DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES
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State Demonstrations Group

February 22, 2022

Brett Friedman
State Medicaid Director, Deputy Commissioner
State of New York, Department of Health
Empire State Plaza, Corning Tower, Room 1466
Albany, NY 12237

Dear Mr. Friedman:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the Medicaid Redesign Team Interim Evaluation Report and the Children's Design Interim Evaluation Report, which are required by the Special Terms and Conditions (STCs) of New York's section 1115 demonstration, "Medicaid Redesign Team" (Project No: 11-W-00114/2). The renewal of the long-standing Medicaid Redesign Team demonstration was authorized from December 7, 2016 through March 31, 2021. CMS determined that the Medicaid Redesign Team Interim Evaluation Report, originally submitted on August 4, 2021 and revised on September 28, 2021, is in alignment with the approved Evaluation Design and the requirements set forth in the STCs, and therefore, approves the state's Interim Evaluation Report. With this letter CMS also approves the Children's Design Interim Evaluation Report, submitted on July 27, 2021, which is also in alignment with the approved Evaluation Design and the requirements set forth in the STCs.

Consistent with the approved Evaluation Design for the Medicaid Redesign Team, a variety of quantitative methods were used to analyze data on the Managed Long-Term Care (MLTC) program as well as the expansion of 12-month continuous eligibility to the qualifying new adult group, including quasi-experimental methods. The analyses showed that the MLTC mandate was associated with a 12% increase in MLTC enrollment during 2012–2018, with this effect stabilizing by December 2016 at 0.6% annually. Importantly, during this transition, there was no evidence of any statistically significant reduction in patient safety or quality of care. Moreover, the twelve-month continuous eligibility policy has increased enrollment duration and reduced enrollment gaps. Key hospital utilization measures and costs per member per month decreased, both at statistically significant levels. In particular, there were 295 fewer outpatient visits and 49 fewer emergency room visits per 1,000 member-years on average for the population enrolled through New York State of Health (NYSoH) between 2014 and 2018, and a concurrent $27 decrease in per member per month Medicaid costs for the NYSoH population.

CMS is also approving the Children's Design Interim Evaluation Report. We understand the limitations of drawing meaningful analysis from the data available between the August 2, 2019 approval of the Children's Design demonstration amendment and submission of this report on July 27, 2021. We appreciate the thorough presentation of baseline data related to this program and look forward to the further analysis that will come with future evaluation reports.

In accordance with the STCs, the approved Interim Evaluation Reports may now be posted to the state's Medicaid website within thirty days. CMS will also post these Interim Evaluation Reports on Medicaid.gov.

We look forward to our continued partnership on the New York Medicaid Redesign Team section 1115 demonstration. If you have any questions, please contact your CMS demonstration team.

Sincerely,

Danielle Daly
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Danielle Daly
Director
Division of Demonstration
Monitoring and Evaluation

cc: Frankeena McGuire, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Research Report

New York State 1115 Demonstration Independent Evaluation

Interim Report

Harry H. Liu, Andrew W. Dick, Nabeel Shariq Qureshi,
Sangita M. Baxi, Katherine J. Roberts, J. Scott Ashwood,
Laura A. Guerra, Teague Ruder, Regina A. Shih

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For more information on this publication, visit **www.rand.org/t/RRA951-1**.

The Interactive Health authors (Katherine J. Roberts and Laura A. Guerra) led the analysis and report writing of Domain 1, Goals 3 and 5, about consumer satisfaction.

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Preface

The broad goals of New York State's Medicaid Section 1115 Waiver are to enroll a majority of Medicaid beneficiaries into managed care, increase access and service quality, and expand coverage to more low-income New Yorkers. To meet the special terms and conditions specified by the Centers for Medicare & Medicaid Services under New York State's 1115 Medicaid Redesign Team Waiver, the RAND Corporation was competitively selected as the independent evaluator to assess two components under this 1115 Demonstration Waiver: the Managed Long-Term Care (MLTC) program and the 12-month continuous eligibility policy. This final interim evaluation report examines whether these two components have helped achieve the program's goals. This research was funded by the New York State Department of Health and carried out within the Payment, Cost, and Coverage Program in RAND Health Care.

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Evaluation Objective

The broad goals of New York State's Medicaid Section 1115 Waiver are to enroll a majority of Medicaid beneficiaries into managed care, increase access and service quality, and expand coverage to more low-income New Yorkers. To meet the special terms and conditions specified by the Centers for Medicare & Medicaid Services under New York State's 1115 Medicaid Redesign Team Waiver, the RAND Corporation was competitively selected as the independent evaluator to assess two components under this 1115 Demonstration Waiver: the Managed Long-Term Care (MLTC) program and the 12-month continuous eligibility policy. Starting in September 2012, the State required individuals who are over 21, eligible for both Medicare and Medicaid, and in need of 120 days or more of long-term services and supports (LTSS) to enroll in MLTC plans, which are paid on a capitated basis. The 12-month continuous eligibility policy was based on the Modified Adjusted Gross Income guideline and was implemented in January 2014 for individuals eligible for Medicaid, including pregnant women; childless adults who are not pregnant, are younger than 65, and are not on Medicare; parents or caretaker relatives; and individuals eligible for the Family Planning Benefit Program. Individuals who qualified for 12-month continuous eligibility were guaranteed Medicaid coverage regardless of changes in income in the 12 months after eligibility determination and enrollment. This final interim evaluation report examines whether these two programs have achieved the following:

- expanding access to LTSS and improving patient safety, quality of care, and consumer satisfaction (in the case of MLTC [Domain 1])
- reducing enrollment gaps and increasing Medicaid enrollment duration (in the case of 12-month continuous eligibility [Domain 2]).

Analytical Approach

To achieve the goals of this final interim evaluation, RAND researchers conducted a number of analyses applying primarily a quasi-experimental study design and using various data sources provided by the New York State Department of Health (NYS DOH), including the 2010–2018 MLTC monthly enrollment by county; 2007–2019 MLTC plan-level aggregate data[2] on patient safety, quality of care, and consumer satisfaction; and 2012–2018 Medicaid Data Warehouse data. The evaluation team described the trends in various outcomes over time and conducted statistical modeling and testing to answer the evaluation questions.

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[2] The data years vary across different outcome measures. Please see Chapter 3 for more details.

Findings and Conclusions

The results of our analyses showed that the MLTC mandate was associated with a large increase in MLTC enrollment during 2012–2018, with its effect having stabilized by month 19, i.e., by the time the most recent demonstration period started (December 2016 to March 2021); there is no evidence of a decline in patient safety, quality of care, or consumer satisfaction, except for a decrease in satisfaction with care managers (Table S.1). Among those who transitioned from institutional settings to community settings, enrollment in MLTC increased during 2015–2018, but no statistically significant changes in patient safety and quality of care were observed except for an increase in receipt of dental exams.

The 12-month continuous eligibility policy was associated with a moderate increase in Medicaid enrollment duration among adults but a decline in monthly Medicaid cost, resulting in a small net increase in total Medicaid cost. The policy's impact was smaller among individuals enrolled through the Welfare Management System (WMS), administered by local departments of social services, than among those enrolled through New York State of Health (NYSoH), the State's health insurance exchange.

Table S.1. Summary of Evaluation Results

Domain	Goal	Outcome	Result	
Domain 1, Component 1: Managed Long-Term Care (MLTC)	Goal 1: Expand access to MLTC for Medicaid enrollees in need of LTSS	RQ1. Time for the MLTC mandate's effect on enrollment to stabilize	↑	19 months, stabilizing at +0.6 percentage points per year; a 12-percentage point increase in enrollment rates during the 79 months post-mandate ($p < 0.05$)
	Goal 2: Demonstrate stability or improvement in patient safety	RQ1. Percentage of enrollees who had no emergency room visits	—	+0.8 percentage points ($p > 0.05$)
		RQ2. Percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries	—	–1.8 percentage points ($p > 0.05$)
	Goal 3: Demonstrate stability or improvement in quality of care	RQ1. Receipt of timely care	—	–0.8 percentage points ($p > 0.05$)
		RQ2. Influenza vaccination	—	+0.2 percentage points ($p > 0.05$)
		RQ2. Dental exam	—	–5.6 percentage points ($p > 0.05$)
	Goal 4: Stabilize or reduce preventable acute hospital admissions	RQ1. Potentially avoidable hospitalizations	—	–1.3 hospitalizations per 10,000 enrollee days ($p > 0.05$)

Domain	Goal	Outcome	Result	
	Goal 5: Demonstrate stability or improvement in consumer satisfaction	RQ1. Satisfaction with MLTC plans	—	–1.8 percentage points (p > 0.05)
		RQ2. Satisfaction with care managers	↓	–3.1 percentage points (p < 0.05)
		RQ3. Satisfaction with provider timeliness	—	–2.2 percentage points (p > 0.05)
		RQ4. Satisfaction with service quality	—	–1.2 percentage points (p > 0.05)
Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for LTSS	Goal 1: Improve access to MLTC for those who transitioned from an institutional setting to the community	RQ1. Enrollment in MLTC within one year post-discharge from an institution	↑	7% in 2015; 60% in 2018 (p < 0.05)
	Goal 2: Demonstrate stability or improvement in patient safety	RQ1. Percentage of enrollees who had no emergency room visits	—	50% in 2015; 85% in 2018 (p > 0.05)
		RQ2. Percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries	—	50% in 2015; 93% in 2018 (p > 0.05)
	Goal 3: Demonstrate stability or improvement in quality of care	RQ1. Percentage in community within one year post-discharge from an institution	—	85% in 2015; 81% in 2018 (p > 0.05)
		RQ2. Influenza vaccination	—	50% in 2015; 73% in 2018 (p > 0.05)
		RQ2. Dental exam	↑	50% in 2015; 64% in 2018 (p < 0.05)
Domain 2: Mainstream Medicaid Managed Care and Temporary Assistance to Needy Families (TANF)	Goal 1: Increase access to health insurance through Medicaid enrollment—Express Lane Eligibility	RQ1. Medicaid enrollment, RQ2. demographic characteristics, and RQ3. percentage of ineligible enrollees		Removed from the evaluation

Domain	Goal	Outcome	Result	
	Goal 2: Limit gaps in Medicaid eligibility due to fluctuations in recipient income—12-month continuous eligibility	RQ1: Percentage with at least 12, 24, or 36 months of enrollment among the population affected by the continuous eligibility policy	↑	≥12 months: 47% in 2012; 58% in 2017 ($p < 0.01$) for NYSoH and 47% in 2012; 58% in 2017 for WMS ($p < 0.01$)
			↑	≥24 months: 23% in 2012, 32% in 2016 ($p < 0.01$) for NYSoH and 23% in 2012, 34% in 2016 for WMS ($p < 0.01$)
			↑	36 months: 13% in 2012; 18% in 2015 ($p < 0.01$) for NYSoH and 13% in 2012; 29% in 2015 for WMS ($p < 0.01$)
		RQ2: Difference in percentage with at least 12, 24, or 36 months of enrollment by enrollee characteristics	—	Demographics: Older members, White and Hispanic members, and members with a lower health status more likely to have longer enrollment duration for NYSoH and WMS populations (all $p < 0.01$)
			—	Geographic area: Individuals in New York City had longer enrollment durations that those not in New York City for NYSoH and WMS populations (all $p < 0. 01$)
		RQ3: Average number of continuous enrollment months	↑	+0.8 and +1.9 months in a 12- and 24-month post-policy period for NYSoH populations, respectively ($p < 0.05$)
			↑	+0.4 and +1.2 months in a 12- and 24-month post-policy period for WMS populations, respectively ($p < 0.05$)
		RQ4: Probability of being continuously enrolled for at least 12 months	↑	+0.19 probability of being enrolled for the NYSoH population ($p < 0.05$)
			↑	+0.14 probability of being enrolled for the WMS population ($p < 0.05$)
		RQ5: Effect of the continuous eligibility policy on outpatient, inpatient, and emergency department visits and Medicaid cost of care	↓	Utilization: –43 inpatient admissions, –295 outpatient visits, and –49 emergency room visits per 1,000 member-years for the NYSoH population (all $p < 0.05$)
			↓	–29 inpatient admissions ($p < 0.05$), +101 outpatient visits ($p < 0.05$), and +17 emergency room visits per 1,000 member-years for the WMS population ($p > 0.05$)
			↓	Medicaid cost: –\$27 per member per month for the NYSoH population ($p < 0.05$), –\$8 per member per month for the WMS population ($p > 0.05$)

Domain	Goal	Outcome	Result	
		RQ6: Increased number of enrollment months due to the continuous eligibility policy	↑	+378k ($p < 0.05$), +1,030k ($p < 0.05$), +959k ($p < 0.05$), +1,046k ($p < 0.05$) enrollees for 2014–2017, respectively, for the NYSoH population
			↑	+530k ($p < 0.05$), +483k ($p > 0.05$) enrollees for 2016–2017, respectively, for the WMS population
		RQ7: Percentage of individuals in fee for service (FFS) by calendar month	↓	29% in January 2012; 23% in December 2018 ($p < 0.01$)
		RQ8: Percentage in FFS for 1–2 months, among those with any MMC coverage in a year	↑	All enrollees: 18% in 2012; 19% in 2018 ($p < 0.01$)
			↑	New enrollees: 25% in 2012; 36% in 2018 ($p < 0.01$)
			↓	NYSoH enrollees: 74% in 2014; 27% in 2018 ($p < 0.01$)
			↓	WMS enrollees: 8% in 2014; 6% in 2018 ($p < 0.01$)
		RQ8: FFS enrollment months in the first enrollment year, among those with at least 6 months of MMC coverage in that year	↓	–0.6 months of FFS enrollment during the first enrollment year ($p < 0.01$)
		RQ9: Percentage of MMC enrollees remaining in the same MMC plan after the recertification, among those with at least 13 consecutive months of MMC coverage	↓	All enrollees: 88% in 2013; 80% in 2018 ($p < 0.01$)
			↑	NYSoH enrollees: 70% in 2014; 77% in 2018 ($p < 0.01$)
			↓	WMS enrollees: 93% in 2014; 90% in 2018 ($p < 0.01$)
		RQ10: Percentage of MMC enrollees who are auto-assigned to any health plan at the start of MMC enrollment	↓	All enrollees: 6.6% in 2012; 4.4% in 2018 ($p < 0.01$)
			↑	NYSoH enrollees: ~0% in 2014; 2.7% in 2018 ($p < 0.01$)
			↑	WMS enrollees: 5.6% in 2014; 8.5% in 2018 ($p < 0.01$)

NOTE: RQ = research question. The color code: green represents favorable results, red unfavorable, and yellow neither. For Domain 1, Component 2, since no pre-MLTC mandate data were available, only the post-period trends are presented. Due to a large sample size of about 1 to 6 million individuals, the descriptive trend tests for Domain 2, Goal 2, RQs 7–10 result in small p values.

Domain 1, Component 1, Goal 1: MLTC Enrollment

The MLTC mandate increased enrollment rapidly and dramatically and then stabilized at a growth rate of about 0.05 percent per month, or 0.6 percent per year within 19 months of the mandate's implementation (Table S.1). However, increases in enrollment and time for the MLTC mandate's effect on enrollment to stabilize differed across regions, suggesting that idiosyncratic factors may have affected implementation across the State. New York City, in which the mandate was implemented first, drove the results due to the size of its population compared to the rest of the State.

Domain 1, Component 1, Goals 2–5: Patient Safety, Quality of Care, and Consumer Satisfaction Among the MLTC Population

We found no evidence of changes in patient safety (percentage of enrollees who had no emergency room visits and percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries) and quality of care (influenza vaccinations, dental exams, and potentially avoidable hospitalizations). Satisfaction measures remained high with MLTC, with no statistically significant evidence of decline occurring except for satisfaction with care managers. Thus, results indicate that MLTC plans were able to accommodate the large increases in enrollment without noticeably compromising patient safety, quality of care, or consumer satisfaction with care. These results are particularly important given the rapid and large increase in MLTC enrollment.

Domain 1, Component 2, Goals 1–3: Individuals Moved from Institutional Settings to Community Settings

Among those who transitioned from institutional to community settings, enrollment in MLTC increased, which is not surprising given that MLTC enrollment of new nursing home residents became mandatory starting in February 2015. We found no evidence of changes in patient safety measures (percentage of enrollees who had no emergency room visits and percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries) among MLTC enrollees who transitioned from institutions to the community from 2015 through 2018. We also found that a substantial majority (66–85 percent) of the home- and community-based services (HCBS) expansion population remained in the community. Among the HCBS expansion population, the changes in influenza vaccination rates were not statistically significant. Receipt of dental exams increased, perhaps in response to a performance improvement project for MLTC enrollees during the period.

Domain 2, Goal 2: 12-Month Continuous Eligibility

There was an overall increasing trend in average Medicaid enrollment duration after the implementation of the 12-month continuous eligibility policy. Because of differences in operational processes, we analyzed the WMS and NYSoH populations separately. We found that the policy was associated with approximately 4- and 8-percent increases in enrollment duration among individuals enrolled in WMS and NYSoH, respectively. The policy impact in NYSoH could partially be attributed to the simplified and more convenient enrollment and renewal process under NYSoH versus WMS. The simultaneous implementation of the Medicaid expansion did not seem to affect the policy effect on enrollment because the estimates were similar after excluding the expansion population. In both NYSoH and WMS populations, we observed a statistically significant decline in annual patient admissions, as well as in average monthly Medicaid cost. Combining the increase in enrollment months and the decrease in monthly Medicaid cost, we estimated that the 12-month continuous eligibility policy has led to an increase in total Medicaid cost by about 3 percent. The State did make progress in reducing FFS enrollment and auto-assignment to a health plan at Medicaid managed care (MMC) enrollment start, although the proportion of MMC enrollees who stayed with the same plan after the 12-month recertification decreased during 2012–2018.

Limitations

We acknowledge that there are several major limitations to our evaluation. When examining MLTC enrollment rates, the number of dual eligible individuals was used as the denominator, but it is only a gross approximation of the actual eligible population. The definitions of some MLTC outcome measures changed over time, such as emergency room visits, falls, and perceived timely access to care, and such definitional changes made it difficult to evaluate changes in outcomes across years. Also, most of plan-level MLTC outcomes measures were risk-adjusted, and the adjustment methodologies changed over time. Because of the lack of individual-level data, we were not able to risk-adjust for the differences between voluntary enrollees before the MLTC mandate and new enrollees under the mandate, and these differences may affect the outcomes. The lack of individual-level data has also reduced the precision of our estimates of the impact of MLTC on outcomes.

In assessing the impact of 12-month continuous eligibility on Medicaid enrollment, our analysis is limited by the use of children as the control group. Children often have a broader income band, so that there is more room for income to fluctuate though they remain eligible for Medicaid. Furthermore, despite the difference-in-differences approach used in the analyses, we were not able to control for time-dependent changes that occurred simultaneously with the implementation of 12-month continuous eligibility policy and impacted the adult Medicaid population differently from the child population.

Conclusions

Based on the results of our analyses, the MLTC program under the 1115 Demonstration Waiver has achieved its goal of increasing access to LTSS through MLTC, as illustrated by the rapid expansion of MLTC across the State from 2012 through 2018. There is little evidence suggesting that the speed of the expansion has led to a significant change in patient safety or quality of care by the measures used in this evaluation.

We found that the 12-month continuous eligibility policy was associated with statistically significant increases in enrollment duration and outpatient visits, but decreases in inpatient admissions and per member per month Medicaid cost. When considering both increases in enrollment and decreases in per member per month Medicaid cost, the policy is associated with a net increase in total Medicaid cost. Finally, during 2012 through 2018, descriptive trends show that the State has been able to reduce the length of FFS enrollment among MMC enrollees.

The results for the most recent demonstration period (December 2016 to March 2021) covered by the data under this interim evaluation, i.e., December 2016 to December 2018 or 2019, showed similar trends or patterns to those from earlier post-policy years except that the MLTC mandate's impact on enrollment had stabilized by the end of 2016.

In brief, the State has achieved the Demonstration's first goal of expanding access to managed care through mandatory MLTC enrollment and 12-month continuous eligibility. Although we did not find evidence of improved quality, the second goal, increasing access without compromising quality of care, is a success in its own right. Questions remain about whether the MLTC mandate has generated efficiencies in spending—the third goal of the overall 1115 Demonstration—and the extent to which public reporting and quality assurance programs have affected quality of care. Future evaluations may be conducted to answer these questions to guide State policies.

Acknowledgments

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We are immensely grateful for the comments on the draft of this report from our quality assurance reviewers: Leighton Ku (George Washington University) and Justin Timbe (RAND Corporation) and from our outside consultant: Helena Temkin-Greener (University of Rochester). Finally, we want to express our thanks to Libby May, Monique Martineau, and Kayla Howard for their help with the report preparation.

Abbreviations

CHA	Community Health Assessment Data
CHIP	Children’s Health Insurance Program
CIN	client identification number
CMS	Centers for Medicare & Medicaid Services
COVID-19	coronavirus disease 2019
FFS	fee-for-service
FIDA	Fully Integrated Duals Advantage
HCBS	home- and community-based services
IPRO	Island Peer Review Organization
LOC	level of care
LTSS	long-term services and supports
MAGI	modified adjusted gross income
MAP	Medicaid Advantage Plus
MDS	Minimum Data Set
MFP	Money Follows the Person Demonstration
MLTC	Managed Long-Term Care
MMC	Medicaid Managed Care
NYS DOH	New York State Department of Health
NYSoH	New York State of Health
OASIS	Outcome and Assessment Information Set
PACE	Program for All-Inclusive Care for the Elderly
PIP	Performance Improvement Project
RFP	request for proposal
SAAM	Semi-Annual Assessment of Members
SD	standard deviation
SPARCS	Statewide Planning and Research Cooperative System
TANF	Temporary Assistance for Needy Families
UAS-NY	Uniform Assessment System for New York
WMS	Welfare Management System

1. Introduction

The 1115 Demonstration

New York State's Medicaid Redesign Team Section 1115 Demonstration—originally approved in 1997 through a federal Medicaid Section 1115 Waiver and named the Partnership Plan Demonstration—was established to improve the health of low-income residents through the implementation of a mandatory Medicaid managed care program (New York State Department of Health [NYS DOH], 2019a). The three broad goals of the Demonstration were to enroll a majority of the State's Medicaid population into a managed care plan, improve access to and quality of care, and capitalize on efficiencies gained by using managed care to expand insurance coverage to low-income individuals who would otherwise be uninsured.

The Medicaid Redesign Team Section 1115 Demonstration has evolved over time. It was originally authorized for a five-year period and has been extended multiple times through amendments that included different Medicaid populations, such as people living with HIV/AIDS or receiving supplemental security income, and certain populations in need of long-term services and supports (LTSS).

Demonstration Evaluation

According to the special terms and conditions specified by the Centers for Medicare & Medicaid Services (CMS) for the Demonstration, New York State is required to submit an interim evaluation report to CMS "as part of the State's request for any future renewal of the Demonstration."[3] After a competitive bidding process, the RAND Corporation was selected by the State as the independent evaluator to conduct an interim evaluation to determine the effectiveness of the 1115 Demonstration in achieving its goals. The original evaluation plan covered three components: (1) Domain 1, Components 1 and 2—the Managed Long-Term Care (MLTC) program; (2) Domain 2, Goal 1—the Express-Lane Eligibility; and (3) Domain 2, Goal 2—the 12-month continuous eligibility. As communicated to CMS in early 2020, Domain 2, Goal 1, was removed, because the Express Lane Eligibility was not part of the 1115 Demonstration, and four additional questions were added to Domain 2, Goal 2 (Table 1).

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[3] Request for Proposal (RFP) #20020, "Independent Evaluation of the New York State (NYS) 1115 Program," was released November 5, 2018. The RFP can be found at the following NYS DOH webpage: https://www.health.ny.gov/funding/rfp/inactive/20020/20020.pdf

Table 1. Key Domains, Goals, and Outcomes

Domain	Goal	Outcome
Domain 1, Component 1: Managed Long-Term Care (MLTC)	Goal 1: Expand access to MLTC for Medicaid enrollees in need of LTSS.	Time for the MLTC mandate's effect on enrollment to stabilize
	Goal 2: Demonstrate stability or improvement in patient safety	Percentage of enrollees who had no emergency room visits and percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries
	Goal 3: Demonstrate stability or improvement in quality of care	Receipt of timely care, influenza vaccination, and dental exam
	Goal 4: Stabilize or reduce preventable acute hospital admissions	Potentially avoidable hospitalizations
	Goal 5: Demonstrate stability or improvement in consumer satisfaction	Satisfaction with MLTC plans, care managers, care providers, and services
Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for LTSS	Goal 1: Improve access to MLTC for those who transitioned from an institutional setting to the community	Enrollment in MLTC within one year post-discharge from an institution
	Goal 2: Demonstrate stability or improvement in patient safety	Percentage of enrollees who had no emergency room visits and percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries
	Goal 3: Demonstrate stability or improvement in quality of care	Community residence and receipt of influenza vaccination and dental exam
Domain 2: Mainstream Medicaid Managed Care and Temporary Assistance to Needy Families (TANF)	Goal 1: Increase access to health insurance through Medicaid enrollment—Express Lane Eligibility (removed from the evaluation)	Medicaid enrollment, demographic characteristics, and percentage of ineligible enrollees
	Goal 2: Limit gaps in Medicaid eligibility due to fluctuations in recipient income—12-month continuous eligibility	Medicaid enrollment, demographic characteristics, enrollment duration, health care utilization and cost, and percentage of ineligible enrollees

NOTE: Domain 2, Goal 1 was removed from the evaluation, and four new questions were added to Domain 2, Goal 2.

The broad goals of the MLTC program evaluation are to assess (1) the number of individuals who are MLTC-eligible and able to access LTSS through the program and (2) whether MLTC affects patient safety, quality of care, or consumer satisfaction. This includes the general MLTC population, as well as those who transitioned from institutions to the community and enrolled in MLTC. Specifically, Domain 1 covers the following questions:

- At what point in the Demonstration did the MLTC enrollee population stabilize in size?
- Is MLTC enrollment associated with improved or stabilized patient safety, quality of care, or satisfaction with care?

- Among individuals who were discharged from an institution to the community and enrolled in the Money Follows the Person (MFP) Demonstration and MLTC (the Home- and Community-Based Services [HCBS] expansion population), is MLTC enrollment associated with improved or stabilized patient safety and quality of care?

The key difference between fee-for-service (FFS) LTSS and MLTC is that MLTC plans receive capitated payments. On the one hand, such plans are incentivized to deliver services more efficiently. For example, MLTC plans could redirect care from institutions to take place in communities because LTSS in institutions are generally more expensive than home- and community-based LTSS (Kaye, 2012).[4] For MLTC plans that integrate acute medical care with LTSS, unnecessary and expensive acute medical utilization, such as non-urgent emergency room visits and potentially avoidable hospitalizations, may be reduced to improve efficiency. On the other hand, the potential side effect of capitation is that service quality might be affected by financial incentives, though this is likely mitigated by the NYS DOH's disclosure, through a published annual report, of various service quality measures for each MLTC plan and its implementation of quality assurance programs.

Mandatory MLTC enrollment could ensure budgetary certainty for the State Medicaid program, lead to efficiencies in spending, and expand access. It would be beneficial if patient safety, quality of care, and consumer satisfaction do not decline after the mandate, but considering the potential effects of financial incentives, quality assurance programs, and public reporting of quality of care, the direction of MLTC's impact on these outcomes is uncertain.

We hypothesize that, overall, mandatory MLTC enrollment is not associated with changes in

- costly medical events, such as falls requiring medical interventions and potentially avoidable hospitalizations
- preventive medical services, such as influenza vaccination
- access to services covered by MLTC
- consumer satisfaction with LTSS, providers, or the MLTC plan.

The goal of Domain 2 of this independent evaluation is to assess whether 12-month continuous eligibility—the purpose of which is to prevent lapses in Medicaid coverage because of income fluctuations—has reduced enrollment gaps or increased enrollment duration. Continuous enrollment ensures enrollees' timely access to primary medical care and thus may increase outpatient utilization and cost, but timely access to care could also help avoid future costly events and reduce overall cost. We hypothesize that 12-month continuous eligibility is associated with increased Medicaid enrollment duration and increased outpatient visits, but decreased emergency room visits, inpatient admissions, and cost.

This final interim report is organized as follows, as per the Medicaid Redesign Team Section 1115 Demonstration's Special Terms and Conditions, Section XI 2.d, for independent evaluation

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[4] MLTC's effect on LTSS expenditures is outside the scope of this evaluation.

reporting. Chapter 2, “Demonstration Description,” presents the background of the programs involved in this evaluation. Chapter 3, “Study Design,” describes research questions, study populations, data sources, and outcome measures for each evaluation domain and component in the order they appear in the request for proposal (RFP). The results of our analyses are presented in a similar order in Chapter 4, “Discussion of Findings and Conclusions,” and discussed further in Chapter 5, “Policy Implications.” Chapter 6, “Interactions with Other State Initiatives,” examines relationships between the programs in the 1115 Demonstration and other state initiatives.

2. Demonstration Description

MLTC Mandatory Enrollment

MLTC plans benefit participants by delivering care plans to meet individual care needs, preferences, and goals and by providing coordination of care and related services for the participant to streamline the delivery of LTSS. Services can be provided at home, in adult day care centers, or in a nursing home. All MLTC plans provide HCBS covered by Medicaid, such as care management, assistance with personal care (e.g., bathing and eating), adult day care, home-delivered meals, non-emergency transportation services, respite care, durable medical equipment, dental services, hearing aids, optometry and eyeglasses, podiatry services, and nursing home care. Medicaid Advantage Plus (MAP), Program for All-Inclusive Care for the Elderly (PACE), and Fully Integrated Duals Advantage (FIDA) plans also cover medical services under Medicare. While LTSS programs help states provide services to their most vulnerable and medically complex populations, states can potentially reduce their costs by using managed care plans to effectively and efficiently manage resources to deliver LTSS (NYS DOH, 2003). In 2013, 42 percent of national Medicaid spending was attributed to 6 percent of Medicaid beneficiaries who used FFS to access LTSS (Medicaid and Children's Health Insurance Program [CHIP] Payment and Access Commission [MACPAC], 2018).

Prior to 2012, New York State primarily operated three voluntary MLTC programs: (1) the MLTC Partial Capitation Program ("Partial Capitation") for adults age 18 to 64 with physical disabilities and adults age 65 or older who required a nursing home level of care; (2) the MAP program, which offered both acute medical care and LTSS to dually eligible individuals needing a nursing home level of care; and (3) the PACE program for adults age 55 and older who are otherwise eligible for nursing home admission to receive care at home. Despite the availability of these programs, the majority of Medicaid beneficiaries received LTSS on an FFS basis before the Demonstration.

MLTC plans are required to conduct an initial assessment of new enrollees; a routine assessment is conducted every six months thereafter. An additional assessment is required if an individual returns from a hospital or when there is a significant change in health status. The assessment collects information on enrollees' physical function, cognitive function, behaviors such as wandering and resisting care, and clinical diagnoses.

Beginning in September 2012, under the Demonstration, the State required individuals age 21 and over who are eligible for both Medicare and Medicaid and who are in need of 120 days or more of LTSS to enroll in an MLTC plan under one of these three programs (Partial Capitation, MAP, or PACE). Enrollment in an MLTC plan is optional for nursing home–eligible individuals age 18 to 21 who are dual eligible or those who are over 18 and eligible for Medicaid only; it is not allowed for individuals who need fewer than 120 days of LTSS, are younger than age 18, or receive other programs, including 1915(c) waivers (Traumatic Brain Injury, Nursing Home Transition and Diversion, or Office for People with Developmental Disabilities), a hospice program, or an assisted living program.

Mandatory enrollment in MLTC was rolled out region by region throughout the State over a three-year period, starting in New York City in September 2012 and completed in July 2015. During the implementation process, an announcement letter was sent to eligible individuals who were not yet in an MLTC plan. The following month, a 60-day notice letter advised individuals about the need to enroll in an MLTC plan. Enrollment applications were typically processed about two months later, and enrollment would then take effect sometime in the next two months, depending on the month in which the application was processed. For example, for an announcement letter sent out in January, the 60-day notice letter was sent out in February, the enrollment application was processed in April, and enrollment was effective in May or June, depending on when the application was processed. Individuals could enroll in the program prior to the start date for the region they lived in, as long as at least one MLTC plan was offered in their community.

Two notable changes occurred during the rollout of the mandate. Starting in January 2015, the FIDA demonstration, an MLTC demonstration program for dually eligible individuals that includes both LTSS and medical care, was launched in New York City; FIDA was later expanded to a small number of counties around New York City. Enrollment in a FIDA plan also satisfied the MLTC mandate in counties where it was offered. The FIDA plans were phased out by the end of 2019, as it was only a five-year demonstration. Also, prior to February 2015, eligible individuals who lived in a nursing home or who were newly admitted to a nursing home were not required to participate in an MLTC plan. Starting in February 2015, enrollment for these eligible individuals became mandatory.

Nationally, at the start of 2018, LTSS managed care programs were available in 24 states (MACPAC, 2018). Some of these programs have been implemented in the past few years, but several were adopted earlier, including programs in Arizona (1989), Wisconsin (1996), and Texas (1998) (MACPAC, 2018). Prior LTSS studies are sparse and range from implementation evaluations to interim outcome evaluations. A 2018 interim evaluation sponsored by CMS examined the LTSS programs of New York and Tennessee. The study showed that LTSS managed care programs led to higher use of HCBS and lower institutional and hospital services in New York, but they were associated with more hospitalizations in Tennessee; these results are consistent with those of a 2004 study for New York City (Libersky et al., 2018; Nadash, 2004).

Money Follows the Person

In 2007, the Federal Money Follows the Person Rebalancing Demonstration Program, authorized first by the Deficit Reduction Act and then by the Affordable Care Act, was designed to shift LTSS delivery from institutions to the community. Specifically, the Money Follows the Person (MFP) program in New York State helps elderly individuals and individuals with intellectual disabilities (added in 2013), physical disabilities, and/or traumatic brain injury return to a qualified community-based setting from long-term care institutions, including hospitals, nursing homes, or intermediate care facilities (NYS DOH, 2016b; 2019b). Transition specialists assist potentially MFP-eligible individuals with the transition process by providing information about LTSS available in the community, identifying additional services offered in the community to facilitate independent living, and once transitioned, conducting periodic check-ins to assess ongoing service needs (NYS DOH, 2016b). MFP provides information and transition planning assistance—a “bridge” between institutional and HCBS—but does not provide or pay for LTSS, which are covered by MLTC. MFP contracts with the New York Association on Independent Living to coordinate the Open Doors Transition Center Program (Open Doors) to provide for transition specialists and peer support (New York Association on Independent Living, 2019).

Individuals are eligible to participate in MFP if they have at least 90 consecutive days in a qualified institution, are eligible for Medicaid at least one day prior to the transition from an institution to the community, have health needs that can be met through services available in the community, meet enrollment criteria for a constituent partner program,[5] voluntarily consent to participate, and transition into a qualified residence, including a house, apartment, or a group home with a maximum of four residents (NYS DOH, 2017b).

MFP enrollment starts at the time of transition from an institution to the community, or within 90 days post-discharge, and continues for 365 days after enrollment (NYS DOH, 2017b). If a participant returns to an institution before the end of the 365-day period, their MFP time is put on hold until they return to the community. During program enrollment, Open Doors follows up with participants on a regular basis, and participants are asked to voluntarily complete a quality-of-life survey pre-transition and 11 months post-transition. MFP enrollment ends when a participant completes 365 days in the community, requests an exit from the program, or is disenrolled from a constituent program. Individuals may re-enroll in the MFP program if they qualify again for MFP.

Transition specialists work with individuals who are potentially eligible for MFP to arrange for services and supports after their return to the community. This pre-transition assistance is provided by Open Doors. While there is no prescribed time period, the typical range for transition is 2–18 months (New York Association on Independent Living, 2019). The pre-transition period is not counted toward the time an individual is enrolled in the MFP program. Medicare- and Medicaid-certified nursing facilities are required to conduct the Minimum Data

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[5] Constituent partner programs include the New York State Nursing Home Transition and Diversion waiver, Traumatic Brain Injury waiver, New York State Office for People with Developmental Disabilities waivers, mainstream Medicaid managed care, and MLTC.

Set (MDS) assessment for residents at regular intervals, or when there is a significant change in health status. The MDS assessment includes the following question (Section Q): "Do you want to talk to someone about the possibility of returning to live and receive services in the community?" If residents express interest, nursing facilities are required to refer residents to Open Doors (NYS DOH, 2016b).

Initially, MFP was available to those who were eligible for specific Medicaid FFS 1915(c) waiver programs. As of January 2016, and retroactive to transitions that occurred on or after July 1, 2015, MFP was made available to those eligible for MLTC, as well as mainstream Medicaid managed care plans (NYS DOH, 2017b). MLTC plans have been tasked with educating their members about the availability of Open Doors assistance, in addition to other required actions, although the absence of such plan actions does not preclude eligible individuals' access to MFP.[6] Individuals potentially eligible for MLTC are required to undergo an assessment to determine the eligibility, and Open Doors transition specialists can help arrange for the assessment.

As of October 2019, MFP operated in 44 states (Lipson et al., 2007; Musumeci, Chidambaram, and Watts, 2019; Mathematica Policy Research, 2017). From 2007 through December 2017, more than 100,000 people across the United States benefited from the MFP program (Liao and Peebles, 2019). States set a target for the number of participants they would like to transition each year. In 2016, 21 states achieved at least 85 percent of their transition goals; states that did not meet at least 85 percent of their transition goal for two years (excluding the State's first year) were required to draft an action plan for CMS describing how the goal would be achieved in the next year (Coughlin et al., 2017). In 2015, MFP participants across the United States reported improvement in all seven categories of a quality-of-life survey at one year after their transition to the community, with the largest quality of life improvements associated with living arrangements (Irvin et al., 2017).

Twelve-Month Continuous Eligibility

In January 2014, under the Section 1115 Demonstration Waiver, New York State implemented the 12-month continuous eligibility policy for individuals eligible for Medicaid, based on the Modified Adjusted Gross Income (MAGI) guideline. This includes pregnant women; individuals age 19–20 living alone or living with parents; childless adults who are not pregnant, are younger than 65, and are not on Medicare; parents or caretaker relatives; and individuals eligible for the Family Planning Benefit Program.[7] Eligible individuals were guaranteed Medicaid coverage regardless of changes in income in the 12 months after

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[6] MLTC plans must include an "MFP Attestation" in their existing Enrollment Agreement, include specific language describing MFP in their handbook, and review "NYS Money Follows the Person Guidance for Managed Care Organizations" and share it with all appropriate plan staff to encourage recommended practices (NYS DOH. 2019b).

[7] The Family Planning Benefit Program provides family planning services to low-income New Yorkers. The goal is to increase access to family planning services in the target population to reduce unintentional pregnancies.

enrollment, even though they might have lost eligibility under the MAGI rule. Individuals could lose coverage for other reasons, however, such as moving out of the State or failure to provide documentation of citizenship.

The 12-month continuous eligibility policy is not new to New York State. In January 1999, the State provided 12 months of continuous coverage to children determined to be eligible for Medicaid, regardless of income changes or circumstances during the subsequent 12 months. In 2007, the State revised laws to allow the provision of 12-month continuous coverage to certain adults eligible for Medicaid. Further, CMS authorized New York State, as of 2011, to provide a 12-month continuous eligibility period for select groups of adults under the Section 1115 Waiver evaluated under Domain 2, Component 2. However, the policy was not implemented among adults until 2014.

The adoption of 12-month continuous eligibility in 2014 was complicated by the simultaneous launch of New York State of Health (NYSoH)—the State's health insurance exchange. Prior to NYSoH, eligible individuals were enrolled and renewed through local departments of social services, i.e., the Welfare Management System (WMS). After the launch of NYSoH, MAGI-eligible adults were gradually transitioned by the State from WMS to NYSoH in phases. Some counties started the transition earlier than others depending on enrollment and renewal contractors' capacity. The transition for counties outside of New York City was completed by 2018, but New York City did not start the transition until 2019, which is outside of the period covered by this evaluation. In the meantime, individuals were allowed to self-transition by disenrolling from WMS and re-enrolling in NYSoH. As of 2018, about one quarter of MAGI-eligible adults remained in WMS.

It should be noted that there was a timing difference in implementing 12-month continuous eligibility. NYSoH initiated the policy in 2014, while WMS did not implement it until April 2015. In addition, enrollees or potential enrollees can enroll or renew through NYSoH electronically, which is much more convenient than the manual process through the WMS. NYSoH administrators can also verify an individual's income through other federal and state data sources to determine and renew eligibility without any documentation from that individual.

Nationwide, as of 2018, 25 states have adopted a 12-month continuous eligibility policy for children eligible for Medicaid. Prior studies have shown that continuous eligibility is effective in increasing Medicaid coverage. States adopting a 12-month continuous eligibility option increased the average length of enrollment in the child population covered by CHIP by nearly 2 percent (Ku, Steinmetz, and Bruen, 2013). A simulation study by Swartz et al. (2015) showed that, compared with other policy options, extending eligibility to the end of a calendar year or ensuring coverage for the following 12 months could generate the greatest reduction in churning (a phenomenon of frequent or recurring Medicaid entries and exits due to monthly income fluctuation) among adults age 19 to 64 covered by Medicaid. Swartz et al. (2015) estimated that monthly enrollment among adults could increase by 17 percent if 12-month continuous eligibility policy were implemented nationwide.

3. Study Design

Given the non-experimental nature of the Demonstration, we developed descriptive statistics, estimated associations, and specified multivariable quasi-experimental models to evaluate the effects of the Medicaid Redesign Team Section 1115 Demonstration. We evaluated the two programs within the Demonstration, which we label as Domain 1 and Domain 2, with the following broad research questions:

- Did the MLTC program expand access and improve patient safety, quality of care, and consumer satisfaction? [Domain 1]
- Did the 12-month continuous eligibility policy increase enrollment duration among eligible adults and affect utilization and cost? [Domain 2].

Specifically, we described trends in various outcomes and used statistical models based on a difference-in-differences approach[8] for Domain 1's MLTC-related research questions or on survival analytic approaches for Domain 2's 12-month continuous eligibility research questions, while controlling for other factors in the models as necessary and feasible. These approaches allowed us to characterize trends and identify the impact of the Demonstration while minimizing threats to the internal validity of our estimates.

Domain 1, Component 1: Managed Long-Term Care

Table 2 describes the study design, data, and analytic approaches for each of the research questions under Domain 1, Component 1. Medicaid member-level data would be ideal to answer research questions on patient safety, quality of care, and consumer satisfaction, and thus were requested by the RAND team. The RFP for this independent evaluation, however, specifies that NYS DOH would provide only data aggregated to the state level and plan level for analysis. As a result, the statistical power of our analysis is limited by the absence of individual-level data.

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[8] Also called the quasi-experimental approach. Basically, we compared the pre- and post-policy changes between the adults newly subject to the policy (treatment) and the children who were subject to the policy both in the pre- and post-policy periods (control).

Table 2. Study Design for Domain 1, Component 1: Managed Long-Term Care

Goal	Research Question	Measure	Data Source	Study Design and Analytic Approach
1. Expand access to Managed Long-Term Care for Medicaid enrollees in need of long-term services and supports	1. Enrollment into MLTC will continue to grow and then stabilize as the program is mandatory across the State. At what time point in the Demonstration did the population stabilize in size?	The time needed for the incremental enrollment due to the mandate to stabilize	2010–2018 NYS DOH Monthly MLTC Enrollment Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
2. Demonstrate stability or improvement in patient safety	1. Is the percentage of the MLTC population having an emergency room visit in the last 90 days stable or improving over the course of the Demonstration?	Percentage of enrollees who had no emergency room visits in the last 90 days	2010–2019 UAS-NY Community Health Assessment Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
	2. Is the percentage of the MLTC population having a fall requiring medical intervention in the last 90 days stable or improving over the course of the Demonstration?	Percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries in the last 90 days	2014–2019 UAS-NY Community Health Assessment Data	
3. Demonstrate stability or improvement in quality of care	1. Are enrollees' perceived timely access to personal, home care, and other services such as dental care, optometry, and audiology stable over time or improving?	Percentage of members who received dental care in a timely manner [Note: the data for other services were not available]	2009–2019 MLTC Satisfaction Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
	2. Is the percentage of the MLTC population accessing preventive care services, such as the influenza vaccination and dental care, consistent or improving?	Percentage of members who received an influenza vaccination in the last year; percentage of members who received a dental exam in the last year	2010–2019 UAS-NY Community Health Assessment Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions

Goal	**Research Question**	**Measure**	**Data Source**	**Study Design and Analytic Approach**
4. Stabilize or reduce preventable acute hospital admissions	1. Is the MLTC population experiencing stable or reduced rates of potentially avoidable hospitalizations?	The number of potentially avoidable hospitalizations per 10,000 member days	2013–2017 SPARCS Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
5. Demonstrate stability or improvement in consumer satisfaction	1. What is the percentage of members who rated their managed long-term care plan within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?	Percentage of members who rated their managed long-term care plans as good or excellent	2007–2019 MLTC Satisfaction Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
	2. What is the percentage of members who rated the quality of care manager/case manager services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?	Percentage of members who rated the quality of care manager/case manager services within the last six months as good or excellent		
	3. What is the percentage of members who rated their home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse, or covering/on-call nurse services within the last six months as usually or always on time? Has this percentage remained stable or improved over the Demonstration?	Percentage of members who rated their home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse/registered nurse or covering/on-call nurse services within the last six months as usually or always on time	2007–2019 MLTC Satisfaction Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions
	4: What is the percentage of members who rated the quality of home health aide/personal care aide/personal assistant services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?	Percentage of members who rated the quality of home health aide/personal care aide/personal assistant services within the last six months as good or excellent	2007–2019 MLTC Satisfaction Data	A quasi-experimental design: Used a difference-in-differences approach by leveraging the fact that the mandate was rolled out gradually across 13 regions

NOTE: SPARCS = Statewide Planning and Research Cooperative System.

Goal 1: MLTC Enrollment

Research Question

- Goal 1, Research Question 1: Enrollment into MLTC will continue to grow and then stabilize as the program is mandatory across the State. At what time point in the Demonstration did the population stabilize in size?

Study Population and Data Sources

We used the 2010–2018 NYS DOH's MLTC monthly enrollment data to examine expanded access to MLTC for Goal 1. These data cover all individuals who were enrolled into MLTC during the time period. In addition, we used the New York Statewide Managed Long-Term Care Implementation Timeline to delineate the rollout schedule. The 2010–2018 Medicaid Data Warehouse was used to generate, for each county, the number of individuals who were eligible for both Medicare and Medicaid (dual eligibles). Since the exact number of individuals eligible for MLTC is not available, we used the number of dual eligibles to approximate the size of the population eligible for MLTC and therefore used as the denominator of MLTC enrollment rates. More details on the data sets used for this evaluation are in Appendix A, Table A1. We included data for the two years before and the five years after implementation of the Demonstration. This provides a time series of sufficient length to observe the transition from pre-implementation to post-implementation.

Outcome Measures

The outcomes of interest for this analysis are the number of individuals enrolled in MLTC plans and enrollment rates among eligible individuals. Enrollment rates were calculated by dividing enrollment at the county and month level by the number of dual eligibles, which we used to approximate the number of individuals eligible for MLTC.

Analytic Approach

For descriptive analysis, we delineated the time trends in MLTC enrollment by rollout region and month for the years 2010–2018. But a time point at which the total MLTC enrollment stabilized in descriptive trends could be the result of factors other than the MLTC mandate that are associated with the general time trend. To address the research question, therefore, we specified a multivariable model that identified a general time trend in addition to the post-mandate enrollment growth.

A key feature of the MLTC mandate is that it was rolled out at different times across the State. For example, the mandate was implemented first in New York City. During that time, the other regions in the State served as a comparison. Similarly, as more regions implemented the mandate, the rest of the State became a comparison. This staged rollout allows for the identification of a general underlying time trend separate from the impact of the mandate on the MLTC enrollment.

During the implementation, an announcement letter was sent to eligible individuals two to three months prior to the official mandate start date for a given region. In our analysis, we chose the announcement letter date as the starting point, because many eligible individuals began to enroll before the official start date. For example, in New York City, the announcement letter was sent in June 2012, but the official start date was September 2012. Individuals could enroll any time prior to the mandate for a given region.

In the multivariable analysis, we examined the enrollment rate at the rollout region level using a variant of the difference-in-differences approach. The models include a series of indicators for calendar months, as well as for the time since the mandate, which varies across rollout regions. We allowed the general time trend to vary across rollout regions, but we identified a common mandate effect across the regions, reflected by the coefficients of the indicators for the time since mandate. Note that because the 13 rollout regions differ substantially in population size, we modeled enrollment rates for each region using the number of individuals eligible for MLTC as the denominator (approximated by the number of dual eligible). Thus, the dependent variable in our model is the rate of enrollment rather than the enrollment level in each county. In addition, we used the number of dual eligibles as analytic weights in the model, so that our results are representative of the State and not just averages across the 13 regions. The full methods for the regression analysis are in Appendix B.

Because MLTC plans expected the mandate to be implemented on a specific date, there could be an anticipatory effect due to the competition among MLTC plans. That is, existing MLTC plans could have tried to enroll as many individuals as possible on a voluntary basis before the mandate started. Therefore, as a secondary analysis, we re-estimated the model with the inclusion of ten months preceding the mandate rollout in each region (based on the descriptive trends, which differed across rollout regions) to capture such a potential anticipatory effect on enrollment.

To identify whether and when the mandate's effect stabilized, we visually examined the mandate's effect over time, and we conducted statistical tests to identify when enrollment increases were no longer statistically significantly greater than zero. That is, starting from the fourth month after implementation, and for each of the following rolling three-month periods, we tested whether the current three-month average of enrollment rate was statistically significantly larger than that of the previous three months, using a significance level of 5 percent. For example, we compared the average rate of enrollment in months 1–3 to that of months 4–6, months 2–4 to months 5–7, and so on. We consider the mandate's effect as stabilized at the point at which three-month average enrollment increases were no longer statistically significant.

Goals 2–4: Patient Safety and Quality of Care Among the MLTC Population

Research Questions

- Goal 2, Research Question 1: Is the percentage of the MLTC population without any emergency room visits in the last 90 days stable or improving over the course of the Demonstration?
- Goal 2, Research Question 2: Is the percentage of the MLTC population without any falls requiring medical intervention in the last 90 days stable or improving over the course of the Demonstration?
- Goal 3, Research Question 1:[9] Are enrollees' perceived timely access to personal, home care, and other services, such as dental care, optometry, and audiology, stable over time or improving?
- Goal 3, Research Question 2: Is the percentage of the MLTC population accessing preventive care services, such as influenza vaccination and dental care, consistent or improving?
- Goal 4, Research Question 1: Is the MLTC population experiencing stable or reduced rates of potentially avoidable hospitalizations?

Study Population and Data Sources

We analyzed the data for individuals enrolled in an MLTC plan during 2010–2018 across the four different MLTC plan types: Partial Capitation, MAP, PACE, and FIDA (see Appendix D, Table A4 for more details). The NYS DOH provided aggregate MLTC plan-level performance data for five outcome measures: percentage of enrollees who had no emergency room visits, percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries, influenza vaccinations, dental exams, and potentially avoidable hospitalizations. Specifically, for the years 2010, 2012, and 2013, we used annual MLTC performance reports produced by NYS DOH, which contain MLTC plan-level outcome measures derived from the Semi-Annual Assessment of Members (SAAM) data (NYS DOH, 2010, 2012b, 2013c). For the years 2014–2018, we downloaded semi-annual MLTC plan-level outcome data from Open Data NY (NYS DOH, 2020a). The five outcome measures, except for potentially avoidable hospitalizations, were derived from the Uniform Assessment System for New York (UAS-NY) Community Health Assessment (CHA) data. Potentially avoidable hospitalization rates for each MLTC plan were calculated by NYS DOH using the 2014–2018 Statewide Planning and Research Cooperative System (SPARCS) data, an all-payer hospital discharge database in New York State (NYS DOH, 2013a, 2020a, 2020b).

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[9] Because Goal 3, Research Question 1, uses the survey data, its study design is described in the study design section for Goal 5.

Outcome Measures

In this analysis, we examined the following measures for each of the evaluation goals listed below:

- Goal 2: Demonstrate stability or improvement in patient safety
  1. Percentage of MLTC enrollees without any emergency room visits in the last 90 days
  2. Percentage of MLTC enrollees without any falls requiring medical intervention in the last 90 days
- Goal 3: Demonstrate stability or improvement in quality of care
  1. Percentage of MLTC enrollees receiving an influenza vaccination in the past year
  2. Percentage of MLTC enrollees receiving a dental exam in the past year
- Goal 4: Stabilize or reduce preventable acute hospital admissions
  1. Annual rate of potentially avoidable hospitalizations per 10,000 MLTC enrollee days.[10]

Significant changes in how each outcome was measured over time required manipulations to define a consistent measure; as a result, comparison over time should be made with caution. For example, in 2014, the measure instrument changed from the SAAM to the UAS-NY CHA instrument for reported outcomes, and this led to differences in how measures were calculated. Starting with outcomes reported in 2014, plans in each of the four MLTC programs conducted individual assessments every six months, as well as after a significant event such as discharge from a hospital, return from a facility, and a significant change in health status. Also, starting in 2014, the reference period for the measures of enrollees with no emergency room visits and enrollees with no falls that required medical intervention or resulted in major or minor injuries changed from six months to 90 days. We discuss below the changes for each of the outcome measures.

Emergency room visits were based on items in the SAAM in the 2010 Annual MLTC Performance Report and included any emergent care in any setting (hospital, physician's office, or outpatient department) since the last MLTC assessment. Starting with the 2012 annual report, the no-emergency-room-visits measure included only hospital emergent care since the last assessment, and this reported measure was risk-adjusted at the plan level. In the 2013 annual report, this measure was reported as the percentage with no emergent hospital care since the last assessment. We reverse-coded this for our analyses. Starting with 2014 reported outcomes, this measure was based on items in the UAS-NY CHA data and used a 90-day lookback period.

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[10] Potentially avoidable hospitalizations are in-patient hospitalizations that could potentially have been avoided with timely care, including those with a SPARCS primary diagnosis of respiratory infection, urinary tract infection, congestive heart failure, anemia, sepsis, or electrolyte imbalance. The rate is determined by dividing the number of such diagnoses by the total plan days for members with more than three months of plan enrollment and then multiplying by 10,000.

The percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries was based on items in the SAAM in the 2010, 2012, and 2013 Annual MLTC Performance Reports and initially included any fall since the last assessment. This measure was not restricted to falls requiring medical intervention until 2014. Starting in the 2012 report, this plan-level measure was risk-adjusted using a statewide statistical model. In the 2013 annual report, there are two measures based on SAAM: any falls and falls not resulting in medical intervention. Each measure is risk-adjusted separately, so we cannot cleanly identify falls that require medical intervention by subtracting one from the other. Starting with 2014 reported outcomes, the measure was based on items in the UAS-NY CHA data and used a 90-day lookback period. In our analysis, we therefore included only the data reported in 2014 and afterward.

The measure of potentially avoidable hospitalizations was calculated for each plan starting with the 2013 Annual MLTC Performance Report. Potentially avoidable hospitalizations are identified by analyzing health care encounter data in SPARCS data for plan enrollees who have a hospital admission with a discharge diagnosis of respiratory infection, urinary tract infection, congestive heart failure, anemia, sepsis, or electrolyte imbalance during the measurement period. The plan’s reported potentially avoidable hospitalization rate is the number of potentially avoidable hospitalizations per 10,000 enrollee days and is risk-adjusted. We did not use the January 1, 2013, data point in our analysis because it is about one-third of that of other measurement periods.

Two of the outcome measures did not change over time: the percentage of members who received an influenza vaccine in the past year and the percentage of members who received a dental exam in the past year. The percentage of members who received an influenza vaccine in the past year is available in the 2010, 2012, and 2013 Annual MLTC Performance Reports and in the 2014–2018 semi-annual MLTC plan-level outcome data. Even though the instrument changed from SAAM to UAS-NY in 2014, the item on the influenza vaccine did not change. The percentage of members who received a dental exam in the past year is available only in the 2014–2018 semi-annual MLTC plan-level outcome data.

Starting with the 2012 Annual MLTC Performance Report, selected plan-level outcome measures were risk-adjusted by NYS DOH to account for differences among plan enrollee populations. Risk adjustment accounts for variation in demographics and health status among plan enrollee populations and is designed to create a more equal comparison across plans within a measurement period. Plans that have more frail enrollees may have poorer outcome scores than plans with healthier enrollees because they have sicker enrollees, not because they are performing poorly. Risk adjustment is an attempt to address these differences in plan populations. NYS DOH calculates the expected rates for a plan for each of the risk-adjusted outcomes that would occur if the plan’s enrollee population matched the total enrollee population in the State in that year. A plan’s risk-adjusted rate is the ratio of the observed rate to the expected rate, multiplied by the statewide average rate.

The risk adjustment is calculated for each measurement period, and the demographic and health status measures that were used have changed over time, so individual plan scores are not comparable over time. In the 2012 Annual MLTC Performance Report, risk adjustment was based on a number of factors, including demographics, major medical conditions, physical function, cognitive function, and living arrangement. Starting with 2014 reported measures, risk adjustment was based on health status information available on the CHA. The set of risk adjustors has also changed slightly over time. For example, enrollee race/ethnicity was included for the 2012 and 2013 annual reports but not in later reports. Even for the same risk adjustors, definitions could change during the study period. For instance, cognitive functions were measured differently in reports prior to 2014 than they were in later reports; this is due to the change of the data collection instrument from SAAM to UAS-NY CHA.

Measure Reference Period Adjustment

Starting with data reported in 2014, the reference period changed from six months to 90 days for the no-emergency-room-visits measure and no-falls-requiring-medical-intervention measure because of the change of the assessment tool from SAAM to UAS-NY CHA. In our analysis, we adjusted these measures from earlier reports so that they reflect the same 90-day reference period and are therefore comparable over time. To make the adjustment, we assumed that the likelihood of each outcome occurring was the same for each month during the six-month time period, and we calculated the expected value for the outcome over a 90-day period.

Analytic Approach

Because outcome definitions evolved over time and were risk-adjusted, we were not able to directly estimate the impact of the MLTC mandate on absolute changes in outcomes. Instead, we calculated the difference in each outcome measure between each MLTC plan and the statewide average in each year. That is, we “re-centered” each outcome measure around the statewide average of the outcome across plans, such that the sum of the re-centered measure across plans in each year was zero. Although the outcome measures themselves are not comparable over time because of risk adjustment or definitional changes, the re-centered measures are comparable over time unless the definitions of outcome measures changed over time. The re-centered outcome measures allow for a fair comparison over time between a plan’s performance and all other plans. Our strategy was to then determine whether a plan’s relative performance improved or worsened with increased mandated enrollment, using each of the five re-centered plan outcomes.

Mandatory enrollment was rolled out at different times for different regions in the State between September 2012 and July 2015. Typically, identification of the mandate’s effect would be done using outcome measures by rollout region. However, we had only statewide plan–level outcome data, and plans operated in multiple regions. To overcome this limitation, for each MLTC plan, we calculated the fraction of its enrollees residing in the regions under the mandate using monthly MLTC enrollment data, and we estimated its association with the re-centered outcomes. The assumption was that, on average, plan enrollees contributed equally to plan-level outcomes across mandated enrollment status. The identification of the mandate's effect comes from the variation in this fraction across plans and over time. The full statistical model is provided in Appendix B.

Goal 5: Consumer Satisfaction Among the MLTC Population

Research Questions

- Goal 5, Research Question 1: What is the percentage of members who rated their managed long-term care plan within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?
- Goal 5, Research Question 2: What is the percentage of members who rated the quality of care manager/case manager services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?
- Goal 5, Research Question 3: What is the percentage of members who rated their home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse, or covering/on-call nurse services within the last six months as usually or always on time? Has this percentage remained stable or improved over the Demonstration?
- Goal 5, Research Question 4: What is the percentage of members who rated the quality of home health aide/personal care aide/personal assistant services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?

Study Population and Data Sources

The target population of our analysis consists of all MLTC enrollees regardless of dual eligibility for the years 2007–2019. The data for this secondary analysis originated from the customer satisfaction survey administered to MLTC plan enrollees. The data for the years 2007, 2011, and 2013 came from the annual MLTC performance reports produced by NYS DOH (NYS DOH, 2010, 2012b, 2013c), which contained MLTC plan-level outcome measures. For the years 2015, 2017, and 2019, the MLTC plan-level outcome data were downloaded from Open Data NY (NYS DOH, 2020a). Statewide data were not generated; these data came directly from the reports or from Open Data NY.

The demographic characteristics for the enrollees, available from Open Data NY, remained fairly consistent during 2015–2019. Approximately 30 percent were male and 70 percent were female. Race and ethnicity also remained consistent, with 32 percent White non-Hispanic, 25 percent Hispanic, and 18 percent African American; the remaining enrollees (25 percent) were designated as "other." Persons under 65 years of age represented only 16 percent of enrollees, while those 65 to 74 years old represented 24 percent, those age 75 to 84 represented 33 percent, and those age 85 plus represented 27 percent.

The customer satisfaction survey was developed by NYS DOH along with Island Peer Review Organization (IPRO), an external quality review organization contracted to evaluate the satisfaction of services provided by the MLTC plans, including the quality, accessibility, and timeliness of services. The first customer member satisfaction survey of the State's MLTC population was field-tested and administered by IPRO beginning in 2007 and subsequently in two-year intervals starting in 2011 (NYS DOH, 2010).

Survey items explored health plan satisfaction; satisfaction with select providers and services, including timeliness of care and access; and self-reported demographic information. To maximize response rates, the satisfaction surveys were offered in English, Spanish, Russian, and Chinese and included a follow-up mailing to nonresponders within three months of the initial distribution. The survey underwent periodic revisions over the years, with survey items being added or modified (see details in the "Outcome Measures" section below).

In 2007 and 2011, the results of the survey were provided in unadjusted prevalence rates at the MLTC plan level (no individual respondent-level data were available for the analysis); beginning in 2013, the results of four of the five items were risk-adjusted to allow for a fairer comparison among the MLTC plans. In addition, beginning in 2015, to account for unequal plan size, statewide survey data were weighted by plan-eligible population. This allowed larger plans to contribute more—and smaller plans to contribute less—to the statewide average, thus yielding more-representative statewide results (NYS DOH, 2015). As seen in Table 3, the number of surveys mailed during each year of the survey administration has increased with increased MLTC enrollment over time; however, except for 2017, response rates have been trending downward.

Table 3. Number of Satisfaction Surveys Mailed and Response Rate, by Year

Year	Surveys Mailed	Completed Surveys	Response Rate (%)
2007	4,518	1,403	31.1
2011	5,742	1,845	32.1
2013	9,346	2,533	27.0
2015	17,804	4,592	25.8
2017	20,047	5,559	27.
2019	20,007	4,639	23.2%

NOTE: The data came from various annual New York State MLTC reports. (NYS DOH, 2010, 2012b, 2015, 2017a, 2020a).

Outcome Measures

For this analysis, we examined data pertaining to the questions listed below. Since Goal 3, Research Question 1, uses the survey data, its study design is described in this section.

Goal 3: Demonstrate stability or improvement in quality of care

1. Percentage of MLTC enrollees who reported timely access to dental care within the last six months

Goal 3, Research Question 1 is about enrollees' perceived timely access to personal, home care, and other services, such as dental care, optometry, and audiology. The outcome measure that most closely aligns with the research question pertains to dental care, and no reported measures on access to optometry and audiology are available in the data. There was a slight change in how the measure of timely access to dental care was constructed: Prior to 2015, the measure was the percentage of MLTC enrollees who reported that within the last six months they waited less than one month for access to routine dental care; from 2015 on, it became the percentage of members who reported that within the last six months they always got a routine dental appointment as soon as they thought they needed one. The item on the 2011 and 2013 satisfaction surveys that corresponded to the research question was: "In the last 6 months, when you called for a regular appointment, how long did you generally have to wait between making an appointment and seeing providers?" This item used the following response categories: "Less than 1 month," "1 to 3 months," or "Longer than 3 months." The questions and response categories for this item changed in 2015 to "In the past 6 months, when you called for a regular appointment, how often did you get an appointment as soon as you thought you needed one?" The new response categories were: "Always," "Usually," "Sometimes," or "Never" (IPRO Corporate Headquarters Managed Care Department, 2011). The measure is available for all the data years except for 2007, and no risk adjustment was made to the measure.

Goal 5: To demonstrate stability or improvement in consumer satisfaction

1. Percentage of MLTC enrollees who rate their health plan as good or excellent

   The survey item is, "Overall, how would you rate your managed long-term care plan?" The response categories are "Excellent," "Good," "Fair," or "Poor." The measure is available for all the survey years and was risk-adjusted starting in 2013.

2. Percentage of MLTC enrollees who rate their care manager as good or excellent

   The survey item is, "Please rate the providers and services you receive or have received within the last 6 months—even if the service is not covered, or paid for, by your health plan." The response categories are "Excellent," "Good," "Fair," "Poor," or "Not Applicable." The measure is available for all the survey years and was risk-adjusted starting in 2013.

3. Percentage of MLTC enrollees who reported that within the last six months the home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse/registered nurse, or covering/on-call nurse services were usually or always on time

   This composite measure included four survey items: "In the past 6 months, please rate how often the following services were on time or if you were able to see the provider at the scheduled time: Home health aide, personal care aide (aide that comes to your house to take care of you); Care Manager/Case Manager (person who prepares your plan of care); Regular Visiting Nurse/Registered Nurse (comes to your house for regular visits); and Covering/On-call Nurse (comes to your house when regular nurse can't come." The response categories changed in 2015 from “Less than 1 month,” “1 to 3 months,” or “Longer than 3 months” to “Always,” “Usually,” “Sometimes,” “Never,” or “Not Applicable” (IPRO Corporate Headquarters Managed Care Department, 2011). The measure is available for all the survey years except 2007 and 2011 and was risk-adjusted for all years.

4. Percentage of MLTC enrollees who rate the quality of home health aide/personal care aide/personal assistant services within the last six months as good or excellent

The survey item is, “Please rate the providers and services you receive or have received within the last 6 months—even if the service is not covered, or paid for, by your health plan.” The response categories are: “Excellent,” “Good,” “Fair,” “Poor,” or “Not Applicable.” The measure is available for all the survey years and was risk-adjusted starting in 2013.

As stated above, the outcome measure under Goal 3 was an unadjusted prevalence measure. Beginning in 2013, all plan outcome measures under Goal 5 were risk-adjusted, meaning they were adjusted by NYS DOH for age, education, and self-reported health status, as these were found to be important satisfaction survey control variables that are widely accepted and used in satisfaction survey analysis (NYS DOH, 2015).

Analytic Approach

Descriptive statistics, specifically means, were generated for the three types of MLTC plans: Partial Capitation MLTC plans, PACE plans, and MAP plans. Satisfaction survey data for FIDA plans were not available. Means were calculated for each type by adding the outcome measure for each of the plans and then dividing the total by the number of plans under each type.[11]

We used the same multivariable modeling strategy as that for Goals 2–4; please refer to that section for details. The full statistical model is in Appendix B.

Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for Long-Term Services and Supports

Goals 1–3: Individuals Moved from Institutional Settings to Community Settings

Research Questions

- Goal 1, Research Question 1: For those who transition from an institutional setting to the community, did the percentage enrolling in MLTC increase over the Demonstration?
- Goal 2, Research Question 1: Is the percentage of the HCBS expansion population without any emergency room visits in the last 90 days stable or improving over the course of the Demonstration?

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[11] The MLTC satisfaction survey uses a similar sample size across plans: 600 enrollees from each plan are selected for each survey year.

- Goal 2, Research Question 2: Is the percentage of the HCBS expansion population without any falls, as defined by the department's fall measure, stable or improving over the course of the Demonstration?
- Goal 3, Research Question 1: For the HCBS expansion population who entered MLTC after transitioning from an institutional setting, what percentage return to the nursing home within a year of discharge, what was their average level of care need, and for those who return within a year, how long on average did they reside in the community?
- Goal 3, Research Question 2: Is the percentage of the HCBS expansion population accessing preventive care services such as the flu shot and dental care consistent or improving?

In Table 4, we summarize the measures, data sources, study design, and analytic approaches for each of the research questions under Domain 1, Component 2.

Table 4. Study Design for Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for Long-Term Services and Supports

Goal	Research Question	Measure	Data Source	Study Design and Analytic Approach
1: Improve Access to MLTC for those who transitioned from an institutional setting to the community	1. For those who transition from an institutional setting to the community, did the percentage enrolled in MLTC increase over the Demonstration?	Percentage of the MFP population who enrolled in MLTC within one year post-discharge	2015–2018 UAS-NY Community Health Assessment Data, 2015–2018 MFP Master Data, 2014–2018 MDS Data	A single group, post-intervention design: Delineate annual trends in the percentage of the MFP population who enrolled in an MLTC plan
2: Demonstrate stability or improvement in patient safety	1. Is the percentage of the HCBS expansion population having an emergency room visit in the last 90 days stable or improving over the course of the Demonstration?	Percentage of the HCBS expansion population who did not have an emergency room visit in the last 90 days	2015–2018 UAS-NY Community Health Assessment Data, 2015–2018 MFP Master Data	A single group, post-intervention design: Delineate annual trends in the percentage of the HCBS expansion population who did not have an emergency room visit or a fall
	2. Is the percentage of the HCBS expansion population having a fall, as defined by the Department's fall measure, stable or improving over the course of the Demonstration?	Percentage of the HCBS expansion population who did not have a fall that required medical intervention or resulting in major or minor injuries in the last 90 days		
3: Demonstrate stability or improvement in quality of care	1. For the HCBS expansion population who entered MLTC after transitioning from an institutional setting, what percentage return to the nursing home within a year of discharge, what was their average level of care need and, for those who return within a year, how long on average did they reside in the community?	Percentage of the HCBS expansion population who remained in the community for one year post-discharge; average residence time in the community for those who returned to a nursing home within one year	2015–2018 UAS-NY Community Health Assessment Data, 2015–2018 MFP Master Data, 2014–2018 MDS Data	A single group, post-intervention design: Describe annual rates stratified by level of care and delineate the trends in the percentage of the HCBS expansion population who remained in the community after one

Goal	Research Question	Measure	Data Source	Study Design and Analytic Approach
	2. Is the percentage of the HCBS expansion population accessing preventive care services such as the flu shot and dental care consistent or improving?	Percentage of the HCBS expansion population who received an influenza vaccination in the last year; percentage of the HCBS expansion population who received a dental exam in the last year		year post-discharge; average amount of time in the community among those who returned to a nursing home; and percentage of the HCBS expansion enrollees who received an influenza vaccination or a dental exam in the last year

Study Population and Data Sources

The study population for this analysis—that is, the HCBS expansion population—consists of individuals who were discharged from a nursing facility to the community and enrolled in MFP and MLTC during 2015–2018. To identify this population, the NYS DOH merged three data sets: the MFP master data, the MDS data, and the UAS-NY CHA data. In the MFP master data, there were 1,443 unique client identification numbers (CINs) with an MFP-start date in the years 2015–2018, after excluding 16 individuals discharged from a hospital or an intermediate care facility. From these 1,443 unique CINs, a total of 1,420 were found in the 2014–2018 MDS data,[12] among whom 1,314 were matched using MDS discharge assessments, 38 using non-discharge assessments, and 68 using names and birthdates. The 23 unmatched CINs were excluded from further analysis. Among the 1,420 unique CINs that were in both the MFP master data and the MDS data, 755 were matched to the 2015–2018 UAS-NY CHA data. The remaining 665 CINs without any MLTC assessment were considered not to have been enrolled in MLTC at any time between 2015 and 2018 because MLTC enrollees are required to have an assessment at least every six months.

Of the 755 unique CINs that exist in all three data sets, 629 unique CINs were associated with at least one MLTC assessment conducted either in the 45 days prior to the MFP enrollment date or after MFP enrollment during 2015–2018.[13] After limiting the population to those who had at least one MLTC assessment within 45 days before enrollment or 365 days after the MFP start date, there were 589 unique CINs. Finally, after removing multiple enrollment records for the same individual, there were 583 unique individuals who participated in the MFP program for

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[12] NYS DOH also included the 2014 MDS data to identify individuals who were in a nursing home prior to 2015 and transitioned to the community in 2015 and onward. However, MLTC assessments should be done within 45 days prior to MFP participation.

[13] The previous assessment instrument, the SAAM, was valid for six weeks for MLTC enrollment (see NYS DOH MLTC Policy 13.09(b)). The window was later changed to 45 days.

the first time during 2015–2018 and who were enrolled in an MLTC plan either 45 days prior to MFP start or within 365 days post-MFP start date.

In addition, for Goal 3, those who remained in the community one year post-discharge were identified using the MDS. First, the 589 unique CINs who had MLTC assessments between 45 days prior to and 365 days post-MFP start date were matched to the MDS data using nursing home discharge assessments with CINs. To ensure that the MFP days overlapped with the calendar days post-discharge, the sample was further limited to those with an MFP start date within 90 days of the discharge date. From this process, 421 participants were identified. For research questions that used assessment data, the sample was limited to 368 individuals with one or more assessments conducted after MLTC enrollment.

Outcome Measures

In this analysis, we examined the following measures for each of the evaluation goals listed below for the HCBS population as described in the previous section. The MFP master data and the UAS-NY CHA data were used to construct Goal 1 measures, and the UAS-NY CHA data were used to construct the Goal 2 measures. The MDS data and UAS-NY CHA data were used to construct Goal 3 measures. In cases where an individual had multiple MLTC assessments in the UAS-NY CHA data within a 12-month period, the most recent assessment was used to produce aggregate data; all initial assessments around the time of MLTC enrollment were excluded because our aim was to examine the events that occurred after MLTC enrollment.

Goal 1: Improve access to MLTC for those who transitioned from an institutional setting to the community

1. Percentage of MFP participants who were enrolled in MLTC within 365 days post-MFP start date, by calendar year
2. Percentage of MFP participants who were enrolled in MLTC any time during 2015–2018, by calendar year.

Goal 2: Stability or improvement in patient safety

1. Percentage of the HCBS expansion population without any emergency room visits in the last 90 days
2. Percentage of the HCBS expansion population without any falls that required medical intervention or resulted in major or minor injuries in the last 90 days. (The measure was defined as falls requiring medical intervention in the 2015–2017 UAS-NY CHA data. The assessment question on falls changed in 2018, which is now defined as falls that result in major or minor injuries.)

Goal 3: Stability or improvement in quality of care

1. Percentage of HCBS expansion population who remained in the community for one year post-discharge from a nursing facility, overall and by level of care. (Re-institutionalization was defined as an entry date into a nursing home either on or after the MFP start date.)
2. Average level of care among those who returned to a nursing home within a year post-discharge

3. Average residency time in the community for HCBS expansion population who returned to a nursing home within one year post-discharge
4. Percentage of HCBS expansion population who received an influenza vaccination in the last year
5. Percentage of HCBS expansion population who received a dental exam in the last year.

Analytic Approach

The data analysis for this evaluation was descriptive in nature. Because of constraints on data sharing, NYS DOH completed the data merge and compiled the aggregate-level data with RAND's input. Descriptive statistics and figures were then generated based on the aggregate-level data. Pearson's χ^2 tests were used to examine the trends in the measures (Manitoba Centre for Health Policy, 2008). Two-tailed Student's t-tests were used to compare continuous outcomes between two subgroups of the HCBS expansion population.

In some cases, the trend test was not conducted for either 2015 or 2018 because of small sample sizes and incomplete data, respectively, as noted. For example, because we examined whether an individual enrolled in MLTC within 365 days post-MFP start date, the data for 2018 participants did not include the new MLTC enrollment that occurred in the second half of 2019; the average residency time in the community and the return to a nursing home may be biased because of such incomplete data.

Because there were 28 individuals who died without re-entering a nursing facility, we conducted sensitivity analyses by assuming these individuals did not re-enter a nursing facility or excluding them from the analysis when examining the percentage of HCBS expansion population who remained in the community for one year post-discharge.

Domain 2: Mainstream Medicaid Managed Care

Goal 1: Express Lane Eligibility

Research Questions

- Goal 1, Research Question 1: How many recipients are enrolled in Express Lane eligibility?
- Goal 1, Research Question 2: Are there differences in the demographic and clinical characteristics of Medicaid beneficiaries enrolled through Express Lane–like eligibility as compared to those not enrolled through this mechanism?
- Goal 1, Research Question 3: What portion of the beneficiaries enrolled through Express Lane–like eligibility were later deemed not eligible for this coverage?

New York State did not make use of the Section 1115 authority related to Express Lane Eligibility, which determines temporary assistance for Medicaid. Express Lane Eligibility was instead implemented through a State Plan amendment. Thus, these three questions for Domain 2, Goal 1, were dropped from this 1115 program evaluation. As a replacement, four new research questions have been added to Domain 2, Goal 2. The four new research questions are aligned with the original evaluation design and Domain 2, Goal 2 (see below for details).

Goal 2: 12-Month Continuous Eligibility

Research Questions[14]

- Goal 2, Research Question 1: What is the distribution of enrollees within select continuous enrollment categories, i.e., 12 months, 24 months, etc.?
- Goal 2, Research Question 2: Does the continuous enrollment differ by demographic or clinical characteristics?
- Goal 2, Research Question 3: Did Medicaid's average months of continuous enrollment increase following the implementation of continuous eligibility as compared to pre-implementation?
- Goal 2, Research Question 4: Was there an increase in the percentage of Medicaid beneficiaries continuously enrolled for 12 months following the implementation of continuous eligibility as compared to pre-implementation?
- Goal 2, Research Question 5: How do outpatient, inpatient, and emergency department visits compare pre- and post-implementation of this policy? How have costs been impacted because of the change in utilization?
- Goal 2, Research Question 6: How many of the beneficiaries covered under continuous eligibility would have been ineligible for coverage if not for the waiver?
- Goal 2, Research Question 7: Is overall FFS enrollment decreasing over time? (New Question 1)
- Goal 2, Research Question 8: Is short-term FFS enrollment decreasing over time? (New Question 2)
- Goal 2, Research Question 9: What percentage of Medicaid managed care (MMC) enrollees remain in the same MMC plan after 12-month recertification? (New Question 3)
- Goal 2, Research Question 10: What percentage of MMC enrollees are auto-assigned to any health plan? (New Question 4)

In Table 5, we summarize the measures, data sources, study design, and analytic approaches for each of the research questions under Domain 2, Goal 2.

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[14] Research questions 7–10 were added later and are not designed to measure the impact of the 12-month continuous eligibility policy.

Table 5. Study Design for Domain 2, Goal 2: To Limit Gaps in Medicaid Eligibility Due to Fluctuations in Recipient Income

Research Question	Measure	Data Source	Study Design and Analytic Approach
1. What is the distribution of enrollees within select continuous enrollment cohorts (i.e., 12 months, 24 months, etc.)?	Percentages of enrollees with at least 12, 18, or 24 months of continuous enrollment	2012–2018 Medicaid Data Warehouse	A pre-post design: Describe the distributions of enrollment months by enrollment start year and test for differences between the pre- and post-policy periods using a χ^2 test
2. Does continuous enrollment differ by demographic or clinical characteristics?	Percentages of enrollees with at least 12, 18, or 24 months of continuous enrollment by enrollee characteristics	2012–2018 Medicaid Data Warehouse	A cross-sectional design: Describe the distributions of enrollment months by enrollee characteristics and test for differences using a χ^2 test
3. Did Medicaid's average months of continuous enrollment increase following the implementation of continuous eligibility as compared to pre-implementation?	Average number of continuous enrollment months	2012–2018 Medicaid Data Warehouse	A quasi-experimental design: Apply a difference-in-differences approach using a concurrent comparison (children who were enrolled with 12-month continuous eligibility both before and after the expansion of continuous eligibility)
4. Was there an increase in the percentage of Medicaid beneficiaries continuously enrolled for 12 months following implementation of continuous eligibility as compared to pre-implementation?	Probability of being continuously enrolled for at least 12 months	2012–2018 Medicaid Data Warehouse	A quasi-experimental design: Apply a difference-in-differences approach using a concurrent comparison (children who were enrolled with 12-month continuous eligibility both before and after the expansion of continuous eligibility)
5. How do outpatient, inpatient, and emergency department visits compare pre- and post-implementation of this policy? How have costs been impacted because of the change in utilization?	Annualized rates of inpatient, outpatient, and emergency room visits per 1,000 member-years; per member per month Medicaid cost in 2020 U.S. dollars	2012–2018 Medicaid Data Warehouse	A quasi-experimental design: Apply a difference-in-differences approach using a concurrent comparison (children who were enrolled with 12-month continuous eligibility both before and after the expansion of continuous eligibility)
6. How many of the beneficiaries covered under continuous eligibility would have been ineligible for coverage if not for the waiver?	Number of enrolled months in which enrollees would have been ineligible for coverage had the 12-month continuous eligibility been removed	2012–2018 Medicaid Data Warehouse	A quasi-experimental design: Use the analysis results for Research Question 3 to simulate what would have happened to enrollment after 2014 had it not been for the 12-month continuous eligibility
7. Is overall FFS enrollment decreasing over time? (NEW)	Percentage of individuals who were enrolled in FFS by calendar month	2012–2018 Medicaid Data Warehouse	A cross-sectional design: Describe the trends over time and test them using a χ^2 test
8. Is short-term FFS enrollment decreasing over time? (NEW)	Percentage of individuals enrolled in FFS for two or fewer months, among those with any MMC coverage in a year	2012–2018 Medicaid Data Warehouse	A cross-sectional design: Describe the trends over time and test them using a χ^2 test

Research Question	Measure	Data Source	Study Design and Analytic Approach
9. What percentage of MMC enrollees remain in the same MMC plan after 12-month recertification? (NEW)	Percentage of MMC enrollees remaining in the same MMC plan after the recertification, among those with at least 13 consecutive months of MMC coverage, respectively	2012–2018 Medicaid Data Warehouse	A cross-sectional design: Describe the trends over time and test them using a χ^2 test
10. What percentage of MMC enrollees are auto-assigned to any health plan? (NEW)	Percentage of MMC enrollees who are auto-assigned to any health plan at the start of MMC enrollment	2012–2018 Medicaid Data Warehouse	A cross-sectional design: Describe the trends over time and test them using a χ^2 test

NOTE: Research Questions 7–10 are not designed to measure the impact of the 12-month continuous eligibility.

Study Population and Data Source

For questions 1–6, the population of interest includes the individuals who became newly covered by the 12-month continuous eligibility (hereafter called the treatment group), which was implemented in January 2014. These are individuals eligible for Medicaid based on the MAGI guideline, including pregnant women; individuals age 19–20 living alone or living with parents; childless adults who are not pregnant, are younger than 65, and are not on Medicare; parents or caretaker relatives; and individuals eligible for the Family Planning Benefit Program. During the study period, the number of unique enrollees in this population was 1.3 million in 2012, 2.1 million in 2013, 3.3 million in 2014, and 3.8 million in 2015–2018. Those in NYSoH became newly eligible for 12-month continuous eligibility starting January 2014, while those in WMS started in April 2015. In this analysis, an enrollment episode was defined as a pre-policy episode if it started in 2012–2013 and a post-policy one if it started in 2014–2018.

The comparison group includes infants and children age 18 or younger who were eligible for the 12-month continuous eligibility during the study period. The number of unique individuals increased from 0.8 million in 2012, to 1.3 million in 2013, 1.9 million in 2014, 2.2 million in 2015, 2.3 million in 2016, and 2.4 million in 2017–2018. We acknowledge that the labor force and employment statuses of the parents of potential child enrollees are likely very different from those of potential adult enrollees. In addition, certain Medicaid eligibility rules differ for children versus adults, making children more likely to maintain coverage. Together, these factors make children a less than ideal control group. We did not consider non-MAGI individuals enrolled in Medicaid as a comparison group because these individuals are often very different populations—for example, those who are disabled or in foster care.

Because individuals were allowed to self-transition from WMS to NYSoH except for those who needed services through FFS such as personal care and nursing home care, the two resulting populations differ in various characteristics. Compared to WMS, NYSoH individuals were more likely to be male (45 versus 39 percent), White (30 versus 24 percent), and located in New York City (44 versus 37 percent), but less likely to have an aid category related to TANF (0 versus 5 percent), a safety net (0 versus 17 percent), family planning (0 versus 9 percent), and adult groups who were parents or caretaker relatives (12 versus 21 percent). In addition, NYSoH individuals were healthier than those in WMS, with a larger proportion of individuals having a healthiest Clinical Risk Group (CRG) score of 1 (66 versus 49 percent).

For questions 7 and 8, the analysis covers all Medicaid enrollees in the State (range: 5.2 million in 2012 to 6.2 million in 2018) to examine the FFS enrollment pattern over time. Question 9 focuses on those who were continuously enrolled in Medicaid for at least 13 months and were in an MMC plan in month 12 (range: 1.6 million in 2012 to 1.8 million in 2018), which allows a comparison of MMC plan identifiers before and after the recertification process. To estimate the proportion of MMC enrollees who were auto-assigned to a plan, the analysis for Question 10 is about new MMC enrollees only (range: 2.6 million in 2012 to 2.9 million 2018).

The 2012–2018 Medicaid Data Warehouse was used to answer all research questions under Domain 2, Goal 2 (Table 5). The Medicaid Data Warehouse provides information on age, gender, race and ethnicity, Medicaid eligibility, Medicaid enrollment status, managed care enrollment status, CRG, utilization, and cost (3M, 2020). CRG uses inpatient and ambulatory diagnosis and procedure codes, medications, and functional levels to assign a health status to an individual for severity adjustment purposes. The health status score ranges from 1 to 9, with lower scores representing healthier statuses.[15]

Outcome Measures

- Goal 2, Research Question 1: Percentages of enrollees with at least 12, 24, or 36 months of continuous enrollment, by the year in which enrollment starts.
- Goal 2, Research Question 2: Percentages of enrollees with at least 12, 24, or 36 months of continuous enrollment by enrollee characteristics such as socio-demographics and clinical risk at the time of enrollment, by the year in which enrollment starts.
- Goal 2, Research Question 3: Average number of continuous enrollment months.
- Goal 2, Research Question 4: Probability of being continuously enrolled for at least 12 months.
- Goal 2, Research Question 5: Annualized rates of inpatient, outpatient, and emergency room visits per 1,000 members; per member per month Medicaid cost in 2020 U.S. dollars.
- Goal 2, Research Question 6: Number of enrolled months in which enrollees would have been ineligible for coverage had the 12-month continuous eligibility been removed, by the year in which enrollment starts.
- Goal 2, Research Question 7: The proportion of total Medicaid enrollment that was FFS by calendar month.
- Goal 2, Research Question 8: The proportion of individuals enrolled in FFS for one or two months in a year, among those with at least one month of MMC coverage in that year.
- Goal 2, Research Question 9: The proportion of MMC enrollees who remain in the same MMC plan after the 12-month recertification, among individuals who are enrolled in MMC in the 12th month and who had at least 13, 14, or 15 consecutive months of Medicaid enrollment, respectively, by the year in which enrollment starts.
- Goal 2, Research Question 10: The proportion of MMC enrollees who are auto-assigned to a health plan at the start of MMC enrollment, by the year in which enrollment starts.

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[15] There are nine health status codes (3M, 2020): 1 – no chronic disease and no significant acute illness in the past 6 months; 2 – a history of significant acute disease (e.g., pneumonia); 3 – a single minor chronic disease (e.g., chronic stomach ulcer); 4 – minor chronic disease in multiple organ systems (e.g., chronic bronchitis, hyperlipidemia); 5 – single dominant or moderate chronic disease (e.g., congestive heart failure, diabetes); 6 – significant chronic disease in multiple organ systems (e.g., congestive heart failure, cerebrovascular disease, asthma); 7 – dominant chronic disease in three or more organ systems (e.g., congestive heart failure, diabetes, chronic obstructive pulmonary disease); 8 – dominant, metastatic and complicated malignancies (e.g., brain malignancy, metastatic prostate cancer); 9 – catastrophic conditions (e.g., dialysis, persistent vegetative state).

Analytic Approach

Because the enrollment and renewal process differ between WMS and NYSoH, for all Domain 2, Goal 2 research questions, we stratified the analyses by NYSoH versus WMS. In particular, the 12-month continuous eligibility policy was implemented in January 2014 for the treatment group enrolled via NYSoH, but it wasn't implemented till April 2015 for those enrolled via WMS.

Research Questions 1–6

The analyses for questions 1 and 2 are descriptive in nature. We described the distributions of enrollment duration and conducted χ^2 tests to compare them by enrollee characteristics. We used the whole treatment population for these two questions.

Because of the amount of data and the computation intensity required to run regression analyses, we drew a 1 percent simple random sample of Medicaid enrollees for questions 3 to 5. For regression analyses, we used a concurrent comparison group of children age 18 or younger and applied a difference-in-differences design to measure the policy's impact on Medicaid enrollment duration, utilization, and cost. The State implemented the 12-month continuous eligibility for children in the Medicaid program in 1999. Thus, children were covered by 12-month continuous eligibility in both the pre- and post-policy periods. For questions 3 and 5, we examined the pre-policy trends by including a linear time interaction with treatment group. We did not reject the hypothesis that the trends were parallel.

For question 3, we used a standard month-level discrete time survival model to estimate the 12-month continuous eligibility policy's impact on enrollment duration, controlling for enrollee age, gender, race and ethnicity, Medicaid aid category, dual eligibility status, geographic region (New York City versus upstate), and CRG categories. Since the policy was implemented in January 2014 for the NYSoH sub-population, the maximum number of pre-policy enrollment months is 24; that is, we cannot well identify the policy's effect on enrollment duration beyond 24 months. Therefore, we censored all enrollment episodes at month 24, December 2013, or December 2018, whichever occurred first. Similarly, for the WMS sub-population, we censored episodes at month 36. We specified the model with non-parametric baseline hazards interacted by indicators of pre- versus post-intervention time and treatment versus control group. The covariates of interest that reveal the association between enrollment duration and policies are the interactions between the treatment group indicator, the post-intervention indicator, and the duration month indicators. We generated Huber-White standard errors (Huber, 1964), clustered at the individual level to account for intra-person correlation.

For question 4, we used estimates from the survival model of question 3 to calculate survivor function values for months 12 and 24, separately for the pre-intervention and post-intervention periods. For question 5, due to a large proportion of observations without any utilization, we considered zero inflation negative binomial or Poisson models, but neither model converged. We therefore adopted a two-part model, where the first part is a logistic regression to model whether there was any utilization, and the second part is a Poisson model truncated at zero. To model health care cost, we used a generalized linear model with a log link and a Gaussian family (Manning and Mullahy, 2001). Data were aggregated at the annual level for both utilization (annual totals) and cost (monthly averages), and the interactions between calendar year indicators and the treatment group indicator were the variables of interest that represent the impact of 12-month continuous eligibility. The specifications of covariates for these models are similar to those of the discrete time survival model. Since only a subset of individuals have CRG information, we conducted secondary analyses to examine whether including CRG as a risk adjustor would change conclusions. Huber-White standard errors, clustered at the enrollee level (Huber, 1964), were estimated for all regression models to account for intra-person correlation and possible misspecifications. Please see Appendix B for additional model details. All costs have been inflation adjusted to 2020 U.S. dollars (U.S. Bureau of Labor Statistics, 2021).

After regression, we used the post-intervention treatment group as the standard set of population to predict outcomes with and without 12-month continuous eligibility: enrollment duration for question 3, the probability of being enrolled for at least 12 or 24 months for question 4, and cost and utilization for question 5. We re-sampled the data and re-generated point estimates (bootstrapping) for 100 times to generate 95 percent confidence intervals.

To answer question 6, for each of the years 2014–2018, we used the standardized populations, defined as the observed treatment group in each year, to predict enrollment duration with and then without the 12-month continuous eligibility policy (turning on and then off the policy variable). We generated the ratio of the predictions with and without the policy, and we applied the ratio to the actual number of enrollment months to derive the change in the number of enrollment months attributed to the 12-month continuous eligibility policy.[16] Note that because there are only two years of data prior to 2014 for the NYSoH sub-population, we predicted enrollment durations up to 24 months for both NYSoH and WMS sub-populations to ensure comparability. Similarly, we used bootstrapping to generate 95 percent confidence intervals.

Research Questions 7 to 10

For questions 7–10, we generated the measures and describe their trends during 2012–2018. Pearson's χ^2 tests were used to test such trends (Manitoba Centre for Health Policy, 2008). We conducted secondary analyses by excluding those who are either required to enroll in FFS or are required to enroll in MMC (see Appendix C, Tables A2 and A3 for details). In other words, there is no choice between FFS and MMC for these two groups. We therefore conducted secondary analyses for questions 7 and 8 by excluding each of these two groups, respectively.

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[16] Research question 6 asks, "How many of the beneficiaries covered under continuous eligibility would have been ineligible for coverage if not for the waiver?" Due to the lack of the income data, we were not able to answer the question directly; the counterfactual we generated is about enrollment months instead of the number of beneficiaries.

For question 9, to determine whether an individual switched to another plan in these cases, in addition to the comparison of plan identifiers between month 12 and month 13, we also compared month 12 to months 14 and 15, respectively, for two reasons. New Medicaid enrollees may be retroactively enrolled to cover medical bills for as many as three months prior to the month of the Medicaid application. Those months do not count against the 12-month period of continuous eligibility, but we do not observe this information in the data. Thus, the recertification month could be as late as the 15th month (that is, up to three months of retrospective eligibility followed by 12 months of continuous eligibility). Also, individuals who submit recertification materials late, or for whom eligibility is not determined by the end of month 12, would not be dropped from coverage until eligibility is adjudicated. Thus, some may be enrolled for several months after the 12-month continuous eligibility period has ended.

4. Discussion of Findings and Conclusions

Domain 1, Component 1: Managed Long-Term Care

Goal 1, Research Question 1: MLTC Enrollment

Enrollment into MLTC will continue to grow and then stabilize as the program is mandatory across the State. At what point in the Demonstration did the population stabilize in size?

MLTC Mandate Rollout

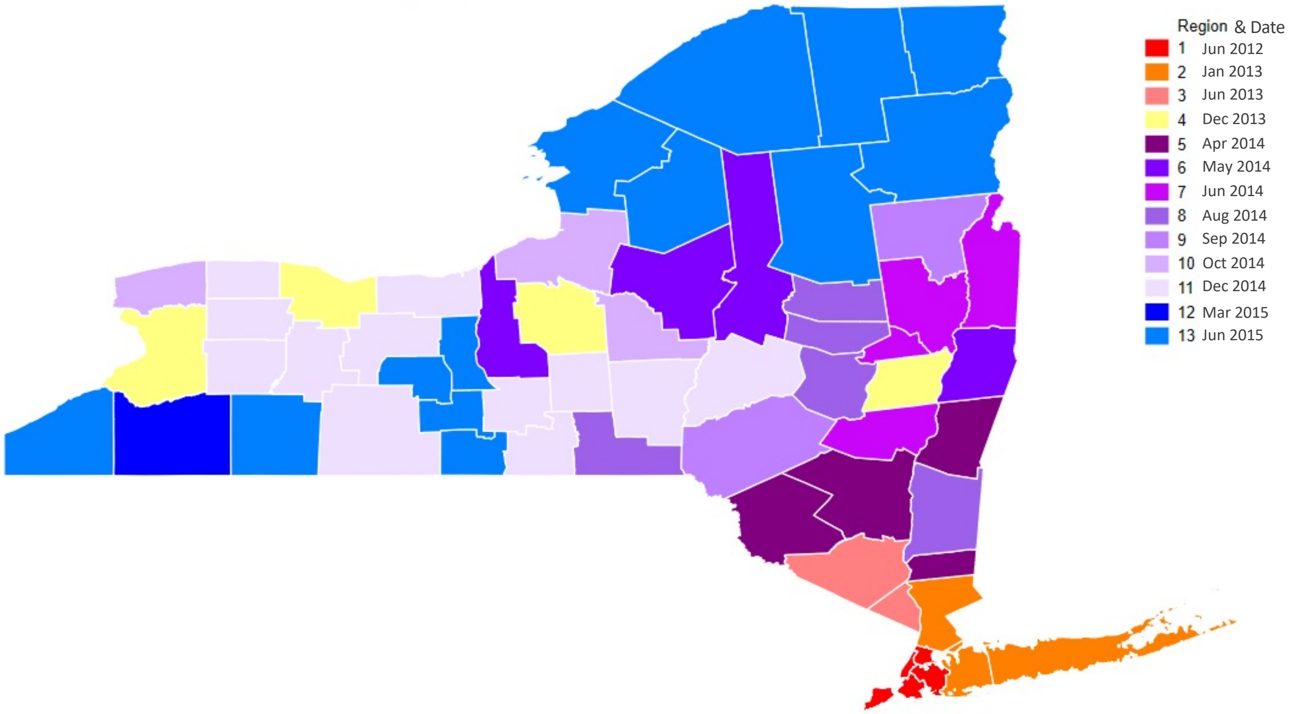
Table 6 presents the rollout region, the counties in each region, and the announcement letter date for each region. The rollout regions are also illustrated in Figure 1. The mandate started in New York City (Region 1), followed by three most populous remaining regions (Regions 2–4), and then the remaining regions. The majority of regions (Regions 5–11) implemented the mandate in 2014. The last two regions (Regions 12–13) are less populated than the rest of the State.

Table 6. List of Counties and the MLTC Mandate Rollout Dates

Region	Counties in Region	Announcement Letter Date
1	New York City (Bronx, Kings, New York, Queens, Richmond)	June 2012
2	Nassau, Suffolk, Westchester	January 2013
3	Orange, Rockland	June 2013
4	Albany, Erie, Monroe, Onondaga	December 2013
5	Columbia, Putnam, Sullivan, Ulster	April 2014
6	Cayuga, Herkimer, Oneida, Rensselaer	May 2014
7	Greene, Saratoga, Schenectady, Washington	June 2014
8	Broome, Dutchess, Fulton, Montgomery, Schoharie	August 2014
9	Delaware, Warren	September 2014
10	Madison, Niagara, Oswego	October 2014
11	Chenango, Cortland, Genesee, Livingston, Ontario, Orleans, Otsego, Steuben, Tioga, Tompkins, Wayne, Wyoming	December 2014
12	Cattaraugus	March 2015
13	Allegany, Chautauqua, Chemung, Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, Schuyler, Seneca, St Lawrence, Yates	June 2015

NOTE: The MLTC mandate was formally launched in September 2012. For our analytic purposes, we used the announcement letter date as the start date, since some beneficiaries started to enroll in MLTC under the mandate after the letter date.

Figure 1. MLTC Mandate Rollout Regions by Announcement Letter Date

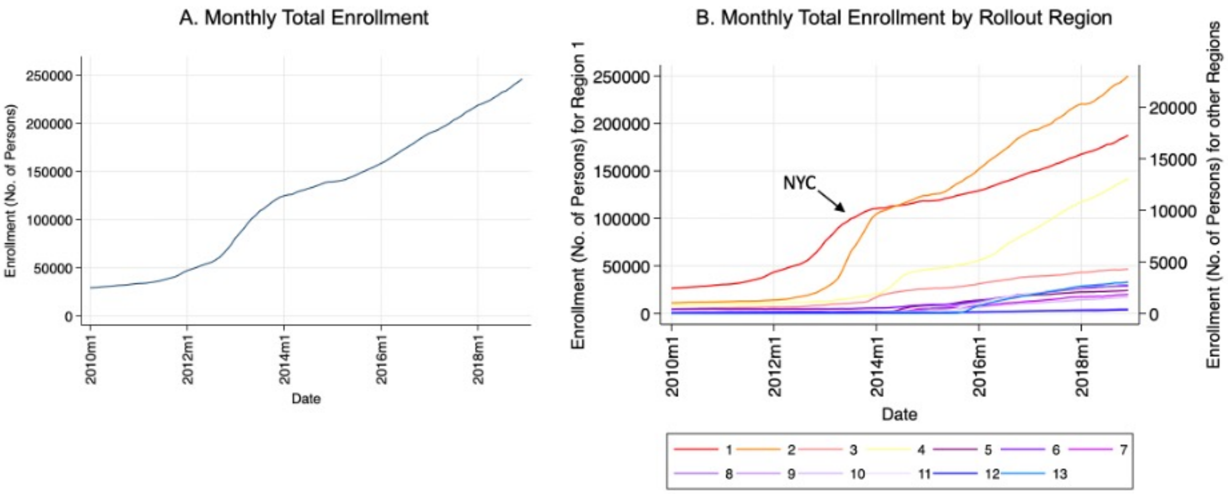


NOTE: This map depicts the clusters of counties by Announcement Letter date. Region numbers correspond to those in Table 6.

MLTC Enrollment

The total enrollment over calendar time is presented in Figure 2A. MLTC enrollment increased rapidly from 54,479 in mid-2012 to 124,757 at the beginning of 2014, at which point the curve flattens slightly before resuming a continuing trend of increased enrollment compared to the pre-mandate period. The total enrollment reached 245,973 in December 2018. We also looked at enrollment by each region, over time. Most of the growth was driven by Region 1 (New York City), where enrollment accounted for 76 percent of total enrollment at the end of 2018; this is clearly presented in Figure 2B, in which the total enrollment trend mirrors that of New York City. The next two regions that contributed most to the total enrollment, but to a much lesser extent, are Regions 2 (Nassau, Suffolk, Westchester) and 4 (Albany, Erie, Monroe, Onondaga), accounting for 9 percent and 5 percent of the total enrollment in December 2018, respectively.

Figure 2. Total MLTC Enrollment over Calendar Time, Statewide and by Rollout Region

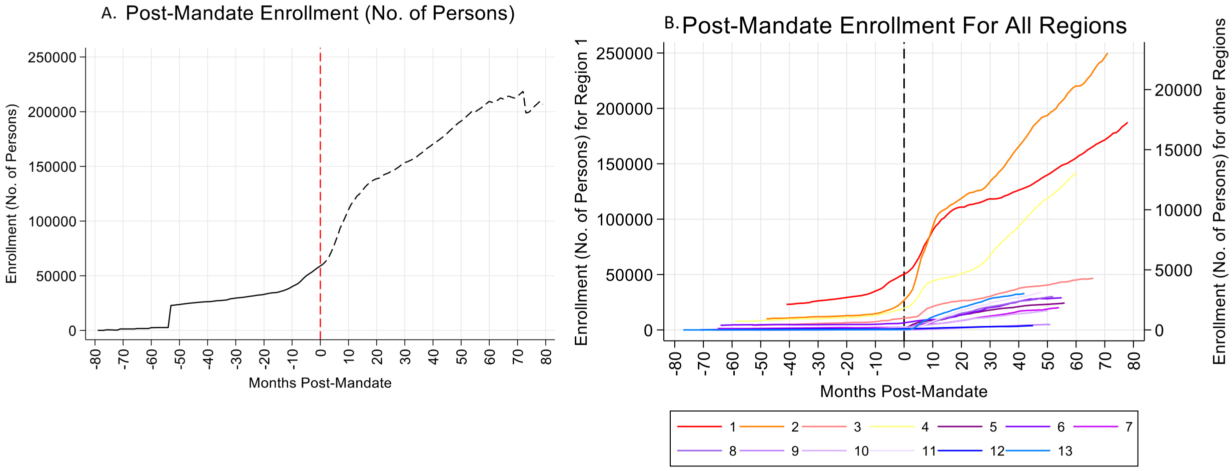


NOTE: The x-axis labels take the form of "yyyym1," representing the first month of year "yyyy."

The calendar time enrollment trend is confounded by the fact that the mandate started at different times. Each region has a different number of months in the pre- and post-mandate periods, depending on when the mandate was rolled out in that region. For example, Region 1 had the smallest number of months (29 months) in the pre-period and the greatest number of months (79 months) in the post-period. As a result, we observed an upward calendar time trend simply because different regions started to implement the mandate at different times. We therefore examined the trend by resetting a region-specific time index to 0 for the month during which each region implemented the mandate (i.e., "re-centering" the data).

Once the data were re-centered, we found that the increases observed in the ten months prior to the mandate and those in the post-mandate period are more pronounced (Figure 3A) than those in calendar time trends (Figure 2A). The post-mandate enrollment trend increased very rapidly until month 19, at which point it started to flatten and stabilize. Note that, due to re-centering the data for each region, the total enrollment (213,852) at month 79, reflecting the enrollment in New York City in December 2018, is different from the statewide enrollment (245,973) in December 2018, as illustrated in Figure 2A. Similar to the enrollment trend by calendar time, Figure 3B shows the greatest enrollment (188,872 at month 79, based on the left y-axis) in Region 1 (New York City), followed by Region 2 (Nassau, Suffolk, Westchester) and Region 4 (Albany, Erie, Monroe, Onondaga), 24,980 at month 79, and 14,786 at month 72 (based on the right y-axis), respectively.

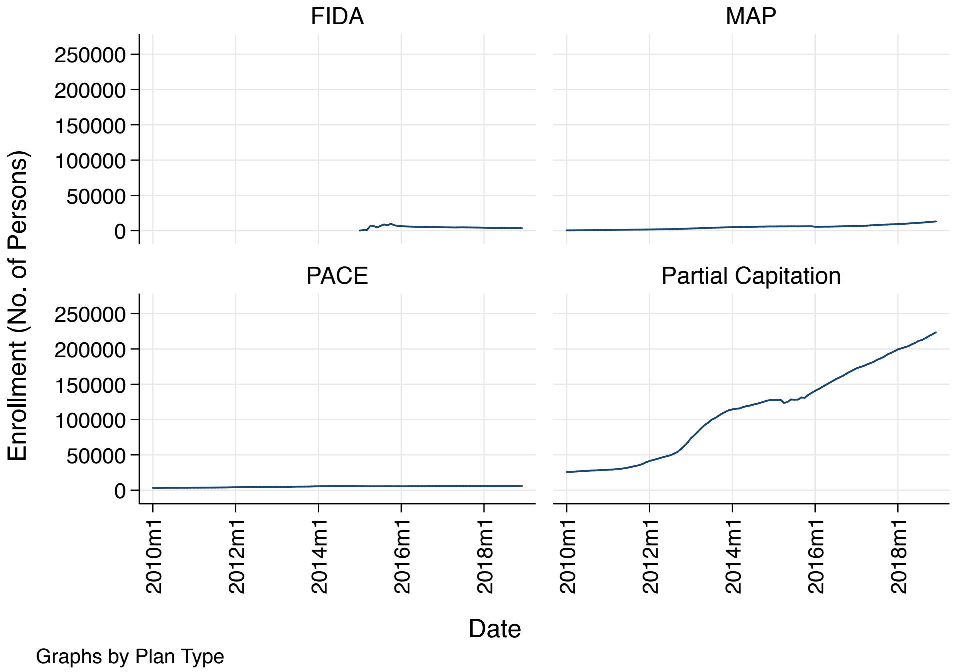
Figure 3. Total MLTC Enrollment over Time Since Mandate, Statewide and by Rollout Region


A. Post-Mandate Enrollment (No. of Persons)

B. Post-Mandate Enrollment For All Regions

We next examined the enrollment by MLTC plan type. Four plan types were included in the analysis: Partial Capitation, PACE, MAP, and FIDA plans (see Appendix D, Table A4 for more details). The FIDA plans were part of a five-year demonstration and were limited to Regions 1 (New York City) and 2 (Nassau, Suffolk, Westchester); the program closed December 31, 2019. Figure 4 describes the number of MLTC enrollees by plan type. We find that most members enrolled in Partial Capitation plans (223,568, or 91 percent, in December 2018), followed by MAP (5 percent), PACE (2 percent), and FIDA (1 percent). The trend in Partial Capitation enrollment mirrors that of the statewide enrollment presented in Figure 2A. MAP and PACE plans have a limited increase in enrollment over time and do not mimic the Partial Capitation trend curve.

Figure 4. Total MLTC Enrollment by Calendar Time and Plan Type

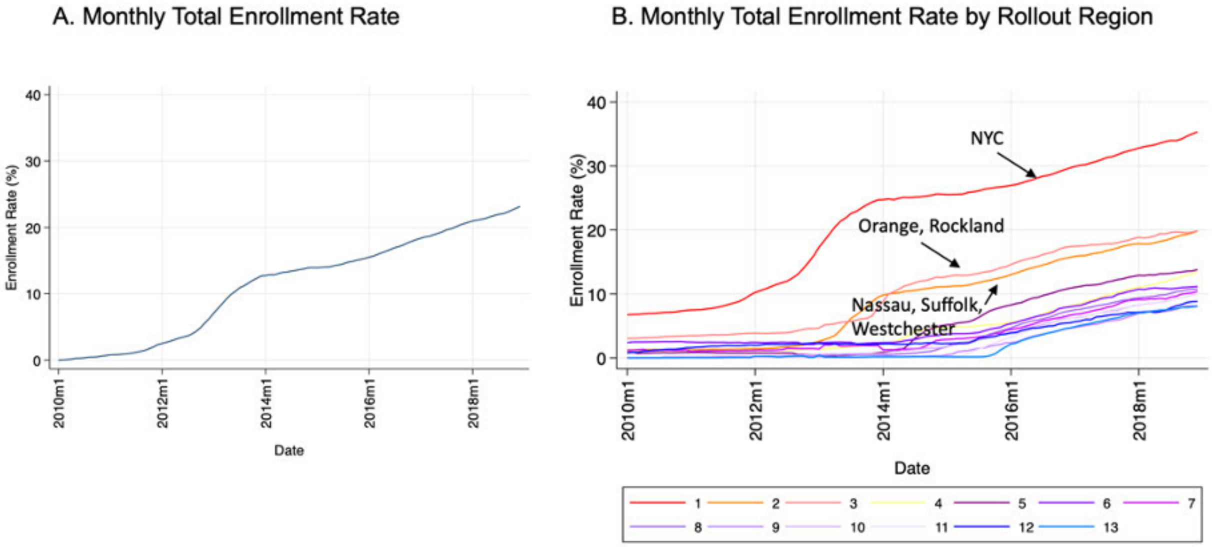


NOTE: The x-axis labels take the form of "yyyym1," representing the first month of year "yyyy." FIDA = Fully Integrated Duals Advantage; MAP = Medicaid Advantage Plus; PACE = Program for All-Inclusive Care for the Elderly.

MLTC Enrollment Rate

We next performed a similar descriptive analysis of enrollment rates. Figure 5 presents the statewide (A) and region-specific (B) rates. The statewide enrollment rate increased rapidly from 4 to 8 percent in the second half of 2012 to 12 percent in December 2013, after which it slowed and then increased again in 2016 and reached 23 percent by 2018. The statewide enrollment rate is driven by Region 1 (New York City), with a rate of 36 percent in December 2018. Regions 2 (Nassau, Suffolk, Westchester) and 3 (Orange, Rockland) have the second-highest rates, with a similar pattern to that of Region 1 (Figure 5B) at about 20 percent at the end of 2018. The enrollment rates in other regions varied between 8 percent and 15 percent as of December 2018.

Figure 5. MLTC Enrollment Rates over Calendar Time, Statewide and by Rollout Region



A. Monthly Total Enrollment Rate

B. Monthly Total Enrollment Rate by Rollout Region

NOTE: The X-axis labels take the form of "yyyym1," representing the first month of year "yyyy."

Figure 6 shows that, after the data were re-centered around the mandate start for each rollout region, the trend curves continued to increase during the post-mandate period, from 7 percent at month 0 to 35 percent at month 79, and are much steeper than calendar time trends as depicted in Figure 5. In particular, the ten months prior to the start of the mandate appear to have a marked increase in statewide enrollment rates compared to earlier months (Figure 6A). Note that, due to the re-centering of the data for each region, the overall rate in Figure 6A is different from that in Figure 5A.

A close examination of enrollment rates by region (Figure 6B) shows that at month 40,[17] Region 1 (New York City) had the highest rate (27 percent), followed by Regions 2 (18 percent) and 3 (15 percent). But even prior to the mandate, the enrollment rate in Region 1 was about 11 percent, higher than in other regions. The acceleration in enrollment rates just prior to the mandate start was primarily driven by Regions 1 (New York City) and 3 (Orange, Rockland). Other than Regions 1, 2, and 3, rates in the remaining regions appear to have similar trends with similar values, varying between 8 percent and 12 percent at month 40.

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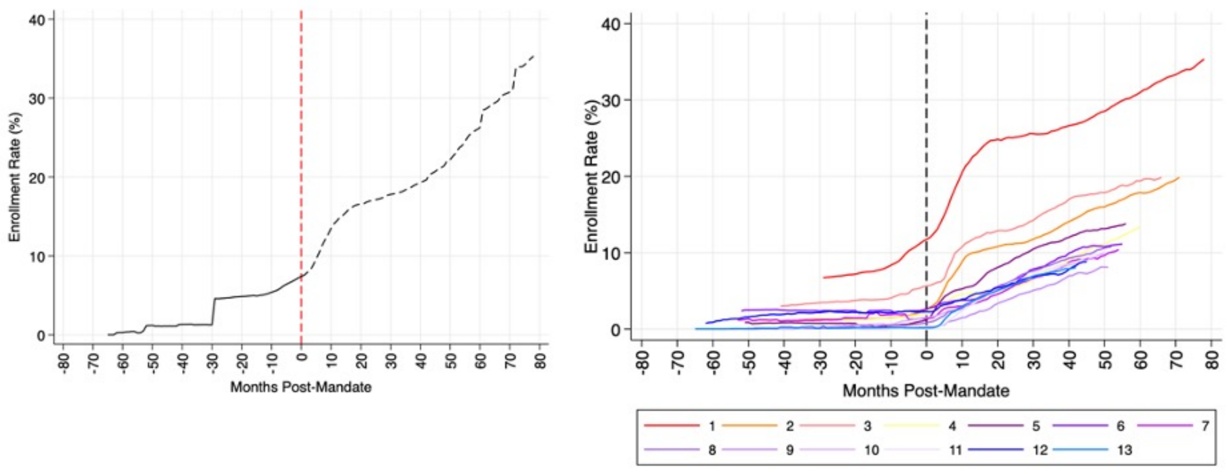
[17] Because not all the regions have the same number of months of data since mandate, we used Month 40 as an example to compare the enrollment rate across regions.

Figure 6. MLTC Enrollment Rates over Time Since Mandate, Statewide and by Rollout Region


A. Post-Mandate Enrollment Rate

B. Post-Mandate Enrollment Rate by Rollout Region

MLTC Mandate's Effect on Enrollment Rate

For the regression analysis, we determined the enrollment rate increase in excess of the expected rate based on prior trends in the data (Figure 7); that is, we controlled for the region-specific baseline calendar time trends that are assumed to continue regardless of the mandate. The MLTC mandate is associated with an increase of 12 percentage points in enrollment rates during the 79 months post-mandate, with about three-fourths of the impact (a 9-percentage point increase) occurring in the first 19 months post-mandate (Figure 7A). After month 19, the mandate's impact stabilized[18] at about 0.05 percentage points per month, or 0.6 percentage points per year. Not surprisingly, the mandate's effect differs across regions. In New York City, the mandate's effect (12 percentage points) was largely realized in the first 19 months, and Regions 3 (Orange, Rockland), 5 (Columbia, Putnam, Sullivan, Ulster), and 6 (Cayuga, Herkimer, Oneida, Rensselaer) seem to stabilize at months 42, 46, and 45, respectively, based on a visual inspection. But in other regions, the mandate continued to increase its impact. At month 40, Regions 1, 2, and 5 seem to experience the largest impact from the mandate, with enrollment rates in excess of what was expected, reaching 9 percent, 11 percent, and 12 percent, respectively.

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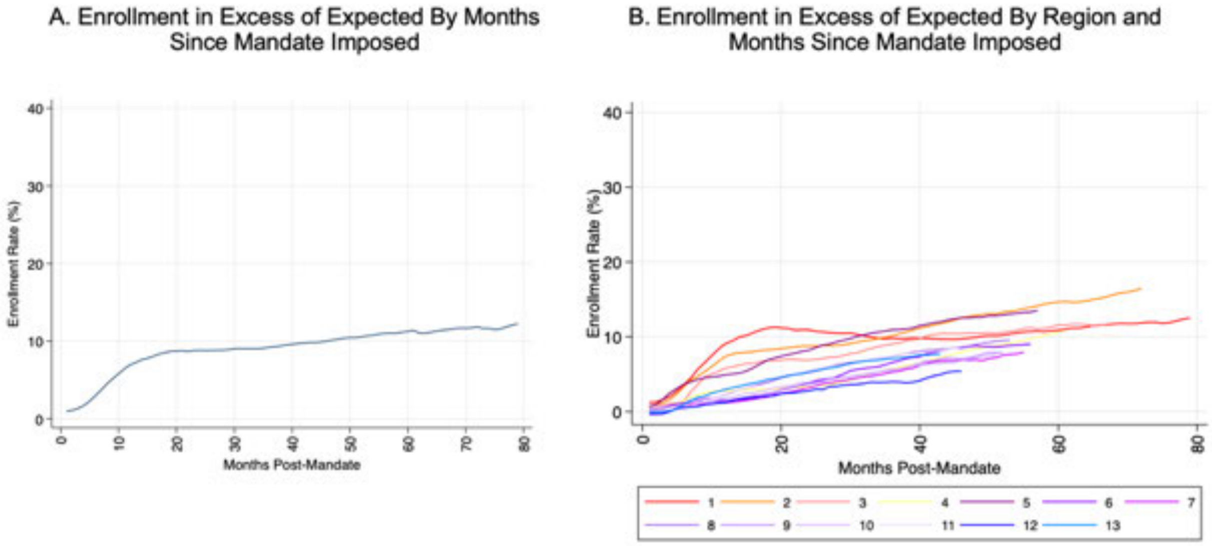
[18] In general, enrollment rates continued to increase over time. By *stabilizing*, we mean the rate of rate increase slowed down. Based on the regression analysis results, for each of the following rolling three-month periods, we formally tested whether the current three-month average of enrollment rate was statistically significantly larger than that of the previous three months.

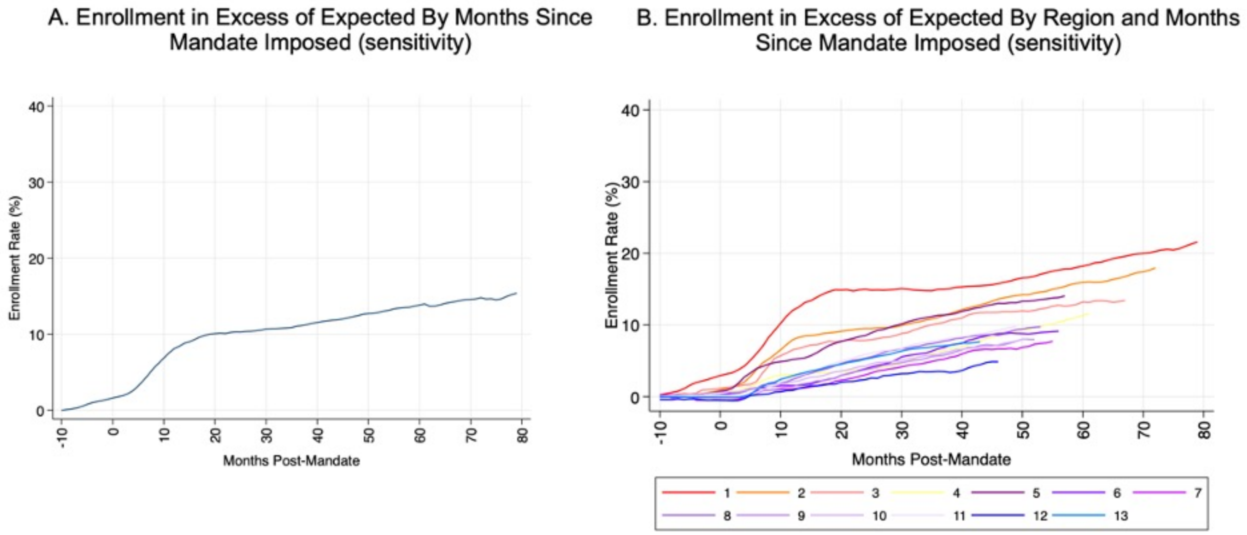
Figure 7. Trends In Excess of MLTC Enrollment Rates over Time Since Mandate, Statewide and by Rollout Region


A. Enrollment in Excess of Expected By Months Since Mandate Imposed

B. Enrollment in Excess of Expected By Region and Months Since Mandate Imposed

We noted previously that there seemed to be an increase in enrollment in the ten months prior to the mandate start, and we observed this trend when looking at the number of enrollees, as well. We therefore conducted a sensitivity analysis by explicitly modeling these ten months as part of the implementation period (Figure 8); that is, the reference group now becomes the time period of 11 months or more prior to the mandate. We found that both the level and the slope of excessive enrollment rates increased after explicitly modeling the ten months prior to the mandate start. For example, the mandate's impact on the statewide enrollment rate increases to 10 percentage points by month 19 (Figure 8A) from 9 percentage points (Figure 7A), and the impact at month 70 is 15 percentage points versus 12 percentage points in the main analysis. After month 19, the mandate's impact stabilized at about 0.08 percentage points per month, or about 1.0 percentage point per year. This change, admitting anticipatory effects, has a large impact on results for Region 1. First, in Figure 8B, we observe enrollment in excess of expected in the ten months prior to the mandate start (in contrast, this effect is small in Region 3). Second, the trend in Region 1 started to increase again at month 45, which is not present in the main analysis. On visual inspection, no other regions had stabilized their enrollment rates by 2018.

Figure 8. Trends in Excess of MLTC Enrollment Rates over Time Since Mandate, Including the Ten Months Prior to the Mandate, Statewide and by Rollout Region



A. Enrollment in Excess of Expected By Months Since Mandate Imposed (sensitivity)

B. Enrollment in Excess of Expected By Region and Months Since Mandate Imposed (sensitivity)

Based on our tests of the changes in three-month average enrollment rates, the mandate's effect on enrollment rate stabilized statewide at month 19 post-mandate (comparing months 19–21 with months 16–18), and no significant increases are observed from that point forward. The testing results are similar to those from the sensitivity analysis, in which the ten months prior to the mandate were included as an anticipatory effect of the mandate.

Goal 2, Research Question 1: Emergency Room Visits

Is the percentage of the MLTC population without any emergency room visits in the last 90 days stable or improving over the course of the Demonstration?

As illustrated in Figure 9, the percentage of enrollees without any emergency room visits remained largely unchanged[19] during 2010–2019 among Partial Capitation plans, which accounted for 91 percent of total MLTC enrollment in 2018. In comparison, the rates among MAP and PACE plans were lower than among Partial Capitation plans based on the data reported prior to July 2012 but similar in the later reporting years. FIDA plans had a relatively flat trend over the observation period, with a range from 93.1 percent to 90.1 percent of enrollees from July 2015 to January 2019, and FIDA rates were generally higher than those of other plan types. Note that the total enrollment of FIDA plans was relatively small, ranging from 1 to 2,978 during 2015–2019, and accounting for about 1 percent of total MLTC enrollment.

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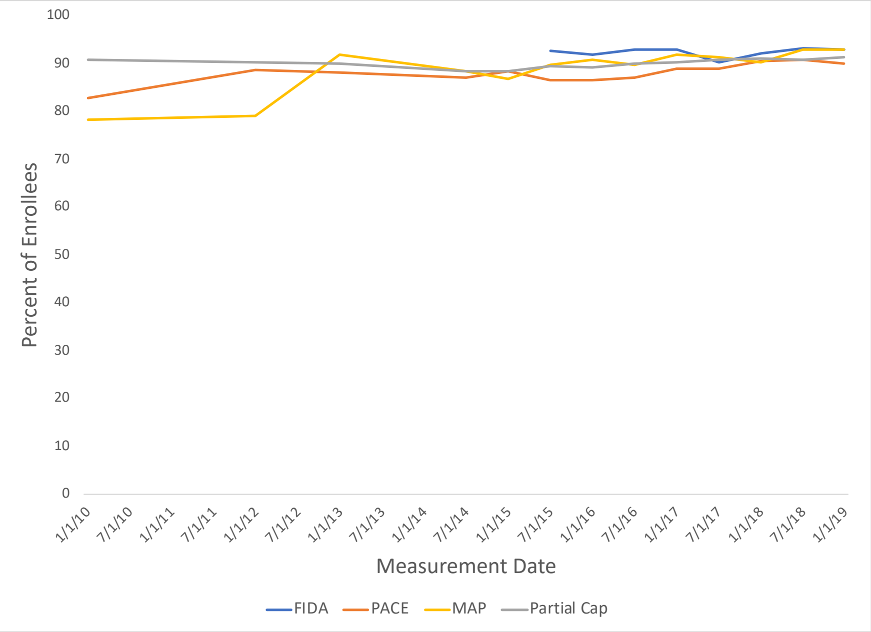
[19] Despite our adjustment for the reference period, rates in percentage of enrollees with no emergency room visits and percentage of enrollees with no falls that required medical intervention or resulted in major or minor injuries may not be comparable over time because of measure definitional issues and risk adjustment. We therefore did not conduct trend tests. But they are comparable within the same time period across different plan types.

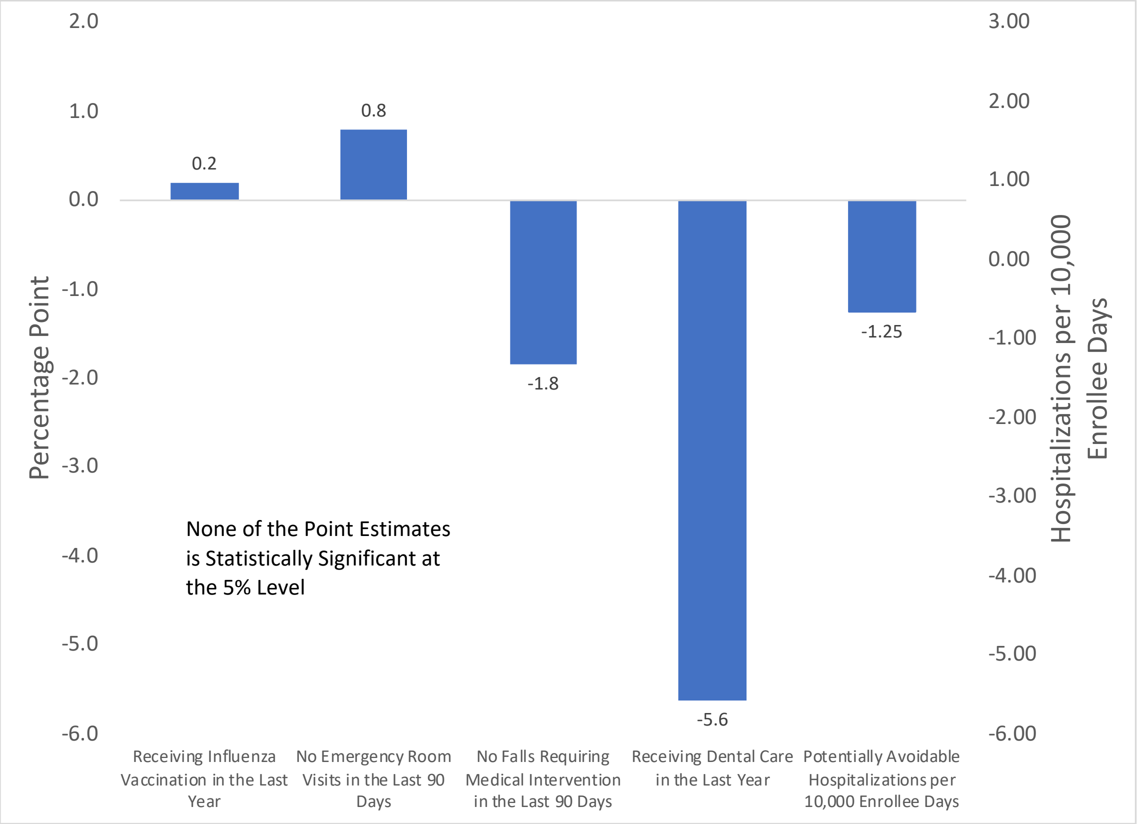
Figure 9. Percentage of MLTC Enrollees Without Any Emergency Room Visits in the Last 90 Days



NOTE: The lookback period was adjusted from the last six months to the last 90 days for the 2010, 2012, and 2013 measures. The 2010 measure includes any emergent care received in a hospital emergency room, outpatient department, or physician's office. Starting in 2012, the measure includes only emergent care received in a hospital emergency room and is risk-adjusted.

Based on the multivariable regression analysis, we did not find a statistically significant association between the MLTC mandate and the no-emergency-room-visits measure (Figure 10). Other results in Figure 10 are discussed in later sections.

Figure 10. Effect of the MLTC Mandate on Patient Safety and Quality of Care Measures



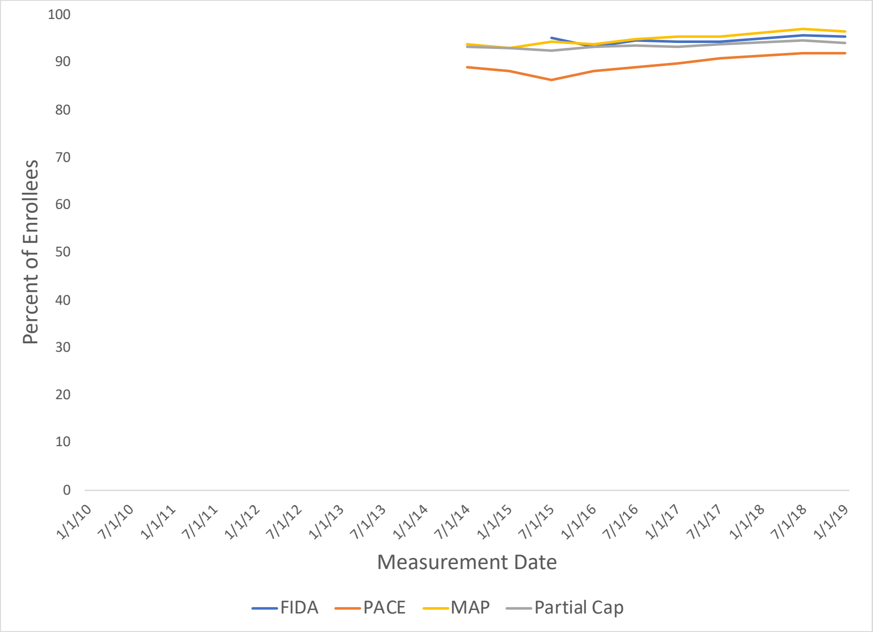
NOTE: The outcome measures for influenza vaccination (N=522), no emergency room visits (N=475), no falls requiring medical intervention (N=403), and dental exam (N=448) are in percentage points (left y-axis). Potentially avoidable hospitalization rate (N=210) is defined as the number of such events per 10,000 MLTC enrollee days (right y-axis). None of the estimates is statistically significant at the 5 percent level.

Goal 2, Research Question 2: Falls Requiring Medical Intervention

Is the percentage of the MLTC population without any falls requiring medical intervention in the last 90 days stable or improving over the course of the Demonstration?

Figure 11 shows the percentage of enrollees without any falls that required medical intervention in the last 90 days by plan type. Because the measure definition changed significantly in 2014, the data set is limited to July 2014 onward. Rates of enrollees without falls among both PACE and Partial Capitation plans were lowest in July 2015, at 85.4 percent and 92.5 percent, respectively. After an initial drop in the rate of falls, there was a general increase in the trends across all plan types. In 2019, 95.6 percent of FIDA, 91.0 percent of PACE, 94.2 percent of Partial Capitation, and 96.7 percent of MAP enrollees did not have any falls requiring medical intervention in the last 90 days. The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and falls requiring medical intervention (Figure 10).

Figure 11. Percentage of MLTC Enrollees Without Any Falls Requiring Medical Intervention or Resulting in Major or Minor Injuries in the Last 90 Days



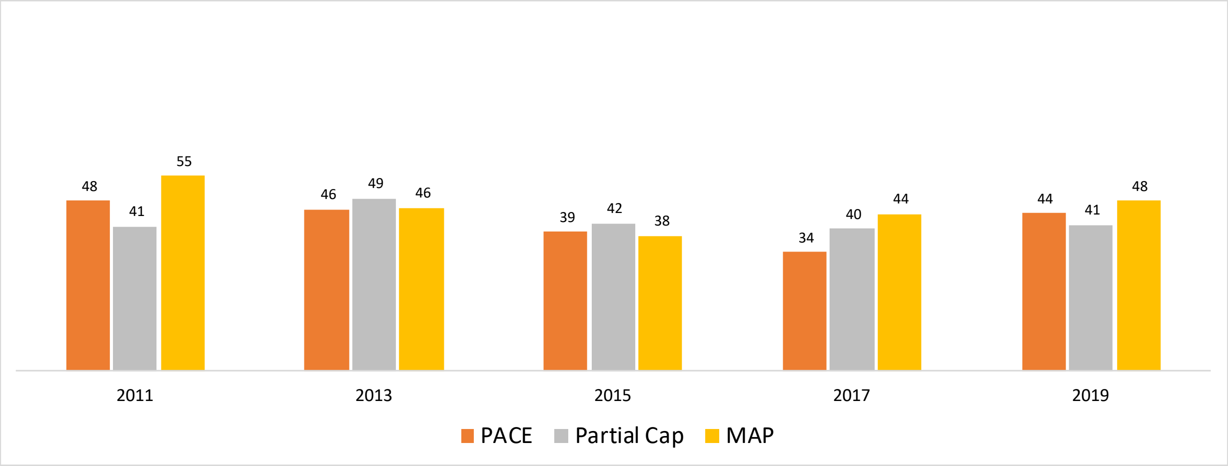
NOTE: The year 2014 is the first reporting period in which the risk-adjusted percentage of enrollees without any falls requiring medical intervention was reported. In 2010, the percentage of enrollees without any falls was reported; in 2012, the risk-adjusted percentage of enrollees without any falls was reported; in 2013, the risk-adjusted percentage of enrollees without any falls and the risk-adjusted percentage of enrollees without falls not requiring medical intervention was reported. We did not analyze the data reported prior to 2014 because the definition changed in 2014, and data were not available for January 1, 2018.

Goal 3, Research Question 1: Timely Access to Care

Are enrollees' perceived timely access to personal, home care, and other services such as dental care, optometry, and audiology stable over time or improving?

Because of a lack of reported measures on access to optometry and audiology, we present results on access to dental care only. The percentage of enrollees who waited less than a month for routine dental care decreased from 2011 to 2013 for those in PACE and MAP plan types, and it increased slightly for those in the Partial Capitation (Figure 12). In 2015, the outcome definition changed from "waiting less than one month for routine dental care" to "always getting routine dental care as soon as they needed one." The percentage of enrollees who received access to routine dental appointments within PACE and MAP plan types increased from 2015 to 2019, while that in the Partial Capitation plans remained largely unchanged.

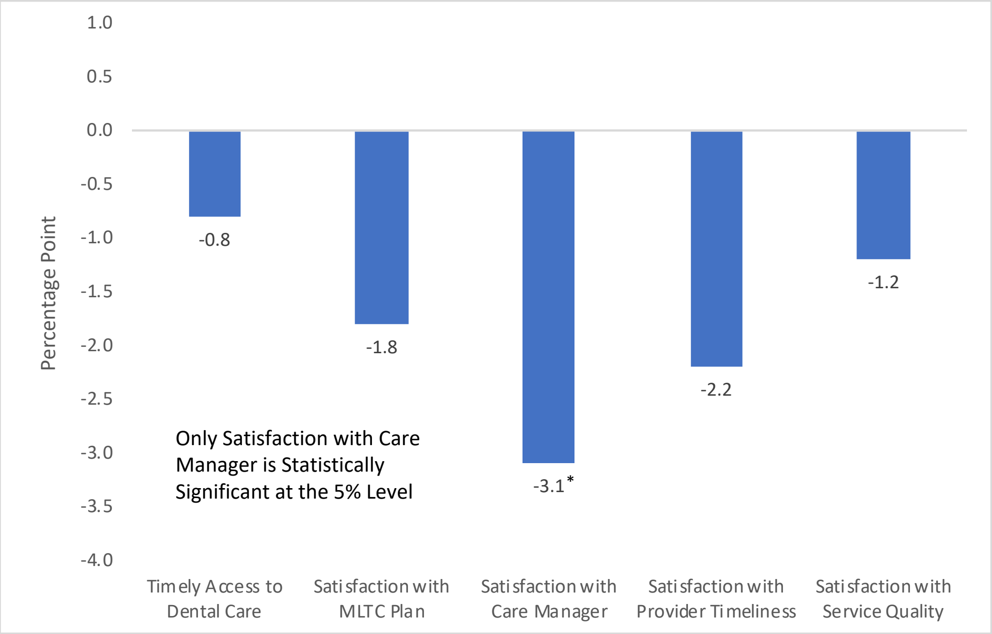
Figure 12. Percentage of MLTC Enrollees Who Received Timely Access to Dental Care



NOTE: The bars represent the percentage of MLTC enrollees who reported that within the last six months they waited less than 1 month for access to routine dental care (2011, 2013) or the percentage of members who reported that within the last six months they always got a routine dental appointment as soon as they thought they needed one (2015, 2017, 2019). Data from 2007 was not available from MLTC reports by individual plan; the outcome definition changed in 2015; the measure is not risk-adjusted.

Based on the multivariable regression analysis, no statistically significant association between the MLTC mandate and timely access to dental care was found (Figure 13). The results of satisfaction measures in Figure 13 are reported in relevant sections.

Figure 13. Effect of the MLTC Mandate on Access and Satisfaction Measures



NOTE: *$p < 0.05$. The sample sizes (plan-years in the data) for timely access to dental care, satisfaction with MLTC plan, satisfaction with care manager, satisfaction with provider timeliness, and satisfaction with service quality are 42, 45, 46, 45, and 47, respectively.

Goal 3, Research Question 2: Preventive Services

Is the percentage of the MLTC population accessing preventive care services, such as the influenza vaccination and dental care, consistent or improving?

Figure 14 shows that the rate of influenza vaccination in PACE and FIDA enrollees stayed relatively flat or increased slightly since the pre-mandate period (before 2013), whereas those of Partial Capitation and MAP enrollees experienced a drop in 2012 or 2013 but increased in the later years. Since 2013, the percentage of MAP enrollees who received an influenza vaccination in the last year increased to 83.5 percent as of the January 2019 measurement period. The percentage of enrollees in FIDA plans who received influenza vaccinations in the last year increased from 76.5 percent in July 2015 to 83.0 percent in January 2019. The percentage of PACE and Partial Capitation plan enrollees who received influenza vaccinations in the last year did not change much during the study period, at 87.2 percent to 86.3 percent and 80.9 percent to 78.8 percent, respectively, from January 2010 to January 2019. This measure is not risk-adjusted at the plan level. The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and influenza vaccinations (Figure 10).

Figure 14. Percentage of MLTC Enrollees Receiving an Influenza Vaccination in the Last Year

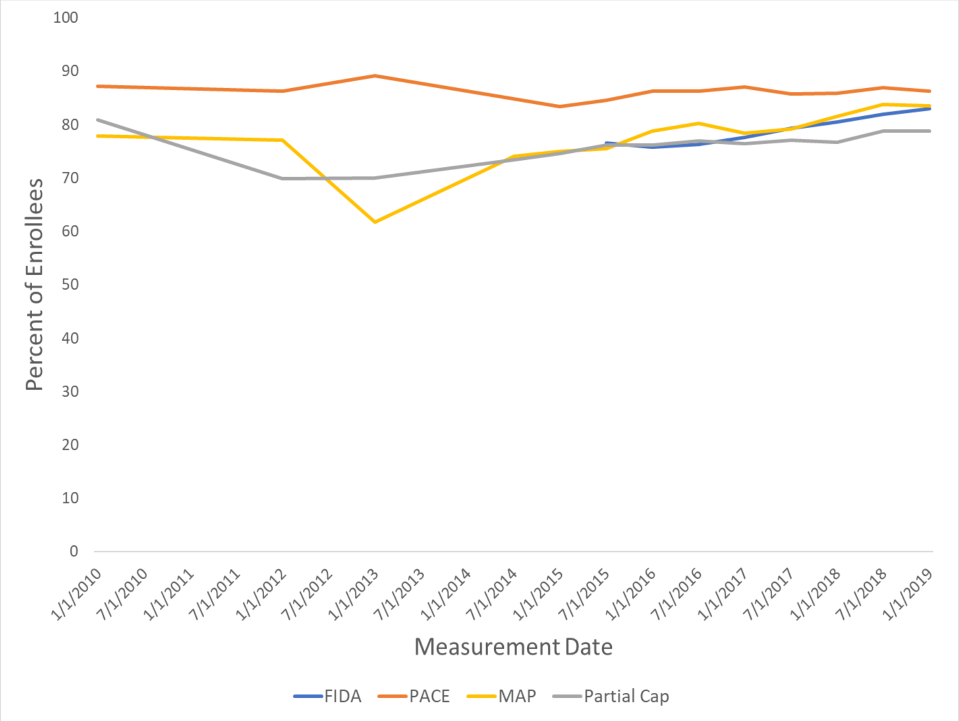
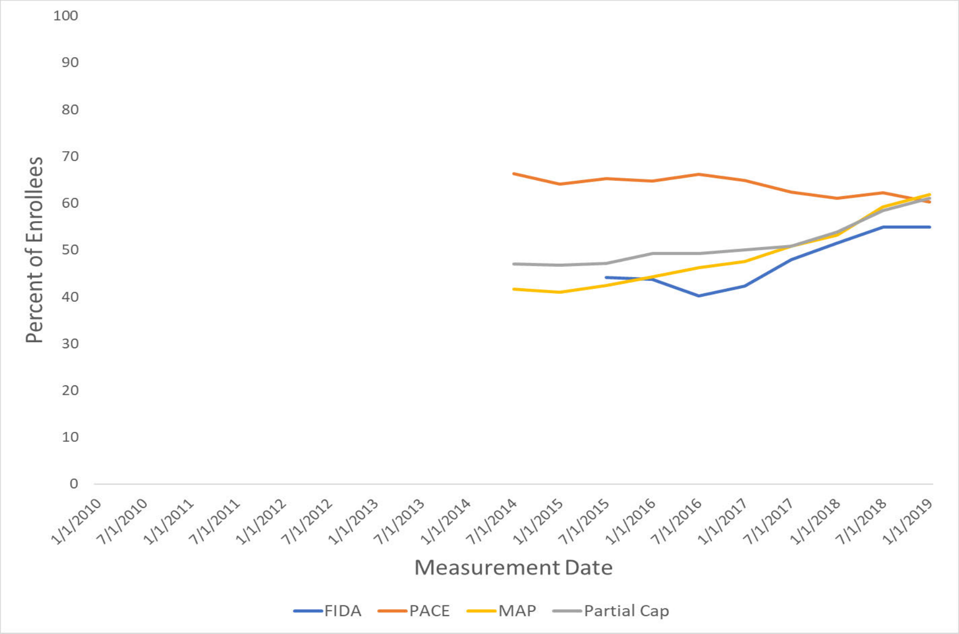


Figure 15 shows the percentage of MLTC enrollees receiving a dental exam in the last year by plan type; the measure was reported starting in July 2014. Overall, there was an upward trend over the available measurements, with the exception of PACE plan enrollees, who had a downward trend from 66.3 percent in July 2014 to 60.3 percent in January 2019. The percentage of Partial Capitation and MAP plan enrollees receiving a dental exam steadily increased from 47.0 percent to 61.1 percent and from 41.6 percent to 61.8 percent, respectively, over the same period. The percentage of FIDA plan enrollees who received a dental exam also increased, albeit over a shorter period, from July 2015 to January 2019. This measure is not risk-adjusted at the plan level. The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and receipt of dental exam (Figure 10), although the point estimate is sizable (–5.6 percentage points).

Figure 15. Percentage of MLTC Enrollees Receiving a Dental Exam in the Last Year

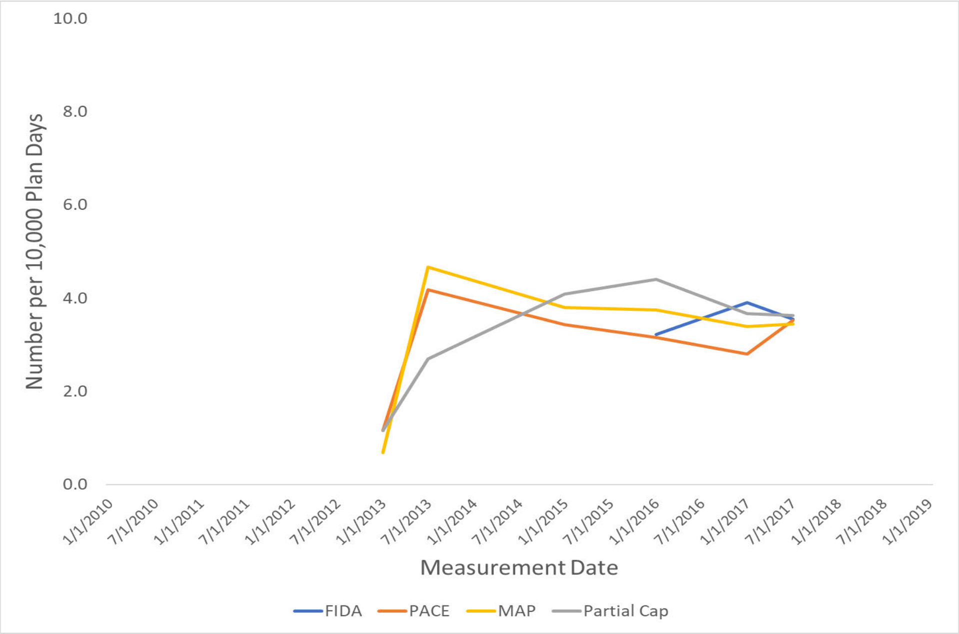


Goal 4, Research Question 1: Potentially Avoidable Hospitalizations

Is the MLTC population experiencing stable or reduced rates of potentially avoidable hospitalizations?

We descriptively examine the annual rate of potentially avoidable hospitalizations by plan type (Figure 16), measured as the number of potentially avoidable hospitalizations per 10,000 plan enrollee days. FIDA plans reported only for three measurement periods, and the rate is relatively flat at 3.219 to 3.910 hospitalizations per 10,000 enrollee days. For the other three plan types, the rates reported in January 2013 were relatively low; rates spiked in either July 2013 (4.176 for PACE, 4.670 for MAP) or January 2016 (4.404 for Partial Capitation), and then remained relatively stable (PACE) or decreased (Partial Capitation and MAP). The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and potentially avoidable hospitalizations (Figure 10).

Figure 16. Annual Rate of Potentially Avoidable Hospitalizations



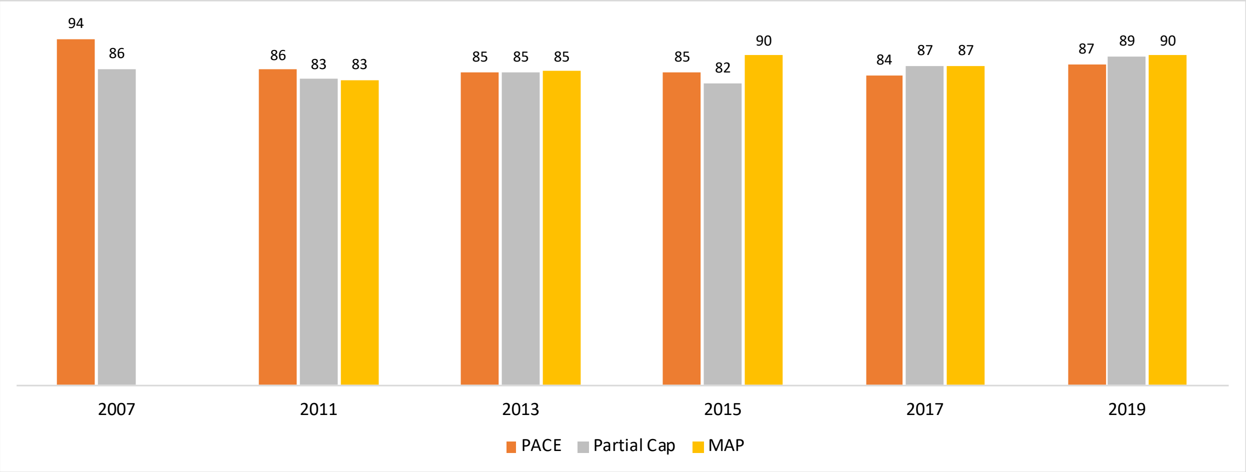
NOTE: SPARCS records were matched using SAAM data (2013) or UAS-NY data (2014 onward). After 2013, eligible enrollees were those with continuous enrollment periods of four months or greater in an MLTC plan. We did not analyze the January 1, 2013, data point in the regression analysis because, for some reason, it is about one-third of other data points.

Goal 5, Research Question 1: Satisfaction with MLTC Plans

What is the percentage of members who rated their managed long-term care plan within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?

Figure 17 shows how enrollees rated their health plan, by plan type and survey year. The percentage of participants who rated their health plan as good or excellent was initially quite high in 2011: 85.7 percent, 83.2 percent, and 83.0 percent for PACE, Partial Capitation, and MAP plans, respectively. Among PACE plans, ratings of health plan satisfaction remained rather stable over time except for a decline compared to 2007. Ratings of satisfaction in health plans among Partial Capitation and MAP plan enrollees did not experience the same dip and generally rose each year. The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and satisfaction with MLTC plan (Figure 13).

Figure 17. Percentage of MLTC Enrollees Who Rate Their Health Plan as Good or Excellent



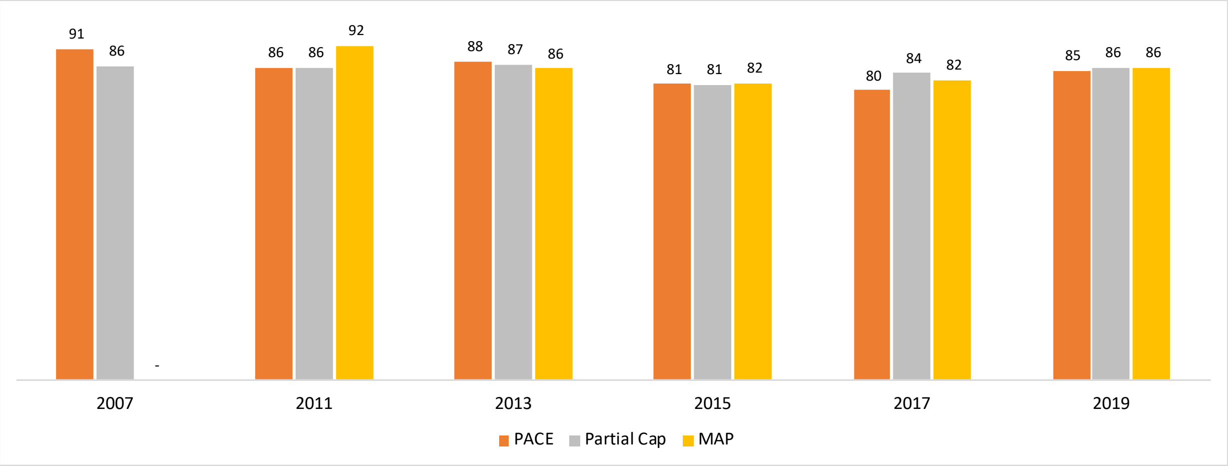
NOTE: The 2007 data for MAP plans are not available.

Goal 5, Research Question 2: Satisfaction with Care Managers

What is the percentage of members who rated the quality of care manager/case manager services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?

Ratings for each plan type showed decreases in care manager satisfaction corresponding to the time that mandatory enrollment was rolled out. While satisfaction increased in 2019, it remained below 2011 levels across all plan types (Figure 18). The multivariable regression analysis shows a statistically significant 3.1 percentage point drop in satisfaction with care managers associated with the MLTC mandate (Figure 13).

Figure 18. Percentage of MLTC Enrollees Who Rate Their Care Manager as Good or Excellent

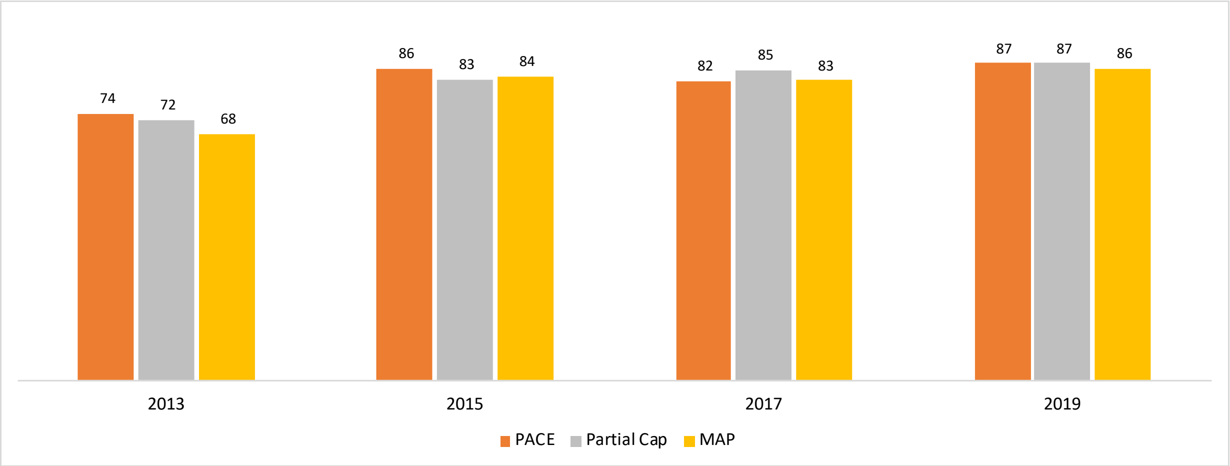


Goal 5, Research Question 3: Satisfaction with Services

What is the percentage of members who rated their home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse, or covering/on-call nurse services within the last six months as usually or always on time? Has this percentage remained stable or improved over the Demonstration?

The timeliness composite indicates the percentage of MLTC enrollees who reported that within the last six months the home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse/registered nurse, or covering/on-call nurse services were usually or always on time. The measure was implemented in 2013 and has increased across plan types from 2013 to 2019 (Figure 19). The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and the timeliness of care providers (Figure 13).

Figure 19. Percentage of MLTC Enrollees Who Rate Their Care Providers as Usually or Always on Time



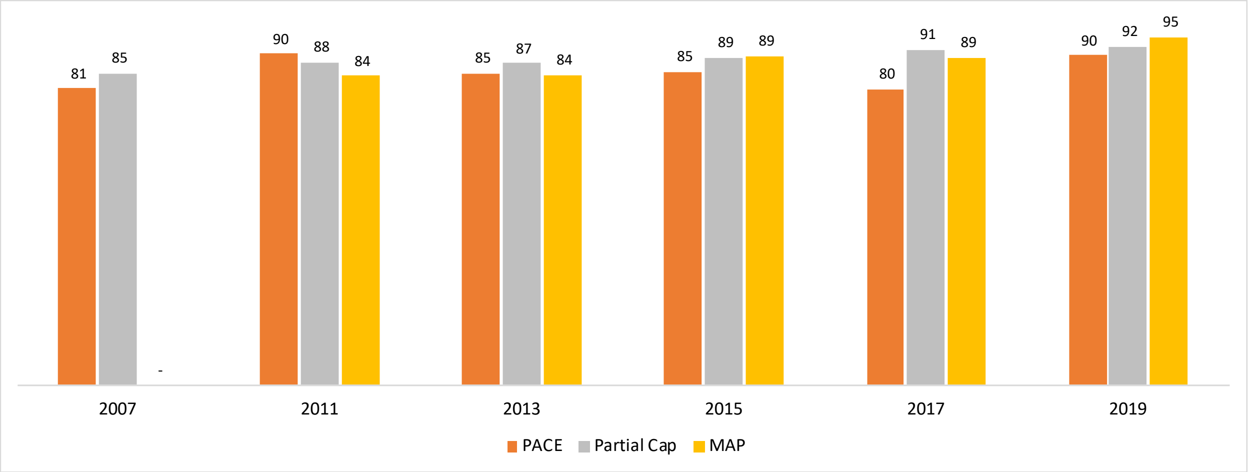
NOTE: The measure reflects the risk-adjusted percentage of MLTC enrollees who reported that within the last six months the home health aide/personal care aide/personal assistant, care manager/case manager, regular visiting nurse/registered nurse, or covering/on-call nurse services were usually or always on time. The outcome measure for this measure was not included on the survey in 2007 or 2011.

Goal 5, Research Question 4: Satisfaction with Service Quality

What is the percentage of members who rated the quality of home health aide/personal care aide/personal assistant services within the last six months as good or excellent? Has this percentage remained stable or improved over the Demonstration?

Satisfaction with home health aides for PACE plans showed an initial increase and then a dip in ratings; by 2019, satisfaction with home health aides had returned to 2011 levels (Figure 20). In contrast, Partial Capitation and MAP plan participant satisfaction increased from 2011 levels, 87.6 percent and 84.0 percent to 92.0 percent and 94.5 percent, respectively, in 2019. The multivariable regression analysis did not show a statistically significant association between the MLTC mandate and the quality of LTSS (Figure 13).

Figure 20. Percentage of MLTC Enrollees Who Rate Service Quality as Good or Excellent



Domain 1, Component 1: Managed Long-Term Care—Discussion and Conclusions

MLTC Enrollment

The statewide MLTC enrollment increased rapidly after the mandate implementation, particularly during mid–2012 to 2014, reaching about 250,000 by 2018. The enrollment trend was dominated by New York City (Region 1), where enrollment accounted for 76 percent of the statewide total enrollment in 2018. This is consistent with the size of New York City's population, which is about 56 percent of the State's eligible population (calculated using total dual eligible population by county for New York). In addition, New York City had a much higher baseline enrollment rate even prior to the mandate start; this may reflect the enrollment capacity and/or a better awareness among New York City beneficiaries eligible for MLTC. By December 2018 (month 79 post-mandate), New York City achieved an enrollment rate of 36 percent. Regions 2 (Nassau, Suffolk, Westchester) and 3 (Orange, Rockland) had the largest enrollment other than New York City: 18 percent and 19 percent in 2018, respectively.

Based on the descriptive results, it is not apparent that enrollment had stabilized by 2018. However, when controlling for the underlying time trend, and by identifying enrollment in excess of what was expected, we estimated that about three-fourths of the mandate's impact, a 9-percentage-point increase in enrollment rates, had materialized by month 19, and the overall trend in enrollment rates stabilized by month 19 post-mandate based on our statistical tests contrasting consecutive three-month average enrollment rates. After month 19, the mandate's impact stabilized at about 0.05 percentage points per month, or 0.6 percentage points per year.

There was large regional variation in the mandate's impact on enrollment. Region 1 (New York City) dominated statewide trends and stabilized faster (month 19), driving the overall trend for statewide stability by month 19. The enrollment in Regions 3 (Orange, Rockland), 5 (Columbia, Putnam, Sullivan, Ulster), and 6 (Cayuga, Herkimer, Oneida, Rensselaer) seemed to have stabilized by months 42 to 46. The mandate's impact in other regions had not stabilized by 2018. In addition, the magnitude of the mandate's impact also differs across regions. For example, Regions 1, 3, and 5 achieved a higher impact from the mandate in terms of enrollment rates by month 40 than the rest of the State.

There are several possible explanations for this large regional variation. First, some regions may not have had long enough post-mandate horizons for enrollment to stabilize within the study period. For instance, Regions 7–13 had a horizon of 42 to 55 months post-mandate. Nonetheless, the post-mandate time required for enrollment rates to stabilize varied across regions. Regions 2 and 4 stabilized by 72 and 61 months post-mandate, respectively, but the mandate's impact continued to increase in each region, whereas enrollment rates in Regions 3, 5, and 6 stabilized by month 46. It is also possible that enrollment in regions with higher pre-mandate enrollment rates may have stabilized more quickly. Regions 1 and 3 are two such examples. A higher pre-mandate enrollment rate may also be associated with a smaller total mandate effect, at least in part because enrollment may be approaching a ceiling. New York City may be such an example. The mandate's impact there could be lower than in many other regions, even though its post-mandate enrollment rate is high. Another possible explanation may lie in a region's MLTC enrollment capacity. Regions 1, 3, 5, and 6 may have leveraged the mandate better using their existing institutions and infrastructure.

We observe an increase in enrollment rate in the ten months prior to the mandate start. This trend was linear in nature and largely driven by Region 1 (New York City) and, to a lesser extent, Region 3 (Orange, Rockland). The MLTC program enrollment was largely concentrated in New York City prior to the mandate, and there may have been an anticipatory effect as MLTC plans prepared for the rollout and actively competed with each other to gain a larger market share. If we consider this anticipatory effect as part of the mandate's impact, as modeled in the sensitivity analysis, the overall impact becomes larger for Regions 1 and 3, particularly for Region 1. It is very likely that enrollment capacity caused both the pre-mandate acceleration in enrollment and the more rapid stabilization of the mandate's impact.

When focusing on the time period of the most recent demonstration period (December 2016 to March 2021) covered by the data in this interim analysis, i.e., December 2016 to December 2018, our results show that the overall enrollment continued to increase from nearly 200,000 in December 2016 to about 250,000 in December 2018. The statewide enrollment rate demonstrated a similar pattern in the most recent demonstration period; it continued to increase but at a slower rate than that during earlier years. Overall, the enrollment in excess of expected stabilized in the first 19 months, suggesting that by the time the most recent demonstration started in December 2016, the statewide impact of the MLTC mandate had stabilized. There was variation across regions—for example, in Regions 5 (Columbia, Putnam, Sullivan, Ulster) and 6

(Cayuga, Herkimer, Oneida, Rensselaer), the mandate's impact on excess enrollment did not stabilize until April 2018 (month 46) and March 2018 (month 45), respectively.

There are limitations to our analysis. First, the denominator (number of dual eligible) we used to calculate enrollment rates is not ideal. The actual number of individuals eligible for MLTC was not available because not all dual eligibles were assessed to determine their MLTC eligibility. It is only a gross approximation of the actual eligible population. Second, we controlled for the underlying calendar time trend and consider the residual post-mandate trend as the impact of the mandate. There could be other omitted time-varying factors that coincide with the timing of the mandate's implementation, which could bias our estimates of the mandate's effect either up or down. The variation in the timing of the mandates across the State mitigates this concern but does not eliminate it.

Patient Safety and Quality of Care

Our results show that during the study period, on average by plan type, about 87 to 93 percent of MLTC plan enrollees did not have any emergency room visits; 86 to 96 percent did not have falls requiring medical intervention; 60 to 90 percent received an influenza vaccination in the last year; 40 to 70 percent received a dental exam in the last year; and there were 3 to 5 potentially avoidable hospitalizations per 10,000 enrollee days. For the four outcomes measured in percentage points, the difference between an MLTC plan's outcome measure and the statewide average varied from –0.27 to 0.32 percentage points, whereas for potentially avoidable hospitalizations the difference varied from –3.4 to 9.3 hospitalizations per 10,000 enrollee days. For the time period in the most recent demonstration period covered by the data in this analysis, i.e., January 2017 to January 2019, the trends in these outcome measures were similar to those of earlier years except for potentially avoidable hospitalizations, for which data were mostly missing for the last demonstration time period. Based on multivariable analyses, we found no statistically significant differences between MLTC mandatory enrollment and any of the outcomes.

The fact that we found no evidence of associations between mandated enrollment and the outcomes is particularly important given that such associations could have arisen because of changes in practice among existing MLTC plans or better management among new MLTC plans. In addition, MLTC creates financial incentives for plans. For example, to the extent that MLTC plans are responsible for health care costs not covered by Medicare, such as PACE, MAP, and FIDA plans, they have an incentive to minimize those health care events. The consequences of such incentives would have been captured by our key independent variable, the fraction of enrollees subject to the mandate. In our analysis, we applied plan-level fixed effects to control for time-invariant plan-level factors; to a large extent, this allowed us to capture a plan's underlying clinical management capabilities. But this approach did not address the time-varying plan-level factors. For example, if plans entering a new region at the time of mandate rollout improved their clinical management and, as a result, their quality of care over time, this change could be mistaken as the effect of the MLTC mandate.

The fact that new enrollees under the mandate may differ from existing plan members who enrolled voluntarily in MLTC is another factor that may confound the association between the mandate and the outcomes. For example, if enrollees under mandatory enrollment are healthier in ways not captured by risk adjustment, then we might expect to observe an improvement in outcomes—for example, a decrease in emergency room visits or falls requiring medical intervention. Whether this is the case depends on the performance of the risk adjustment methodology employed by NYS DOH for its annual MLTC performance reports. The methodology utilizes enrollee demographics, chronic medical conditions, and physical and mental functions. If there are important unobserved factors that predict both clinical outcomes and individuals' enrollment in MLTC, the differences in outcome measures could potentially arise from those factors.

We did not find a significant association between the mandate and the percentage of enrollees who had no emergency room visits, the percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries, or potentially avoidable hospitalizations. Although these can be costly events, Partial Capitation plans do not cover medical costs, and for other plan types medical costs are borne primarily by Medicare. As a result, MLTC plans may not have large financial incentives to improve the management of costly medical events. Financial incentives associated with influenza vaccinations are mixed, with the costs of the vaccinations being offset by reductions in costs associated with influenza, many of which are also covered by Medicare. Dental services are covered by MLTC, so there may be a direct financial incentive to reduce visits that increase costs, and we did find a negative association between MLTC mandatory enrollment and dental visits, but it was not statistically significant.

There are limitations to our analyses. First, we had to rely on the risk adjustment embedded in the outcome measures, and the data and risk adjustment methodology changed over time. In addition, influenza vaccinations and dental exams were not risk-adjusted. As a result, we were not able to control for risk selection that may have affected the outcomes. For example, the population of new enrollees under the mandate may have differed in ways that affect the outcomes, and those differences could not be accounted for with risk adjustment within our analyses.

Furthermore, there are several challenges in measuring outcomes over time. The measures of no emergency room visits, no falls requiring medical intervention, and receiving an influenza vaccine were reported throughout our study period, but the definitions of emergency room visits and falls changed over time. These changes reflect decisions to improve the value of these measures, but they make it difficult to evaluate changes over time. In addition, annual risk adjustment may yield a fairer comparison of plans each year, but it also results in plan-level measures that are not comparable from year to year. We addressed these challenges by limiting our evaluation of changes to time periods for each outcome that are measured consistently and by focusing on each plan's performance relative to the statewide average each year.

Consumer Satisfaction

Our analysis examined customer satisfaction, or the extent to which customers' needs were fulfilled: accessibility of dental care; satisfaction in the overall health plan, care manager, and home health aide; and the timeliness of care provided. Overall, customer satisfaction, as measured by the outcomes of this analysis, is high among the respondents regardless of plan type across the years of the survey. While consumer satisfaction measures may have dipped slightly during the years of the implementation of the mandate, only satisfaction with quality of care manager/case manager services had a statistically significant decrease associated with the mandate. Compared with earlier years, the overall trends were similar for the time period in the most recent demonstration period covered by the data in this analysis, years 2017 and 2019.

This analysis had several limitations. First, there were many Partial Capitation plans but very few PACE and MAP plans. The small and uneven sample size likely reduced the statistical power, limiting our ability to detect the overall impact of the mandate, as well as our ability to make comparisons between plan types (PACE, MAP, and Partial Capitation). The ability to detect the mandate's impact was further compromised by the low variability in the outcome measures themselves. There was a high degree of satisfaction at the start of the survey in 2007 that remained relatively high throughout the years.

Another limitation of the analysis was the lack of comparability of data between different survey administrations. Areas of concern include changes in the survey items and inconsistent implementation procedures. As mentioned earlier, the survey item for the measured outcome in Goal 3 changed the wording and response categories. In addition, in 2011, the survey was mailed in two waves, the first in February and the second in April, whereas in 2015, the first wave was mailed in December and the second in March. Ideally, the survey should have been administered on the same date each year to reduce possible confounders or impact on response rates.

Finally, the survey response rate fell over the years it was implemented, from 32.1 percent in 2011 to 23.1 percent in 2019, and thus may have increased potential bias in responses. It is also possible that satisfied MLTC enrollees were more likely to respond to the survey or, conversely, that dissatisfied enrollees were less likely to do so, and such a self-selection into the survey changed over time.

Data Limitations

Across the analyses discussed, there are also several limitations associated with the lack of individual-level data, as well as data for some study years. Individual-level data were not included within the RFP and not made available as part of the evaluation. To the extent that such data had been available, we would have been able to use a larger number of observations in the analysis, control for individual-level characteristics, apply risk adjustment directly to allow for comparisons over time, and, most importantly, identify outcomes for individuals by mandatory enrollment status.

In the absence of individual-level data, statistical power to detect the effects of MLTC is limited for two reasons. First, the outcome data are at the aggregate plan year level, with a limited number of observations; that is, the sample size for each analysis is small. Second, because of the limitations of existing aggregate data, a majority of available data points are for the time period after July 2015, when the mandate implementation was completed. Thus, no variation in the key independent variable (the fraction of plan enrollees under the mandate) is available after July 2015. This further reduces the precision of our estimates of the impact of MLTC on outcomes.

The fact that we did not observe statistically significant results does not mean MLTC had no impact on the outcomes of interest. Because of the lack of statistical power, we are failing to reject the null hypothesis (i.e., no effect), but we are not accepting the null hypothesis either. For example, the 95 percent confidence interval of receipt of dental care includes a reduction of 19.7 percentage points, which is clearly a substantively important reduction, and the point estimate would have to be an increase of 8.6 percentage points in order to reject the null. In other words, the data generated particularly uncertain estimates.

Moreover, given that the aggregate data were risk-adjusted using a different model each year, we had to re-center outcomes in order to make relevant comparisons across years. That is, our approach was to compare how a plan's relative performance changed each year compared to all other plans. Although our approach allowed us to identify how relative plan performance is associated with mandatory enrollment, it prevented us from characterizing how overall quality evolved over time. We were not able to control for the effect of other state initiatives on the outcomes whose variation could be captured by calendar time indicators.

Finally, to utilize the aggregate data for the causal inference, we were limited to the use of the fraction of enrollees under the mandate for each plan as the intervention variable. This involved an assumption that enrollees contributed uniformly to plan-level outcomes, which may or may not be true.

Summary

Our results show that the MLTC mandate's effect on enrollment stabilized at month 19 after the mandate start (Table 7), , i.e., by the time the most recent demonstration period started in December 2016. The enrollment trends were dominated by Region 1 (New York City), but there was wide variation across the mandate rollout regions. We found no evidence of increases or reductions in patient safety and quality of care among enrollees because of the MLTC mandate, according to the measures used in this study. Customer satisfaction was high across the years and across the measures, except for access to dental care. We found no evidence of increases or reductions in perceived access to dental care, satisfaction with MLTC plan, timeliness of services, or satisfaction with service quality due to the MLTC mandate. We did find, however, a statistically significant decrease in enrollees' satisfaction with their care manager associated with the MLTC mandate.

Table 7. Summary of Evaluation Results for Domain 1, Component 1

Domain	Goal	Outcome	Results	
Domain 1, Component 1: Managed Long-Term Care (MLTC)	Goal 1: Expand access to MLTC for Medicaid enrollees in need of LTSS	RQ1. Time for the MLTC mandate's effect on enrollment to stabilize	↑	19 months, stabilizing at +0.6 percentage points per year; a 12-percentage point increase in enrollment rates during the first 79 months post-mandate ($p < 0.05$)
	Goal 2: Demonstrate stability or improvement in patient safety	RQ1. Percentage of enrollees who had no emergency room visits	—	+0.8 percentage points ($p > 0.05$)
		RQ2. Percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries	—	–1.8 percentage points ($p > 0.05$)
	Goal 3: Demonstrate stability or improvement in quality of care	RQ1. Receipt of timely care	—	–0.8 percentage points ($p > 0.05$)
		RQ2. Influenza vaccination	—	+0.2 percentage points ($p > 0.05$)
		RQ2. Dental exam	—	–5.6 percentage points ($p > 0.05$)
	Goal 4: Stabilize or reduce preventable acute hospital admissions	RQ1. Potentially avoidable hospitalizations	—	–1.3 hospitalizations per 10,000 enrollee days ($p > 0.05$)
	Goal 5: Demonstrate stability or improvement in consumer satisfaction	RQ1. Satisfaction with MLTC plans	—	–1.8 percentage points ($p > 0.05$)
		RQ2. Satisfaction with care managers	↓	–3.1 percentage points ($p < 0.05$)
		RQ3. Satisfaction with provider timeliness	—	–2.2 percentage points ($p > 0.05$)
		RQ4. Satisfaction with service quality	—	–1.2 percentage points ($p > 0.05$)

NOTE: The color code: green represents favorable results, red unfavorable, and yellow neither. RQ = research question.

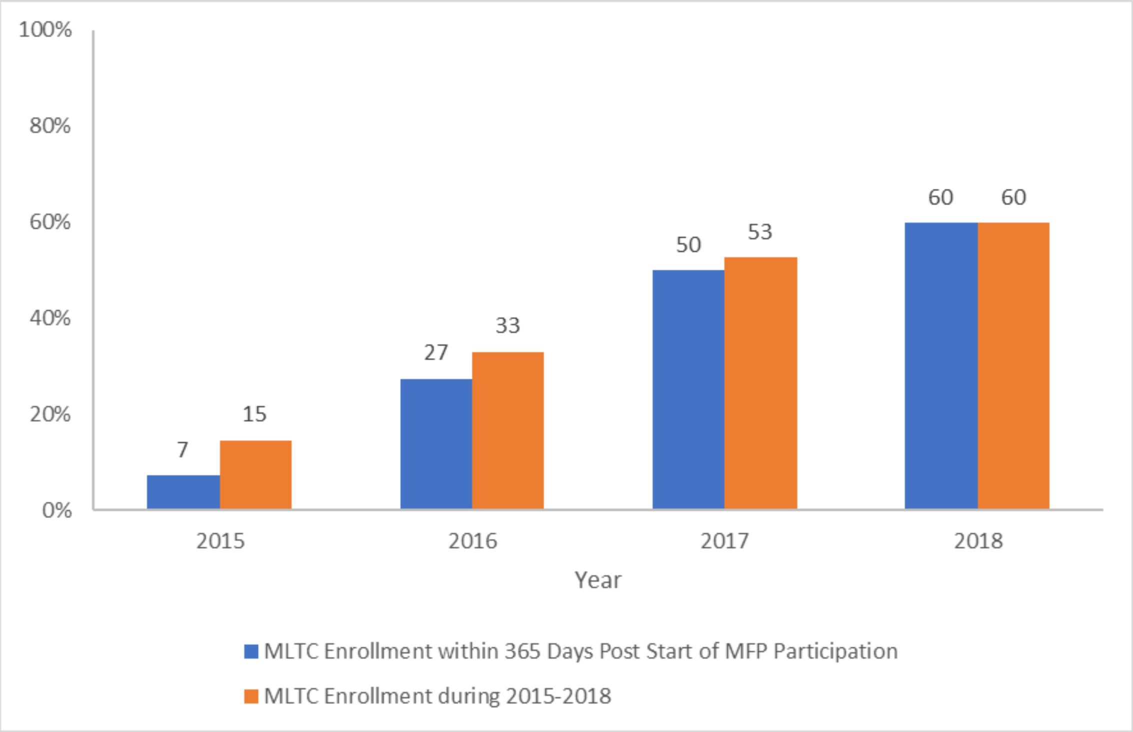
Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for Long-Term Services and Supports

Goal 1, Research Question 1: MLTC Enrollment Among MFP Participants

For those who transition from an institutional setting to the community, did the percentage enrolling in MLTC increase over the Demonstration?

The percentage of MFP participants who were enrolled in MLTC, by year, is presented in Figure 21. MLTC enrollment increased rapidly from 2015 to 2018, from 7 percent to 60 percent for enrollment within 365 days of MFP participation, and from 15 percent to 60 percent for enrollment anytime during the study window. For individuals newly participating in MFP during 2015–2017, we found a statistically significant trend in MLTC enrollment among those who enrolled for the first time in MLTC within 365 days post-start of MFP participation ($p < 0.001$) and among those who enrolled in MLTC anytime during 2015–2018 ($p < 0.001$). The sample size of MFP participants was relatively small in 2015 (220). Because some individuals who participated in MFP in 2018 may have enrolled in MLTC in the second half of 2019, for which MLTC enrollment data were not available, 2018 was excluded from the trend tests.

Figure 21. Percentage of the MFP Population Enrolled in MLTC During 2015–2018



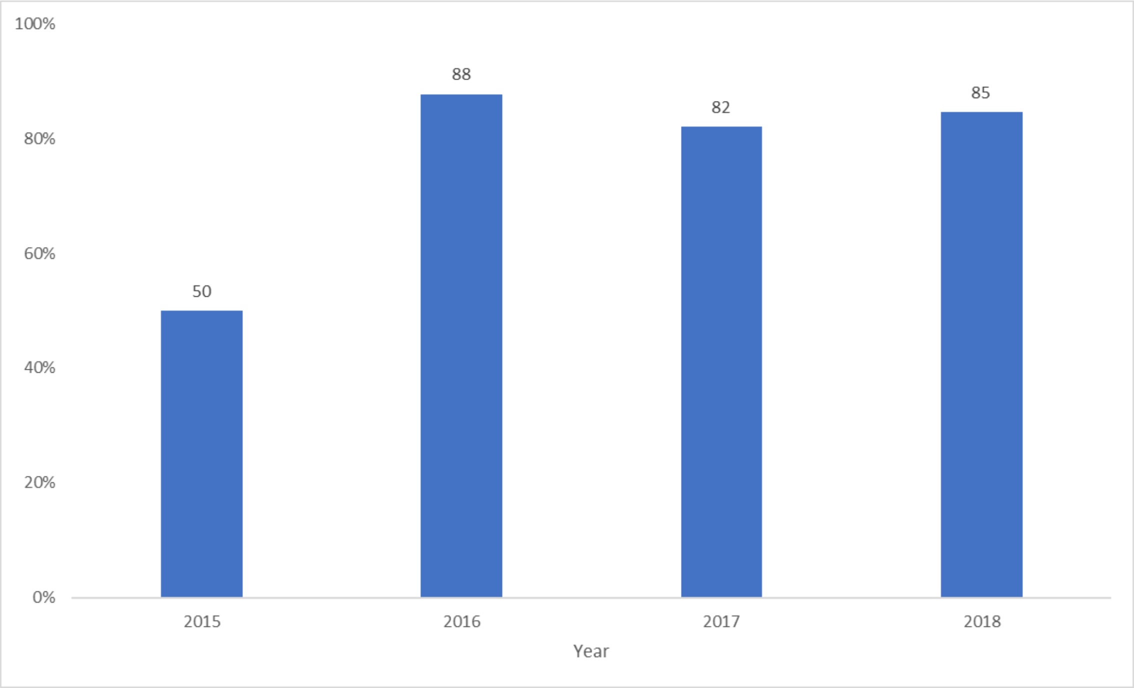
NOTE: The number of new MFP participants by year: 220 (2015), 354 (2016), 368 (2017), 478 (2018). A trend test was performed for 2015–2017 MLTC enrollment within 365 days post-start of MFP participation (Pearson's $\chi^2 = 120.760$, $p = 0.0001$) and MLTC enrollment during 2015–2018 (Pearson's $\chi^2 = 89.384$, $p = 0.0001$).

Goal 2, Research Question 1: Emergency Room Visits Among the HCBS Expansion Population

Is the percentage of the HCBS expansion population without any emergency room visits in the last 90 days stable or improving over the course of the Demonstration?

The percentage of the HCBS expansion population (those enrolled in MFP and MLTC) who did not have an emergency room visit in the last 90 days was stable at 82 percent to 88 percent in the years 2016–2018 (Figure 22). The 2015 rate was lower, at 50 percent, as was the sample size (four assessments after enrollment start). We did not find a statistically significant trend in the percentage of MFP participants who did not have an emergency room visit (p = 0.5892).

Figure 22. Percentage of the HCBS Expansion Population Without Any Emergency Room Visit in the Last 90 Days



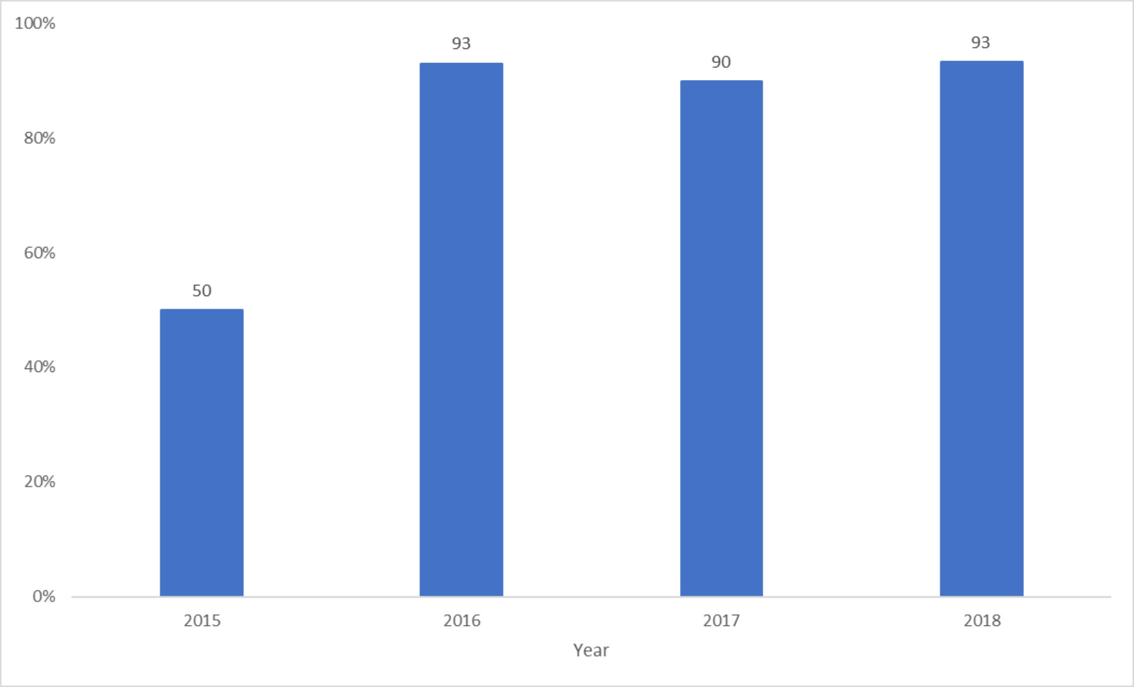
NOTE: The number of latest MLTC assessments conducted after enrollment start: 4 (2015), 57 (2016), 206 (2017), 447 (2018). A trend test for the years 2015–2018 was performed for MFP participants who did not have an emergency room visit (Pearson's $\chi^2 = 0.292$, p = 0.5892).

Goal 2, Research Question 2: Falls Among the HCBS Expansion Population

Is the percentage of the HCBS expansion population without any falls, as defined by the department's fall measure, stable or improving over the course of the Demonstration?

The percentage of the HCBS expansion population who did not have falls requiring medical intervention or resulting in major or minor injuries in the last 90 days followed a similar pattern (Figure 23). The rates were also stable at 90 percent to 93 percent in 2016–2018, with a lower rate of 50 percent in 2015. Although the measure definition changed from falls requiring medical intervention in the 2018 UAS-NY CHA data to falls resulting in major or minor injuries, we did not observe a significant change in the measure in 2018 compared to 2016–2017. We tested but did not find a statistically significant trend in the percentage of MLTC enrollees who did not have a fall requiring medical intervention or resulting in major or minor injuries (p = 0.0777).

Figure 23. Percentage of the HCBS Expansion Population Without Any Falls Requiring Medical Intervention or Resulting in Major or Minor Injuries in the Last 90 Days



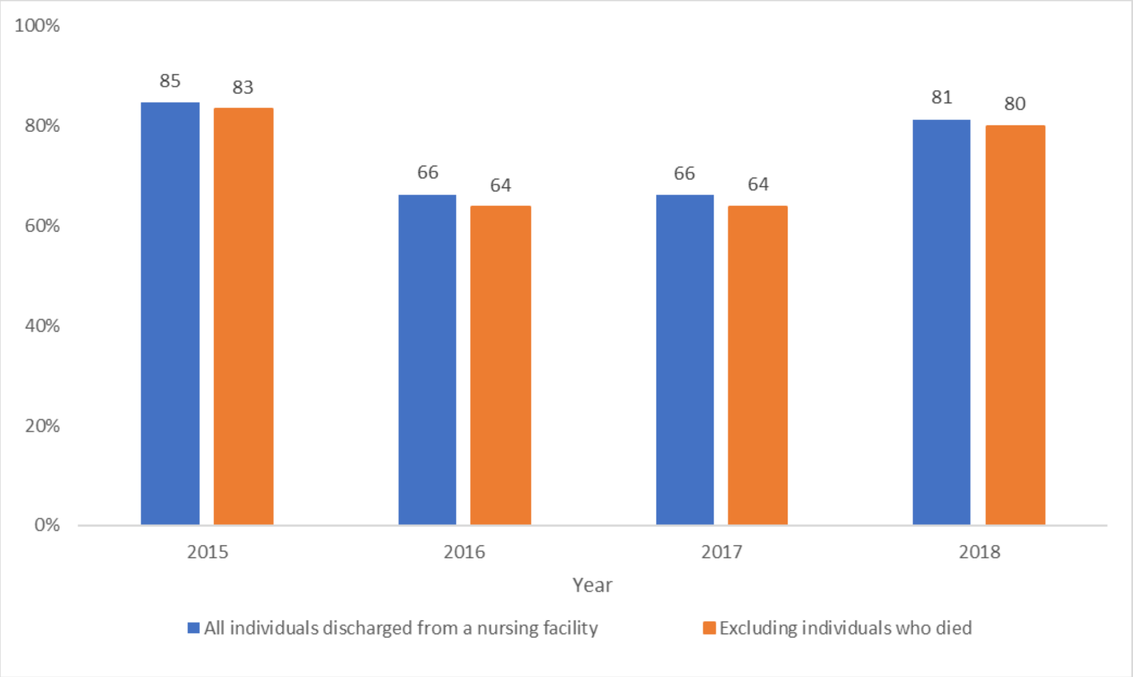
NOTE: The number of latest MLTC assessments conducted after enrollment start: 4 (2015), 57 (2016), 206 (2017), 447 (2018). A trend test for the years 2015–2018 was performed for MFP participants who did not have a fall requiring medical intervention or resulting in major or minor injuries (Pearson's $\chi^2 = 3.113$, p = 0.0777).

Goal 3, Research Question 1: Community Residence Among the HCBS Expansion Population

For the HCBS expansion population who entered MLTC after transitioning from an institutional setting, what percentage return to the nursing home within a year of discharge, what was their average level of care need, and, for those who return within a year, how long on average did they reside in the community?

Overall, we found that the percentage of the HCBS expansion population who remained in the community in 2015 was higher, at 85 percent, than in 2016 and 2017 (both at 66 percent), and we found another increase in 2018 (see blue bars in Figure 24). The 2015 result has a smaller denominator (13 MFP participants) than those of subsequent years, and the 2018 data are not complete because individuals re-institutionalized in the second half of 2019 were not included in the data. The sensitivity analysis excluding those who died but were not re-institutionalized before death showed a similar pattern. We did not find a statistically significant trend in the rates during 2015–2017 for the main analysis (p = 0.389) or for the sensitivity analysis excluding those who died but were not re-institutionalized (p = 0.382). We also examined the results by including those who died but were not re-institutionalized in the denominator but not in the numerator, assuming they re-entered a nursing facility. The results are 77 percent, 59 percent, 60 percent, and 75 percent for each of the four years, respectively (data not shown, p = 0.452).

Figure 24. Percentage of the HCBS Expansion Population Who Remained in the Community for One Year Post-Discharge from a Nursing Facility



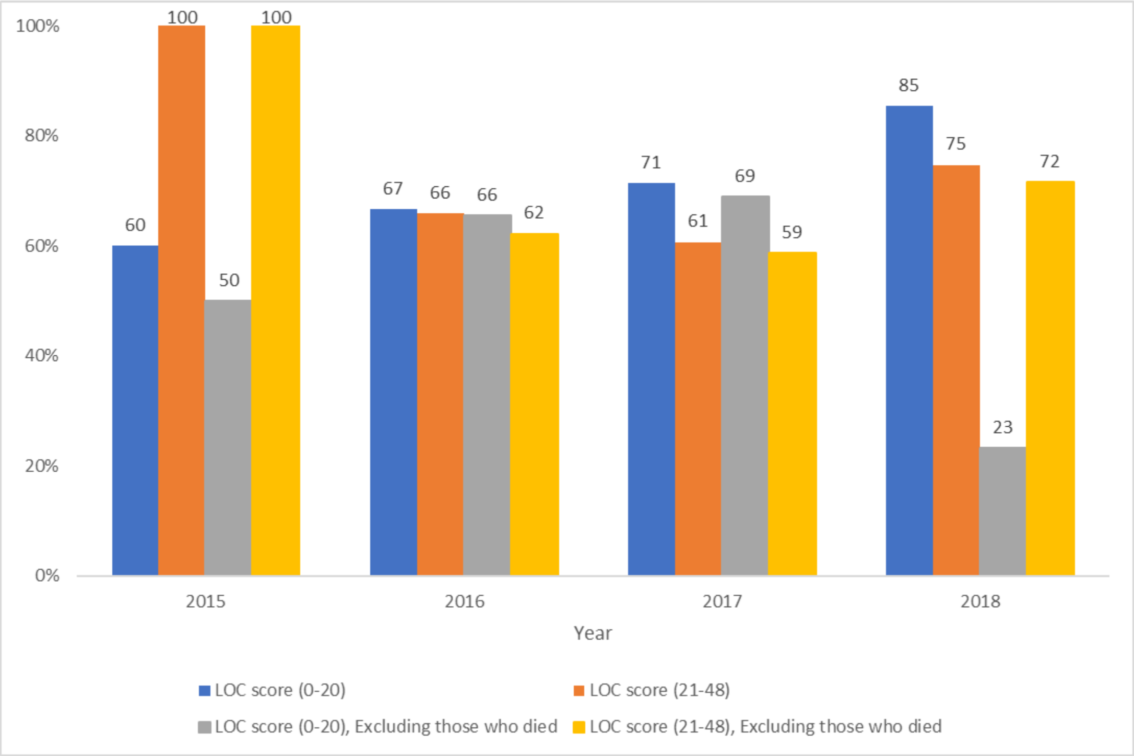
NOTE: The number of MFP participants for analysis by year: 13 (2015), 71 (2016), 124 (2017), 213 (2018), with the number of individuals who died before re-entering a nursing facility being: 1 (2015), 5 (2016), 8 (2017), 14 (2018). Trend test results for all individuals: Pearson's χ^2 = 0.805, p = 0.3891; trend test results for the sensitivity analysis excluding those who died but were not re-institutionalized: Pearson's χ^2 = 0.765, p = 0.3819. The year 2018 was excluded from trend analysis due to incomplete data.

Next, MFP participants who remained in the community for one year post-discharge were assessed by level of care (Figure 25). Trend tests were performed from 2015 to 2017 (2018 was excluded because of incomplete data) for all participants, as well as for the subgroup of participants excluding those who died prior to re-institutionalization.

MFP participants with a lower level of care score had a higher rate of remaining in the community during the study period, except for 2015; this was consistent in both the main analysis and the sensitivity analysis. There was large variation in the 2015 rates, which is likely due to small denominators. From 2016 to 2018, there may be an upward trend in the likelihood of remaining in the community among individuals with a lower level of care score; however, the

2018 data are incomplete, and this trend may not hold once the data for the second half of 2019 are included. No statistically significant trends were found for each level of care category in either the main analysis or the sensitivity analysis.

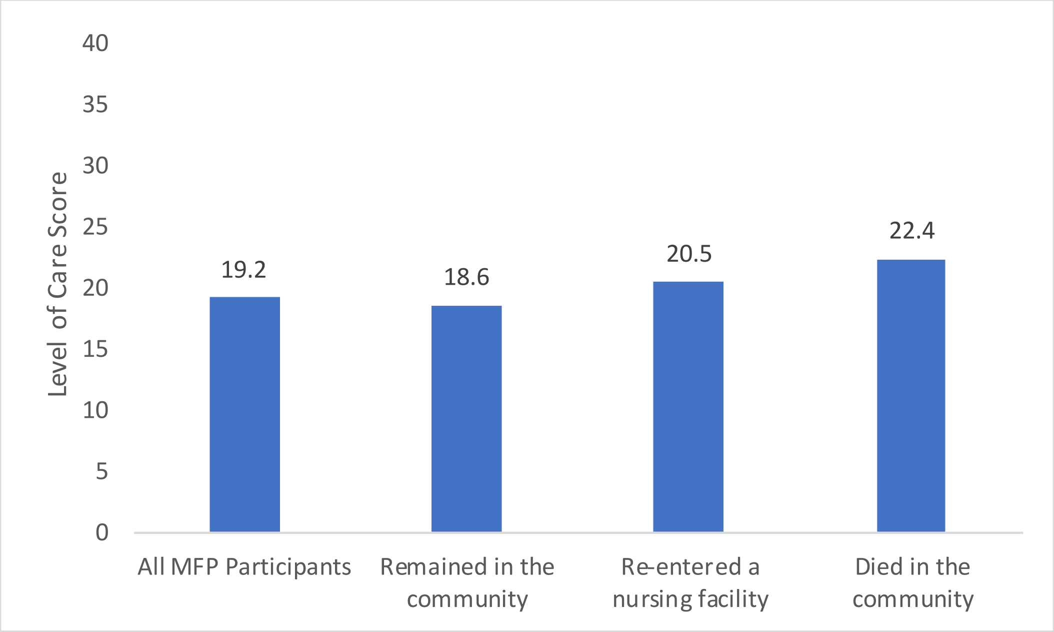
Figure 25. Percentage of the HCBS Expansion Population Who Remained in the Community for One Year Post-Discharge from a Nursing Facility, by Level of Care



NOTE: LOC = Level of Care. LOC score ranges from 0 to 48 and is determined based on a 22-item assessment of cognition, communication and vision, mood and behavior, functional status, continence, and nutritional status. The number of MFP participants for analysis by year: 13 (2015), 71 (2016), 124 (2017), 213 (2018), with the number of individuals who died before re-entering a nursing facility being: 1 (2015), 5 (2016), 8 (2017), 14 (2018). Trend tests performed for years 2015 through 2017 for LOC score 0–20 (Pearson's χ^2 = 0.667, p = 0.5117); LOC score 21–48 (Pearson's χ^2 = 3.295, p = 0.0695), LOC score 0–20 excluding those who died (Pearson's χ^2 = 0.491, p = 0.4836), and LOC score 21–48 excluding those who died (Pearson's χ^2 = 3.174, p = 0.0748).

As illustrated in Figure 26, overall, MFP participants had an average level of care score of 19.2. Participants who remained in the community for one year post-discharge from a nursing facility had the lowest average level of care score (18.6), whereas those who died but did not re-enter a nursing facility before death had the highest average level of care score (22.4). MFP participants who were re-institutionalized within one year post-discharge had an average level of care score between these two groups (20.5). The differences between different subpopulations are not statistically significant at the 5 percent level.

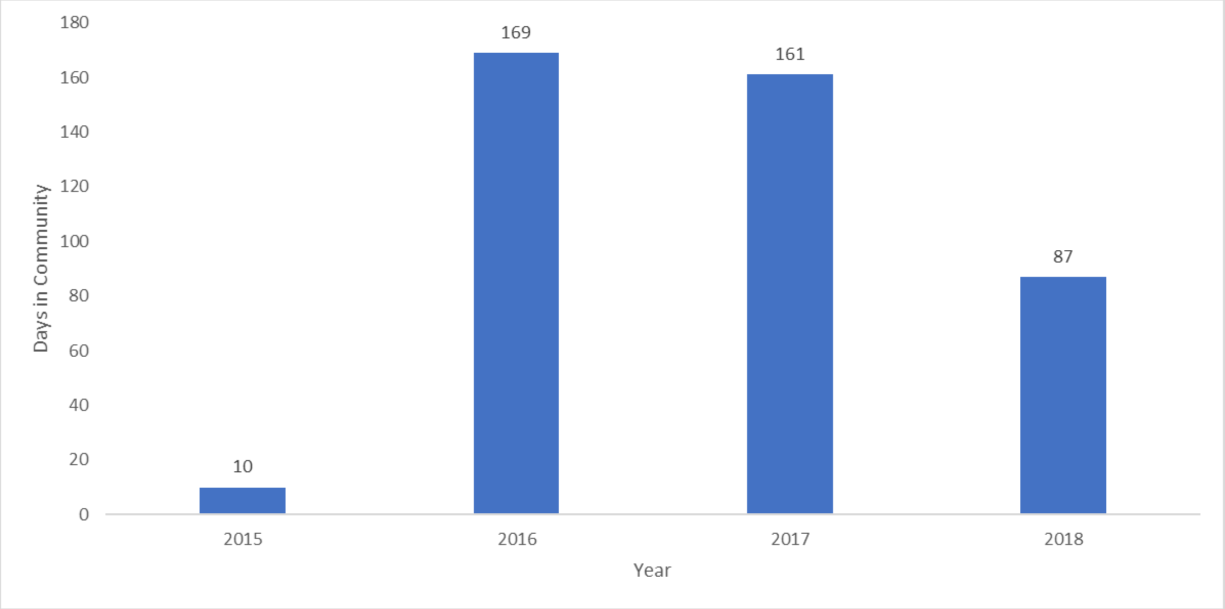
Figure 26. Average Level of Care Score for Those Who Remained in the Community Compared to Those Who Did Not Within One Year Post-Discharge from a Nursing Facility



NOTE: The number of MFP participants for analysis by group: 421 (all MFP participants), 313 (remained in the community for 365 consecutive days), 80 (re-entered a nursing facility within 365 days post-discharge), 28 (died in the community). The standard deviation of level of care score is 8.9, 8.7, 8.6, and 10.6 for each of the four groups, respectively. Student t-tests were performed to compare those who remained in the community with those who re-entered a nursing facility (t = 1.76, p = 0.0811), those who remained in the community with those who died in the community (t = 1.84, p = 0.0753), and those who re-entered a nursing facility with those who died in the community (t = 0.86, p = 0.3976).

The average residency time in the community among MFP participants who were re-institutionalized was very small in 2015; there was only one participant who re-entered a nursing facility. The average residency time was similar between 2016 and 2017, at 169 and 161 days, respectively (Figure 27). The average residency time in the community was 87 days for 2018, but the data for that year were not complete. We tested and did not find a statistically significant trend in average residency time in the community for the years 2016–2017 among participants who returned to a nursing facility within one year post-discharge (p = 0.552). The trend analysis excluded both 2015, due to sample size, and 2018, due to incomplete data.

Figure 27. Average Residency Time in the Community for the HCBS Expansion Population Who Returned to a Nursing Facility Within One Year



NOTE: The number of MFP participants included for analysis by year: 1 (2015), 19 (2016, standard deviation [SD] = 122 days), 34 (2017, SD = 107 days), 26 (2018, SD = 85 days). A trend test was performed for 2016–2017: Pearson's $\chi^2 = 0.354$, $p = 0.5519$. The year 2015 was excluded from the trend test due to its small sample size, and the year 2018 was excluded due to incomplete data.

Goal 3, Research Question 2: Preventive Services Among the HCBS Expansion Population

Is the percentage of the HCBS expansion population accessing preventive care services, such as the flu shot and dental care, consistent or improving?

While there was a general increase in the proportion of the HCBS expansion population who self-reported receiving an influenza vaccination in the past year, from 50 percent in 2015 to 73 percent in 2018, most of that increase occurred by 2016 (Figure 28). Overall, the trend was not statistically significant ($p = 0.553$). However, the proportion of the HCBS expansion population who self-reported receiving a dental exam in the last year showed a statistically significant increase from 2015 to 2018, from 50 percent to 64 percent ($p < 0.001$).[20]

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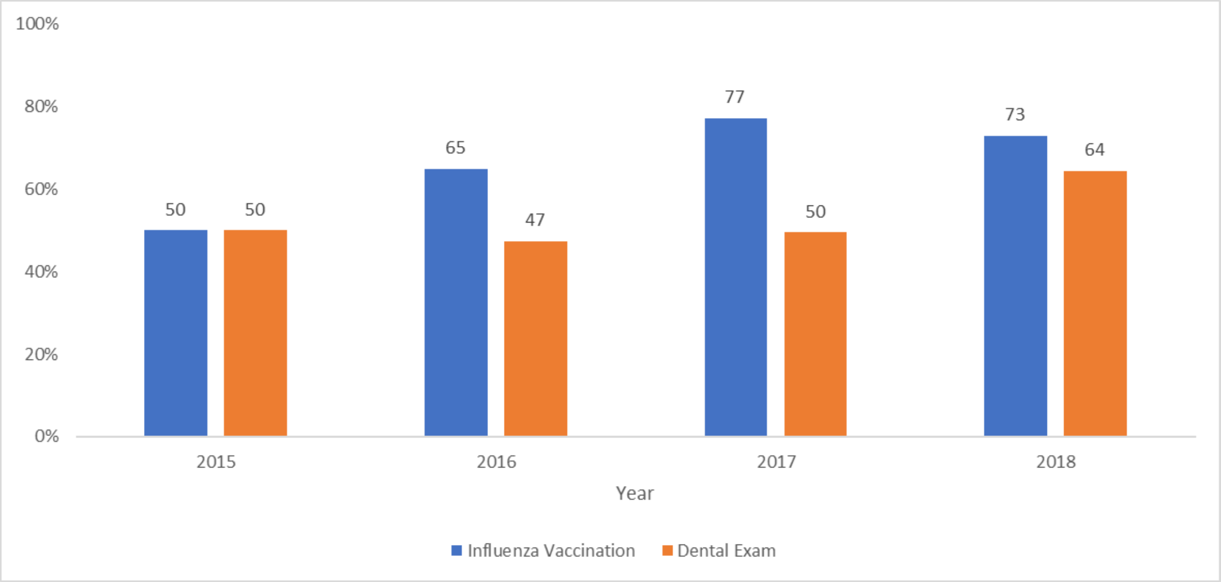
[20] In Domain 1, Component 1, Goal 3, Research Question 3, we also observed an upward trend in members of three out of four plan types (Figure 15). In particular, the dominant partial capitation plans showed an increase from 47.0 percent in 2014 to 61.1 percent in 2019. In the multivariable regression analysis, the MLTC mandate showed a non–statistically significant decline of 5.6 percentage points in the percentage of individuals receiving dental care in the last year (Figure 10). Note that both Figure 15 and Figure 28 illustrate a general time trend in receipt of dental care, but they are different from Figure 10, which is intended to show the effect of the MLTC mandate on receipt of dental care.

Figure 28. Percentage of the HCBS Population Who Received an Influenza Vaccination or Dental Exam in the Last Year



NOTE: The number of latest MLTC assessments conducted after enrollment start: 4 (2015), 57 (2016), 206 (2017), 447 (2018). Trend tests for 2015–2018 were performed for influenza vaccinations (Pearson's $\chi^2 = 0.351$, $p = 0.5534$) and dental exams (Pearson's $\chi^2 = 14.083$, $p = 0.0002$).

Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings—Discussion and Conclusions

Since 2015, the MFP program has assisted Medicaid beneficiaries with MLTC enrollment. The proportion of MFP participants who were enrolled in an MLTC plan within 365 days post-MFP participation increased rapidly from 7 percent in 2015 to 60 percent in 2018. The actual MLTC enrollment among the individuals newly enrolled in MFP in 2018 was likely larger than 60 percent because some participants may not have enrolled until the second half of 2019.

Of note, additional participants enrolled in MLTC even after the end of the 365 days post-MFP participation, at which point the assistance from MFP ended. This is apparent for new MFP participants in 2015: 7 percent enrolled in MLTC within 365 days, but an additional 8 percent enrolled after the end of MFP assistance. MLTC enrollment increased by 6 and 3 percentage points after 365 days among 2016 and 2017 MFP participants, respectively.

The MFP program's increasing impact on MLTC enrollment over time may have been a result of increased awareness of MLTC among both MFP transition specialists and Medicaid beneficiaries. It is conceivable that as transition specialists became more familiar with the MLTC program, they knew which individuals they should target. Similarly, individuals eligible for MLTC may have reached out to the MFP program as they became aware of its benefits.

Based on our communication with subject-matter experts on MFP and MLTC within the NYS DOH, aside from the inclusion of managed care as a qualified constituent program for MFP participation in 2015, there were no major policy changes during 2015–2018 regarding the MFP implementation. But one relevant MLTC policy change could have played a role in the MLTC enrollment increase among MFP participants: the mandatory MLTC enrollment of new nursing home residents, which started in February 2015. From that point on, all individuals who were newly admitted to a nursing home after February 2015 had to enroll in an MLTC plan; when they were subsequently discharged, they were already in MLTC. This policy change could be associated with an increase in the proportion of MFP participants enrolled in an MLTC plan, although more evidence is needed to confirm such a hypothesis.

Overall, we did not observe a statistically significant change in patient safety measures during 2015–2018, including percentage of enrollees with no emergency room visits and percentage of enrollees with no falls that required medical intervention or resulted in major or minor injuries. The proportions of the HCBS expansion population without an emergency room visit or fall were about 85 and 90 percent, respectively, for 2016–2018, although these were lower in 2015, which could simply be due to the small number of members that year. The 2016–2018 results are consistent with our results for Domain 1, Component 1, of this 1115 Demonstration evaluation, which showed that among the general MLTC population, the percentage without an emergency room visit did not change significantly (89 percent in 2015 to 91 percent in 2018), nor did the percentage without falls (from 93 percent to 94 percent in 2015 and 2018, respectively).

The proportion of the HCBS expansion population remaining in the community seemed to be stable at about 66 percent during 2016–2017, and excluding participants who died without re-entering a nursing facility did not change the conclusions. It is possible that enrollment in MLTC is not necessarily associated with the community residence duration among individuals who transitioned from institutions to communities. Our evaluation has not addressed this because of a lack of a comparison group and a lack of data prior to the inclusion of MLTC in MFP among this population.

When examining the results by the level of care needs, we found a non–statistically significant trend showing that MFP participants with a higher level of care needs were less likely to stay in the community compared with participants with a lower level of care needs. When examining the level of care needs by subgroups, there was a non–statistically significant association that MFP participants staying in the community for 365 days had the lowest level of care needs, followed by those re-entering a nursing facility and those who died without re-entering a nursing facility. But, likely due to small sample sizes, our statistical tests of these differences are not statistically significant at the 5 percent level. Compared with those with a lower level of care needs, it would not be surprising that participants with a greater level of care needs are often more frail, have a higher chance of re-entering a nursing facility, and have a higher mortality rate.

MFP participants who re-entered a nursing facility stayed on average slightly less than half a year in the community in both 2016 and 2017. The sample for 2015 MFP participants included only one observation, and the data for 2018 MFP participants were not complete. When the second half of the 2019 data are available, the number of days in the community could double, reaching a level similar to that of 2016 and 2017. Thus, we found no evidence of variation during the study period in the average residency time among the HCBS expansion population re-entering a nursing facility within one year post-discharge.

The proportion of the HCBS expansion population who reported the receipt of influenza vaccination in the last year was relatively stable at 65 percent to 73 percent during 2016–2018, whereas an increasing trend in the receipt of a dental exam was observed for the same time period, from 47 percent to 64 percent. Again, the denominator for 2015 was small, and thus the results are not considered very reliable. The improvement in the dental exam measure may be attributed to the performance improvement project for MLTC enrollees during 2015–2018. This was a quality improvement initiative, implemented during this time period, that covered depression management, pain management, falls, advanced directives, emergency preparedness, and preventive screenings for eye, ear, and dental exams. MLTC plans had the option to choose one of the quality measures covered, but many of them selected preventive screenings for eye, ear, and dental exams. This initiative might be associated with the increased receipt of dental exams among MLTC enrollees.

There are two major limitations of our analysis. First, the results are descriptive in nature. Per the evaluation plan approved by CMS, the data were limited to state aggregated outcomes by plan, and we were therefore not able to estimate multivariable regression models to control for individual-level characteristics such as demographics and health status. Without multivariable analyses, the results we obtained may be biased by potential confounders. For example, we concluded that the proportion of the HCBS expansion population remaining in the community was similar across 2016–2017. If, hypothetically, the MFP participants in 2017 were sicker for some reason, the proportion in 2017 could have been higher than what we observed after adjusting for participants’ health status. Second, our data did not cover the pre-MLTC mandate period (prior to 2012) or the mandate implementation period (2012–2015). That is, we were not able to draw any conclusions regarding the association between the MLTC mandate and various outcome measures examined here. The results we observed were general time trends only, and they are limited by a small sample size in 2015 and incomplete data for 2018.

Summary

From 2015 to 2018, the proportion of MFP participants enrolled in an MLTC plan increased rapidly, and we found no evidence of a decline in patient safety and quality of care measures (Table 8). These outcomes remained stable except for the significant increase in the proportion of the HCBS expansion population receiving a dental exam, which may be attributed to a quality improvement project with a focus on preventive screenings for eye, ear, and dental exams.

Table 8. Summary of Evaluation Results for Domain 1, Component 2

Domain	**Goal**	**Outcome**	**Results**	
Domain 1, Component 2: Individuals Moved from Institutional Settings to Community Settings for LTSS	Goal 1: Improve access to MLTC for those who transitioned from an institutional setting to the community	RQ1. Enrollment in MLTC within one year post-discharge from an institution	↑	7% in 2015; 60% in 2018 ($p < 0.05$)
	Goal 2: Stability or improvement in patient safety	RQ1. Percentage of enrollees who had no emergency room visits	—	50% in 2015; 85% in 2018 ($p > 0.05$)
		RQ2. Percentage of enrollees who had no falls that required medical intervention or resulted in major or minor injuries	—	50% in 2015; 93% in 2018 ($p > 0.05$)
	Goal 3: Stability or improvement in quality of care	RQ1. Percentage in community within one year post-discharge from an institution	—	85% in 2015; 81% in 2018 ($p > 0.05$)
		RQ2. Influenza vaccination	—	50% in 2015; 73% in 2018 ($p > 0.05$)
		RQ2. Dental exam	↑	50% in 2015; 64% in 2018 ($p < 0.05$)

NOTE: The color code: green represents favorable results, red unfavorable, and yellow neither. RQ = research question.

Domain 2: Mainstream Medicaid Managed Care

Goal 1: Express Lane Eligibility

Research Questions

- Goal 1, Research Question 1. How many recipients are enrolled in Express Lane Eligibility?
- Goal 1, Research Question 2: Are there differences in the demographic and clinical characteristics of Medicaid beneficiaries enrolled through Express Lane–like eligibility as compared to those not enrolled through this mechanism?
- Goal 1, Research Question 3: What portion of the beneficiaries enrolled through Express Lane–like eligibility were later deemed not eligible for this coverage?

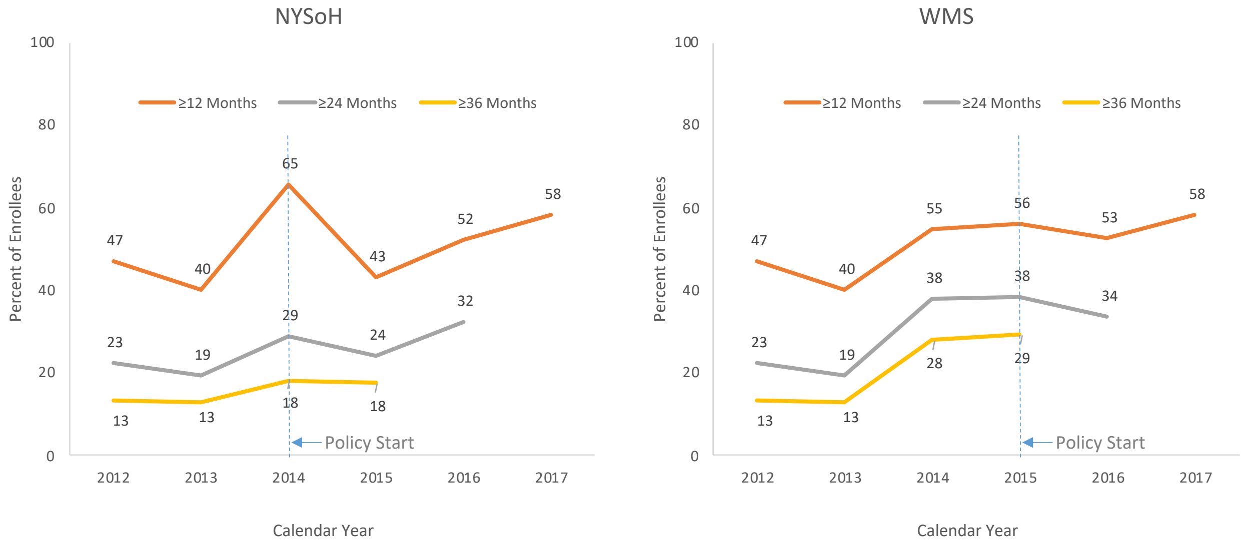
Express Lane Eligibility was implemented through a State Plan amendment instead of a part of the 1115 Demonstration. This goal was removed, and no results are available.

Goal 2, Research Question 1: Distribution of Continuous Enrollment

What is the distribution of enrollees within select continuous enrollment categories, i.e., 12 months, 24 months, etc.?

For each calendar year, we calculated the percentage of enrollment spells that lasted at least 12, 24, and 36 months, respectively (Figure 29).[21] In the NYSoH population, the percentage of individuals in each year enrolled continuously for at least 12 months increased over time from 47 percent in 2012 to 58 percent in 2017, with a peak of 65 percent for enrollment starting in 2014 when NYSoH was launched and 12-month continuous eligibility policy was implemented. There was also an increase in the percentage of individuals in a given year who were enrolled continuously for at least 24 months (23 percent in 2012; 32 percent in 2017) or 36 months (13 percent in 2012; 18 percent in 2017). The WMS population shows a similar overall pattern except that it did not experience a peak in 2014 or a drop in 2015. Instead, the increase in enrollment started to show in 2014 rather than in 2015 when the 12-month continuous eligibility policy started to implement in the WMS population; this is consistent across all three enrollment durations: 12, 24, or 36 months or more of continuous enrollment. Compared to NYSoH, WMS had a much higher percentage of enrollment with 36 months or more in 2014 and 2015 (28 and 29 percent, respectively). Note that NYSoH and WMS share the same pre-policy population in 2012 and 2013, so the results are exactly the same for these two years.

Figure 29. Distribution of Continuous Enrollment Among Individuals Targeted by 12-Month Continuous Eligibility



NOTE: We do not present the data points for ≥12, 24, and 36 months for 2018, 2017, and 2016, respectively, because the time window is too short to ensure meaningful data. A comparison of the 2012 enrollment distribution to

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[21] Note that not all durations are applicable to all the years. For example, when examining an enrollment duration of 12 months or more, we reported only for the years 2012–2017 because our data do not cover a 12-month period for enrollment episodes starting in February 2018. Similarly, we did not report a duration of 24 or 36 months or more for the years 2017–2018 and 2016–2018, respectively.

the enrollment distribution of 2017, 2016, and 2015 for each enrollment duration has a p value of <0.01.

Goal 2, Research Question 2: Distribution of Continuous Enrollment by Characteristics

Does the continuous enrollment differ by demographic or clinical characteristics?

We compared enrollment time by demographic groups, namely age, race, and region (see Appendix D, Tables A5 and A6). Prior to 2014, individuals (including both WMS and NYSoH) younger than 18 were more likely to stay enrolled longer than individuals in other age groups. After 2014, in WMS, individuals 18 and younger were enrolled at higher rates than those age 18–35, but lower rates than those age 36–65 for the WMS population. For example, in 2014, 57 percent of individuals younger than 18 were enrolled for at least 12 months, compared to 46 percent for those age 19–35 for the WMS population. In contrast, after 2014, the individuals younger than 18 were enrolled at higher rates than those 18–55 and similar rates to those age 56–65 for the NYSoH population. For example, in 2014, 76 percent of individuals younger than 18 were enrolled for at least 12 months, compared with 63, 66, 68, and 72 percent for those age 19–35, 36–45, 46–55, and 56–65, respectively, for the NYSoH population. Individuals in New York City tended to be enrolled at similar ranges to those outside of New York City for both WMS and NYSoH except for 2016–2017 in the WMS population, during which New York City had a much higher rate of being enrolled for 12 months or more. In 2014, 54 and 65 percent of individuals in New York City were enrolled for at least 12 months in WMS and NYSoH, respectively, compared with 55 and 65 percent outside of New York City. During 2012–2013, enrollment rates were similar across race and ethnicity in both WMS and NYSoH, but during 2015–2017, individuals who are Hispanic had higher enrollment rates than individuals who are white or black.

We examined enrollment duration by CRG health status score; low scores represent a relatively healthy status (see details in Chapter 3, Domain 2, Goal 2, Study Population and Data Source). In general, enrollment durations were lower for individuals with a CRG score of 1 or 2 than those with a CRG score of 3 or higher (Figure 30). Over half of individuals with a CRG score of 3 or above were enrolled for at least 12 months. This pattern is consistent across NYSoH and WMS populations except that the percentages for enrollment of 24 or 36 months or more were higher among WMS individuals with a CRG score of 7 to 9. Individuals in the post-12-month continuous eligibility policy period (2014–2017 for NYSoH and 2015–2017 for WMS) tended to be enrolled for less time than those in the pre-policy period, the year 2012 or 2012 to 2013 for NYSoH and WMS, respectively.

Figure 30. Percentage with a Continuous Enrollment of 12, 24, or 36 Months or More Among Individuals Targeted by 12-Month Continuous Eligibility, by Health Status

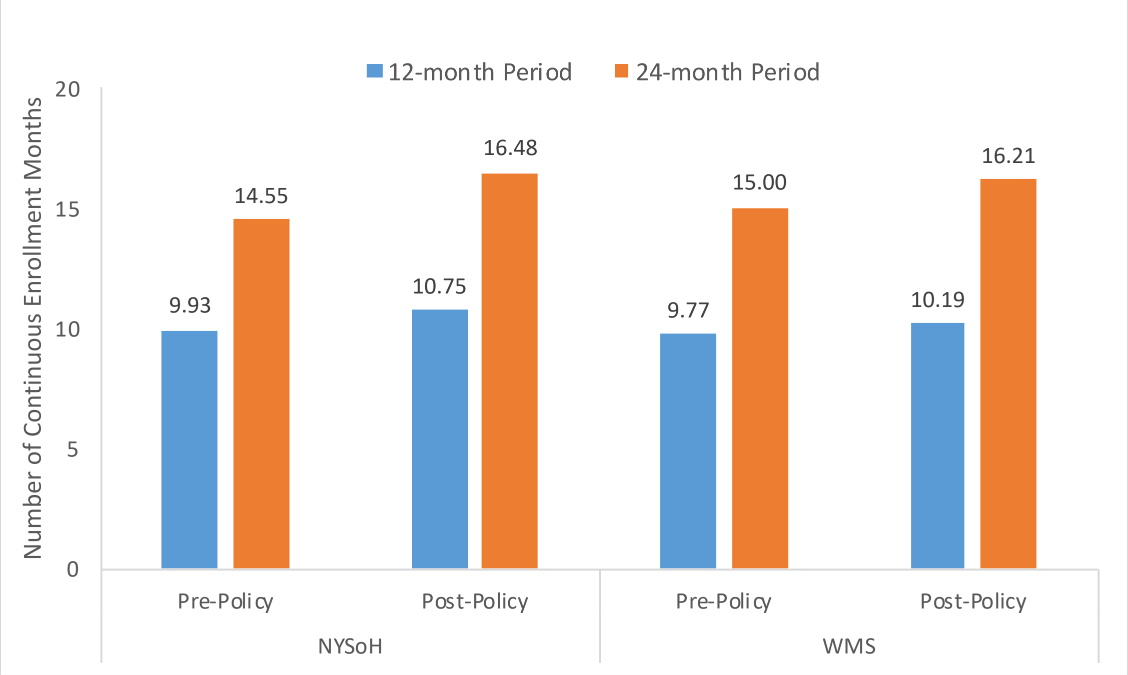
NOTE: CRG = Clinical Risk Groups. Nine health statuses are used in this analysis. A comparison of the 2012 distribution to that of 2017, 2016, and 2015 for each enrollment duration has a p value of <0.01.

Goal 2, Research Question 3: Average Months of Continuous Enrollment

Did Medicaid's average months of continuous enrollment increase following the implementation of continuous eligibility as compared to pre-implementation?

Figure 31 presents the differences in enrollment duration between the pre- and post-policy period, adjusting for demographics and health status and using the child population as a comparison group who were eligible for the 12-month continuous eligibility for the entire study period (2012–2018). That is, they represent the differences between what actually happened and what would have happened had it not been for 12-month continuous eligibility. In the pre-policy period (2012–2013 for NYSoH; 2012–2014 for WMS), individuals in the policy target population were, on average, enrolled for 9.9 (NYSoH) and 9.8 (WMS) months over the course of 12 months, compared to 10.8 (NYSoH) and 10.2 (WMS) months for the post-policy period. In other words, the 12-month continuous eligibility policy resulted in an increase of 0.9 (or 8.2 percent) and 0.4 (or 4.2 percent) continuous enrollment months in a 12-month period in NYSoH and WMS, respectively ($p < 0.05$). Similarly, over a 24-month span, individuals in the policy target population were enrolled for an average of 14.6 (NYSoH) and 15.0 (WMS) months in the pre-policy period and 16.5 (NYSoH) and 16.2 (WMS) months in the post-policy period. In a 24-month period, the 12-month continuous eligibility policy resulted in an increase of 1.9 (or 13.3 percent) and 1.2 (or 8.1 percent) enrollment months in NYSoH and WMS, respectively ($p < 0.05$).

Figure 31. Average Enrollment Duration in Months Before and After the Implementation of 12-Month Continuous Eligibility Among the Policy Target Population, by Time Horizon



NOTE: The first two sets of bars include all individuals with NYSoH coverage in the 1 percent sample, while the last two sets of bars limit the sample to those with WMS coverage. The difference in pre-policy and post-policy enrollment duration for 12 and 24 months is statistically significant at the 5 percent level.

To further examine disenrollment patterns, we visualized the probability of disenrollment by enrollment duration (Appendix D, Figure A1). The results showed that among NYSoH individuals, post-policy disenrollment rates remained consistently lower than pre-policy ones in the first 12 months after enrollment start, became higher in month 13 and similar in months 14 through 18, and became lower again in month 19 through 24. Similar patterns existed in WMS individuals except that post-policy rates were higher in months 2 and 3, 13 through 18, and became lower only after month 21. There were peaks of disenrollment in months 11 through 13 and months 23 and 24, when eligibility was recertified. Appendix D, Figure A2 illustrates the probability of continuous enrollment by duration, and the area between two curves represents the cumulative effect of the policy on the number of enrollment months in a 24-month period as illustrated in Figure 31.

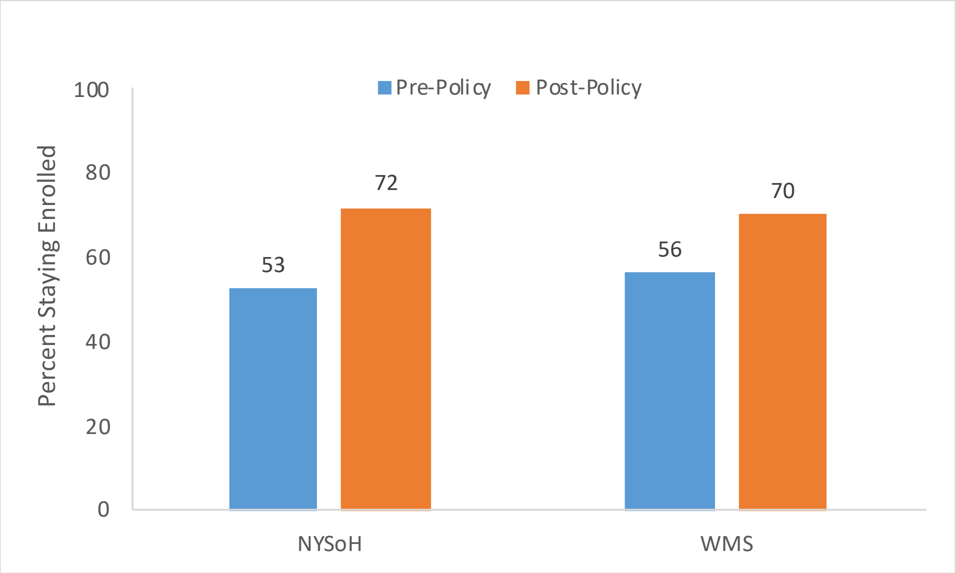
To assess whether the population who became newly eligible under the Medicaid expansion confounds the results, we ran our analysis by including and excluding this subpopulation and found that the results were nearly identical (data not shown). The final results presented here do not include the Medicaid expansion, to ensure “clean” estimates of the policy’s impact on enrollment.

Goal 2, Research Question 4: Probability of 12-Month Continuous Enrollment

Was there an increase in the percentage of Medicaid beneficiaries continuously enrolled for 12 months following the implementation of continuous eligibility as compared to pre-implementation?

Similar to the results for Research Question 3, individuals in the NYSoH target population had a 72 percent chance of being continuously enrolled for 12 months post–policy implementation, compared to a 53 percent chance before policy, indicating the policy was associated with an increase of 19 percentage points ($p < 0.05$) in the probability of being enrolled (Figure 32). For WMS, we observed an increase of 14 percentage points in the probability of staying enrolled in Medicaid because of the 12-month continuous eligibility policy.

Figure 32. Probability of Having a Continuous Enrollment of 12 Months or More



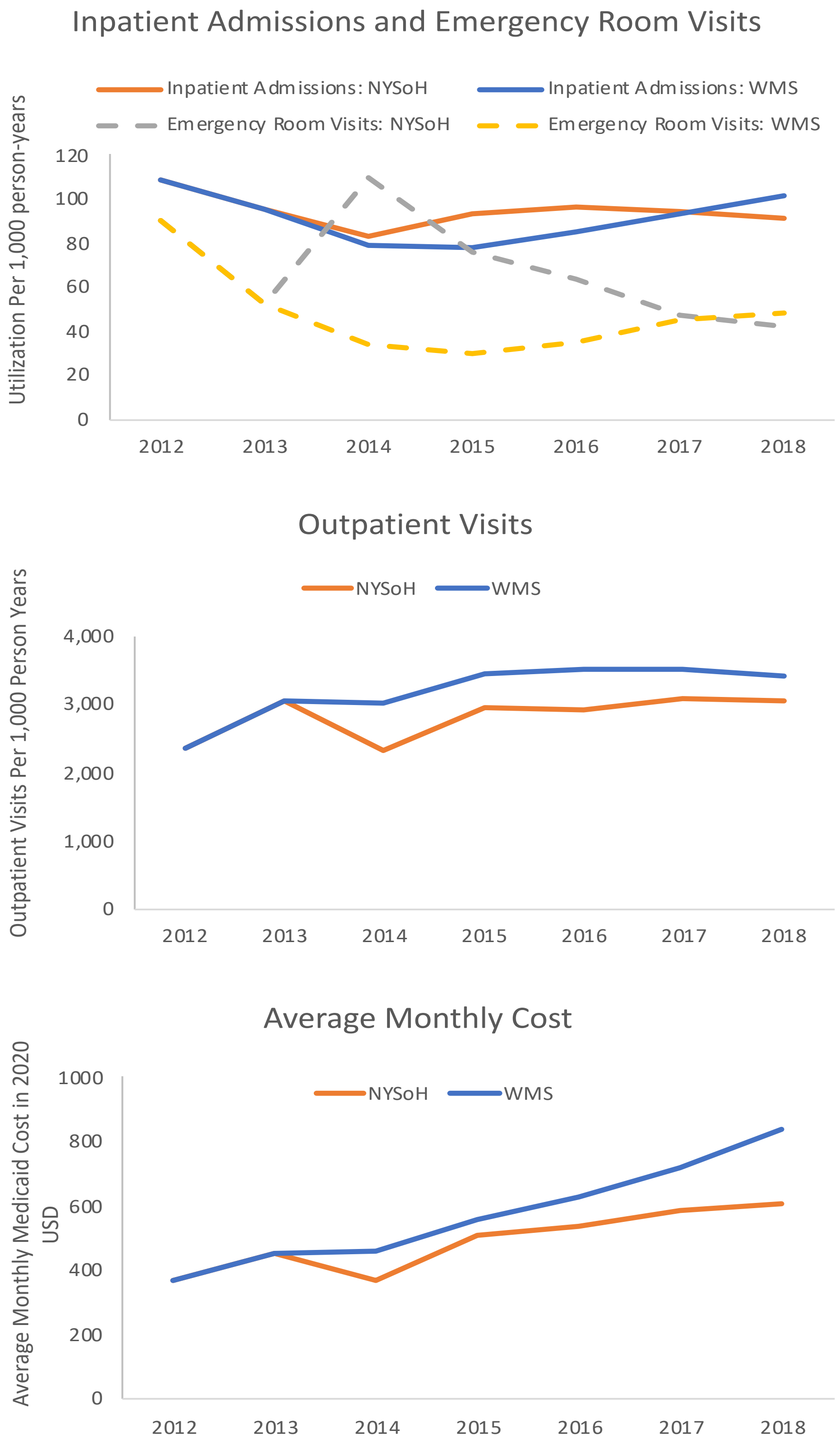
NOTE: The difference in the probability of enrolling for at least 12 months between the orange and blue bars represents the difference-in-differences estimates for the 12-month continuous eligibility policy for NYSoH and WMS. The analysis is based on the 1 percent sample, including both the policy target population and a comparison group of children who were eligible for the policy both pre- and post-2014. The difference between the pre-policy and post-policy probability of enrollment is significant at the 5 percent level.

Goal 2, Research Question 5: Utilization and Cost

How do outpatient, inpatient, and emergency department visits compare pre- and post-implementation of this policy? How have costs been impacted because of the change in utilization?

Figure 33 shows unadjusted trends in annual health care utilization and monthly Medicaid cost. In the NYSoH population, there was a slight declining trend in inpatient admissions with a dip in 2014, emergency room visits peaked in 2014 and came down to the level prior to 2014, but outpatient visits increased slightly over time after a dip in 2014. In the WMS population, a decline in inpatient admissions and emergency room visits occurred in 2014 and 2015, which increased toward the end of the study period, whereas outpatient visits showed a steady increase over time. In both populations, monthly Medicaid cost increased during the study period, with a higher rate among WMS than NYSoH.

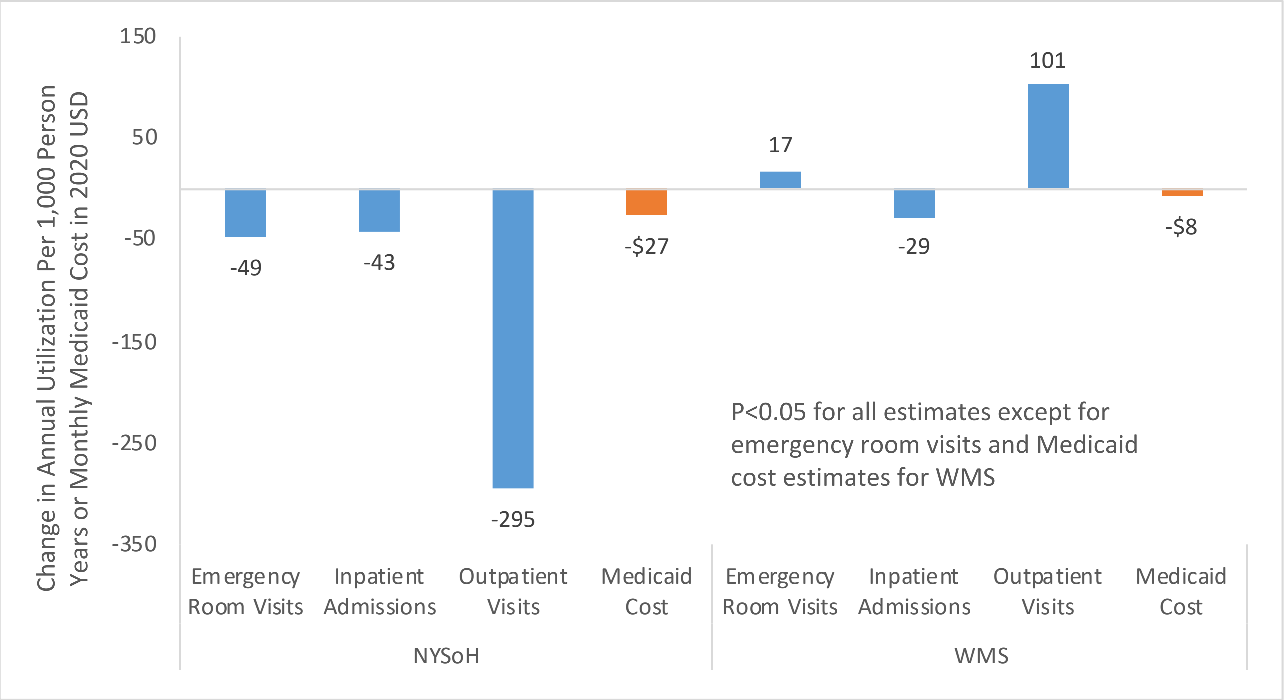
Figure 33. Unadjusted Trends in Health Care Utilization and Cost



NOTE: The trends in utilization reflect average yearly utilization per 1,000 person-years for inpatient, emergency room, and outpatient visits. Costs are in 2020 U.S. dollars. The analysis is based on a 25 percent sample from the NYSoH and WMS populations, including both the policy target population and a comparison group of children who were eligible for the policy both pre- and post-2014.

Figure 34 presents the change in average yearly utilization and average monthly cost associated with the 12-month continuous eligibility policy. We analyzed the differences in inpatient, outpatient, and emergency room visits, as well as Medicaid costs after statistical adjustments for demographics and health status. In the NYSoH population, we saw declines in all annual utilization measures ($p < 0.05$), with the largest decline in outpatient visits (295 visits per 1,000 member-years), which translate into a $27 (or 4.7 percent) reduction in per member per month Medicaid cost ($p < 0.05$). In the WMS population, the utilization estimates are mixed, with a statistically significant increase in outpatient visits but a decrease in inpatient admissions ($p < 0.05$). Overall, there was a reduction of $8 (or 1.5 percent) in per member per month Medicaid cost, but it is not statistically significant. The results from models controlling for CRG health status did not change the conclusions.

Figure 34. Effect of 12-Month Continuous Eligibility on Health Care Utilization and Medicaid Cost



NOTE: These are regression results using the child population as a comparison group and adjusting for demographics and health status. The estimates represent the differential changes between the adult population and the comparison child population by comparing the pre- (2012–2013 for NYSoH; 2012–2014 for WMS) and post-policy (2014–2018 for NYSoH; 2015–2018 for WMS) periods. All of the results are statistically significant at the 5 percent level except for emergency department visits and Medicaid cost for the WMS population.

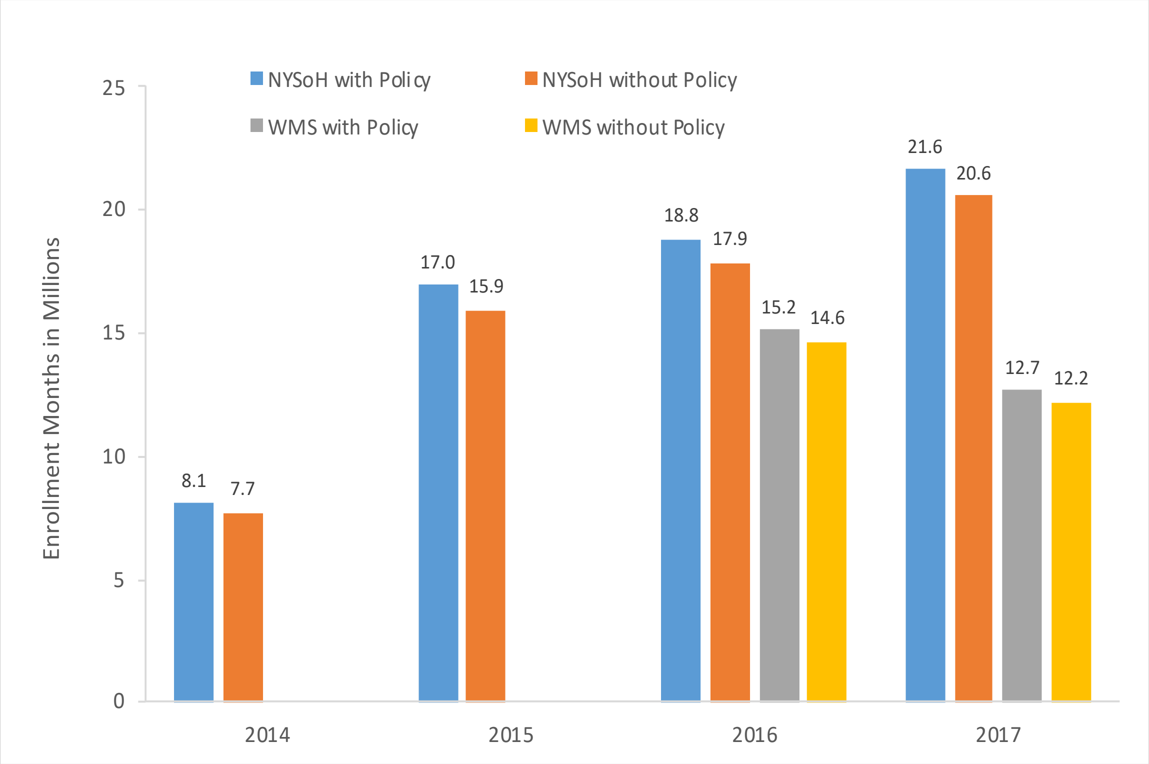
Goal 2, Research Question 6: Change in Enrollment Due to Continuous Eligibility

How many of the beneficiaries covered under continuous eligibility would have been ineligible for coverage if not for the waiver?

We used the model estimates from Research Question 3 to simulate counterfactual scenarios: What would have happened in the years 2014 through 2017 for NYSoH and the years 2015 through 2017 for WMS if the continuous eligibility policy had not been enacted? For each year, we predicted the expected number of individual months of enrollment, assuming we observe 12 months for each enrollment episode and the policy did not go into effect. Note that we did not predict for 2018 because most enrollees did not have a complete 12-month observation window; neither did we predict for the years 2014 and 2015 for WMS, since the policy was implemented in April 2015 in this population.

The policy has a positive impact for each of the calendar years and for both NYSoH and WMS populations. For example, for NYSoH, there were 8.1 million enrollment months in the policy target population in 2014 (Figure 35). The predicted counterfactual indicated there would have been 7.7 million individual-months, i.e., an increase of 0.4 million (or 4.9 percent) enrollment months under the policy. The enrollment months in NYSoH increased by 6.5, 5.4, and 5.1 percent for the years 2015 through 2017, respectively. Similarly, the enrollment months increased by 3.6 and 4.0 percent for 2016 and 2017, respectively. The magnitude of increases in terms of percentage points for calendar years is smaller than that of the overall estimate for Research Question 3. For Research Question 3, we followed a new episode for 12 or 24 months, assuming all individuals started their enrollment in January 2014, whereas for Research Question 6, we examined each of the calendar years individually, and many episodes did not have a full 12-month period in a calendar year.

Figure 35. Change in Enrollment Months Due to 12-Month Continuous Eligibility, in Millions



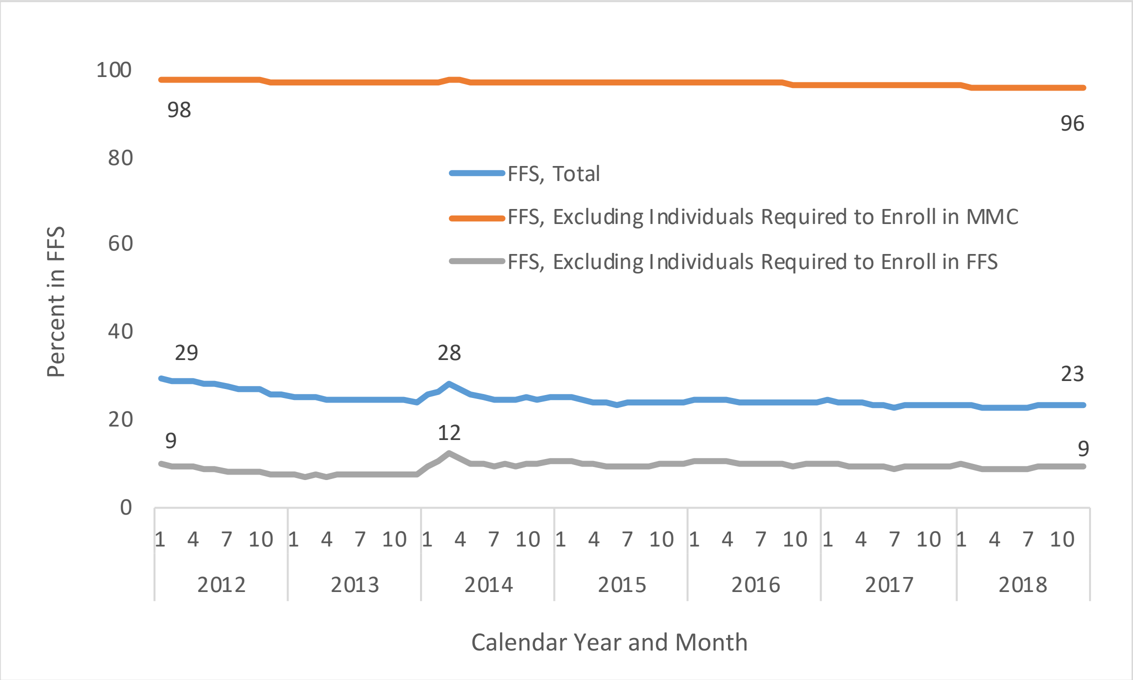
NOTE: We did not predict the counterfactual for the year 2018 because episodes that started in February 2018 did not have a 12-month observation window prior to the end of 2018, our study endpoint. For the NYSoH sample, the difference between the pre-policy and post-policy enrollment months is significant at the 5 percent level for years 2014 through 2017. For the WMS sample, the difference between the pre-policy and post-policy enrollment months is significant at the 5 percent level for year 2016 only.

Goal 2, Research Question 7: Trends in FFS Enrollment

Is overall fee-for-service (FFS) enrollment decreasing over time? (New Question 1)

We calculated the percentage of individuals in FFS overall, subtracting those who were required to enroll in MMC, and subtracting those who were required to enroll in FFS. In terms of overall FFS enrollment rates, there was a steady decrease in enrollment from January 2012 to December 2018, from 29 to 23 percent, though there was an increase in enrollment from December 2013 to April 2014, with a high of 28 percent around the third month of 2014 (Figure 36). Similarly, there was a decrease in FFS enrollment after excluding those required to enroll in MMC, from 98 percent in January 2012 to 96 percent in December 2018. Unlike total FFS enrollment, there was no large increase in enrollment from the end of 2013 through the beginning of 2014. Finally, there was no difference in enrollment in FFS after excluding those required to enroll in FFS, which was 9 percent at the beginning of 2012 and at the end of 2018. There was an increase in enrollment from December 2013 to April 2014, to a high of 12 percent, before trending back down.

Figure 36. Trends in Fee-for-Service Enrollment During 2012–2018



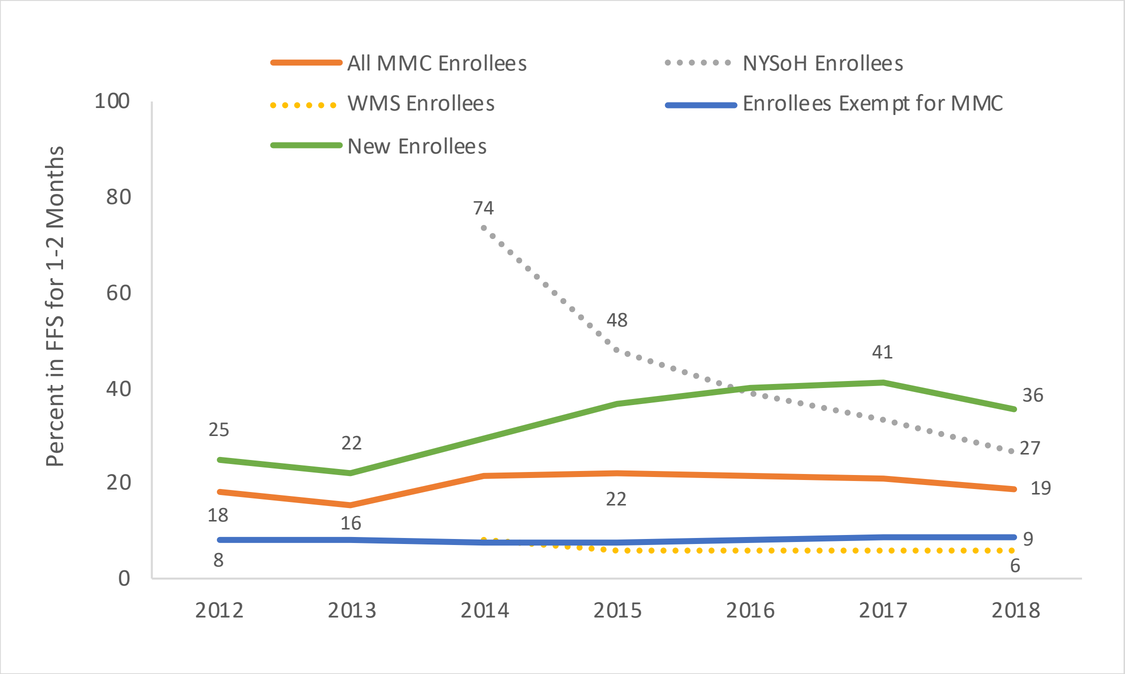
NOTE: Individuals under mandatory MMC are required to enroll in an MMC plan. These individuals accounted for 70 to 76 percent during 2012–2018. Their stay in FFS is on a temporary basis. In contrast, individuals excluded from MMC are not allowed to enroll in an MMC plan; these individuals accounted for 15 to 22 percent of the total Medicaid population in 2012–2018. A comparison of the 2012 distribution to that of 2018 for each population has a p value of <0.01.

Goal 2, Research Question 8: Short-Term FFS Enrollment

Is short-term FFS enrollment decreasing over time? (New Question 2)

We calculated the percentage of individuals who had at least some MMC coverage in a calendar year but were on FFS over a short period of time (1–2 months). Overall, individuals showed almost no change in the percentage enrolled short-term, from 18 percent in 2012 to 19 percent in 2018, with a slight increase in 2014 (Figure 37). The pattern is similar for those exempt from MMC, with a slight increase from 8 percent in 2012 to 9 percent in 2018. However, new enrollees behaved differently. They had an increase in short-term enrollment from 25 percent in 2012 to 36 percent in 2018. Short-term enrollment increased through 2017, with a high of 41 percent, but declined to 36 percent by the end of 2018. Also, subgroup analysis shows a dramatic decrease in short-term enrollment among individuals in NYSoH, from 74 percent in 2014 to 27 percent in 2018. The short-term enrollment rates of those in the WMS remained stable over time.

Figure 37. Short-Term Fee-for-Service Enrollment Among Individuals with at Least One Month of MMC Coverage in a Calendar Year



NOTE: *Short-term* is defined as 1 or 2 months. A comparison of the 2012 (or 2014) distribution for each population to that of 2018 has a p value of <0.01.

To understand the extent to which FFS enrollment was used on a temporary basis for MMC enrollees, we present the distribution of FFS enrollment duration during the first enrollment year among individuals who were newly, continuously enrolled in Medicaid with at least six months[22] in the MMC program (Figure 38). The percentage in FFS was similar for all years in month 1, starting at around 93 percent, but dropped over time to about 3 percent by month 12. In 2012–2013, the rate of decrease was slower in the first few months, with about 86 percent still enrolled in FFS in month 2, but the decrease accelerated in month 3 to a low of 17 percent by month 4. In contrast, the decrease in FFS enrollment accelerated faster for the years 2014–2017; by month 3, FFS enrollment had dropped to 18 percent, similar to the level in month 4 for the years 2012–2013. FFS enrollment rates for different years converged in month 5; by month 6, the rates became similar for all the years. The area between the 2012 curve (blue) and the 2017 curve (green) represents the reduction in FFS enrollment during the period, from 2.5 months to 1.9 months in the first enrollment year ($p < 0.01$).

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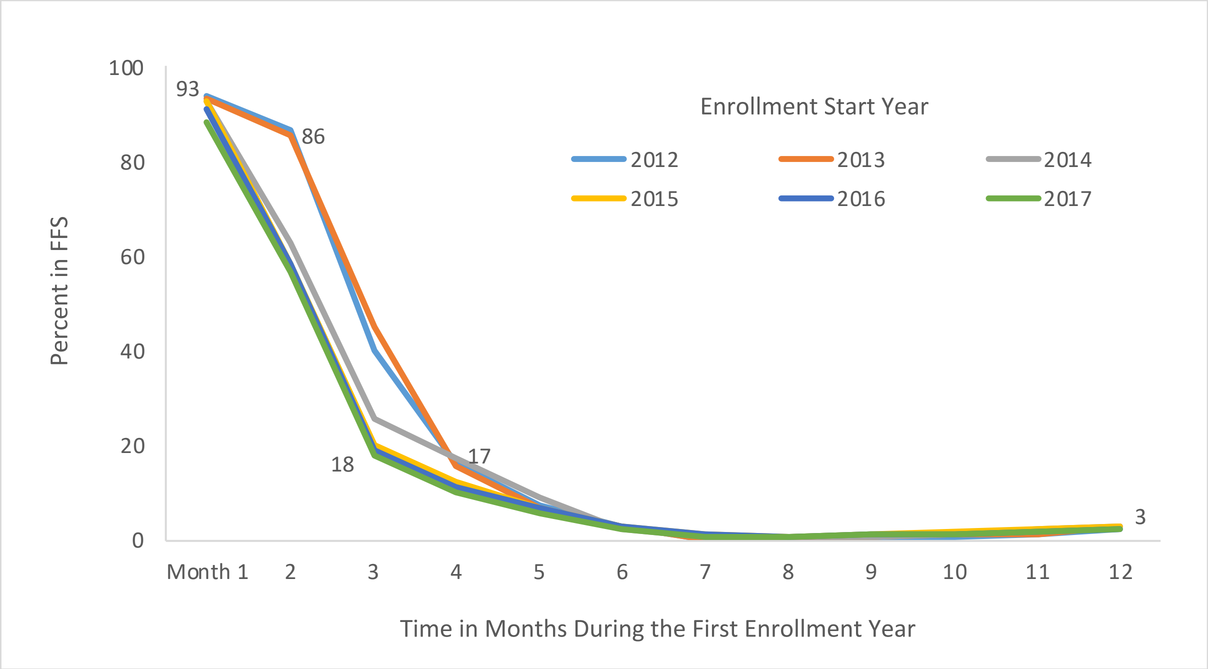
[22] We examined the distribution among those who had at least six months of MMC enrollment to ensure that these individuals had a meaningful MMC enrollment in the first 12 months.

Figure 38. Distribution of Fee-for-Service Enrollment Among Individuals Who Were Newly, Continuously Enrolled in Medicaid and Had at Least Six Months in MMC in the First Enrollment Year



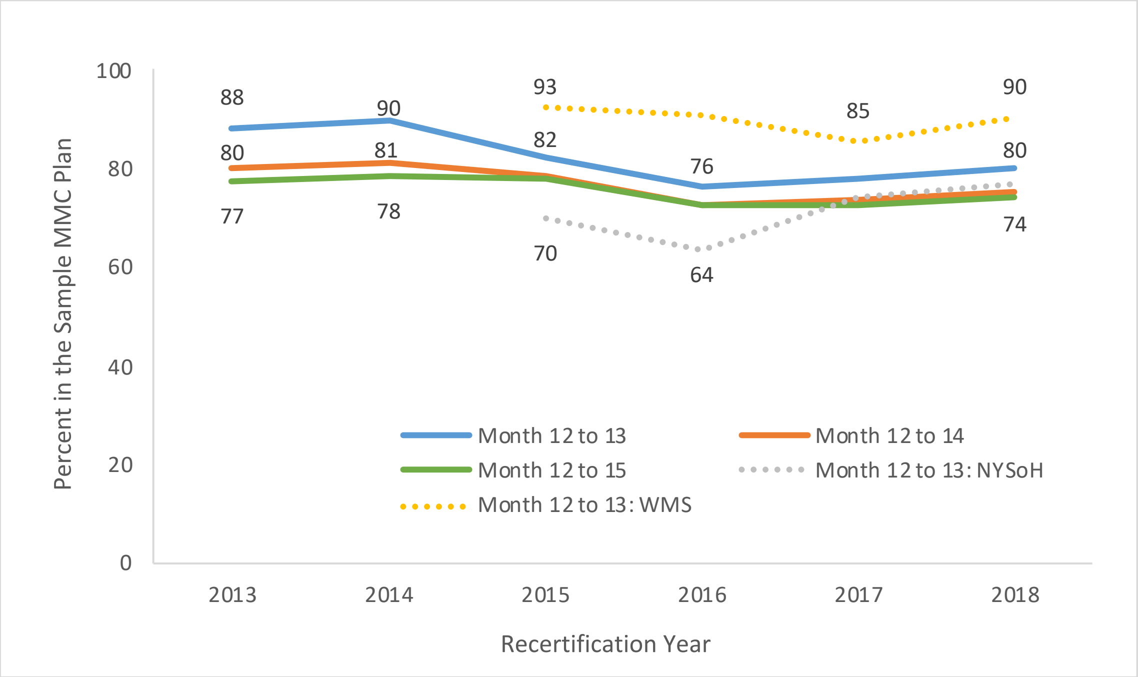
NOTE: We examined the distribution among those who had at least six months of MMC enrollment to ensure these individuals had a meaningful MMC enrollment in the first 12 months; varying the minimum number of months of MMC coverage did not change the results in a significant way. We did not report data for 2018 because most enrollment episodes starting in that year did not have a 12-month observation window by the end of 2018, our study endpoint. A comparison of the 2012 distribution to that of 2018 has a p value of <0.01.

Goal 2, Research Question 9: Staying with Same MMC Plans After Recertification

What percentage of Medicaid managed care (MMC) enrollees remains in the same MMC plan after 12-month recertification? (New Question 3)

Figure 39 presents the percentage of all MMC enrollees who remained in the same plan after their 12-month recertification. The longer the time horizon (e.g., month 12 to 15 versus month 12 to 13), the smaller the percentage remaining enrolled in the same plan. Eighty-eight percent of individuals whose enrollment started in 2012 stayed in the same plan in months 12 and 13, 80 percent in months 12 to 14, and 77 percent in months 12 to 15. In addition, the percentage that stayed enrolled in the same plan decreased from year to year, to between 74 and 80 percentage in 2018. We also examined the percentage who continued enrollment in the same plan by enrollment and renewal venue: NYSoH and WMS. In general, WMS enrollees continued enrollment in their plan more than NYSoH enrollees. Ninety-three percent of individuals in WMS continued enrollment in 2014, compared to 70 percent of individuals in NYSoH. By 2018, 90 percent of individuals in WMS continued enrollment in the same plan, compared to 74 percent of individuals in NYSoH. When examining the percentage remaining in the same plan among those who remained in MMC, about 97 to 99 percent stayed with the same plan after recertification during 2012–2018 (data not shown).

Figure 39. Percentage of MMC Enrollees at Month 12 Who Remained in the Same Plan After Recertification



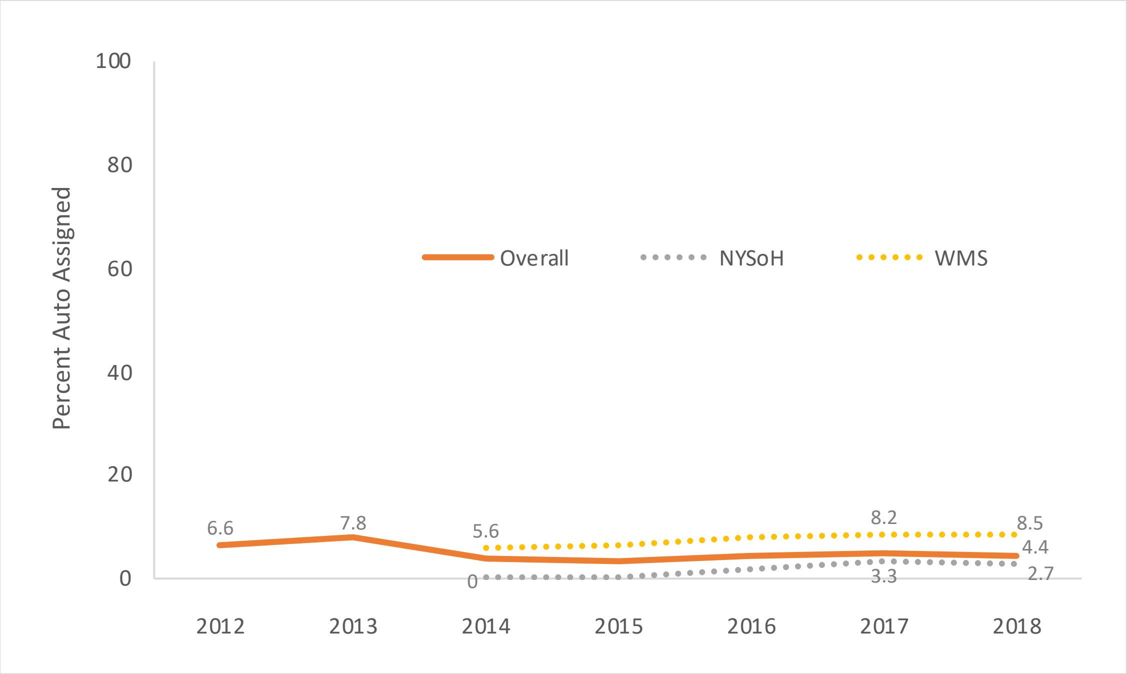
NOTE: The denominator includes all MMC enrollees at Month 12, some of whom switched to FFS or disenrolled from Medicaid. NYSoH was launched in 2012, but a majority of Medicaid beneficiaries started using NYSoH only after 2013; we therefore did not present WMS rates for 2012–2013, as they were largely the same as the overall rate. A comparison of the 2013 (or 2015) distribution to that of 2018 for each population has a p value of <0.01.

Goal 2, Research Question 10: Auto-Assignment to an MMC Plan

What percentage of MMC enrollees are auto-assigned to any health plan? (New Question 4)

We calculated the percentage of MMC enrollees who were auto-assigned to a plan at MMC enrollment start. Overall, the percentage who were auto-assigned to a plan remained low and decreased slightly from 6.6 percent in 2012 to 4.4 percent in 2018 (Figure 40). The decline is due to a lower auto-assignment rate among individuals enrolled through NYSoH than that for individuals enrolled through WMS. During 2014–2018, the percentage auto-assigned in both NYSoH and WMS increased modestly. In 2014, 5.6 percent of WMS enrollees were auto-assigned, compared to 8.5 percent in 2018. Similarly, close to zero percent of those in NYSoH were auto-assigned in 2014, compared to 2.7 percent in 2018.

Figure 40. Percentage of MMC Enrollees Who Were Auto-Assigned to a Plan at MMC Enrollment Start



NOTE: A comparison of the 2012 (or 2014) distribution to that of 2018 for each population has a p value of <0.01.

Domain 2, Goal 2: 12-Month Continuous Eligibility—Discussion and Conclusions

Our analyses showed that without any adjustments, the percentage of the population who were targeted by the 12-month continuous eligibility policy and enrolled for at least 12, 24, and 36 months increased over time since policy implementation in 2014 and 2015 in NYSoH and WMS, respectively. After adjusting for demographics and health status, as well as a baseline time trend reflected in a comparison group of children, we found that the policy was associated with an increase in the probability of staying enrolled, and the average number of months of continuous enrollment increased by 4.2 to 8.2 percent within 12 months post–enrollment start. This policy effect translates to 5.1 to 6.5 percent and 3.6 to 4.0 percent increases per year in total enrollment months in NYSoH and WMS individuals, respectively. We observed statistically significant declines in inpatient admissions but increases in outpatient visits in both NYSoH and WMS. The reduction in average monthly cost associated with the policy was statistically significant in NYSoH but not in WMS.

For the time period of the most recent demonstration covered by the data in this analysis, i.e., year 2017, the trends in continuous enrollment for at least 12 months or by individual characteristics were similar to those of earlier post-policy years. After adjusting for demographics, health status, and other individual characteristics, the percent increase in enrollment months due to the 12-month eligibility policy was similar in 2017 compared with that of 2014–2016 after the policy was implemented.

With the continuous eligibility policy, we anticipated that the dropout rates before the end of a 12-month enrollment would decrease because individuals would not become ineligible simply due to income fluctuations, and the dropout rate at the time of the recertification would increase because there would be "pent-up" dropouts at that time. That is, individuals who would have been disenrolled in the absence of the policy due to a family income that was too high stayed in Medicaid until the end of a 12-month period. This is exactly what we observed. In addition, after the first 12 months, post-policy disenrollment rates remained higher than pre-policy rates for several months, particularly among WMS individuals. One possibility is that it took longer for Medicaid agencies to recertify after the policy because volume was larger than before the policy.

The impact of the 12-month continuous eligibility policy based on our analysis is larger than that from previous research in children but smaller than that in adults. A national study in children covered by CHIP has shown an increase of enrollment duration by 2 percent after implementation of 12-month continuous eligibility (Ku, Steinmetz, and Bruen, 2013). In our findings, the impact of the policy is a 4 to 8 percent increase in enrollment months. There are some differences in data and methodologies between our analysis and the study by Ku, Steinmetz, and Bruen (2013). We examined the data for adults from only one state, whereas Ku et al.'s study analyzed the child population in seven states with a policy change during 2008 through 2010 using other states as a comparison. Also, Ku et al. used a continuity ratio—the average monthly enrollees divided by the total number of enrollees in a year—while we followed an individual's enrollment over time and used the survival analysis approach. In addition, compared to adults, children's income eligibility is typically higher, and their enrollment is less affected by income fluctuation, resulting in more stable enrollment. But this difference may lead to a smaller effect of the continuous eligibility policy in children than in adults. These methodologic and population differences may have led to different estimates. In contrast, a simulation study demonstrates that the policy could increase monthly enrollment among Medicaid adults by 17 percent (Swartz et al., 2015). The authors used the 2006 Survey of Income and Program Participation, a nationally representative survey, and the adult survey participants age 19 to 64. Our estimate ranges between 4 to 8 percent, which is much lower than that from this national simulation study, but again, our analysis covers only one state.

One potential confounder of the 12-month continuous eligibility policy is the establishment of the State's health insurance exchange, NYSoH, which facilitates both the enrollment and renewal processes. NYSoH has several advantages over the WMS system: Individuals can submit applications online, and the documentation requirement is reduced because NYSoH can use other existing data to verify eligibility and renew coverage without involving the beneficiaries. The simplification of the enrollment process under NYSoH has likely led to a lower disenrollment rate than that under WMS. This may have led to an over-estimation of the policy's impact under NYSoH. We cannot for certain determine the magnitude of the over-estimation, but if we assume the results under WMS are the "true" estimates, it seems the impact of NYSoH's on enrollment duration is about 4 (= 8.2 – 4.2) and 5.2 (= 13.3 – 8.1) percentage points for a 12- and 24-month period, respectively—a sizable effect. This could also be among the reasons that our estimates are higher than that from Ku, Steinmetz, and Bruen's study.

A smaller policy effect in WMS individuals than NYSoH individuals could be due to the spillover effect from NYSoH. Unadjusted trends in enrollment duration showed that under WMS, the increase in enrollment duration started in 2014 rather than in 2015. If it were the case that the policy in the NYSoH population spilled over to the WMS population in 2014, our WMS policy effects are under-estimated. Such a smaller policy effect in WMS could also be caused by the differences in the two populations. Compared to NYSoH individuals, the WMS population were more likely to be female and non-White individuals, have an aid category related to TANF and safety net, and have a lower health status. Sicker individuals tend to enroll for a longer duration than healthy ones. Lower-income individuals are more likely to stay eligible for Medicaid than higher-income individuals. These factors could lead to more stable enrollment in WMS and thus a smaller effect of the continuous eligibility policy.

Medicaid expansion is another potential confounder. By definition, it increased the number of eligible individuals and thus applications. Because newly eligible individuals under the expansion had higher family income, their eligibility may be more uncertain and they may be more likely to disenroll than existing eligibility groups. However, when we compared the policy's impact on enrollment duration by including and excluding expansion individuals, the estimates were very similar. Therefore, Medicaid expansion does not seem to have confounded our results.

A related complication is that Medicaid applicants may be eligible for three months of retroactive coverage. The 12-month period of continuous eligibility, however, starts at the month of application and thus could extend up to the 15th month. Our estimates were consistent with this, showing increased rates of exits in several months post recertification at month 12. But this practice applied to both the policy target population and the control group; thus, it should not have affected the estimated effect of the 12-month continuous eligibility policy.

We expected that improved access to care due to the 12-month continuous eligibility would increase utilization in the short term. It is likely that new enrollees had pent-up demand for medical care when they joined Medicaid, especially inpatient admissions. But over time, members might increase their preventive care, as reflected in outpatient visits, and inpatient admissions and emergency room visits would decrease. This seems to be the case in the WMS population, among whom outpatient visits increased but inpatient admissions decreased. But the NYSoH population showed an across-the-board decline in utilization. The differential policy impact on utilization could be due to the differences in member acuity. That is, compared to NYSoH enrollees, those who stayed within WMS were sicker and required more routine as well as emergent care, and thus their outpatient and emergency room visits increased rather than decreased. But declines in inpatient admissions occurred in both populations, which is desirable. For the time period of the most recent demonstration covered by the data in this analysis, i.e., years 2017–2018, the overall unadjusted trends outpatient visits, inpatient admissions, and emergency room visits were similar to those of the post-policy years of 2014–2016.

Consistent with the changes in utilization, particularly inpatient admissions, the 12-month continuous eligibility is associated with a decrease of $27 (or 4.7 percent, $p < 0.05$) in per member per month Medicaid cost in the NYSoH population and $8 (or 1.5 percent, $p > 0.05$) in the WMS population. These results are consistent with an earlier analysis of the Medical Expenditure Panel Survey by Ku, Steinmetz, and Bysshe (2015), which showed that increases in the number of months of Medicaid coverage were associated with lower average monthly Medicaid costs. If we combine the changes in enrollment months and per member per month Medicaid cost, in the NYSoH population, an 8.2-percent increase in enrollment months with a 4.7 percent decrease in per member per month Medicaid cost leads to an increase of total Medicaid cost by 3.1 percent; by the same token, total Medicaid cost would increase 2.6 percent in the WMS population.

Our use of children as the control group has limitations. They are undoubtedly different from adult enrollees, and although they had 12 months of continuous eligibility during the entire study period, their enrollment episodes may have been affected differently by the policy, due primarily to income criteria. Children often have a broader income band so that there is more room for income to fluctuate though they remain eligible for Medicaid. Furthermore, our use of CRGs to examine the extent to which health conditions may have contributed to differences in enrollment dynamics and health care utilization is limited by the fact that CRGs are a function of utilization, which is a function of Medicaid enrollment. Finally, despite the difference-in-differences approach used in the analyses, we were not able to control for time-dependent changes that occurred simultaneously with the implementation of 12-month continuous eligibility policy and impacted the adult Medicaid population differently from the child population.

By examining the full Medicaid population, we found that FFS enrollment decreased over time, which is what the State desired. Overall, the percentage of individuals staying in the same health plan decreased over time, except for the rate in the NYSoH population. The overall rate of auto-assignment at MMC enrollment start decreased slightly, largely driven by a lower rate in the NYSoH population than that in the WMS population. From the State's perspective, shortening the duration in FFS, staying with the same plan over time, and reducing the auto-assignment are desirable. Continuous enrollment in MMC and with the same plan make the Medicaid budget more predictable because health plans are paid on a capitation basis, and, during the transition between plans, individuals are often enrolled in FFS. State MMC plans may be better at care coordination and management than the FFS system. The trends during the earlier years (2012–2016) continued into the later years (2017–2018) that were part of the most recent demonstration period.

Summary

Our results show that, overall, continuous enrollment increased significantly during the study period. After controlling for demographics, individual aid categories, and health status, we found that the 12-month continuous policy was associated with an approximately 4 to 8 percent increase in continuous enrollment. The policy's effect was smaller in the WMS population than in the NYSoH population, due possibly to the simplified and convenient enrollment and renewal process in NYSoH. The policy is associated with a decline in inpatient admissions, as well as in per member per month Medicaid cost. The descriptive trends show that, consistent with what the State would like to see, FFS enrollment and auto-assignment to MMC plans declined over time—but there was also a decline in the percentage of enrollees staying in the same MMC plan, except for those enrolled through the health insurance exchange.

Table 9. Summary of Evaluation Results for Domain 2, Goal 2

Domain	**Goal**	**Outcome**	**Results**	
Domain 2: Mainstream Medicaid Managed Care and Temporary Assistance to Needy Families (TANF)	Goal 1: Increase access to health insurance through Medicaid enrollment—Express Lane Eligibility	RQ1. Medicaid enrollment, RQ2. demographic characteristics, and RQ3. percentage of ineligible enrollees		Removed from the evaluation
	Goal 2: Limit gaps in Medicaid eligibility due to fluctuations in recipient income—12-month continuous eligibility	RQ1: Percentage with at least 12, 24, or 36 months of enrollment among the population affected by the continuous eligibility policy	↑	≥12 months: 47% in 2012; 58% in 2017 (p < 0.01) for NYSoH and 47% in 2012; 58% in 2017 for WMS (p < 0.01)
			↑	≥24 months: 23% in 2012, 32% in 2016 (p < 0.01) for NYSoH and 23% in 2012, 34% in 2016 for WMS (p < 0.01)
			↑	36 months: 13% in 2012; 18% in 2015 (p < 0.01) for NYSoH and 13% in 2012; 29% in 2015 for WMS (p < 0.01)
		RQ2: Difference in percentage with at least 12, 24, or 36 months of enrollment by enrollee characteristics	—	Demographics: Older members, White and Hispanic members, and members with a lower health status more likely to have longer enrollment duration for NYSoH and WMS populations (all p < 0.01)
			—	Geographic area: Individuals in New York City had longer enrollment durations than those not in New York City for NYSoH and WMS populations (all p < 0. 01)

Domain	Goal	Outcome	Results	
		RQ3: Average number of continuous enrollment months	↑	+0.8 and +1.9 months in a 12- and 24-month post-policy period for NYSoH populations, respectively (p < 0.05)
			↑	+0.4 and +1.2 months in a 12- and 24-month post-policy period for WMS populations, respectively (p < 0.05)
		RQ4: Probability of being continuously enrolled for at least 12 months	↑	+0.19 probability of being enrolled for the NYSoH population (p < 0.05)
			↑	+0.14 probability of being enrolled for the WMS population (p < 0.05)
		RQ5: Effect of the continuous eligibility policy on outpatient, inpatient, and emergency department visits, and Medicaid cost of care	↓	Utilization: –43 inpatient admissions, –295 outpatient visits, and –49 emergency room visits per 1,000 member-years for the NYSoH population (all p < 0.05)
			↓	–29 inpatient admissions (p < 0.05), +101 outpatient visits (p < 0.05), and +17 emergency room visits per 1,000 member-years for the WMS population (p > 0.05)
			↓	Medicaid cost: –$27 per member per month for the NYSoH population (p < 0.05), –$8 per member per month for the WMS population (p > 0.05)
		RQ6: Increased number of enrollment months due to the continuous eligibility policy	↑	+378k (p < 0.05), +1,030k (p < 0.05), +959k (p < 0.05), +1,046k (p < 0.05) enrollees for 2014–2017, respectively for the NYSoH population
			↑	+530k (p < 0.05), +483k (p > 0.05) enrollees for 2016–2017, respectively for the WMS population

NOTE: RQ = research question. The color code: green represents favorable results, red unfavorable, and yellow neither. Due to a large sample size of about 1 to 6 million individuals, the descriptive trend tests for RQs 7–10 result in small p values.

5. Policy Implications

The broad goals of the Medicaid Section 1115 Waiver are to enroll a majority of Medicaid beneficiaries into managed care, increase access and service quality, and expand coverage to more low-income individuals in New York State. Similarly, the MLTC program aims to increase managed care enrollment among individuals eligible for LTSS and improve patient safety and quality of care. Given the rapid increases in MLTC enrollment, there might be concerns over patient safety and quality of care, and this final interim evaluation is intended to address relevant questions and inform decisionmaking. The goal of the 12-month continuous eligibility policy was to reduce frequent entries to and exits from Medicaid and thus increase enrollment and access to care. In this chapter, we discuss our findings on enrollment, patient safety, and quality of care and their implications for the State.

MLTC

Enrollment

The MLTC mandate increased enrollment with the program rapidly and dramatically. Within 19 months of the implementation of the mandate, its impact on statewide enrollment stabilized at a growth rate of about 0.05 percentage points per month, or 0.6 percentage points per year. However, increases in enrollment and the time to enrollment stabilization differed across regions, suggesting that idiosyncratic factors may have affected implementation across the State. New York City, the region in which the mandate was first implemented, had the most enrollees of any region, as well as the highest rate of pre-mandate enrollment, and thus its results drove the overall results. Enrollment increases in each of the other regions occurred more slowly, which could be due to lower pre-mandate enrollment rates in these regions or differences in enrollment capacity across the State.

The very large and rapid increases in enrollment, particularly in New York City, show that the mandate was able to substantially expand MLTC. These large increases in enrollment could have led to management challenges in existing or new MLTC plans. Also, FFS beneficiaries newly enrolled in managed care plans could encounter difficulties in navigating a system new to them and finding a provider or switching providers if their current providers are outside a plan’s network. Both of these factors could raise concerns about the quality of services provided following the mandate. These concerns highlight the importance of the remaining components of the evaluation. Nevertheless, this evaluation found that mandating enrollment in MLTC successfully scaled up the MLTC program to include a large share of the potentially eligible population.

Patient Safety and Quality of Care

Policymakers may have concerns over patient safety and quality of care, given the large and rapid increases in MLTC enrollment. First, as mentioned above, it could be difficult for MLTC plans to manage the increased number of enrollees and ensure the quality of LTSS. Second, there was a change in the financial incentives as individuals transitioned from FFS to MLTC for LTSS. For example, to the extent that plans are incentivized to reduce access to services or the intensity of services, quality of care—such as the timeliness of receiving services—could be affected. Third, there might be spillover effects on medical utilization, such as emergency room visits, medical interventions for falls, and potentially avoidable hospitalizations. Better management of LTSS may improve safety (e.g., reductions in falls) and health outcomes (e.g., fewer avoidable hospitalizations), but there may be an incentive to reduce access to medical care services among MLTC plans that are responsible for health care costs not covered by Medicare (e.g., PACE, MAP, and FIDA plans).

However, our examination of patient safety (percentage of enrollees with no emergency room visits and percentage of enrollees with no falls that required medical intervention or resulted in major or minor injuries) and quality of care (measures of percentages with influenza vaccinations, with dental exams, and without potentially avoidable hospitalizations) found no evidence of significant changes in these key measures. Such results may be affected by the annual public reporting of patient safety and quality of care measures by NYS DOH. For branding and reputation reasons—MLTC plans have to compete for enrollees—MLTC plans may want to ensure that their publicly reported measures are positive.

The evidence from this evaluation, however, is weakened by important data limitations that reduced statistical power and precluded stronger study designs. For example, risk-adjusted outcomes data aggregated to the plan level by mandated enrollment status would have allowed a direct comparison of outcomes for those who enrolled via the mandate and those who voluntarily enrolled. Our models identified how risk-adjusted outcomes data aggregated to the statewide plan level varied by the percentage of the plan's enrollment that was mandated. Because of the importance of patient safety and quality of care, stronger empirical designs should be considered for future evaluations.

Consumer Satisfaction

Changes in the marketplace resulting from the large increases in MLTC enrollment, including the consequences of altered financial incentives, as well as additional administrative burdens for the plans or for consumers, raise concerns about consumers' ability to obtain timely care and their satisfaction with MLTC plans, case managers, and care providers. Again, the same factors affecting patient safety and quality of care discussed above, including public reporting, can apply to consumer satisfaction as well. Overall, satisfaction measures remained high with MLTC, with little evidence of decline from the measures included in our study. Only satisfaction with case managers fell statistically significantly, and although each of the other measures declined, none were substantively or statistically significant. Thus, results indicate that MLTC plans were able to accommodate the large increases in enrollment without noticeably compromising consumer satisfaction with care.

As above, statistical power and causal inference were limited by data availability for the evaluation. Nevertheless, this evaluation found very limited evidence that the large increase in MLTC due to the implementation of mandatory MLTC enrollment resulted in reductions in patient safety, quality of care, or consumer satisfaction with care.

MLTC for the HCBS Expansion Population

The HCBS expansion population is a subset of MLTC enrollees who were transitioned from institutional to community settings. Because institutional care is often much more expensive than community-based care, this is an important population to examine, especially if the transition to the community can be facilitated by programs such as MFP. Concerns are legitimate over who should be eligible for transition, and whether patient safety and quality of care are affected after transition.

This evaluation only examined the trends among this HCBS expansion population after the policies were implemented and without a comparison group; therefore, our results are only descriptive in nature, and there are several important questions that remain unanswered. There were no significant changes in patient safety measures (percentages of enrollees with no emergency room visits and percentage of enrollees with no falls that required medical intervention or resulted in major or minor injuries), and a significant majority or more (65–85 percent) of the HCBS expansion population remained in the community within one year post-discharge.

Although we are unable to compare these results with those from an appropriate control group, the fact that residents were able to remain in the community for more than five months during 2016 and 2017, the years for which data were complete, is encouraging. Interestingly, there was a statistically significant trend of an increase in receipt of dental exams, which might be a consequence of the performance improvement project for MLTC enrollees during the study period. Questions remain, however, about whether MLTC has affected patient safety and quality of care among this subpopulation of MLTC enrollees; whether such an effect differs from that in the overall MLTC population; the extent to which MFP has played a role in the results we observed; whether the combination of MFP and MLTC improved the efficiency in delivering LTSS; and how the performance improvement project interacted with MLTC.

Twelve-Month Continuous Eligibility and Medicaid Enrollment

There was an overall increasing trend in average Medicaid enrollment duration after the implementation of the 12-month continuous eligibility policy. We found that the policy was associated with an approximately 4 and 8 percent increase in enrollment duration among individuals enrolled in WMS and NYSoH, respectively. The policy impact in NYSoH could partially be attributed to the simplified and more convenient enrollment and renewal process under NYSoH versus WMS. The simultaneous implementation of the Medicaid expansion did not seem to affect the policy effect on enrollment because the estimates were similar after excluding the expansion population. In both NYSoH and WMS populations, we observed a statistically significant decline in annual patient admissions as well as in per member per month Medicaid cost. Combining the increase in enrollment months and the decrease in per member per month Medicaid cost, we estimated that the 12-month continuous eligibility policy has led to an increase in total Medicaid cost of about 3 percent. The State did make progress in reducing FFS enrollment and auto-assignment to a health plan at MMC enrollment start, although the proportion of MMC enrollees who stayed with the same plan after the 12-month recertification decreased during 2012–2018.

Policy Implications

An overarching question is whether the Medicaid Section 1115 Waiver Demonstration, specifically mandatory MLTC and 12-month continuous eligibility, has achieved its three goals of broadening access, increasing quality, and expanding coverage to more low-income New Yorkers. This interim evaluation assessed the first two goals. We observed a large and rapid increase in MLTC enrollment during 2012–2018, with about two-thirds of the mandate's effect realized in the first 19 months post-mandate. In addition, we found an approximately 4 to 8 percent increase in Medicaid enrollment duration attributable to the 12-month continuous eligibility policy, and we also observed a meaningful reduction in FFS enrollment in MMC enrollees during 2012–2018. No evidence was found of a decline in patient safety, quality of care, and consumer satisfaction associated with MLTC except for a decline in satisfaction with care managers. From a policymaker's perspective, increasing MLTC access without compromising care quality is certainly a win.

This evaluation of the effect of 12-month continuous eligibility on enrollment duration will likely contribute to the public knowledge of such programs, as there are only a few prior studies on the topic, and further evaluations using income data may generate additional insights that can inform CMS's decision. Since individuals' income can be updated on a real-time basis by beneficiaries in the NYSoH system and the State has other sources of income data, one possibility is to utilize these income data to evaluate the effect of continuous eligibility. Equipped with such data, we would be able to assess the extent to which income is updated in a timely manner in the NYSoH system and the proportion of individuals or enrollment months that would have been disenrolled from Medicaid had it not been for the continuous eligibility policy.

The third goal of the 1115 Demonstration is to improve efficiency so that more low-income New Yorkers can be covered. Although this is not covered in this final interim evaluation, it is an important question to policymakers, and future evaluations may be warranted. It is plausible that MLTC generates efficiencies in spending. Because MLTC plans are paid on a capitated basis, they are incentivized to keep cost down. In particular, individuals newly admitted to nursing homes were required to enroll in MLTC during 2015–2018. MLTC plans would strive to keep nursing home–eligible individuals in the community, since nursing home care costs much more than HCBS does. If MLTC were more efficient in spending, the State would have more resources to expand coverage and access. Regarding the 12-month continuous eligibility policy among MAGI-eligible adults, it is expected that longer enrollment duration or a larger number of enrollment months would increase Medicaid spending. Such an increase in spending is partially offset by the decreased average monthly cost associated with the policy. Overall, we anticipate a net increase in Medicaid spending of about 3 percent. Policymakers may need to consider such cost implications when adopting a similar program.

One possible unintended consequence of managed care is decreased quality of care, and the disclosure of quality measures could be one way to address the concern. In fact, the State publishes annual MLTC reports, which has likely played an important role in our not finding that MLTC has compromised quality of care. Another approach is to utilize quality assurance programs. The performance improvement project adopted by the State is such an example. Every MLTC plan has to participate and work on one of the quality measures selected by NYS DOH. Public reporting of quality of care leverages the market mechanism to ensure the level of quality because plans have to compete for consumers; whether it can improve or stabilize quality of care hinges on the assumption that consumers need quality information to choose a plan and know where to find such information. In contrast, quality assurance programs utilize administrative processes, the success of which depends on their implementation. Of course, both public reporting of care quality and quality assurance programs could increase MLTC plans' operating cost. It is unclear to what extent public reporting of quality and quality assurance programs have affected patient safety and quality of care. Future evaluations may examine this question and give a definitive answer.

Summary

Our analyses suggest that the MLTC program under the 1115 Demonstration has achieved its goal of increasing access to LTSS via MLTC, as illustrated by the rapid expansion of MLTC across the State from 2012–2018. There is little evidence suggesting that the expansion has led to a significant change in patient safety, quality of care, or consumer satisfaction. We also found that the 12-month continuous eligibility policy was associated with statistically significant increases in enrollment duration, outpatient visits, and decreases in inpatient admissions and per member per month Medicaid cost. When considering both increases in enrollment and decreases in per member per month Medicaid cost, the 12-month continuous eligibility policy is associated with a small net increase in total Medicaid cost. Finally, during 2012 through 2018, descriptive trends show that the State has been able to reduce the length of FFS enrollment among MMC enrollees, which is in line with the first goal of the 1115 Demonstration to enroll a majority of Medicaid beneficiaries into managed care. The results for the most recent demonstration period covered by the data under this interim evaluation, i.e., December 2016 to December 2018 or 2019, showed similar trends and patterns to those from earlier post-policy years except that the MLTC mandate's impact on enrollment had stabilized by the end of 2016.

In brief, the State has achieved the Demonstration's first goal: expanding access to managed care through mandatory MLTC enrollment and 12-month continuous eligibility. We did not find evidence to support the second goal—improving quality of care—but increasing access without compromising quality of care is a success in its own right. Questions remain about whether the MLTC mandate has achieved the third goal of the Demonstration—generating efficiencies in spending—and the extent to which public reporting and quality assurance programs have affected quality of care. Future evaluations may be conducted to answer these questions to guide state policies.

6. Interactions with Other State Initiatives

This chapter describes other State initiatives happening at the same time as the MLTC and 12-month continuous eligibility programs and then describes how they are related to each other and could have affected the results of this evaluation.

Other State Initiatives

The Performance Improvement Project for MLTC Plans

The Quality Strategy for the New York State MMC program is a requirement of New York State's 1115 Waiver to ensure the quality of care of Medicaid managed care plans (NYS DOH, 2018). As part of the Quality Strategy Program, since 2015, all MLTC plans are required to participate each year in the Performance Improvement Project (PIP). Plans can choose one of the approved PIP topics, work with an external quality review organization as well as NYS DOH, develop and conduct an intervention to improve the quality of care on the chosen topic, collect data, and submit a final report. PIP topics include both clinical and non-clinical areas. For example, the 2015–2016 PIP topics included depression management, pain management, falls, advanced directives, emergency preparedness, and preventive screenings such as eye, ear, and dental exams. Influenza and pneumonia immunizations, emergency room visit and hospitalization reductions, and diabetic care were added to 2017–2018 PIP topics, but pain management and emergency preparedness were dropped.

The Federal Money Follows the Person Rebalancing Demonstration Program

In 2007, the Federal Money Follows the Person Demonstration grants, authorized first by the 2005 Deficit Reduction Act and then by the 2010 Affordable Care Act, were secured by the State to shift LTSS delivery from institutional services to HCBS. This program helps Medicaid beneficiaries transition from institutions to communities by providing information about options for living in the community, identifying services and supports available in the community, and checking in with beneficiaries on a regular basis after the transition. See more details in Chapter 2 of this interim report.

The Long-Term Home Health Care Program

The Long-Term Home Health Care Program is a 1915(c) waiver to provide HCBS to individuals who would otherwise stay in a nursing facility (NYS DOH, 2012a). Its goal was to allow eligible individuals to stay in the community, prevent institutionalizations, and avoid costly medical events. The waiver was initially approved by CMS in 1983 and needed to be renewed every five years. The most recent renewal required new policies and procedures in place to improve care planning, participant choice and satisfaction, and quality of care, and to provide case management by registered nurses. To qualify for the program, individuals were required to be eligible for Medicaid, need a nursing facility level of care, and obtain physician approval that they would be able to remain at home medically.

The program was terminated in 2013, and therefore would present possible interactions only at the beginning of our study period. All non–dually eligible participants in the program were required to be transitioned to a mainstream MMC or an MLTC plan if available (NYS DOH, 2013b). The dually eligible participants who were 21 years or older and needed LTSS for more than 120 days were required to join an MLTC plan.

Other HCBS-Related Initiatives

There are several other HCBS-related state initiatives, including

- the Nursing Home Transition and Diversion Medicaid Waiver
- the Traumatic Brain Injury Waiver
- the Office for People with Developmental Disabilities Comprehensive Waiver
- the Community First Choice Option.

The first three initiatives are 1915(c) waivers. The Nursing Home Transition and Diversion Medicaid Waiver provides HCBS services, including community transitional services, moving assistance, and home-delivered meals, to individuals 65 years and older or those age 18–64 with physical disabilities; the goal is to help beneficiaries transition to and stay in the community or avoid institutional services (diversion) (NYS DOH, 2008). The Traumatic Brain Injury Waiver provides HCBS to help individuals, age 18–64, upon application, with a traumatic brain injury transition from institutional care or stay in the community (NYS DOH, 2009). The Office for People with Developmental Disabilities Comprehensive Waiver provides community habilitation, live-in caregiving, and other supports to individuals with autism, intellectual disabilities, or developmental disabilities (NYS DOH, 2020c). However, the populations covered under these 1915(c) waivers is excluded from MLTC.

The Community First Choice Option was authorized by the Affordable Care Act and provides HCBS to individuals eligible for the State plan, such as assistance with activities of daily living, improving and maintaining individual skills to accomplish activities of daily living, and care management (Centers for Medicare & Medicaid Services, 2015). Participants must need an institutional level of care and be eligible for HCBS under the State Plan. Participants are not excluded from receiving services from other HCBS programs, but they should not receive duplicative services. So far, New York State has implemented only part of the waiver.[23]

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[23] Based on our communication with NYS DOH in October 2020.

Initiatives That May Affect Patient Safety, Quality of Care, and Consumer Satisfaction

There are initiatives under the Affordable Care Act or the Medicare Access and CHIP Reauthorization Act that have likely affected patient safety and quality of care among individuals enrolled in MLTC, such as provisions that incentivize providers or insurers to improve quality of care. In particular, the State launched the Delivery System Reform and Incentive Payment Initiative, authorized by CMS as part of the State's Medicaid Section 1115 Waiver in 2014 (Weller et al., 2019). The initiative aimed to invest $6.4 billion to reduce avoidable hospital use by 25 percent during 2014–2019. The initiative uses incentive payments to promote delivery system transformation and improve clinical quality of care and population health.

Medicaid Expansion and Health Insurance Exchange

Under the Affordable Care Act, starting in 2014, NYS established new eligibility criteria and expanded its Medicaid program to cover more individuals (NYS DOH, 2013d). For example, the eligibility for childless adults increased from 100 to 138 percent of the federal poverty level; for pregnant women, it increased from 200 to 223 percent; for children age 6–18, it changed from 110 to 154 percent. By June 2019, the State had enrolled 1.8 million individuals under this Medicaid expansion (Kaiser Family Foundation, 2019).

In 2012, the State launched a health plan marketplace, NYSoH. During 2013, only 61,625 individuals eligible for Medicaid enrolled through NYSoH (NYSoH, 2014). Starting in January 2014, at the same time of the Medicaid coverage expansion, new MAGI-eligible individuals had to apply for Medicaid through NYSoH, and LDSS started to enroll and renew non-MAGI eligible individuals in the system as well. By the end of 2018, there were 3,287,846 individuals who enrolled in Medicaid through NYSoH (NYSoH, 2019).

The application, enrollment, and managed care plan selection process differs between NYSoH and WMS.[24] Prior to NYSoH, an individual who would become MAGI eligible starting in 2014 needed to submit a pre-populated paper form to a local department of social services, which would verify the information and provide a signature to enroll that individual into the Medicaid program. The renewal would go through a similar process. Under NYSoH, eligible individuals can create an account and submit and update information online, including their family income. When an individual's income changes, there will be no gaps in insurance coverage if that individual remains eligible for Medicaid. In addition, NYSoH staff are allowed to use other electronic databases to verify information such as income and renew enrollment directly, without needing to obtain any documentation from eligible individuals.

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[24] Based on our communication with NYS DOH in February 2021.

Potential Interactions with Other State Initiatives

MLTC Enrollment and Quality of Care

All MLTC plans are required to participate in the PIP initiative, and these plans conduct various interventions to improve their operation through improving care coordination, increasing the utilization of assessment and home visits, and educating care managers (NYS DOH, 2018). These interventions could affect the outcomes of interest in this evaluation. For example, during 2017–2018, according to our communication with NYS DOH, 6 (16 percent), 8 (22 percent), and 9 (24 percent) out of 37 plans selected falls, preventive screenings (eye, ear, and dental exams), and emergency room visit and hospitalization reduction, respectively, for their interventions under PIP. In other words, the PIP initiative could contribute to the data we observed. However, a visual inspection of the descriptive figures in Domain 1 does not indicate a significant trend in the improvement of outcome measures, except the dental exam among the HCBS expansion population, and neither do our regression results.

The MFP program provides assistance to individuals transitioning from an institution to the community and helps eligible individuals enroll in an MLTC plan or other qualified constituent programs. In this regard, the MFP program could increase MLTC enrollment. However, given the relatively small number of beneficiaries served (3,259 during 2009–2020)[25] and the large MLTC enrollment (245,973 as of 2018), the overall impact on MLTC might not be significant.

Since the MLTC mandate implementation started in September 2012—and the Long-Term Home Health Care Program was terminated in 2013, and all dually eligible participants in the program were required to transition to MLTC—we do not expect it to have affected the data we observed, except that MLTC enrollment increased during the transition period. Similarly, other 1915(c) waivers are unlikely to affect MLTC because the populations served do not overlap with that of the MLTC program. The Community First Choice Option initiative is unlikely to have affected MLTC because it has been implemented partially.[26]

Finally, the value-based care initiatives under the Affordable Care Act, the Medicare Access and CHIP Reauthorization Act, and the Delivery System Reform and Incentive Payment Initiative could have impacted outcomes related to patient safety and quality of care. For example, emergency room visits, potentially avoidable hospitalizations, and influenza vaccination could be part of value-based payment initiatives, although the impact of these initiatives on outcomes among the MLTC population is difficult to quantify. Given the MLTC data limitations, we were not able to tease out the effect of these initiatives in our estimates.

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[25] Based on the unpublished materials provided by NYS DOH in June 2020.

[26] Based on our communication with NYS DOH in October 2020.

Medicaid Enrollment

One of the key evaluation components is 12-month continuous eligibility, the effect of which is related to the Medicaid expansion under the Affordable Care Act and the use of NYSoH. Prior to the Medicaid expansion, the eligibility criteria of the State Medicaid program were not very different from those stipulated in the Affordable Care Act. As a result, the expansion increased the target population only slightly. Nonetheless, the expansion was implemented at the same time as 12-month continuous eligibility, and we might not be able to separate the effects of the two. Similarly, most managed care plan enrollees started using NYSoH after 2013. NYSoH has led to a large improvement in the processes for application submission, documentation requirements, enrollment, and renewal in comparison to the WMS system. These process improvements have the potential to reduce disenrollment and increase enrollment duration. Such simultaneous changes have imposed challenges in separating the effects of these improvements from that of 12-month continuous eligibility.

Appendix

A. Data Sources

Table A1. Data Sources Used in the Evaluation

Data Source	Description
MLTC enrollment data	The data contain 2010–2018 MLTC enrollment by county, by month, and by plan name and plan type.[27]
Medicaid Data Warehouse[28]	This data set includes Medicaid eligibility data, managed care enrollment, and encounter and payment data. In addition, it includes Clinical Risk Group, which reflects an individual's clinical risk.
Minimum Data Set (MDS 3.0)	MDS 3.0 is a federally required standardized, comprehensive assessment for all residents of long-term care facilities. It includes demographic information, as well as measures of health status and functional capability.
MLTC satisfaction data	In 2007, NYS DOH, in consultation with the MLTC plans, developed a satisfaction survey of MLTC enrollees. The survey was field tested and is now administered by NYS DOH's external quality review organization, Island Peer Review Organization. NYS DOH sponsors the biennial MLTC satisfaction survey, which contains three sections: health plan satisfaction; satisfaction with select providers and services, including timeliness of care and access; and self-reported demographic information.
Money Follows the Person (MFP) master data	In January 2007, CMS approved New York´s application to participate in the MFP Rebalancing Demonstration Program. The MFP Demonstration, authorized under the Deficit Reduction Act and extended through the Affordable Care Act, involves transitioning eligible individuals from long-term institutions, such as nursing facilities and intermediate care facilities, into qualified community-based settings.
Semi-Annual Assessment of Members (SAAM)[29]	The MLTC plans were required to collect and report to the NYS DOH information on enrollees' levels of functional and cognitive impairment, behaviors, and clinical diagnoses. SAAM is a modified version of the federal (Medicare) Outcome and Assessment Information Set (OASIS-B) and was utilized from 2005 to 2013. This information was collected at enrollment and then semi-annually thereafter or following any significant event. Effective October 1, 2013, the UAS-NY CHA replaced the SAAM.

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[27] 2009–2011 files: NYS DOH, 2013a. 2012–2018 enrollment files: NYS DOH, 2020b.

[28] Descriptions are from the RFP for this work (NYS DOH, 2019a) Redesign Team, Section 1115 Demonstration.

[29] Description adapted from the NYS DOH webpages on MLTC Policy 13.09 (NYS DOH, 2019c) and 13.09(a) (NYS DOH, 2019d).

Data Source	Description
Statewide Planning and Research Cooperative System (SPARCS)	SPARCS is an all-payer hospital database in NYS. UAS-NY records can be matched to SPARCS data.
Uniform Assessment System for New York (UAS-NY) Community Health Assessment Data (CHA)	MLTC plans are required to collect and report to NYS DOH information on enrollees' levels of functional and cognitive impairment, behaviors, and clinical diagnoses. The UAS-NY CHA is one of the interRAI suite of assessment instruments. It is administered to MLTC enrollees both in facilities and in the community. This information is collected at enrollment and then semi-annually thereafter.

B. Regression Methods

Domain 1, Component 1, Goal 1: MLTC Enrollment

For the regression analysis of the MLTC enrollment, we specified the following model. Let Y_{jt} denote the enrollment rate for county j in month t, where

$$Y_{jt} = \alpha_j I_j + q(t;\beta) + S(s;\gamma) \qquad \text{Equation (1)}$$

In the above equation, Y_{jt} is the MLTC enrollment rate in region j in month t; I is a vector of indicator variables that identify regions, and the parameters α are the region-level fixed effects estimates; $q(t;\beta)$ is a flexible function of calendar time (t) and parameters (β). In our specification, calendar time was specified in months, which is a natural choice to delineate non-parametric trends given the nature of our data. $S(s;\gamma)$ is a function of time in months since MLTC enrollment became mandatory (s) and parameters (γ), allowing us to characterize the transition period from implementation until the policy's full effect (or steady state) is achieved. Note that the time at which MLTC became mandatory varied across the State, so s and t are not linearly dependent and the effects of each can be identified. For example, if t is specified in months and the mandate became effective in a region in $t = 4$, then $s = 1$ in month 4 for that region, $s = 2$ in month 5, and so on. Note that indicators for mandatory regions versus non-mandatory regions and for the post-mandate time period are not needed in Equation (1) because they are absorbed in I and $S(s;\gamma)$, respectively. The parameter vector γ characterizes the difference-in-differences estimate of the mandate's effect on the MLTC enrollment in s. By specifying $S(s;\gamma)$ as a flexible function of s, γ can characterize the policy effect smoothly over time since implementation, allowing us to derive the length of time it took (on average) for the enrollment to stabilize.

Domain 1, Component 1, Goal 2–5: Patient Safety, Quality of Care, and Consumer Satisfaction Among the MLTC Population

The statistical model for the analysis of patient safety, quality of care, and consumer satisfaction was specified as

$$Y_{jt} = \beta_M M_{jt} + \gamma_j + \epsilon_{jt} \qquad \text{Equation (2)}$$

where Y_{jt} is the difference between a risk-adjusted outcome for plan j in time-period t (defined as six-month intervals based on the data provided by the State) and the statewide average outcome across all plans in period t; M_{jt} is a measure of the fraction of a plan's total enrollment that is subject to mandatory enrollment in the six months prior to t; γ_j is a fixed effect for plan j; and ε_{jt} is an error term.

Because Y_{jt} was constructed as the difference between the statewide average score across plans and a plan's score for each outcome and for each year, the mean of Y_{jt} across plans in each year is zero by construction. Thus, a meaningful time effect cannot be identified in any comparisons of Y_{jt} over time. In addition, we did not use analytic weights based on the plan size in terms of the number of enrollees. We aimed to examine how the variation in the fraction of enrollees under the mandate is associated with outcomes. Most of the enrollees are in the New York City region and plans in the region are large, so using analytic weights that account for the number of enrollees in each plan would lead to the dominance of New York City plans. Instead, the same weight for each of the observations was used to allow the variation in the fraction of enrollment under the mandate in order to identify the mandate's effect on outcomes. One concern of not using analytic weights may be heteroskedasticity in the error term, which could result in incorrect standard error estimates. To resolve this concern, we estimated Huber-White standard errors, clustered at the plan level (Huber, 1964).

Domain 2, Goal 2: 12-Month Continuous Eligibility

For question 3, we conducted a monthly level discrete time survival model using a logistic regression.

$$\text{logit}(p) = h(t;\alpha) + T * h(t;\gamma) + P * h(t;\eta) + T * P * h(t;\omega) + \delta X, \qquad \text{Equation (3)}$$

where $h(t)$ is the non-parametric baseline hazard at the monthly level; P is the post-policy indicator; T is a treatment group indicator variable that identifies individuals who are covered by the newly expanded 12-month continuous eligibility; and X is a vector of individual characteristics at enrollment start. Although we could operationalize Equation (3) with time-varying P, we assumed those who originally enrolled prior to January 2014 would likely have different post-policy period experiences than those that originally enrolled after December 2013. We also assumed that enrollment experiences after December 2013 for those with continuing spells would not be the same as if the continuous eligibility policy were not imposed. We therefore censored all pre-policy enrollment episodes in December 2013, resulting in a maximum duration of 24 months for the pre-policy period.

For question 4, we used estimates from Equation (3) to generate survivor function values for months 12 and 24 separately for the pre-policy and post-policy periods. These provide estimates of the probability of surviving 12 and 24 months, respectively, to address the question.

For question 5, we use generalized linear models to estimate the policy's impact on cost and utilization. Due to the sheer amount of data, we did not run enrollee-month level models.

$$g(Y_{it}) = q(t;\alpha) + \beta T_{it} + \theta * T_{it} * q(t) + \delta X_{it}, \qquad \text{Equation (4)}$$

where $g(.)$ is a log link function; the family is Poisson for utilization or Gaussian for cost; Y is the average monthly cost or annual utilization; and $q(t;\beta)$ is a function of calendar time (t) and parameters (β). Other covariates are as defined in Equation (3). Because negative binomial models did not converge for utilization measures, we opted to use a two-part model, where the first part is a logistic regression to model whether there was any utilization, and the second part is a Poisson model with the dependent variable truncated at zero. If a Poisson model did not converge or the estimates were unstable, we used a linear regression model. We bootstrapped to obtain 95 percent confidence intervals for this two-part model based on 100 replications. We did not use individual fixed effects in this model because only the episodes that crossed over January 2014 would contribute to the estimate of the policy's impact.

C. Criteria Used to Identify Individuals Excluded or Exempt from Medicaid Managed Care

Table A2. Medicaid Populations Excluded from MMC Enrollment

Population	Definition
Resident of State-operated psychiatric facilities	Individuals in receipt of inpatient services at State-operated psychiatric facilities
Residents of State-certified or voluntary operated treatment facilities for children	Medical facilities certified by Office of Mental Health (OMH) that provide for long term psychiatric care for persons 21 years of age and younger
Medicaid eligible infants living with incarcerated mothers in state or local correctional facilities	Infants living in correctional facilities (Taconic Hills and Bedford Hills) with their mothers. Usually lasts up to age 1
Individuals who are expected to be Medicaid eligible for less than 6 months (except for pregnant women)	Medicaid case is closing within 6 months. This does not include cases that are scheduled to renew in 6 months
Blind or disabled children living separate from their parents for 30 days or more	Children under age 18, Certified Blind or disabled, living in a medical facility/separate residence from parents for 30 days or more
Permanent residents, under age 21, of residential health care facilities (RHCF) and temporary residents of RHCFs at the time of enrollment	Individuals under age 21 who are permanently placed in an RHCF are excluded, and individuals who are temporarily placed in an RHCF at the time of enrollment are excluded
Adolescents admitted to Residential Rehabilitation Services for Youth (RRSY)	The RRSY program serves chemically dependent individuals under age 21
Individuals receiving hospice services at time of enrollment	Individuals receiving hospice at time of enrollment are excluded. Current enrollees who begin to receive hospice remain enrolled

Population	Definition
Individuals with access to comprehensive private health insurance	Comprehensive insurance covers most medical services; Major Medical, Inpatient, ED, Physician, Durable Medical Equipment, Clinic, Substance Abuse, Mental Health.
Persons in receipt of Medicaid/Medicare	Medicare recipients are excluded from MMC but can enroll in Medicaid Advantage or MLTC
Foster care children placed by voluntary agencies or in the care and custody of the Office of Children and Family Services	Local Districts that utilize foster care voluntary agencies to place children in the community or facilities
Spend-down medically needy	Individuals who have to spend some of their own money for medical needs on a monthly basis to receive Medicaid
Individuals under 65 years of age who have been determined eligible by the Medicaid Cancer Treatment Program: Breast, Cervical, Colorectal, Prostate Cancer	Medicaid eligibility through District 99
Individuals receiving family planning services only	Individuals who are not fully eligible for Medicaid but are eligible to receive family planning services through the Family Planning Benefit Program
Individuals receiving assistance through an Assisted Living Program (ALP)	ALPs are jointly licensed as adult care facilities and licensed home care services agencies (LHCSAs) and provide room, board, personal care services, and medication case management.
District 97, Fiscal responsibility of State OMH	Medicaid eligibility through District Code 97
District 98, Fiscal responsibility of State Office of Persons with Developmental Disabilities (OPWDD)	Medicaid eligibility through District Code 98

NOTE: Provided by NYS DOH in December 2020.

Table A3. Medicaid Populations Exempt from MMC Enrollment

Population	Definition
Residents of Intermediate Care Facilities for the Developmentally Disabled	A resident of an Intermediate Care Facility (ICF/MR) who has a developmental disability and lives in a residence that is operated by the State or by a private agency such as ARC. At this residence, the person receives room and board, ongoing health services, and training in skills that encourage independence
OPWDD Home and Community Based Services (HCBS) Waiver	An individual has a diagnosis of a developmental disability, is eligible for an ICF/MR level of care, and has chosen HCBS waiver services over institutional care.
OPWDD Waivered Services	Individuals who are qualified and identified by OPWDD to receive any program services through OPWDD.
Individuals with chronic medical conditions being treated by a specialist not participating in any MA managed care plan in the service area (exemption limited to 6 months)	Individual who is not currently enrolled in an MMC health plan who has a medical condition and is currently under the care of a physician specialist, with at least a 6-month treatment plan for ongoing care. This includes individuals scheduled for surgery within 30 days of enrollment with a surgeon that does not participate with any managed care organization. See the Exemption Request Form for criteria to meet this exemption.
Residents of Title 14 NYCRR Part 819 Chemical Dependence Long Term Residential Program	Individuals residing in a facility including drug-free residential communities (therapeutic communities), recovery homes, community residences and supportive living facilities. A letter from residence Director or Program Supervisor on program letterhead that verifies that the individual is a resident is required. Exemption applies only until individual leaves residence.
Native American or Alaskan Native	Individuals who have Native American or Alaska Native heritage. Individual need only to attest to this heritage.
Nursing Home Transition and Diversion Medicaid Waiver	Individuals aged 18–64 with a physical disability, or age 65 and older upon application to the waiver. All individuals need to be assessed to need nursing home level of care and choose to live in the community rather than in a nursing facility.
Traumatic Brain Injury Medicaid Waiver (TBI)	Individuals aged 18–64 with a primary diagnosis of TBI or similar non-degenerative condition that results in deficits similar to a TBI such as stroke or anoxia. All individuals need to be assessed to need nursing home level of care and choose to live in the community rather than in a nursing facility

NOTE: Provided by NYS DOH in December 2020.

D. Additional Results

Table A4. Number of MLTC Plans by Region, Year, and Plan Type

	Geographic Region												
Year/Plan Type	1	2	3	4	5	6	7	8	9	10	11	12	13
2010													
FIDA	0	0	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	1	0	1	2
Partial Capitation	10	3	3	1	0	1	0	0	0	0	0	0	0
MAP	7	0	1	2	1	2	2	1	1	0	0	0	0

	Geographic Region												
Year/Plan Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Total	**19**	**4**	**4**	**7**	**1**	**3**	**3**	**1**	**1**	**1**	**0**	**1**	**2**
2011													
FIDA	0	0	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	2	0	1	2
Partial Capitation	10	3	2	1	0	1	0	0	0	0	0	0	0
MAP	7	0	1	2	1	2	2	2	1	0	0	0	0
Total	**19**	**4**	**3**	**7**	**1**	**3**	**3**	**2**	**1**	**2**	**0**	**1**	**2**
2012													
FIDA	0	0	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	2	0	1	1
Partial Capitation	18	12	4	4	2	2	1	3	0	1	0	0	1
MAP	9	2	1	2	1	2	2	2	1	0	0	0	0
Total	**29**	**15**	**5**	**10**	**3**	**4**	**4**	**5**	**1**	**3**	**0**	**1**	**2**
2013													
FIDA	0	0	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	2	0	1	1
Partial Capitation	25	18	8	7	5	4	2	3	1	2	1	1	1
MAP	10	4	0	2	1	2	2	2	1	0	0	0	0
Total	**37**	**23**	**8**	**13**	**6**	**6**	**5**	**5**	**2**	**4**	**1**	**2**	**2**
2014													
FIDA	0	0	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	1	0	1	1
Partial Capitation	25	18	9	9	5	6	4	5	2	5	2	1	2
MAP	10	4	0	1	0	1	1	1	0	0	0	0	0
Total	**37**	**23**	**9**	**14**	**5**	**7**	**6**	**6**	**2**	**6**	**2**	**2**	**3**
2015													
FIDA	21	13	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	4	0	0	1	0	0	1	0	1	1
Partial Capitation	25	17	10	11	7	7	4	9	3	8	5	2	4
MAP	8	4	0	2	0	1	1	1	0	0	0	0	0
Total	**56**	**35**	**10**	**17**	**7**	**8**	**6**	**10**	**3**	**9**	**5**	**3**	**5**
2016													
FIDA	20	13	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	5	0	0	1	0	0	1	0	1	1
Partial Capitation	24	17	10	12	8	6	5	9	4	9	6	2	4
MAP	8	5	0	1	0	1	1	1	0	0	0	0	0
Total	**54**	**36**	**10**	**18**	**8**	**7**	**7**	**10**	**4**	**10**	**6**	**3**	**5**

	Geographic Region												
Year/Plan Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
2017													
FIDA	17	11	0	0	0	0	0	0	0	0	0	0	0
PACE	2	1	0	5	0	0	1	0	0	1	1	1	1
Partial Capitation	23	17	9	11	8	6	4	9	4	8	6	2	4
MAP	8	5	0	1	0	1	1	1	0	0	0	0	0
Total	**50**	**34**	**9**	**17**	**8**	**7**	**6**	**10**	**4**	**9**	**7**	**3**	**5**
2018													
FIDA	13	7	0	0	0	0	0	0	0	0	0	0	0
PACE	2	2	0	5	0	0	1	0	0	1	1	1	1
Partial Capitation	22	17	9	11	8	6	4	9	4	8	6	2	4
MAP	9	4	0	2	0	2	2	2	0	0	0	0	0
Total	**46**	**30**	**9**	**18**	**8**	**8**	**7**	**11**	**4**	**9**	**7**	**3**	**5**

Note: Regions:

1–New York City (Bronx, Kings, New York, Queens, Richmond);
2–Nassau, Suffolk, Westchester;
3–Orange, Rockland;
4–Albany, Erie, Monroe, Onondaga;
5–Columbia, Putnam, Sullivan, Ulster;
6–Cayuga, Herkimer, Oneida, Rensselaer;
7–Greene, Saratoga, Schenectady, Washington;
8–Broome, Dutchess, Fulton, Montgomery, Schoharie;
9–Delaware, Warren;
10–Madison, Niagara, Oswego;
11–Chenango, Cortland, Genesee, Livingston, Ontario, Orleans, Otsego, Steuben, Tioga, Tompkins, Wayne, Wyoming;
12–Cattaraugus.
13–Allegany, Chautauqua, Chemung, Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, Schuyler, Seneca, St Lawrence, Yates

Table A5. Percentage with a Continuous Enrollment of 12, 24, or 36 Months or More Among Individuals Targeted by 12-Month Continuous Eligibility in WMS, by Demographics

Category	Enrollment Duration	2012	2013	2014	2015	2016	2017
Age							
<18	≥ 12 months	76	66	57	56	54	60
	≥ 24 months	27	18	29	35	35	-
	≥ 36 months	13	12	22	28	-	-
18–35	≥ 12 months	40	34	46	47	45	51
	≥ 24 months	17	14	29	29	24	-
	≥ 36 months	8	7	19	19	-	-
36–45	≥ 12 months	46	37	62	64	54	61
	≥ 24 months	20	16	46	46	34	-
	≥ 36 months	10	10	34	36	-	-
46–55	≥ 12 months	52	46	60	64	62	67
	≥ 24 months	28	25	44	48	44	-
	≥ 36 months	19	19	35	40	-	-
56–65	≥ 12 months	67	63	66	70	71	76
	≥ 24 months	50	47	54	57	58	-
	≥ 36 months	42	40	47	50	-	-
Race							
White	≥ 12 months	46	39	55	54	47	54
	≥ 24 months	22	19	39	37	32	-
	≥ 36 months	13	13	28	29	-	-
Black	≥ 12 months	45	39	48	51	53	59
	≥ 24 months	21	18	30	32	31	-
	≥ 36 months	13	13	21	24	-	-
Hispanic	≥ 12 months	46	42	57	63	63	70
	≥ 24 months	25	24	43	48	42	-
	≥ 36 months	17	16	33	35	-	-
Other	≥ 12 months	54	45	61	67	67	72
	≥ 24 months	28	24	47	51	48	-
	≥ 36 months	18	17	38	43	-	-
Region							
New York City	≥ 12 months	47	40	54	60	62	65
	≥ 24 months	22	19	39	44	39	-
	≥ 36 months	13	13	31	35	-	-
non-New York City	≥ 12 months	46	41	55	49	40	45
	≥ 24 months	23	21	36	29	26	-
	≥ 36 months	13	12	22	20	-	-

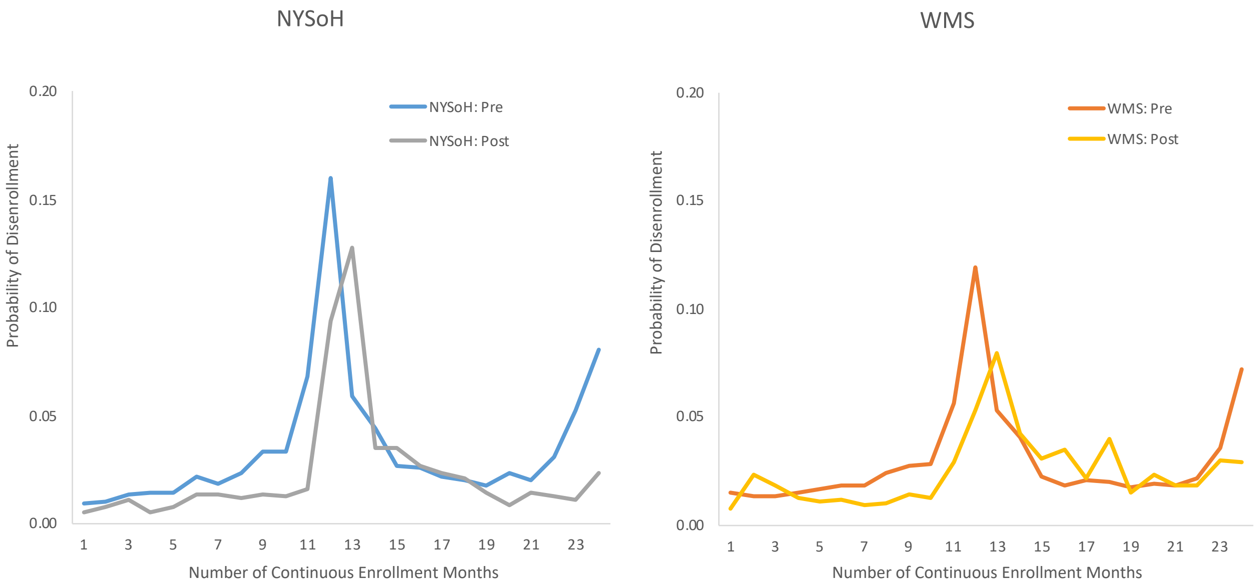
NOTE: “-” means not applicable.

Table A6. Percentage with a Continuous Enrollment of 12, 24, or 36 Months or More Among Individuals Targeted by 12-Month Continuous Eligibility in NYSoH, by Demographics

Category	Enrollment Duration	2012	2013	2014	2015	2016	2017
Age							
<18	≥ 12 months	76	66	76	73	61	50
	≥ 24 months	27	18	63	61	27	-
	≥ 36 months	13	12	45	50	-	-
18–35	≥ 12 months	40	34	63	41	50	55
	≥ 24 months	17	14	24	21	29	-
	≥ 36 months	8	7	13	14	-	-
36–45	≥ 12 months	46	37	66	41	52	60
	≥ 24 months	20	16	28	23	34	-
	≥ 36 months	10	10	17	17	-	-
46–55	≥ 12 months	52	46	68	44	56	62
	≥ 24 months	28	25	33	27	37	-
	≥ 36 months	19	19	22	20	-	-
56–65	≥ 12 months	67	63	72	52	62	65
	≥ 24 months	50	47	42	37	45	-
	≥ 36 months	42	40	3%	30	-	-
Race							
White	≥ 12 months	46	39	65	49	55	60
	≥ 24 months	22	19	31	28	34	-
	≥ 36 months	13	13	20	20	-	-
Black	≥ 12 months	45	39	67	49	52	55
	≥ 24 months	21	18	34	28	30	-
	≥ 36 months	13	13	22	20	-	-
Hispanic	≥ 12 months	46	42	75	62	66	73
	≥ 24 months	25	24	50	47	52	-
	≥ 36 months	17	16	43	42	-	-
Other	≥ 12 months	54	45	76	41	58	62
	≥ 24 months	28	24	35	26	40	-
	≥ 36 months	18	17	25	20	-	-
Region							
New York City	≥ 12 months	47	40	65	41	51	57
	≥ 24 months	22	19	28	23	32	-
	≥ 36 months	13	13	18	17	-	-
non-New York City	≥ 12 months	46	41	65	47	53	60
	≥ 24 months	23	21	31	26	32	-
	≥ 36 months	13	12	19	18	-	-

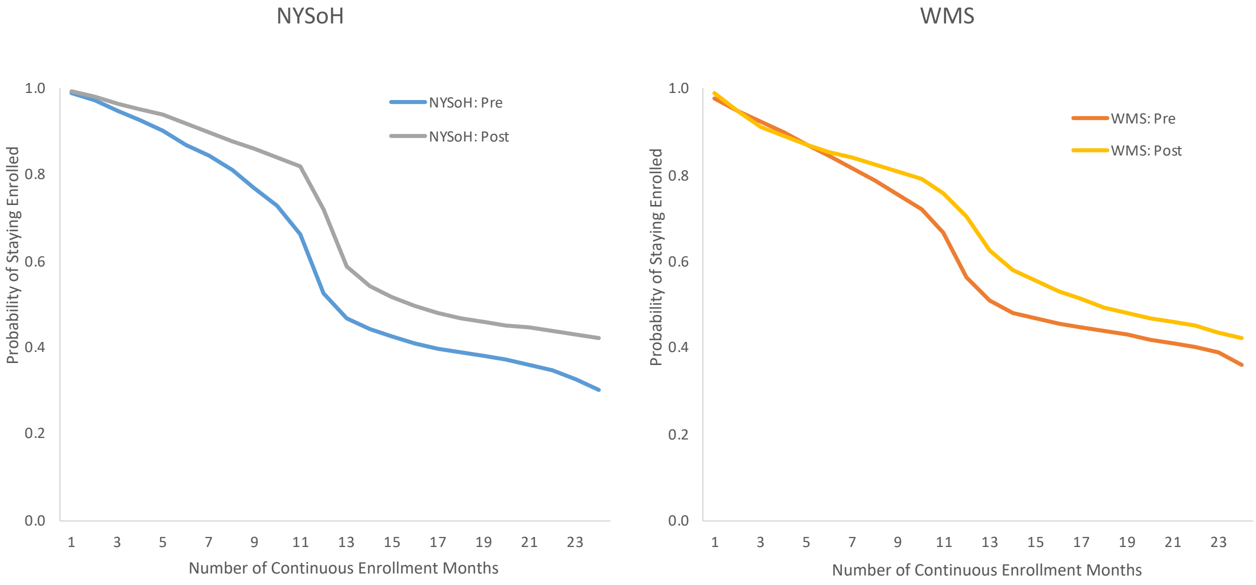
NOTE: “-” means not applicable.

Figure A1. Probability of Disenrollment, Adjusted for Demographics and Health Status



NOTE: The results are predicted monthly disenrollment probabilities based on regression output and reflect the difference-in-differences estimates of the 12-month continuous eligibility's impact.

Figure A2. Probability of Continuous Enrollment, Adjusted for Demographics and Health Status



NOTE: The results are predicted monthly probabilities of continuous enrollment based on regression output and reflect the difference-in-differences estimates of the 12-month continuous eligibility's impact. The area between the two curves represents the cumulative effect of the policy on the number of enrollment months in a 24-month period.

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Research Report

Independent Evaluation of the New York State 1115 Waiver Amendment: The Children's Design

Interim Findings

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Preface

As part of ongoing redesign efforts, New York State proposed, and the Centers for Medicare and Medicaid Services approved, concurrent amendments to the existing six 1915(c) waivers and the 1115 Medicaid Redesign Team waiver. To streamline care for children and youth under age 21 who have needs for physical and behavioral health services and home- and community-based services, the State consolidated the existing six 1915(c) waivers into a new 1915(c) waiver in April 2019. The 1115 waiver amendment, implemented in October 2019, allows the state to move the services covered by the consolidated 1915(c) waiver from fee for service to Medicaid managed care and to target eligibility to medically needy Family-of-One children. Together, these waiver amendments are called the "Children's Design." To meet the requirements for the 1115 waiver renewal application, the State commissioned the RAND Corporation to conduct an interim evaluation to identify the facilitators of, and barriers to, the Children's Design implementation and to describe and delineate the pre-implementation trends in the outcomes of interest to prepare for a summative evaluation. This research was carried out within the Access and Delivery Program in RAND Health Care.

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Purpose of Evaluation

As part of ongoing redesign efforts, New York State (NYS, or the State) proposed, and the Centers for Medicare & Medicaid Services (CMS) approved, concurrent amendments to the 1115 Medicaid Redesign Team (MRT) waiver and the 1915(c) Children's Waiver. The six prior 1915(c) waivers for children were consolidated into a new 1915(c) waiver, which aimed to streamline care for children and youth under age 21 who have needs for physical and behavioral health services and home- and community-based services (HCBS). The 1115 waiver amendment allows the state to move the services covered by the consolidated 1915(c) Children's Waiver from fee for service (FFS) to Medicaid managed care (MMC) and to target eligibility to medically needy Family-of-One (Fo1) children who meet clinical criteria and are enrolled in the consolidated 1915(c) Children's Waiver. Together, these waiver amendments are called the children's Medicaid system transformation, i.e., the "Children's Design." The consolidated 1915(c) Children's Waiver was implemented in April 2019, and the 1115 waiver was implemented in October 2019, except for children and youth in foster care, for whom mandatory MMC enrollment will start in July 2021.

To meet the requirements for the MRT 1115 waiver renewal application and to determine the impact of the Children's Design demonstration on both providers and clients during the transition to the program, RAND Corporation conducted an evaluation to inform both the NYS Department of Health (DOH) and CMS of the results thus far. Since this interim report is for the renewal of the 1115 waiver, the evaluation has an emphasis on the 1115 waiver component of the Children's Design, although it is not possible to disentangle the effects of the 1115 waiver's impact without acknowledging that the administrative and organizational context for the care covered by the 1115 waiver was established through the consolidated 1915(c) Children's Waiver.

Specifically, the purpose of this evaluation is to

- identify the facilitators of, and barriers to, the Children's Design implementation
- describe and delineate the baseline (i.e., pre-implementation) trends in the outcomes of interest to prepare for a summative evaluation
- assess the feasibility of identifying comparison groups and conducting difference-in-differences analyses or comparative interrupted time series analyses for the final summative evaluation.

Given the timing of this interim report, most data provided by NYS DOH for the evaluation thus far are for the period prior to the implementation of the demonstration. Therefore, this interim evaluation report provides a baseline for the target population, examines stakeholder perspectives on the early implementation of the demonstration, and presents suggestions for the summative evaluation to follow.

Table S.1 lists the research goals and questions that have been approved by CMS and are addressed in this interim report. There are six goals in the CMS-approved evaluation plan, which cover the demonstration implementation, care coordination, care access, and quality of care. This interim evaluation covers goals 1, 2, 3, and 5. Goals 4 and 6, as well as some research questions under goals 1, 2, 3, and 5, are outside of the scope of this interim evaluation report and will be addressed in the final summative report. Among goals and research questions covered in this interim report, goal 1, research question 1.1, goal 5, and research question 5.1 are related to implementation facilitators and barriers, and the remaining questions are about the baseline trends in the outcomes of interest. Research questions not included in the current report are shown in italics in Table S.1.

Table S.1. Summary of Research Goals, Questions, and Key Findings

Goal	Research Question	Measure	Key Findings
1. Improve the health outcomes for individuals under 21 receiving HCBS (HCBS Child/Youth) with access to the MMC delivery system.	1.1 What are the consequences of targeting availability of HCBS to a more narrowly defined population than that meeting the criteria in the State Plan?	Stakeholder interviews (2020–2021): Stakeholder perspectives on implementation barriers and successes; consequences of targeting availability of HCBS to a narrowly defined population	• Stakeholders perceive the transition to the Children's Design as challenging for providers and families. • Stakeholders view care coordination to have reduced in intensity, while administrative complexity increased with the implementation of the Children's Design. • Stakeholders are concerned that workforce shortages are being exacerbated by low patient volume and low reimbursement under the Children's Design. • Stakeholders, particularly MMC plans, perceive great potential for improving quality and integration of care, but believe that the process of change will take more time. • Stakeholders are reticent to draw conclusions regarding the impact of the Children's Design on children's health and health care utilization because it is still too early to determine and because care was disrupted by the coronavirus disease 2019 (COVID-19) pandemic.
	1.2 What are the per member, per month (PMPM) costs of HCBS for children enrollees who receive services, and how have they improved health outcomes?		*To be addressed in the final summative evaluation*
	1.3 To what extent are children with special needs accessing primary care providers (PCPs) who understand the children's needs?	Consumer Assessment of Healthcare Providers and Systems (CAHPS) Children with Chronic Conditions (CCC) survey (2018): • Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your child's day-to-day life?	• High satisfaction of parents of CCC[a] with doctor's understanding of child and family life (94% and 90%, respectively)

Goal	Research Question	Measure	Key Findings
		• Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your family's day-to-day life?	
		Medicaid Data Warehouse (2017–2019): • six or more well-child visits in the first 15 months of life • one or more well-child visits in the third, fourth, fifth, and sixth years of life • one or more adolescent well-care visits	**0–15 months:** • Fee for service (FFS) and Health Homes Serving Children (HHSC)[b] (range: 37–46%) • MMC (range: 62–65%) **3–6 years:** • FFS (range: 43–44%) • HHSC: 74% • MMC (range: 81–84%) **Adolescents:** • FFS: 28% • MMC and HHSC (range: 64–66%)
2. Improve health outcomes and increase long-term financial savings through improved access to the additional Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefits that address early behavioral health needs and health needs of children.	2.1 To what extent are MMC enrollees accessing community-based specialty services in a timely manner?	CAHPS CCC Survey (2018): • In the last 6 months, how often was it easy to get special medical equipment or devices for your child? • In the last 6 months, how often was it easy to get this therapy for your child? • In the last 6 months, how often was it easy to get this treatment or counseling for your child?	• 76–81% of parents of CCC report that it is always or usually easy to obtain special services and equipment.
	2.2 To what extent are MMC enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?	Medicaid Data Warehouse (2017–2019): follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17	• HHSC: 60–65% (7 days); 80% (30 days) • MMC: 59–60% (7 days); 75–76% (30 days) • FFS: 33–37% (7 days); 45–50% (30 days)
		Medicaid Data Warehouse (2017–2019): follow-up care for children prescribed attention-deficit/hyperactivity disorder (ADHD) medication	Rates: • HHSC: 67–73% (initiation); 67–77% (continuation) • MMC: 59–60% (initiation); 66–68% (continuation) • FFS: 42–45% (initiation); 36–46% (30 days) Trends: • rates declining over time for MMC and FFS • trend tests for first 7 data points vs. last data point

Goal	Research Question	Measure	Key Findings
			– MMC vs. FFS, $p < 0.001$ – HHSC vs. MMC, $p < 0.001$ – HHSC vs. FFS, $p = 0.584$
		Medicaid Data Warehouse (2017–2019): metabolic monitoring for children and adolescents on antipsychotics	- MMC and HHSC (range: 39–40%) - FFS (range: 24–27%)
3. Increase appropriate access to the uniform HCBS benefit package for children who meet level-of-care (LOC) criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.	3.1 How has enrollment in HCBS increased over the length of the demonstration?	Medicaid Data Warehouse (2017–2021): the number of children enrolled in HCBS	- Pre-1915(c) consolidation: 7,139 and 7,194 in April 2017 and April 2018, respectively - Post-1915(c) consolidation: 6,642 in April 2019 - Post-1115 wavier implementation: (October 2019–February 2021): 6,215 and 7,926 in October 2019 and February 2021, respectively
	3.2 What are the demographic, social, functional, and clinical characteristics of the HCBS population; and do they change over time?		*To be addressed in the final summative evaluation*
***4**. Increase access to HCBS under the demonstration and reduce the number of children being referred and diverted to more costly institutional levels of care.*	*4.1: To what extent has the demonstration improved the availability of HCBS for children? What are their health outcomes, and have they been able to remain in the community?*		*To be addressed in the final summative evaluation*
	4.2 To what extent are HCBS cost effective? What are the PMPM costs of inpatient psychiatric services, substance use disorder (SUD) ancillary withdrawal, hospital-based detox, and emergency room services for the children's HCBS population? Are these costs decreasing over time?		*To be addressed in the final summative evaluation*

Goal	Research Question	Measure	Key Findings
5. Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.	5.1 To what extent are Health Home/HCBS enrollees accessing primary care?	Stakeholder interviews (2020–2021): stakeholders' perspectives on care coordination	• MMC plan informants considered the potential for integration of behavioral health care with primary care services as a benefit of the Children's Design. • Informants did not report impacts of the Children's Design on access to primary care services, due in part to the COVID-19 pandemic.
		Medicaid Data Warehouse (2017–2019): • childhood immunization status (CIS) • immunizations for adolescents (IMA)	• MMC (range: 22–23%) • FFS and HHSC (range: 12–13%) • MMC and HHSC (range: 21–24%) • FFS (range: 8–10%)
	5.2 (Access to Care): To the extent that there is capacity for HCBS services, to what extent are Health Home/ HCBS/Fo1 enrollees accessing community-based health care or integrated health/behavioral health care?		*To be addressed in the final summative evaluation*
	5.3. Are Health Home/HCBS enrollees accessing necessary services, such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	Medicaid Data Warehouse (2018): • weight assessment and counseling for nutrition and physical activity for children/adolescents • body mass index (BMI) assessment for children/adolescents	• As of 2018, rates among children in HHSC and MMC were similar (90–91%).
		CAHPS CCC Survey (2018): • Did anyone from your child's health plan, doctor's office, or clinic help you get special medical equipment, or devices for your child? • Did anyone from your child's health plan, doctor's office, or clinic help you get this therapy for your child? • Did anyone from your child's health plan, doctor's office, or clinic help you get this treatment or counseling for your child?	• 79% of parents of CCC received coordination for medical equipment. • 58–63% of parents of CCC received coordination for therapy, counseling, or multiple providers.

Goal	Research Question	Measure	Key Findings
		- In the last 6 months, did anyone from your child's health plan, doctor's office, or clinic help coordinate your child's care among these different providers or services?	
6: Improve continuity of care for youth as they transition into the adult Medicaid services system, specifically to the Health and Recovery Plan from the children's Medicaid Mainstream Managed Care benefits	*6.1: Are chronic health and behavioral health conditions for young adults (e.g., ages 21–25) who transition to adult HCBS and other Medicaid services in the demonstration being managed appropriately?*		*To be addressed in the final summative evaluation*

NOTES: [a]Due to the data availability, for consumer satisfaction measures, the CCC population was considered similar to and used to approximate that of the Children's Design.

[b]Due to the data availability, for quality measures derived from the Medicaid Data Warehouse, the HHSC population was considered similar to and used to approximate that of the Children's Design.

Analytic Approach

A combination of qualitative and quantitative methods was used to answer the research questions to be addressed in this interim evaluation report of the Children's Design.

Qualitative Methods

We collected qualitative data through semi-structured interviews with various stakeholders and used those data to explore implementation barriers, facilitators, and consequences. We conducted 12 semi-structured interviews between November 2020 and January 2021 with 26 key informants representing four types of stakeholders: children's advocates, providers, Medicaid managed care plans, and state agencies. Some interviews included multiple respondents representing different roles within the organization. Stakeholders were selected for participation from a list provided by NYS DOH to ensure adequate representation of different affected populations and types of stakeholders. Where possible, stakeholders were selected from different regions of the state, so as to ensure representation of New York City (NYC), urban areas outside of NYC, and rural areas. Data from these interviews were coded based on the goals addressed in the interim evaluation of the Children's Design.

Quantitative Methods

We conducted analyses on baseline levels of access to and quality of care using quantitative data provided by NYS DOH. We obtained population-level aggregate data derived by NYS DOH from the 2017–2019 Medicaid Data Warehouse dataset, which covers the period from April 2017 to December 2019. The majority of this time period covers the baseline period prior to the implementation of the 1115 waiver, which occurred in October 2019. Depending on specific outcome measures, analyses are based on the three subpopulations: children in Health Homes Serving Children (HHSC), FFS, and MMC. Consistent with guidance from NYS DOH in January 2021, the HHSC population is considered most similar to the target population of the Children's Design in terms of the needs for HCBS, so we treat trends in the HHSC population as a reflection of what baseline trends could have looked like for the intervention group and use the FFS and MMC populations to make benchmark comparisons. Note that FFS and MMC populations for children and youth under the age of 21 have less need for HCBS compared with HHSC or the Children's Design target population.

We used a number of quality measures derived from the Medicaid Data Warehouse (a dataset that includes Medicaid eligibility, managed care enrollment, and encounter and payment information), adapted from the Medicaid Core measures that were designated by CMS for Medicaid programs, and the Healthcare Effectiveness Data and Information Set (HEDIS) measures, including well-care visits, follow-up visits after hospitalization and medication prescription, immunization rates, metabolic monitoring for children prescribed antipsychotics, and weight and nutrition counseling. For each quality measure, we graphically charted the trends and conducted pairwise t-tests to assess the differences between groups. We also used a linear regression model to test whether the trends between the first seven time points and the last time point, which covers the first three months of implementation of the 1115 waiver demonstration, differ significantly across groups.[1]

In addition, for select research questions, we used data from the 2018 NYS-specific Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey of children with chronic conditions (CCC) to complement the analysis. Although both the Children's Design populations and CCC have chronic needs for care, the former has greater needs for HCBS, whereas the latter are for medical care. Due to data availability constraints, CCC was used to approximate the target population when examining consumer satisfaction.

Findings

Below we summarize highlights of our findings for each of the four goals being presented in this report. Within each goal, we briefly address the relevant research questions. Table S.1 condenses this information into a matrix of key findings.

Goal 1: Improve health outcomes for individuals under 21 receiving home- and community-based services (home- and community-based services child/youth) with access to the Medicaid managed care delivery system

Research Question 1.1: What are the consequences of targeting availability of home- and community-based services to a more narrowly defined population than that meeting the criteria in the State Plan?

Based on interviews, we found that the changes under the Children's Design were perceived by the stakeholder community as a dramatic reorganization of the care system in which they were accustomed to working. They perceived the transition as challenging for providers and families as the administrative complexity increased. Stakeholders noted concerns about (1) the burden of accessing care for children's families and (2) reductions in service availability due to a decrease in the proportion of providers who participate in the Medicaid HCBS program in the context of preexisting workforce shortages. Stakeholders recognized that it is too early to fully assess the impact of the Children's Design on use of care or outcomes, in particular because of the overwhelming impact that the coronavirus disease 2019 (COVID-19) pandemic had on the entire system. The interviews with MMC plans demonstrated that under the Children's Design, there was great potential for integrating care and improving quality.

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[1] Each data point represents the subsequent 12 months. For example, the April 2017 data point includes the data covering April 2017–March 2018.

Research Question 1.3: To what extent are children with special needs accessing primary care providers who understand the children's needs?

In 2018, prior to the Children's Design implementation, a survey showed high satisfaction with primary care providers (PCPs) among parents of children with special needs. Approximately 94 percent of parents of CCC in the survey reported being satisfied with their PCP's understanding of their child's daily life, while 90 percent reported that they think that their doctors understand their family's daily life.

During 2017–2019, the percentage of HHSC receiving six or more well-child visits in the first 15 months of life was 37 percent, lower than that of those in MMC (62–65 percent) and to a lesser extent, those in FFS (46 percent). A similar pattern was observed for the percentage of children receiving at least one well-child visit in the third, fourth, fifth, and sixth year of life: MMC rates were highest (81 to 84 percent), followed by HHSC (68 to 74 percent), and FFS (43 to 44 percent). The percentage of adolescents 12 to 21 years of age receiving at least one adolescent well-care visit was higher among HHSC and MMC, ranging between 64 and 66 percent, whereas the rate was much lower among FFS, at 28 percent.

Goal 2: Improve health outcomes and increase long-term financial savings through improved access to the additional early and periodic screening, diagnostic, and treatment benefits that address early behavioral health needs and health needs of children.

Research Question 2.1: To what extent are Medicaid managed care enrollees accessing community-based specialty services in a timely manner?

In 2018, 78 percent of all parents of CCC who needed special medical equipment reported that it was usually or always easy to get it. The rates were 81 percent for special therapy and 76 percent for treatment or counseling.

Research Question 2.2: To what extent are Medicaid managed care enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?

During 2017–2019, about 60 percent of children in MMC ages 6 to 17 who were hospitalized for treatment of selected mental illnesses had one follow-up visit within seven days of discharge; the HHSC rate was similar in 2017 but surpassed the MMC rate in later years, reaching 65 percent in 2019. The rates were lowest for children in FFS: 33 percent in 2017 and 37 percent in 2019. The rates of follow-up within 30 days of discharge were similar to the rates at seven days for all three groups.

For children ages 6 to 12 who were newly dispensed a medication for ADHD, those in HHSC had higher rates of outpatient mental health follow-up within 30 days—the initial phase—(ranging from 67–73 percent during the study period) than children in MMC (59–60 percent) and FFS (42–45 percent). Both children in HHSC and children in FFS had declines in the rate of follow-up over the study period. Children in HHSC had significantly higher follow-up rates in the continuation and maintenance phase of ADHD use—270 days after the initial phase—(67–77 percent) than those in MMC (66–68 percent) and FFS (36–46 percent). The rate of follow-up declined for HHSC and FFS over the study period, while MMC rates were mostly stable.

About 40 percent of children and adolescents in MMC and HHSC with two or more antipsychotic prescriptions had metabolic monitoring during the measurement year, and the rate remained constant over the study period, compared with a rate of 24–27 percent in FFS children.

Goal 3: Increase appropriate access to the uniform home- and community-based services benefit package for children who meet level-of-care criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.

Research Question 3.1: How has enrollment in home- and community-based services increased over the length of the demonstration?

The number of children enrolled in HCBS was relatively stable before the consolidation of 1915(c) Children's Waiver at just above 7,100 but dropped to approximately 6,200 by 2019 upon the implementation of children's HCBS. As of February 2021, enrollment increased to just under 8,000. Please note that due to the recent implementation of the Children's Design, the data continues to be refined to ensure accuracy and alignment. Such data updates will be reflected in the final summative evaluation report.

Goal 5: Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.

Research Question 5.1: To what extent are Health Home/home- and community-based services enrollees accessing primary care?

While stakeholders view care coordination under the Children's Design to be less intensive than care management under the previous system, some reported potential benefits resulting from the integration of care coordination with other health services within Medicaid managed care plans. Providers, advocates, and state officials did not perceive an impact of the Children's Design on access to primary care. Interviewees from MMCs reported that the Children's Design would enable better integration between primary care and behavioral health services, including HCBS, but they did not emphasize the improvement in primary care access as a goal.

To look at access to primary care from a quantitative perspective, we examined rates of immunizations, which were different among the three populations in the study, but relatively stable over time. The percentage of children who had the recommended immunizations by their second birthday has been consistently highest among children in MMC, at about 22 percent during 2017–2019. The rates for children in HHSC and children in FFS are very similar and stable over time, both at about 13 percent. The percentage of adolescents 13 years of age who had the recommended immunizations by their 13th birthday for MMC and HHSC was similar, ranging from 21 to 24 percent during the study period. Children in FFS had significantly lower rates than the other two groups, ranging between 8 and 10 percent over the study period.

Research Question 5.3: Are Health Homes Serving Children/home- and community-based services enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?

During 2018, approximately 91 percent of the sample of children ages 3 to 17 with an outpatient primary care or obstetrician/gynecologist (OB/GYN) visit had evidence of at least one form of weight management or nutrition counseling: BMI measurement, counseling for physical activity, or counseling for nutrition. The rate was similar among all children in MMC, at 90 percent.

In 2018, the percentage of parents of CCC who reported receiving help to get special medical equipment (79 percent), special therapy (62 percent), treatment or counseling (58 percent), and care coordination (63 percent) were comparable with those of the population that includes children with a condition that lasts for at least three months.

Conclusions

In summary, we found that families of children eligible for Children’s Design, providers, advocates, and MMC representatives considered the transition from the pre-demonstration system to be challenging as the administrative complexity of accessing HCBS increased. They voiced concerns over the greater burden of accessing care and the utilization implications of the eligibility process for HCBS under the demonstration. The interviewees from MMC plans did perceive that under the demonstration, there was great potential in integrating care and improving care delivery. Quantitative analyses of baseline data show that children in HHSC, comparable with the Children’s Design target population, had performance on selected measures of health care quality similar to those in MMC and higher than for children in FFS, except for access to primary care and immunizations among young children.

At the time of this writing, we are unable to draw definitive conclusions regarding the effect of the Children’s Design on care coordination, care access, and quality of care due to limited data for the post-implementation period. Based on stakeholder perceptions of the enrollment process and care coordination, NYS DOH may consider additional initiatives to educate families, service providers, care coordinators, and MMC plans about the new eligibility determination, enrollment, and care coordination processes. The final summative evaluation will include data from a longer post-implementation period, which will allow quantification of broader effects, including utilization and cost, of a more mature program. In addition, the use of individual-level data and HCBS-specific outcomes measures, which are not currently available, will strengthen the rigor of the evaluation.

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Abbreviations

ADHD	attention-deficit/hyperactivity disorder
APM	Metabolic Monitoring for Children and Adolescents on Antipsychotics
BMI	body mass index
B2H	Bridges 2 Health
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CANS	Child and Adolescent Needs and Strengths
CCC	children with chronic conditions
CFTSS	Children and Family Treatment and Support Services
CHIP	Children’s Health Insurance Program
CIS	childhood immunization status
CMS	Centers for Medicare & Medicaid Services
COVID-19	coronavirus disease 2019
CSPOA	Children’s Single Point of Access
C-YES	Child and Youth Evaluation Services
DD	developmentally disabled
DOH	Department of Health
DSRIP	Delivery System Reform Incentive Payment
ED	emergency department
EPSDT	Early and Periodic Screening, Diagnostic, and Treatment
FFS	fee for service
Fo1	Family of One
HCBS	home- and community-based services
HHSC	Health Homes Serving Children
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
IMA	immunizations for adolescents
LOC	level of care
MMC	Medicaid managed care
MRT	Medicaid Redesign Team
NYC	New York City
NYS	New York State
OB/GYN	obstetrician/gynecologist
OMH	Office of Mental Health

PCP	primary care provider
PMPM	per member, per month
POC	plan of care
SED	serious emotional disturbance
SUD	substance use disorder

1. Introduction

Overview of the Children's Design

Since 2011, the New York State (NYS) Medicaid Redesign Team (MRT) has worked to create an efficient managed care delivery system that will extend high-quality health care coverage to individuals needing long-term services and supports. The redesign has been updated multiple times and has included coordination with the Affordable Care Act Medicaid Expansion and the addition of the Delivery System Reform Incentive Payment (DSRIP) program in 2014. As part of ongoing redesign efforts, NYS proposed, and the Centers for Medicare & Medicaid Services (CMS) approved, concurrent amendments to the section 1115 MRT waiver and the section 1915(c) Children's Waiver. The new 1915(c) Children's Waiver consolidated six prior 1915(c) waivers and aimed to streamline care for children and youth under age 21 who have needs for behavioral health services and home and community-based services (HCBS) (NYS DOH, 2020d; NYS DOH, 2021a). The 1115 waiver allows the state to move the services covered by the consolidated 1915(c) waiver from fee for service (FFS) to Medicaid managed care (MMC) and to target eligibility to medically needy Family-of-One (Fo1) children who meet clinical criteria but would not qualify for Medicaid based on household income. Together, these waiver amendments are called the "Children's Design." The consolidated 1915(c) waiver was implemented in April 2019, whereas the 1115 waiver was implemented in October 2019. The Children's Design covers four groups of children who were already covered by the state's six prior 1915(c) waivers:

- medically fragile children
- children with a Serious Emotional Disturbance
- children with medical fragility and developmental disabilities
- children with developmental disabilities who are in foster care.

The streamlined model of care aims to achieve broad improvements in the care that children with behavioral health and HCBS needs receive through the NYS Medicaid system. Specific goals include improved clinical and recovery health outcomes; timely access to health care services during childhood so as to improve functioning and reduce health care needs in adulthood; improved integration of care that is commonly fragmented across behavioral health, general medical, and community support systems; and increased capacity of provider networks to deliver community-based recovery-oriented services and supports.

Additional information on the Children's Design and the restructuring of the 1115 and 1915(c) Children's Waivers is presented in Chapter 1. Briefly, there were five changes related to the goals of the evaluation:

- consolidation of the eligibility criteria and determination of the six prior 1915(c) waivers
- transition of care management provided under separate systems for each of the six prior waivers to Health Homes
- creation of a single array of HCBS for eligible children
- transition of HCBS services to MMC
- effort to organize a single network of care providers for all eligible children.

Demonstration Evaluation

To meet the requirements for the MRT 1115 waiver renewal application and to determine the impact of the Children's Design demonstration on both providers and clients during the transition to the program, an evaluation is needed to inform both the NYS Department of Health (NYS DOH) and CMS. Due to the evaluation timing, as specified in the evaluation plan approved by CMS (NYS DOH, 2020e), most data available for analysis are for the period prior to the implementation of the demonstration. Therefore, this interim evaluation report provides a baseline for the target population, examines stakeholder perspectives on the early implementation of the demonstration, and presents suggestions for the summative evaluation to follow. For most outcome measures, demonstration participation over a longer time period will be necessary in order to observe impacts; therefore, the interim evaluation results do not directly address whether the goals of the Children's Design have been achieved. Given these considerations, the purpose of this phase of the evaluation is to

- identify the facilitators of and barriers to the demonstration implementation
- describe and delineate the baseline (i.e., pre-implementation) trends in the outcomes of interest
- assess the feasibility of identifying comparison groups and conducting difference-in-differences analyses or comparative interrupted time series analyses for the final summative evaluation.

As shown in Table 1.1, there are six goals of the Children's Design evaluation, which have been proposed by the state and approved by CMS (NYS DOH, 2020e). Associated with each of these goals are research questions that provide a framework for the evaluation. Goals 2 and 6, as well as some components of goals 1, 2, 3, and 5, are not discussed in this interim report but will be addressed in the final summative report. Among goals and research questions covered in this interim report, goal 1, research question 1.1, goal 5, and research question 5.1, are related to implementation facilitators and barriers; the remaining questions are about the baseline trends in the outcomes of interest. Components of the evaluation plan that are not addressed in this interim report are italicized in Table 1.1.

Table 1.1. Research Goals, Evaluation Questions, and Hypotheses

Goal	Research Question	Hypothesis
1. Improve the health outcomes for individuals under 21 receiving HCBS (HCBS Child/Youth) with access to the MMC delivery system	1.1 What are the consequences of targeting availability of HCBS to a more narrowly defined population than that meeting the criteria in the State Plan?	1.1.1 Targeting HCBS availability to a more narrowly defined population will improve the health outcomes of the population most needing supports to remain in the community.
	1.2 What are the per member, per month (PMPM) costs of HCBS for children enrollees who receive services, and how have they improved health outcomes?	*1.2.1 The PMPM costs of HCBS for children enrollees will decrease because more children are eligible to receive former HCBS services under State Plan authority in an integrated managed care setting.*
		1.2.2 The receipt of services in an integrated managed care setting will improve outcomes among Health Home/HCBS/Fo1–enrolled children, as demonstrated by a stable or decreasing percentage of the Health Home/HCBS/Fo1 population who have had an emergency room visit.
	1.3 To what extent are children with special needs accessing primary care providers (PCPs) who understand the children's needs?	1.3.1 Parents of children with special needs will report being satisfied with PCPs' understanding of their children's special conditions
		1.3.2 Number of children in MMC/Health Homes Serving Children (HHSC)/HCBS receiving child/adolescent well-care visits will increase.
2. Improve health outcomes and increase long-term financial savings through improved access to the additional Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefits that address early behavioral health needs and health needs of children.	2.1 To what extent are MMC enrollees accessing community-based specialty services in a timely manner?	2.1.1 MMC child enrollees will report being satisfied with their access to community-based specialty services for CCC.
		2.1.2 MMMC child enrollees will have improved access to behavioral health care, as demonstrated through increased use of first-line psychosocial care for children and adolescents on antipsychotics.
	2.2 To what extent are MMC enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?	2.2.1 MMC child enrollees will have improved follow up after hospitalizations compared with non-enrollees.
		2.2.2 MMC child enrollees will have enhanced integrated health/behavioral health care, as demonstrated through increased follow-up for children prescribed attention-deficit/hyperactivity disorder (ADHD) medication.

Goal	Research Question	Hypothesis
		2.2.3 MMC child enrollees will have enhanced integrated health/behavioral health care, as demonstrated through increased metabolic monitoring for children and adolescents on antipsychotics.
		2.2.4 Children who have these behavioral health interventions (follow-up after hospitalizations, or prescribed ADHD medication, or increased metabolic monitoring) will have lower numbers of emergency department visits and fewer hospital admissions, compared with children who do not.
3. Increase appropriate access to the uniform HCBS benefit package for children who meet level-of-care (LOC) criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.	3.1 How has enrollment in HCBS increased over the length of the demonstration?	3.1.1 Enrollment in HCBS will increase over the length of the demonstration.
	3.2 What are the demographic, social, functional, and clinical characteristics of the HCBS population; and do they change over time?	*3.2.1 The relative number of children within each target group in the 1915(c) Children's Waiver/1115 waiver will remain the same over time. Target groups include HCBS Serious Emotional Disturbance (SED), HCBS Medically Fragile (MF), HCBS Developmentally Disabled (DD) with Foster Care, HCBS Developmentally Disabled and Medically Fragile (DD & MF), children in foster care, children eligible under Fo1.*
***4.** Increase access to HCBS under the demonstration and reduce the number of children being referred and diverted to more costly institutional levels of care. More children will remain in the community and be diverted from institutional services if HCBS are delivered prior to the child meeting an institutional LOC.*	*4.1 To what extent has the demonstration improved the availability of HCBS for children? What are their health outcomes, and have they been able to remain in the community?*	*4.1.1 Children are being admitted to institutional settings (i.e., psychiatric hospitals, general hospitals, intermediate care facilities for individuals with intellectual disabilities, nursing facilities, and psychiatric residential treatment facilities) less frequently and for shorter lengths of stays after the implementation of the Children's Design.*
	4.2 To what extent are HCBS cost effective? What are the PMPM costs of inpatient psychiatric services, substance use disorder (SUD) ancillary withdrawal, hospital-based detox, and emergency-room services for the children's HCBS population? Are these costs decreasing over time?	*4.2.1 PMPM costs for inpatient psychiatric services, SUD ancillary withdrawal, hospital-based detox, and emergency room services for the children's HCBS population will decrease during the demonstration period.*

Goal	Research Question	Hypothesis
5. Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services	5.1 To what extent are Health Home/HCBS enrollees accessing primary care?	5.1.1 Stakeholders will report improved care coordination.
		5.1.2 The number of child/adolescent immunizations will increase.
	5.2 To the extent there is capacity for HCBS services, to what extent are Health Home/HCBS/Fo1 enrollees accessing community-based health care or integrated health/behavioral health care?	*5.2.1 Health Home/HCBS/Fo1 child enrollees will have increased utilization of first-line psychosocial care for children and adolescents on antipsychotics.*
		5.2.2 Rates of follow-up for Health Home/HCBS/Fo1 child enrollees prescribed ADHD medication will increase.
		5.2.3 Metabolic monitoring for Health Home/HCBS/Fo1 child enrollees who are prescribed antipsychotics will increase.
	5.3. Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	*5.3.1 The receipt of services in an integrated managed care setting will result in an increased asthma medication ratio among Health Home/HCBS/Fo1–enrolled children.*
		5.3.2 The receipt of services in an integrated managed care setting will result in increased weight assessment and counseling for nutrition and physical activity for children/ adolescents.
		5.3.3 MMC enrollees with chronic conditions will report that someone helped them coordinate care.
***6.** Improve continuity of care for youth as they transition into the adult Medicaid services system, specifically to the Health and Recovery Plan from the children's Medicaid Mainstream Managed Care benefits.*	*6.1 Are chronic health and behavioral health conditions for young adults (e.g., ages 21–25) who transition to adult HCBS and other Medicaid services in the demonstration being managed appropriately?*	*6.1.1 Young adults transitioning to HCBS and other Medicaid services in the demonstration have their chronic conditions properly managed, as measured by lower rates of emergency department visits.*

NOTES: Hypotheses are from the evaluation plan approved by CMS; italicized items are not addressed in the current interim report but will be addressed in the final report.

Given the two key components of the Children’s Design—streamlining the original six 1915(c) waivers and moving these services to managed care—we expect these interventions to improve care coordination, care access, and the quality of care. The consolidation of the original six 1915(c) waivers aims to unify enrollment pathways and procedures, improve care management through Health Homes, and provide an expanded set of services. These changes alone may also improve care coordination, care access, and as a result, quality of care. On the one hand, the transition of HCBS to the managed care system has the potential to reduce care, particularly for children with great needs, because managed care plans are paid on a capitation basis. On the other hand, managed care plans offer a network of providers, access to specialized information systems to monitor services, and the capacity to integrate HCBS with medical services, thus potentially facilitating care coordination and management to improve care access, delivery, and efficiency.

Report Organization

This report presents an overview of the evaluation, the preliminary findings based on stakeholder interviews and baseline data, and the recommendations for the final summative evaluation. Chapter 2 provides an overview of the Children’s Design demonstration, including background on the waivers that have been incorporated into the demonstration. Chapter 3 presents an overview of the study design and methodology for the evaluation. Chapter 4 details the findings, organized by research question, along with a summary of findings across the evaluation. Chapter 5 describes the policy implications based on the study findings, and Chapter 6 reviews potential interactions with other state initiatives. The study protocols and data tables are included in the appendixes.

2. Demonstration Description

This chapter describes the prior six 1915(c) waivers under which children and youth were able to access HCBS and the two main components of the Children's Design transition: the consolidated 1915(c) and 1115 waivers. In addition, a detailed timeline of the Children's Design implementation is included to provide clarity and improve understanding of the transition process. Finally, a review of similar and previously implemented interventions is provided to contextualize the expected outcomes of the Children's Design transition in NYS.

Background for the Prior Six 1915(c) Waivers

Federal guidelines allow states to develop HCBS waivers to meet the needs of individuals who prefer to access long-term care services and supports in their home or community as opposed to an institutional setting. HCBS are designed for individuals who, if not receiving these services, would require care in a more restrictive environment, such as a long-term care facility or psychiatric inpatient care.

Prior to the Children's Design, NYS operated six 1915(c) HCBS waivers across four state agencies that provided programs to children and youth with physical, behavioral, mental, developmental, or intellectual disabilities. The waivers were previously approved under the authority of the 1915(c) amendment of the Federal Social Security Act. The agencies and their respective waivers included

- Office of Mental Health (OMH)
  - Serious Emotional Disturbance (SED) waiver #NY.0296
- Department of Health (DOH)
  - Care at Home (CAH) I/II waiver #NY.4125
- Office for People with Developmental Disabilities (OPWDD)
  - Care at Home (CAH) waiver #40176
- Office of Children and Families (OCFS)
  - Bridges to Health (B2H) SED waiver #NY.0469
  - Bridges to Health (B2H) Developmental Disability (DD) waiver #NY.0470
  - Bridges to Health (B2H) Medically Fragile waiver #NY.0471.

These HCBS waivers provided Medicaid-eligible children and youth access to developmentally and culturally appropriate services in the least restrictive environment: at home and in the community. All agencies operating Medicaid HCBS waivers prior to the Children's Design were required to follow CMS guidelines for meeting HCBS program compliance, but aside from these broad guidelines, the agencies managed different eligibility criteria and benefits specific to their target population, which created inefficiencies and confusion for the families of eligible children.

Children’s Design Components

NYS submitted a proposed 1115 waiver amendment and draft transition plan to CMS in May 2017 to implement the children’s Medicaid system transformation, which is known as the Children’s Design. In June 2018, CMS advised NYS that the Children’s Design should utilize the 1915(c) waiver, rather than the 1115 waiver amendment as originally proposed. As a result, the demonstration was implemented under both the 1915(c) waiver and 1115 waiver amendments.

As part of the Children’s Design, the six prior 1915(c) waivers for children’s HCBS were consolidated into a single 1915(c) Children’s Waiver. These changes were designed to work in tandem with the 1115 waiver as part of a single coordinated redesign of Medicaid services for children with HCBS needs. Since the 1915(c) Children’s Waiver consolidation was implemented prior to the move to managed care under the 1115 waiver, the 1915(c) waiver consolidation set the stage for the 1115 waiver. As a result, it is not possible to assess the 1115 waiver’s impact without acknowledging that the administrative and organizational context for the care covered by the 1115 waiver was established through the 1915(c) Children’s Waiver consolidation.

Through the Children’s Design, NYS aims to achieve broad improvements in the care that children and youth with behavioral health and HCBS needs receive through the Medicaid program. Specifically, the goals of the Children’s Design are to improve

- health outcomes for children and youth receiving HCBS services through MMC
- timely access to additional Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefits that address early behavioral needs for children and youth so as to improve functioning and health care needs in adulthood
- access to a uniform array of HCBS for children who meet a specified LOC while recognizing that children’s needs change over time
- access to HCBS and reduction in the number of children who enter higher levels of care
- care coordination and access to services through the use of the integrated Health Home model
- continuity of care for youth as they transition into the adult Medicaid services system.

Below, we outline the two main components of the Children’s Design: the consolidated 1915(c) waiver and the 1115 waiver.

The Consolidated 1915(c) Children's Waiver

The 1915(c) Children's Waiver consolidation accomplished several transitions that are important parts of the overall Children's Design. First, six separate waivers, each of which had its own pathways and procedures for accessing care, were consolidated into a single waiver with administrative and financial integration and a common set of care pathways and administrative procedures. Second, care management, which had been provided under separate systems for each of the six waivers, was transitioned into the Health Home program. Third, the move to managed care provided a single HCBS benefit package to children meeting institutionalized LOC criteria. Before the transition, a child had access to a limited set of services that corresponded to the specific waiver for which he or she qualified; under the consolidated waiver, all waivered children have access to all available services. With respect to HCBS in particular, though the process of accessing care changed, the criteria for eligibility remained the same.

Since the Children's Design implementation, HCBS/LOC eligibility determination operates under a "no wrong door" approach to allow easier access to HCBS eligibility for children and families. This change in how eligibility is determined permits an expanded number of providers to conduct HCBS eligibility. Children and youth who are found eligible have the right to access the full array of HCBS and are automatically deemed eligible for Health Home services. However, a child or youth who is Health Home eligible is not automatically deemed eligible for HCBS.

As of April 1, 2019, NYS implemented the LOC eligibility determination process and criteria that children must meet in order to qualify for HCBS. The three main eligibility components are

- target population
  - serious emotional disturbance
  - medically fragile
  - developmental disability and medically fragile
  - developmental disability and in foster care
- risk factors (as outlined under each target population)
- functional criteria (as outlined under each target population).

Children and youth may be eligible under one or more of the target populations but need to meet all specific diagnosis and risk factor criteria under the population for which they are eligible. Children who had been eligible for HCBS prior to April 1, 2019, remained eligible for HCBS for a period of two years without the need for further eligibility assessment. Specific target population, risk factor, and functional criteria eligibility details can be found on the HCBS LOC eligibility determination page of NYS DOH's website (NYS DOH, 2019d). Based on a child's diagnosis and other information provided (NYS DOH, 2019c), a Health Home or the Children and Youth Evaluation Service (C-YES), an independent entity established by NYS to provide HCBS eligibility determination and care management as an alternative to Health Homes, must determine for which target population the child is eligible. The Health Home or C-YES must collect required documentation that demonstrates eligibility under each of the three criteria. Collected information is then input into NYS's Uniform Assessment System, which houses the Child and Adolescent Needs and Strengths—NY (CANS-NY) tool. CANS is an assessment tool used to determine child and family needs and guide service planning for children receiving Health Home and HCBS services in NYS (NYS DOH, 2020a). As one example, we provide details below that would qualify a child or youth to meet HCBS LOC eligibility under the serious emotional disturbance target population:

- Target population requirements
  - age < 21
  - a psychiatric disorder, as defined by the most current *Diagnostic and Statistical Manual of Mental Disorders*
  - functional limitations due to emotional disturbance over the past 12 months on a continuous or intermittent basis: moderate in two areas or severe in one area of family life, social relationships, self-direction/self-control, or ability to learn
- Risk factor requirements
  - at least one of four factors: currently in an out-of-home placement; has been in an out-of-home placement within the past six months; has applied for an out-of-home placement within the past six months; or is multi-system involved and needs complex services to remain in the community
  - a determination by a Licensed Practitioner of Healing Arts that, in the absence of HCBS, the child is at risk of entering a more restrictive setting
- Functional criteria requirements
  - Functional criteria to be established with CANS-NY based on 21 measures.

Previously, care managers worked under one of the six waivers to facilitate access to a set of waiver-specific services; under the consolidated system, Health Homes may provide care management services for any waiver children meeting institutional LOC functional criteria. A Health Home agency, or C-YES if the family opts out of Health Home, is responsible for working with the child, the family, and the child's identified care team to develop a person-centered plan of care. Identification of services to meet the needs and goals of the child and family are coordinated and managed by a Health Home or C-YES. Health Homes or C-YES also help the family make appointments and connect to community supports.

The 1115 Waiver

Under concurrent implementation of the consolidated 1915(c) Children's Waiver, the 1115 waiver amendment implemented four major components of the Children's Design: (1) required MMC enrollment for all children and youth accessing HCBS under the consolidated 1915(c) Children's Waiver, unless otherwise exempt or excluded from MMC enrollment; (2) included certain Medicaid State Plan behavioral health services and HCBS into the MMC benefit package for eligible children; (3) targeted eligibility for medically needy Fo1 children who meet clinical criteria but do not qualify for Medicaid services (given their exclusion from enrolling into MMC, Fo1 children continue to receive 1915(c) services under FFS Medicaid, including HCBS services); and (4) transitioned care coordination services to Health Home agencies.

The changes implemented under the 1915(c) Children's Waiver were important for the move into managed care under the 1115 waiver because they simplified the structure of care by enabling a unified managed care system. Such a unified system aims to reduce variability in rates and costs, since rates are specified for larger and more diverse populations. It also attempts to enable managed care companies to organize a single network of care providers, for HCBS as well as other services, and to offer the full range of services to all children without regard to their specific conditions or eligibility. Moreover, it is important to note that the integration of the 1915(c) consolidation and the 1115 waiver is so intertwined that most of the key informants interviewed did not clearly distinguish between these two components of the Children's Design. The changes were implemented about six months apart and presented to providers and families as a single unified transition from one system to another.

Through the Children's Design transition, HCBS services previously offered under the six original 1915(c) waivers were cross-walked into a single array of services offered under the consolidated 1915(c) Children's Waiver and were added to the MMC benefit package through the 1115 waiver amendment. In addition, six Children and Family Treatments and Support Services (CFTSS) were added or moved to the State Plan Amendment under the 1115 waiver (NYS DOH, 2017; NYS DOH, 2020f). Table 2.1 outlines the HCBS and CFTSS services that were either transitioned over or added to the 1115 waiver as part of the Children's Design. For six reclassified services, eligibility was broadened, and they became available to all Medicaid beneficiaries, but not through the Children's Waiver specifically.

Prior to the Children's Design, HCBS service providers received payment through an FFS model that reimbursed for individual services delivered. Under the 1115 waiver, HCBS are included in the MMC benefits package for eligible children and are reimbursed at rates as determined by NYS and implemented by MMC organizations. In order to receive reimbursement for services, HCBS providers and Health Homes must collaborate to finalize a child's plan of care, which outlines service eligibility and goals developed for the child and family. Services such as travel and environmental modifications that do not support a child's integration into the community, or interventions that are not on the child's approved plan of care and goals, are not reimbursed. Upon enrolling in MMC, children choose a primary care provider (PCP) within the MMC network who will be responsible for coordinating their health care. A PCP will refer patients to specialists as necessary (NYS DOH, 2019b).

Table 2.1. Home- and Community-Based Services and Children and Family Treatment and Support Services Included in Medicaid Managed Care Under the 1115 Waiver

Original and continued HCBS cross-walked to 1115 waiver	CFTSS added or moved to 1115 waiver
Caregiver/family supports & services	Crisis intervention
Prevocational servicesss	Community psychiatric support & treatment
Community advocacy & support	Psychosocial rehabilitation services
Habilitation	Family peer support services
Supported employment	Youth peer support & training
Palliative care	Other licensed practitioners
Respite—planned	
Respite—crisis	
Customized goods & services	
Accessibility modifications	
Adaptive & assistive equipment	
Vehicle modifications	

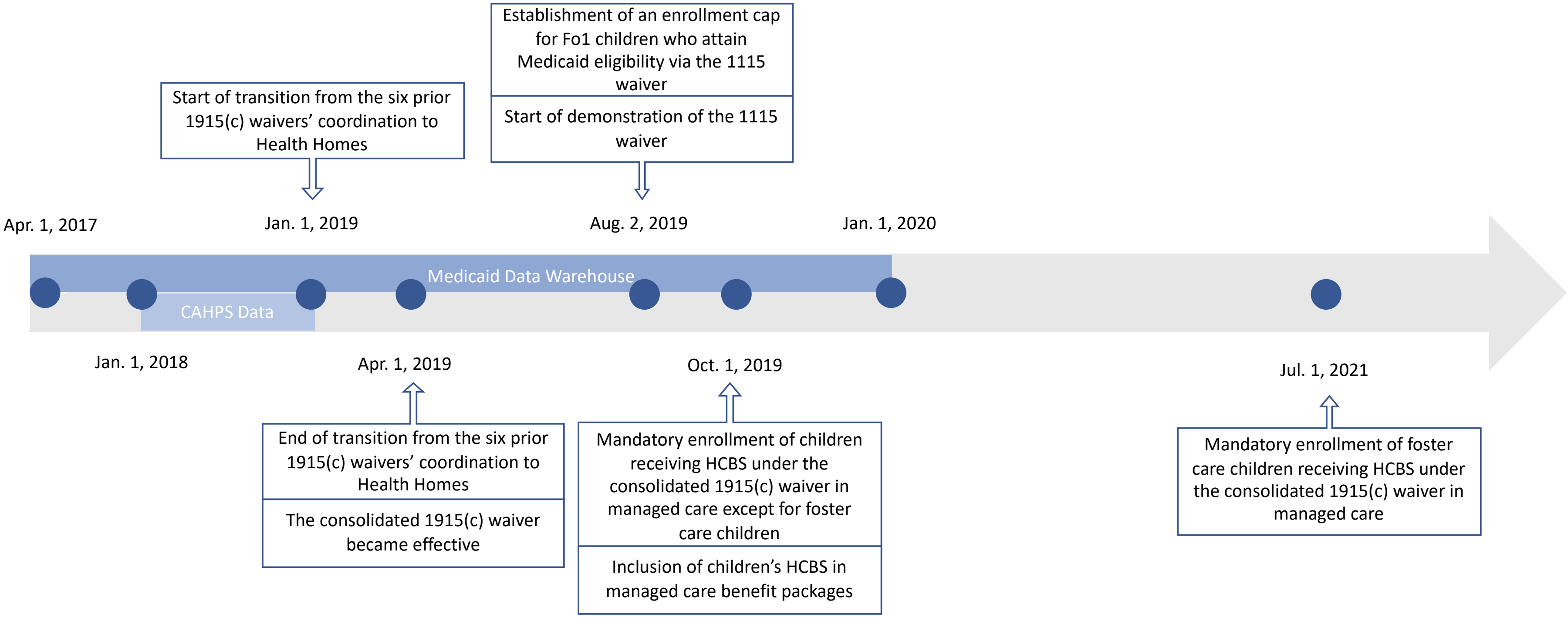
NOTE: These HCBS and CFTSS services became part of the State Plan after their transition to the 1115 waiver.

Demonstration Timeline

The transition from the six original 1915(c) waivers to Health Homes started in January 2019 (see Figure 2.1). All children in those six waivers had to be transitioned by March 31, 2019, to be counted as a transitioning child and to ensure that there was no gap in waiver services. Any child who was expected to be transitioned or in the process of being transitioned and became hospitalized, inpatient, or residential, and so on, would continue to be transitioned to the Health Home program. All community-based long-term services and supports (i.e., consumer-directed personal assistance program, personal care services, private-duty nursing services) continued during the transition period. A transitional rate was developed to be billed over a two-year period beginning on January 1, 2019. The transitional rate was paid in addition to the regular Health Home child adolescent needs and strengths acuity rate codes, to ensure that providers with knowledge and expertise in serving the waiver population continue to serve waiver children within the Health Home program.

On August 2, 2019, NYS began the implementation of the approved amendment to the existing 1115 waiver program. By October 2019, children receiving HCBS under the state's newly consolidated 1915(c) Children's Waiver had been mandatorily enrolled in managed care, except for foster care children for whom the implementation will begin in July 2021.

Figure 2.1. Children’s Design Implementation Timeline



Review of Prior Similar Interventions

Through the Children's Design, children previously receiving HCBS under the FFS program have been transitioned, unless otherwise exempt or excluded, to MMC and the enrollment and care delivery processes have been streamlined. The review of the literature of prior similar interventions helps to contextualize expected outcomes and effectiveness of the Children's Design, which may not be known yet. These policy interventions may affect the Children's Design target population outcomes in terms of access to care, quality of care, patient satisfaction, and cost, as demonstrated in prior literature (noted below).

Outcomes After the Transition from Fee for Service to Medicaid Managed Care

There has been some analysis of the outcomes related to access to care, quality of care, patient satisfaction, and health care costs following transitions from FFS to MMC. Prior studies have shown that Medicaid-covered children could gain better access to care due to the inclusion of a network of health care providers available to MMC enrollees (Baker and Afendulis, 2005). One study reported that a lower percentage of children switching from FFS to MMC had an unmet need for medical equipment compared with children still under FFS (Mitchell and Gaskin, 2004). Another study examining foster youth previously enrolled in FFS found an increase in access to primary care and higher utilization of preventive care after the transition to MMC (Bright et al., 2018). While a number of studies have observed better access to care for the MMC population, few studies have found no or negative impacts on unmet needs or barriers to referrals for MMC populations compared with people covered by other insurance plans (Kirby, Machlin, and Cohen, 2003; Momany et al., 2006). One prospective cohort study in Massachusetts showed that parents of children with chronic conditions (CCC) were much less likely than other parents to switch to a gatekeeping plan such as MMC (Ferris et al., 2001). Another study looking at children with special health care needs in the District of Columbia found no significant differences between children with FFS and MMC in terms of unmet need for physician/hospital care, mental health services, home health service, or therapy services (Mitchell and Gaskin, 2004). The use of gatekeeping arrangements, adopted by MMC, is associated with reduced visits to specialists among CCC (Ferris et al., 2001).

Better access to PCPs for children in MMC is associated with better continuity of care, which could lead to improved quality of care and higher patient satisfaction, though few studies have investigated differences for children with FFS and MMC. For example, one telephone survey of parents with children enrolled in the Oregon Health Plan showed no difference in satisfaction between FFS and MMC management (Mitchell, Khatutsky, and Swigonski, 2001).

There are also potential cost implications from the transition from FFS to MMC. MMC's capitated nature could lead to cost savings from coordination of care and elimination of duplicate or unnecessary services. The Ferris et al. study in Massachusetts found that the total and subspecialty expenditures for CCC decreased more in the gatekeeping group than in the FFS group (Ferris et al., 2001). A cross-sectional study conducted in Florida on children with special health care needs reported that monthly outpatient charges were highest for children with health plans that used primarily FFS reimbursements (Shenkman et al., 2003).

Streamlined Access

Streamlined access has also been demonstrated in previous settings to increase quality of services, reduce costs, improve access, and provide more consistent levels of eligibility. HCBS waivers are not a new approach to providing care; this mechanism was approved initially in 1981 by Congress to provide a route for targeted services to those at risk for institutionalization (Rizzolo et al., 2013). States are given the flexibility to target different risk groups by establishing their own eligibility criteria and services that are offered, and even waiving certain requirements such as income (Rizzolo et al., 2013; Velott et al., 2016). As explained above, Children's Design streamlined access through the unification of previously existing stand-alone waivers into a single waiver with a single requirement that now covers all the populations of the previous separate waivers. Studies have suggested the potential for cost-effectiveness and explored broad aspects of waivers, but few go into details of streamlining and targeting specific populations (Velott et al., 2016).

One that has is a study in Iowa that assessed the impact of consolidating service agencies and found that, while there was no statistically significant impact on the proportion of the population served, the consolidation did lead to an increase in quality of services (Arora et al., 2020). While the object of the study differs from the Children's Design in that it was consolidating agencies and not waivers, the study does demonstrate the potential benefit of simplified access and streamlined services.

In another study, Harrington and colleagues (2009) addressed the issue of fragmentation in the provision of HCBS, stating that due to federal policies, every state ends up providing vastly different HCBS programs with varying eligibility procedures, assessments, and administration. The authors suggest that implementation of CMS-driven initiatives to consolidate HCBS programs would lead to cost reductions, improved access, and more level eligibility and need determination (Harrington et al., 2009).

In addition, a policy brief by the Kaiser Family Foundation emphasized the need for streamlining HCBS services, given the complexities of attempting to navigate the system due to the piecemeal approach and design. By streamlining, states would be able to reduce administrative costs, and the savings could, in turn, be used to increase access and services (Sowers, Claypool, and Musumeci, 2016). The Rutgers Center for State Health Policy called for streamlining HCBS services, though evidence resulting from streamlining is still sparse in the literature (Acosta and Hendrickson, 2008).

Care Coordination

Following the streamlined entry into the Children’s Design, children are placed under a required care coordination structure. Care coordination is referred to often in this evaluation, so it is important to clearly define the term and differentiate it from other terms that are often used in an overlapping or interchangeable way, such as care management and case management. A review conducted by McDonald et al. (2007) discussed the breadth of definitions and lack of consensus and gathered key terms and actors to propose the following working definition of “care coordination”: “the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient’s care to facilitate the appropriate delivery of health care services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care” (McDonald et al., 2007).

Care coordination has been found to have a relationship with improved health access, timeliness of care, and reduced financial burden (McDonald et al., 2007). However, the evidence for these is not specific to children. A systematic review evaluating the impact of continuity, coordination, and transitions of care found that studies included in the analysis had methodological issues that limited the review results and that the types of outcomes measured were too varied for a meta-analysis. Overall, the authors found that there was moderate evidence for increased patient and caregiver satisfaction, but not enough evidence in other spheres (Dy et al., 2013). In addition to a broad range of outcomes, there are also a multitude of care coordination instruments that complicate comparability across studies (Schultz et al., 2013).

3. Study Design

Overview

To conduct the interim evaluation of the Children's Design, we used a combination of qualitative and quantitative methods to answer the research questions outlined by NYS DOH. Qualitative data, collected in semi-structured interviews with various stakeholders, were used to explore implementation barriers, facilitators, and consequences. Quantitative data analyses were conducted on baseline levels of access to and quality of care provided by NYS DOH.

Interviews with key stakeholders and documents on the implementation of the Children's Design were analyzed by the RAND Corporation team to identify issues that have arisen during early implementation. Questions for stakeholders included whether the implementation has gone according to expectations, whether they have concerns about barriers to successful implementation, and whether there are aspects of the implementation that have been particularly promising. The interview protocol can be found in Appendix A.

In part due to a tight timeline for this interim evaluation, population-level aggregate data points for both the target population and the comparison population are used in the analysis; these data contain very little information about the period after the consolidation of the 1915(c) Children's Waiver and after the implementation of the 1115 waiver. Where possible, a comparison group is included in the quantitative assessments of the baseline data to allow us to compare outcomes between the populations.

Since the observation window for this interim evaluation may not be long enough for the effects of the Children's Design to materialize, the findings presented here are largely descriptive in nature. After additional data at the individual level have been collected for a longer period, the final summative report will be better able to assess whether and to what extent the Children's Design has affected care coordination, access, and quality of care.

Qualitative Data Collection and Analysis

Two of the research questions in the interim evaluation were addressed with a qualitative approach in telephone interviews with stakeholders. These two questions are

- 1.1: What are the consequences of targeting availability of HCBS to a more narrowly defined population than that meeting the criteria in the State Plan?
- 5.1: To what extent are Health Home/HCBS enrollees accessing primary care?

It is important to note that the qualitative data component of the evaluation is not designed to formally answer these questions. Rather, the goal is to collect and summarize stakeholder perceptions of how the Children's Design was implemented and its impact on the service system. Stakeholders' perceptions can be a valuable way to identify barriers and facilitators to implementation and understand any unintended consequences.

Key Stakeholder Interviews

Twelve semi-structured interviews were conducted between November 2020 and January 2021 with 26 key informants representing four types of stakeholders: advocates, providers, managed care organization administrators, and state agency representatives. Table 3.1 provides an overview of the number of interviews by stakeholder category. Stakeholders were selected for participation from a list provided by DOH to ensure adequate representation of different affected populations and types of stakeholders. Due to timeline constraints, additional participants were not recruited for participation. Where possible, informants were selected from different regions of the state to ensure representation of New York City (NYC), urban areas outside of NYC, and rural areas.

Participants were recruited by RAND, and all interviews were scheduled and conducted by the RAND evaluation team. Interviews were conducted by phone and included the option for multiple interviewees to attend; an audio recording was obtained, and consent was provided. At least two RAND evaluation team staff participated in each interview, with one staff person as the designated interviewer and another as the designated note taker. Interviews took approximately 60 minutes on average.

Table 3.1. Stakeholder Participation in Interviews

Type of Stakeholder	Number of Interviews	Number of Participants
Advocates	3	4
Providers	3	8
Government partners	3	4
Managed care organizations	3	10
Total	12	26

Protocol Development

The RAND evaluation team developed a semi-structured interview protocol that was tailored for each category of stakeholder (see Appendix A). The protocol was designed to elicit key stakeholders' views regarding the success or lack of success of the Children's Design in achieving the immediate goal of improving access to HCBS and longer-term goals of improving health outcomes, reducing preventable emergency room visits, and increasing access to primary care. Stakeholders were asked to describe barriers to implementation of the Children's Design as well as unanticipated challenges to successfully achieving the implementation goals. The protocols were developed after a review of documents provided by DOH, which included minutes from stakeholder meetings and presentations related to implementation of the Children's Design.

Interviewer Training

Prior to the development of the protocol and to conducting the interviews, the RAND qualitative team received training on the Children's Design and the context of the NYS Medicaid policy for children. The training included a review of documents provided by DOH, participation in discussions with DOH subject-matter expert staff, and internal discussions with the project leads and technical advisers who have experience with NYS Medicaid. The training ensured that the interviewers were aware of issues relevant to implementation when conducting interviews.

Qualitative Analysis

Immediately after each interview, the note taker reviewed the call audio recording and finalized notes. The notes were then reviewed by the interview lead for additional comment. Interview notes were analyzed using Dedoose software. Notes were coded by a minimum of two coders using an evolving code tree based on the goals of the Children's Design. Appendix B provides tables describing the analytic codes developed for the evaluation and the frequency of these codes across transcripts.

Quantitative Data Collection and Analysis

Four of the research questions in the interim evaluation were addressed with quantitative data analysis of two main data sources. Both provide quality measures that address the following research questions:

- 1.3: To what extent are children with special needs accessing PCPs who understand the children's needs?
- 2.1: To what extent are MMC enrollees accessing community-based specialty services in a timely manner?
- 5.1: To what extent are Health Home/HCBS enrollees accessing primary care?
- 5.3: Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?

Both data sources provide data covering the period prior to the implementation of the Children's Design, but only include only three-quarters of post-consolidated 1915(c) Children's Waiver data and one-quarter of post-1115 waiver data. As a result, our quantitative analysis focuses on the period that preceded the launch of the Children's Design: the baseline period. With each data source, we identified subgroups that are most likely to be similar to the population served by the Children's Design and compared the rate of success between each subgroup of interest and other groups served by Medicaid during the same time period.

In the remainder of this section, we describe the data sources, the populations covered by each data source, the measures and outcomes that each data source provides, and the analytic methods.

Quality Measures from the Medicaid Data Warehouse

First, we analyzed aggregate data from the Medicaid Data Warehouse provided by NYS DOH. These data include eight quarterly data points that are population-level aggregated totals for various subgroups in the Medicaid population. All children who meet the continuous enrollment criteria and fall in the age groups for each metric during the time period are included in these data points.[2] NYS DOH pulled select Medicaid quality measures that address the research questions listed above from the Medicaid Data Warehouse. Each of the data points represents the share of children who meet the quality metric of interest in a measurement year, by the subgroups discussed below. Each quarterly data point represents a rate for the subsequent 12 months; for example, the April 2017 rate covers April 2017 through March 2018. Collectively, the data provided cover the period from April 2017 to December 2019. Because the 1115 waiver was implemented in October 2019, our analyses focus on understanding and documenting trends and differences in the populations of interest during the baseline period before implementation.

Study Population and Outcome Measures

We received aggregated data for three population subgroups from Medicaid Data Warehouse data: children who had their care managed through Health Homes—Health Home Serving Children (HHSC), children who participated in FFS, and children who participated in MMC. The FFS and MMC populations are mutually exclusive, while the HHSC population overlaps with both the MMC population and, to a lesser extent, the FFS population. FFS individuals include those newly enrolled in Medicaid before they switch to an MMC plan and those who are exempt or excluded from MMC. All services provided to children and youth in FFS foster care may not be fully captured within these data, as some services are currently paid under a different arrangement. This limitation of the data will likely impact the performance metrics for this specific population.

Although it is the smallest of the three populations, HHSC is most similar to the target population of the Children's Design in terms of the level of needs for HCBS.[3] Because the other two subgroups include all children in the state who participated in either FFS or MMC, these subgroups represent larger and more diverse populations. Most children in the FFS or MMC subgroups do not have chronic health conditions, and relatively few children in these large groups will have needs for HCBS. In general, MMC enrollees are healthier or have fewer functional limitations than FFS enrollees. Because the HHSC group is not mutually exclusive

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[2] As prescribed in the evaluation plan approved by CMS, only aggregate data were used for the interim evaluation.

[3] Based on our communication with NYS DOH in January 2021.

relative to MMC or FFS, children in HHSC will also be included in either the MMC or FFS group, but the HHSC group is quite small relative to the entire population. Children in the HHSC subgroup are likely to have higher care needs and are more likely to have needs for HCBS when compared with the other two subgroups, because they met criteria and enrolled into a Health Home even before the implementation of the Children's Design. While the HHSC subgroup may not fully reflect the Children's Design target population, it is a closer proxy than the more varied and diverse populations included in FFS or MMC. As a result, we focus on the comparisons between HHSC and each of the other two subgroups.

NYS DOH selected a set of quality measures from the Medicaid Data Warehouse to address each research question, as shown in Table 3.2. To address Research question 1.3, three measures related to primary care at different ages (infants, children ages 3 to 6, and adolescents). To address research question 2.2, metrics related to follow-up and monitoring care were selected, including measures of follow-up visits after hospitalization, follow-up visits after prescriptions for ADHD medication, and metabolic monitoring after a prescription for antipsychotic medication. The number of children enrolled in HCBS is the metric used to address research question 3.1. Rates of childhood immunization at age 2 and 13 are used as metrics for research question 5.1, and weight assessment and nutrition counseling is used as a metric for research question 5.3.

The sample size varies depending on the population of children included in each measure. In Table 3.2, we describe the population included in each measure from the Medicaid Data Warehouse. For example, the population included in the first measure on well-care visits (W15) is all children 15 months of age, while the population included in the second measure on well-care visits (W34) is children 3 to 6 years of age. For reference, we list the baseline sample sizes for each group for the first data point in April 2017, except where noted. Generally, the MMC group's sample size is the largest, and the HHSC group is the smallest. Table 3.2 also groups the measures based on the research questions that each helps to address.

Table 3.2. Population and Sample Sizes for Each Measure from Medicaid Data Warehouse

Goal	Research Question	Measure	Population	Sample Size
1. Improve the health outcomes for individuals under 21 receiving HCBS (HCBS Child/Youth) with access to the MMC delivery system.	1.3 To what extent are children with special needs accessing PCPs who understand the children's needs?	1. W15-CH: well-child visits in the first 15 months of life 2. W34-CH: well-child visits in the third, fourth, fifth, and sixth years of life 3. AWC-CH: adolescent well-care visits	1. All children who turned 15 months during the measurement year 2. All children ages 3 to 6 as of December 31 in the measurement year 3. All children ages 12 to 21 as of December 31 in the measurement year	As of April 2017: 1. 4,994 (FFS) 156 (HHSC) 94,385 (MMC) 2. 18,125 (FFS) 2290 (HHSC) 371,733 (MMC) 3. 70,366 (FFS) 10,935 (HHSC) 756,801 (MMC)

Goal	Research Question	Measure	Population	Sample Size
2. Improve health outcomes and increase long-term financial savings through improved access to the additional EPSDT benefits that address early behavioral health needs and health needs of children.	2.2 To what extent are MMC enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?	Follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17	Children ages 6 to 17 as of date of an acute inpatient discharge with a primary diagnosis of mental illness during the measurement year	As of April 2017: 1,923 (FFS) 1,876 (HHSC) 8,907 (MMC)
		Follow-up care for children prescribed ADHD medication	1. Children 6 to 12 years of age who were dispensed an ADHD medication during the intake period and who had a visit during the measurement period	As of April 2017: 1. initiation phase 1,882 (FFS) 1,198 (HHSC) 15,499 (MMC)
			2. Children 6 to 12 years of age who were dispensed an ADHD medication during the intake period, who remained on the medication for at least 210 days following the initiation phase, and who had a visit during the measurement period	2. continuation 566 (FFS) 421 (HHSC) 3,729 (MMC)
		Metabolic monitoring for children and adolescents on antipsychotics	Children and adolescents age 1 to 17 years who have had two or more antipsychotic medications dispensed on separate dates of service during the measurement year	As of April 2017: 5,097 (FFS) 3,870 (HHSC) 15,555 (MMC)
3. Increase appropriate access to the uniform HCBS benefit package for children who meet LOC criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.	3.1 How has enrollment in HCBS increased over the length of the demonstration?	The number of children enrolled in HCBS	The number of children enrolled in HCBS	As of April 2019: 6,642 children

Goal	Research Question	Measure	Population	Sample Size
5. Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.	5.1 To what extent are Health Home/HCBS enrollees accessing primary care?	1. CIS	1. Children who turn age 2 and have at least one visit during the measurement period	As of April 2017: 1. 4731 (FFS) 160 (HHSC) 94,966 (MMC)
		2. IMA	2. Adolescents who turn age 13 during the measurement period	2. 5,489 (FFS) 1,328 (HHSC) 78,437 (MMC)
	5.3. Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	Weight assessment and counseling for nutrition and physical activity for children/ adolescents; BMI assessment for children/adolescents	Patients 3 to 17 years of age with at least one outpatient visit with a PCP or an obstetrician/ gynecologist (OB/GYN) during the measurement period	As of Jan 2018: 82 (HHSC) 145 (MMC)

Analytic Approach

For each quality measure, we graphically present in Chapter 4 of this report trends showing the share of each subgroup that meets the criteria. We also performed two statistical tests.[4]

First, we conducted pairwise t-tests to determine whether there are statistically significant differences in the share of each subgroup meeting the criteria at select points in time. We conducted the t-tests to compare rates in the quality metric between each of the three populations: HHSC versus FFS, HHSC versus MMC, and MMC versus FFS.[5] We conducted these tests for three time points: April 2017, January 2018, and January 2019, which roughly correspond to three calendar years of data.

Second, because the January 2019 data point includes three months after the implementation of the 1115 waiver (October to December 2019), we used a linear regression model to test if the change in trends between the first seven time points (April 2017 to October 2018) and the last time point (January 2019) differs across populations: HHSC versus FFS, HHSC versus MMC,

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[4] We did not perform the tests for weight assessment and counseling for nutrition and physical activity for children/adolescents (WCC) or the number of children enrolled in HCBS due to the fact that these measures did not have a sufficient number of data points to perform the statistical tests. Instead, we simply present the trends over time for these metrics.

[5] The results are similar when we perform chi-squared tests instead of t-tests based on regression models.

and FFS versus MMC. In the discussion of results, we refer to this second test as the trend test. Because the last data point includes months before and after the implementation of the 1115 waiver, it is not a clean difference-in-differences analysis, but it does provide some indication of a shift in patterns during the initial period of implementation. We followed the same methodology for testing the difference between time points and differences in trends for all the measures derived from the Medicaid Data Warehouse. We present p-values in Chapter 4 as appropriate, and the detailed test results can be found in Appendix C, Table C.1.

In addition, we compared the quality measures from the Medicaid Data Warehouse for the HHSC with two other populations: (1) the overall NYS Medicaid population, and (2) the Medicaid and Children's Health Insurance Program (CHIP) population in comparable states. More details on the methods and results of these comparisons are presented in Appendix D, Tables D.1 through D.2. and Figures D.1 through D.10.

Quality Measures from the Consumer Assessment of Healthcare Providers and Systems Children with Chronic Conditions Survey

Next, we complemented our analyses from the Medicaid Data Warehouse data with analyses of select questions on the 2018 Consumer Assessment of Healthcare Providers and Systems (CAHPS) CCC Survey data for NYS (NYS DOH, 2019d). According to the methodology section of the March 2019 Continuous Quality Improvement Report, children ages 0 to 17 who were enrolled for at least five out of the last six months as of July 2018 in a Medicaid or CHIP managed care plan were eligible to be included in the survey. A random sample of 1,500 children from each of the 15 managed care plans was selected, resulting in 4,742 complete responses, for a response rate of 22 percent.[6]

Study Population and Outcome Measures

The CAHPS survey includes a supplement that focuses on care needs specifically for the CCC population. CCC were identified using a five-question screener, including whether the child has a condition that has lasted or is expected to last at least 12 months; functional limitations; use of medical care beyond what is usual for the child's age; and need or use of therapy, treatment, or counseling (NYS DOH, 2019d). Children were classified as having a chronic condition if their parent or caretaker answered affirmatively to at least one of the five screening questions.

Importantly, this population differs from the population included in the Medicaid Data Warehouse in several ways. The NYS CAHPS survey focuses exclusively on children in MMC or CHIP managed care, whereas the Medicaid Data Warehouse provides data on the population of all children in Medicaid in various subgroups, including children in Medicaid FFS. Based on

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[6] See the New York State March 2019 CAHPS Continuous Quality Improvement Report for more details on the survey methodology (NYS DOH, 2019b).

the fact that children need to meet only one of the five criteria in the screener questions to be classified as CCC in CAHPS, this population may experience a more diverse range of conditions and could have fewer functional limitations and thus less need for HCBS when compared with the Children's Design target population. While the CAHPS survey does not directly capture the Children's Design population, relatively few data sources contain information about the population of children with special needs, and the CAHPS provides one useful reference point of the care needs and experiences for CCC in New York. There is likely some overlap in the populations surveyed in CAHPS and the Children's Design target population, and given the limited data available on this population, we used the CAHPS data as one benchmark for assessing care needs and care satisfaction before implementation of the Children's Design. Importantly, because the data in this report are from 2018, these data also provide a snapshot of care needs and experiences prior to the implementation of the Children's Design, which can lay a foundation for future analyses to examine the ways in which care needs change relative to the baseline presented in this report.

Select questions in the CAHPS survey help to address several of the research questions for this study (Table 3.3). As is the case with the Medicaid Data Warehouse, the population of interest varies with each question asked. For example, the question about satisfaction with the doctor's understanding of child and family life is asked only of children whose families indicate that they have a condition that has lasted at least three months. This subgroup is not explicitly the same as the population of CCC based on the five-question screener, but there is substantial overlap. As a result, the comparison group—as well as the share of CCC included in the sample—varies for each question. In Table 3.3, we also indicate the subgroup of children in the survey who were asked each question and present sample sizes as reported in the CAHPS survey documentation.

Analytic Approach

For each question, we present bar charts showing the share of CCC who were asked the question and responded affirmatively. For comparison, we also present the share of all children who were asked the question and responded affirmatively. Importantly, this group includes all of the CCC who were asked the question, as well as any other children who were asked the question but were not identified as having a chronic condition.

Table 3.3. Population and Sample Sizes for Each Metric from Consumer Assessment of Healthcare Providers and Systems Children with Chronic Conditions Survey

Goal	Research Question	Measure	Population	Sample Size
1. Improve the health outcomes for individuals under 21 receiving HCBS (HCBS Child/Youth) with access to the MMC delivery system.	1.3 To what extent are children with special needs accessing PCPs who understand the children's needs?	1. Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your child's day-to-day life? 2. Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your family's day-to-day life?	All children with health conditions that have lasted at least 3 months	1. All: 826; CCC: 652 2. All: 818; CCC: 646
2. Improve health outcomes and increase long-term financial savings through improved access to the additional EPSDT benefits that address early behavioral health needs and health needs of children.	2.1 To what extent are MMC enrollees accessing community-based specialty services in a timely manner?	1. In the last 6 months, how often was it easy to get special medical equipment or devices for your child? 2. In the last 6 months, how often was it easy to get this therapy for your child? 3. In the last 6 months, how often was it easy to get this treatment or counseling for your child?	Children who needed special medical equipment, therapy or counseling in the last 6 months	1. All: 294; CCC: 158 2. All: 545; CCC: 322 3. All: 551; CCC: 410
5. Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.	5.3. Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	1. Did anyone from your child's health plan, doctor's office, or clinic help you get special medical equipment or devices for your child? 2. Did anyone from your child's health plan, doctor's office, or clinic help you get this therapy for your child? 3. Did anyone from your child's health plan, doctor's office, or clinic help you get this treatment or counseling for your child?	Population of children who needed special medical equipment, therapy or counseling in the last 6 months	1. All: 290; CCC: 155 2. All: 554; CCC: 325 3. All: 547; CCC = 405

Goal	Research Question	Measure	Population	Sample Size
		4. In the last 6 months, did anyone from your child's health plan, doctor's office, or clinic help coordinate your child's care among these different providers or services?		4. All: 939; CCC: 450

4. Evaluation Findings

This chapter describes the baseline evaluation results organized by research goal and question. Goals 4 and 6, as well as some research questions under goals 1, 2, 3, and 5, all of which cover care utilization and cost measures, are outside of the scope of this interim evaluation report and will be addressed in the final summative report. The supplemental results comparing baseline quality measures of the Children's Design and those of the overall Medicaid program and other comparable states are presented in Appendix D, Tables D.1–D.2, and Figures D.1–D.10.

Goal 1: Improve the health outcomes for individuals under 21 receiving home- and community-based services (home- and community-based services child/youth) with access to the Medicaid managed care delivery system.

The interim report addresses two research questions under goal 1. The first of these, research question 1.1, is addressed through analysis of key informant interviews. The second, research question 1.3, is addressed with an analysis of enrollment and claims data from the Medicaid Data Warehouse.

Research Question 1.1: What are the consequences of targeting availability of home- and community-based services to a more narrowly defined population than that meeting the criteria in the State Plan?

A full answer to this question requires two components. The first component, related to health care utilization, will be addressed in the final summative evaluation report when the relevant utilization data become available. In this interim report, we address the second component—namely, stakeholders' views of the consequences of targeting HCBS availability to a narrower population, based on information from qualitative interviews with stakeholders.

Specifically, we use these qualitative data to address the hypothesis stated in the CMS-approved evaluation plan: "Targeting HCBS availability to a more narrowly defined population will improve the health outcomes of the population most needing supports to remain in the community." It is important to note that the hypothesis refers to stakeholder observations and not to independent assessments of the evaluation team. For this research question, we are summarizing stakeholder perceptions, not directly assessing the impacts of the Children's Design. Stakeholders tend to be highly knowledgeable about the patients and providers with whom they work, which gives them insight into clinical and administrative processes, but they do not have access to comprehensive information to assess the impacts of the redesign. Some concerns raised by stakeholders and described below, such as the potential loss of access to

HCBS by some children, cannot be assessed at this point in time but are included here because they are salient to stakeholders.

The integrated nature of the Children's Design is important to consider in this report because stakeholders generally perceive the Children's Design as a unified plan and do not distinguish between elements that are, from the regulatory point of view, distinct elements. Stakeholders do not distinguish changes that are due to eligibility criteria from other aspects of the Children's design or the effects of the 1915(c) waiver consolidation from those of the 1115 waiver, which moved waivered services into managed care. In the discussion below, we focus on stakeholders' perceptions of implementation successes and barriers that are specific to the 1115 waiver.

The key respondent interviews focused on three main topic areas:

1. implementation barriers to HCBS access (including the themes of early transition barriers, process of care barriers, and workforce and system capacity barriers)
2. implementation successes
3. consequences of implementing the Children's Design.

Within each of these broad topics, themes and subthemes that emerged from interviews are described below.

Implementation Barriers to Home- and Community-Based Services Access

In discussing the impact of the Children's Design on access to HCBS, respondents focused on a number of issues related broadly to the pathway to care rather than to specific regulations regarding inclusions or exclusions from eligibility. Stakeholders' focus on the process of accessing HCBS reflects the fact that the Children's Design altered pathways to care without making changes to eligibility criteria for HCBS. Across interviews with different types of stakeholders, three main themes were prominent (Table 4.1). The first theme, early transition barriers, covers stakeholder perceptions of temporary challenges that were faced in implementing the Children's Design; these issues are related to the process of institutional change. The topic of barriers to HCBS access was the most frequently discussed. The second theme, process of care, includes stakeholder perceptions of challenges in how care is provided and administered under the Children's Design. The third theme, workforce and system capacity, includes issues specific to reimbursement issues and limited service capacity.

Table 4.1. Implementation Barriers to Home- and Community-Based Services Access Themes and Subthemes

Themes	Subthemes
Early transition	Timing and workflow
	Family adjustment
	Claim denials
Process of care	Care coordination
	Administrative processes
Workforce and system capacity	Reimbursement
	Service capacity

Early Transition

The first theme identified from stakeholder interviews centered on barriers during the early transition period. Within this category, timing and workflow barriers between stakeholder groups, family adjustments to the new system, and reimbursement claim denials were identified by respondents as commonly experienced during the earliest stages of the transition. During interviews, stakeholders were asked to share the main impacts of the Children's Design transition on their work as advocates, providers, managed care organizations, and government partners. The transition period may have been different for different aspects of implementation. When respondents discussed the transition to Health Home care management, they were talking about the first half of 2019, since there was considerable preparation for the transition before the April 1, 2019, start date. Respondents' observations about issues with claims denials are generally about the period following the transition to managed care in October 2019.

Although many of these early barriers continue to pose challenges, some respondents noted an improvement over time.

Timing and Workflow

Providers, advocates, and MMC plan representatives agreed that the Children's Design transition was a protracted process that went beyond the original timeline shared by the state. Stakeholders pointed out that time delays in the transition resulted in confusion and uncertainty, particularly among service providers:

> With the carve-in prior to 2020 . . . it was delayed for years. Pushing it back in that way, a lot of things got lost. What we are seeing now is that we are course-correcting things that were not correcting during those implementations. Things like reporting or operational issues that we didn't think would be an issue at the time. I think we have fixed it over time. (CD10, MCC)[7]

> When the transition to managed care happened for children . . . the money stopped flowing. There was a huge delay of about 6 months. (CD2, advocate)

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[7] Children's Design (CD) stakeholders are identified numerically and by function.

One stakeholder emphasized that there had been delays in the transition to Health Home care management, which preceded the transition into managed care, and that these delays ultimately slowed implementation at the county level.

> There were delays . . . for different elements of the Design. Children's Health Home was about an 18-month delay—12 to 18 months with each of the different segments from the original timeline that was prescribed by the Medicaid Redesign children's subcommittee. . . . Many counties became skeptical if it was really going to happen. So, when Health Homes care management finally launched, we started to see delays in the other transitions. This also created uncertainty. (CD4, provider)

In addition to delays, stakeholders pointed out that workflows among providers and between providers and MMC plans were initially complex and confusing. Some of the workflow issues highlighted by stakeholders included difficulties with obtaining plans of care (POCs)[8] for eligible children, duplication of efforts to serve children, and problems with receiving prior authorizations and proper reimbursement.

> One of the biggest challenges are the plans of care. For HCBS eligible children, the POC is essential for all stakeholders to be able to say what the child's needs are, what services they should get, and the providers they will see. This is a very important document. . . .There was a window of two months when DOH was really pushing for that to happen because this is how we identify the children. Unfortunately, we are over a year in and we still don't have POCs for all children. (CD8, MCC)

Workflow barriers between providers and MMC plans are a notable challenge identified by multiple stakeholders. These barriers appear to be a result of providers learning to manage the authorization and billing process and of MMC plans becoming acquainted with the complex needs of children included under the redesign.

> Providers get nervous talking to MMC plans—they perceive it's going to be all about authorization and denials—but we want this to be a collaborative process. They should work together to make sure the kids are getting the services that they need. (CD11, government partner)
>
> The work has become more complex and has become harder. So, the individual employees need to make contact with managed care companies, the paperwork requirements, the prior authorizations, documentation requirement—they are all more complex. (CD4, provider)
>
> The main concern is establishing a communications workflow that works for all parties involved in this transition. The state is communicating with us at least on a monthly basis, but we have questions on billing/claims, utilization management, care management needs, and workflows (CD10, MCC)

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[8] A POC is an individualized document that outlines the eligible member's care management and supports collaboration across providers, care coordinators, and payers. It should function as a living document that holds the member's goals, applied interventions, time frames, and progress toward meeting specified goals.

> When we got the new kids, we had some familiarity, but these children are much more high need/complex and require careful consideration. (CD8, MCC)

Family Adjustment

According to stakeholders, the Children's Design transition process also caused confusion among the families receiving services. Stakeholders flagged timeline changes and messaging to families as two reasons for the confusion.

> The communication to families was confusing because timelines kept changing. (CD 4, provider)
>
> We had to transition our staff and explain to families the changes between what was previously offered and what was to come. It was quite challenging to explain to families that they were going from one provider that delivered a set of services to something that looked very different. (CD4, provider)
>
> One of the big changes is how people access services. That may be complicated because it wasn't messaged well by the state before it was happening, but that's better as folks figure that out. We still have a need for a lot of education to understand all of the parts and the pathway. It's still too complicated to get access to many of these things. (CD1, advocate)
>
> Navigating the health care system is very difficult for our patients and their families. Managed care is not a great recipe for these families. Managed care is good—if you're not sick. But [medically fragile children] kids are very sick, all the time. (CD6, provider)

Stakeholders also pointed out that the complexity of the system has caused delays for families, which has resulted in families disengaging from services.

> Families [are] waiting months for approval. I think it has gotten a little better over time. The concern is [managed care] meets the needs of the regulators and not the needs of the families. (CD7, provider)
>
> If the process is taking too long, then people are dropping out. It's not user-friendly, so we lose families. If there are any additional steps, the families lose interest, they start to miss appointments. (CD1, advocate)

Most informants discussed difficulties related to access to HCBS. According to MRT meeting minutes, over 95 percent of children who were receiving services under the prior waivers were adequately transitioned to receiving services under the new system. However, eligibility is a moving target, and children naturally transition in and out of meeting HCBS eligibility requirements. During these periodic fluctuations, children and families appeared to be having a more difficult time accessing services than before.

> A number is an understatement—thousands of children have dropped off. Families are angry. Their kids have lost services. Services that were keeping kids at home, keeping families intact. They are angry. (CD3, government partner)

Claim Denials

Some stakeholders identified claim denials as one of the early barriers in the transition. It appears that providers new to managed care billing were disproportionately affected by workflow barriers in MMC plans despite the state providing MMC billing training and technical assistance.

> Process wise, the smaller providers have struggled with the submission of claims, tracking denials, making sure they're resubmitted. Learning the different processes with the MCCs, that's a learning curve. There's more complexity. Each do something slightly differently; they have a different understanding of the services. If you call the customer service number, they can't tell you why claims are denied. There is a gap with managed care plans and getting the info we need from them. Why they're not paying the claims, what the logic is, what they can and can't do when paying claims, they can't tell you. There's a gap there for sure. (CD9, advocate)
>
> If a provider was new to billing managed care, we tried to get ahead of some of the training and TA [technical assistance] we needed to provide on the provider side. We learned from our experiences on the adult side this time around. Understanding the populations and payment issues were the two biggest things we heard. (CD11, government partner)

Despite early and ongoing claim denial issues, one MMC plan representative pointed out that their claim denial rates are lower than those of FFS.

> We worked hard on technical assistance to support HCBS providers [so that they] understand how to bill, how to address claim denial issues. The state rigorously tracks denial rates by service type and plan. Our claim denial rates are lower than that for FFS. There are always going to be some degree of claim denials due to administrative things and providers learning how to revenue cycle management. (CD12, MCC)

In addition, one provider who reported having a "strong" revenue cycle process did not seem to experience the same level of billing issues that other stakeholders described. This seems to suggest that most of the billing challenges may have been experienced by providers who were new to managed care billing.

> We have a strong revenue cycle management process. Our finance department has a good track record in terms of billing. There was one minor difficulty with respite billing with one managed care plan, but overall the process has been very smooth. (CD 4, provider)

Process of Care

The second theme under the implementation barriers topic area identified in the stakeholder interviews relates to the process of care. Stakeholders identified two aspects of the process of care as having been impacted by the Children's Design: LOC coordination and complexity of administrative processes.

Care Coordination

Many of the stakeholders thought that care management under the prior system of waivers was more intensive and more supportive to families than care coordination by Health Homes and MMC plans under the Children's Design. One representative of a provider agency gave a similar explanation:

> People kept using the terms "coordination" and "management" [interchangeably] and it made me nuts. It is not the same. When you are coordinating care, you are just helping Johnny to get to the dentist and then the psychiatrist. A care manager looks at it differently and says what does Johnny need right now. So for example someone gets discharged with an oxygen tank—but how to get the tank up to the apartment, and what about nutrition, etc. This is very different from coordination. (CD7, provider)

Several providers explained that the complexity of the new system resulted in staff and families feeling discouraged and opting for lower levels of care to avoid going through the new process. This meant that children and families were losing access to services offered at higher levels of care. As noted by one provider,

> It's hard to underestimate what we have lost by families experiencing their care coordination integrated with all their services in a seamless flow between all their services and care coordination; a team to ensure that the families were getting what they needed when they needed it. This is a more splintered approach. There is a loss there for families in terms of the quality of services and in terms of them receiving the right services at the right time. (CD4, provider)

Stakeholders also noted that the challenges with care coordination extended to mental health services. Prior to the Children's Design, children were assessed and care was coordinated through the Children's Single Point of Access (CSPOA), a centralized referral system for children in need of intensive mental health services. After the redesign, these services were separated out, which meant that families needed to check in with different individuals, thus increasing their burden. As a result, stakeholders pointed out, families either dropped off from services completely or settled for a lower LOC that was less complicated to navigate.

> Previously, with OMH wavier, one staff person could do care coordination and intensive in-home services. Through the redesign, those were separated out. Now you have a separate care manager and an equivalent service might be a CFTSS service for OLP [other licensed professional] or CPST [community psychiatric support & treatment], but now it's two providers. Families went from one or two staff to five or six staff, depending on how many services they were eligible for and wanted to receive. (CD4, provider)

Providers attributed this change in part to the requirement under the Children's Design that care coordination be separated from the provision of HCBS, which was a requirement under CMS conflict of interest rules:

> We went from OMH and B2H [Bridges 2 Health] waivers being a program, a wraparound program. So, you could have your care coordination, skill building, respite, and other services with a team. The teams were able to meet frequently to talk about best practices for families and what was working and what was not. When they were separated out, care management was on one side and services on the other side. Some of the challenges were: it wasn't as cohesive of a team, families/youth suddenly had multiple providers. (CD4, provider)

One stakeholder also noted that the change in intensity of care management/coordination was reflected in the change in caseload size:

> Under former waivers, care management ratios were viewed as very rich, 1:10–1:12, under Health Home structure, they only recommended ratios and they are carrying caseloads of 20–30 kids. How is that a meaningful service? (CD3, government partner)

One respondent, who represents a provider agency, discussed this point by contrasting care management, which is more intensive, with care coordination, which cannot be expected to provide the same LOC or results:

> And at the state, they didn't pay for it [care management]. If you really want to do something, you need to have knowledge about the people you are serving. There is a limit to what you can do as a coordinator. Especially when you don't know what you don't know. Unrealistic expectations of care coordinators. (CD7, provider)

Stakeholders also identified the amount of paperwork, added processes, and increased caseload that staff needed to deal with, which detracted from the services they could provide and decreased the quality of care management. One advocate commented,

> The assessment is far more complicated for the care manager on the ground. The eligibility process had barriers: Care managers frequently encounter waitlists or a lack of capacity to take the referral. It creates delays and families drop off. Sometimes providers don't have staff with the right credentials to complete the forms. Sometimes the children don't obviously have the risk factors, and the care managers don't have documentation of the needs so they can't get the services. (CD1, advocate)

Administrative Processes

The subtheme of administrative processes included the process of accessing care, paperwork, and workflows, as well as eligibility criteria and determination processes. Several stakeholders noted that the turnaround for families getting services was much quicker before the Children's Design and attributed new delays to eligibility issues. Stakeholders mentioned previous access to services through CSPOAs, which allowed for eligibility determination and speedy connection to resources, and they reported that the current system does not display these characteristics. In addition, prior to the Children's Design, OMH would place children or youth in state-funded services, which is an administratively simpler process than providing similar services through Medicaid.

> Before, [through] the OMH waiver, children accessed services through CSPOAs. I worked in the community for a long time and then came to MCC during the transformation. When CSPOA was in place, the turnaround was quick. There was a statewide requirement that once all documentation is submitted, that children were assigned to an HCBS agency within five business days. And that generally happened. When children received a referral, they were generally being serviced within five days. (CD12, MCC)
>
> CSPOA determined level of care and the individual was already eligible for the services. Now, when individuals are referred to Health Home care management, they have to do the eligibility process for Health Home care management and the eligibility process for HCBS—so that is where you get the 20-some-odd steps for each service. (CD4, provider)

One of the stakeholders emphasized the extremely long waiting period for children to get services in place due to having to wait to resolve eligibility.

> Right now, it's open ended. It's hard to say how quickly a child will be seen by a CMA [care management agency], and then from there the LOC determination has to occur to see if the child is eligible for HCBS, and then from there the services have to be put in place. Based on our experience, it could be anywhere between 30 and 90 days before children have HCBS services put in place [. . .] That is one of the major obstacles and has been problematic. (CD12, MCC)
>
> But now, you have to gather all of that paperwork and do all of the coordination on their own. . . . and then they do the HCBS eligibility determination, so it takes longer. (CD12, MCC)

Overall, eligibility determination and the system as a whole were perceived as lengthier and more complicated. Stakeholders emphasized how there were more steps, more paperwork, and more complications with the new system. These additional steps have contributed to confusion on the part of both providers and families; the latter then opt to stay at a lower level of services because it is simpler to access.

> I think we made it a bit more complicated than it needs to be. (CD1, advocate)
>
> If there is some way that those things [eligibility determination] can happen simultaneously or you eliminate part of the process, that might help the system move forward more quickly. (CD4, provider)
>
> Part of why the process was five steps versus 20 steps, is that when an individual was referred to an ICC [Interagency Coordinating Council] agency or a HCBS provider, level of care was already determined. (CD4, provider)
>
> It is very confusing for families and very confusing for providers. (CD3, government partner)
>
> Referral sources, staff and families become discouraged by the complexity of applying for [an] HCBS waiver, so they settle for CFTSS services rather than go through the complexity of applying for family caregiver supports [the waiver services]. CFTSS services are good services but lower-level family support services. This results in lower enrollment in the higher-level service. (CD4, provider)

Respondents emphasized that the challenges of eligibility determination and other paperwork requirements are not simply inconveniences. Rather, stakeholders noted that they can constitute barriers to HCBS for some families.

> We have experienced challenges with eligibility determinations. Two out of three of our Health Homes responded to my request, and there are still challenges. The first noted that engaging with parents about getting consents and signatures is an issue. If the process is taking too long, then people are dropping out. It's not user-friendly, so we lose families. If there are any additional steps, the families lose interest, they start to miss appointments. It's also that there's a disconnect between state policies on the assessment and the reality of sitting with a kid and family sitting in front of you and getting through the lengthy questionnaire. (CD1, advocate)

> Back to HCBS, they are like going to the restaurant with a Chinese menu, you pick a little from each column, what you want to share or eat alone, and it presumes that people at the table are calm, know when they are going to eat, how to eat it, all these decisions. . . . Our parents are so traumatized because of poverty, hunger, homelessness. It presumed a luxury of time and being able to think about those things when the focus for many of these families is day-to-day survival. The notion that they can do all these different sessions is ridiculous. (CD7, provider)

Workforce and System Capacity

The third main theme of barriers identified in the stakeholder interviews centered on issues around workforce shortages and limited system capacity. These issues were commonly discussed in relation to issues with reimbursement because stakeholders attributed the workforce shortage in part to limited reimbursement; from their perspective, providers did not want to be part of the system because the reimbursement was too low. Issues related to reimbursement and issues related to service capacity are discussed individually below.

Reimbursement

Two main considerations emerged from the interviews related to reimbursement: the reimbursement process and the reimbursement rate. Stakeholders noted that the change in the reimbursement process under the Children's Design has proved to be difficult for providers to master. One advocate commented that this has resulted in a delay in submitting claims and tracking denials and resubmission.

> It is a major problem, if these agencies have to use even half an FTE [full-time equivalent] to get the bills paid, to get the reimbursements, that's an expense and inefficiency in the system. These providers are smaller, they're nonprofits, and cash flow is an issue. July 2018 it started, and still these barriers. That's a problem. It's getting better, sure, but it would be nice if it happened faster. (CD1, advocate)

Stakeholders also indicated that providers feel that the rates allowable for reimbursement for services are too low. Respondents noted that the low rates impact the ability of providers to hire staff and may also affect the quality of care provided to children.

> The HCBS rates are not financially viable at all. Without a guaranteed number of cases, they can't hire staff to provide services. How do you afford to hire a person with that level of randomness? So the rate structure is a problem. (CD3, government partner)

> We have not had a rate increase in over 11 years. Where do you think it comes out of? The quality of care that is given to people. (CD7, provider)

Two additional factors emerged from interviews with providers: the inability to plan based on unknown acceptable rates that may be determined after the service, and the rate of denials. There was a lack of consensus on the rate of denials, with some respondents indicating that the rate of denials was low, and others stating that the rate of denials was too high. These conflicting perceptions may be due to differences across MMC plans, across providers with differing experiences submitting claims for services that fall under the Children's Design, or over time, with denials more common in the early period of implementation.

Service Capacity

Service capacity is influenced both by the number of available providers in the state and by the number who are designated to provide services. The decision to become a designated provider may be influenced by the service rates, as discussed above. Stakeholders perceived a shortage in the number of providers in the state, which was exacerbated by the de-designation of eligible providers. This shortage of providers, especially for specialty services, limits the services available to the Children's Design population.

> We have plans of care for 70–80 percent of our members and only about half show claims for HCBS services. We hear that it's because they cannot find the providers needed to provide the services. (CD12, MCC)
>
> What providers have told us, the rates are too low in general and they are really struggling with finding folks to do the work based on the salaries. They can't lure them or incentivize the work; the salary is too low. Some of them have had to resort to a per diem structure, but that has created issues with turnover and longevity, so they spend more time on HR [human resources] and hiring, onboarding, so it's more cost. (CD11, government partner)
>
> With the expansion of the overall program, we didn't see the same expansion with the HCBS provider network and their capacity. It impacted our kids' ability to access services. In the previous wavier, these kids didn't have access, they couldn't get an HCBS slot, but now they have a slot, but they can't get the services because HCBS providers can't keep up with demand. (CD9, advocate)

Key stakeholders indicated that issues with service capacity are particularly germane to the ability of children to receive respite services and palliative care.

> Two issues there, respite, there is so much need and not enough workforce. Demand exceeds the supply. So while there might be a good number who provide respite, it's still not enough. It's a low reimbursed service that's not related to qualifications, so you need a never-ending supply. (CD11, government partner)
>
> I can't speak to what it was like before, but I will say that for HCBS services that would be most beneficial for our medically fragile children, specifically, palliative care, there are no providers. I think there is one in the state. That has been a very big barrier. (CD12, MCC)

De-designation of providers is also a barrier to ensuring that there is provider capacity to provide the needed services. According to stakeholders, the inability to support staff based on the current reimbursement rates, coupled with the large geographic region covered by providers, has meant de-designation and a further reduction in the number of caregivers available.

> What I've heard is that it's hard to sustain the program on the rates currently provided. Providers are de-designating, the agencies can't hire additional providers, they can't afford new staff on the rates. I think any of the issues we talk about are going to come back to that. (CD9, advocate)
>
> Sufficient capacity is a challenge with the system, because [of] the way it is financed and demands on the staff. We have de-designated in certain localities. We know peer organizations that have done the same. The challenge will continue to be to reach children and families that need these services if we don't have enough providers as part of the system. (CD4, provider)
>
> Most of the agencies are de-designating from HCBS because they can't make this a financially viable program. So they are not able to serve kids, and there are no programs for care managers to link children to. (CD3, government partner)

Stakeholders also reported that the expansion of children eligible under the Children's Design has not come to fruition. Providers who planned for an increase and incurred those additional start-up costs have had to reconfigure their workforce.

> Being able to expand the old waiver kids was also the hope but the numbers don't demonstrate an expansion. (CD2, advocate)
>
> I don't think we see improved access. It's the same number of kids, actually fewer kids, but no more kids are getting into the waiver. It's not an expansion of access. We haven't seen a significant increase in access of who is getting HCBS, it's same kids as before. It's not the expansion we hoped for and planned for. (CD11, government partner)

Additional barriers related to specific populations were identified. As discussed above, advocates commented that start-up costs incurred by small providers in anticipation of a higher caseload reduced provider capacity. For example, providers noted challenges understanding different populations included in the Children's Design. MCCs described issues with the referral process, including difficulties determining when a provider has an opening for a service, as there is no mechanism for tracking availability.

Implementation Successes

With respect to perceived successes, stakeholders discussed the potential for monitoring and improving system functioning that is gained by merging financing of care for the waivered populations into managed care. This view was most commonly stated by representatives from MMC plans. Prior to the Children's Design, the MMC plans covered general medical care for children in the 1915(c) waivers, but because the specialty behavioral health services, including HCBS, were carved-out, the MMC plans were unable to observe or monitor the totality of care these children were receiving. According to these stakeholders, now that care is carved-in, the MMCs plans have full visibility into the care that children receive.

> We [the MMC plan] are able to see all of the needs and all of the services that a member is getting. When the services were carved out, we didn't know all of the details. . . . By carving that in we are able to get a better picture. (CD8, MCC)

Having full visibility into the care that waivered children receive enables MMCs to integrate care across the spectrum of needs that children might have, including primary care services, to more actively manage and support the care network and to monitor and improve quality of care. Integration was mentioned in all interviews with MMC respondents. One MCC described it in this way:

> Before, the member only had certain HCBS services. The carve in allowed the members to be managed by the Health Home, with the plan involved, and care handled in the same place—so, both primary health care and behavioral health care. With the waiver being consolidated, all services were available to all members across the board. (CD10, MCC)

This MMC representative also described instituting meetings that bring together multiple provider types to discuss and manage care for children with complex needs:

> We meet bi-weekly and discuss members that we are sharing. The call includes behavioral health providers and doctors that provide a higher level of clinical expertise when discussing members, especially if they are receiving any HCBS services. We make sure that services are being implemented for the child and making the process seamless. We've had great outcomes due to these discussions for these members. (CD10, MCC)

One MMC respondent described the plan's routine monitoring of care utilization, which covers routine primary care, management of chronic physical illness, and use of hospital and emergency department services:

> We use a number of predictive analysis reports. We look at risk adjustment scores for our population on a monthly basis, we look at PCP utilization, gaps in care closures (dental and wellness, asthma, diabetes), HEDIS [Healthcare Effectiveness Data and Information Set], and hospitalizations. We look specifically at thee-plus for ED [emergency department] and four-plus in a year for inpatient. Based on the date, we may drill down further. We also look at pharmacy data. Asthmatics are a big population under this. We look to see what their pharmacy fills and if they have a real medication regimen and whether it's appropriate. (CD10, MCC)

MMCs also described their efforts to monitor the adequacy of the care network and the quality of care that is provided, going beyond requirements imposed by the state:

> We look at network adequacy in collaboration with the state mandate. The state requires that we look at adequacy on a monthly basis. Prior to the carve in, we had requirements about the number of providers that had to be in the network before we could begin and get approval for the services to be carved in. We are always looking at the number of HCBS providers that we have in our network. The other component that we have now is the quality of what the network does. Now we have to look at the quality of the network. For example, are the patients able to get services or are they able to get appointments? Are they getting the correct services? Are they seeing their providers regularly? We oversee this by requesting regular reports from our delegates letting us know the services that they are provided. You can also see it in the claims that are coming through, and we monitor in that way as well. Again, the state mandates some of it, but we also overlay additional oversight activities as well. (CD10, MCC)

It is important to note that MMCs did not claim that these changes had already achieved improvements in the care received by waivered children. Respondents believed that the changes introduced by the Children's Design were moving in a positive direction and bringing potential gains in quality of care, but they also believe that the process of change will take more time. As one MCC representative stated:

> The Children's Design is just beginning. Systemwide change takes at least three to five years to know if it's working or not. . . . This is such a huge transformation that it will take a few years to see if it has improved anything. (CD12, MCC)

Another added that the COVID-19 pandemic has probably slowed the process of change and delayed some benefits of the Children's Design:

> I do think it's too early to tell. Especially because of COVID. The carve-in started October 2019 and it's only been a year. A year is not enough time and then COVID made things lopsided. We are trying to figure out the implications that COVID had in general, and so it's too early to tell. We've been able to identify our population that are HCBS eligible but it's hard to say what the result is at this time. (CD8, MCC)

Consequences of Implementing the Children's Design

Respondents were asked about their perception of the consequences of the Children's Design for use of intensive health care services, such as hospital stays and ED visits. Reducing use of these services by providing better access to HCBS for eligible children is one of the main goals of the demonstration. However, findings from the stakeholder interviews were inconclusive. Stakeholders uniformly reported that it is impossible at this point to assess the effect of the Children's Design on these outcomes due to the short period of implementation and, perhaps more important, the COVID-19 pandemic. The effect of the pandemic on all health care utilization overwhelmed any effect that the Children's Design might have had, as noted by an MMC representative:

> It’s a challenge to be able to figure out if what we are seeing is due to the redesign or COVID. At the beginning of COVID, some people just refused to go to the hospital. (CD8, MCC)

Research Question 1.3: To what extent are children with special needs accessing primary care providers who understand the children’s needs?

To examine the extent to which children with special needs access PCPs who understand the children’s needs, we turn to data from the 2018 CAHPS CCC Survey questionnaire for New York State (NYS DOH, 2019d). The CAHPS survey asked all parents of CCC about satisfaction with their PCP’s understanding of the child and the family’s daily life. The same question was asked of parents of children with a condition that has lasted at least three months, who may not meet the definition of a child with a chronic condition based on the five-question screener, but who do have special needs. We also examined rates of well-child visits as reported in the Medicaid Data Warehouse. For each measure, we first examined overall differences by group and then differences in the time trend by group.

Satisfaction with Primary Care

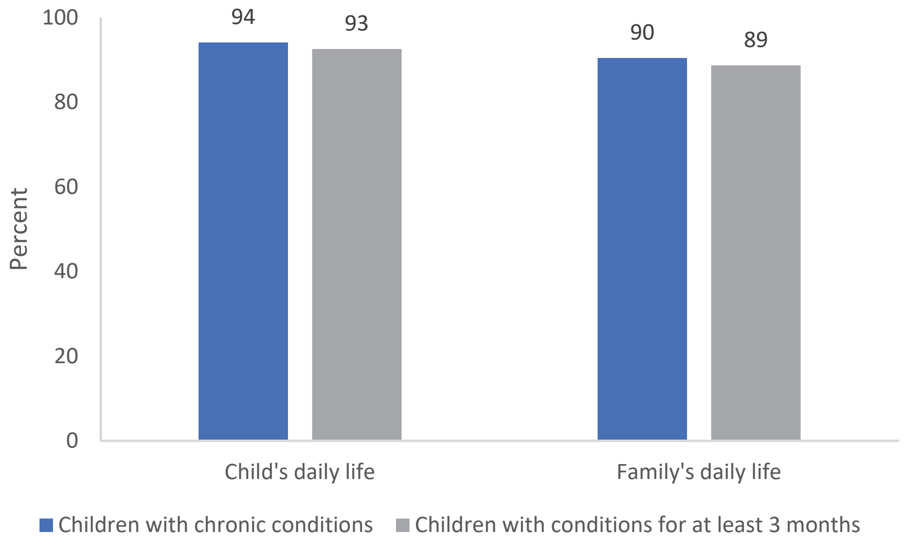
In 2018, 94 percent of parents of CCC in the survey reported being satisfied with their PCP’s understanding of their children’s daily lives, while 90 percent reported that they think that their doctors understand their family’s daily life (Figure 4.1). Among the broader sample of parents of children with a condition that has lasted at least three months (which includes most CCC), 93 and 89 percent of parents reported being satisfied with their doctor’s understanding of their children’s and family’s daily life, respectively.

Well-Care Visits

Figure 4.2 illustrates the baseline data for well-child visits during the first 15 months of life (W15-CH) from the Medicaid Data Warehouse. The sample size for the three subpopulations included in the Warehouse vary significantly from 2017 to 2019, with HHSC sample size ranging from 150 to 300, FFS ranging from 4,500 to 5,000, and MMC ranging from 94,385 to 91,411. Below, we look at receipt of well-child visits by different age categories.

The percentage of children in MMC receiving six or more well-child visits in the first 15 months of life was consistently the highest among the three populations, ranging from 62 to 65 percent between 2017 and 2019. By contrast, the rate of six or more well-child visits was significantly lower among children in HHSC, when compared with all children in MMC in all three chosen time points (ranging between 46 and 37 percent, $p < 0.001$), and the rate is also significantly lower among children in FFS when compared with children in MMC (ranging from 41 to 44 percent, $p < 0.001$). In terms of trends over time, the rates for children in MMC and FFS increased slightly from 2017 to 2019, while the rate of HHSC decreased.

Figure 4.1. Primary Care Provider's Understanding of the Impact of Chronic Health Conditions on Child's and Family's Daily Life, 2018



SOURCE: NYS DOH, 2019d.

NOTE: Sample size: the impact on child's daily life: CCC = 652, children with conditions for at least 3 months = 826; the impact on family's daily life: CCC = 646, children with conditions for at least 3 months = 818.

There is no statistically significant difference in the share of children in HHSC or FFS receiving six or more well-child visits, except for the final data point beginning in January 2019, when children enrolled in HHSC have a significantly lower rate (37 percent) than children in FFS (44 percent, $p < 0.001$). The trend tests between the first seven time points (April 2017 to October 2018) and the last time point (January 2019) do not show any statistically significant differences between the three populations.[9]

Figure 4.3 shows the percentage of children ages 3 to 6 who received at least one well-child visit (W34-CH), according to the Medicaid Data Warehouse. The sample size for the three subpopulations varies from 2,300 to near 4,000 children for HHSC; around 18,000 for FFS; and about 360,000 for MMC. This metric has been consistently the highest among children in MMC, ranging between 81 and 84 percent during the time period in our analysis. The rates increased slightly from 2017 to 2019 for children in MMC, while the rate for the HHSC group declined by 6 percentage points from 74 percent to 68 percent in the first two quarters of 2018 before returning to 74 percent for the final data point beginning in January 2019. The rate among children on FFS remained relatively constant at 43 to 44 percent over the entire time period.

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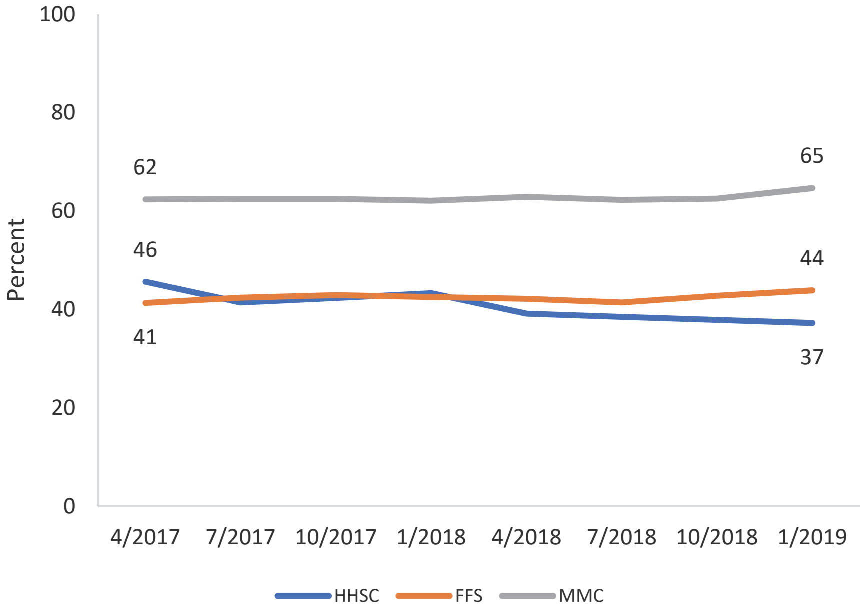
[9] We use a 5-percent threshold for determining statistical significance.

Figure 4.2. Percent of Children with Six or More Well-Child Visits in the First 15 Months of Life (W15-CH), 2017–2019

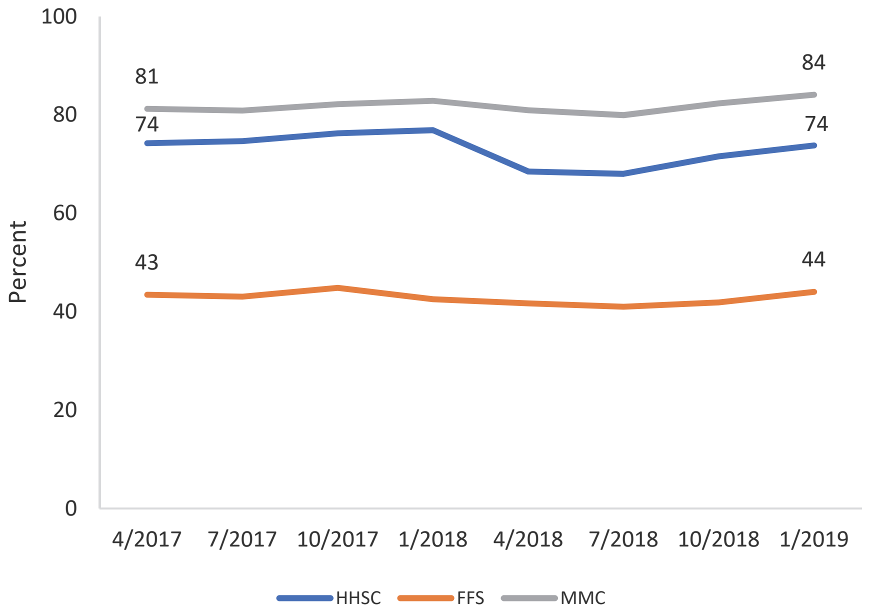


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

The difference in the rates in each pairwise comparison of groups is statistically significant. While the trend test reveals a statistically significant difference in trends between the first seven time points (2017–2004 to 2018–2010) and the last time point (2019–2001) when comparing children covered under MMC with children covered under FFS ($p < 0.001$), the magnitude of this difference is small: 1 percentage point. There is no statistically significant difference in trends between the HHSC group and all children in MMC ($p = 0.118$), or between the HHSC group and children in FFS ($p = 0.844$).

Figure 4.4 shows the percentage of adolescents ages 12 to 21 who received at least one adolescent well-care visit during the measurement year (AWC-CH), according to the Medicaid Data Warehouse. The sample size for the three subpopulations varies from 10,000 to over 17,000 for HHSC, from 70,000 to 75,000 for FFS, and about 760,000 for MMC. The share of adolescents receiving at least one well-care visit was higher among HHSC and MMC, ranging between 64 and 66 percent. By contrast, the rate is much lower among FFS, at 28 percent. These rates are stable for all three populations from 2017 to 2019. The difference in rates between adolescents in HHSC and FFS is statistically significant at all three time points ($p < 0.001$).

Figure 4.3. Percent of Children with One or More Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (W34-CH), 2017–2019



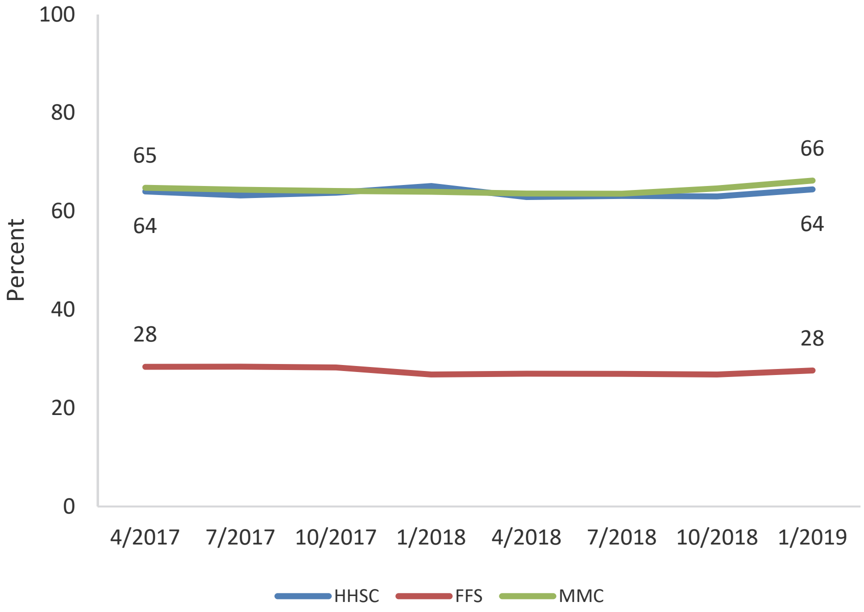
SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

There are statistically significant differences in the rates between adolescents in HHSC and MMC in the first two time points ($p = 0.009$ and $p < 0.001$), but only a marginally statistically significant difference in the last time point ($p = 0.097$). There is a statistically significant difference in trends when comparing MMC with FFS or HHSC. However, both differences are small: 2 percentage points and 1 percentage point, respectively ($p < 0.001$, $p = 0.004$). The difference in trends between adolescents in HHSC and FFS is also approaching statistical significance at the 5-percent level ($p = 0.056$).

Goal 2: Improve health outcomes and increase long-term financial savings through improved access to the additional early and periodic screening, diagnostic, and treatment benefits that address early behavioral health needs and health needs of children.

In this section, we examined two research questions. First, to what extent are MMC enrollees accessing community-based specialty services in a timely manner? Second, to what extent are MMC enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?

Figure 4.4. Percent of Adolescents Ages 12 to 21 with One or More Adolescent Well-Care Visits (AWC-CH), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Research Question 2.1: To what extent are Medicaid managed care enrollees accessing community-based specialty services in a timely manner?

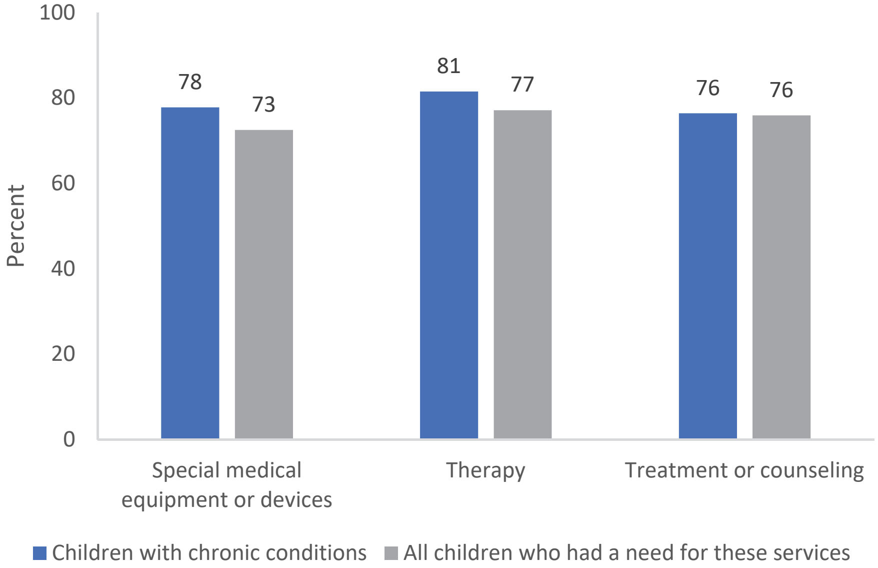
Due to lack of better measures for timely access to specialty services, we used CAHPS survey data about the difficulty children and their families have in accessing such services.

Access to Community-Based Specialty Services

Figure 4.5 shows parent responses to three questions about how easy it was for respondents to obtain special medical equipment (e.g., a walker, wheelchair, nebulizer, feeding tubes, or oxygen equipment); special therapy (e.g., physical, occupational, or speech therapy); or treatment/counseling for an emotional, developmental, or behavioral problem.

In 2018, 78 percent of all parents of CCC who needed special medical equipment reported that it was usually or always easy to get it. The rates were 81 percent for special therapy and 76 percent for treatment or counseling. These rates are slightly higher when compared with the share of all parents whose children had a need for these services (regardless of whether their child had chronic conditions or not), ranging between 73 and 77 percent.

Figure 4.5. Extent to Which It Is Usually or Always Easy to Get Special Medical Equipment or Devices/Therapy/Treatment or Counseling, 2018



SOURCE: NYS DOH, 2019d.

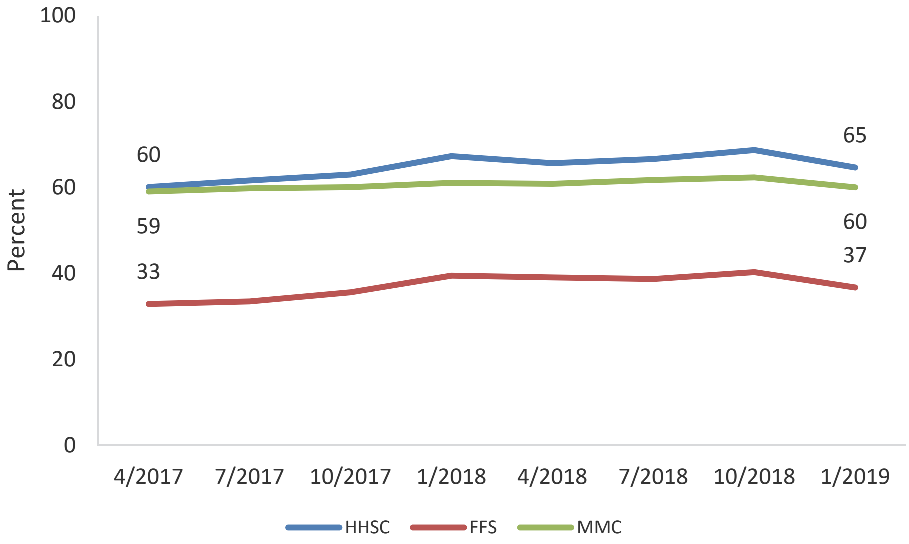
Research Question 2.2: To what extent are Medicaid managed care enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?

We examined three metrics from the Medicaid Data Warehouse to address this research question: rates of follow-up visits after hospitalization after mental illness, rates of follow-up visits after prescription of ADHD medication, and rates of metabolic monitoring for children prescribed antipsychotic medication. For each of these metrics, we compare differences in the level of these rates in the three subgroups (MMC, FFS, HHSC) and test for differences in trends over time.

Follow-Up After Hospitalization for Mental Illness

We return to population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH to examine the rates of follow-up among children who were hospitalized for treatment of mental illness (Figure 4.6). The sample size for the three subpopulations varies from 1,800 to near 2,700 for HHSC; 1,700 to 1,900 for FFS; and 85,000 to 90,000 children in MMC. About 60 percent of all children in MMC ages 6 to 17 who were hospitalized for treatment of selected mental illness had one follow-up visit within seven days of discharge over the entire time period. In 2017, children in HHSC had a similar rate as children in MMC ($p = 0.399$), but the rates among HHSC children later surpassed those in MMC, improving from 59 percent in April 2017 to 65 percent in January 2019 ($p < 0.001$). The rates were lowest for children in FFS, although there was a slight improvement from 2017 to 2019 (33 percent to 37 percent). The trend test shows no statistically significant change between the first seven data points and the last data point for children in MMC compared with children in FFS ($p = 0.761$), between HHSC and MMC ($p = 0.794$), and between HHSC and FFS ($p = 0.944$).

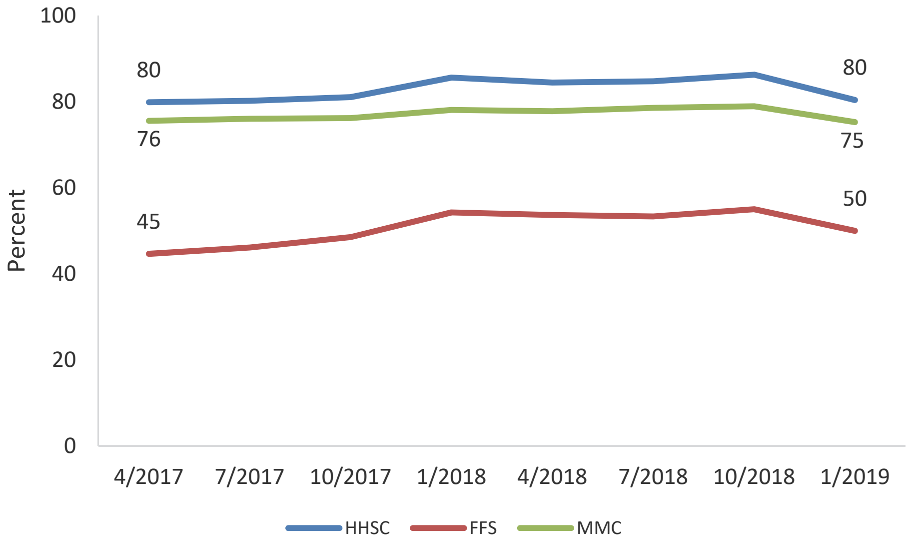
Figure 4.6. Percent of Discharges for Children Ages 6 to 17 Who Were Hospitalized for Treatment of Selected Mental Illnesses and Who Had a Follow-Up Visit Within Seven Days of Discharge (FUH-07), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Figure 4.7 examines rates of follow-up within 30 days of hospitalization for mental illness. The sample sizes for the three populations are the same as those for the metric shown in Figure 4.6. About 75 percent of all children ages 6 to 17 in MMC who were hospitalized for treatment of selected mental illness had one follow-up visit within 30 days of discharge. Children in HHSC had rates approximately 5 percentage points higher than all children in MMC and FFS throughout the study period ($p < 0.001$). The rates were lowest for children in FFS, although there was an improvement from 2017 to 2019 (45 percent to 50 percent). The trend test shows no statistically significant change over time for children in MMC compared with children in FFS ($p = 0.270$), between HHSC and MMC ($p = 0.307$), and between HHSC and FFS ($p = 0.103$).

Figure 4.7. Percent of Discharges for Children Ages 6 to 17 Who Were Hospitalized for Treatment of Selected Mental Illnesses and Who Had a Follow-Up Visit Within 30 Days of Discharge (FUH-30), 2017–2019

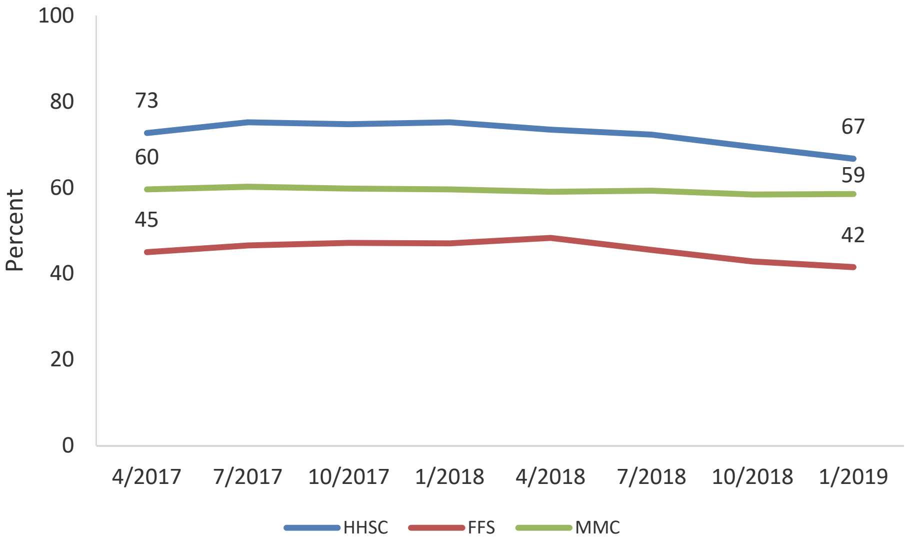


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Follow-Up for Children Prescribed Attention-Deficit/Hyperactivity Disorder Medication

Figure 4.8 presents rates of follow-up visits for children ages 6 to 12 who had a newly dispensed medication for ADHD within 30 days (the initiation phase). The sample size for the three populations varies from 1,200 to near 2,200 for HHSC, about 1,800 for FFS, and about 15,000 for MMC. About 60 percent of all children ages 6 to 12 in MMC who were newly dispensed a medication for ADHD had at least one follow-up visit during the 30-day initiation phase. Children in HHSC had higher rates of follow-up than all children in MMC and FFS throughout the study period ($p < 0.001$). Both children in HHSC and children in FFS had declines in the rate of follow-up over the study period, with declines from 73 percent to 67 percent for children in HHSC and from 45 percent to 42 percent for children in FFS. The test of difference in trends shows statistically significant change over time for all children in MMC compared with all children in FFS (4 percentage points, $p = 0.003$), between children in HHSC and all children in MMC (–5 percentage points, $p < 0.001$), but no statistically significant difference between children in HHSC and all children in FFS ($p = 0.254$).

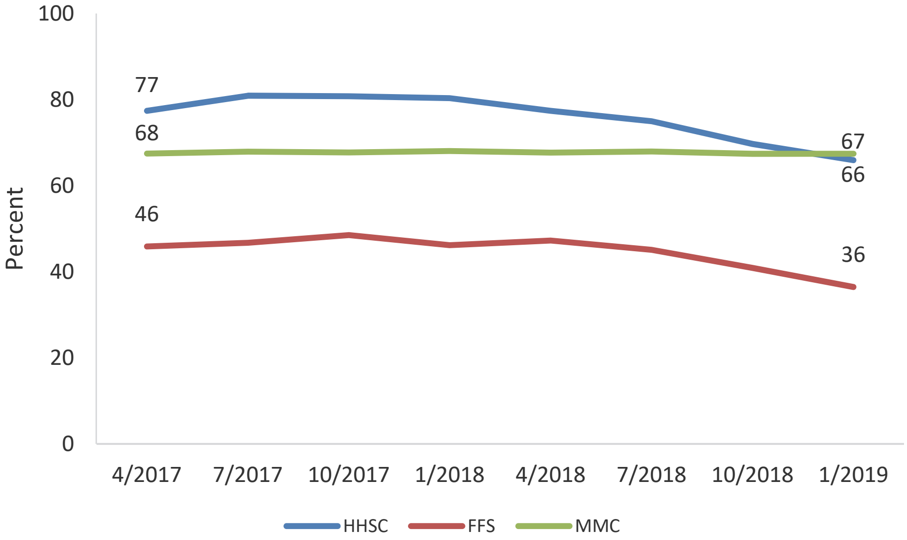
Figure 4.8. Percent of Children Ages 6 to 12 and Newly Dispensed a Medication for ADHD Who Had at Least One Follow-Up Visit During the 30-Day Initiation Phase (ADD-INIT), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

The continuation and maintenance phase of ADHD medication is defined as nine months after the initiation phase, representing a total of 270 days. Figure 4.9 shows the share of children ages 6 to 12 who remained on ADHD medication for at least 210 days and who had at least two follow-up visits during the continuation and maintenance phase. About 67 percent of all children in MMC who were eligible for the metric had at least two follow-up visits in the continuation and maintenance phase, and the rates were stable from 2017 to 2019. Children in HHSC had significantly higher rates than all children in MMC throughout the first seven data points in the study period ($p < 0.001$); however, there was no statistically significant difference in rates for the last data point beginning in January 2019 ($p = 0.413$). The rate of follow-up declined for children in HHSC and children in FFS over the study period, from 77 percent to 67 percent for HHSC and 46 percent to 36 percent for the FFS group. The trend test shows a statistically significant change between the last data point beginning in January 2019 and prior data points for children in MMC compared with all children in FFS (9 percentage points, $p < 0.001$) and between children in HHSC and all children in MMC (–11 percentage points, $p < 0.001$), but no statistical difference between children in HHSC and children in FFS ($p = 0.584$). The sample size for the three subpopulations varied from 400 to 800 for HHSC, 500 to 750 for FFS, and about 3,800 for MMC.

Figure 4.9. Percent of Children Ages 6 to 12 Who Remained on ADHD Medication for 210 Days and Had at Least Two Follow-Up Visits During the Continuation and Maintenance Phase (ADD-CONT), 2017–2019

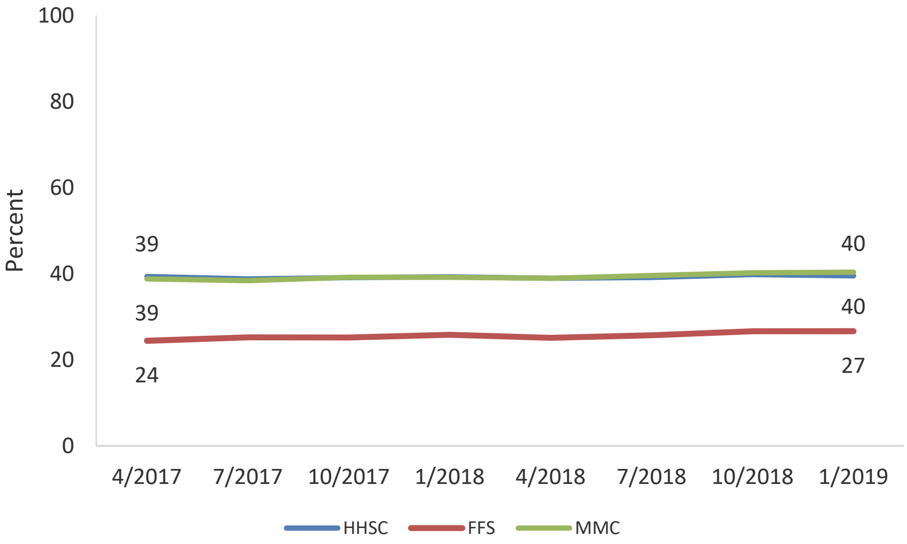


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Metabolic Monitoring for Children on Antipsychotics

Figure 4.10 presents trends in the rate of two or more antipsychotic prescriptions among children in each of the three subgroups of children and adolescents ages 1 to 17 who had metabolic monitoring during the measurement year. About 40 percent of children and adolescents in MMC with two or more antipsychotic prescriptions had metabolic monitoring during the measurement year, which remained constant over the study period. Children in HHSC had virtually identical rates to those in MMC throughout the study period. The rate of metabolic monitoring increased among children in FFS from 24 percent for the data point beginning in April 2017 to 27 percent for the data point beginning in January 2019. However, the trend test shows no statistically significant difference over time for children in MMC compared with all children in FFS ($p = 0.954$). There is no statistically significant difference in trends between children in HHSC compared with children in MMC ($p = 0.283$) and children in FFS ($p = 0.344$). The sample size for the three populations varied from 3,700 to 5,600 for HHSC, 4,600 to 5,000 for FFS, and about 15,000 for MMC.

Figure 4.10. Percent of Children and Adolescents 1 to 17 Years of Age Who Had Two or More Antipsychotic Prescriptions and Had Metabolic Monitoring During the Measurement Year (APM), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Goal 3: Increase appropriate access to the uniform home- and community-based services benefit package for children who meet level-of-care criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.

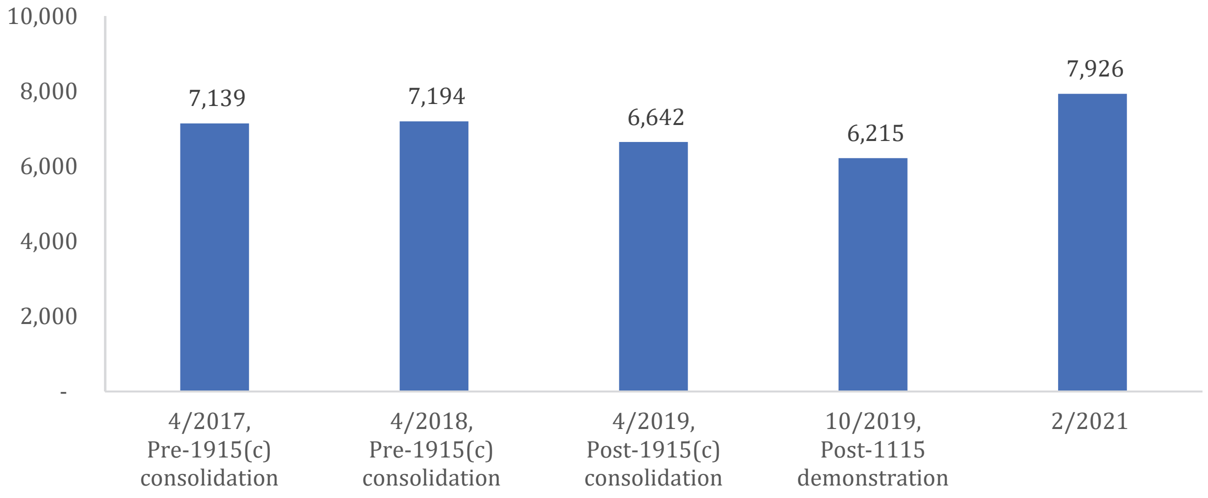
We address this question by examining how enrollment in HCBS has changed over the length of the demonstration.

Research Question 3.1: How has enrollment in home- and community-based services increased over the length of the demonstration?

Figure 4.11 shows the number of children enrolled in HCBS at five key time points: April 2017 and April 2018 before the 1915(c) consolidation, upon the implementation of Children's HCBS in April 2019, the implementation of the Children's Design in October 2019, and as of the writing of this report in February 2021. The number of children enrolled in HCBS was relatively stable before the consolidation of 1915(c) waivers, but the number dropped from 7,194 in April 2018 to 6,642 in April 2019, upon the implementation of Children's HCBS. The number of children in HCBS then remained stable between the period of the implementation of Children's HCBS and the implementation of Children's Design, ranging from 6,642 to 6,215. As of

February 2021, enrollment had increased to just under 8,000. Please note that due to the recent implementation of the Children's Design, the data continues to be refined to ensure accuracy and alignment. Such data updates will be reflected in the final summative evaluation report.

Figure 4.11. Number of Children Enrolled in HCBS, 2017–2021



SOURCE: Population-level aggregate data provided by NYS DOH.

Goal 5: Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.

We examined two research questions under this goal. First, to what extent are Health Home/HCBS enrollees accessing primary care? Second, are HHSCs/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?

Research Question 5.1: To what extent are Health Home/home- and community-based services enrollees accessing primary care?

We examined this research question with findings from our qualitative interviews on care coordination, as well as reported rates of immunization in the Medicaid Data Warehouse.

Care Coordination

As noted earlier, care coordination strategy shifted with the implementation of the Children's Design, from the condition-specific 1915(c) waiver programs to Health Homes with funding, coordination support, and oversight by managed care plans. In this section, we describe stakeholder views of the impact of this change on access to primary care services.

Stakeholders contrasted care management under the 1915(c) waivers with care coordination under the Children's Design. Under the previous system, children were enrolled in case management through waiver programs that were specific to their condition and organized at the county level, through CSPOA. In that system, care management was provided by the same organizations that provided HCBS, and clear timelines were established requiring rapid completion of referrals. Agencies that provided these services also extended other needed services on an ad hoc basis to meet immediate needs. In contrast, under the Children's Design, families access care coordination when they enroll in a Health Home. Services provided by the Health Homes are overseen and supported by the managed care plan.

Compared with case management under the previous system, care coordination under the Children's Design is perceived as less intensive, as we described above. According to our respondents, care managers under the previous system had been actively involved in assessing family needs, finding resources to address those needs, and assisting families in accessing those resources. Care coordinators working with the Health Homes, in contrast, were seen as valuable sources of information about available services but less active in identifying needs and assisting families in accessing resources. Larger caseloads for Health Homes care coordinators were seen as contributing to this difference; the care coordinators' caseloads were too large to provide the same level of service to families as the care managers had done prior to the Children's Design. Less intensive care coordination was perceived as placing a larger burden on families to access care, which is a major barrier to care for low-income families.

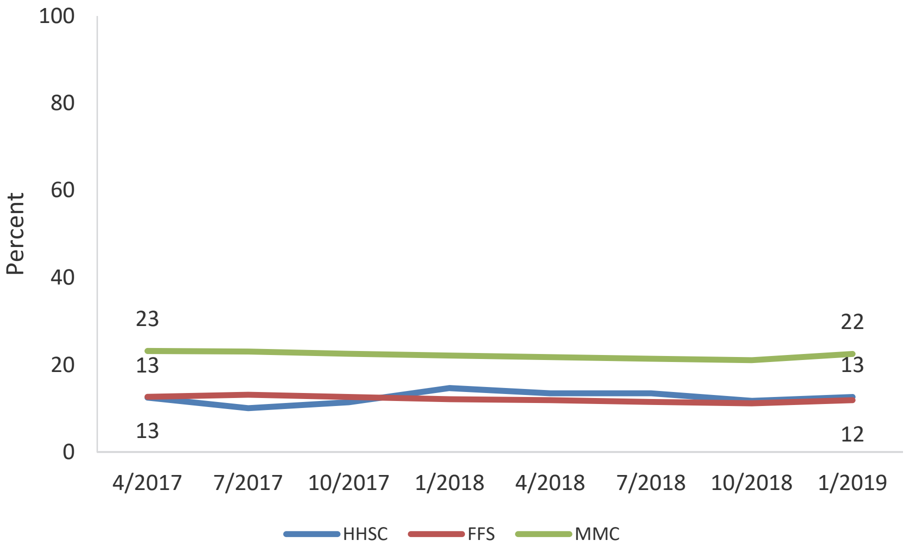
While stakeholders view care coordination under the Children's Design to be less intensive than care management had been under the previous system, respondents representing managed care plans reported potential benefits resulting from the integration of care coordination with other health services within managed care plans. In this regard, the Children's Design removed barriers between behavioral health services and general medical care services, including primary care, that were covered by managed care. In the new system, care coordinators have access to the full range of medical services in addition to the behavioral health services they had access to previously. As noted above, unifying care coordination with managed care enabled managed care plans to support care coordinators with clinical expertise, utilization data, and provider information.

Stakeholders did not perceive an impact of the Children's Design on access to primary care. Representatives from provider agencies and advocacy organizations did not consider access to primary care as one of the goals of the Children's Design. When asked specifically about the impact on primary care, representatives of government agencies indicated that they do not track primary care access as an outcome. A government official noted: "I have not heard anything related to primary care access from stakeholders." Respondents from MMCs reported that the Children's Design would enable better integration between primary care and behavioral health services, including HCBS, but they did not emphasize improvement in primary care access as a goal. In addition, access to primary care services for most of 2020 was limited by the COVID-19 pandemic.

Access to Immunization

Figure 4.12 shows the percentage of children age two who had the recommended immunizations by their second birthday, as reported in the Medicaid Data Warehouse. The sample size for the three populations varied from 160 to 400 for HHSC; from 4,400 to 5,100 for FFS; and about 91,000 to 95,000 children in MMC. This rate has been consistently highest among children in MMC, at about 22 percent over the entire study period. The rates for children in HHSC and children in FFS are very similar, with both at about 13 percent. There was also very little change in the rate for these two groups over the study period. The difference between the share of children with all recommended immunizations among children in HHSC and all children in MMC is statistically significant for all three time points ($p = 0.001$ in 2017–2004, $p = 0.014$ in 2018–2001, $p < 0.001$ in 2019–2001); however, there was no statistically significant difference between children in HHSC and children in FFS. The trend test shows no statistically different changes over time for MMC compared with FFS ($p = 0.37$), between HHSC and MMC ($p = 0.906$), or between HHSC and FFS ($p = 0.866$).

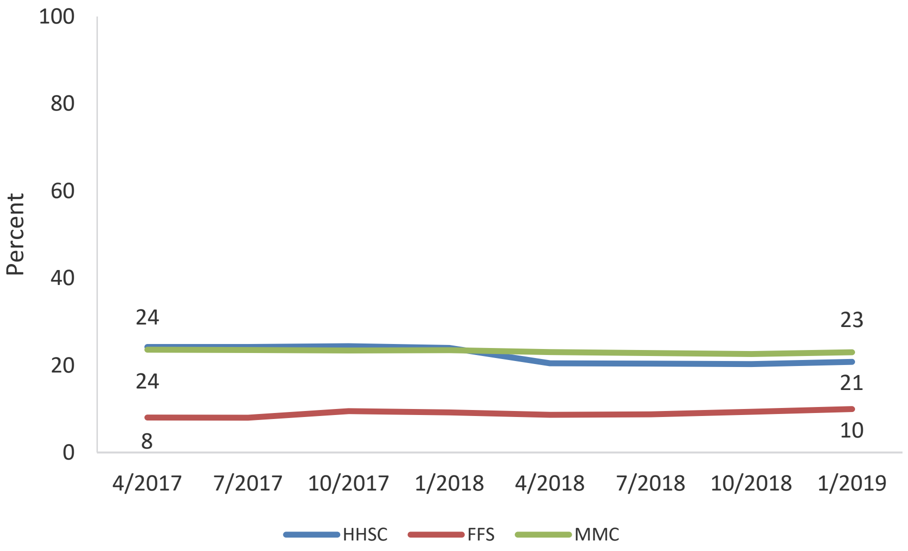
Figure 4.12. Percent of Children Who Turned 2 Years of Age During the Measurement Year and Had the Recommended Immunizations by Their 2nd Birthday (CIS), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

Figure 4.13 shows the percentage of adolescents 13 years of age who had the recommended immunizations by their 13th birthday. The sample size for the three populations varied from 1,300 to near 2,500 for HHSC; from 5,400 to 6,700 for FFS; and about 78,000 to 86,000 for MMC. The rate for adolescents in MMC and HHSC was 24 percent in April 2017. While the rates for adolescents in MMC remained stable over the study period, the rates for the HHSC group decreased over time, from 24 percent to 21 percent by January 2019. The difference between adolescents in the HHSC group and those in MMC is statistically different in the period beginning in January 2019 (p = 0.011). Adolescents in FFS had significantly lower rates than the other two groups, ranging between 8 and 10 percent over the study period. The tests of difference in trends between adolescents in FFS and those in MMC, and between adolescents in HHSC and those in FFS are statistically significant (p = 0.020, p = 0.002, respectively), but the difference in trends between adolescents in HHSC and those in MMC is not (p = 0.215).

Figure 4.13. Percent of Adolescents Who Turned 13 Years of Age During the Measurement Year and Had the Recommended Immunizations by Their 13th Birthday (IMA), 2017–2019



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

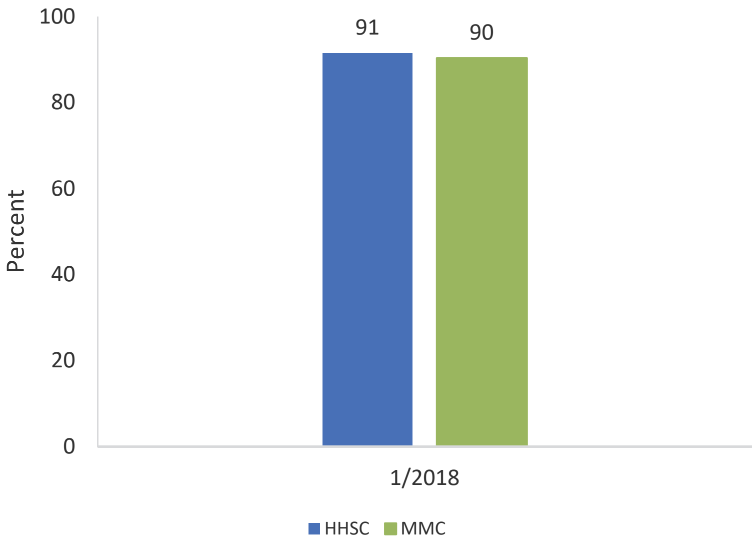
Research Question 5.3: Are Health Homes Serving Children/home- and community-based services enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?

To answer this research question, we examined the rates of weight management and nutrition counseling from the Medicaid Data Warehouse; and rates of reported care coordination for special equipment, therapy, and counseling as reported by parents of CCC in the CAHPS survey.

Improved Weight Management and Nutrition Counseling

Figure 4.14 shows the share of children ages 3 to 17 with an outpatient primary care or OB/GYN visit who had evidence of at least one form of weight management or nutrition counseling: BMI measurement, counseling for physical activity, or counseling for nutrition. This is a Quality Assurance Reporting Requirement reported on an annual basis.[10] Due to differences in the methodology of data collection between 2018 (verified via medical record and provided by MMC plans) and 2019 (derived from claims data only), we report the totals for 2018 only. During 2018, approximately 91 percent of the sample of children with an outpatient PCP or OB/GYN visit had evidence of at least one form of weight management or counseling. The rate was similar among all children in MMC, at 90 percent.

Figure 4.14. Percent of Members 3 to 17 Years of Age Who Had an Outpatient Visit with a Primary Care Physician (PCP) or Obstetrician/Gynecologist (OB/GYN) and Had Evidence of Body Mass Index Measurement or Counseling for Physical Activity or Nutrition During the Measurement Period, 2018



SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020.

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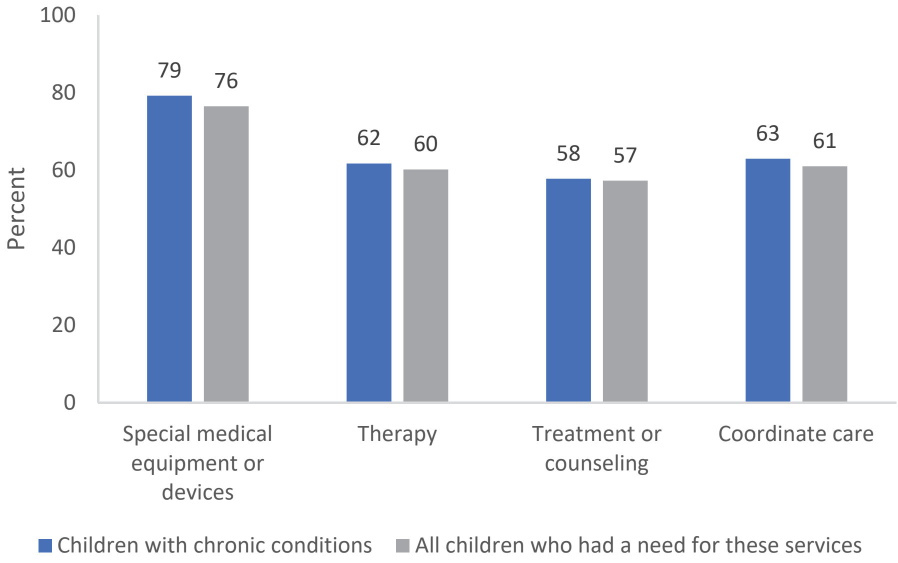
[10] Quality Assurance Reporting Requirement is a public reporting system created by NYS DOH. It collects quality and satisfaction measures for all plans in New York and publishes an annual report of health plan performance.

Care Coordination

Figure 4.15 presents data from four measures in the CAHPS survey related to care coordination (NYS DOH, 2019d). Respondents who indicated that they tried to obtain special medical equipment, special therapy, or treatment/counseling for an emotional, developmental, or behavioral problem in the last six months were asked if they ever received help from their child's health plan, doctor's office, or clinic in obtaining these services. Additionally, respondents who reported that their child got care from more than one provider in the past six months were asked if anyone from a doctor's office helped coordinate the child's care among these different providers or services. In 2018, 79 percent of parents of CCC reported receiving help in getting get special medical equipment, 62 percent of parents of CCC reported receiving help in obtaining special therapy, 58 percent reported receiving help in obtaining treatment or counseling, and 63 percent reported receiving help in coordinating care. The rates among all children who needed these services in the last six months (regardless of whether they had a chronic condition or not) were slightly lower across all four measures (special medical equipment = 76 percent, therapy = 60 percent, treatment = 57 percent, coordinated care = 61 percent).

Figure 4.15. Percent of Children Who Received Help from Child's Health Plan, Doctor's Office, or Clinic to Get Special Medical Equipment or Devices/Therapy/Treatment/Counseling/Care Coordination, 2018



SOURCE: NYS DOH, 2019d.

Appendix Figures D.1–D.10 compare the rates for each of the measures from the Medicaid Data Warehouse to the average rates for these measures reported in comparable states in 2017 and 2018. To collect quality metrics, we selected comparable states that used similar methodologies as NYS and had large Medicaid populations over the four-year span from 2015 to 2018. The detailed selection criteria and full list of comparable states for each metric are in Appendix D, Tables D.1–D.2. In general, the rates for the HHSC and overall Medicaid population in New York exceed the average in comparable states. One exception is the measure of well-child visits in the first 15 months of life: For this measure, the rate in the overall Medicaid population does exceed the average in comparable states, but the rate for the HHSC subpopulation does not.

Summary of Findings

Table 4.2 summarizes the key findings of the evaluation.

Table 4.2 Summary of Key Findings

Goal	Research Question	Measure	Key Findings
1. Improve the health outcomes for individuals under 21 receiving HCBS (HCBS Child/Youth) with access to the MMC delivery system.	1.1 What are the consequences of targeting availability of HCBS to a more narrowly defined population than that meeting the criteria in the State Plan?	Stakeholder interviews (2020–2021): stakeholder perspectives on implementation barriers and successes; consequences of targeting availability of HCBS to a narrowly defined population	• In assessing the impact of the Children's Design, stakeholders were focused on issues related to pathways to care and not on specific eligibility criteria. • Stakeholders perceive the transition to the Children's Design as challenging for providers and families. • Stakeholders view care coordination to have reduced in intensity while the administrative complexity increased with the implementation of the Children's Design. • Stakeholders are concerned that workforce shortages are being exacerbated by low patient volume and low reimbursement under the Children's Design. • Stakeholders, particularly MMC plans, perceive great potential for improving quality and integration of care, but believe that the process of change will take more time. • Stakeholders are reticent to draw conclusions regarding the impact of the Children's Design on children's health and health care utilization because it is still too early to determine and because care was disrupted by the COVID–09 pandemic.
	1.3 To what extent are children with special needs accessing PCPs who understand the children's needs?	CAHPS CCC survey (2018): • Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your child's day-to-day life? • Does your child's personal doctor understand how your child's medical, behavioral, or other health conditions affect your family's day-to-day life?	• High satisfaction of parents of CCC[a] with doctor's understanding of child and family life (94 and 90%, respectively)

Goal	Research Question	Measure	Key Findings
		Medicaid Data Warehouse (2017–2019): • six or more well-child visits in the first 15 months of life • one or more well-child visits in the third, fourth, fifth, and sixth years of life • one or more adolescent well-care visits	**0–15 months:** • FFS and HHSC[b] (range: 37–46%) • MMC (range: 62–65%) **3–6 years:** • HHSC: 74% • FFS (range: 43–44%) • MMC (range: 81–84%) **Adolescents:** • MMC and HHSC (range: 64–66%) • FFS: 28%
2. Improve health outcomes and increase long-term financial savings through improved access to the additional EPSDT benefits that address early behavioral health needs and health needs of children.	2.1 To what extent are MMC enrollees accessing community-based specialty services in a timely manner?	CAHPS CCC Survey (2018): • In the last 6 months, how often was it easy to get special medical equipment or devices for your child? • In the last 6 months, how often was it easy to get this therapy for your child? • In the last 6 months, how often was it easy to get this treatment or counseling for your child?	• 76–81% of parents of CCC report that it is always or usually easy to obtain special services and equipment.
	2.2 To what extent are MMC enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?	Medicaid Data Warehouse (2017–2019): follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17	• HHSC: 60–65% (7 days); 80% (30 days) • MMC: 59–60% (7 days); 75–76% (30 days) • FFS: 33–37% (7 days); 45–50% (30 days)
		Medicaid Data Warehouse (2017–2019): follow-up care for children prescribed ADHD medication	Rates: • HHSC: 67–73% (initiation); 67–77% (continuation) • MMC: 59–60% (initiation); 66–68% (continuation) • FFS: 42–45% (initiation); 36–46% (30 days) Trends: • rates declining over time for MMC and FFS • trend tests for first 7 data points vs. last data point – MMC vs. FFS, $p < 0.001$ – HHSC vs. MMC, $p < 0.001$ – HHSC vs. FFS, $p = 0.584$

Goal	Research Question	Measure	Key Findings
		Medicaid Data Warehouse (2017–2019): metabolic monitoring for children and adolescents on antipsychotics	• MMC and HHSC (range: 39–40%) • FFS (range: 24–27%)
3. Increase appropriate access to the uniform HCBS benefit package for children who meet LOC criteria to achieve improved health outcomes while recognizing that children's needs, including the duration, scope, and frequency of services, change over time.	3.1 How has enrollment in HCBS increased over the length of the demonstration?	Medicaid Data Warehouse (2017–2021): number of children enrolled in HCBS	• Pre-1915(c) consolidation: 7,139 and 7,194 in April 2017 and April 2018, respectively • Post-1915(c) consolidation: 6,642 in April 2019 • Post-1115 wavier implementation: (October 2019–February 2021): 6,215 and 7,926 in October 2019 and February 2021, respectively
5. Improve access to the integrated Health Home model for all children to improve the coordination of care for children and increase access to services.	5.1 To what extent are Health Home/HCBS enrollees accessing primary care?	Stakeholder interviews (2020–2021): stakeholders' perspectives on care coordination	• MMC plan informants considered the potential for integration of behavioral health care with primary care services as a benefit of the Children's Design. • Informants did not report impacts of the Children's Design on access to primary care services, due in part to the COVID-19 pandemic.
		Medicaid Data Warehouse (2017–2019): • CIS • IMA	• MMC (range: 22–23%) • FFS and HHSC (range: 12–13 %) • MMC and HHSC (range: 21–24%) • FFS (range: 8–10 %)
	5.3. Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	Medicaid Data Warehouse (2018): • weight assessment and counseling for nutrition and physical activity for children/adolescents • BMI assessment for children/adolescents	As of 2018, rates among children in HHSC and MMC were similar (90–91%).

Goal	Research Question	Measure	Key Findings
	5.3. Are Health Home/HCBS enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?	CAHPS CCC Survey (2018): • Did anyone from your child’s health plan, doctor’s office, or clinic help you get special medical equipment or devices for your child? • Did anyone from your child’s health plan, doctor’s office, or clinic help you get this therapy for your child? Did anyone from your child’s health plan, doctor’s office, or clinic help you get this treatment or counseling for your child? • In the last 6 months, did anyone from your child’s health plan, doctor’s office, or clinic help coordinate your child’s care among these different providers or services?	• 79% of parents of CCC received coordination for medical equipment. • 58–63% of parents of CCC received coordination for therapy, counseling, or multiple providers.

NOTES: [a]Due to the data availability, for consumer satisfaction measures, the CCC population was considered similar to and used to approximate that of the Children’s Design. [b] Due to the data availability, for quality measures derived from the Medicaid Data Warehouse, the HHSC population was considered similar to and used to approximate that of the Children’s Design.

5. Discussion and Implications

Overview

The Children's Design streamlines the original six 1915(c) HCBS waivers and integrates associated services to managed care. Through these changes, NYS aims to improve access to HCBS and medical care, quality of care, and consumer satisfaction. Given the timing and data availability, the goal of this interim evaluation report of the Children's Design is to delineate baseline trends in outcome measures, understand the facilitators of and barriers to the demonstration implementation, and lay a solid foundation for the final summative evaluation report. In this chapter, we interpret our key findings and discuss the limitations of this interim evaluation as well as implications for the demonstration and the final summative evaluation.

Key Findings

Care Access and Coordination

The changes under the Children's Design were clearly perceived by the stakeholder community as a dramatic reorganization of the care system in which they were accustomed to working. They perceived the transition as challenging for providers and families and had two primary concerns over care access: the burden of accessing care for children's families and reductions in service availability.

The baseline measures of care access and coordination from the CAHPS CCC survey suggest that in 2018, parents of CCC (who approximate the Children's Design target population) had high levels of satisfaction with their PCPs' understanding of how health conditions affect the daily life of their children and family. Parents were less satisfied with their ability to access special equipment and therapies, the extent of coordination with providers to obtain special equipment and therapies, and the extent of coordination between multiple providers.

Quality of Care

In terms of quality of care and health outcomes, stakeholders reported that it is too early to fully assess the impact of the Children's Design on use of care or outcomes, not only because of the recency of implementation but also because of the overwhelming impact that the COVID-19 pandemic had on the entire system. But interviewees from MMC plans did perceive great potential for integrating care and improving quality under the demonstration.

The levels of quality indicators derived from the Medicaid Data Warehouse for children in HHSC were similar to children in MMC and exceeded the rates for children in FFS, with the exception of some primary care indicators for young children, such as well-child visits in the first

15 months of life and immunizations among children who turned two years of age. When comparing the change in trends between the first seven time points (2017–2004 to 2018–2010) and the last time point (2019–2001) across the three populations, no significant differences were found except for follow-up for children on ADHD medications, for which HHSC showed a statistically significant downward trend compared with MMC.

Discussion

Access to Care

Stakeholder Perspectives. Among stakeholders, perceptions of the impact of the Children's Design on access to HCBS ranged from highly negative to neutral. These perceptions are likely due to two reasons: increased administrative complexity of accessing HCBS, and decreased availability of providers. In particular, stakeholders drew attention to the complexity of the HCBS eligibility determination and enrollment process rather than to specific changes in the content of the eligibility criteria. Notably, managed care representatives expressed concerns about difficulties they had in confirming that children had met eligibility criteria. The complexity seems to have contributed to long wait times for accessing services, relative to the pre-demonstration system, leading to some families reportedly choosing to accept a lower LOC to avoid the burden of establishing eligibility for HCBS. It is possible that some of this complexity stems from the new requirement to separate care management from HCBS provision to comply with CMS rules regarding avoidance of conflicts of interest.

Decreased provider availability is another potential barrier to access. The perceived provider shortages may be due to preexisting workforce shortages and a decrease in the proportion of providers who participate in the Medicaid HCBS program. In addition, stakeholders reported that the higher caseloads of care coordinators were limiting their ability to facilitate access to HCBS.

Nonetheless, it seems that stakeholders are overcoming the learning curve. Some of the limitations in access to care are perceived to be temporary issues that would be resolved as families, providers, care coordinators, and managed care organizations develop more effective care processes. There was also a hope expressed by some stakeholders, yet to be demonstrated in practice, that oversight of care coordination activities by managed care could contribute to improving access.

Demonstration Enrollment. In terms of enrollment, the number of children receiving HCBS declined slightly in the period just after the consolidation of 1915(c) Children's Waiver but has since begun to increase after the implementation of the 1115 waiver. Note that the children eligible for one of the six prior 1915(c) waivers would remain eligible for two years since the transition; that is, the decline right after the transition is likely due to children aging out of Medicaid or those who left a 1915(c) waiver because they only needed CFTSS and can receive such services under the State Plan. But the increase in enrollment after implementing the 1115 waiver likely reflects individuals newly eligible under the demonstration. This suggests that there may have been some challenges with new enrollment during the period of consolidation of the prior six 1915(c) waivers, and that these challenges are being addressed with the move to managed care under the 1115 waiver. This timing may also partially explain why providers and advocates viewed the transition to the Children's Design as an increase in administrative complexity that made access to care more difficult.

Claim-Based Measures. We observed that quality measures in HHSC are often comparable with those in MMC and often higher than those in FFS, but this is not the case for access to primary care measures among younger children. This phenomenon may be explained by the possibility that children in HHSC may transition from FFS to MMC as they age. For example, the share of children who had at least six well-care visits during the first 15 months of life was significantly lower for children in HHSC than for all children in MMC. In fact, the rate among children in HHSC was similar to the rate among children in FFS. Because children in HHSC may be either in FFS or in MMC during the baseline period, it is possible that more children in the first 15 months of life are enrolled in FFS compared with other metrics covering older children, where the rates for those in HHSC more closely resemble the rates for those in MMC. However, given that the data are in aggregate form, we were not able to identify which children in HHSC are in FFS or MMC, so we cannot directly test this hypothesis with the data currently available. Furthermore, it is possible that children enrolled in FFS may have care covered through third-party payers, whose data are not in the Medicaid system. If a child is more likely to transition between different providers or insurance payers during these early months, some well-care visits during the first 15 months of life may not be captured in the Medicaid Data Warehouse database. As a result, the low rates of well-care visits among children in HHSC may either reflect differences in the underlying population of children 15 months of age who are in HHSC or provide an incomplete picture of all care provided during this time frame.

As children age, the relative differences in the level of quality measures between populations change, as reflected in the share of children 3 to 6 years of age with at least one well-care visit per year, which is higher than that of well-child visits during the first 15 months of life. This rate is still below the rate among all children in MMC, but significantly higher than the rate among children in FFS. This could suggest that a higher share of children in HHSC in this age group are enrolled in MMC, as the rate of well-care visits is more similar to the MMC group. This phenomenon is further confirmed by the share of adolescents with at least one well-care visit in a year. HHSC has a similar rate to that of MMC, again suggesting that by the time children in HHSC are adolescents, most are enrolled in MMC.

A similar pattern is also observed in immunization rates, although the results may be confounded by measurement methodology issues. Among all subpopulations, the share of children having all of the recommended immunizations at ages 2 and 13 is quite low. Among children age 2, only 12 to 13 percent of children in HHSC have all the recommended immunizations, which is quite similar to the rate among all children in FFS. The share of adolescents age 13 in HHSC who have all of the recommended immunizations is slightly higher, ranging between 21 and 24 percent. This rate is similar to the rate among all adolescents in MMC. It is unclear whether the low rates reflect the methodologies used to collect these data (e.g., the administrative claims do not include all immunization records), or if this suggests that the data are somehow incomplete (e.g., not including the immunization registry data), or if rates of immunization are truly low.

Care Coordination

Stakeholder Perspectives. Changes to the roles of care coordinators were the primary concerns that stakeholders expressed about the transition to the Children's Design. It may seem paradoxical that stakeholders would perceive the implementation of the Children's Design to be associated with a loss of care coordination services, since care coordination is a core component of the Children's Design. However, stakeholders were responding to the structural change from the prior waiver system, where care managers who specialized in each waiver population worked directly with families to ensure their behavioral health care needs were met. By comparison, care coordination provided through Health Homes was perceived as much less intensive. Less intensity in care coordination, according to our respondents, resulted in greater burdens being placed on families to determine their children's needs, find appropriate providers, and access care. These stakeholder observations suggest that the future evaluation of the impact of the Children's Design should examine the extent to which family burden has been affected and whether any increase in the burden placed on families has adversely affected families that have fewer resources to advocate for care for their children.

Perceptions of care coordination among managed care plans were notably different from those of providers and advocates. Managed care plans emphasized the central role of care coordinators under the Children's Design in developing a plan of care for each enrolled child. The plan of care becomes a core document used by managed care companies, Health Homes, and providers to communicate about children's needs, connect children with services, and monitor quality of care. Managed care plans also emphasized the positive impact that their oversight could have on the quality of care coordination, since they now have access to comprehensive information on the medical care children receive. Managed care representatives tended to have a different frame of reference for evaluating care coordination, focusing on oversight and management rather than the personalized services associated with the prior system by providers and advocates.

Survey-Based Measures. Based on data from the 2018 CAHPS CCC Survey, approximately 63 percent of parents whose CCC saw multiple providers in the past six months reported receiving assistance with coordination between providers. Similar rates of parents of CCC reported having assistance in obtaining special therapy or counseling when they had a need for these services (62 and 68 percent, respectively). The share of parents who reported getting assistance with obtaining special equipment was higher at 79 percent. These rates suggest that there is room for improvement in care coordination for families of CCC, particularly in terms of coordination of therapy or counseling and coordination among multiple providers. During the initial implementation of the Children's Design, it seems care coordination issues persisted, which could potentially be resolved as the new system improves over time. The final summative evaluation should be designed to capture transitions in outcomes.

Claim-Based Measures. The Medicaid Data Warehouse also provides data about follow-up visits, which are informative for understanding care coordination. Among all the metrics in our baseline data analysis, the HHSC group outperforms both the MMC and FFS groups in terms of the share of children receiving recommended follow-up care, including follow-up after hospitalization for a mental health condition at both seven days and 30 days, follow-up visits after an ADHD prescription for both the initiation and continuation phases, and receiving metabolic monitoring after an antipsychotic prescription and receiving weight management, nutrition, or physical activity counseling.

Although we lack sufficient data to explore why follow-up rates are higher among children in HHSC, the pattern suggests that the higher rate of follow-up is not driven simply by differences in the share of the HHSC population enrolled in MMC or FFS; rather, HSC itself may have contributed to the higher rates of follow-up during this baseline period. That is, it is possible that Health Homes offered good care coordination and made sure individuals were followed up in a timely manner. Still, approximately one-third of the population of children in HHSC needed these services but did not receive them during the baseline period.

Consumer Satisfaction with Primary Care

According to data from the CAHPS survey, parents of CCC report very high levels of satisfaction with their PCPs' understanding of their child's and family's daily life (over 90 percent for both child and family daily life). It is possible that satisfaction with PCPs could be different among the Children's Design population if they have more health needs than children identified as CCC in the CAHPS survey, or if they were not enrolled in MMC at baseline.

Limitations to the Evaluation

There are several limitations to this evaluation. First, both sources of data used in the quantitative analysis cover the time period prior to the consolidation of the 1915(c) waivers and the 1115 waiver. As a result, our analyses describe trends in various subpopulations prior to the implementation and provide only a limited opportunity to assess how these metrics have changed after implementation. The CAHPS data cover 2018, and the Medicaid Data Warehouse data cover the time period from April 2017 through December 2019, which includes some of the post-implementation period: eight and three months after the implementation of the 1915(c) Children's Waiver (April 2019) and 1115 waiver (October 2019), respectively. However, the provided data were aggregated into 12-month moving averages; for example, the January 2019 data point covers the entire 2019 calendar year, reflecting three quarters from the period prior to the 1115 waiver implementation (including the period when the 1915(c) waivers were consolidated) and only one quarter just after implementation began. This significantly diminishes our ability to detect any statistically significant impacts, due to the aggregate nature of the data and the likely need for a longer period of time for implementation to begin having a meaningful impact.

Second, the quantitative data do not directly represent the Children's Design target population. Ideally, the baseline data should cover the source population of enrollees in the Children's Waiver, meaning the children in the prior six 1915(c) waivers as well as the children newly enrolled in the waiver. The population of CCC sampled in the CAHPS survey differs from the population of children who are served under Children's Design. CCC may have greater needs for medical care than the Children's Design target population but likely less need for HCBS. Since no other data sources are available for consumer satisfaction measures, the CCC population is the closest approximation to this Children's Design population we could obtain. There are limitations to the Medicaid Data Warehouse data as well. Among the three populations in our analysis (children in MMC, FFS, and HHSC), children in HHSC are most similar to the population covered by the Children's Design in terms of the level of needs for HCBS; in contrast, MMC and FFS children have less need for HCBS. Note that MMC and FFS are mutually exclusive, but individuals in HHSC are in either FFS or MMC. Also, prior to the Children's Design implementation, children in 1915(c) waivers consisted of only part of the population serviced by Health Homes and, as a result, HHSC may not represent the children in the prior 1915(c) waivers. Nevertheless, HHSC provides the best picture of baseline care quality prior to the implementation of Children's Design. That said, this limitation prevents us from providing an accurate picture of the baseline for the target population.

Third, the CAHPS survey sampled only children who were in managed care plans. While this may be informative for understanding the care experience of children after the Children's Design, not all children covered under the Children's Design may have had managed care prior to implementation in 2018. These differences in the population could also lead to a different baseline rate in the Children's Design population compared with what we observe in the CAHPS data. As a result, while the CAHPS data provide a general picture of care coordination among the population of CCC, these metrics should be interpreted with caution when considering what they may mean for baseline measures of care coordination among the Children's Design population.

Fourth, the Medicaid Data Warehouse data are provided in aggregate form, and this limits the rigor of our analysis as well as the robustness of our conclusions. Because the data are not at the individual level, we lack information about differences in demographic characteristics or geographic location within NYS that could be used to control for case-mix differences in the population of children enrolled in FFS or MMC. The lack of demographic characteristics also limits our ability to select a control group of children with characteristics more similar (either in terms of health conditions, services used, or demographic characteristics) to the population in Children's Design. Individual-level data would also enable us to determine whether children in

HHSC are enrolled in MMC or FFS and to develop a third, mutually exclusive group of children in HHSC to better enable comparisons between this group and other children in MMC or FFS.

Fifth, some of the differences in rates across populations in the Medicaid Data Warehouse raise questions about missing data that we are unable to test because the data are aggregated. Children enrolled in FFS may have access to insurance through other third-party payers, meaning that some of their care may not be observed in the Medicaid Data Warehouse. Children could also be enrolled in FFS temporarily before transitioning to an MMC plan. These differences in the population and lack of complete data make it difficult to make comparisons with the FFS group. Individual-level data would enable us to observe encounters for children in FFS and make additional sample restrictions to analyze a more homogenous population. For example, we could identify children who had relatively few encounters in the Medicaid data, suggesting that they also received care covered by a third-party payer. It might then be possible to derive a more comparable subgroup of children in FFS or to better identify children in FFS who transition to MMC and compare their characteristics.

Sixth, due to the tight timeline of the interim evaluation, individual-level data were not available; and the aggregated Medicaid Data Warehouse data also limits the ability to conduct robust, high-powered statistical analysis. Individual-level data could better support a stronger difference-in-differences analysis by enabling better identification of the potential (pre-implementation) population targeted by Children's Design; the use of data-driven methods to identify a control group; and better control for unobserved confounding factors through the use of time, location, or provider-type fixed effects. Individual-level data would also provide more flexibility to develop a design that can account for disruptions or delays in care due to the COVID-19 pandemic. The larger sample sizes would provide more statistical power for inferring whether any observed differences are larger than what may occur due to chance or seasonality alone. The data on demographic and health characteristics would support more tests of the identifying assumptions in a difference-in-differences design to validate the methodology and enhance confidence in the results.

Seventh, since the Children's Design is meant to facilitate HCBS for children with specific health conditions, it would be ideal to examine outcome measures that are specific to HCBS. The interim evaluation is limited in this regard because a vast majority of measures were designed for medical care and do not reflect access to or quality of HCBS. This limitation is largely due to data availability.

Finally, the qualitative component was based on a convenience sample of key respondents selected from a list provided by NYS DOH. Additional themes may have emerged had we conducted a larger number of interviews and/or included additional types of respondents. Notably, it was not possible in the scope of this evaluation to interview patients or their families.

Implications

Although our findings are related to the initial implementation of the Children's Design and the baseline outcome measures for the target population, there are several implications that can be derived for the improvement of the Children's Design implementation and for the study design of the final summative evaluation. With respect to the demonstration implementation, results strongly suggest an ongoing need for evaluating the implementation process and involving all stakeholders. In particular, eligibility determinations, Health Home enrollments, access to HCBS providers, and utilization of HCBS should be examined with a focus on reducing burden on families and providers. Initiatives to educate families, providers, and MMC plans may help improve understanding of the new eligibility determination, enrollment, and care coordination processes. In addition, there is a clear need to maintain efforts to bring stakeholders together to share information related to implementation and problem-solving strategies. Continued input from stakeholders is likely to be particularly important as the COVID-19 pandemic recedes and in-person services again become more common.

Our results also have implications for the study design of the final summative evaluation. We believe two years of pre-implementation data (2017–2018) combined with more complete post-implementation data (e.g., 2019–2022) will make a solid final summative evaluation feasible; of course, more data both for the pre- and post-implementation would be beneficial to the summative evaluation. In particular, more than two years of post-implementation data are needed to cover a period beyond the two years of transition. This is because children enrolled in the prior six 1915(c) waivers were eligible for two years regardless of their actual eligibility, during which the impact of the Children's Design may not be well identified due to the overlap in the population served. In addition, the summative evaluation would greatly benefit from individual-level data, allowing the identification of the target population, tracking the same individuals over time, or establishing a valid comparison group. One approach to evaluating the impact of a policy such as the Children's Design is to use a propensity score adjusted difference-in-differences analysis, but individual-level data for participants and comparison children are critical to implementing this approach. Individual-level data would also improve the statistical power of the evaluation to detect meaningful changes that can be attributed to the Children's Design. Limiting the evaluation to aggregate data increases the likelihood that an evaluation will be inconclusive even if the Children's Design had a positive effect. Given the great benefits of individual-level data, to the extent possible, NYS DOH may consider such data for the final summative evaluation.

Some modifications to the evaluation plan in outcome measure selection and data collection could strengthen the final summative evaluation if resources and data allow. For example, it would be beneficial to include in the final summative evaluation some measures specific to HCBS. The evaluation plan approved by CMS includes a measure for HCBS-specific costs, although measures of the HCBS utilization, timeliness of access to HCBS, and satisfaction with HCBS providers would be helpful if such data are available. In addition, some measures, such as weight management, nutrition, or physical activity counseling, are likely to have limited value and could be dropped since they require review of medical records, which limits sample size and data availability. If feasible, the measures for immunizations should be based on the immunization registry data so that they are complete and comparable with other states. Finally, it would enrich the analysis if families can be included in the qualitative interviews.

Conclusions

In summary, the interim evaluation of the Children's Design examined various stakeholders' perspectives on the initial demonstration implementation and described the baseline trends in outcomes measures for a population that is comparable with the demonstration's target population in important aspects. We found that families of children eligible for the demonstration, providers, advocates, and MMC plans considered the transition from the pre-demonstration system to be challenging, and they shared concerns over care access and care coordination. Nonetheless, interviewees from MMC plans did perceive great potential in integrating care and improving care delivery.

The baseline data show that children in HHSC, comparable with the demonstration's target population, had levels of quality measures that were similar to those in MMC and higher levels than those in FFS except for access to primary care and immunizations among young children. Parents of CCC had high levels of satisfaction with PCPs' understanding of how health conditions have affected the daily life of their children and families, though there is room to improve the coordination between providers.

We are unable to draw definitive conclusions on the effect of the Children's Design on care coordination, care access, and quality of care due to the lack of adequate data for the post-implementation period; more post-implementation data are needed, and further analyses are warranted, both of which will be included in the summative evaluation. To address the gap in implementation, initiatives to educate families, service providers, care coordinators, and MMC plans to improve enrollment process, care coordination, and HCBS delivery could help Children's Design meet its goals. In the final summative evaluation, the data for a longer post-implementation period will permit quantifying effects of a more mature program; the use of individual-level data, if feasible, should be considered, as it will improve identification of the target population and construction of a valid comparison group and will increase the statistical power of the analysis; and including HCBS-specific outcomes measures would strengthen the evaluation.

6. Interactions with Other State Initiatives

Overview

The 1115 waiver was implemented as part of a larger redesign of Medicaid services for children and concurrent with other policy changes that affected care for children in NYS. In order to understand the impact of the 1115 waiver, it is important to understand how other concurrent initiatives may have influenced its implementation. As stipulated in the terms and conditions by CMS for the 1115 waiver renewal, we include in this chapter a brief review of other state initiatives comparable to the Children's Design and discuss how those initiatives may have interacted with the 1115 waiver implementation.

Other State Initiatives

As shown in Table 6.1, there are several state initiatives that are relevant to the Children's Design, including but not limited to CFTSS, Health Homes, and C-YES. Below we briefly describe each of them.

Children and Family Treatment and Support Services

CFTSS, authorized under the EPSDT benefits, is part of the Medicaid State Plan (NYS DOH, 2021b). EPSDT offers a comprehensive array of preventive health care and treatments for Medicaid recipients from birth until 21 years of age. CFTSS provides an array of available services to intervene early in a child/youth's life (NYS DOH, 2021b):

- services provided by other licensed practitioners
- crisis intervention
- community psychiatric supports & treatment
- psychosocial rehabilitation services
- family peer support services
- youth peer support.

Three of these services—services provided by other licensed practitioners, psychosocial rehabilitation, and community psychiatric supports and treatment—were launched on January 1, 2019. The remaining three—family peer support services, youth peer support, and crisis intervention—were offered under the prior 1915(c) waivers and became part of the State Plan on July 1, 2019 (family peer support services), and January 1, 2020 (youth peer support and crisis intervention), respectively.

Table 6.1. Summary of Relevant State Initiatives

Other State Initiatives	Target Population	Services
CFTSS, launched in 2019	Children ages 0 to 21 enrolled in Medicaid, who need help with social, emotional, or behavioral health challenges, or with substance use issues	Mental health and/or substance abuse services, including • services provided by other licensed practitioners (January 2019) • crisis intervention (January 2020) • CPST (January 2019) • psychosocial rehabilitation services (January 2019) • family peer support services (July 2019) • youth peer support (January 2020)
Health Homes, launched in 2012; started serving children in 2016	Individuals enrolled in Medicaid and have one of the following conditions: (1) 2+ chronic conditions (2) one of the qualifying health conditions: human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), serious mental illness (adults), serious emotional disturbance or complex trauma (children)	• comprehensive care management • care coordination and health promotion • comprehensive transitional care • individual and family support • referral to community and social support services • use of health information technology to link services • assessing eligibility for children's HCBS
C-YES, launched in 2019)	Children and youth (under the age of 21) who have opted out of Health Homes, but are eligible for HCBS; and children who do not yet have Medicaid, but are referred for an HCBS eligibility determination	Managing the HCBS care plan, including • meeting with family • adding new HCBS to the plan • making referrals to HCBS providers • updating care plan and communicating it to MMC plans • conducting new and future HCBS eligibility assessments • determining Medicaid eligibility • referring to Health Home, as requested
	Families with other needs, including CFTSS, are not handled through C-YES	

In general, children in need of CFTSS can be referred to a licensed practitioner to determine if they are eligible for other licensed practitioner services and crisis intervention. For the remaining four rehabilitative services, which include community psychiatric supports and treatment, psychosocial rehabilitation services, family peer support services, and youth peer support, each must be recommended by a licensed practitioner of healing arts who determines medical necessity. The addition of these six CFTSS services aims to prevent the onset or progression of behavioral health conditions and to help mitigate the need for more restrictive and higher intensity services for children and youth.

Although CFTSS is part of the State Plan, the services offered under CFTSS are often needed by those enrolled in the Children's Design, who are either medically fragile or have behavioral health conditions or developmental disabilities. These enrollees often have high needs of psychiatric, social, and community-based services, which can be met by CFTSS services such as crisis intervention, community psychiatric supports, psychosocial rehabilitation services, and peer support.

In one of the stakeholder interviews, participants explained that CFTSS was a lower LOC than HCBS but because eligibility and enrollment for CFTSS were simpler, families could end up forgoing better higher-level services in order to avoid the HCBS process. While this data point was not corroborated with enrollment and eligibility data for both programs, it does suggest that there could be an important interaction between CFTSS and the Children's Design, whereby more children are ending up with CFTSS when they should be enrolled at a higher LOC with HCBS instead. Although CFTSS is part of the State Plan, it was implemented during the same time when children were transitioned from the prior six 1915(c) waivers to the newly consolidated 1915(c) Children's Waiver and the 1115 waiver was implemented. Therefore, in the final summative evaluation, it will be important to have a valid comparison group to tease out the effect of CFTSS on outcomes of interest.

Health Homes

The Health Home program, an optional benefit, was launched in 2012 under the Affordable Care Act Section 2703 of the Federal Patient Protection and Affordable Care Act, which establishes the authority for states to develop and receive federal reimbursement for a set of health home services for their Medicaid beneficiaries with chronic illnesses (NYS DOH, 2020c). Health Home services support the provision of comprehensive medical and behavioral health care to patients with chronic conditions through care coordination and integration to ensure access to appropriate services, improve health outcomes, reduce preventable hospitalizations and emergency room visits, promote use of health information technology, and avoid unnecessary care. There were 16 Health Homes that were designated to serve children starting in December 2016, 13 of which were already serving adults. Health Homes provide care management services intended to help children and youth with complex health and behavioral health needs from entering a higher LOC. A care manager works with patients to develop a plan of care, which determines the services and interventions the individual receives.

Individuals enrolled in Medicaid and under the age of 21 need to have at least two chronic conditions (e.g., substance abuse disorder, diabetes, asthma, heart disease, overweight [a BMI of 25 or greater], and hypertension) or one qualifying health condition to meet the eligibility of Health Home. Qualifying health conditions include HIV/AIDS, serious mental illness in adults, and serious emotional disturbance and complex trauma in children (NYS DOH, 2020b). The six core services Health Homes provide are:

- comprehensive care management
- care coordination and health promotion
- comprehensive transitional care
- patient and family support
- referral to community supports
- use of health information technology to link services.

The Health Homes care manager develops a comprehensive assessment that identifies medical, mental health, chemical dependency, and social service needs for children. Health Homes are accountable for engaging and retaining Health Home members in care, coordinating and arranging for the provision of services, supporting adherence to treatments, and monitoring and evaluating patients' needs to create individualized plans of care. For transitional care, Health Homes have a system in place with hospitals and facilities in their network to provide notification of an individual's admission/discharge from emergency rooms, inpatient care, or similar settings. Patients' individualized plan of care reflects their own and their family's preferences, education, support for self-management, and self-help recovery. Health Homes also help with identifying available community-based resources and actively manage appropriate referrals, access, engagement, follow-up, and coordination of services. The last core services Health Homes provide include making use of available health information technology and access data through the regional health information organization/qualified entities to conduct these processes as feasible.

Between January 1, 2019, and March 31, 2019, the prior six 1915(c) HCBS waivers' case management providers became Health Home care managers and transitioned their enrolled waiver children into Health Homes. If families opt out of Health Homes, they can receive care management from C-YES.

Although Health Homes were not originally created specifically for the Children's Design, they play a critical role in the Children's Design by offering eligibility determination and care management services for beneficiaries receiving HCBS or for Fo1 children. Strengthening the operation of Health Homes can help streamline the enrollment process, improve care access, coordination, and management, and increase quality of care. As an alternative to Health Homes, C-YES contributes to the success of the Children's Design in a similar fashion.

Health Homes were mentioned in all but one interview and were often spoken about in conjunction with program structure and care coordination when discussing the Children's Design.

Child and Youth Evaluation Services

C-YES is the state-designated independent entity for children receiving HCBS (NYS DOH, 2019a). As some children transitioned from the care coordination provided through an old 1915(c) waiver to Health Homes during January–March 2019, some chose to opt out of Health Homes. However, HCBS requires a plan of care and care coordination. To ensure children who were under an old 1915(c) waiver would still receive HCBS, the state designated an independent entity, C-YES, to develop and manage HCBS plans of care.

Services provided by C-YES include meeting with the child/family, conducting HCBS eligibility assessments, acquiring a signature for the plan of care, adding new HCBS to the plan of care, making referrals to HCBS providers, and updating and communicating the plan of care to MMC providers. C-YES manages only HCBS, meaning that families with other service needs, including CFTSS, may work with other providers to obtain those services.

Beginning April 1, 2019, C-YES started accepting referrals to assess children new to Medicaid to determine eligibility for the consolidated 1915(c) Children's Waiver. C-YES helps children who are determined HCBS-eligible and meet other specific criteria in the Medicaid application with local departments of social services.

Only a few of the interviews with stakeholders mentioned how their organization relates to C-YES; when it was brought up, it seemed that C-YES constitutes a very small proportion of cases. Almost all of the interviewees who mentioned C-YES also clarified that C-YES often explains the benefits of being in Health Homes and that families ended up being referred back to Health Homes. One stakeholder explained that C-YES was an especially useful mechanism for medically fragile children who may not meet income eligibility; C-YES assisted them with the Medicaid application, referred them to Health Homes, and helped them enroll in Medicaid as Fo1. In the final summative evaluation, qualitative interviews may be used to better understand the role of Health Homes and C-YES.

Appendix A. Key Stakeholder Interview Protocol

New York State Medicaid Children's Design Evaluation
Key Informant Interview Guide

Participant ID: ________________ Interview Date: __________________

Stakeholder Type: _____________________________

Region: Statewide ___ Upstate ___ NYC ___ Other (specify) ___

Interviewer: ____________________________

Thank you for taking the time to talk with us today. The RAND Corporation is conducting an independent evaluation of the New York State Medicaid Children's Design. The goal of the evaluation is to assess the extent to which the Children's Design, as implemented, achieved its intended goals. Those goals were to streamline the processes of connecting children with complex behavioral and general medical needs with home- and community-based services and other care that they need to thrive in the community.

With your permission, I would like to audio record today's discussion to ensure that we adequately capture your responses and avoid any misinterpretations. These recordings will not be shared with anyone outside of our evaluation team, and when we report final findings, we will not use your name linked to any of your comments. May I start the recording now?

1. **First, before we get into your assessment of the Children's Design implementation, can you briefly tell us about your role and your experience with the implementation? Which of the populations affected by the Children's Design do you work with?**
   - ☐ Medically Fragile
   - ☐ Dual Diagnosis/Medically Fragile
   - ☐ Serious Emotional Disturbance
   - ☐ Foster care
   - ☐ Kids entering the system and/or kids who were already receiving waiver services?
2. **What were the main impacts of the Children's Design implementation on the work that you do?**
3. **Next, please tell us the major ways that the implementation of the Children's Design changed the process of accessing HCBS for those children? How did this process compare with the processes for accessing HCBS prior to the Children's Design?**
   - ☐ Have there been major changes in the kinds of care that eligible children have received?

4. **Our next questions are about potential barriers to access to HCBS under the Children's Design.**

   ☐ Have there been issues with billing and reimbursement for HCBS?
   ☐ Have there been issues with eligibility determination or re-determination?
   ☐ Have there been issues with having sufficient provider capacity to provide HCBS?
   ☐ MMC PLANS: How are you monitoring the capacity of the system to meet the needs of eligible children?
   ☐ How has the COVID-19 pandemic impacted access to or delivery of HCBS?

5. **We would like to ask specifically if you think that the Children's Design has impacted these children's access to primary care services. If so, how have they been affected?**
6. **On balance, do you think that the Children's Design improved care for eligible children?**

   ☐ Are children receiving care through the Children's Design better able to remain in the community?
   ☐ Have you seen evidence, anecdotal or otherwise, that children accessing HCBS are less likely to use the emergency room for care or have avoidable hospitalizations?
   ☐ ADVOCATES: Has the implementation of the Children's Design addressed your concerns about the Medicaid system of care for children?

7. **Are there any other important consequences of the Children's Design that we should be looking into?**

Appendix B. Qualitative Coding

In Table B.1 below, the codes that were used in the qualitative analysis are indicated related to each interview (CD1 through CD12). Each column represents each of the 12 interviews conducted with key stakeholders, and the last column adds the number of interviews in the row for that particular code, with 12 being the highest possible number. If a theme was coded in an interview, there is be a checkmark in that column. The boxes shaded in purple signify that the code was used at least once in the interview; the higher the total count of interviews that include the code, the more salient the code and its contribution to the resulting themes.

The first two codes (interviewee type and population) were standard codes applied to all interviews to categorize them; following these the codes are listed in order of appearance in the interview set. The higher the total count in the rows, the higher level of generalizability that can be drawn from that code.

Table B.1. Codes Used in Qualitative Analysis

Code	C D1	C D2	CD 3	C D4	C D5	C D6	C D7	C D8	C D9	CD 10	CD 11	CD 12	Number of Interviews
Reimbursement issues	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12
HCBS access	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	11
Health Homes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	11
Program/transition challenges	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	11
COVID-19	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	10
Medically fragile	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	10
Client outcomes		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	10
Care coordination/care management	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	10
Staffing issues	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	10
Foster care	✓	✓	✓	✓				✓	✓	✓	✓	✓	9
Negative perception	✓	✓	✓	✓		✓	✓			✓	✓	✓	9
Positive perception	✓	✓		✓	✓			✓	✓	✓	✓	✓	9
Eligibility determination	✓	✓	✓	✓	✓	✓	✓	✓				✓	9
Service capacity	✓	✓	✓	✓	✓	✓			✓		✓	✓	9
Communication	✓	✓		✓			✓	✓	✓	✓	✓	✓	9
Serious emotional disturbance	✓		✓	✓				✓	✓	✓	✓	✓	8
Managed care		✓		✓		✓	✓	✓		✓	✓	✓	8
Time delay	✓	✓		✓	✓			✓		✓		✓	7
Dual diagnosis	✓							✓	✓	✓	✓	✓	6
Respite care				✓				✓	✓	✓	✓	✓	6
De-designation		✓	✓	✓				✓	✓			✓	6
Program/transition strengths		✓		✓				✓		✓	✓	✓	6
Too early to tell			✓		✓			✓			✓	✓	5
Access	✓		✓	✓				✓	✓				5
Education	✓								✓	✓	✓	✓	5
Transition preparation		✓		✓						✓	✓	✓	5
Care utilization							✓	✓			✓	✓	4
Family of One								✓	✓		✓	✓	4
Other services						✓			✓	✓	✓		4
Palliative care									✓	✓	✓	✓	4
C-YES	✓								✓	✓		✓	4
Diverse population	✓				✓		✓				✓		4
Start-up costs		✓			✓						✓		3
Accessing primary care										✓		✓	2
Organizational structure/culture					✓		✓						2
Caregiver burden						✓							1

Code	C D1	C D2	CD 3	C D4	C D5	C D6	C D7	C D8	C D9	CD 10	CD 11	CD 12	Number of Interviews
Quality of life						✓							1
Environmental modification services									✓				1
Monitoring & evaluation										✓			1
Trust												✓	1
Improved health outcomes													0
Prevocational services													0

Table B.2. Co-Occurrence of Qualitative Codes

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	0																																														
2	0	0																																													
3	0	14	0																																												
4	0	32	7	0																																											
5	0	6	1	7	0																																										
6	0	17	2	20	5	0																																									
7	0	16	2	18	5	10	0																																								
8	0	12	1	13	5	9	8	0																																							
9	0	12	3	4	1	2	1	1	0																																						
10	2	3	0	3	0	1	3	1	0	0																																					
11	2	0	0	1	0	0	0	0	0	3	0																																				
12	0	0	0	0	0	0	0	0	0	0	1	0																																			
13	0	0	0	0	0	0	0	0	0	2	6	0	0																																		
14	0	0	0	0	0	0	0	0	0	0	1	0	0	0																																	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																
16	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0																															
17	3	0	0	0	0	0	0	0	0	1	5	0	1	0	0	0	0																														
18	4	1	0	1	0	1	0	0	0	1	5	1	1	0	0	0	2	0																													
19	3	12	1	14	0	4	6	2	0	22	8	0	4	0	0	0	1	6	0																												
20	1	1	0	1	0	0	1	0	0	5	5	0	1	0	0	0	1	3	36	0																											
21	0	3	0	3	0	1	3	1	0	7	1	0	1	0	0	0	0	0	16	4	0																										
22	0	3	0	3	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3	0	1	0																									
23	1	6	0	6	0	2	2	2	0	10	5	1	3	0	0	0	1	4	53	16	6	0	0																								
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0																							
25	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	3	0	0	0	3	0	0																						
26	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	0																					
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
28	1	2	0	2	0	0	1	1	0	1	0	0	0	0	0	0	0	0	6	2	1	0	5	0	1	1	0	0																			
29	0	3	0	3	0	2	2	1	0	8	1	0	0	0	0	0	0	3	36	16	6	1	11	0	0	0	0	1	0																		
30	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	1	1	0	0	0	0	0	0	4	0																	
31	0	1	0	2	0	0	1	0	0	3	1	0	0	0	0	0	1	3	15	2	0	0	4	0	0	0	0	0	0	0	0																
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0															
33	0	2	0	2	0	1	0	1	0	8	4	0	2	0	0	0	0	1	32	2	3	0	8	0	1	2	0	2	2	0	7	0	0														
34	1	3	1	4	0	1	0	0	0	2	1	0	1	0	0	0	0	0	21	3	2	0	8	0	0	1	0	1	4	0	1	0	6	0													
35	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	1	1	0	2	0	0	0	0	0	0	0	1	0	3	5	0												
36	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	0											
37	3	3	0	3	0	2	1	2	0	8	1	0	0	0	0	0	0	2	32	9	4	0	9	0	1	1	0	1	12	0	1	0	8	3	1	1	0										
38	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	2	1	0	2	0	0	0	0	0	2	0	0	0	0	1	1	0	3	0									
39	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	10	2	3	0	3	0	0	0	0	0	7	0	1	1	1	0	0	0	10	0	0								
40	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	2	0	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	6	0	0	0							
41	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	9	1	1	0	2	0	0	1	0	0	4	0	1	0	4	0	0	0	9	1	1	1	0						
42	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	1	0	1	0	0	0					
43	2	3	0	3	0	2	2	1	0	2	0	0	0	0	0	0	0	1	10	2	1	0	1	0	1	2	0	2	3	0	0	0	5	3	1	1	10	0	1	0	0	0	0				
44	0	2	0	2	0	2	2	1	0	3	1	0	0	0	0	0	0	0	9	3	2	1	2	0	0	0	0	0	6	1	0	0	1	0	0	0	8	1	1	0	0	0	2	0			
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
46	1	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	3	8	2	0	0	5	0	1	0	0	0	4	0	2	1	1	1	0	0	6	0	5	0	1	0	2	1	0	0	
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	0	1	0	0	0	0	0	3	0	2	1	0	0	0	0	2	0	2	0	1	0	1	0	0	6	0

Table B.2 is a matrix of how codes are coded in conjunction, meaning how many times each code was coded along with each one of the other codes. The top right corner of the matrix is blank because it is a symmetrical matrix, and so the contents are the same as the bottom half. This demonstrates how codes relate to each other to build on themes. The darker the shading, the higher the overlap between the two codes, which indicates that the two issues are closely related. The top row and first column numbers represent the codes used in the analysis (see Table B.3).

The highest code co-occurrence (53 times coded together), indicating the strongest relationship between codes, was found with codes HCBS access (code #23) and program structure (code #19). Other codes that proved to be highly related in our interview data to program structure included care coordination (code #20), Health Homes (code #29), reimbursement issues (code #33), program/transition challenges (code #37), service capacity (code #34), managed care (code #31), and eligibility determination (code #21). Other pairs of codes that were strongly related were program structure (code #19) and negative perception (code #10); care coordination (code #20) and HCBS access (code #23); and care coordination (code #20) and Health Homes (code #29).

Table B.3. Qualitative Codes

1	**COVID-19**
2	Identity
3	Interviewee type
4	Population
5	Dual diagnosis
6	Foster care
7	Medically fragile
8	SED
9	Region
10	Negative perception
11	Outcomes
12	Accessing primary care
13	Care utilization
14	Caregiver burden
15	Improved health outcomes
16	Quality of life
17	Too early to tell
18	Positive perception
19	Program structure
20	Care coordination/care management
21	Eligibility determination
22	Family of One
23	HCBS access

24 Environmental modification services
25 Other services
26 Palliative care
27 Prevocational services
28 Respite care
29 Health Homes
30 C-YES
31 Managed care
32 Monitoring & evaluation
33 Reimbursement issues
34 Service capacity
35 De-designation
36 Start-up costs
37 Program/transition challenges
38 Access
39 Communication
40 Diverse population
41 Education
42 Organizational structure/culture
43 Staffing issues
44 Time delay
45 Trust
46 Program/transition strengths
47 Transition prep

Appendix C. Statistical Test Results for Quality Measures

Table C.1 in this appendix presents information on tests of statistical significance for comparisons presented in figures in the main text. For each figure, we report p-values for tests of differences on the corresponding measure between MMC, FFS, and HHSC groups.

Table C.1. Statistical Test Results for Quality Measures

Figure	Data Source	Measure	Test Results
Figure 4.2	NYS Medicaid Data Warehouse	W15-CH: 6 or more well-child visits in the first 15 months of life	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p = 0.267$ - MMC vs. HHSC $p < 0.001$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p = 0.841$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p = 0.025$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p = 0.463$ - HHSC vs. MMC $p = 0.079$ - HHSC vs. FFS $p = 0.132$
Figure 4.3	NYS Medicaid Data Warehouse	W34-CH: One or more well-child visits in the third, fourth, fifth, and sixth years of life	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p < 0.001$ - HHSC vs. MMC $p = 0.118$ - HHSC vs. FFS $p = 0.844$

Figure	Data Source	Measure	Test Results
Figure 4.4	NYS Medicaid Data Warehouse	AWC-CH: One or more adolescent well-care visits	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.097$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.009$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p < 0.001$ - HHSC vs. MMC $p = 0.004$ - HHSC vs. FFS $p = 0.056$
Figure 4.6	NYS Medicaid Data Warehouse	FUH-07: Follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17 within seven days of discharge	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.399$ • 1/2018: - MMC vs. FFS $p = 0.003$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p = 0.761$ - HHSC vs. MMC $p = 0.794$ - HHSC vs. FFS $p = 0.944$
Figure 4.7	NYS Medicaid Data Warehouse	FUH-30: Follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17 within 30 days of discharge	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p = 0.270$ - HHSC vs. MMC $p = 0.307$ - HHSC vs. FFS $p = 0.103$

Figure	Data Source	Measure	Test Results
Figure 4.8	NYS Medicaid Data Warehouse	ADD-INIT: Follow-up care for children prescribed ADHD medication during the 30-day initiation phase	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ Trend test: - MMC vs. FFS $p= 0.003$ - HHSC vs. MMC $p < 0.001$ - HHSC vs. FFS $p = 0.254$
Figure 4.9	NYS Medicaid Data Warehouse	ADD-CONT: Follow-up care for children prescribed ADHD medication during the continuation and maintenance phase	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p < 0.001$ • 1/2019: - MMC vs. FFS $p = 0.122$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.41$ Trend test: - MMC vs. FFS $p < 0.001$ - HHSC vs. MMC $p < 0.001$ - HHSC vs. FFS $p = 0.584$
Figure 4.10	NYS Medicaid Data Warehouse	APM: Metabolic monitoring for children and adolescents on antipsychotics	T test: • 4/2017: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.508$ • 1/2018: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.898$ • 1/2019: - MMC vs. FFS $p < 0.001$ - HHSC vs. FFS $p < 0.001$ - MMC vs. HHSC $p = 0.258$ Trend test: - MMC vs. FFS $p = 0.954$ - HHSC vs. MMC $p = 0.283$ - HHSC vs. FFS $p = 0.344$

Figure	Data Source	Measure	Test Results
Figure 4.12	NYS Medicaid Data Warehouse	CIS: Childhood immunization status	T test: • 4/2017: - MMC vs. FFS p = 0.070 - HHSC vs. FFS p = 0.956 - MMC vs. HHSC p = 0.001 • 1/2018: - MMC vs. FFS p = 0.080 - HHSC vs. FFS p = 0.410 - MMC vs. HHSC p = 0.014 • 1/2019: - MMC vs. FFS p = 0.276 - HHSC vs. FFS p = 0.738 - MMC vs. HHSC p < 0.001 Trend test: - MMC vs. FFS p = 0.370 - HHSC vs. MMC p = 0.906 - HHSC vs. FFS p = 0.866
Figure 4.13	NYS Medicaid Data Warehouse	IMA: Immunizations for adolescents	T test: • 4/2017: - MMC vs. FFS p < 0.001 - HHSC vs. FFS p < 0.001 - MMC vs. HHSC p = 0.577 • 1/2018: - MMC vs. FFS p < 0.001 - HHSC vs. FFS p < 0.001 - MMC vs. HHSC p = 0.622 • 1/2019: - MMC vs. FFS p = 0.003 - HHSC vs. FFS p < 0.001 - MMC vs. HHSC p = 0.011 Trend test: - MMC vs. FFS p = 0.015, - HHSC vs. MMC p = 0.215, - HHSC vs. FFS p = 0.002
Figure 4.13	NYS Medicaid Data Warehouse	WCC: Weight assessment and counseling for nutrition and physical activity for children/adolescents; BMI assessment for children/adolescents	Chi2 test: • 1/2018: - MMC vs. HHSC p = 0.78

Appendix D. Baseline Quality Measures for the Children's Design Target Population, Overall Medicaid Program, and Comparable States

In this appendix, we compared the following baseline quality measures for HHSC (the population comparable to that of the Children's Design) with two other populations: (1) the overall NYS Medicaid population; and (2) the Medicaid and Children's Health Insurance Program (CHIP) population in comparable states.

1. W15-CH: 6 or more well-child visits in the first 15 months of life
2. W34-CH: One or more well-child visits in the third, fourth, fifth, and sixth years of life
3. AWC-CH: One or more adolescent well-care visits
4. FUH-07: Follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17 within seven days of discharge
5. FUH-30: Follow-up after hospitalization for mental illness among children or adolescents ages 6 to 17 within 30 days of discharge
6. ADD-INIT: Follow-up care for children prescribed ADHD medication during the 30-day initiation phase
7. ADD-CONT: Follow-up care for children prescribed ADHD medication during the continuation and maintenance phase
8. CIS: Childhood immunization status
9. IMA: Immunizations for adolescents
10. WCC: Weight assessment and counseling for nutrition and physical activity for children/adolescents; BMI assessment for children/adolescents

Measures. The APM metric (metabolic monitoring for children and adolescents prescribed antipsychotics) was excluded from this comparison because such data were not available for comparison states. CIS was defined differently for NYS and the comparison states. NYS adopted the CMS specification, which was stricter than that of the Medicaid Child Core Set. In particular, the CMS specification has additional requirements of rotavirus and influenza vaccines in the immunization set. The full list of immunizations specified in the two data sources is presented in Table D.1. In addition, NYS's CIS and IMA did not include its immunization registry in the calculation, which may lead to an undercount of children who received the required immunizations.

Analysis. We derived overall NYS Medicaid rates by taking the weighted average of MMC and FFS rates, except for WCC, where only the MMC rate is available.

Sample selection. To select the comparable states, we first identified states that applied the same data collection methodology as NYS. Table D.2 shows the data collection methodology for each quality metric. Next, we selected the top five states in terms of the population size from

2015 to 2018. If there was more than one missing data point for a state from 2015 to 2018, we excluded that state from the list. We kept states with only one missing data point out of the four years on the list; for instance, the data point of 2017 is missing for Colorado for two measures (W34-CH and AWC-CH), but Colorado was included for the comparison in 2018.

Table D.1. Immunization Sets Specified for Childhood Immunization Status

Data Source	Immunization Sets
NYS Data	• four diphtheria, tetanus and acellular pertussis (DTaP) • three polio (IPV) • one measles, mumps, and rubella (MMR) • three or four H influenza type B (HiB) • three hepatitis B (Hep B) • one chicken pox (VZV) • four pneumococcal conjugate (PCV) • one hepatitis A (HepA) • two or three rotavirus (RV) • two influenza (flu) vaccines
Medicaid Child Core Set	• four DTaP • three IPV • one MMR • three HiB • three Hep B • one VZV • four PCV

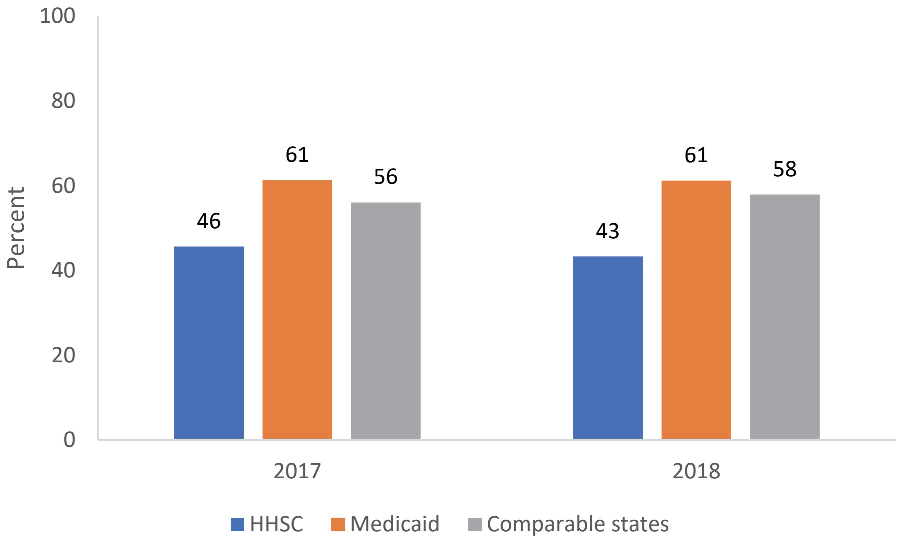
Table D.2. States Comparable to New York

Measure	Methodology	Comparable States
W15-CH	Administrative	Colorado, Illinois, Louisiana, North Carolina, South Carolina
W34-CH	Administrative	Colorado, Illinois, Arizona, North Carolina, South Carolina
AWC-CH	Administrative	Arizona, Colorado, Illinois, North Carolina, South Carolina
FUH-07	Administrative	California, Florida, Illinois, Pennsylvania, Texas
FUH-30	Administrative	California, Florida, Illinois, Pennsylvania, Texas
ADD-INIT	Administrative	California, Florida, Georgia, Louisiana, Texas
ADD-CONT	Administrative	California, North Carolina, Ohio, Pennsylvania, Texas
CIS	Administrative	Alabama, Illinois, Louisiana, North Carolina, South Carolina
IMA	Administrative	Illinois, Louisiana, North Carolina, South Carolina, Texas
WCC	Hybrid	Florida, Hawaii, Michigan, Pennsylvania, Tennessee

NOTE: The specifications of denominators are different for administrative and hybrid methodology. For administrative methodology, the denominators are all eligible children, while hybrid methodology uses a systematic sample drawn from the eligible population.

Figures D.1 to D.10 present the results of comparing select quality measures between the HHSC population, the overall NYS Medicaid population, and the Medicaid populations of other comparable states.

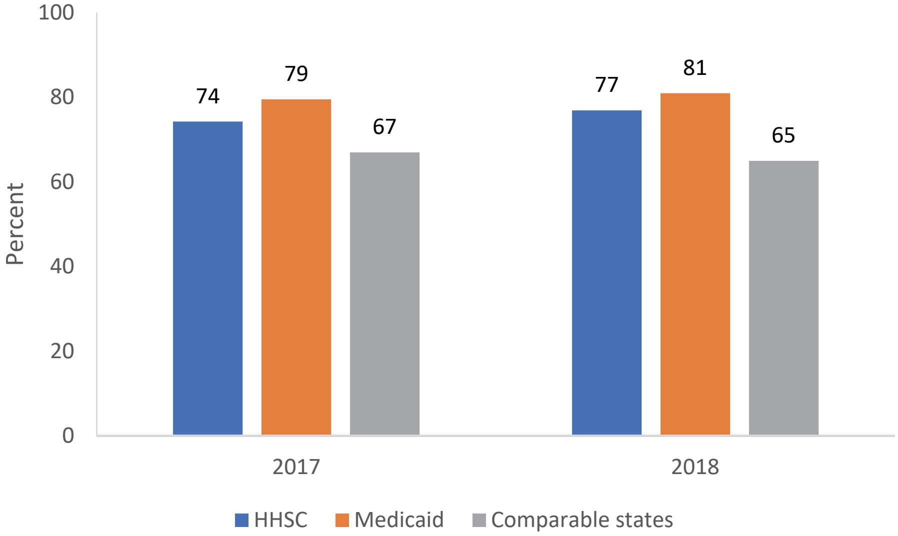
Figure D.1. Percent of Children with Six or More Well-Child Visits in the First 15 Months of Life, 2017–2018



SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).
NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 160 (2017), 164 (2018)
  - NYS Medicaid = 99,379 (2017), 98,615 (2018)
  - Comparable states = 231,909 (2017), 220,919 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p < 0.001 (2017 and 2018)
  - HHSC vs. comparable states p = 0.008 (2017), p < 0.001 (2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.2. Percent of Children with One or More Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, 2017–2018

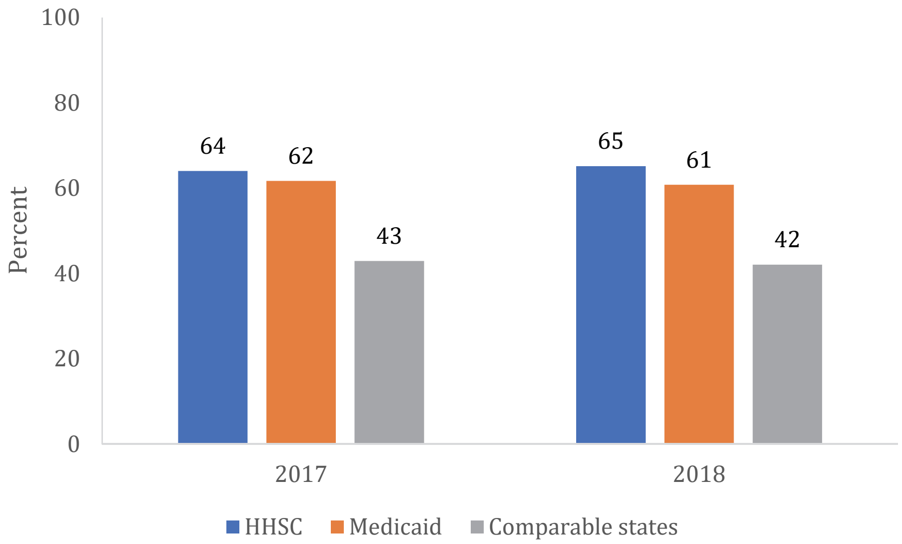


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 2,290 (2017), 2,448 (2018)
  - NYS Medicaid = 389,858 (2017), 389,440 (2018)
  - Comparable states = 772,293 (2017), 887,771 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid $p < 0.001$ (2017 and 2018)
  - HHSC vs. comparable states $p < 0.001$ (2017 and 2018)
  - Medicaid vs. comparable states $p < 0.001$ (2017 and 2018)

Figure D.3. Percent of Adolescents Ages 12 to 21 with One or More Adolescent Well-Care Visits, 2017–2018

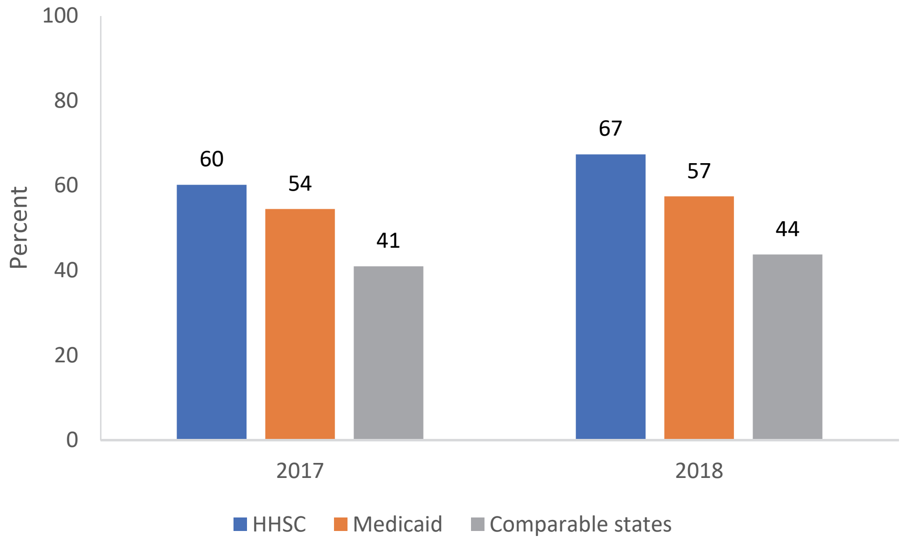


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 10,935 (2017), 11,770 (2018)
  - NYS Medicaid = 827,167 (2017), 839,352 (2018)
  - Comparable states = 1,399,730 (2017), 1,687,273 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p < 0.001 (2017 and 2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.4. Percent of Discharges for Children Ages 6 to 17 Who Were Hospitalized for Treatment of Selected Mental Illnesses and Who Had a Follow-Up Visit Within Seven Days of Discharge, 2017–2018

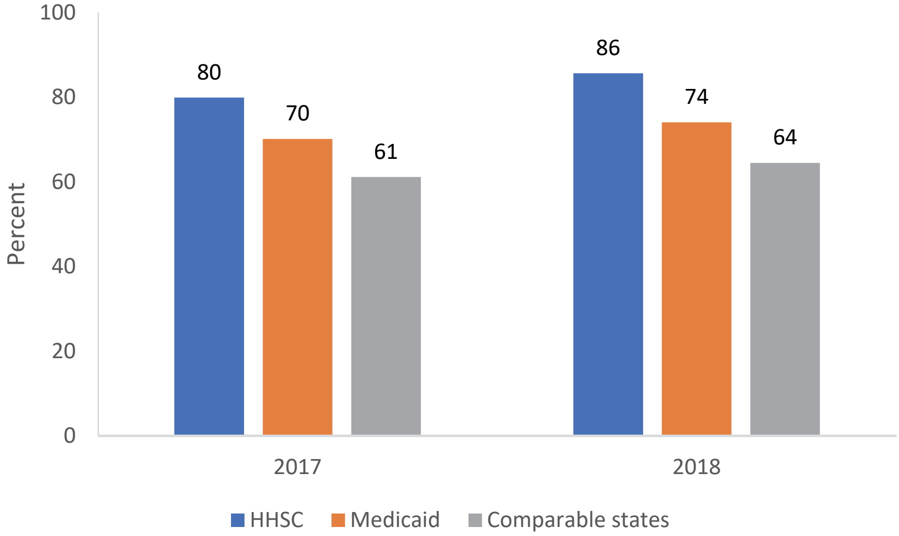


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 1,876 (2017), 1,797 (2018)
  - NYS Medicaid = 10,830 (2017), 10,408 (2018)
  - Comparable states = 101,312 (2017), 70,347 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p < 0.001 (2017 and 2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.5. Percent of Discharges for Children Ages 6 to 17 Who Were Hospitalized for Treatment of Selected Mental Illness and Who Had a Follow-Up Visit Within 30 Days of Discharge, 2017–2018

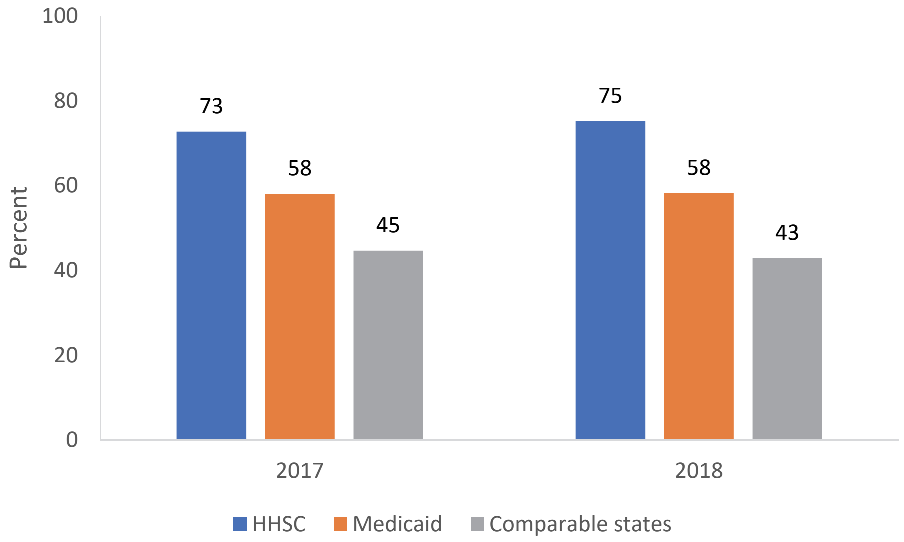


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 1,876 (2017), 1,797 (2018)
  - NYS Medicaid = 10,830 (2017), 10,408 (2018)
  - Comparable states = 101,312 (2017), 70,347 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p < 0.001 (2017 and 2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.6. Percent of Children Ages 6 to 12 Who Were Newly Dispensed a Medication for Attention-Deficit/Hyperactivity Disorder and Had at Least One Follow-Up Visit During the 30-Day Initiation Phase, 2017–2018

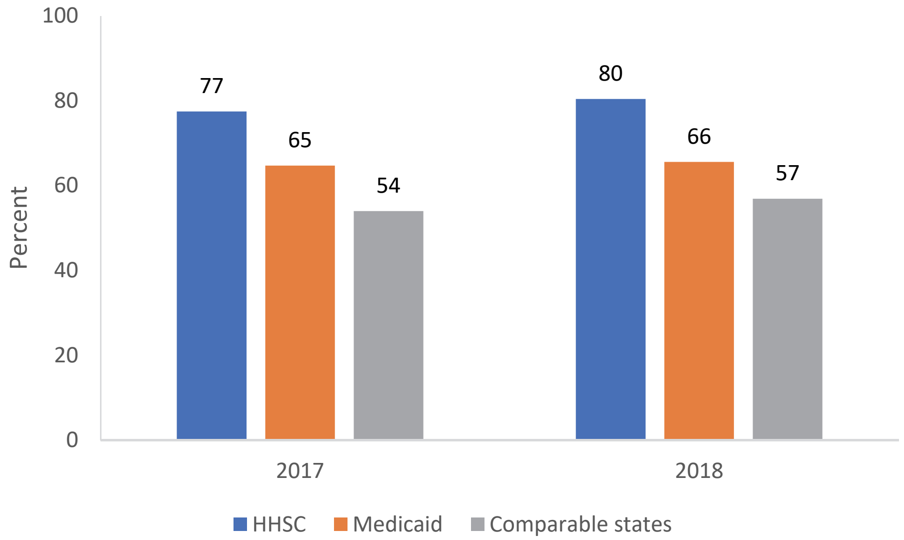


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 1,198 (2017), 1,402 (2018)
  - NYS Medicaid = 17,381 (2017), 17,205 (2018)
  - Comparable states = 144,818 (2017), 121,680 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid $p < 0.001$ (2017 and 2018)
  - HHSC vs. comparable states $p < 0.001$ (2017 and 2018)
  - Medicaid vs. comparable states $p < 0.001$ (2017 and 2018)

Figure D.7. Percent of Children Ages 6 to 12 Who Remained on Attention-Deficit/Hyperactivity Disorder Medication for 210 Days and Had at Least Two Follow-Up Visits During the Continuation and Maintenance Phase, 2017–2018

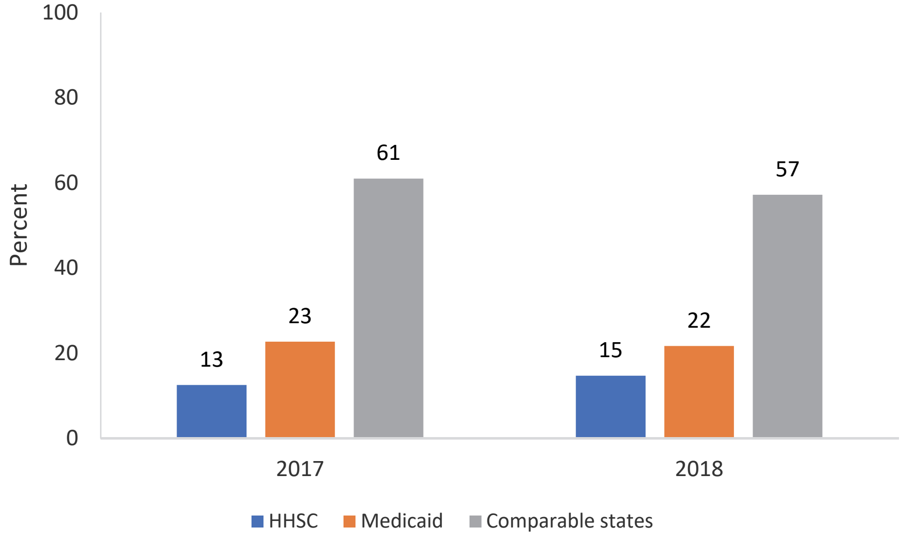


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 421 (2017), 464 (2018)
  - NYS Medicaid = 4,295 (2017), 4,394 (2018)
  - Comparable states = 27,582 (2017), 28,195 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p < 0.001 (2017 and 2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.8. Percent of Children Who Turned 2 During the Measurement Year and Had the Recommended Immunizations by Their 2nd Birthday, 2017–2018

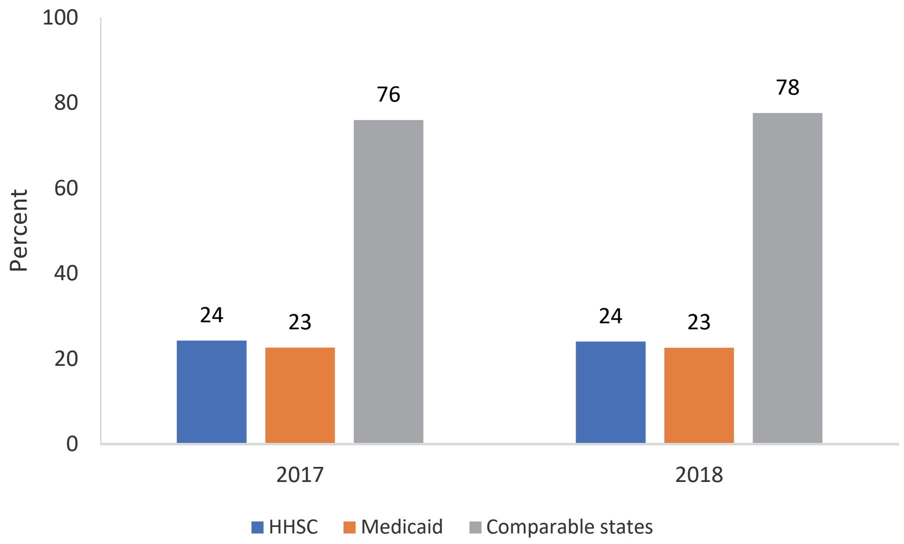


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 160 (2017), 184 (2018)
  - NYS Medicaid = 99,697 (2017), 98,554 (2018)
  - Comparable states = 35,196 (2017), 18,134 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p = 0.002 (2017), p = 0.022 (2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.9. Percent of Adolescents Who Turned 13 Years of Age During the Measurement Year and Had the Recommended Immunizations by Their 13th Birthday, 2017–2018

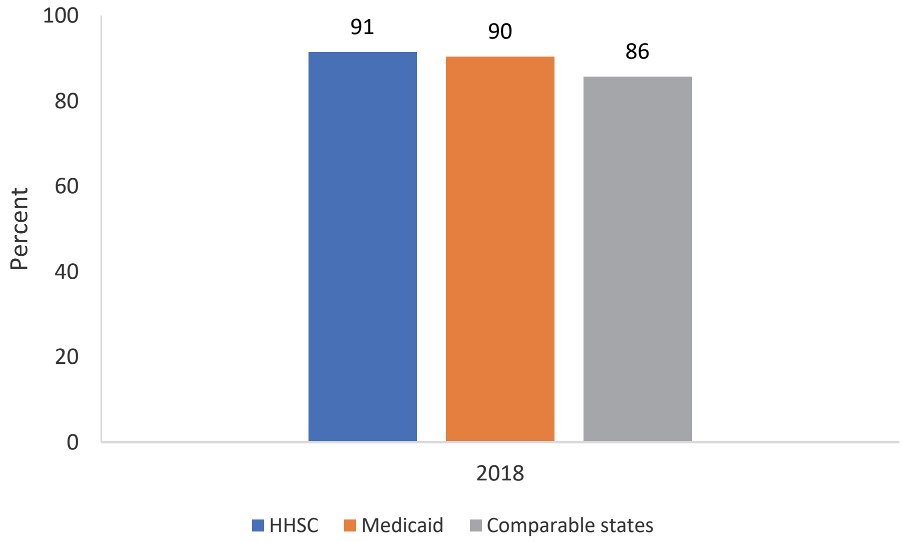


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 1,328 (2017), 1,527 (2018)
  - NYS Medicaid = 83,926 (2017), 85,970 (2018)
  - Comparable states = 17,239 (2017), 27,063 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p = 0.152 (2017), p = 0.172 (2018)
  - HHSC vs. comparable states p < 0.001 (2017 and 2018)
  - Medicaid vs. comparable states p < 0.001 (2017 and 2018)

Figure D.10. Percent of Members 3 to 17 Years of Age Who Had an Outpatient Visit with a Primary Care Physician or Obstetrician/Gynecologist and Had Evidence of Body Mass Index Measurement or Counseling for Physical Activity or Nutrition During the Measurement Period, 2018



SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

NOTE: Information as of January 12, 2020.

- Sample size
  - NYS HHSC = 82 (2018)
  - NYS Medicaid = 145 (2018)
  - Comparable states = 101,818 (2018)
- Analysis (Chi2 test)
  - HHSC vs. Medicaid p = 0.780 (2018)
  - HHSC vs. comparable states p = 0.134 (2018)
  - Medicaid vs. comparable states p = 0.108 (2018)

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