Research Report

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

Interim Findings

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Published by the RAND Corporation, Santa Monica, Calif.
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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.

Acknowledgments

This research was supported by the New York State (NYS) Department of Health (DOH) through contract C035950. We thank our colleagues from DOH, specifically Nichole Katz, Colette Poulin, Raina Josberger, and Libby Nichols, along with Abi Mihel from Deloitte, who provided insight and expertise that greatly assisted the authors in understanding the Children's Design, as implemented in NYS.

This report would not have been possible without the input from the many stakeholders across NYS who shared their experiences and opinions with us. We appreciate their time and candor.

We thank the many individuals within RAND who supported the research and helped in the preparation of the final report. Monique Martineau is our wonderful editor, and Kayla Howard helped to turn our writing into a properly formatted report. We would also like to thank Leighton Ku (Milken Institute School of Public Health, George Washington University) and Dana Schultz (RAND Corporation) for comments that greatly improved this interim report. Thanks also go to Marcela Horvitz-Lennon for her thoughtful comments and insights, drawing upon her extensive experience with Medicaid programs. We are immensely grateful for their comments on the draft of the manuscript. Any errors are our own and should not reflect our colleagues' efforts and guidance.

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	

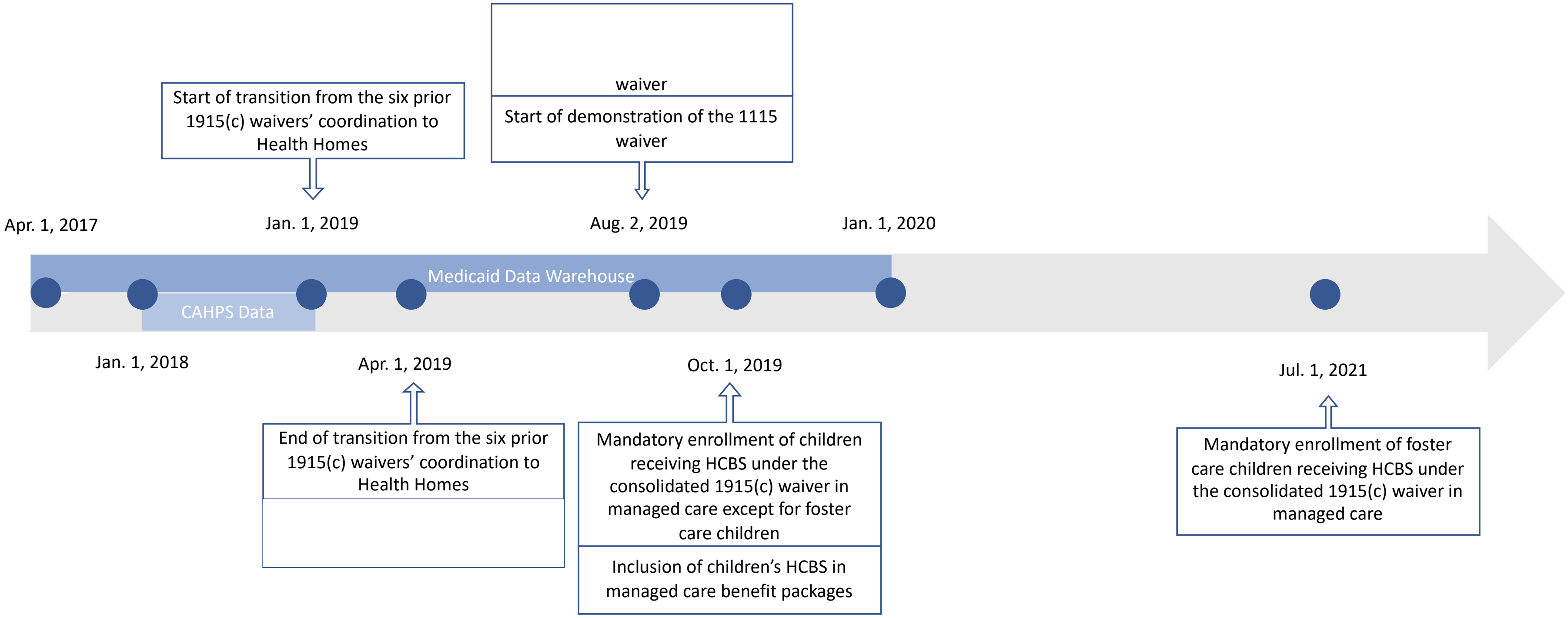
NOTE: These HCBS and CFTSS services became part of the State Plan after their transition to the 1115 waiver.

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?	All children with health conditions that have lasted at least 3 months	1. All: 826; CCC: 652
		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?		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?	Children who needed special medical equipment, therapy or counseling in the last 6 months	1. All: 294; CCC: 158
		2. In the last 6 months, how often was it easy to get this therapy for your child?		2. All: 545; CCC: 322
		3. In the last 6 months, how often was it easy to get this treatment or counseling for your child?		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?	Population of children who needed special medical equipment, therapy or counseling in the last 6 months	1. All: 290; CCC: 155
		2. Did anyone from your child's health plan, doctor's office, or clinic help you get this therapy for your child?		2. All: 554; CCC: 325
		3. Did anyone from your child's health plan, doctor's office, or clinic help you get this treatment or counseling for your child?		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

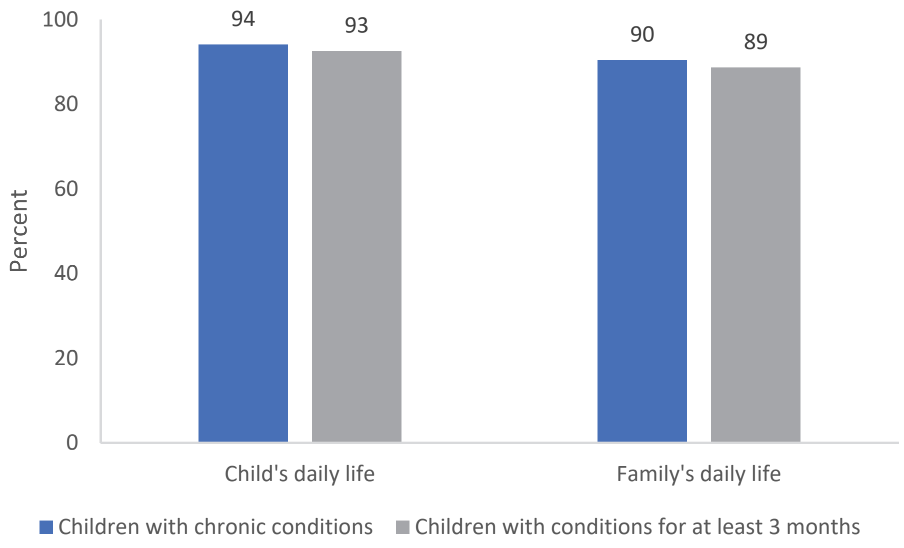
In 2018, 94 percent of parents of CCC in the survey reported being satisfied with their PCP’s understanding of their children’s daily lives, while 90 percent reported that they think that their doctors understand their family’s daily life (Figure 4.1). Among the broader sample of parents of children 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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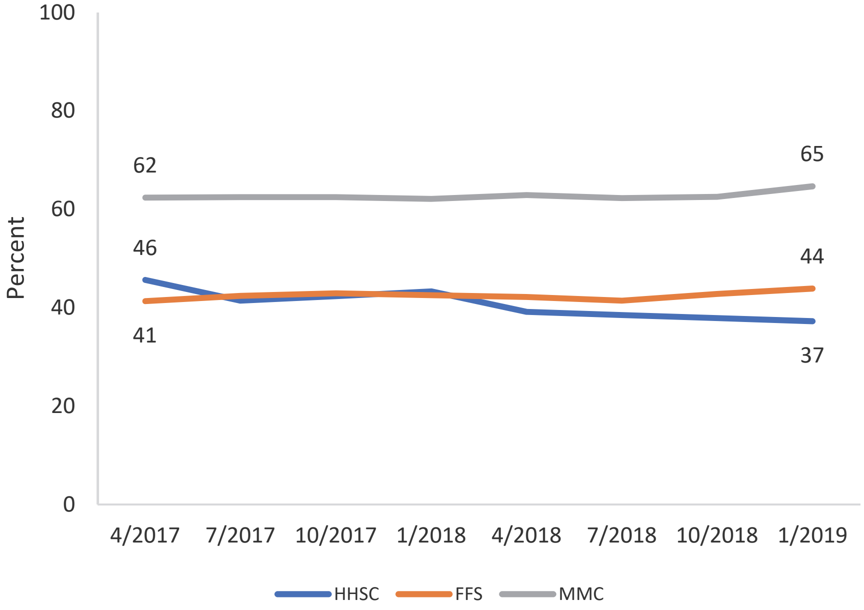
[9] We use a 5-percent threshold for determining statistical significance.

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

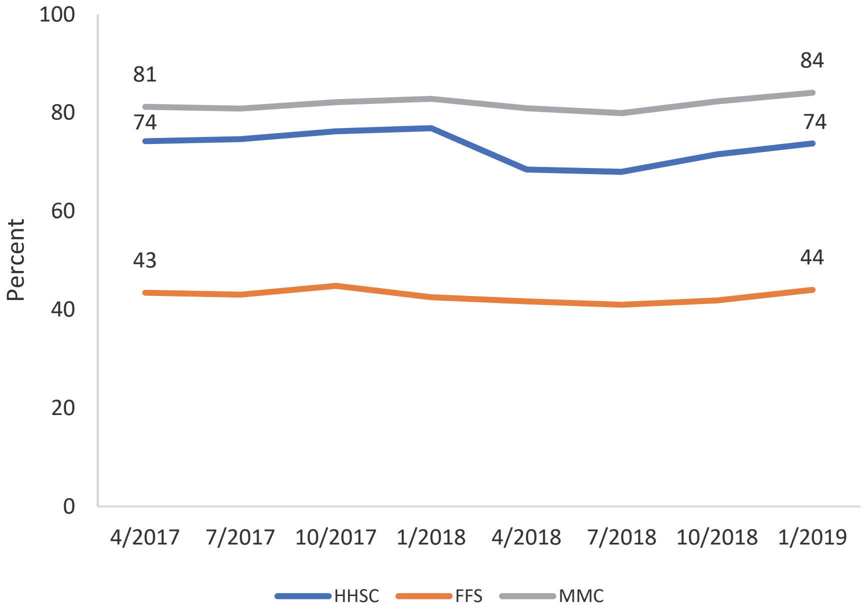


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

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



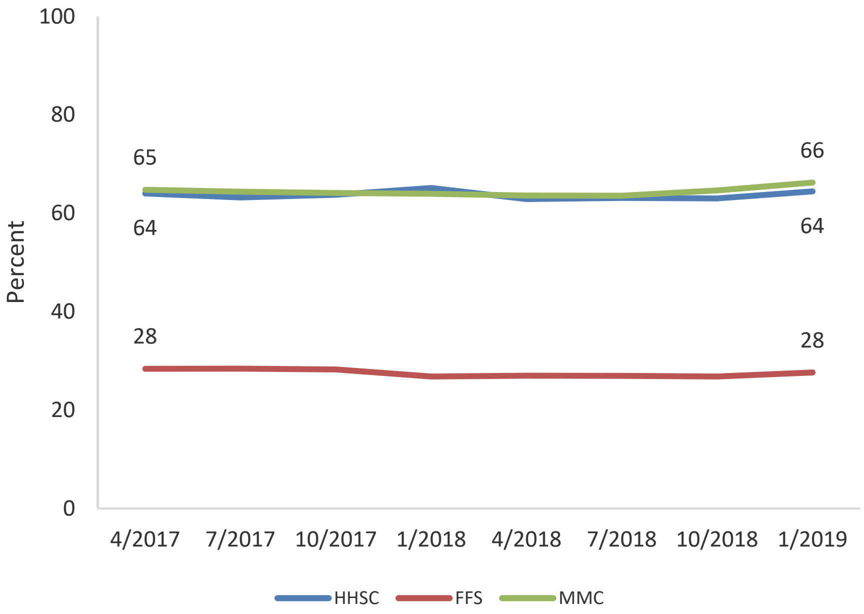
SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

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?

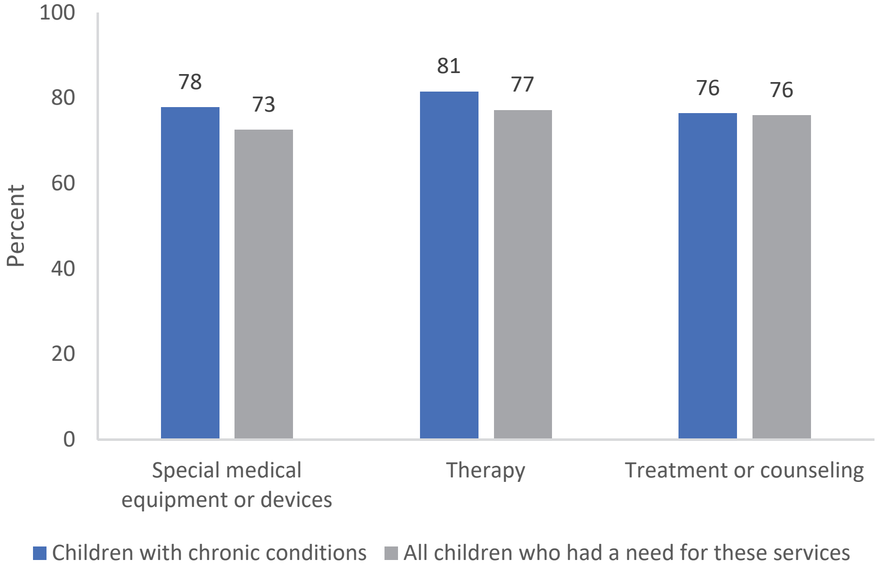
Due to lack of better measures for timely access to specialty services, we used CAHPS survey data about the difficulty children and their families have in accessing such services.

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.

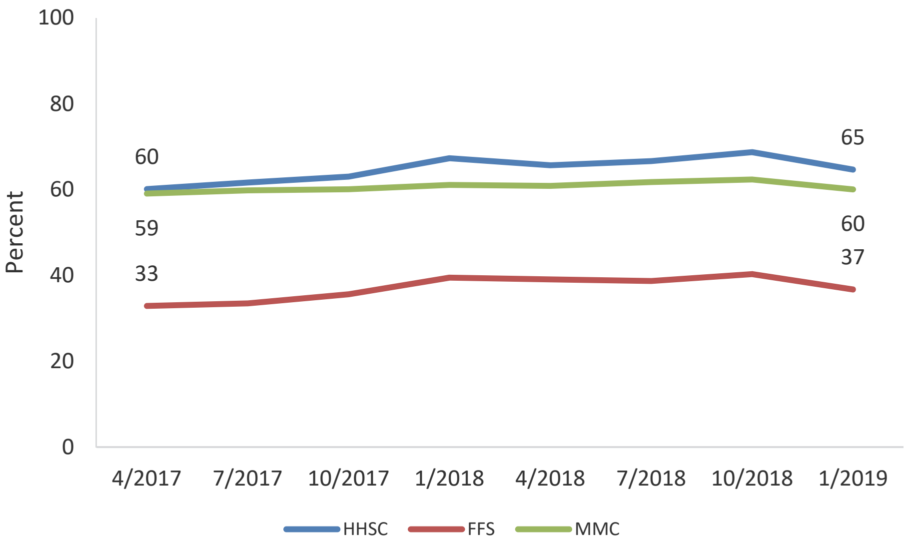
Research Question 2.2: To what extent are Medicaid managed care enrollees accessing community-based health care or integrated health/behavioral health care in a manner that results in improved health care outcomes?

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 ($p = 0.944$).

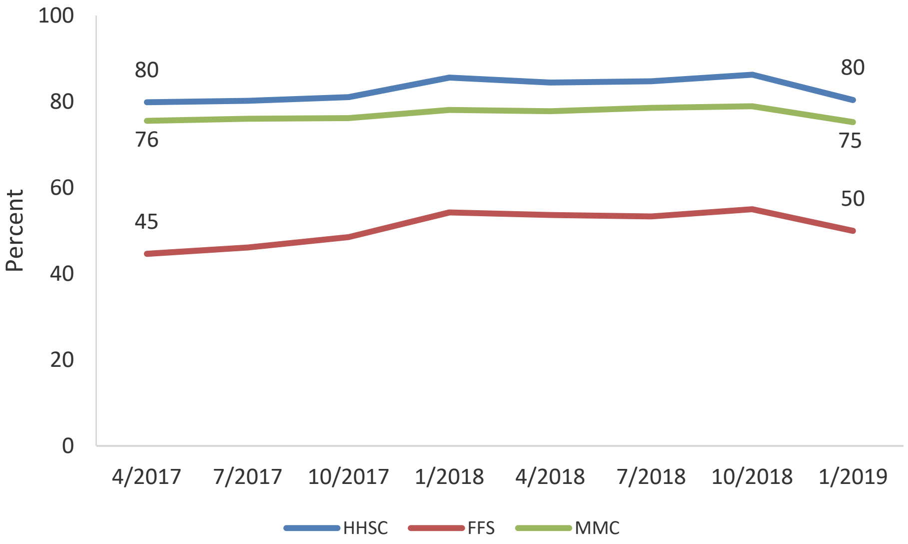
Figure 4.6. Percent of Discharges for Children Ages 6 to 17 Who Were Hospitalized for Treatment of Selected Mental Illnesses and Who Had a Follow-Up Visit Within Seven Days of Discharge (FUH-07), 2017–2019



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

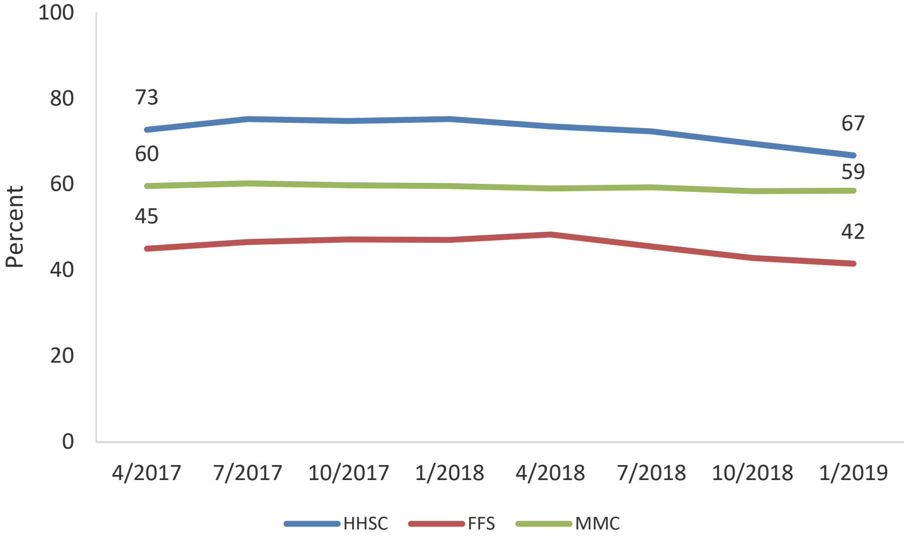


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

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 ($p = 0.254$).

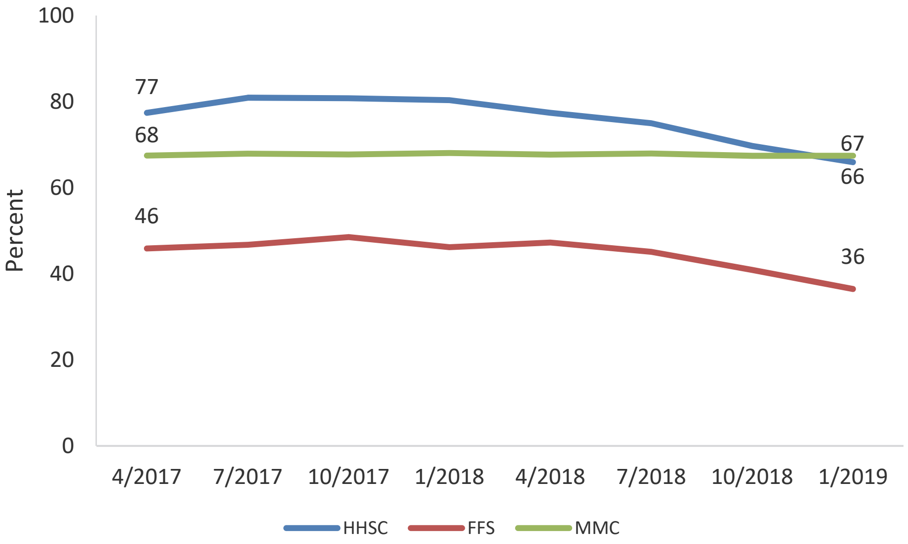
Figure 4.8. Percent of Children Ages 6 to 12 and Newly Dispensed a Medication for ADHD Who Had at Least One Follow-Up Visit During the 30-Day Initiation Phase (ADD-INIT), 2017–2019



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

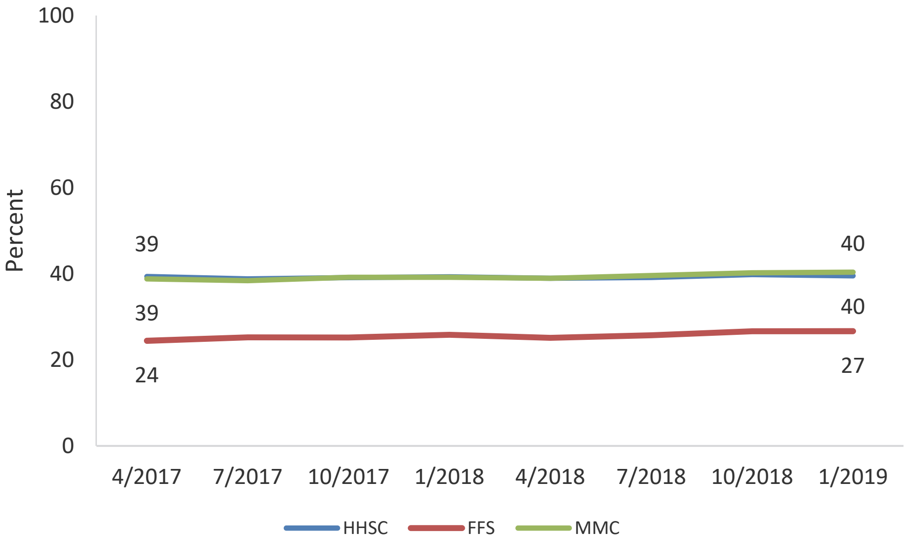


SOURCE: Population-level aggregate data derived from the Medicaid Data Warehouse by NYS DOH.
NOTE: Information as of January 12, 2020. Details of statistical test results are in Appendix C.

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.

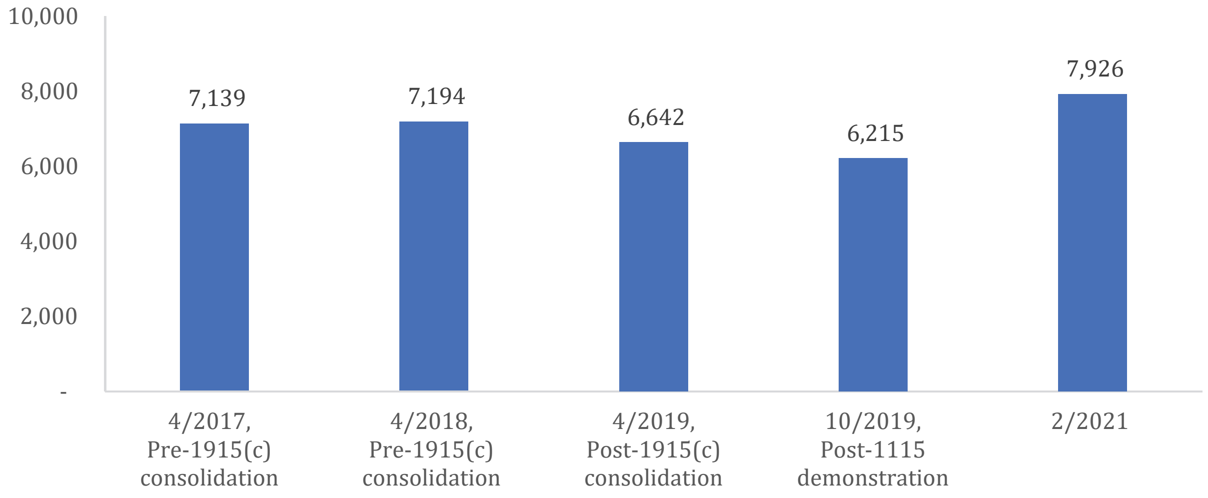
We address this question by examining how enrollment in HCBS has changed over the length of the demonstration.

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.

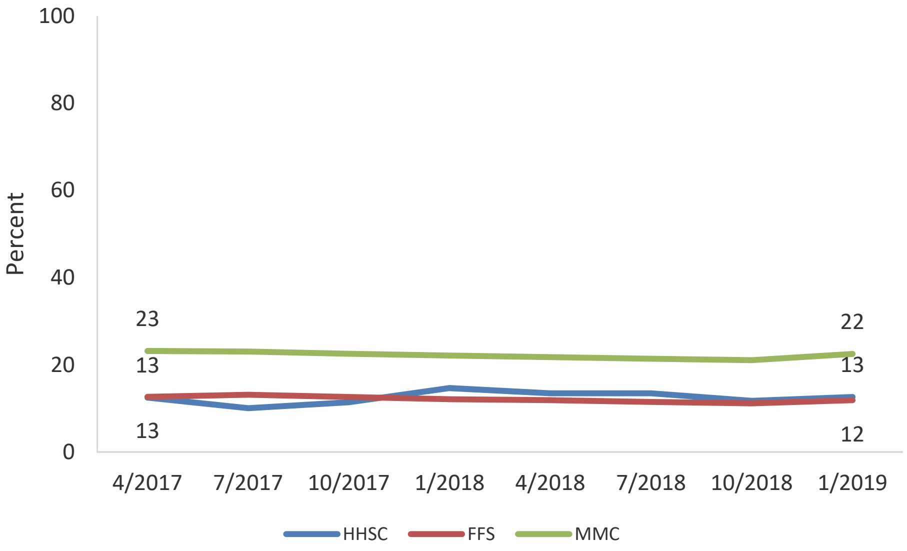
While stakeholders view care coordination under the Children's Design to be less intensive than care management had been under the previous system, respondents representing managed care plans reported potential benefits resulting from the integration of care coordination with other health services within 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 ($p = 0.866$).

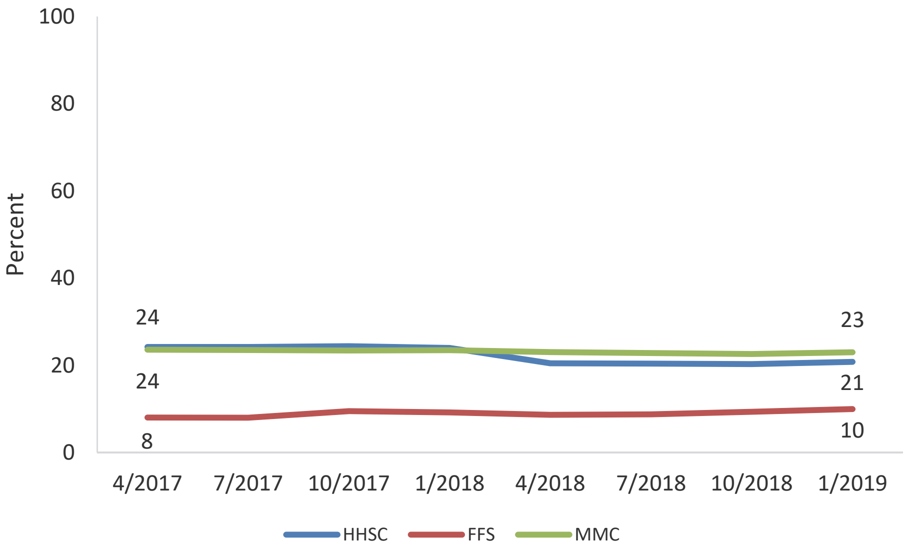
Figure 4.12. Percent of Children Who Turned 2 Years of Age During the Measurement Year and Had the Recommended Immunizations by Their 2nd Birthday (CIS), 2017–2019



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.

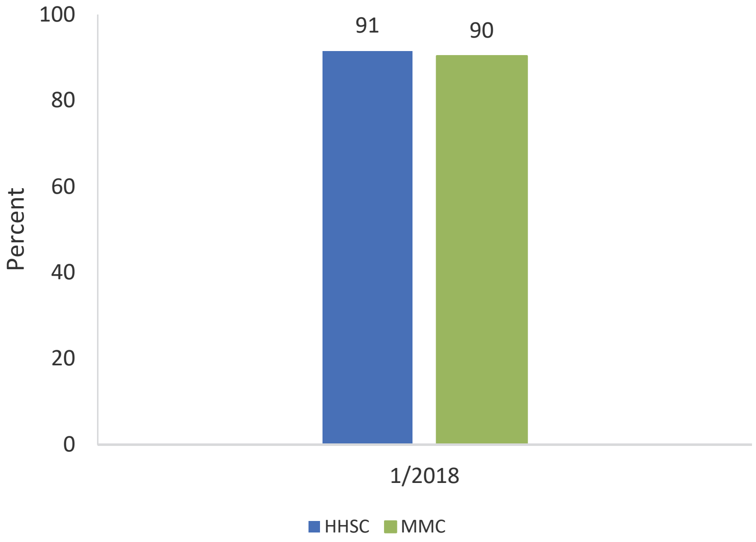
Research Question 5.3: Are Health Homes Serving Children/home- and community-based services enrollees accessing necessary services such as health monitoring and prevention services? Are chronic health and behavioral health conditions being managed appropriately?

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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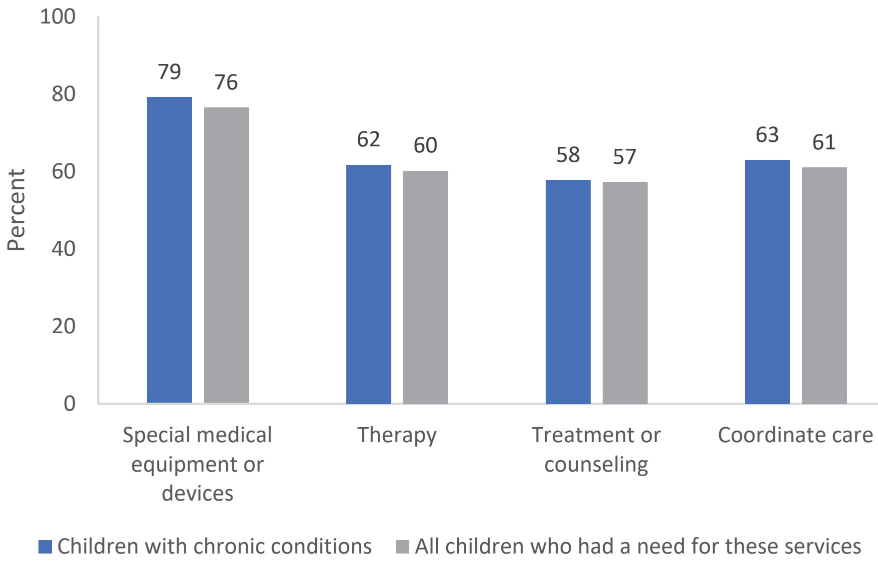
[10] Quality Assurance Reporting Requirement is a public reporting system created by NYS DOH. It collects quality and satisfaction measures for all plans in New York and publishes an annual report of health plan performance.

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 Families with other needs, including CFTSS, are not handled through C-YES	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

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

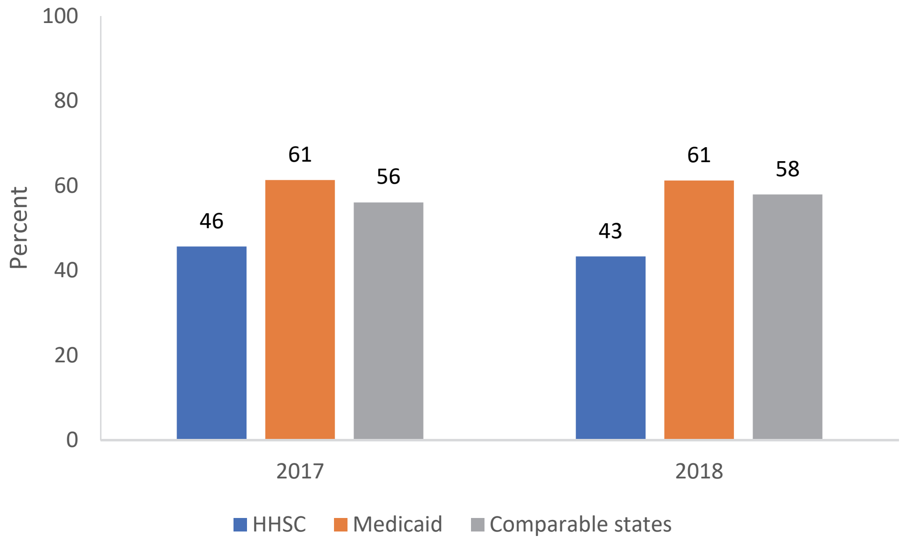
Table D.2. States Comparable to New York

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

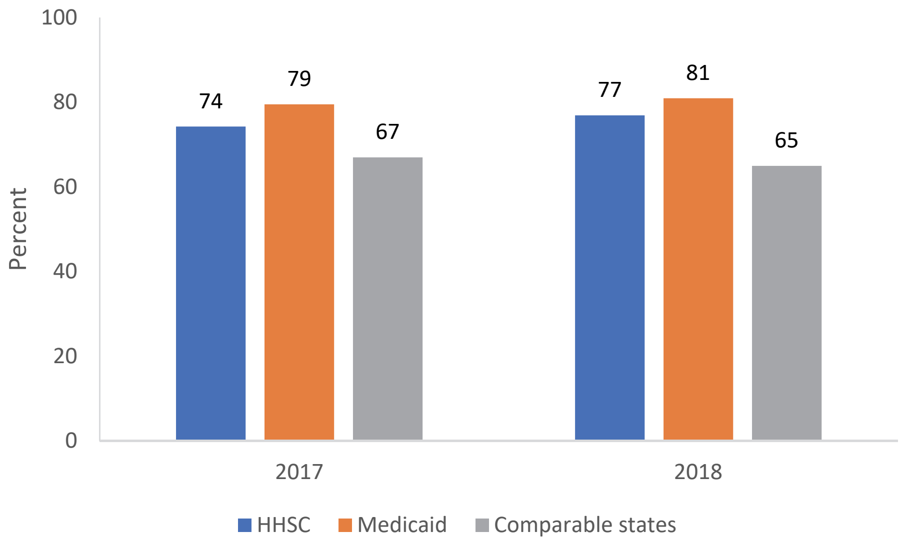


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

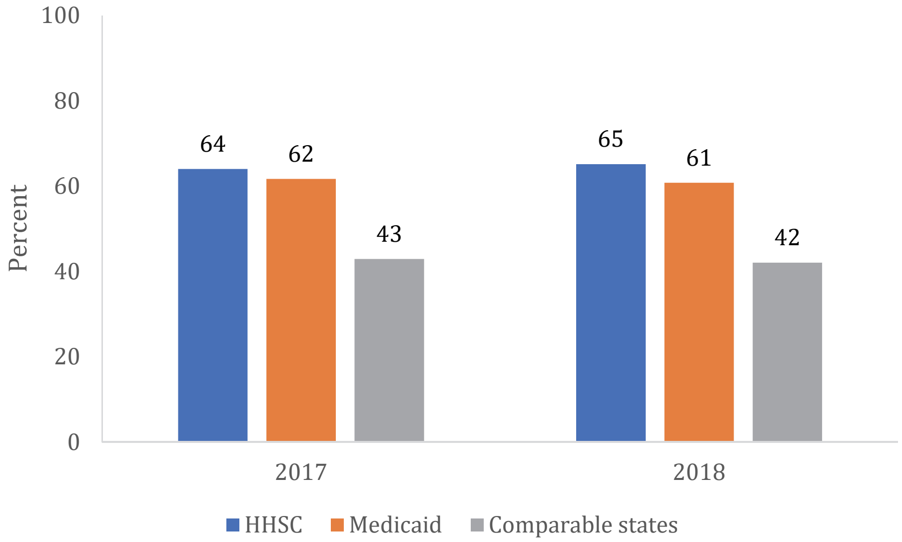


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

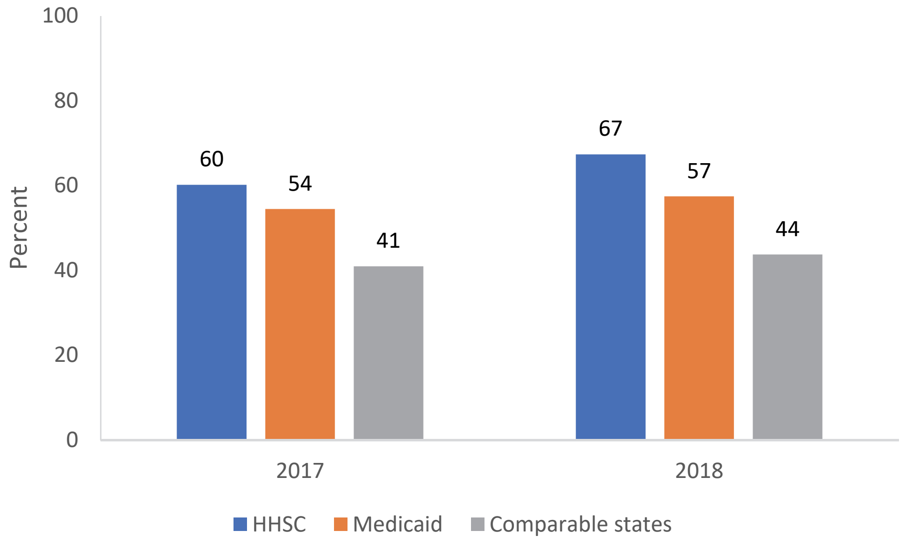


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

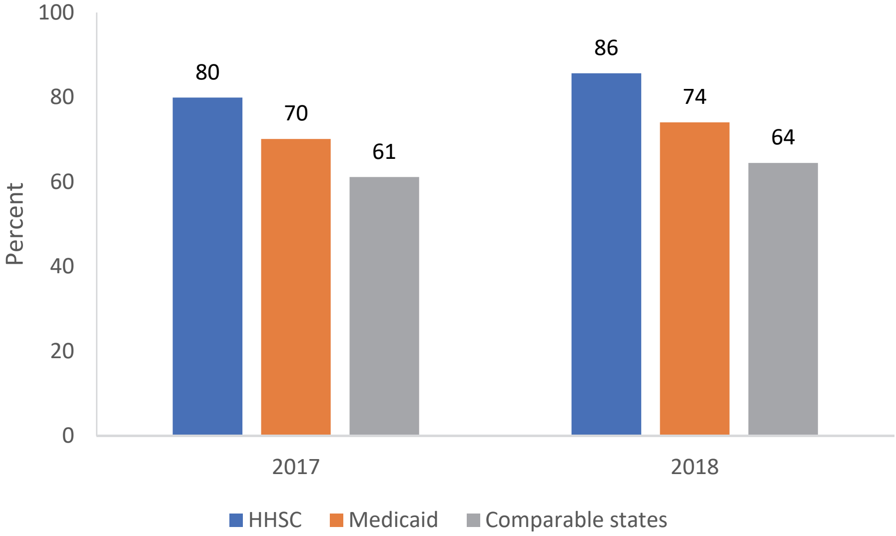


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

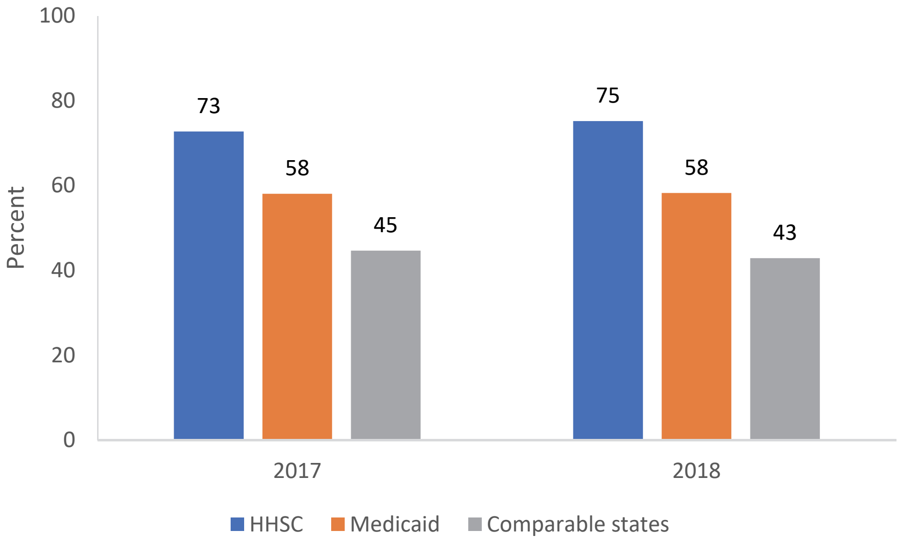


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

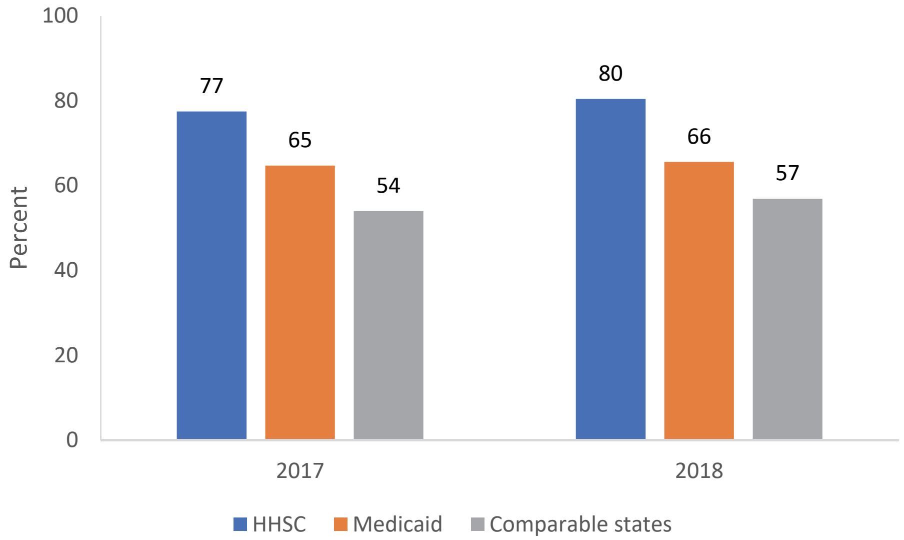


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

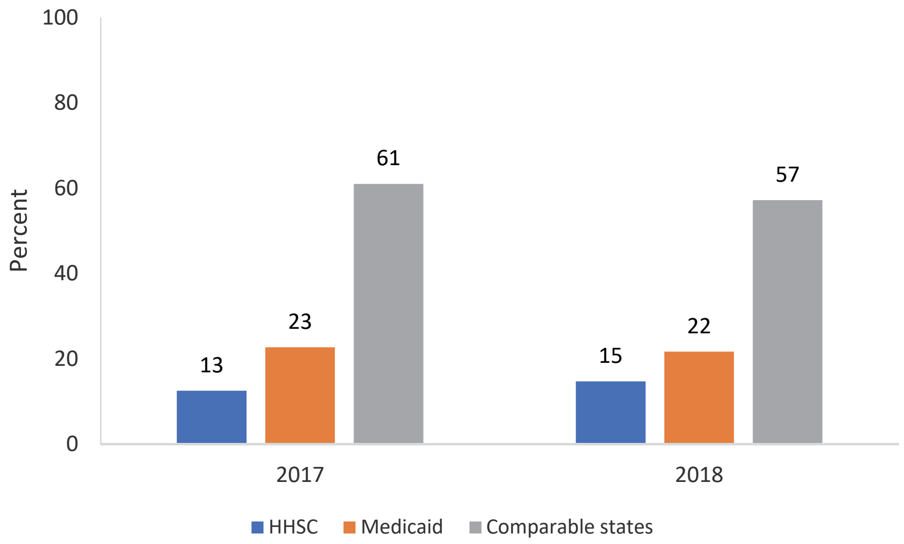


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

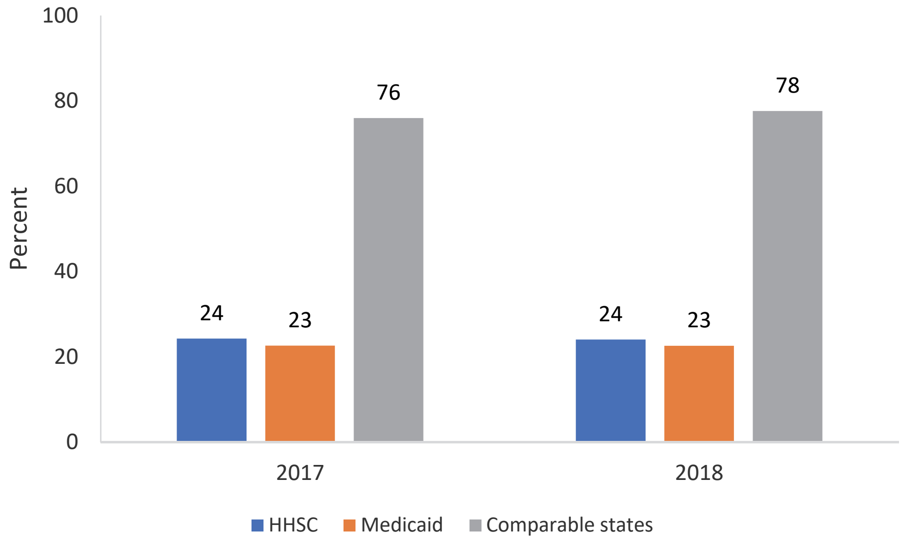


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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

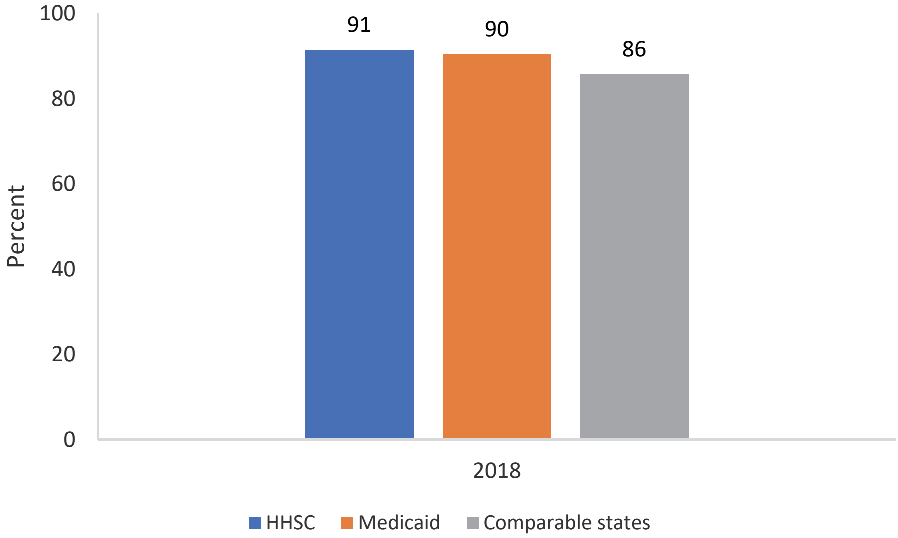


SOURCES: Population-level aggregate data derived from the Medicaid Data Warehouse (NYS DOH, 2019d); Centers for Medicare & Medicaid Services (CMS, 2019; CMS, 2020).

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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