(INDIV SUPPORTS)	H2016					1,020,888	91,582	3,624
COMP COMMUN SUPP SERV(IND SUPPORTS)	H2015	HA	HO	44	826	9,363	1,498	14
DAY HABILITATION, WAIVER; PER 15 MIN	T2021	22	HA	44	826	386,106	22,760	1,242
DAY HABILITATION, WAIVER; PER 15 MIN	T2021	52	HO	44	826	241,299	11,589	927
HABILITATION RES(DDD OUT OF HOME SER	T2016	HA	U1	44	825	8,350	70	70
HABILITATION RES(DDD OUT OF HOME SER	T2016	HA	U2	44	825	78,799	295	261
HABILITATION RES(DDD OUT OF HOME SER	T2016	HA	U3	44	825	49,306	208	10
MENTAL HEALTH ASSESSMENT(BCBA)	H0031	HA	22	44	826	65,174	809	164
MENTAL HEALTH ASSESSMENT(FUNCT BEHAV	H0031	HA	-	44	826	600	8	1
MENTAL HEALTH ASSESSMENT, BY NON-PHY	H0031	22	HA	44	826	255	3	1
MENTAL HEALTH ASSESSMENT, BY NON-PHY	H0031	HA	HN	44	826	-	-	-
RES CARE NOS(DDD OUT OF HOME SERV)	T2033	HA	U2	44	825	41,470	116	71
RESPIRE CARE IN HOME (PER 15 MINS)	S9125	HA	52	44	865	33,500	1,371	203
SED						26,158,523	545,338	94,399
BEHAV ASSIST SERV BY DYFS PROV/15 MI	H2019	-	-	44	903	27,436	722	116
BEHAV ASSIST SERV BY DYFS PROV/15 MI	H2019	UC	-	44	903	456	12	1
BEHAVIORAL ASSIST SERVICES EA 15 MIN	H2014	TJ	U1	44	903	25,584	2,624	306
BEHAVIORAL ASSIST SERVICES EA 15 MIN	H2014	TJ	U2	44	903	156	16	2
CSOCI CARE MANAGEMENT (CMO) SERVICES	Z5008	-	-	44	901	9,983,600	18,152	18,160
HOSPITAL LEAVE JCAHO RTC/DYFS	Y9952	-	-	44	897	6,916	13	13
HOSPITAL LEAVE JCAHO RTC/DYFS	Y9952	-	-	44	898	532	1	1
IIC ASSESSMENT-CLIN LICENSED PRACT	H0018	TJ	U1	44	902	38,307	339	113
INDIVID BEHAVIOR ASSIST SERV 15 MIN	H2014	TJ	-	44	903	1,001,935	103,132	11,977
INTENS IN-COM GRP CLIN LEV 3 CHILD	H0036	UP	U1	44	902	5,664	360	60
INTENS IN-COM INDIV CLIN LEVEL SERV	H0036	TJ	U1	44	902	7,770,289	275,973	35,154
INTENS IN-COMM PROF IND SERV MASTERS	H0036	TJ	U2	44	902	2,593,848	122,323	15,407
MEN HLTH REHAB GROUP HOME/DYFS	Y9935	-	-	44	897	38,386	211	131
MEN HLTH REHAB GROUP HOME/DYFS	Y9935	-	-	44	899	91,966	431	299
MEN HLTH REHAB JCAHO RTC/DYFS	Y9948	-	-	44	897	100,548	189	189
MEN HLTH REHAB JCAHO RTC/DYFS	Y9948	-	-	44	898	31,920	60	60
MEN HLTH REHAB JCAHO RTC/DYFS	Y9948	-	-	44	899	20,615	31	7
MH RHAB NON-RTC COMM PSYCH RESI/DMHS	Y9933	-	-	44	898	180,189	544	541
MH RHAB TRANSITIONAL LIVING HOME/DYFS	Y9936	-	-	44	899	117,342	485	436
MH RHAB NON-RTC RESIDENTIAL CARE/DYFS	Y9943	-	-	44	899	231	1	1
MOBILE RESPONSE - INITIAL	S9485	TJ	-	44	894	3,964,594	2,916	2,917
MOBILE RESPONSE - STABILIZATION MNGT	H0032	TJ	-	44	894	143,209	16,556	8,452
MULTISYSTEMIC THERAPY FOR JUVENILES,	H2033	-	-	44	903	14,268	246	55
THERAPEUTIC LEAVE JCAHO RTC/DYFS	Y9951	-	-	44	897	532	1	1
Grand Total						29,460,328	767,333	106,369

Notes:

Service from dates for claims span July 1, 2015 through March, 31, 2016 and were paid from July 1, 2015 and October 6, 2016. Only non-voided, paid claims are reflected in the data.

ASD, IDD-MI, and SED wavier services are defined by CCB295, Appendix A "New Services", for procedures marked as Matchable for SPC 37 under SED, Matchable for SPC 38 for IDD/MI, and

Matchable for SPC 47, 48, 49 under ASD Waiver. Fields to be matched include procedure code, modifiers 1 and 2, provider type, provider specialty code, special program code, and CSOCI enrolled indicator.

Report categorizes claims as a ASD, IDD-MI, or SEDS claim only if ALL criteria are satisfied. ORIG FFP<>C

DDD Supports Waiver

Clim Proc Curr Layman Name	Clim Proc Code	Claim Payments	Service Units Quantity	Net Paid Claims
ALCOHOL AND/OR DRUG SERVICES	H0004	\$39	2	1
BEHAV ASSISTANCE SERVICES IND	H2014	\$28,488	2,150	747
COM WRAP-AROUND SV, 15 MIN	H2021	\$18,324	1,562	73
COMP COMM SUPP SVC, 15 MIN	H2015	\$342	61	7
DAY HABIL WAIVER PER 15 MIN	T2021	\$874,352	153,892	7,878
HABIL PREVOC WAIVER PER HR	T2015	\$146,750	36,883	2,801
NON-EMERG.TRANSP./MILE VOL.INT	A0090	\$136,002	183,896	1,344
RESPIRE CARE SERVICE 15 MIN	T1005	\$7,920	1,657	192
SERV ASMNT/CARE PLAN WAIVER	T2024	\$146,156	2,417	610
Grand Total		\$1,358,373	382,520	13,653

Notes:

Service from dates for claims span July 1, 2015 through March, 31, 2016 and were paid from July 1, 2015 and October 5, 2016. Only non-voided, paid claims are reflected in the data. Waiver services are defined as procedures directed toward dedicated appropriation code 140057 where Special Program on Claim in list ('45','46')

ENCOUNTER PAYMENTS, SERVICE UNITS, AND CLAIM COUNT FOR JULY 1, 2015 THROUGH MARCH 31, 2016 FOR MLTSS WAIVER RECIPIENTS

Clm Proc Curr Layman Name	Clm Proc Code	Sum of Claim Payment Amt	Sum of Clm Service Units Qty	Sum of Clm Net Paid Claim Indicator
ALCOHOL AND/OR DRUG SERVICES	H0019	\$167,043	981	933
ALCOHOL AND/OR DRUG SERVICES	H0020	\$430	215	215
E/M EST PT MINIMAL PROBLEM(S)	99211	\$98	7	7
E/M OFFICE/OP - ESTABLISHED PT	99212	\$102	2	2
E/M OFFICE/OP ESTAB PATIENT	99213	\$1,019	21	20
E/M OFFICE/OP ESTABLISHED PT	99214	\$189	6	6
GROUP MEDICAL PSYCHOTHERAPY...	90853	\$1,278	216	215
GRP PSYCH PARTIAL HOSP 45-50	G0410	\$0	29	19
HEALTH & BEHAV INTERVEN INDIV	96152	\$220	20	6
HOSPITAL OUTPT CLINIC VISIT	G0463	\$264	62	62
NEUROBEHAVIORAL STATUS EXAM	96116	\$646	2	1
PSYCH DIAG EVAL W/MED SRVCS	90792	\$4,573	150	150
PSYCH DIAGNOSTIC EVALUATION	90791	\$3,535	158	158
PSYTX COMPLEX INTERACTIVE	90785	\$0	1	1
PSYTX PT&/FAM W/E&M 30 MIN	90833	\$391	75	75
PSYTX PT&/FAM W/E&M 45 MIN	90836	\$311	19	19
PSYTX PT&/FAMILY 30 MINUTES	90832	\$7,102	1,373	1,361
PSYTX PT&/FAMILY 45 MINUTES	90834	\$10,134	965	965
SPECIAL FAMILY THERAPY	90847	\$158	22	22
PSYTX PT&/FAMILY 60 MINUTES	90837	\$969	20	20
PSYTX CRISIS INITIAL 60 MIN	90839	\$122	14	14
PSYTX CRISIS EA ADDL 30 MIN	90840	\$655	69	11
FAMILY MEDICAL PSYCHOTH-1 HR.	90846	\$257	1	1
NEUROPSYCH TST BY PSYCH/PHYS	96118	\$1,704	16	7
HEALTH & BEHAV ASSESS INIT	96150	\$0	2	1
MH PARTIAL CARE	H0035	\$131,695	5,186	1,044
PARTIAL HOSP LESS INTENSE	OP912	\$325	5	1
OTHER MENTAL HEALTH	various	\$1,506,927	85,275	5,742
MBH Total		\$1,840,147	94,912	11,078
ADULT DAYCARE SERVICES 15MIN	S5100	\$1,285	352	20
MEDICAL DAY CARE	S5102	\$18,360,991	231,857	231,212
TEAM EVALUATION & MANAGEMENT	T1024	\$87,083	284	284
MDC Total		\$18,449,359	232,493	231,516
ADULT DAYCARE SERVICES 15MIN	S5100	\$2,392,902	662,732	37,292
ADULT FOSTER CARE PER DIEM	S5140	\$197,371	3,700	629
ALCOHOL AND/OR DRUG SERVICES	H0004	\$77,343	2,714	866
ASSIST LIVING WAIVER/DIEM	T2031	\$42,559,838	752,439	80,456
CHORE SERVICES PER 15 MIN	S5120	\$1,871	870	56
CHORE SERVICES PER DIEM	S5121	\$9,407	48	22
COMM TRANS WAIVER/SERVICE	T2038	\$9,235	7	7
DAY HABIL WAIVER PER 15 MIN	T2021	\$22,291	3,934	463
DEVELOP COGNITIVE SKILLS	97532	\$2,172,915	72,383	15,361
HOMAKER SERVICE NOS PER 15M	S5130	\$4,877,183	1,286,911	70,863
HOME ENVIRONMENT ASSESSMENT	T1028	\$4,938	83	72
HOME MEALS PER MEAL	S5170	\$3,509,198	501,420	210,887
HOME MODIFICATIONS PER MONTH	S5165	\$457,750	192	192
LPN/LVN SERVICES UP TO 15MIN	T1003	\$12,631,565	1,282,611	33,969
MED REMINDER SERV PER MONTH	S5185	\$7,817	167	167
MEDICAL DAY CARE	S5102	\$253,023	8,003	7,770
P.T. THER PROC,1 OR MORE AREAS	97110	\$1,206,368	36,630	11,601
PERS INSTAL & EQUIP	S5160	\$42,651	854	854
PERS MONTHLY FEE	S5161	\$1,022,408	37,184	37,086
PRIVATE DUTY/INDEP NURS SERV	T1000	\$536,764	53,963	1,352
RES, NOS WAIVER PER DIEM	T2033	\$9,301,658	50,389	48,335
RESPIRE CARE SERVICE 15 MIN	T1005	\$136,145	69,496	1,382
RN SERVICES UP TO 15 MINUTES	T1002	\$5,762,764	490,677	13,737
SELF CARE MANAGEMENT TRAINING	97535	\$1,168,722	42,005	10,181
SPEECH LANGUAGE HEARING THERAP	92507	\$456,546	4,827	3,591
SPEECH,LANGUAGE/HEARING THERAP	92508	\$259,680	3,543	2,838
UNSKILLED RESPITECARE /DIEM	S5151	\$34,680	424	226
VEHICLE MOD WAIVER/SERVICE	T2039	\$1,772	1	1
ELEC MED COMP DEV, NOC	T1505	\$616	11	11
OTHER MLTSS	-	\$361,450	2,234	218
MLT Total		\$89,476,872	5,370,452	590,485
CUSTODIAL NURSING FACILITY	-	\$266,797,061	1,448,303	51,466
NFC Total		\$266,797,061	1,448,303	51,466
PERSONAL CARE SER PER 15 MIN	T1019	\$85,716,723	22,877,003	1,314,466
PERSONAL CARE SER PER DIEM	T1020	\$4	8	1
PCA Total		\$85,716,726	22,877,011	1,314,467
Grand Total		\$462,280,165	30,023,171	2,199,012

Notes:

Service from dates for claims span July 1, 2015 through March, 31, 2016 and were paid from July 1, 2015 and September 30, 2016. Only non-voided, paid claims are reflected in the data. Medical Day Care, Managed Long Term Supports, Personal Care Assistant Services (not including self-directed Personal Care), and Nursing Facility claims and services are defined using the Encounter Category of Service and a waiver Special Program Code on the claim.

Behavioral Health claims have been pulled with a combination of primary diagnosis code, procedure code, revenue code, or DRG related to a behavioral health need, with the exclusion of diagnoses which are categorized as altering the mental status of an individual but are of organic origin, as specified by Section 4.1.2b of the current State Managed Care Contract.

For claims fitting multiple categories, the hierarchy applied for categorization is as follows: Managed Long Term Services and Supports, Custodial Nursing Facility, Medical Day Care, Personal Care Assistance, and Behavioral Health.

Existing issues with encounter data submission by the Managed Care Organization (e.g. span dates for services no matching service unit counts) are not corrected in the data provided.

FEE FOR SERVICE PAYMENTS, SERVICE UNITS, AND CLAIM COUNT FOR JULY 1, 2015 THROUGH MARCH 31, 2016 FOR MLTSS WAIVER RECIPIENTS

Clm Proc Curr Layman Name	Clm Proc Code	Sum of Claim Payment Amt	Sum of Clm Service Units Qty	Sum of Clm Net Paid Claim Indicator
NURSING FACILITY	-	\$14,329,971	77,889	2,867
MEDICAL DAY CARE	S5102	\$36,424	464	464
HHA/CNA PER HR WEEKDAY	S9122	\$123,562	7,761	1,895
NURSING ASSESSMENT/EVALUATN	T1001	\$455	13	13
PERSONAL CARE ASSISTANT VISIT{	Z1611	\$18	2	2
PPP MONTHLY CASH GRANT	Y9833	\$31,707	21	21
ADULT MH REHAB LEV AT GRP HOME	Z7333	\$23,479	131	12
ALP DAILY RATE	Y9634	\$95,157	1,795	450
ALR DAILY RATE	Y9633	\$2,131,624	40,294	1,520
CPCH DAILY RATE	Y7574	\$322,120	6,524	242
Total Long term care and Home and Community Based Services for MLTSS Wai		\$17,094,517	134,894	7,486
Behavioral Health Total	various	\$1,904,140	18,347	6,612
Grand Total MLTSS or LTC Fee for Service, including Behavioral Health		\$18,998,657	153,241	14,098

Notes:

Service from dates for claims span July 1, 2015 through March, 31, 2016 and were paid from July 1, 2015 and September 30, 2016. Only non-voided, paid claims are reflected in the data. Medical Day Care, Managed Long Term Supports, Personal Care Assistant Services (not including self-directed Personal Care), and Nursing Facility claims and services are defined using the Fee for Service Category of Service and a waiver Special Program Code on the claim.

FY 2015 and 2016 MCO Assessment Statistics

Aetna	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	187		785	
MDC Only	0		64	
TOTAL MLTSS ASSESSMENTS	187	100	721	92
Level of Care determination outcomes				
Authorized	68	88	413	97
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	9	12	11	3
Approved	97	n/a	276	n/a
Denied (percentage based on Not Authorized outcomes)	1	11	2	18
TOTAL	175		702	

Amerigroup	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	6080		8656	
MDC Only	1538		2063	
TOTAL MLTSS ASSESSMENTS	4542	75	6593	76
Level of Care determination outcomes				
Authorized	2787	85	4546	93
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	501	15	323	7
Approved	709	18	1089	n/a
Denied (percentage based on Not Authorized outcomes)	12	2	48	15
TOTAL	4009		6006	

*Total percentages calculated on factors independent to each category and are not directly correlated to each other (i.e. denial rate analyzed on subset of total assessment population). Due to duplication of assessments and members often having more than one assessment with variable outcomes, the statistics including percentages are not unduplicated MCO members.

Members assessed by the State prior to MCO enrollment were not able to be filtered out of the statistical analysis.

Data Source: TeleSys Clinical Assessment Database; Assessment outcomes effective July 1, 2015 through June 30, 2016

Horizon	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	18714		25959	
MDC Only	4702		9446	
TOTAL MLTSS ASSESSMENTS	14012	75	16513	64
Level of Care determination outcomes				
Authorized	8765	70	13839	97
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	1911	18	427	3
Approved	1811	14	1533	n/a
Denied (percentage based on Not Authorized outcomes)	118	6	94	22
TOTAL	12605		15893	

United	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	7798		9451	
MDC Only	1782		2300	
TOTAL MLTSS ASSESSMENTS	6016	77	7151	76
Level of Care determination outcomes				
Authorized	3526	65	5171	92
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	1095	24	455	8
Approved	767	14	1083	n/a
Denied (percentage based on Not Authorized outcomes)	67	6	87	19
TOTAL	5455		6796	

*Total percentages calculated on factors independent to each category and are not directly correlated to each other (i.e. denial rate analyzed on subset of total assessment population). Due to duplication of assessments and members often having more than one assessment with variable outcomes, the statistics including percentages are not unduplicated MCO members.

Members assessed by the State prior to MCO enrollment were not able to be filtered out of the statistical analysis.

Data Source: TeleSys Clinical Assessment Database; Assessment outcomes effective July 1, 2015 through June 30, 2016

WellCare	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	3462		5453	
MDC Only	1638		1095	
TOTAL MLTSS ASSESSMENTS	1824	53	4358	80
Level of Care determination outcomes				
Authorized	1225	73	3451	94
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	304	20	226	6
Approved	148	9	519	n/a
Denied (percentage based on Not Authorized outcomes)	11	4	42	19
TOTAL	1688		4238	

Statewide MCO Totals	2015		2016	
	Number	Percentage	Number	Percentage
Total Assessments	36241		50304	
MDC Only	9660	27	14968	
TOTAL MLTSS ASSESSMENTS	26581	73	35335	70
Level of Care determination outcomes				
Authorized	16371	81	27420	95
Not Authorized (percentage calculated on Authorized/Not Authorized outcomes only)	3820	19	1442	5
Approved	3532	13	4500	n/a
Denied (percentage based on Not Authorized outcomes)	209	5	273	19
TOTAL	23932		33635	

*Total percentages calculated on factors independent to each category and are not directly correlated to each other (i.e. denial rate analyzed on subset of total assessment population). Due to duplication of assessments and members often having more than one assessment with variable outcomes, the statistics including percentages are not unduplicated MCO members.

Members assessed by the State prior to MCO enrollment were not able to be filtered out of the statistical analysis.

Data Source: TeleSys Clinical Assessment Database; Assessment outcomes effective July 1, 2015 through June 30, 2016

Amerigroup	Atlantic County 2016 2Q	Bergen County 2016 2Q	Burlington County 2016 2Q	Camden County 2016 2Q	Cape May County 2016 2Q	Cumberland County 2016 2Q	Essex County 2016 2Q	Gloucester County 2016 2Q	Hudson County 2016 2Q	Hunterdon County 2016 2Q	Mercer County 2016 2Q
Dentist (PCDs)	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
Dentist	87.4%	99.1%	92.7%	96.7%	92.2%	91.8%	100.0%	87.4%	100.0%	99.8%	95.8%
PCPs	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
PCP	93.2%	100.0%	98.1%	100.0%	100.0%	92.7%	100.0%	98.9%	100.0%	78.5%	99.3%
Pediatric PCPs	93.2%	100.0%	98.5%	100.0%	100.0%	94.8%	100.0%	99.3%	100.0%	91.8%	99.9%
Specialist (13 Dobi)	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
Cardiologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dermatologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Endocrinologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ENT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
General surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Neurologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Obstetrician/gynecologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oncologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ophthalmologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oral surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Orthopedist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Psychiatrist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hospitals	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
Hospital	92.3%	100.0%	97.3%	100.0%	97.5%	98.1%	100.0%	98.4%	100.0%	23.3%	99.9%

Middlesex County 2016 2Q	Monmouth County 2016 2Q	Morris County 2016 2Q	Ocean County 2016 2Q	Passaic County 2016 2Q	Somerset County 2016 2Q	Sussex County 2016 2Q	Union County 2016 2Q	Warren County 2016 2Q
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles
97.9%	94.8%	85.1%	93.1%	97.4%	91.0%	82.4%	99.7%	93.1%
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles
100.0%	97.0%	96.6%	92.4%	100.0%	97.4%	95.4%	100.0%	96.2%
100.0%	99.4%	97.6%	95.6%	100.0%	99.2%	100.0%	100.0%	93.4%
1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
100.0%	100.0%	100.0%	87.5%	99.7%	99.9%	69.9%	100.0%	49.2%

United HealthCare	Atlantic County 2016 2Q	Bergen County 2016 2Q	Burlington County 2016 2Q	Camden County 2016 2Q	Cape May County 2016 2Q	Cumberland County 2016 2Q	Essex County 2016 2Q	Gloucester County 2016 2Q	Hudson County 2016 2Q	Hunterdon County 2016 2Q	Mercer County 2016 2Q
Dentist (PCDs)	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
Dentist	94.0%	99.9%	91.7%	98.9%	100.0%	93.6%	100.0%	93.8%	100.0%	100.0%	99.4%
PCPs	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
PCP	92.9%	100.0%	98.4%	100.0%	100.0%	92.4%	100.0%	93.8%	100.0%	100.0%	100.0%
Pediatric PCPs	91.2%	100.0%	98.6%	100.0%	100.0%	96.6%	100.0%	95.9%	100.0%	100.0%	100.0%
Specialist (13 Dobi)	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
Cardiologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dermatologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Endocrinologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ENT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
General surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Neurologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Obstetrician/gynecologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oncologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ophthalmologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oral surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Orthopedist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Psychiatrist	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Urologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hospitals	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
Hospital	90.3%	100.0%	96.1%	100.0%	97.9%	0.7%	100.0%	97.6%	100.0%	96.6%	99.9%

Middlesex County 2016 2Q	Monmouth County 2016 2Q	Morris County 2016 2Q	Ocean County 2016 2Q	Passaic County 2016 2Q	Salem County 2016 2Q	Somerset County 2016 2Q	Sussex County 2016 2Q	Union County 2016 2Q	Warren County 2016 2Q
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles
99.8%	98.4%	86.4%	99.2%	94.6%	100.0%	90.0%	96.1%	100.0%	97.4%
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles
100.0%	98.2%	98.0%	98.7%	100.0%	100.0%	99.6%	99.5%	100.0%	99.8%
100.0%	98.5%	97.6%	99.0%	99.8%	100.0%	99.6%	96.5%	100.0%	98.1%
1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
99.0%	96.8%	99.3%	99.8%	94.1%	94.2%	99.4%	65.8%	100.0%	96.6%

Horizon	Atlantic County 2016 2Q	Bergen County 2016 2Q	Burlington County 2016 2Q	Camden County 2016 2Q	Cape May County 2016 2Q	Cumberland County 2016 2Q	Essex County 2016 2Q	Gloucester County 2016 2Q	Hudson County 2016 2Q	Hunterdon County 2016 2Q	Mercer County 2016 2Q
Dentist (PCDs)	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
Dentist	92.6%	100.0%	96.1%	98.7%	100.0%	92.5%	100.0%	92.1%	100.0%	100.0%	99.7%
PCPs	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles
PCP	96.5%	100.0%	97.8%	99.9%	100.0%	93.0%	100.0%	94.0%	100.0%	100.0%	100.0%
Pediatric PCPs	95.7%	100.0%	97.4%	100.0%	100.0%	96.2%	100.0%	96.6%	100.0%	100.0%	100.0%
Specialist (13 Dobi)	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
Cardiologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dermatologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Endocrinologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ENT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
General surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Neurologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Obstetrician/gynecologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oncologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ophthalmologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oral surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Orthopedist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Psychiatrist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hospitals	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
Hospital	96.1%	100.0%	100.0%	100.0%	98.5%	98.2%	100.0%	97.9%	100.0%	99.9%	100.0%

Middlesex County 2016 2Q	Monmouth County 2016 2Q	Morris County 2016 2Q	Ocean County 2016 2Q	Passaic County 2016 2Q	Salem County 2016 2Q	Somerset County 2016 2Q	Sussex County 2016 2Q	Union County 2016 2Q	Warren County 2016 2Q
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles
100.0%	97.5%	92.6%	97.0%	98.1%	100.0%	99.1%	95.8%	100.0%	100.0%
2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles	2 in 6 Miles	2 in 15 Miles
100.0%	98.0%	98.5%	95.8%	100.0%	100.0%	99.9%	99.7%	100.0%	100.0%
100.0%	99.3%	97.9%	96.0%	100.0%	100.0%	99.5%	95.7%	100.0%	100.0%
1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
100.0%	100.0%	100.0%	99.8%	99.8%	99.5%	100.0%	99.8%	100.0%	97.2%

WellCare	Bergen County 2016 2Q	Essex County 2016 2Q	Hudson County 2016 2Q	Mercer County 2016 2Q	Middlesex County 2016 2Q	Morris County 2016 2Q	Passaic County 2016 2Q	Somerset County 2016 2Q	Union County 2016 2Q
Dentist (PCDs)	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles
Dentist	98.1%	99.8%	100.0%	99.0%	97.2%	79.6%	98.1%	94.4%	100.0%
PCPs	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles
PCP	100.0%	100.0%	100.0%	92.4%	100.0%	79.9%	99.7%	97.3%	100.0%
Pediatric PCPs	99.3%	99.9%	100.0%	95.5%	96.2%	76.3%	99.2%	90.0%	99.8%
Specialist (13 Dobi)	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
Cardiologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dermatologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Endocrinologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ENT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
General surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Neurologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Obstetrician/gynecologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oncologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ophthalmologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oral surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Orthopedist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Psychiatrist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hospitals	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
Hospital	100.0%	100.0%	100.0%	100.0%	100.0%	98.8%	99.6%	100.0%	100.0%

Aetna	Bergen County 2016 2Q	Camden County 2016 2Q	Essex County 2016 2Q	Hudson County 2016 2Q	Middlesex County 2016 2Q	Passaic County 2016 2Q	Somerset County 2016 2Q	Union County 2016 2Q
Dentist (PCDs)	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles
Dentist	93.9%	98.5%	100.0%	100.0%	97.6%	94.3%	85.0%	100.0%
PCPs	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles	2 in 6 Miles
PCP	100.0%	100.0%	100.0%	100.0%	100.0%	97.8%	97.9%	100.0%
Pediatric PCPs	97.7%	99.9%	100.0%	100.0%	100.0%	97.9%	97.3%	100.0%
Specialist (13 Dobi)	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles	1 in 45 Miles
Cardiologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dermatologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Endocrinologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ENT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
General surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Neurologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Obstetrician/gynecologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oncologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ophthalmologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oral surgeon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Orthopedist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Psychiatrist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urologist	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hospitals	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles	1 in 15 Miles
Hospital	100.0%	100.0%	100.0%	100.0%	99.7%	100.0%	99.7%	100.0%

The Office of Managed Long-Term Services and Supports Quality Monitoring (MLTSS/QM) reviews the data analysis, discovery, and action taken for the MLTSS Performance Measures that were developed in response to the Special Terms and Conditions of the 1115 Comprehensive Medicaid Waiver.

MLTSS Performance Measure data is reported in the respective quarterly reports submitted to CMS. Quarterly Report submissions are based on data received. This Annual report, for the period of July 1, 2015 to June 30, 2016, reconciles any data that may have been received after the submission of the quarterly report to CMS. Unless noted, all other corrections received during measurement period 7/1/15 to 6/30/16 were noted in last year’s Annual Report submission. The following tables are those where corrections were received from either the Division of Aging Services or a Managed Care Organization.

Fonts presented in **Red** are indicative of a change to the data that has been previously reported.

During review of Deliverables due during MLTSS 2nd quarter (10/1/2015 – 12/31/2015) report, it was discovered that the numerator value was transposed within Performance Measure # 4 of **October 2015**. Additionally, the remaining tables for PM #4 are corrections indicated for the year reported in the Deliverables due during MLTSS 4th quarter (4/1/2016 – 6/30/2016) report.

PM #4	Timeliness of nursing facility level of care assessment by MCO
Numerator:	The number of assessments in the denominator where the MCO assessment/ determination date is less than 30 days from the referral date to MLTSS
Denominator:	Number of level of care assessments conducted by MCO in the measurement month
Data Source:	MCO
Measurement Period:	Monthly – Due 15 th of the 2 nd month (lag report) following reporting period

October 2015	A	B	C	D	E	TOTAL
Numerator	23.0	103.0	225.0	78.0	140.0	596
Denominator	30.0	105.0	229.0	100.0	188.0	652
%	77.0	98.1	98.0	78.0	74.5	91.4

February 2016	A	B	C	D	E	TOTAL
Numerator	25	122	199	67	187	600
Denominator	30	133	203	93	249	708
%	83.0	91.7	98.0	72.0	75.1	84.7

March 2016	A	B	C	D	E	TOTAL
Numerator	15	130	309	104	250	808
Denominator	19	138	314	121	346	938
%	79	94.2	98.0	86.0	72.3	86.1

The DoAS disclosed that after further review of PM # 4a, during the measurement period of **February 2016**, it was noted that the calculations were incorrectly completed resulting in an erroneous outcome.

PM # 4a	Timeliness of nursing facility level of care assessment
Numerator:	The number of assessments in the denominator where the OCCO assessment/ determination date is less than 30 days from the referral date to OCCO
Denominator:	Number of level of care assessments conducted by OCCO in the measurement month
Data Source:	DoAS
Measurement Period:	Monthly – Due 15 th of the 2 nd month (lag report) following reporting period

Measurement Period	2/2016
Numerator	444
Denominator	737
%	60

The DoAS additionally reports the data for PM # 7 during the reporting period of **July 2015**, proved to have inaccurate raw data, and was reevaluated after new raw data was obtained.

PM # 7	Members offered a choice between institutional and HCBS settings
Numerator:	Number of assessments in the denominator with an indicator showing choice of setting within the IPOC
Denominator:	Number of level of care assessments with a completed Interim Plan of Care (IPOC)
Data Source:	DoAS
Measurement Period:	Monthly – Due the 15 th of the following month

Measurement Period	July 2015
Numerator	1473
Denominator	2708
%	54

Annual (7/1/2015 - 6/30/2016)

After a manual tracking comparison one MCO refined their practices by modifying their data source for Performance Measure # 21. It was reported that this rectification observes an improvement in data entry, thus providing new data indicated in column **B** for performance measure # 21 (10/1/2015 – 12/31/2015) reported in the Deliverables due during MLTSS 3rd quarter (1/1/2016 – 3/31/2016) report.

Another MCO reported that change within their data analysis for PM # 21(1/1/2016 – 3/31/2016) report, was due to a result of delayed reporting. Amended data is provided within column **A** for Deliverables due during MLTSS 4th quarter (4/1/2016 – 6/30/2016) report.

PM # 21	MLTSS members transitioned from NF to Community
Numerator:	# of MLTSS NF (SPC 61, 63, 64) members identified in the denominator who transitioned from a NF to the community (SPC 60, 62) at any time during the measurement period
Denominator:	# of MLTSS members with the living arrangement of NF (SPC 61, 63, 64) at any time during the measurement period (quarter or annual) and continuously enrolled in MCO.
Data Source:	MCO – living arrangement file and client tracking system
Measurement Period:	Quarterly/Annually – Due: 30 days after the quarter and year

10/1/15 – 12/31/15	A	B	C	D	E	TOTAL
Numerator	3	10	91	23	9	133
Denominator	279	541	3178	1788	553	6284
%	1	1.9	3	1.3	1.6	2.1

1/1/16 – 3/31/16	A	B	C	D	E	TOTAL
Numerator	3	11	107	24	6	150
Denominator	408	575	3215	2103	718	7019
%	0.7	1.9	3.0	1.1	0.8	2.1

MLTSS Performance Measure Report

Annual (7/1/2015 - 6/30/2016)

One MCO discovered that a delay in reporting impacted their data analysis for PM # 18 for (October – December 2015). Revised data is provided within column E for Deliverables due during MLTSS 3rd quarter (1/1/2016 – 3/31/2016) report.

PM # 18	Quarterly and Annual Critical Incident reporting for abuse, neglect and exploitation
Numerator:	# of critical incidents per category
Denominator:	Total # of critical incidents reported for measurement period (quarter or annual)
Data Source:	MCO
Measurement Period:	October-December 2015

MCO		A			B			C			D			E			Quarter - TOTAL		
Participant Safeguards:		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
18	Critical Incident (CI) reporting Types:																		
a	Unexpected death of a member	0	1	0	0	47	0%	4	298	1%	2	54	4%	0	4	0%	6	403	1.5%
b	Missing person or Unable to Contact	1	1	100	2	47	4%	6	298	2%	12	54	22%	0	4	0%	21	403	5.2%
c	Theft with law enforcement involvement	0	1	0	0	47	0%	1	298	0%	0	54	0%	1	4	33%	2	403	0.5%
d	Severe injury or fall resulting in the need of medical treatment	0	1	0	12	47	26%	147	298	49%	17	54	31%	3	4	67%	178	403	44.2%
e	Medical or psychiatric emergency, including suicide attempt	0	1	0	3	47	6%	84	298	28%	13	54	24%	0	4	0%	100	403	24.9%
f	Medication error resulting in serious consequences	0	1	0	0	47	0%	1	298	0%	0	54	0%	0	4	0%	1	403	0.2%
g	Inappropriate or unprofessional conduct by a provider involving member	0	1	0	1	47	2%	11	298	4%	2	54	4%	0	4	0%	14	403	3.5%
h	Suspected or evidenced physical or mental abuse (including seclusion and restraints)	0	1	0	2	47	4%	7	298	2%	1	54	2%	0	4	0%	10	403	2.5%

Annual (7/1/2015 - 6/30/2016)

i	Sexual abuse and/or suspected sexual abuse	0	1	0	0	47	0%	1	298	0%	0	54	0%	0	4	0%	1	403	0.2%
j	Neglect/Mistreatment, including self-neglect, caregiver overwhelmed, environmental	0	1	0	1	47	2%	13	298	4%	1	54	2%	0	4	0%	15	403	3.7%
k	Exploitation, including financial, theft, destruction of property	0	1	0	3	47	6%	6	298	2%	0	54	0%	0	4	0%	9	403	2.2%
l	Failure of member's Back-up Plan	0	1	0	0	47	0%	4	298	1%	0	54	0%	0	4	0%	4	403	1.0%
m	Elopement/Wandering from home or facility	0	1	0	0	47	0%	5	298	2%	1	54	2%	0	4	0%	6	403	1.5%
n	Eviction /loss of home	0	1	0	1	47	2%	5	298	2%	1	54	2%	0	4	0%	7	403	1.7%
o	Facility closure, with direct impact to member's health and welfare	0	1	0	0	47	0%	0	298	0%	0	54	0%	0	4	0%	0	403	0.0%
p	Media involvement or the potential for media involvement	0	1	0	6	47	13%	1	298	0%	2	54	4%	0	4	0%	10	403	2.2%
q	Cancellation of utilities	0	1	0	1	47	2%	0	298	0%	0	54	0%	0	4	0%	1	403	0.2%
r	Natural disaster, with direct impact to member's health and welfare	0	1	0	0	47	0%	0	298	0%	0	54	0%	0	4	0%	0	403	0.0%
s	Other	0	1	0	15	47	32%	2	298	1%	2	54	4%	0	4	0%	19	403	4.7%

Annual (7/1/2015 - 6/30/2016)

In preparation for this report, the Office of MLTSS/QM discovered that the data for PM# 18 for the measurement period of January 1, 2016 –March 31, 2016 (MLTSS 4th quarter 4/1/2016-6/30/16 Report) contained the October 1, 2015 – December 31, 2015 measurement period data. The table below provides the actual data received for the measurement period January 1, 2016 – March 31, 2016.

PM # 18	Quarterly and Annual Critical Incident reporting for abuse, neglect and exploitation
Numerator:	# of critical incidents per category
Denominator:	Total # of critical incidents reported for measurement period (quarter or annual)
Data Source:	MCO
Measurement Period:	January-March 2016

		MCO			A			B			C			D			E			Quarter - TOTAL		
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%			
18	Critical Incident (CI) reporting Types:																					
a	Unexpected death of a member	0	3	0%	0	57	0%	8	731	1%	6	74	8%	0	20	0%	14	885	1.6%			
b	Missing person or Unable to Contact	1	3	33%	2	57	4%	21	731	3%	0	74	0%	0	20	0%	24	885	2.7%			
c	Theft with law enforcement involvement	0	3	0%	0	57	0%	5	731	1%	0	74	0%	0	20	0%	5	885	0.6%			
d	Severe injury or fall resulting in the need of medical treatment	1	3	33%	24	57	42%	211	731	29%	21	74	28%	16	20	80%	273	885	30.8%			
e	Medical or psychiatric emergency, including suicide attempt	1	3	33%	2	57	4%	426	731	58%	12	74	16%	1	20	5%	442	885	49.9%			
f	Medication error resulting in serious consequences	0	3	0%	3	57	5%	0	731	0%	0	74	0%	0	20	0%	3	885	0.3%			
g	Inappropriate or unprofessional conduct by a provider involving member	0	3	0%	0	57	0%	10	731	1%	0	74	0%	0	20	0%	10	885	1.1%			
h	Suspected or evidenced physical or mental abuse (including seclusion and restraints)	0	3	0%	2	57	4%	7	731	1%	1	74	1%	1	20	5%	11	885	1.2%			

MLTSS Performance Measure Report

Annual (7/1/2015 - 6/30/2016)

i	Sexual abuse and/or suspected sexual abuse	0	3	0%	0	57	0%	0	731	0%	0	74	0%	0	20	0%	0	885	0%
j	Neglect/Mistreatment, including self-neglect, caregiver overwhelmed, environmental	0	3	0%	1	57	2%	14	731	2%	4	74	5%	0	20	0%	19	885	2.1%
k	Exploitation, including financial, theft, destruction of property	0	3	0%	0	57	0%	5	731	1%	0	74	0%	1	20	5%	6	885	0.7%
l	Failure of member's Back-up Plan	0	3	0%	0	57	0%	4	731	1%	2	74	3%	1	20	5%	7	885	0.8%
m	Elopement/Wandering from home or facility	0	3	0%	0	57	0%	6	731	1%	0	74	0%	0	20	0%	6	885	0.7%
n	Eviction /loss of home	0	3	0%	0	57	0%	11	731	2%	1	74	1%	0	20	0%	12	885	1.4%
o	Facility closure, with direct impact to member's health and welfare	0	3	0%	0	57	0%	0	731	0%	0	74	0%	0	20	0%	0	885	0%
p	Media involvement or the potential for media involvement	0	3	0%	3	57	5%	0	731	0%	5	74	7%	0	20	0%	8	885	0.9%
q	Cancellation of utilities	0	3	0%	1	57	2%	0	731	0%	0	74	0%	0	20	0%	1	885	0.1%
r	Natural disaster, with direct impact to member's health and welfare	0	3	0%	0	57	0%	0	731	0%	0	74	0%	0	20	0%	0	885	0%
s	Other	0	3	0%	2	57	4%	3	731	0%	5	74	7%	0	20	0%	10	885	1.1%
t	Inaccessible for initial/on-site meeting	0	3	0%	17	57	30%	0	731	0%	17	74	23%	0	20	0%	34	885	3.8%

Budget Neutrality Monitoring Spreadsheet

QE June 2016 Report

Due to CMS: 8/29/2016

TOTAL COMPUTABLE

Budget Neutrality Test	Authority Citation	Five Year Demonstration Forecasted Expenditures		Difference	
		<u>No Waiver</u>	<u>With Waiver</u>		
Main Test	STC #128	\$ 48,347,465,621	\$ 39,075,392,452	\$ 9,272,073,169	a
Supplemental Test #1	STC #129	1,739,794,604	1,735,240,244	4,554,360	b
Supplemental Test #2	STC #129	11,554,288,697	10,090,194,440	1,464,094,257	c
				\$ 9,272,073,169	d = a

Savings from Supps Test cannot be used to offset Main Test

FEDERAL SHARE

Budget Neutrality Test	Authority Citation	Five Year Demonstration Forecasted Expenditures		Difference	
		<u>No Waiver</u>	<u>With Waiver</u>		
Main Test	STC #128	\$ 24,557,267,134	\$ 19,933,441,924	\$ 4,623,825,211	a
Supplemental Test #1	STC #129	884,897,149	882,708,593	2,188,556	b
Supplemental Test #2	STC #129	11,460,886,582	10,008,565,959	1,452,320,623	c
				\$ 4,623,825,211	d = a

Savings from Supps Test cannot be used to offset Main Test

Budget Neutrality Monitoring Spreadsheet

Main Budget Neutrality Test

Budget Neutrality "Without Waiver" Caps as Established in STC #128

TOTAL COMPUTABLE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
Title XIX	1,888,003,055	2,721,828,868	3,190,622,964	3,479,944,098	3,779,246,263	15,059,645,248
ABD	2,303,471,943	3,340,091,763	3,488,446,475	3,601,490,961	3,799,468,935	16,532,970,077
LTC	2,434,906,749	3,342,738,123	3,370,065,861	3,456,369,068	3,657,040,576	16,261,120,377
HCBS state plan	30,677,444	44,280,262	62,454,144	140,136,207	216,181,862	493,729,919
	\$ 6,657,059,191	\$ 9,448,939,016	\$ 10,111,589,445	\$ 10,677,940,334	\$ 11,451,937,636	\$ 48,347,465,621
WITH WAIVER						
Title XIX	1,660,460,074	2,398,546,036	2,575,538,654	2,501,001,474	2,716,445,175	11,851,991,414
ABD/LTC	3,966,359,555	5,399,846,073	5,104,002,307	5,083,372,926	5,361,965,441	24,915,546,302
HCBS state plan	42,962,730	64,814,731	99,129,814	219,850,529	339,204,876	765,962,680
HOLD DDD Supports-PDN				-	-	-
Hospital Subsidies	192,443,637	266,607,552	266,600,001	293,872,727	354,600,000	1,374,123,917
CNOMS	28,450,084	37,592,951	32,847,573	34,438,766	34,438,766	167,768,139
	\$ 5,890,676,080	\$ 8,167,407,343	\$ 8,078,118,349	\$ 8,132,536,422	\$ 8,806,654,258	\$ 39,075,392,452
Difference	766,383,111	1,281,531,673	2,033,471,096	2,545,403,912	2,645,283,378	9,272,073,169

Notes:

1. Federal share is calculated using Composite Federal Share Ratios (source data is CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016). Note that the federal share for LTC "No Waiver" is calculated using the composite federal share ratio applicable to the ABD Meg.
2. "With Waiver" expenditures from CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016
3. Member-months are reported from MMIS with last actual reported as of Jun 30, 2016.
4. "With Waiver" pmpm's calculated using Sch C expenditures and MMIS eligibility actual member-months reported through Mar 2016 as reported in Jun 2016.
5. CNOMs (costs not otherwise matchable) include Severe Emotionally Disturbed children (SED at risk), MATI population, DDD non-disabled adult children and CCW Supports Equalization
6. Hospital Subsidies Include GME state plan, HRSF & GME, HRSF Transition Payments and DSRIP as reported on the CMS64 Sch C
7. The DDD Supports-PDN population, pending waiver amendment approval, is represented as a separate line item

FEDERAL SHARE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
Title XIX	947,820,879	1,506,657,580	1,750,869,704	1,747,011,830	1,897,268,388	7,849,628,380
ABD	1,155,164,371	1,680,469,785	1,753,080,588	1,804,514,799	1,903,710,989	8,296,940,532
LTC	1,221,077,396	1,681,801,224	1,693,589,706	1,731,801,968	1,832,347,745	8,160,618,039
HCBS state plan	15,580,987	22,839,325	32,078,617	70,627,448	108,953,807	250,080,184
	\$ 3,339,643,633	\$ 4,891,767,914	\$ 5,229,618,614	\$ 5,353,956,045	\$ 5,742,280,929	\$ 24,557,267,134
WITH WAIVER						
Title XIX	833,589,078	1,327,705,650	1,413,339,229	1,255,560,158	1,363,717,842	6,193,911,957
ABD/LTC	1,989,083,155	2,716,775,111	2,564,960,485	2,547,006,718	2,686,594,550	12,504,420,020
HCBS state plan	21,820,649	33,430,803	50,916,514	110,802,784	170,956,352	387,927,102
HOLD DDD Supports-PDN				-	-	-
Hospital Subsidies	96,221,820	138,946,278	150,097,502	168,572,730	207,380,003	761,218,332
CNOMS	14,732,813	19,546,033	17,074,707	17,391,577	17,219,383	85,964,512
	\$ 2,955,447,515	\$ 4,236,403,875	\$ 4,196,388,437	\$ 4,099,333,966	\$ 4,445,868,130	\$ 19,933,441,924
Difference	384,196,118	655,364,039	1,033,230,177	1,254,622,078	1,296,412,799	4,623,825,211

Budget Neutrality Monitoring Spreadsheet*Supplemental Test #1***Budget Neutrality "Without Waiver" Caps as Established in STC #129**

TOTAL COMPUTABLE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
HCBS 217-like	217,434,338	299,298,600	296,727,244	331,748,099	374,153,736	1,519,362,017
Adults w/o Depend. Children	1,677,789	798,912	-	-	-	2,476,701
SED 217-like	253,840	345,267	290,262	250,856	270,788	1,411,012
Former XIX Chip Parents	-	140,335,250	-	-	-	140,335,250
IDD/MI	-	-	6,423,263	33,559,894	36,226,466	76,209,624
	\$ 219,365,967	\$ 440,778,028	\$ 303,440,769	\$ 365,558,848	\$ 410,650,991	\$ 1,739,794,604
WITH WAIVER						
HCBS 217-like	207,460,903	278,129,244	330,361,606	366,613,497	407,766,065	1,590,331,315
Adults w/o Depend. Children-AWDC	1,529,772	674,018	-	-	-	2,203,790
SED 217-like	83	58,922	27,837	41,756	45,073	173,671
Former XIX Chip Parents	-	126,863,607	-	-	-	126,863,607
IDD/MI	-	-	1,180,543	6,966,875	7,520,443	15,667,861
	\$ 208,990,758	\$ 405,725,791	\$ 331,569,986	\$ 373,622,127	\$ 415,331,582	\$ 1,735,240,244
Difference	10,375,209	35,052,237	(28,129,217)	(8,063,279)	(4,680,592)	4,554,360

Notes:

1. Federal share is calculated using Composite Federal Share Ratios (source data is CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016).
2. "With Waiver" expenditures from CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016
3. Member-months are reported from MMIS with last actual reported as of Jun 2016.
4. "With Waiver" pmpm's calculated using Sch C expenditures and MMIS eligibility actual member-months reported through Mar 2016 as reported in Jun 2016.

FEDERAL SHARE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
HCBS 217-like	110,183,078	154,287,324	152,390,148	167,384,730	188,780,652	773,025,932
Adults w/o Depend. Children - AWDC	852,857	408,324	-	-	-	1,261,182
SED 217-like	128,449	172,639	145,397	126,682	135,394	708,561
Former XIX Chip Parents	-	71,621,870	-	-	-	71,621,870
IDD/MI	-	-	3,244,503	16,811,917	18,223,184	38,279,603
	\$ 111,164,384	\$ 226,490,158	\$ 155,780,048	\$ 184,323,329	\$ 207,139,229	\$ 884,897,149
WITH WAIVER						
HCBS 217-like	105,129,121	143,374,599	169,663,740	184,976,196	205,739,877	808,883,533
Adults w/o Depend. Children	777,617	344,491	-	-	-	1,122,108
SED 217-like	42	29,462	13,944	21,087	22,537	87,071
Former XIX Chip Parents	-	64,746,447	-	-	-	64,746,447
IDD/MI	-	-	596,313	3,490,074	3,783,047	7,869,434
	\$ 105,906,780	\$ 208,494,999	\$ 170,273,997	\$ 188,487,357	\$ 209,545,460	\$ 882,708,593
Difference	5,257,604	17,995,159	(14,493,949)	(4,164,027)	(2,406,231)	2,188,556

Budget Neutrality Monitoring Spreadsheet

Supplemental Test #2

Budget Neutrality "Without Waiver" Caps as Established in STC #129

TOTAL COMPUTABLE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
New Adult Group	\$ -	\$ 1,115,934,974	\$ 3,208,229,680	\$ 3,494,039,442	\$ 3,736,084,602	\$ 11,554,288,697
WITH WAIVER						
New Adult Group	\$ -	\$ 861,275,863	\$ 2,850,881,400	\$ 3,112,897,937	\$ 3,265,139,240	\$ 10,090,194,440
Difference	-	254,659,111	357,348,280	381,141,505	470,945,362	1,464,094,257

Notes:

1. Federal share is calculated using Composite Federal Share Ratios (source data is CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016).
2. "With Waiver" expenditures from CMS 64 Schedule C as reported in QE Mar 2016 with a run date of Aug 8, 2016
3. Member-months are reported from MMIS with last actual reported as of Jun 2016.
4. "With Waiver" pmpm's calculated using Sch C expenditures and MMIS eligibility actual member-months reported through Mar 2016 as reported in Jun 2016.

FEDERAL SHARE						
	DY1	DY2	DY3	DY4	DY5	5-Yr Demo Total
NO WAIVER						
New Adult Group	\$ -	\$ 1,115,934,974	\$ 3,208,229,680	\$ 3,494,039,442	\$ 3,642,682,487	\$ 11,460,886,582
WITH WAIVER						
New Adult Group	\$ -	\$ 861,275,863	\$ 2,850,881,400	\$ 3,112,897,937	\$ 3,183,510,759	\$ 10,008,565,959
Difference	-	254,659,111	357,348,280	381,141,505	459,171,728	1,452,320,623

Detail with Waiver TC

		<u>DY1</u>	<u>DY2</u>	<u>DY3</u>	<u>DY4</u>	<u>DY5</u>	<u>Demo Period</u>	
Title XIX	MMs	5,773,180	7,850,901	8,699,959	8,970,084	9,208,690		2.7%
	Pmpm	\$287.62	\$305.51	\$296.04	\$278.82	\$294.99		5.8%
	Spend	\$1,660,460,074	\$2,398,546,036	\$2,575,538,654	\$2,501,001,474	\$2,716,445,175	\$11,851,991,414	
ABD	MMs	2,486,117	3,342,730	3,355,975	3,341,097	3,401,742		1.8%
	Pmpm	\$1,595.40	\$1,615.40	\$1,520.87	\$1,521.47	\$1,576.24		3.6%
	Spend	\$3,966,359,555	\$5,399,846,073	\$5,104,002,307	\$5,083,372,926	\$5,361,965,441	\$24,915,546,302	
LTC	MMs							1.8%
	Pmpm							3.9%
	Spend	\$0	\$0	\$0	\$0	\$0	\$0	
HCBS State Plan	MMs	13,594	18,860	25,656	55,523	82,609		1.8%
	Pmpm	\$3,160.42	\$3,436.62	\$3,863.81	\$3,959.64	\$4,106.15		3.7%
	Spend	\$42,962,730	\$64,814,731	\$99,129,814	\$219,850,529	\$339,204,876	\$765,962,680	
		<u>DY1</u>	<u>DY2</u>	<u>DY3</u>	<u>DY4</u>	<u>DY5</u>	<u>Demo Period</u>	
HCBS 217-Like	MMs	96,351	127,895	122,272	131,826	141,392		1.8%
	Pmpm	\$2,153.18	\$2,174.67	\$2,701.86	\$2,781.05	\$2,883.95		3.7%
	Spend	\$207,460,903	\$278,129,244	\$330,361,606	\$366,613,497	\$407,766,065	\$1,590,331,315	
AWDC	MMs	6,057	2,774	0	0	0		
	Pmpm	\$252.56	\$242.98					
	Spend	\$1,529,772	\$674,018	\$0	\$0	\$0	\$2,203,790	
SED 217-Like	MMs	113	145	115	94	95		1.8%
	Pmpm	\$0.73	\$406.36	\$242.06	\$445.34	\$472.06		6.0%
	Spend	\$83	\$58,922	\$27,837	\$41,756	\$45,073	\$173,671	
XIX Chip Parents	MMs	0	456,761	0	0	0		
	Pmpm		\$277.75					
	Spend	\$0	\$126,863,607	\$0	\$0	\$0	\$126,863,607	
IDD/MI - 217-Like	MMs	0	0	581	2,864	2,916		1.8%
	Pmpm	\$0.00	\$0.00	\$2,031.92	\$2,432.78	\$2,578.75		6.0%
	Spend	\$0	\$0	\$1,180,543	\$6,966,875	\$7,520,443	\$15,667,861	
New Adult Group	MMs	0	2,399,241	6,541,000	6,784,543	6,909,079		1.8%
	Pmpm		\$358.98	\$435.85	\$458.82	\$472.59		5.0%
	Spend	\$0	\$861,275,863	\$2,850,881,400	\$3,112,897,937	\$3,265,139,240	\$10,090,194,440	

Detail No Waiver TC

		<u>DY1</u>	<u>DY2</u>	<u>DY3</u>	<u>DY4</u>	<u>DY5</u>	<u>Demo Period</u>
Title XIX	MMs	5,773,180	7,850,901	8,699,959	8,970,084	9,208,690	
	Pmpm	\$327.03	\$346.69	\$366.74	\$387.95	\$410.40	
	Spend	\$1,888,003,055	\$2,721,828,868	\$3,190,622,964	\$3,479,944,098	\$3,779,246,263	\$15,059,645,248
ABD	MMs	2,204,195	2,970,317	2,994,606	2,984,381	3,039,162	
	Pmpm	\$1,045.04	\$1,124.49	\$1,164.91	\$1,206.78	\$1,250.17	
	Spend	\$2,303,471,943	\$3,340,091,763	\$3,488,446,475	\$3,601,490,961	\$3,799,468,935	\$16,532,970,077
LTC	MMs	281,922	372,413	361,369	356,716	363,264	
	Pmpm	\$8,636.81	\$8,975.89	\$9,325.83	\$9,689.41	\$10,067.17	
	Spend	\$2,434,906,749	\$3,342,738,123	\$3,370,065,861	\$3,456,369,068	\$3,657,040,576	\$16,261,120,377
HCBS State Plan	MMs	13,594	18,860	25,656	55,523	82,609	
	Pmpm	\$2,256.69	\$2,347.84	\$2,434.29	\$2,523.94	\$2,616.93	
	Spend	\$30,677,444	\$44,280,262	\$62,454,144	\$140,136,207	\$216,181,862	\$493,729,919
		<u>DY1</u>	<u>DY2</u>	<u>DY3</u>	<u>DY4</u>	<u>DY5</u>	<u>Demo Period</u>
HCBS 217-Like	MMs	96,351	127,895	122,272	131,826	143,372	
	Pmpm	\$2,256.69	\$2,340.19	\$2,426.78	\$2,516.57	\$2,609.68	
	Spend	\$217,434,338	\$299,298,600	\$296,727,244	\$331,748,099	\$374,153,736	\$1,519,362,017
AWDC	MMs	6,057	2,774	0	0	0	
	Pmpm	\$277.00	\$288.00				
	Spend	\$1,677,789	\$798,912	\$0	\$0	\$0	\$2,476,701
SED 217-Like	MMs	113	145	115	94	95	
	Pmpm	\$2,246.37	\$2,381.15	\$2,524.02	\$2,675.46	\$2,835.99	
	Spend	\$253,840	\$345,267	\$290,262	\$250,856	\$270,788	\$1,411,012
XIX Chip Parents	MMs	0	456,761	0	0	0	
	Pmpm		\$307.24				
	Spend	\$0	\$140,335,250	\$0	\$0	\$0	\$140,335,250
IDD/MI	MMs	0	0	581	2,864	2,916	
	Pmpm	\$9,839.39	\$10,429.75	\$11,055.53	\$11,718.87	\$12,422.00	
	Spend	\$0	\$0	\$6,423,263	\$33,559,894	\$36,226,466	\$76,209,624
New Adult Group	MMs	0	2,399,241	6,541,000	6,784,543	6,909,079	
	Pmpm		\$465.12	\$490.48	\$515.00	\$540.75	
	Spend	\$0	\$1,115,934,974	\$3,208,229,680	\$3,494,039,442	\$3,736,084,602	\$11,554,288,697

2.7%
5.8%

1.8%
3.6%

1.8%
3.9%

1.8%
3.7%

1.8%
3.7%

1.8%
6.0%

1.8%
6.0%

1.8%
5.0%

ORIGINAL STC APPROVED GROWTH PERCENTAGES FOR BUDGET NEUTRALITY

Hospital Subsidy Summary

Total Computable										
Program	DY1		DY2		DY3		DY4		DY5	
HRSF & GME	\$	192,443,637	\$	-	\$	-	\$	-	\$	-
HRSF Transition Payments		-		83,302,681		-		-		-
GME State Plan		-		100,000,001		100,000,000		127,272,727		188,000,000
DSRIP		-		83,304,870		166,600,001		166,600,000		166,600,000
	\$	192,443,637	\$	266,607,552	\$	266,600,001	\$	293,872,727	\$	354,600,000

Composite Federal Share Percentage

Program	DY1	DY2	DY3	DY4	DY5
HRSF & GME	50.00%	0.00%	0.00%	0.00%	0.00%
HRSF Transition Payments	0.00%	50.00%	0.00%	0.00%	0.00%
GME State Plan	0.00%	55.64%	66.80%	67.00%	66.00%
DSRIP	0.00%	50.00%	50.00%	50.00%	50.00%

Federal Share										
Program	DY1		DY2		DY3		DY4		DY5	
HRSF & GME	\$	96,221,820	\$	-	\$	-	\$	-	\$	-
HRSF Transition Payments		-		41,651,341		-		-		-
GME State Plan		-		55,642,502		66,797,499		85,272,727		124,080,000
DSRIP		-		41,652,435		83,300,003		83,300,003		83,300,003
	\$	96,221,820	\$	138,946,278	\$	150,097,502	\$	168,572,730	\$	207,380,003

DY1-3: Total Computable, Federal Share and Composite Federal Share Percentage tie to CMS64 Sch C for QE Mar 16 with a run date of Aug 8, 2016.

DY4 & DY5: Total Computable amounts tie to the amounts budgeted in SFY2016.

DY4 & DY5: Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage (estimate for DY4/DY5)

Costs Otherwise Not Matchable (CNOM) Summary

Total Computable						
Program	DY1	DY2	DY3	DY4	DY5	
SED at Risk	\$ 24,380,309	\$ 34,163,793	\$ 32,847,573	\$ 34,438,766	\$ 34,438,766	
MATI at Risk	4,069,775	3,429,158	-	-	-	
DDD non-Disabled Adult Children	-	-	-	-	-	
DDD Community / Supports Equalization	-	-	-	-	-	
	\$ 28,450,084	\$ 37,592,951	\$ 32,847,573	\$ 34,438,766	\$ 34,438,766	

Composite Federal Share Percentage

Program	DY1	DY2	DY3	DY4	DY5
SED at Risk	52.00%	51.99%	51.98%	50.50%	50.00%
MATI at Risk	50.50%	52.00%	0.00%	0.00%	0.00%
DDD non-Disabled Adult Children				50.00%	50.00%
DDD Community / Supports Equalization				50.00%	50.00%

Federal Share						
Program	DY1	DY2	DY3	DY4	DY5	
SED at Risk	\$ 12,677,491	\$ 17,762,871	\$ 17,074,707	\$ 17,391,577	\$ 17,219,383	
MATI at Risk	2,055,322	1,783,162	-	-	-	
DDD non-Disabled Adult Children	-	-	-	-	-	
DDD Community / Supports Equalization	-	-	-	-	-	
	\$ 14,732,813	\$ 19,546,033	\$ 17,074,707	\$ 17,391,577	\$ 17,219,383	

Notes: SED at Risk and MATI at Risk

DY1-3: Total Computable, Federal Share and Composite Federal Share Percentage tie to CMS64 Sch C for QE Mar 16 with a run date of Aug 8, 2016.

DY4: Total Computable amounts tie to CMS64 Sch for QE Mar 16 annualized assuming only 8 months' worth spending has occurred (1 month lag)

DY5: Total Computable = DY4 estimate

DY4 & DY5: Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage (estimate for DY4/DY5)

Notes: DDD programs

DY1-3: No spending

DY4: Total Computable assumes the programs are operational for 3 months

DY5: Total Computable assumes the programs are operational for 12 months

DY4 & DY5: Federal Share amounts = Total Computable amounts multiplied by the Federal Composite Share Percentage (estimate for DY4/DY5)

DDD Waiver Amendment Annual Cost Estimate

DY4 = 0 months

DY5 = 12 months

	People	Cost PMPM	Gross Cost		Fed Share		
			DY4	DY5	DY4	DY5	
#1 non-DAC	Supports	182 \$ 1,891	\$ -	\$ -	\$ -	\$ -	CNOM
	State Plan	182 \$ 1,312	\$ -	\$ -	\$ -	\$ -	
			\$ -	\$ -	\$ -	\$ -	
#2 CCW/Supports Equalization	Supports	59 \$ 1,891	\$ -	\$ -	\$ -	\$ -	CNOM
	State Plan	59 \$ 1,312	\$ -	\$ -	\$ -	\$ -	
			\$ -	\$ -	\$ -	\$ -	
TOTAL			\$ -	\$ -	\$ -	\$ -	
			\$ -	\$ -	\$ -	\$ -	
			\$ -	\$ -	\$ -	\$ -	

#3 DDD Supports - PDN Group

	DY4	DY5
Projected Monthly Clients	195	222
Months	0	0
<i>Projected MMs</i>	<i>0</i>	<i>0</i>
Monthly cost of DD Supports	\$1,890.83	\$1,947.56
Hcbs Non-dual cap rate	\$8,230.66	\$8,477.58
Total PMPM Cost	\$10,121.49	\$10,425.14
Total Annual Cost	\$0	\$0
Federal Share	\$0	\$0
Member-months removed from following MEGs beginning DY4:		
<i>without waiver</i>		
	<u>DY4</u>	<u>DY5</u>
ABD	0	52
HCBS 217-Like	0	165
LTC	0	5

Notes:

For non-DAC and CCW Supports, the state plan service cost PMPM = ABD Non-dual cap rate

For non-DAC and CCW Supports, the DDD Supports cost PMPM was provided by DDD.

For non-DAC and CCW Supports, the estimated clients were provided by DDD

For DD Supports-PDN Group, the HCBS Non-dual cap rate is used for medical/LTC costs

For DD Supports-PDN Group, the DDD Supports cost PMPM was provided by DDD.

For DD Supports-PDN Group, the estimated clients were found using DMAHS Office of Managed Health Care analysis

NJ Comprehensive Waiver: 1115 Demonstration

Demonstration Year 3 (SFY15): Major Medicaid Eligibility Group

Expenditure Completion Percentage through 3/31/2016

	CMS64 Sch C: Total Computable Expenditures						
	<u>QE Sept 14</u>	<u>QE Dec 14</u>	<u>QE Mar 15</u>	<u>QE Jun 15</u>	<u>QE Sept 15</u>	<u>QE Dec 15</u>	<u>QE Mar 16</u>
Title XIX	\$434,928,859	\$1,123,432,957	\$1,776,674,891	\$2,421,649,657	\$2,553,436,009	\$2,568,462,904	\$2,575,538,654
ABD (w/ LTC)	\$959,799,916	\$2,238,665,986	\$3,502,700,629	\$4,800,030,515	\$5,061,934,434	\$5,089,988,884	\$5,104,002,307
HCBS state plan	\$17,444,346	\$40,534,851	\$67,115,872	\$98,437,031	\$98,879,627	\$98,966,602	\$99,129,814
HCBS 217-like	\$79,660,649	\$164,047,547	\$247,004,147	\$327,788,341	\$328,690,304	\$329,600,356	\$330,361,606
New Adult Group	\$544,696,512	\$1,223,823,248	\$1,853,884,815	\$2,660,505,457	\$2,751,130,881	\$2,841,374,347	\$2,850,881,400

	CMS64 Sch C: Percent Completion						
	<u>QE Sept 14</u>	<u>QE Dec 14</u>	<u>QE Mar 15</u>	<u>QE Jun 15</u>	<u>QE Sept 15</u>	<u>QE Dec 15</u>	<u>QE Mar 16</u>
Title XIX	16.89%	43.62%	68.98%	94.02%	99.14%	99.73%	100.00%
ABD (w/ LTC)	18.80%	43.86%	68.63%	94.04%	99.18%	99.73%	100.00%
HCBS state plan	17.60%	40.89%	67.71%	99.30%	99.75%	99.84%	100.00%
HCBS 217-like	24.11%	49.66%	74.77%	99.22%	99.49%	99.77%	100.00%
New Adult Group	19.11%	42.93%	65.03%	93.32%	96.50%	99.67%	100.00%

Budget Neutrality Monitoring Sheet Notes

Generally, Budget Neutrality demonstration lags by 1 quarter. Therefore, the QE Jun 2016 NJ Comp Waiver quarterly report represents CMS 64 Sch C as of the QE Mar 31, 2016

Enrollment Trends

DY1-DY3 Actual as reported in Jun 2016 with the exception of ABD and LTC meg. The LTC Meg member-months are estimated in accordance with STC#108 for the purposes of establishing budget neutrality caps. In the current report, all estimated LTC member-months are presumed to be a subset of the ABD Meg, as this Meg contains most nursing facility expenditures. The State of NJ is currently working to better estimate these subsets. Therefore, the ABD Meg = member-months as reported in Jun 2016 less LTC estimates.

DY4

Title XIX	Sum of Jul-Mar actuals (as reported Jun'16) multiplied by 4/3 then multiplied 0.51%
ABD	Sum of Jul-Mar actuals (as reported Jun'16) multiplied by 4/3 then multiplied 0.45% for "No Waiver." WITH Waiver = No waiver total <i>less</i> 3 months of projected DD Supports clients that are current ABD/LTC clients <i>plus</i> LTC clients
LTC	Sum of Jul-Mar actuals (as reported Jun'16) multiplied by 4/3 then multiplied 0.45%
HCBS state plan	Ties to MLTSS (Mar'16 actuals) capitation projection; split between percentage of state plan vs. 217-like using MEG Enrollment report.
HCBS 217-Like	Ties to MLTSS (Mar'16 actuals) capitation projection; split between percentage of state plan vs. 217-like using MEG Enrollment report for "No Waiver." WITH Waiver = NO Waiver total <i>less</i> 9 months of projected DD Supports clients that are current HCBS 217-like clients
SED At-Risk	Sum of Jul-Sept actuals (as reported Dec'15) multiplied by 4 then multiplied 1.35%
SED 217-Like	Sum of Jul-Sept actuals (as reported Dec'15) multiplied by 4 then multiplied 1.35%
New Adult Group	Sum of Jul-Sept actuals (as reported Dec'15) multiplied by 4 then multiplied 1.35%

DY5

ABD	Except for exceptions below, Prior DY projected member-months increased by CMS-approved Budget Neutrality growth factors
HCBS state plan	Prior DY projected member-months increased by CMS-approved Budget Neutrality growth factors for "No Waiver." WITH Waiver = No waiver total <i>less</i> 12 months of projected DD Supports clients that are current ABD/LTC clients <i>plus</i> LTC clients
HCBS 217-like	DY5 based on MLTSS (Dec 15 actuals) capitation projection; split between percentage of state plan vs. 217-like using MEG Enrollment report.
	Ties to MLTSS (Dec 15 actuals) capitation projection; split between percentage of state plan vs. 217-like using MEG Enrollment report for "No Waiver." WITH Waiver = NO Waiver total <i>less</i> 12 months of projected DD Supports clients that are current HCBS 217-like clients

No Waiver Spending

DY1-DY5 Total Computable = MM's multiplied by PMPM caps per STCs #128 and #129. .

DY1-DY5 Federal Share = Total Computable multiplied by composite federal share ratio in accordance with STC #130

With Waiver Spending

DY1-DY3 Total Computable and Federal Share tie to CMS64 Sch C as reported by Meg on QE Mar'16

DY4

Title XIX	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (with DY3 Title XIX Meg Completion % applied))
ABD	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (with DY3 Title XIX Meg Completion % applied))
LTC	No spending reported (presumably rolled into ABD spending)
HCBS state plan	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (with DY3 HCBS 217 like Meg Completion % applied))
HCBS 217-like	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (with DY3 Title XIX Meg Completion % applied))
SED 217-like	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (assumes 8 months worth of expenditures (1 month lag))
New Adult Group	Projected MM's multiplied by PMPM based on DY4 spend on QE Mar 16 Sch C (with DY3 Title XIX Meg Completion % applied))

DY5 = projected MM's multiplied by PMPMs, generally are 3% increase over DY4 PMPM (projected MCO rate increase)

DY4-DY5 Federal Share = Total Computable multiplied by composite federal share ratio in accordance with STC #130

Schedule C
CMS 64 Waiver Expenditure Report
Cumulative Data Ending Quarter/Year : 2/2016

State: New Jersey

Summary of Expenditures by Waiver Year
Waiver: 11W00279

MAP Waivers

Total Computable

Waiver Name	A	01	02	03	04
ABD	0	3,966,359,555	5,399,846,073	5,104,002,307	3,488,543,397
ACCAP – 217 Like	0	630,539	880,454	0	0
ACCAP – SP	0	900,000	966,297	0	0
AWDC	0	1,529,772	674,018	0	0
Childless Adults	0	27,844,394	48,216,389	0	0
CRPD – 217 Like	0	11,803,536	16,894,842	0	0
CRPD –SP	0	10,672,842	15,247,535	0	0
DSRIP	0	0	83,304,870	166,600,001	51,797,947
GME State Plan	0	0	100,000,001	100,000,000	95,441,908
GO – 217 Like	0	181,068,236	221,682,839	0	0
GO – SP	0	23,869,092	33,606,671	0	0
HCBS – 217 Like	0	284,660	21,232,858	330,361,606	274,108,893
HCBS – State Plan	0	63,682	5,629,300	99,129,814	164,377,432
HRSF & GME	0	192,443,637	0	0	0
HRSF Transition Paym	0	0	83,302,681	0	0
IDD/MI – 217 Like	0	0	0	1,180,543	4,644,583
MATI at Risk	0	4,069,775	3,429,158	0	0
New Adult Group	0	7,906,965	861,275,863	2,850,881,400	2,024,270,184
SED – 217 Like	0	83	58,922	27,837	77,073
SED at Risk	0	24,380,309	34,163,793	32,847,573	22,959,177
TBI – 217 Like	0	13,673,932	17,438,251	0	0
TBI – SP	0	7,457,114	9,364,928	0	0
Title XIX	0	1,660,460,074	2,398,546,036	2,575,538,654	1,725,257,167
XIX CHIP Parents	0	0	126,863,607	0	0
Total	0	6,135,418,197	9,482,625,386	11,260,569,735	7,851,477,761

Federal Share

Schedule C
CMS 64 Waiver Expenditure Report
Cumulative Data Ending Quarter/Year : 2/2016

Waiver Name	A	01	02	03	04
ABD	0	1,989,083,155	2,716,775,111	2,564,960,485	1,747,922,806
ACCAP – 217 Like	0	319,151	446,869	0	0
ACCAP – SP	0	454,312	489,362	0	0
AWDC	0	777,617	344,491	0	0
Childless Adults	0	14,715,147	24,778,164	0	0
CRPD – 217 Like	0	6,026,151	8,740,654	0	0
CRPD –SP	0	5,447,877	7,899,121	0	0
DSRIP	0	0	41,652,435	83,300,003	25,898,975
GME State Plan	0	0	55,642,502	66,797,499	63,790,123
GO – 217 Like	0	91,709,982	114,209,771	0	0
GO – SP	0	12,108,906	17,304,835	0	0
HCBS – 217 Like	0	145,343	10,990,245	169,663,740	138,302,656
HCBS – State Plan	0	32,850	2,918,207	50,916,514	82,844,818
HRSF & GME	0	96,221,820	0	0	0
HRSF Transition Paym	0	0	41,651,341	0	0
IDD/MI – 217 Like	0	0	0	596,313	2,326,716
MATI at Risk	0	2,055,322	1,783,162	0	0
New Adult Group	0	7,906,965	861,275,863	2,850,881,400	2,024,270,184
SED – 217 Like	0	42	29,462	13,944	38,548
SED at Risk	0	12,677,491	17,762,871	17,074,707	11,582,815
TBI – 217 Like	0	6,928,494	8,987,060	0	0
TBI – SP	0	3,776,704	4,819,278	0	0
Title XIX	0	833,589,078	1,327,705,650	1,413,339,229	876,779,504
XIX CHIP Parents	0	0	64,746,447	2,148	0
Total	0	3,083,976,407	5,330,952,901	7,217,545,982	4,973,757,145

CMS 64 - MEDICAID ELIGIBILITY GROUPS AS OF JUNE 2014

Actuals through 3/31/2016 (as of 6/30/2016)					
DEFINITIONS:	DY1	DY2	DY3	DY4	DY5
1 TITLE XIX	5,773,180	7,850,901	8,699,959	6,683,120	0
2 ABD (Excluding HCBS and LTC SPC 61)	2,486,117	3,342,730	3,355,975	2,494,376	0
3 Childless Adults	385,740	225,208			
4 Adults W/O Dependent Children	6,057	2,774			
5 SED	26,729	43,160	38,453	31,421	0
6 HCBS (State Plan)	13,594	18,860	25,656	40,446	
7 HCBS (217 Like)	96,351	127,895	122,272	97,822	
8 LTC					
9 SED (217 Like)	113	145	115	70	0
10 IDD/MI (217 Like)	0	0	581	2,138	0
11 XIX CHIP Parents (10/01/2013 - 12/31/2013 Only)		456,761	0	0	0
12 New Adult Group (01/01/2014 Onwards)		2,399,241	6,541,000	5,065,163	0

Source - CMS64 MEG report from Jun 2016

	10/1/12-12/31/12	1/1/13-3/31/13	4/1/13-6/30/13	7/1/13-9/30/13	10/1/13-12/31/13	1/1/14-3/31/14	4/1/14-6/30/14	7/1/14-9/30/14	10/1/14-12/31/14	1/1/15-3/31/15	4/1/15-6/30/15	7/1/15-9/30/15	10/1/15-12/31/15	1/1/16-3/31/16	4/1/16-6/30/16	7/1/16-9/30/16	10/1/16-12/31/16	1/1/17-3/31/17	4/1/17-6/30/17	7/1/17-9/30/17	10/1/17-12/31/17	1/1/18-3/31/18	4/1/18-6/30/18	7/1/18-9/30/18	10/1/18-12/31/18	1/1/19-3/31/19	4/1/19-6/30/19	7/1/19-9/30/19	10/1/19-12/31/19			
643,208	641,115	641,945	643,840	643,718	645,054	645,116	635,183	634,001	633,251	632,536	631,012	628,743	625,874	623,702	663,241	667,292	678,653	683,673	689,180	693,744	698,873	705,756	712,044	716,443	718,070	721,307	726,830	732,311	736,730	740,261	744,442	746,892
274,854	274,540	274,471	275,897	276,304	276,808	277,259	277,750	278,234	278,390	278,697	279,521	279,906	279,461	278,818	276,842	277,127	278,134	278,326	278,535	278,973	280,262	280,382	280,535	280,359	280,294	278,829	279,154	279,165	279,205	279,364	279,287	279,139
45,455	44,363	43,494	43,024	42,618	42,563	41,976	41,588	40,659	39,738	39,242	38,278	37,737	34,678	35,535																		
772	750	713	682	670	663	644	610	553	503	491	460	453	442	425	145,207	160,725	203,473	221,698	235,947	248,452	261,467	275,824	285,009	293,647	303,733	320,267	332,291	348,973	355,792	362,664	364,468	366,291
2,560	2,618	2,677	2,907	3,029	3,110	3,181	3,313	3,334	3,271	3,291	3,154	3,364	3,566	3,531	3,769	3,856	4,162	4,191	3,551	3,454	3,185	3,028	2,810	2,886	2,923	3,039	3,164	3,262	3,413	3,522	3,637	3,584
1,518	1,520	1,504	1,467	1,474	1,493	1,511	1,543	1,564	1,553	1,555	1,540	1,567	1,586	1,586	1,596	1,583	1,580	1,576	1,573	1,565	1,492	1,546	1,624	1,821	2,011	2,162	2,163	2,265	2,349	2,496	2,703	3,024
11,219	11,225	11,221	10,428	10,396	10,420	10,456	10,480	10,506	10,556	10,577	10,645	10,726	10,752	10,751	10,758	10,742	10,606	10,604	10,577	10,601	9,863	9,920	9,994	10,300	10,490	10,467	10,246	10,156	10,149	10,181	10,224	10,282
15	13	14	15	15	10	7	9	15	14	11	15	15	16	13	0	0	0	0	0	0	24,537	24,150	23,794	23,313	22,974	22,725						
															152,428	152,087	152,246															
															181,112	186,389	198,362	203,220	205,870	208,786	211,485	214,061	216,647	218,794	220,090	225,796	225,810	228,275	228,919	227,858	226,725	226,114

BN caps should be as of 3-27-14

Meg = Title XIX	as appears on march 27 2014	Should appear on 3/27/14 STCs
	PMPM	PMPM
DY2	\$346.00	\$346.69
DY3	\$366.07	\$366.74
DY4	\$387.30	\$387.95
DY5	\$409.76	\$410.40

Meg = ABD	original	after CMS approve \$10m addl GME
	PMPM	PMPM
DY2	\$1,123.36	\$1,124.49
DY3	\$1,163.80	\$1,164.91
DY4	\$1,205.69	\$1,206.78
DY5	\$1,249.10	\$1,250.17

Meg = LTC	original	after CMS approve \$10m addl GME
	PMPM	PMPM
DY2	\$8,973.64	\$8,975.89
DY3	\$9,323.62	\$9,325.83
DY4	\$9,687.24	\$9,689.41
DY5	\$10,065.04	\$10,067.17

Meg = HCBS State Plan	original	after CMS approve \$10m addl GME
	PMPM	PMPM
DY2	\$2,340.19	\$2,347.84
DY3	\$2,426.78	\$2,434.29
DY4	\$2,516.57	\$2,523.94
DY5	\$2,609.68	\$2,616.93

MMX Member Mo	Count(dist) Recip Idn
10/1/2012	29,432.
11/1/2012	29,366.
12/1/2012	29,283.
1/1/2013	29,180.
2/1/2013	28,844.
3/1/2013	28,865.
4/1/2013	28,798.
5/1/2013	28,696.
6/1/2013	28,750.
7/1/2013	28,865.
8/1/2013	29,042.
9/1/2013	29,077.
10/1/2013	29,122.
11/1/2013	29,161.
12/1/2013	29,210.
1/1/2014	29,085.
2/1/2014	28,857.
3/1/2014	28,888.
4/1/2014	28,819.
5/1/2014	28,801.
6/1/2014	28,770.
7/1/2014	29,235.
8/1/2014	29,135.
9/1/2014	28,990.
10/1/2014	28,799.
11/1/2014	28,521.
12/1/2014	28,343.
1/1/2015	28,329.
2/1/2015	28,028.
3/1/2015	27,822.
4/1/2015	27,731.
5/1/2015	27,672.
6/1/2015	27,857.
7/1/2015	27,891.

	MMs
DY1	261,214.
DY2	347,697.
DY3	340,462.
DY4	252,059.
DY5	

8/1/2015	28,025.
9/1/2015	28,014.
10/1/2015	28,077.
11/1/2015	28,206.
12/1/2015	28,180.
1/1/2016	28,022.
2/1/2016	27,863.
3/1/2016	27,781.
4/1/2016	27,501.
5/1/2016	27,320.
6/1/2016	26,932.
7/1/2016	24,191.
8/1/2016	24,196.

MMX Member Month Date	Count(dist) Recip Idn
10/1/2012	2,376.
11/1/2012	2,353.
12/1/2012	2,332.
1/1/2013	2,322.
2/1/2013	2,302.
3/1/2013	2,291.
4/1/2013	2,270.
5/1/2013	2,242.
6/1/2013	2,220.
7/1/2013	2,195.
8/1/2013	2,177.
9/1/2013	2,157.
10/1/2013	2,130.
11/1/2013	2,109.
12/1/2013	2,076.
1/1/2014	2,047.
2/1/2014	2,032.
3/1/2014	2,017.
4/1/2014	1,970.
5/1/2014	1,930.
6/1/2014	1,876.
7/1/2014	1,845.
8/1/2014	1,823.
9/1/2014	1,811.
10/1/2014	1,791.
11/1/2014	1,769.
12/1/2014	1,744.
1/1/2015	1,724.
2/1/2015	1,712.
3/1/2015	1,695.
4/1/2015	1,678.
5/1/2015	1,665.
6/1/2015	1,650.
7/1/2015	1,638.

	MMs
DY1	20,708.
DY2	24,716.
DY3	20,907.
DY4	14,256.
DY5	

8/1/2015	1,631.
9/1/2015	1,611.
10/1/2015	1,583.
11/1/2015	1,581.
12/1/2015	1,570.
1/1/2016	1,558.
2/1/2016	1,546.
3/1/2016	1,538.
4/1/2016	1,532.
5/1/2016	1,511.
6/1/2016	1,501.

HCBS Proj MMsactuals

	Duals	Non-duals	Combo										
	<u>79399</u>	<u>89399</u>											
SFY15	\$ 2,707.96	\$ 7,666.80	\$ 3,099.62	<i>wt avg, net of patient liability</i>									
SFY16	\$ 2,789.20	\$ 7,896.80	\$ 3,384.04										
SFY17	\$ 2,872.87	\$ 8,133.71	\$ 3,485.56										
sfy16 & 17 reflect 3% rate increase													
	93.4%	6.6%			33.2%	66.8%		As Reported on the MEG Report Jun'16					
	<u>Duals</u>	<u>Non-duals</u>	<u>Total</u>		<u>HCBS-SP</u>	<u>HCBS-217</u>		<u>HCBS-SP</u>	<u>HCBS-217</u>				
Jul-14	10,349	729	11,078	<i>actual</i>	1,492	9,863		1,492	9,863				
Aug-14	10,373	744	11,117	<i>actual</i>	1,546	9,920		1,546	9,920				
Sep-14	10,498	771	11,269	<i>actual</i>	1,624	9,994		1,624	9,994				
Oct-14	10,783	851	11,634	<i>actual</i>	1,821	10,300		1,821	10,300				
Nov-14	10,950	910	11,860	<i>actual</i>	2,011	10,490		2,011	10,490				
Dec-14	11,197	989	12,186	<i>actual</i>	2,162	10,467		2,162	10,467				
Jan-15	11,056	947	12,003	<i>actual</i>	2,163	10,246		2,163	10,246				
Feb-15	11,002	962	11,964	<i>actual</i>	2,265	10,156		2,265	10,156				
Mar-15	11,035	1,019	12,054	<i>actual</i>	2,349	10,149		2,349	10,149				
Apr-15	10,940	999	11,939	<i>actual</i>	2,496	10,181		2,496	10,181				
May-15	11,385	1,107	12,492	<i>actual</i>	2,703	10,224		2,703	10,224				
Jun-15	11,666	1,226	12,892	<i>actual</i>	3,024	10,282		3,024	10,282				
Jul-15	12,159	1,340	13,499	<i>actual</i>	2,982	10,517		3,360	10,517				
Aug-15	12,462	1,431	13,893	<i>actual</i>	3,309	10,584		3,715	10,584				
Sep-15	12,772	1,530	14,302	<i>actual</i>	3,601	10,701		3,972	10,701				
Oct-15	13,015	1,580	14,595	<i>actual</i>	3,861	10,734		4,158	10,734				
Nov-15	13,274	1,703	14,977	<i>actual</i>	4,140	10,837		4,528	10,837				
Dec-15	13,671	1,789	15,460	<i>actual</i>	4,423	11,037		4,766	11,037				
Jan-16	14,082	1,907	15,989	<i>actual</i>	4,911	11,078		5,086	11,078				
Feb-16	14,372	1,966	16,338	<i>actual</i>	5,175	11,163		5,320	11,163				
Mar-16	14,599	2,024	16,623	<i>actual</i>	5,452	11,171		5,541	11,171				
Apr-16	14,946	2,124	17,070	<i>actual</i>	5,817	11,253							
May-16	15,388	2,219	17,607	<i>actual</i>	5,838	11,335							
Jun-16	15,799	2,339	18,138	<i>actual</i>	6,014	11,416							
Jul-16	16,149	2,408	18,557		6,153	11,498							
Aug-16	16,370	2,495	18,865		6,255	11,580							
Sep-16	16,701	2,584	19,284		6,394	11,662							
Oct-16	17,031	2,673	19,704		6,533	11,743							
Nov-16	17,362	2,761	20,124		6,672	11,825							
Dec-16	17,693	2,850	20,544		6,811	11,907							
Jan-17	18,024	2,939	20,963		6,951	11,989							
Feb-17	18,355	3,028	21,383		7,090	12,070							
Mar-17	18,686	3,117	21,803		7,229	12,152							
Apr-17	19,017	3,205	22,222		7,368	12,234							
May-17	19,348	3,294	22,642		7,507	12,316							
Jun-17	19,679	3,383	23,062		7,646	12,397							

ties to the DMAHS Budget Office capitation projection using Jun 16 actual enroll a

