DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-25-26
Baltimore, Maryland 21244-1850

State Demonstrations Group

October 12, 2022

Tom Wallace
Deputy Secretary for Medicaid
Florida Agency for Health Care Administration
2721 Mahan Drive, Mail Stop 8
Tallahassee, FL 32308

Dear Mr. Wallace:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the Evaluation Design, which is required by the Special Terms and Conditions (STCs), specifically, STC 120, of Florida's section 1115 demonstration, "Managed Medical Assistance" (MMA) (Project Number 11-W-00206/4 and 21-W-00069/4). The demonstration is authorized from January 15, 2021 through June 30, 2030. CMS has determined that the Evaluation Design, dated May 25, 2022, meets the requirements set forth in the STCs and our evaluation design guidance, and therefore, approves the state's Evaluation Design.

CMS has added the approved Evaluation Design to the demonstration's STCs as Attachment E. A copy of the STCs, which includes the new attachment, in enclosed with this letter. In accordance with 42 CFR 431.424, the approved Evaluation Design may now be posted to the state's Medicaid website within thirty days. CMS will also post the approved Evaluation Design as a standalone document, separate from the STCs, on Medicaid.gov.

Please note that an Interim Evaluation Report, consistent with the approved Evaluation Design, is due to CMS one year prior to the expiration of the demonstration, or at the time of the extension application, if the state chooses to extend the demonstration. Likewise, a Summative Evaluation Report, consistent with this approved Evaluation Design, is due to CMS within 18 months of the end of the demonstration period. In accordance with 42 CFR 431.428 and the STCs, we look forward to receiving updates on evaluation activities in the quarterly and annual monitoring reports.

We look forward to our continued partnership with Florida on the Managed Medical Assistance (MMA) section 1115 demonstration. If you have any questions, please contact your CMS demonstration team.

Sincerely,

Danielle Daly
Director
Division of Demonstration
Monitoring and Evaluation

Danielle Daly -S

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Date: 2022.10.12 10:05:28 -04'00'

cc: Tandra Hodges, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Florida's Managed Medical Assistance (MMA) Program Demonstration Waiver Evaluation: Design Update 2021-2030

Presented to:

Centers for Medicare and Medicaid Services

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May 25, 2022

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A. General Background Information

1. Issues Addressed by This Demonstration

Under the MMA demonstration, Florida seeks to continue building upon the following objectives that have been fundamental to Florida's Medicaid improvement efforts over the past 15 years:

- Improving outcomes through care coordination, patient engagement in their own health care, and maintaining fiscal responsibility. The demonstration seeks to improve care for Medicaid beneficiaries by providing care through nationally accredited managed care plans with broad networks, expansive benefits packages, top-quality scores, and high rate of customer satisfaction. The state will provide oversight focused on improving access and increasing quality of care.
- Improving program performance, particularly improved scores on nationally recognized quality measures (such as Healthcare Effectiveness Data and Information Set [HEDIS] scores), through expanding key components of the Medicaid managed care program statewide and competitively procuring plans on a regional basis to stabilize plan participation and enhance continuity of care. A key objective of improved program performance is to increase patient satisfaction.
- Improving access to coordinated care, continuity of care, and continuity of coverage by enrolling all Medicaid enrollees in managed care in a timely manner, except those specifically exempted.
- Increasing access to, stabilizing, and strengthening providers that serve uninsured, low-income populations in the state by targeting LIP funding to reimburse uncompensated care costs for services provided to low-income uninsured patients at hospitals and federally qualified health care centers (FQHC) and rural health clinics (RHC) that are furnished through charity care programs that adhere to the Healthcare Financial Management Association (HFMA) principles.[1]
- Improving continuity of coverage and care and encouraging uptake of preventive services, or encouraging individuals to obtain health coverage as soon as possible after becoming eligible, as applicable, as well as promoting the fiscal sustainability of the Medicaid program, through the waiver of retroactive eligibility.
- Improving integration of all services, increased care coordination effectiveness, increased individual involvement in their care, improved health outcomes, and reductions in unnecessary or inefficient use of health care.

Florida's motivation for improving its Medicaid program stems from two factors: (1) the nationwide concerns about ensuring continued access to high quality care for its Medicaid enrollees while (2) simultaneously addressing the rapid increases in Medicaid costs that have propelled the Medicaid program to the very top of states' budget priorities nationwide.

2. Name of the Demonstration, Approval Date, and Time Period

Managed Medical Assistance 1115 Waiver Demonstration Extension, Project No. 11-W-

[1] Healthcare Financial Management Association, "Valuation and Financial Statement Presentation of Charity Care and Bad Debts by Institutional Healthcare Providers," Principles and Practices Board Statement 15, December 2012. http://www.hfma.org/WorkArea/DownloadAsset.aspx?id=14589 , accessed on 11/27/17

00206/4, January 15, 2021 through June 30, 2030.

3. Description of the Demonstration and History of the Implementation

The Centers for Medicare and Medicaid Services (Federal CMS) initially approved Florida's 1115 Research and Demonstration Waiver, "Medicaid Reform", on October 19, 2005. Florida initially implemented the program in Broward and Duval counties on July 1, 2006 and expanded to Baker, Clay, and Nassau counties on July 1, 2007.

On June 30, 2010, the Agency for Health Care Administration (Agency) submitted a three-year waiver extension request to maintain and continue operations of the Medicaid Reform program. Federal CMS approved the three-year waiver extension request on December 15, 2011 for the period December 16, 2011 through July 31, 2014.

On August 1, 2011, Florida submitted an amendment request to Federal CMS to change the name of the demonstration and implement the Managed Medical Assistance (MMA) program as specified in Part IV of Chapter 409, Florida Statutes (F.S.). The amendment allowed the state to implement a new statewide managed care delivery system without increasing costs and to continue the Low-Income Pool (LIP) program. On June 14, 2013, Federal CMS approved the amendment, along with amended Special Terms and Conditions (STCs), waiver and expenditure authorities. MMA program implementation began May 1, 2014 and was fully implemented in all regions by August 2014. On July 31, 2014, CMS approved the State's request for a three-year extension to the MMA 1115 waiver demonstration, along with newly amended STCs and waiver and expenditure authorities, through June 30, 2017.

The Agency contracted with the University of Florida (UF) to conduct an independent evaluation of the MMA program. UF subcontracted with two other universities to conduct some components of the evaluation (Florida State University and University of Alabama at Birmingham). The Agency provided the evaluators with a description of the objectives of the MMA program and the approved evaluation design.

UF submitted a Final Comprehensive Evaluation Report for DY9 (SFY 2014-15) to the Agency in September 2017. Targeted evaluation questions about the MMA program covered 18 unique domains of focus and were organized into the following five projects:

1. The effect of customized benefit plans and having separate plans for LTC and acute care services on beneficiaries' choice of plans, access to care, quality of care, and cost of care;
2. Healthy Behaviors Programs offered by the MMA plans;
3. MMA program's ability to deter fraud and abuse;
4. The effect of LIP on uncompensated care provided through hospital charity care programs; effect on access, quality and timeliness of care and emergency department usage for the uninsured; and, impact on costs for treating uninsured patients; and,
5. Outcomes for dual-eligible individuals enrolled in a Medicare Advantage Plan and a MMA plan.

The evaluation of the MMA program for DY9 (SFY 2014-15) yielded the following high-level findings:

- In the MMA period, there were sizable declines in service utilization compared to the pre-MMA period for the following:
    - Inpatient stays
    - Outpatient visits
    - Emergency Department visits
    - Professional (physician) visits
- Out of a subset of 26 HEDIS measures, approximately 65 percent (17 measures) of the statewide weighted means improved and 27 percent (7 measures) stayed the same after implementation of MMA. Only 8% (2 measures) declined after implementation.
- Per member per month (PMPM) costs adjusted for age, race, gender, and Chronic Illness and Disability Payment System (CDPS) scores (case-mix) for MMA services are 32.9 percent lower for comprehensive plans (serving both LTC and MMA enrollees) compared to PMPM costs for enrollees who are in separate LTC and MMA plans ($206 PMPM comprehensive vs. $306 PMPM separate).
- While the Florida transition to statewide managed care in 2014 was not without challenges, the overall success in implementing such a broad transformation in the span of a few short months, while reducing per member per month (PMPM) costs and maintaining or improving quality measures, stands as a considerable accomplishment.

4. MMA Program Description and Objectives

Federal CMS approved a second extension of the MMA 1115 waiver demonstration (Project No. 11-W-00206/4) for a period of five years beginning August 3, 2017 through June 30, 2022. For the extension, CMS funded the LIP at approximately $1.5 billion annually based on the most recent available data on hospitals' charity care costs to ensure continuing support for safety-net providers that furnish uncompensated care to the Medicaid, uninsured, and underinsured populations. The STCs for the demonstration were modified to simplify and streamline reporting requirements and to remove requirements that are no longer applicable. All future references to the STCs in this document relate to the March 26, 2019 amended STCs unless otherwise indicated. Florida's 1115 demonstration allows the state to operate a capitated Medicaid managed care program. Under the demonstration, most Medicaid eligibles are required to enroll in one of the managed care plans contracted with the State. Several populations may also voluntarily enroll in managed care through the MMA program. The managed care plans in the MMA program are divided into "standard" and "specialty" plans. Specialty plans serve populations with distinct characteristics, diagnoses or chronic conditions. These plans are tailored to meet the specific needs of the specialty population.

Applicants for Medicaid are given the opportunity to select a managed care plan prior to receiving a Florida Medicaid eligibility determination. If they do not choose a plan, they are auto-assigned into a managed care plan upon an affirmative eligibility determination and subsequently provided with information about their choice of plans. Once an enrollee has selected or been assigned an MMA plan, the enrollee shall be enrolled for a total of 12 months,

until the next open enrollment period. The 12-month period includes a 120-day period to change or voluntarily disenroll from a plan without cause and select another plan.

Managed care plans may provide customized benefits to their members that differ from, but cannot be more restrictive than, the state plan benefits. Participating Medicaid eligibles also have access to Healthy Behaviors programs that provide incentives for adopting healthy behaviors.

On November 30, 2018, CMS approved an amendment to the demonstration that allowed the state to operate a statewide Prepaid Dental Health Program, modified the LIP to add Regional Perinatal Intensive Care Centers as an eligible hospital ownership subgroup and community behavioral health providers as a participating provider group, and waived retroactive eligibility for all beneficiaries under the demonstration, except for pregnant women (or during the 60-day period beginning on the last day of the pregnancy), infants under one year of age, or individuals under age 21.

On March 26, 2019, CMS approved an amendment to the demonstration to implement a pilot program that provides additional behavioral health services and supportive housing assistance services for persons aged 21 and older with serious mental illness (SMI), substance use disorder (SUD) or SMI with co-occurring SUD, who are homeless or at risk of homelessness due to their disability. The pilot program is operated in two regions of the state: Regions 5 (Pasco and Pinellas counties) and Region 7 (Brevard, Orange, Osceola and Seminole counties). On January 15, 2021, CMS approved an extension of the behavioral health and supportive housing assistance pilot through June 30, 2025.

On February 18, 2020, an amendment to the demonstration was approved that enables Florida to increase the behavioral health and supportive housing assistance pilot's annual enrollment limit, modified the LIP's permissible expenditures related to Federally Qualified Health Centers (FQHC) and Rural Health Clinics (RHC) and memorialized some budget neutrality-related edits to the behavioral health and supportive housing assistance pilot table in the STCs.

Federal CMS approved a third extension of the MMA 1115 waiver demonstration (Project No. 11-W-00206/4) which was effective beginning January 15, 2021 and will be effective through June 30, 2030.

4.1 Populations Covered in the MMA Program

MMA program enrollees include individuals eligible under the approved state plan or as a demonstration-only group, and who are described below as "mandatory enrollees" or as "voluntary enrollees." Mandatory enrollees are required to enroll in a MMA plan as a condition of receipt of Medicaid benefits. Voluntary enrollees are exempt from mandatory enrollment but have the option to enroll in a demonstration MMA plan to receive Medicaid benefits.

1. **Mandatory Managed Care Enrollees** – Individuals who belong to the categories of Medicaid eligibles listed in

2. Table *1* (and who are not listed as excluded from mandatory participation) are required to be MMA program enrollees.

Table 1. Mandatory and Optional State Plan Eligibility Group

Mandatory State Plan Eligibility Groups	Population Description	Funding Stream	CMS-64 Eligibility Group Reporting
Infants under age 1	No more than 206% of the Federal Poverty Level (FPL).	Title XIX	TANF & Related Group
Children 1-5	No more than 140% of the FPL.	Title XIX	TANF & Related Group
Children 6-18	No more than 133% of the FPL.	Title XIX	TANF & Related Group
Blind/Disabled Children	Children eligible under Supplemental Security Income (SSI) or deemed to be receiving SSI.	Title XIX	Aged/Disabled
Mandatory State Plan Eligibility Groups	**Population Description**	**Funding Stream**	**CMS-64 Eligibility Group Reporting**
IV-E Foster Care and Adoption Subsidy	Children for whom IV-E foster care maintenance payments or adoption subsidy payments are received – no Medicaid income limit.	Title XIX	TANF & Related Group
Pregnant women	Income not exceeding 191% of FPL.	Title XIX	TANF & Related Group
Section 1931 parents or other caretaker relatives	No more than Aid to Families with Dependent Children (AFDC) Income Level (Families whose income is no more than about 31% of the FPL or $486 per month for a family of 3.)	Title XIX	TANF & Related Group
Aged/Disabled Adults	Persons receiving SSI, or deemed to be receiving SSI, whose eligibility is determined by the Social Security Administration (SSA).	Title XIX	Aged/Disabled

Former foster care children up to age 26	Individuals who are under age 26 and who were in foster care and receiving Medicaid when they aged out.	Title XIX	TANF & Related Group
Optional State Plan Groups	**Population Description**	**Funding Stream**	**CMS-64 Eligibility Group Reporting**
State-funded Adoption Assistance under age 18	Who have an adoption assistance agreement, not under title IV-E.	Title XIX	TANF & Related Group
Individuals eligible under a hospice-related eligibility group	Up to 300% of SSI limit.	Title XIX	Aged/Disabled
Institutionalized individuals eligible under the special income level group specified at 42 CFR 435.236	This group includes institutionalized individuals eligible under this special income level group who do not qualify for an exclusion or are not included in a voluntary participant category in STC 20(c).	Title XIX	Aged/Disabled
Institutionalized individuals eligible under the special home and community-based waiver group specified at 42 CFR 435.217	This group includes institutionalized individuals eligible under this special HCBS waiver group who do not qualify for an exclusion or are not included in a voluntary participant category in STC 20(c).	Title XIX	Aged/Disabled

Demonstration Only Groups	Population Description	Funding Stream	CMS-64 Eligibility Group Reporting
Aged or Disabled Individuals	• Income at or below 88% FPL; • Assets that do not exceed $5,000 (individual) or $6,000 (couple); and, • Medicaid-only eligibles not receiving hospice, HCBS, or institutional care services.	Title XIX	MEDS AD
Aged or Disabled Individuals	• Income at or below 88% FPL • Assets that do not exceed $5,000 (individual) or $6,000 (couple) • Medicaid-only eligibles receiving hospice, HCBS, or institutional care services	Title XIX	MEDS AD
Aged or Disabled Individuals	• Income at or below 88% FPL; and, • Assets that do not exceed $5,000 (individual) or $6,000 (couple). • Medicare eligible receiving hospice, HCBS, or institutional care services	Title XIX	MEDS AD
Individuals diagnosed with AIDS	• Have an income at or below 222% of the federal poverty level (or 300% of the benefit rate); • Have assets that do not exceed $2,000 (individual) or $3,000 (couple); and, • Meet hospital level of care, as determined by the State of Florida.	Title XIX	AIDS CNOM

Medicare-Medicaid Eligible Participants – Individuals fully eligible for both Medicare and Medicaid are required to enroll in an MMA plan for covered Medicaid services. These individuals will continue to have their choice of Medicare providers as this program will not impact individuals' Medicare benefits. Medicare-Medicaid beneficiaries will be afforded the opportunity to choose an MMA plan. However, to facilitate enrollment, if the individual does not elect an MMA plan, then the individual will be assigned to an MMA plan by the state using the criteria outlined in STC 25.

3. **<u>Voluntary Enrollees</u> –** The following individuals are excluded from mandatory enrollment into the MMA program under subparagraph (a) but may choose to voluntarily enroll under the demonstration, in which case the individual would be a voluntary participant in an MMA plan and would receive its benefits:

a) Individuals who have other creditable health care coverage, excluding Medicare;

b) Individuals age 65 and over residing in a mental health treatment facility meeting the Medicare conditions of participation for a hospital or nursing facility;

c) Individuals in an intermediate care facility for individuals with intellectual disabilities (ICF-IID);

d) Individuals with developmental disabilities enrolled in the home and community- based waiver pursuant to state law, and Medicaid recipients waiting for waiver services;

e) Children receiving services in a Prescribed Pediatric Extended Care (PPEC) facility; and

f) Medicaid-eligible recipients residing in group home facilities licensed under section(s) 393.067 F.S.

4. Excluded from MMA Program Participation - The following groups of Medicaid eligibles are excluded from enrollment in managed care plans:

a) Individuals eligible for emergency services only due to immigration status;

b) Family planning waiver eligible;

c) Individuals eligible as women with breast or cervical cancer; and,

d) Services for individuals who are residing in residential commitment facilities operated through the Department of Juvenile Justice, as defined in state law. (These individuals are inmates not eligible for covered services under the state plan, except as inpatients in a medical institution).

B. Evaluation Questions and Hypotheses

This section presents each evaluation component and its associated research questions. Note that for research questions focusing on cost and utilization, the pre-MMA period will include recipients enrolled in fee-for-service (FFS) Medicaid in addition to recipients enrolled in Reform and 1915b waiver plans. A driver diagram based on the components and their research questions is included at the end of this section (Figure 1) along with a logic model (Figure 9) for Component 9 that depicts hypothesized causes/effects associated with the changes in Florida's retroactive enrollment policy and a logic model for Component 10 (Figure 10) that depicts hypothesized causes/effects associated with the implementation of a Housing Assistance Pilot for enrollees with serious mental illness and/or substance abuse who are homeless or at risk of homelessness.

The state of Florida established the MMA program with the goal to improve the quality, access, and costs of care for Florida's Medicaid enrollees. The Agency's specific goal for the managed

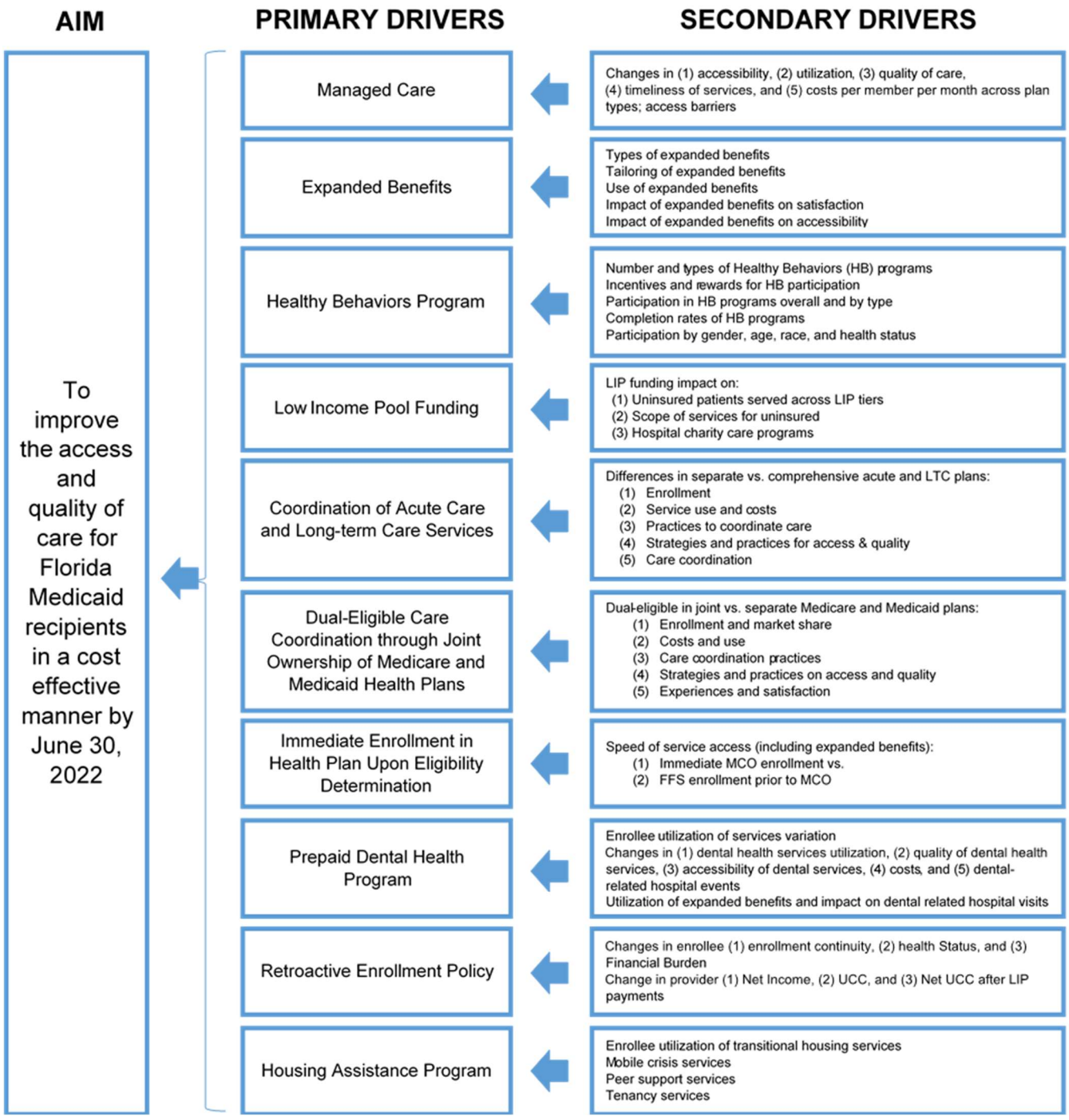
care plans has been for the plans to reach the National Medicaid 75th percentile on HEDIS measures. The managed care plans' HEDIS rates each year are compared to the previous year National Medicaid percentiles to measure the plans' (and MMA program's) progress toward reaching the 75th percentile. The state's overall goal to improve the quality, access, and costs of care dictates that examining the changes in quality, access, and costs are key to gauging the success of the MMA program. The state therefore seeks a combination of (1) statistically significant beneficial changes in key measures (e.g., cost reductions, access improvements, quality increases) while (2) maintaining performance in those areas where statistically significant beneficial changes are not detected (i.e., not incurring statistically significant cost increases, access reductions, and quality decreases). Given the multitude of measures of cost, access, and quality and the varied populations served by Medicaid, it would be unrealistic to expect across-the-board improvements in every measure of performance for every population.

In keeping with the goals of the MMA demonstration, the State expects the demonstration to have an overall positive impact on Florida's efforts to improve its Medicaid program under a capitated managed care program.

Hypotheses in this report that describe outcomes as maintaining or improving will be tested using noninferiority testing. Other hypotheses that are stated in null form (i.e., hypothesizing no change) will be tested against a two-tailed alternative hypothesis (i.e., hypothesizing a non-zero, positive or negative change) using $\alpha \leq 0.05$ to denote statistical significance. Hypotheses making a prediction or directional outcome will generally be assessed through qualitative and descriptive data analysis.

The Driver Diagram presents the overarching goal of the demonstration and provides readers with a visual aid for understanding the rationale behind the cause and effect of the variants behind the demonstration's aim to improve health outcomes for Florida Medicaid recipients while maintaining fiscal responsibility. As depicted in the diagram, the overall goal is to utilize all financial and stakeholder resources to improve the access and quality of care in a cost-effective manner for Florida Medicaid recipients.

Figure 1. Florida Managed Medical Assistance Program Goals: Driver Diagram



Goal: Improve program performance, particularly improved scores on nationally recognized quality measures (such as Healthcare Effectiveness Data and Information Set [HEDIS] scores), through expanding key components of the Medicaid managed care program statewide and competitively procuring plans on a regional basis to stabilize plan participation and enhance continuity of care.

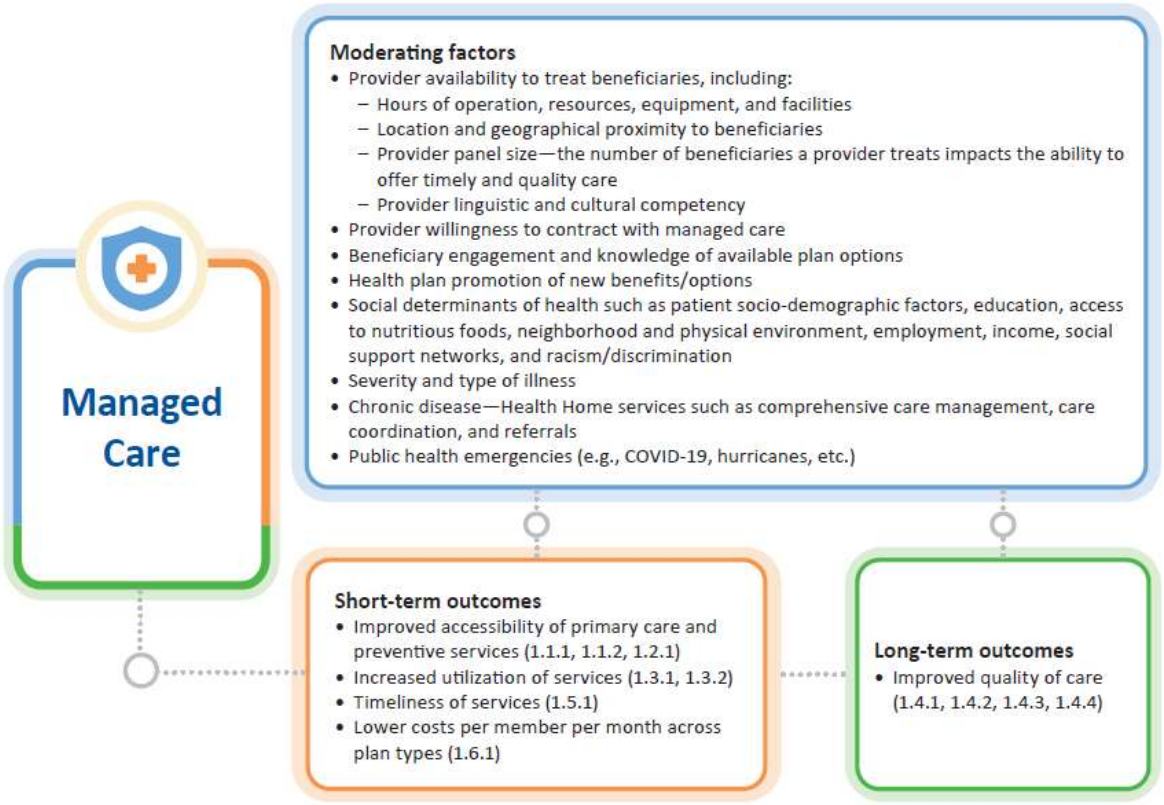
Component 1: The effect of managed care on access to care, quality and efficiency of care, and the cost of care.
Hypothesis 1.1: The MMA implementation will reduce barriers enrollees encounter when accessing primary care and preventative services.
RQ1.1.1: What barriers do enrollees encounter when accessing primary care services?
RQ1.1.2: What barriers do enrollees encounter when accessing preventive services?
Hypothesis 1.2: Accessibility of services in MMA plans will be equal to or better than pre-MMA implementation plans (Reform plans and 1915(b) waiver plans).
RQ1.2.1: What changes in the accessibility of services occur with MMA implementation, comparing accessibility in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) to MMA plans?
Hypothesis 1.3: There will be no change in the use of services for enrollees in the MMA period compared to the pre-MMA period; and there will be no difference in use of services by enrollees in specialty MMA plans compared to use of services by enrollees eligible for enrollment in a specialty plan (e.g., enrollees with HIV or SMI) who are in standard MMA plans.
RQ1.3.1: What changes in the utilization of services for enrollees are evident post-MMA implementation, comparing utilization of services in the pre-MMA period (FFS, Reform plans and pre-MMA 1915(b) waiver plans) to utilization of services in post-MMA implementation?
RQ1.3.2: What changes in the utilization of services for enrollees are evident post-MMA implementation, comparing utilization of services in specialty MMA plans versus standard MMA plans for enrollees eligible for enrollment in a specialty plan (e.g., enrollees with HIV or SMI) who are enrolled in standard MMA plans versus enrollees in the specialty plans?
Hypothesis 1.4: The quality of care for enrollees in MMA plans will be equal to or better than quality of care for enrollees in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans); and there will be no difference in the quality of care for enrollees eligible for enrollment in a specialty plan (e.g. enrollees with HIV or SMI) in standard plans versus enrollees in specialty plans.
RQ1.4.1: What changes in quality of care for enrollees are evident post-MMA implementation, comparing quality of care in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) to quality of care in MMA plans in the MMA period?
RQ1.4.2: What changes in quality of care for enrollees are evident post-MMA implementation, comparing quality of care in specialty MMA plans versus standard MMA plans for enrollees eligible for enrollment in a specialty plan (e.g., enrollees with HIV or SMI) who are enrolled in standard plans versus enrollees in the specialty plans (to the extent possible)?
RQ1.4.3 What strategies are standard MMA and specialty MMA plans using to improve quality of care?
RQ1.4.4: Which of the strategies used by standard MMA and specialty MMA plans are most effective in improving quality and why?
Hypothesis 1.5: The timeliness of services in MMA plans is equal to or better than pre-MMA implementation plans (Reform plans and 1915(b) waiver plans).

RQ1.5.1: What changes in timeliness of services occur with MMA implementation, comparing timeliness of services in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) to post-MMA implementation plans?

Hypothesis 1.6: The per-enrollee cost by eligibility group in MMA plans will be no greater than pre-MMA implementation (FFS, Reform, and 1915 (b) waiver plans).

RQ1.6.1: What is the difference in per-enrollee cost by eligibility group pre-MMA implementation (FFS, Reform plans and pre-MMA 1915(b) waiver plans) compared to per-enrollee costs in the MMA period (MMA plans as a whole, standard MMA plans and specialty MMA plans)?

Figure 2. Logic Model for Component 1



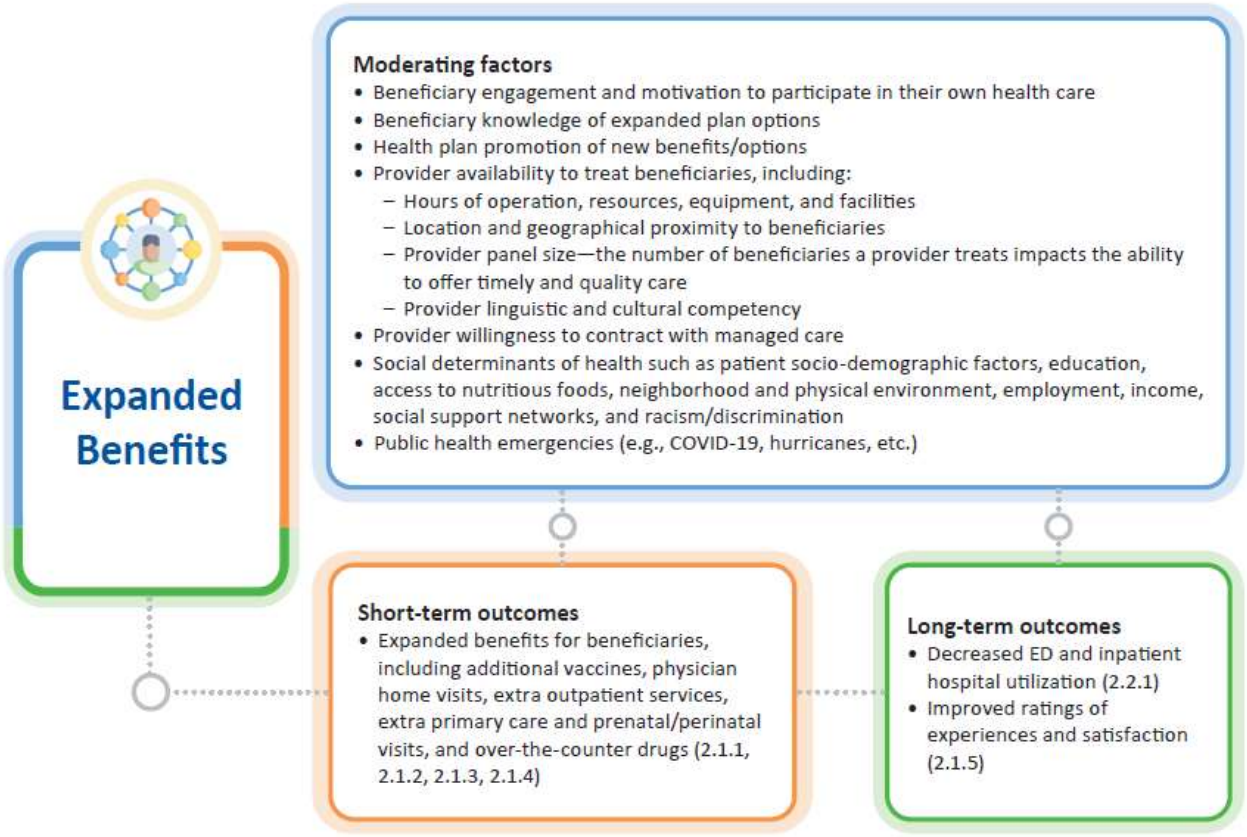
Goal: Improve program performance, particularly improved scores on nationally recognized quality measures (such as Healthcare Effectiveness Data and Information Set [HEDIS] scores), through expanding key components of the Medicaid managed care program statewide and competitively procuring plans on a regional basis to stabilize plan participation and enhance continuity of care.

Component 2: The effect of customized benefit plans on beneficiaries' choice of plans, access to care, or quality of care.

Hypothesis 2.1: Standard MMA and specialty MMA plans will offer expanded benefits.

RQ2.1.1: What is the difference in the types of expanded benefits offered by standard MMA and specialty MMA plans?
RQ2.1.2: How do plans tailor the types of expanded benefits to particular populations?
RQ2.1.3: How many enrollees utilize expanded benefits?
RQ2.1.4: Which expended benefits are enrollees most commonly using?
RQ2.1.5: How do enrollees rate their experiences and satisfaction with the expanded benefits that are offered by their health plan?
Hypothesis 2.2: ED and inpatient hospital utilization for users of expanded benefits will not be greater than that of non-users.
RQ2.2.1: How does Emergency Department (ED) and inpatient hospital utilization differ for those enrollees who use expanded benefits (e.g. additional vaccines, physician home visits, extra outpatient services, extra primary care and prenatal/perinatal visits, and over-the-counter drugs/supplies) compared to those enrollees who do not?

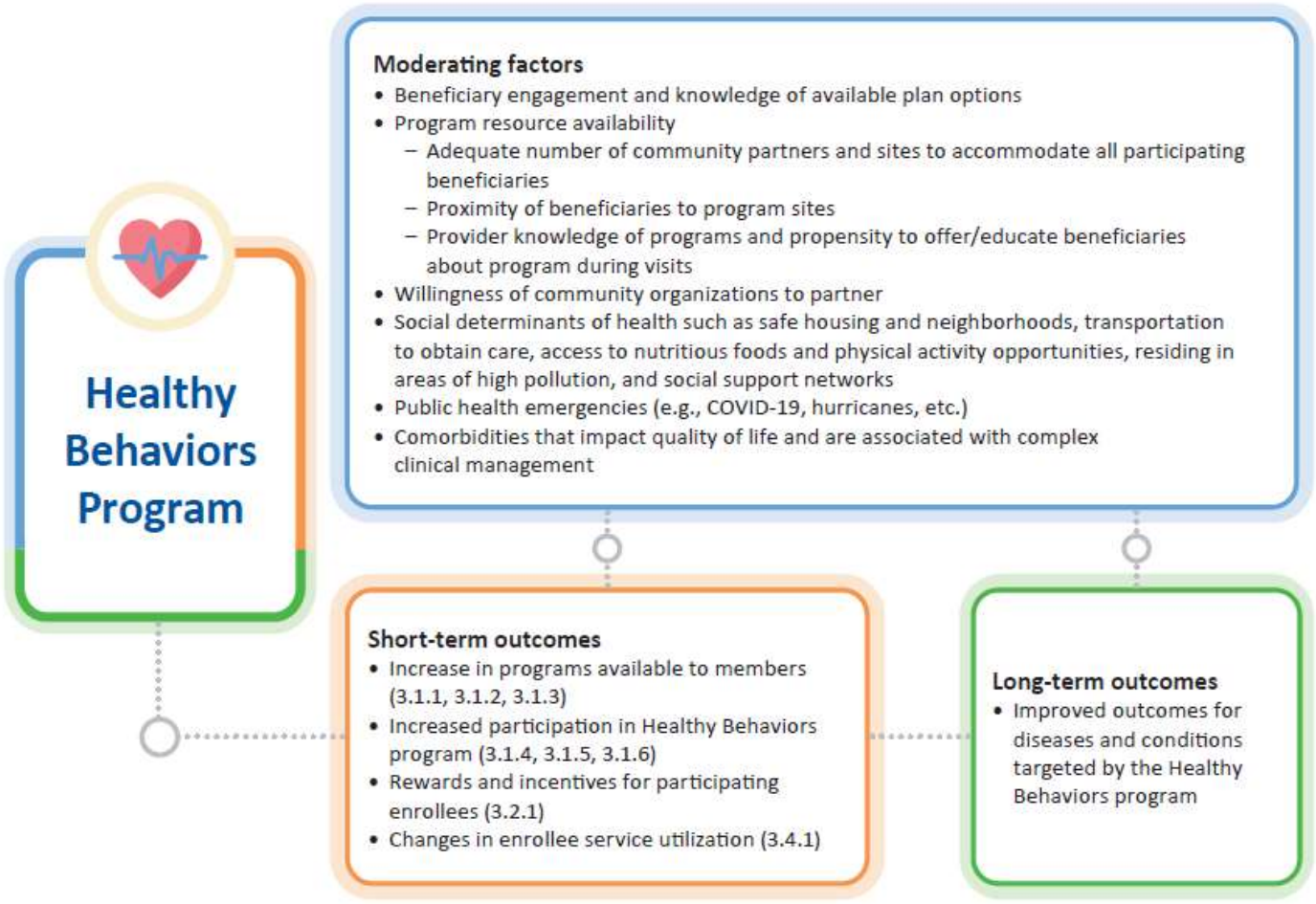
Figure 3. Logic Model for Component 2



Goal: Improve health outcomes through care coordination, patient engagement in their own health care, and maintaining fiscal responsibility.

Component 3: Participation in the Healthy Behaviors programs and its effect on participant behavior or health status.
Hypothesis 3.1: MMA plans will offer Healthy Behaviors programs to enrollees; and enrollees will participate in and complete Healthy Behaviors programs.
RQ3.1.1: What Healthy Behaviors programs do MMA plans offer?
RQ3.1.2: What types of programs are offered in addition to the three required programs (medically approved smoking cessation program, the medically directed weight loss program, and the medically approved alcohol or substance abuse treatment program)?
RQ3.1.3: How many programs are offered in addition to the three required programs (medically approved smoking cessation program, the medically directed weight loss program, and the medically approved alcohol or substance abuse treatment program)?
RQ3.1.4: How many enrollees participate in each Healthy Behaviors program?
RQ3.1.5: How many enrollees complete Healthy Behaviors programs?
RQ3.1.6: Which types of Healthy Behaviors programs attract higher numbers of participants?
Hypothesis 3.2: MMA plans will offer incentives and rewards to encourage participation in Healthy Behaviors programs.
RQ3.2.1: What incentives and rewards do MMA plans offer to their enrollees for participating in Healthy Behaviors programs?
Hypothesis 3.3: Enrollees participating in Healthy Behaviors programs will reflect the gender, age, race/ethnicity, and health status diversity of Florida Medicaid recipients.
RQ3.3.1: How does participation in Healthy Behaviors programs vary by gender, age, race/ethnicity and health status of enrollees (DY13 and beyond)?
Hypothesis 3.4: Utilization of preventive services and outpatient services between enrollees participating in Healthy Behaviors programs will be equal to or better than enrollees not participating in Healthy Behaviors programs; and utilization of ER, inpatient and outpatient hospital and physician specialty services for treatment of conditions that these programs are designed to prevent or manage for enrollees will be reduced after enrolling in the Healthy Behaviors program.
RQ3.4.1: What differences in service utilization occur over the course of the demonstration for enrollees participating in Healthy Behaviors programs versus enrollees not participating (DY13 and beyond)?

Figure 4. Logic Model for Component 3

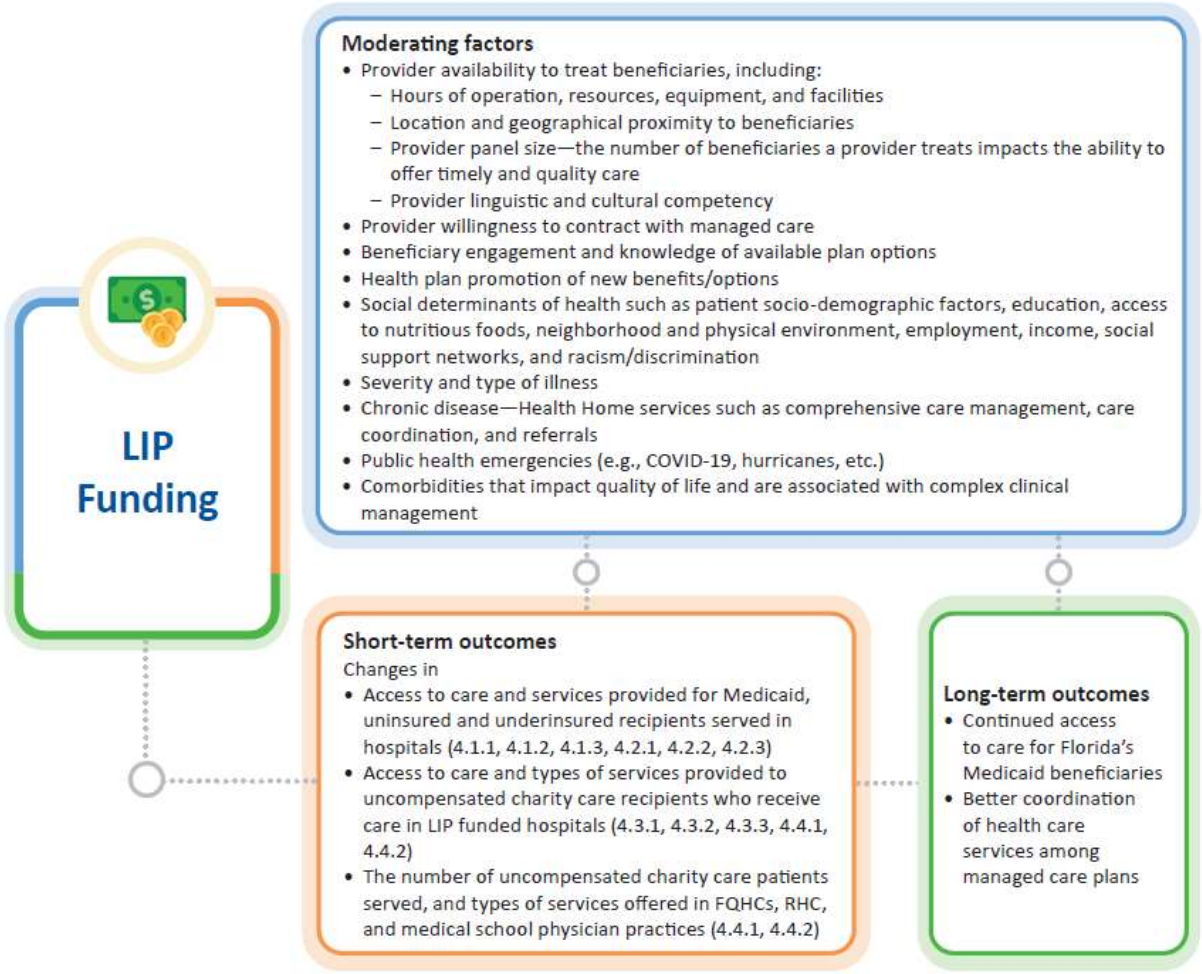


Goal: Increase access to, stabilize, and strengthen providers that serve uninsured, low-income populations in Florida by targeting Low-Income Pool (LIP) funding to reimburse charity care costs for services provided to low-income uninsured patients in hospitals, federally qualified health care centers, and rural health clinics that are furnished through charity care programs that adhere to the Healthcare Financial Management Association principles.

Component 4: The impact of LIP funding on hospital charity care programs.
Hypothesis 4.1: LIP funding will improve access to care for Medicaid, uninsured, and underinsured recipients served in hospitals.
RQ4.1.1: How many Medicaid recipients receive services in LIP funded hospitals?
RQ4.1.2: How many uninsured recipients receive services in LIP funded hospitals?
RQ4.1.3: How many underinsured recipients receive services in LIP funded hospitals?
Hypothesis 4.2: Services are being provided to Medicaid, uninsured, and underinsured recipients receiving care in LIP funded hospitals.

RQ4.2.1: What types of services are being provided to Medicaid recipients receiving care in LIP funded hospitals?
RQ4.2.2: What types of services are being provided to uninsured recipients receiving care in LIP funded hospitals?
RQ4.2.3: What types of services are being provided to underinsured recipients receiving care in LIP funded hospitals?
Hypothesis 4.3: The number of uncompensated charity care patients served will increase based on hospital access to LIP funding and different tiers of LIP funding; and there will be no change or an increase in the types of services or the number of services offered to uncompensated charity care patient in hospitals receiving LIP funding.
RQ4.3.1: How many uncompensated charity care recipients receive services in LIP funded hospitals?
RQ4.3.2: How does the number of uncompensated charity care recipients receiving services in LIP funded hospitals compare among hospitals in different tiers of LIP funding?
RQ4.3.3: What types of services are being provided to uncompensated charity care recipients receiving care in LIP funded hospitals?
RQ4.3.4: What is the difference in the type and number of services offered to uncompensated charity care patients in hospitals receiving LIP funding?
Hypothesis 4.4: LIP funding will increase the number of uncompensated charity care patients served and the types of services provided in FQHCs, RHCs, and medical school physician practices.
RQ4.4.1: What is the impact of LIP funding on the number of uncompensated charity care patients served in FQHCs, RHCs, and medical school physician practices?
RQ4.4.2: What is the impact of LIP funding on the types of services provided for uncompensated charity care patients served in FQHCs, RHCs, and medical school physician practices?

Figure 5. Logic Model for Component 4



Goal: Improve health outcomes through care coordination, patient engagement in their own health care, and maintaining fiscal responsibility.

Component 6: The impact of efforts to align with Medicare and improving beneficiary experiences and outcomes for dual eligible individuals.[2]
Hypothesis 6.1: Care coordination strategies and practices will ensure access to, satisfaction with, and quality of care for behavioral health services and non-emergency transportation services for dual-eligible enrollees is equal to or better than prior to implementation of care coordination.
RQ6.1.1: How many MMA enrollees are also Medicare recipients (dual-eligible)?
RQ6.1.2: To what extent do dual-eligible enrollees utilize behavioral health services?
RQ6.1.3: To what extent do dual-eligible enrollees utilize non-emergency transportation services?
RQ6.1.4: What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for behavioral health services for dual-eligible enrollees?

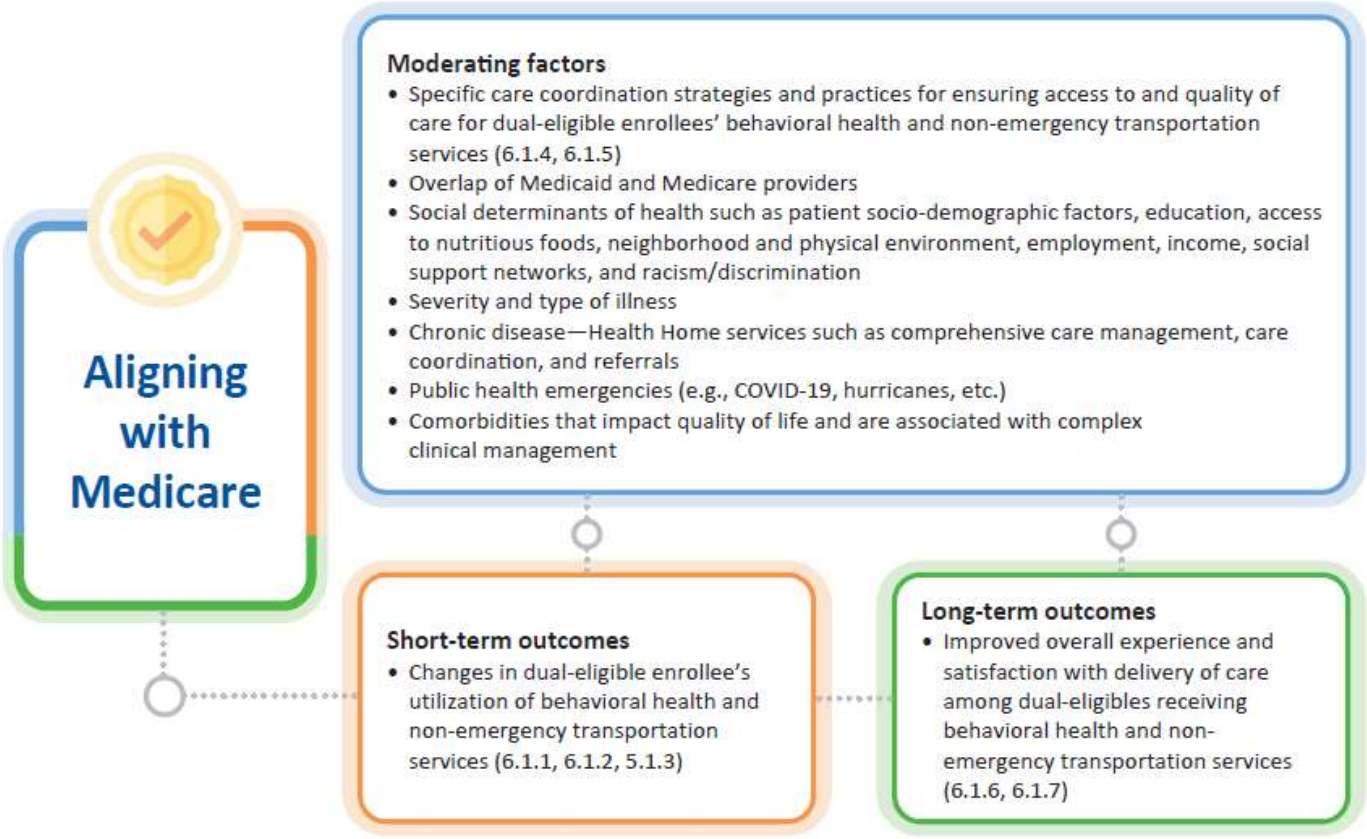
[2] Component 5 of the Demonstration is not included in this evaluation design.

RQ6.1.5: What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for non-emergency transportation services for dual-eligible enrollees?

RQ6.1.6: How do dual-eligible enrollees rate their experience and satisfaction with delivery of care they received related to behavioral health services?

RQ6.1.7: How do dual-eligible enrollees rate their experience and satisfaction with delivery of care they received related to non-emergency transportation services?

Figure 6. Logic Model for Component 6



Goal: Improve access to coordinated care, continuity of care, and continuity of coverage by enrolling all Medicaid enrollees in managed care in a timely manner, except those specifically exempt.

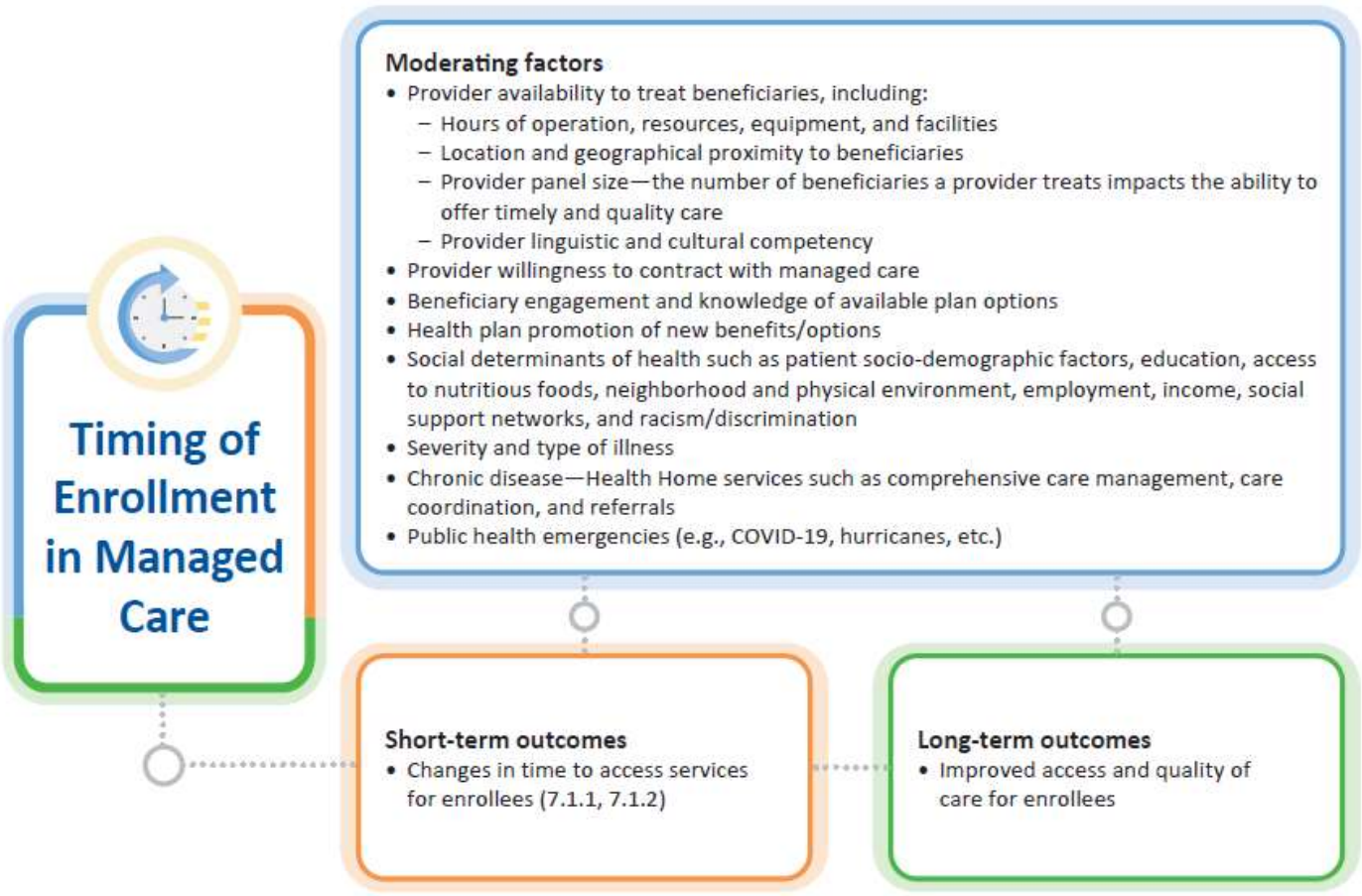
Component 7: The effectiveness of enrolling individuals into a managed care plan upon eligibility determination in connecting beneficiaries with care in a timely manner.

Hypothesis 7.1: Individuals newly enrolled into a managed care plan will experience timely access to services.

RQ7.1.1: How quickly do new enrollees access services, including expanded benefits in excess of State Plan covered benefits, after becoming Medicaid eligible and enrolling in a health plan?

RQ7.1.2: Among new enrollees, what is the time to access services for enrollees who are enrolled under Express Enrollment compared to enrollees who were enrolled prior to the implementation of Express Enrollment?

Figure 7. Logic Model for Component 7



Goal: Improve program performance, particularly improved scores on nationally recognized quality measures (such as Healthcare Effectiveness Data and Information Set [HEDIS] scores), through expanding key components of the Medicaid managed care program statewide and competitively procuring plans on a regional basis to stabilize plan participation and enhance continuity of care.

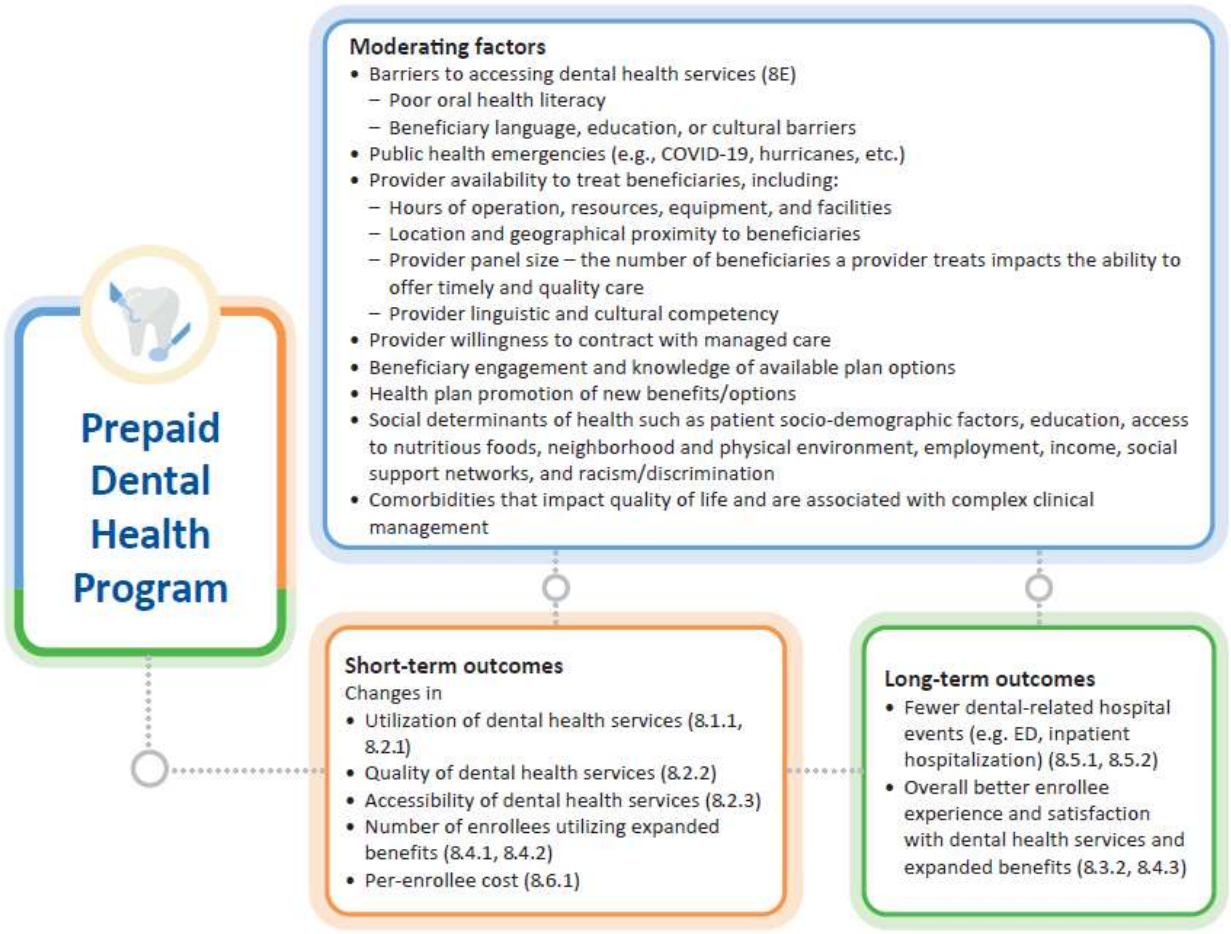
Component 8: The effect the Statewide Medicaid Prepaid Dental Health Program has on accessibility, quality, utilization, and cost of dental health care services.

Hypothesis 8.1: Enrollee utilization of dental health services will reflect the age, gender, race/ethnicity, and geographic diversity of Florida Medicaid recipients.

RQ8.1.1: How does enrollee utilization of dental health services vary by age, gender, race/ethnicity, and geographic area?

Hypothesis 8.2: Access to, quality of, and utilization of dental health services will be equal to or better as a result of the implementation of the Statewide Medicaid Prepaid Dental Health Program.
RQ8.2.1: What changes in dental health service utilization occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?
RQ8.2.2: What changes in quality of dental health services occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?
RQ8.2.3: What changes in the accessibility of dental services occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?
Hypothesis 8.3: Enrollees will encounter few barriers when accessing dental health services that will impact their experiences and satisfaction.
RQ8.3.1: What barriers do enrollees encounter when accessing dental health services?
RQ8.3.2: How do enrollees rate their experiences and satisfaction with dental health services, including timeliness of dental health services, provided by their dental health plans?
Hypothesis 8.4: Enrollees will utilize and be satisfied with expanded benefits .
RQ8.4.1: How many enrollees utilize expanded benefits provided by the dental health plans?
RQ8.4.2: Which expended benefits provided by the dental health plans are most commonly used by enrollees?
RQ8.4.3: How do enrollees rate their experiences and satisfaction with the expanded benefits offered by their dental health plans?
Hypothesis 8.5: There will be equal or fewer dental-related hospital events (e.g., Emergency Department, Inpatient Hospitalization) resulting from enrollee utilization of dental health services or utilization of expanded benefits offered by dental health plans.
RQ8.5.1: How does enrollee utilization of dental health services impact dental-related hospital events (e.g., Emergency Department, Inpatient hospitalization)?
RQ8.5.2: How does utilization of expanded benefits offered by the dental health plans impact dental-related hospital events?
Hypothesis 8.6: Per-enrollee costs for dental health services will be less than or equal as a result of the implementation of the Statewide Medicaid Prepaid Dental Health Program.
RQ8.6.1: What changes in per-enrollee cost for dental health services occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?

Figure 8. Logic Model for Component 8

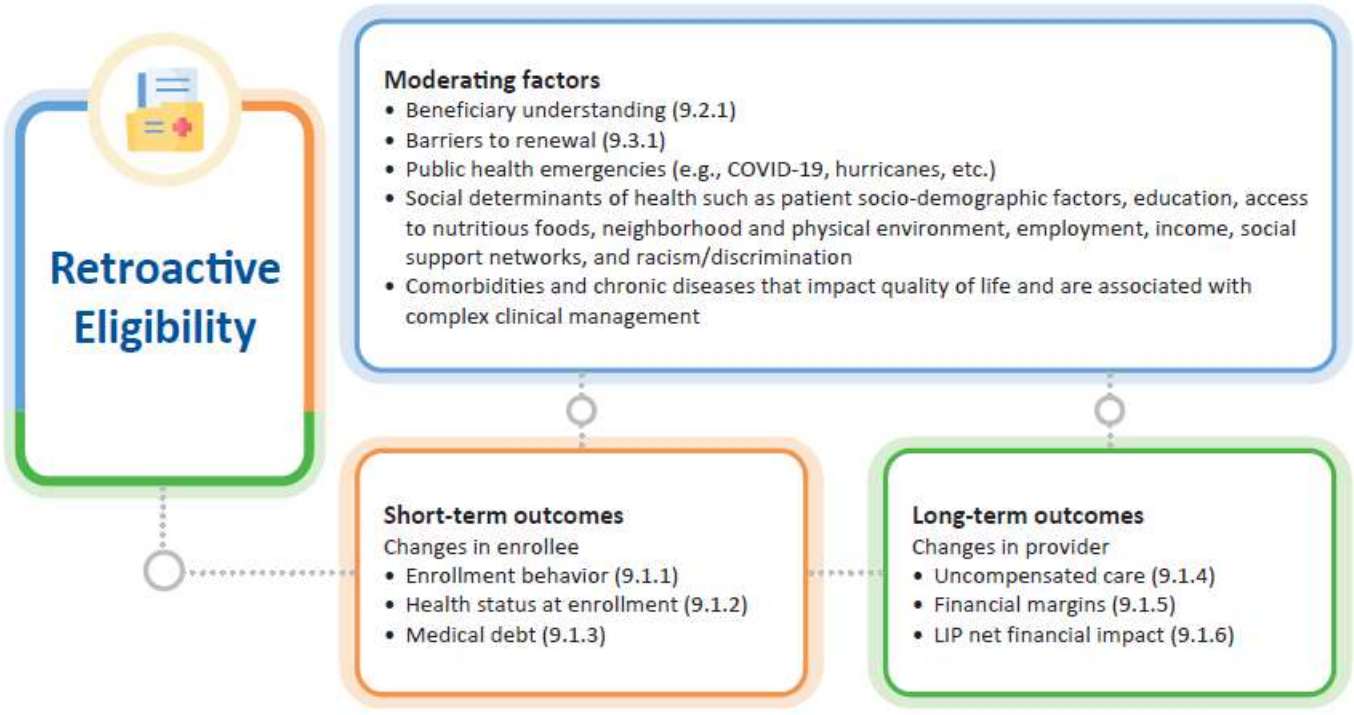


Goal: Improve continuity of coverage and care by encouraging the uptake of preventive services and/or encouraging individuals to obtain health coverage as soon as possible after becoming eligible, as applicable; as well as promoting the fiscal sustainability of the Medicaid program, through the waiver of retroactive eligibility.

Component 9: The impact of the waiver of retroactive eligibility on beneficiaries and providers.
Hypothesis 9.1: Eliminating retroactive eligibility will have no effect on enrollment continuity, the health status of those subject to the new policy compared to those not subject to the new policy, new enrollee financial burden, provider uncompensated care amounts, provider financial performance (income after expenses), or the net financial impact of uncompensated care (UCC – LIP payments).
RQ9.1.1: How will eliminating retroactive eligibility change enrollment continuity?
RQ9.1.2: How will eliminating retroactive eligibility change the enrollment of eligible people when they are healthy relative to those eligible people who have the option of retroactive eligibility?
RQ9.1.3: How will eliminating retroactive eligibility affect new enrollee financial burden?
RQ9.1.4: How will eliminating retroactive eligibility affect provider uncompensated care amounts?

RQ9.1.5: How will eliminating retroactive eligibility affect provider financial performance (income after expenses)?
RQ9.1.6: How will eliminating retroactive eligibility affect the net financial impact of uncompensated care (UCC – LIP payments)?
Hypothesis 9.2: Beneficiaries understand that they will not be covered during enrollment gaps.
RQ9.2.1: Do beneficiaries subject to the retroactive eligibility waiver understand that they will not be covered during enrollment gaps?
Hypothesis 9.3: Beneficiaries subject to retroactive eligibility encounter few barriers that impact timely renewal.
RQ9.3.1: What are common barriers to timely renewal for those subject to the retroactive eligibility waiver?
Hypothesis 9.4: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.
RQ9.4.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?

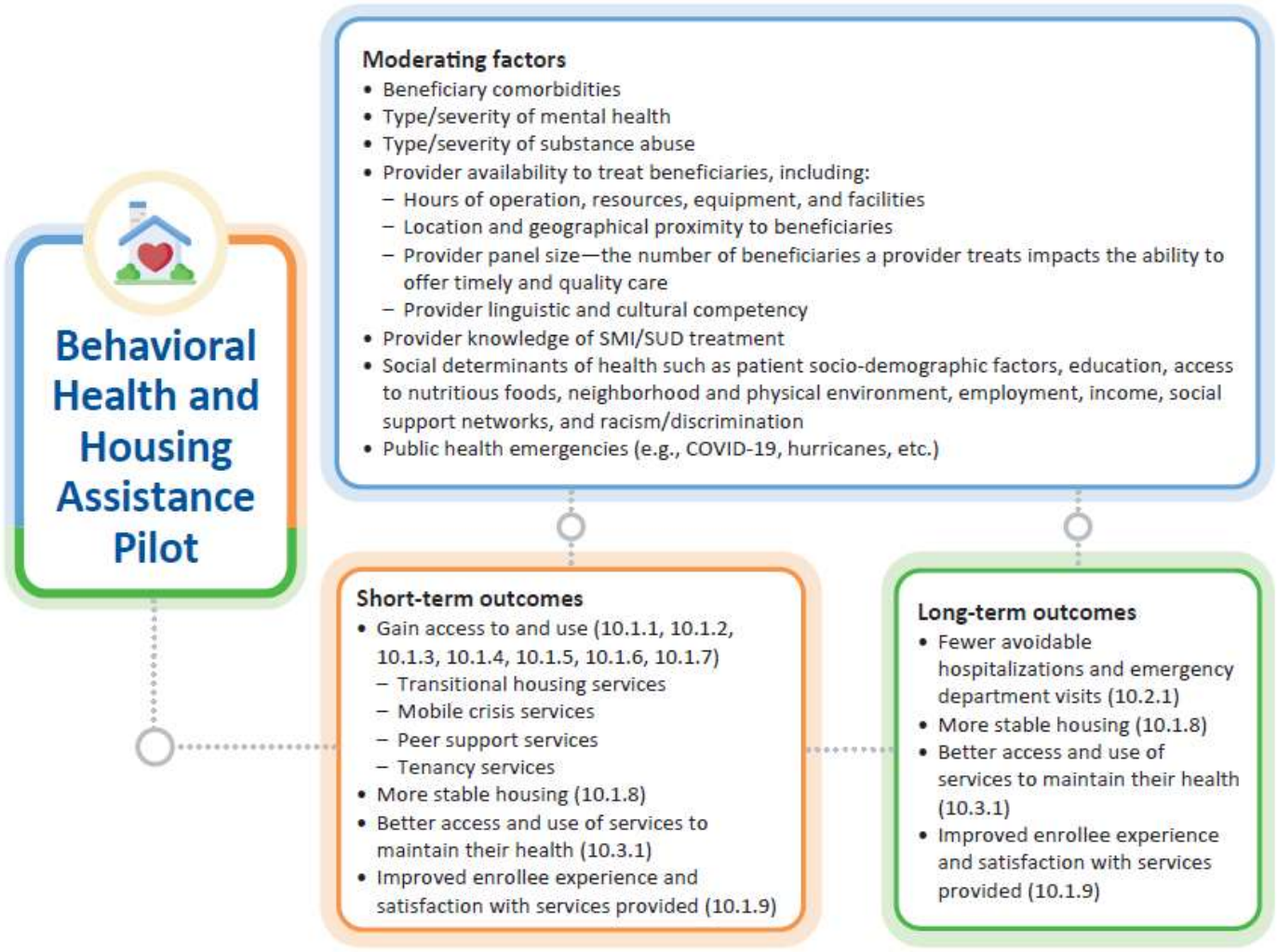
Figure 9. Logic Model for Component 9



Goal: Improve the integration of all services, increase care coordination effectiveness, increase individual involvement in their care, improve health outcomes, and reduce unnecessary or inefficient use of health care.

Component 10: The impact of the behavioral health and supportive housing assistance pilot on beneficiaries who are 21 and older with serious mental illness (SMI), substance use disorder (SUD) or SMI with co-occurring SUD, and are homeless or at risk of homelessness due to their disability.
Hypothesis 10.1: MMA plans and their enrollees will participate in the Housing Assistance Pilot Program and utilize the services offered (transitional housing services, mobile crisis services, peer support, tendency services).
RQ10.1.1: How many MMA plans participate in the Housing Assistance Pilot program?
RQ10.1.2: How many enrollees are participating in the Housing Assistance Pilot, by plan?
RQ10.1.3: How does participation in the Housing Assistance Pilot vary by gender, age, race/ethnicity and health status of enrollees?
RQ10.1.4: How did MMA plans implement the Pilot programs?
RQ10.1.5: What is the frequency of use for the specific services (transitional housing services, mobile crisis services, peer support, tenancy services) offered by the housing assistance program by plan?
RQ10.1.6: What is the duration of use for the specific services (transitional housing services, mobile crisis services, peer support, tenancy services) offered by the housing assistance program by plan?
RQ10.1.7: What is the proportion of enrollees who are successfully discharged from the Pilot but subsequently become homeless again and resume using services?
RQ10.1.8: Is care coordination more effective for the study population as a result of the Pilot program?
RQ10.1.9: What are enrollee experiences with the Pilot program, including whether service needs were met, their experiences with integration of services, involvement in their care, and satisfaction with the services provided?
RQ10.1.10: What are the costs of the Pilot program, including the costs of services provided to enrollees and the costs to administer the program?
Hypothesis 10.2: Avoidable hospitalizations and emergency department visits among enrollees with SMI who receive supportive housing assistance will be equal to or less than similar Medicaid recipients prior to enrollment in the program.
RQ10.2.1: Based on Medicaid data submitted by the MMA plans, do enrollees in the study population have fewer avoidable hospitalizations and emergency department visits than they did prior to receiving housing assistance services?
Hypothesis 10.3: There will be no difference or an increase in use of MMA services among enrollees with SMI who receive supportive housing assistance compared to enrollees who were placed on the waiting list and did not receive supportive housing assistance.
RQ10.3.1: Are there changes in utilization of MMA services (specifically PCP visits, Outpatient visits, pharmacy services and behavioral health services) in the study population compared to their service utilization prior to participation in the Pilot program?

Figure 10. Logic Model for Component 10



Goal: Improve health outcomes through care coordination, patient engagement in their own health care, and maintaining fiscal responsibility

Component 11: Investigate cost outcomes for the demonstration as a whole, including but not limited to: administrative costs of demonstration implementation and operation, Medicaid health service expenditures, and provider uncompensated costs. Finally, the state must use results of hypothesis tests and cost analyses to assess demonstration effects on Medicaid program sustainability.

Hypothesis 11.1: Administrative costs incurred by the state to implement and operate the demonstration will be less than or equal to administrative costs prior to the waiver, or will be offset by savings under Hypothesis 11.2.

RQ11.1.1: What are the administrative costs incurred by the state to implement and operate the demonstration?

Hypothesis 11.2: The MMA eligibility and coverage policies will result in equal or lower Medicaid health services expenditures, provider uncompensated care costs, and combined total costs (administrative, health services, and provider uncompensated care costs.
RQ11.2.1: What are the short-term effects of eligibility and coverage policies on Medicaid health service expenditures?
RQ11.2.2: What are the long-term effects of eligibility and coverage policies on Medicaid health service expenditures?
RQ11.2.3: What are the impacts of eligibility and coverage policies on provider uncompensated care costs?
RQ11.2.4: What are the impacts of eligibility and coverage policies on combined total costs (administrative, health services, and provider uncompensated care costs)?

C. Methodology

This evaluation will employ a variety of quantitative and qualitative methods to answer its research questions and test its hypotheses. Quantitative methods will involve pre-post and post-only comparisons depending on whether the research question is focused on (1) comparing Medicaid performance following MMA implementation to Medicaid performance in the pre-MMA period or (2) the operations of the MMA program following implementation, respectively. Qualitative methods will involve (1) surveys and semi-structured interviews of MMA plan personnel and dual-eligible Medicaid enrollees and (2) content analyses of MMA plan policies and procedures. The remainder of this section provides more detail on the (1) evaluation design, (2) target and comparison populations, (3) evaluation period, (4) evaluation measures, (5) data sources, and (6) analytic methods.

A useful summary of the methodologies employed in this evaluation can be found in ***Table 6*** "Design Table for the Evaluation of the Demonstration," at the end of this methodology section. ***Table 6*** lists each research question within each component along with the outcome measures, sample or population subgroups to be compared, data sources, and analytic methods used for that research question.

Statistical testing for hypotheses that are stated such that the MMA program maintains or improves compared to pre-MMA renewal or out-of-state comparison groups (if available) will be conducted through noninferiority testing. In traditional null hypothesis statistical testing, a result of no significant difference would not necessarily indicate the MMA program maintained rates compared to pre-MMA renewal or an out-of-state group. This is because clinically significant differences could be found statistically insignificant due to low statistical power. Likewise, clinically irrelevant differences could be found to be statistically significant due to large sample sizes. Noninferiority testing is designed to address this limitation by testing directly whether the difference in rates fell within an equivalence interval that denotes the two groups are "close enough."[3] A prespecified fraction (δ) of the difference in rates will be used to define an "equivalence range" that would conclude MMA members performed as well as the comparison. Where possible, this equivalence range will be informed by clinical

[3] Streiner, D.L. (2003) "Unicorns Do Exist: A Tutorial on 'Proving' the Null Hypothesis," Can J Psychiatry, 48(11); Mascha, E. J., and Sessler, D. I., (2011) "Equivalence and Noninferiority Testing in Regression Models and Repeated-Measures Designs," Anesth Analg. 2011 Mar;112(3):678-87; Paiggio, G., et al. (2012) "Reporting of Noninferiority and Equivalence Randomized Trials: Extension of the CONSORT 2010 Statement" JAMA. 2012;308(24):2594-2604.

guidance. If clinical guidance is not feasible or applicable, δ will be determined through distribution-based methods such as effect size. While an effect size of 0.20 has commonly been deemed to represent a "small" effect as originally suggested by Jacob Cohen, Cohen writes, "the terms 'small,' 'medium,' and 'large' are relative, not only to each other, but to the area of behavioral science or even more particularly to the specific content and research method being employed in any given investigation" (p. 25).[4] Because the application of effect size in this context is to identify a minimum acceptable difference between proportions while still considering them "equal" for practical purposes, a stricter threshold than what may be typically used is appropriate. Therefore, δ for each measure will be calculated based off an effect size of 0.1.

Statistical testing for hypotheses not stated in this manner will use two-tailed significance testing because the direction of change induced by the MMA program is not always clear a priori. Also, evaluation results for DY9 demonstrated that some specific measures (e.g., some categories of costs) may increase while other specific measures may decrease. When changes occur in the opposite direction to what is expected using one-tailed alternative hypotheses, statistical testing can only result in a failure to reject the null hypothesis of zero change. Statistically speaking, this is an inconclusive result. By contrast, two-tailed alternative hypotheses allow rejection of the null hypothesis of zero change in favor of the alternative hypothesis of non-zero change.

1. Evaluation Design

This evaluation employs both pre-post and post-only analyses as appropriate for the research question under examination. For example, for Research Question 1.6.1, "What is the difference in per-enrollee cost by eligibility group pre-MMA implementation (Fee For Service (FFS), Reform plans and pre-MMA 1915(b) waiver plans) compared to per enrollee costs post-MMA implementation (MMA plans as a whole, standard MMA plans and specialty MMA plans)?", a pre-post perspective is required.

The qualitative design is discussed in the context of specific research questions in "Analytic Methods" below.

2. Target and Comparison Populations

The target and comparison populations vary across the research questions and are driven by (1) the pre-post or post-only focus of the research question, and (2) the specific population focus of the research question, e.g., enrollees in standard MMA plans vs. enrollees in specialty MMA plans. Where the data allow, measures and analyses will be stratified by race/ethnicity and geography to identify any disparate impacts of the demonstration. The population foci of individual research questions are listed in ***Table 6*** below.

3. Evaluation Period

The current evaluation period began with SFY 2020-21 (DY15) and extends through SFY 2029-30 (DY24). The table below details the evaluation period that will be covered in each deliverable for the current demonstration approval period.

[4] Cohen, J. *Statistical Power Analysis for the Behavioral Sciences,* 2nd Ed. Hillsdale, N.J.: L. Erlbaum Associates; 1988:25.

Deliverable / Activity	Due Date	Evaluation Period
Interim Evaluation Report for DY 15-17 due to CMS	31-Dec-24	July 2020 – June 2023
Interim Evaluation Report for DY 15-19 due to CMS	31-Dec-26	July 2020 – June 2025
Draft Interim Evaluation Report for DY 15-22 due to CMS	31-Dec-29	July 2020 – June 2028
Draft Summative Report due to CMS	31-Dec-31	July 2020 – June 2030

Analysis for each interim and summative report will use the most rigorous analytic method for the data that is available. Determination of the final analytic method in each report and for each measure will be determined upon receipt of data to assess the quality, frequency, and availability of data, each of which will influence the analytic method. Moreover, the impact of COVID-19 in evaluation periods may influence the analytic method.

Generally, analyses that utilize an interrupted time series will likely not be able to be conducted until the DY 15-19 and DY 15-22 interim reports and the summative report since it is expected that there will likely be too few data points for a robust interrupted time series analysis. The synthetic control method, which depending largely on the availability of T-MSIS data, will likely not be viable until the summative report, due to the two-to-three-year lag in data availability. The next-best rigorous analytic approach will be used in lieu of the interrupted time series and synthetic controls.

4. Evaluation Measures

This evaluation uses a wide variety of measures of quality, access, and costs. ***Table 2*** and ***Table 3*** below list the CAHPS and HEDIS measures, and

Table 4 lists additional measures used in this evaluation.

Table 2. CAHPS Measures Used in the Evaluation

Measure	CAHPS Version 5 Adult & Child Questions for MMA Evaluation
Getting Needed Care (Adult and Child)	Percentage of respondents reporting it is usually or always easy to get needed care (vs. sometimes or never)
Getting Care Quickly (Adult and Child)	Percentage of respondents reporting it is usually or always easy to get care quickly (vs. sometimes or never)
Rate the Number of Doctors(Adult and Child)	Percentage of respondents rating the number of doctors to choose from as excellent or very good (vs. good, fair, or poor)
Health Plan Information and Customer Service (Adult and Child)	Percentage of respondents reporting they usually or always get the help/information needed from their plan's customer service staff (vs. sometimes or never)
Overall Rating of Health Plan (Adult and Child)	Percentage of respondents rating their plan an 8, 9 or 10 on a scale of 0 (worst) – 10 (best)
Overall Rating of Health Care (Adult and Child)	Percentage of respondents rating their health care an 8, 9 or 10 on a scale of 0 (worst)- 10 (best)
Shared Decision-Making (Adult and Child)	Percentage of respondents reporting there is shared decision-making between the provider and respondent (Yes vs. No)
Overall Rating of Personal Doctor (Adult and Child)	Percentage of respondents rating their doctor an 8, 9, or 10 on a scale of 0 (worst)-10 (best)
Overall Rating of Specialist	Percentage of respondents rating their specialist an 8, 9, or 10 on a scale of 0 (worst)-10 (best)

Measure	Patient Experience Measures for the CAHPS Dental Plan Survey*
Care from Dentists and Staff	Percentage of respondents reporting their regular dentist usually or always explains things in a way that is easy to understand (vs. sometimes or never) Percentage of respondents reporting their regular dentist usually or always listens to them carefully (vs. sometimes or never) Percentage of respondents reporting their regular dentist usually or always treats them with courtesy and respect (vs. sometimes or never) Percentage of respondents reporting their regular dentist usually or always spends enough time with them (vs. sometimes or never) Percentage of respondents reporting dentists or dental staff usually or always do everything they can to help them feel as comfortable as possible during their dental work (vs. sometimes or never) Percentage of respondents reporting that their dentists or dental staff usually or always explain what they are doing while treating them (vs. sometimes or never)

Measure	Patient Experience Measures for the CAHPS Dental Plan Survey*
Access to Dental Care	Percentage of respondents reporting their dental appointments are usually or always as soon as they want (vs. sometimes or never) Percentage of respondents reporting they usually or always get an appointment with their dental specialist as soon as they want (vs. sometimes or never) Percentage of respondents reporting they usually or always spend 15 minutes or less in the waiting room before seeing someone for their appointment (vs. sometimes or never) Percentage of respondents reporting someone usually or always tells them why there is a delay or how long the delay will be if they have to wait more than 15 minutes in the waiting room before being seen for an appointment (vs. sometimes or never) Percentage of respondents answering "somewhat yes" or "definitely yes" when asked whether they get to see a dentist as soon as they want if they have a dental emergency (vs. "somewhat no" or "definitely no")
Dental Plan Coverage and Services	Percentage of respondents reporting their dental plan usually or always covers all of the services they think are covered (vs. sometimes or never) Percentage of respondents reporting that the 800 number, written materials, or website usually or always provides the information they want (vs. sometimes or never) Percentage of respondents reporting their dental plan's customer service usually or always gives them the information they want or the help they need (vs. sometimes or never) Percentage of respondents reporting their dental plan's customer service staff usually or always treats them with courtesy and respect (vs. sometimes or never) Percentage of respondents answering "somewhat yes" or "definitely yes" when asked whether their dental plan covers what they and their family need to get done (vs. "somewhat no" or "definitely no") Percentage of respondents answering "somewhat yes" or "definitely yes" when asked whether information from their dental plan helps them find a dentist they are happy with (vs. "somewhat no" or "definitely no")
Patients' Rating	Percentage of respondents rating their regular dentist an 8, 9, or 10 on a scale of 0 (worst) to 10 (best) Percentage of respondents rating all dental care they personally received in the last 12 months an 8, 9, or 10 on a scale of 0 (worst) to 10 (best) Percentage of respondents rating how easy it was to find a dentist an 8, 9, or 10 on a scale of 0 (extremely difficult) to 10 (extremely easy) Percentage of respondents rating their dental plan an 8, 9, or 10 on a scale of 0 (worst dental plan possible) to 10 (best dental plan possible)
Dental Plan Expanded Benefits	Percentage of respondents who rated their dental expanded benefits as an 8, 9, or 10 on a scale of 1 to 10 Percentage of respondents who rated their access to dental expanded benefits an 8, 9, or 10 on a scale of 1 to 10

*Many of the dental survey items will be grouped into one overarching composite measure

Table 3. HEDIS and Other Performance Measures Used in the Evaluation

Measure	Components	Steward/ Source	CMS Adult/Child Core Measure?	NQF #
Adolescent Well-Care Visits	--	NCQA HEDIS	Child	--
Adults' Access to Preventive/Ambulatory Health Services	20-44 years 45-64 years 65+ years Total	NCQA HEDIS	--	--
Breast Cancer Screening	--	NCQA HEDIS	Adult	2372
Cervical Cancer Screening	--	NCQA HEDIS	Adult	0032
Childhood Immunization Status	Combo 2 Combo 3	NCQA HEDIS	Child	0038
Children and Adolescents' Access to Primary Care Practitioners	12-24 months 25 mos –6 yrs 7-11 years 12-19 years	NCQA HEDIS	Child	--
Chlamydia Screening in Women	16-20 years 21-24 years Total	NCQA HEDIS	Child and Adult	0033
HIV-Related Outpatient Medical Visits (Note – This measure will not be reported after CY 2016 data)	≥ 2 visits (182 days apart)	Agency-defined	--	--
Immunizations for Adolescents	Combination 1	NCQA HEDIS	Child	1407
Lead Screening in Children	--	NCQA HEDIS	--	--
Prenatal and Postpartum Care	Prenatal Postpartum	NCQA HEDIS	Child (Prenatal) and Adult (Postpartum)	1517
Frequency of Ongoing Prenatal Care/Prenatal Care Frequency	≥ 81% of expected visits	NCQA HEDIS/Agency-defined	Child	1391
Transportation Availability (Note – This measure will not be reported after CY 2016 data)		Agency-defined	--	--

Measure	Components	Steward/ Source	CMS Adult/Child Core Measure?	NQF #
Well-Child Visits in the First 15 Months of Life	0 visits 6+ visits	NCQA HEDIS	Child	1392
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	--	NCQA HEDIS	Child	1516
Adult BMI Assessment		NCQA HEDIS	Adult	--
Antidepressant Medication Management	Acute; Continuation	NCQA HEDIS	Adult	0105
Comprehensive Diabetes Care	HbA1C Testing	NCQA HEDIS	Adult	0057
Comprehensive Diabetes Care	HbA1c Good Control	NCQA HEDIS	--	0575
Comprehensive Diabetes Care	HbA1c Poor Control	NCQA HEDIS	Adult	0059
Comprehensive Diabetes Care	Eye Exam	NCQA HEDIS	--	0055
Comprehensive Diabetes Care	Nephropathy	NCQA HEDIS	--	0062
Comprehensive Diabetes Care	LDL-C Screening	NCQA HEDIS	Adult	0063
Comprehensive Diabetes Care	LDL-C Control	NCQA HEDIS	Adult	0064
Controlling High Blood Pressure		NCQA HEDIS	Adult	0018
Follow-up After Hospitalization for Mental Illness	7-day 30-day	NCQA HEDIS	Adult	0576
Follow-up Care for Children Prescribed ADHD Medication	Continuation and Maintenance	NCQA HEDIS	Child	0108
Highly Active Anti-Retroviral Treatment		Agency-defined	--	
Mental Health Readmission Rate		Agency-defined	--	

Measure	Components	Steward/ Source	CMS Adult/Child Core Measure?	NQF #
Medication Management for People with Asthma		NCQA HEDIS	--	1799
Dental Performance Measures				
Annual Dental Visit	Total	NCQA HEDIS		1388
Preventive Dental Services		CMS Medicaid & CHIP Child Core Set	Child	—
Dental Treatment Services		Agency-defined/CMS-416 Data	Child	—
Sealants for 6-9 Year-old Children at Elevated Caries Risk		CMS Medicaid & CHIP Child Core Set/Dental Quality Alliance (DQA)	Child	2508
Oral Evaluation		DQA/NQF	Child	2517
Topical Fluoride for Children at Elevated Caries Risk		DQA/NQF	Child	2528
Ambulatory Care Sensitive Emergency Department Visits for Dental Caries in Children		DQA/NQF	Child	2689
Follow-up after Emergency Department Visits for Dental Caries in Children		DQA/NQF	Child	2695

The following provides descriptions and numerators/denominators for the seven Agency-defined measures shown in ***Table 3***, above:

HIV-Related Outpatient Medical Visits – (HIVV)

Description: The percentage of enrollees who were seen on an outpatient basis with HIV/AIDS as the primary diagnosis by a physician, Physician Assistant or Advanced Registered Nurse Practitioner for an HIV-related medical visit within the measurement year.

Eligible Population: Enrollees with HIV/AIDS as identified by at least one encounter with an ICD-9-CM diagnosis code 042, 079.53, 795.71, or V08 during the first six months of the measurement year.

Denominator: The eligible population.

Numerator: Four separate numerators are calculated:

a. Enrollees who were seen twice in measurement year, >= 182 days apart.
b. Enrollees who were seen twice or more in measurement year.
c. Enrollees who were seen exactly once in the measurement year.
d. Enrollees who were not seen during the measurement year.

***Note:** Numerators a and b are not mutually exclusive.

Prenatal Care Frequency (PCF)

Description: The percentage of Medicaid deliveries between November 6 of the year prior to the measurement year and November 5 of the measurement year that received greater than or equal to 81 percent of expected visits.

Administrative/Hybrid Specifications: Follow the specifications for the HEDIS measure, *Frequency of Ongoing Prenatal Care (FPC),* most recent edition, with the following modification:

For those enrollees whose number of expected prenatal care visits is greater than 10, per Table FPC-A, the health plan should consider the enrollee having met the threshold for the greater than or equal to 81 percent of expected visits category if she received at least 10 visits. Report only the greater than or equal to 81 percent category.

Transportation Availability (TRA)

Description: The percentage of requests for transport that resulted in a transport.

Denominator: The number of requests for a transport to a Medicaid service made within the required time frames.

Numerator: The number of transports delivered.

Highly Active Anti-Retroviral Treatment – (HAART)

Description: The percentage of enrollees with a HIV/AIDS diagnosis that have been prescribed Highly Active Anti-Retroviral Treatment.

Eligible Population: Enrollees with HIV/AIDS as identified by at least one encounter with ICD-10-CM diagnosis code B20, B97.35, or Z21 during the first six months of the measurement year.

Denominator: Number of enrollees in the plan diagnosed with HIV/AIDS.

Numerator: Number of enrollees who were prescribed a HAART* regimen within the measurement year.

Mental Health Readmission Rate (RER)

Description: The percentage of acute care facility discharges for enrollees who were hospitalized for a mental health diagnosis that resulted in a readmission for a mental health diagnosis within 30 days.

Age: 6 years and older as of the date of discharge.

Denominator: Discharges to the community from an acute care facility (inpatient or crisis stabilization unit) with a principal diagnosis of mental illness and that met continuous enrollment criteria. Please refer to the Mental Illness Value Set in the most recent edition of the HEDIS Technical Specifications for Health Plans for the FUH measure and follow the steps found in the HEDIS Technical Specifications to identify acute inpatient discharges.

Numerator: Discharges that result in a readmission to an acute care facility (inpatient or crisis stabilization unit) with a principal diagnosis of mental illness and that met continuous enrollment criteria. Please refer to the Mental Illness Value Set in the most recent edition of the HEDIS Technical Specifications for Health Plans for the FUH measure and follow the steps found in the HEDIS Technical Specifications to identify acute inpatient discharges.

Dental Treatment Services

Description: The percentage of individuals ages 1 to 20 who are enrolled in the plan for at least 90 continuous days, are eligible for EPSDT services, and who received at least one dental treatment service during the reporting period.

Denominator: The total unduplicated number of individuals ages 1-20 that have been continuously enrolled in Medicaid or CHIP Medicaid Expansion programs for at least 90 days and are eligible to receive EPSDT services.

Numerator: The unduplicated number of individuals receiving at least one dental treatment service by or under the supervision of a dentist, as defined by HCPCS codes D2000-D9999 (CDT codes D2000-D9999) or equivalent CPT codes, that is, only those CPT codes that involved periodontics, maxillofacial prosthetics, implants, oral and maxillofacial surgery, orthodontics, adjunctive general services.

Table 4 lists the additional measures used in this evaluation beyond the HEDIS and CAHPS measures presented in ***Tables 2*** and ***3***. These additional measures deal with

- Enrollee grievances and complaints,
- Service use,
- PCP appointment wait times,
- Mean costs by type of service,
- Expanded benefit types,
- Common themes from plan interviews,
- Types of Health Behaviors programs and incentives,
- Enrollee participation and completion rates in Healthy Behaviors programs, and
- Enrollment.

Measures of costs and utilization in ***Table 4*** will vary depending on the research question and the type of care (e.g., inpatient or outpatient) under study. When enrollee encounter cost and utilization data are employed, the units of measurement for utilization will depend upon the definition of utilization reported in the encounter data. While cost data will be measured in dollars, the measurement of costs will differ depending on (1) whether the focus is on overall program efficiency where claim amounts and capitation payments will be used for the pre-MMA and MMA periods, respectively, or (2) the focus in on the cost of individual services where claims amounts and amounts paid by the MCO to the provider will be used for the pre-MMA and MMA periods, respectively.

Table 4. Additional Measures used in the Evaluation

Measure	Description	Research Question(s)
Plan Reported Enrollee Issues/Grievances	Number of grievances and appeals by type	1.1.1, 1.1.2
Access to care issues/complaints (by plan type)	Extract from Agency's Client Information & Registration Tracking database. Type of complaint (e.g. access, quality of care)	1.1.1, 1.1.2
Service Utilization. Use Claims and encounter data		
Inpatient	Per Member Per Month (PMPM) average number of visits that a Medicaid enrollee had in a month	1.3.1, 1.3.2
Outpatient	PMPM average number of visits that a Medicaid enrollee had in a month	1.3.1, 1.3.2
ED	PMPM average number of visits that a Medicaid enrollee had in a month	1.3.1, 1.3.2
Professional Physician	PMPM average number of visits that a Medicaid enrollee had in a month	1.3.1, 1.3.2
Specialist	PMPM average number of visits that a Medicaid enrollee had in a month	1.3.1, 1.3.2
Service Use per Enrollee per Year. Service utilization is per actual enrollee year. Statistical analysis of use to rely on binomial regression models of service use by the type of service		
Hospital Outpatient Visits	Mean Service Use	10.3.1
Physician Primary Care Visits	Mean Service Use	10.3.1
Pharmacy Claims	Mean Service Use	10.3.1
Assisted Living	Mean Service Use	
Transitional Housing Services	Mean Service Use	10.1.5; 10.1.6; 10.1.7
Mobile Crisis Services	Mean Service Use	10.1.5; 10.1.6; 10.1.7
Peer Support Services	Mean Service Use	10.1.5; 10.1.6; 10.1.7
Tenancy Services	Mean Service Use	10.1.5; 10.1.6; 10.1.7
Potentially Preventable Hospitalizations	Mean Service Use	10.2.1
Potentially Preventable Emergency Department Visits	Mean Service Use	10.2.1
Behavioral Health Services	Mean Service Use	10.3.1
Average PCP Appointment Wait Times. Average appointment wait times. Data Source: Timely Access PCP Wait Times Report		
Urgent Care	Days	1F
Routine Sick	Days	1.5.1
Wellcare Visit	Days	1.5.1
Mean Costs. Cost of specific MMA services will be obtained from the amount paid by the MMA plan to the provider in the encounter record. For MMA period comparisons to the pre-MMA periods, MMA capitation payments will be used as a measure of the cost to Medicaid under MMA.		
Total MMA and LTC Costs Combined	Per Member Per Month Mean Cost	1.6.1

Measure	Description	Research Question(s)
Total MMA	Per Member Per Month Mean Cost	1.6.1
Hospital Inpatient	Per Member Per Month Mean Cost	1.6.1
Hospital Outpatient	Per Member Per Month Mean Cost	1.6.1
Physician Primary Visit	Per Member Per Month Mean Cost	1.6.1
Physician Specialist Visit	Per Member Per Month Mean Cost	1.6.1
Pharmacy Cost	Per Member Per Month Mean Cost	1.6.1
Emergency Dept. Cost	Per Member Per Month Mean Cost	1.6.1
Total LTC Costs	Per Member Per Month Mean Cost	1.6.1
Assisted Living Costs	Per Member Per Month Mean Cost	1.6.1
HCBS Costs	Per Member Per Month Mean Cost	1.6.1
Home Health Costs	Per Member Per Month Mean Cost	1.6.1
Hospice Costs	Per Member Per Month Mean Cost	1.6.1
Nursing Home Costs	Per Member Per Month Mean Cost	1.6.1
Supportive Housing Service Costs	Per Member Per Month Mean Cost	9.1.10
Expanded Benefits Offered by Plans		
Adult Dental Services	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Adult Influenza Vaccine	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Adult Pneumonia Vaccine	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Adult Shingles Vaccine	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Art Therapy	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Equine Therapy	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Hearing Services	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Home Health (non-pregnant adults)	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Medically Related Lodging & Food	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Newborn Circumcisions	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Nutritional Counseling	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Extra Outpatient Services	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Over-The Counter Drugs/ Supplies Aid	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Pet Therapy	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Physician Home Visits	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Post-Discharge Meals	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Extra Prenatal/ Perinatal Visits	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Extra Primary Care Visits	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Vision Services	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Waived Co-payments	Presence or Absence and Summary Counts	2.1.1, 2.1.2
Total Number of Expanded Benefits	Presence or Absence and Summary Counts	2.1.1, 2.1.2

Plan Interviews – Most Common Themes
(Subsequent year themes to be determined)

Quality of Care	% of content	1.4.3, 1.4.4
Behavioral Health	% of content	6.1.4, 6.1.5
Non-emergency Transportation	% of content	6.1.4, 6.1.5
Housing Assistance Pilot implementation	% of content	10.1.1, 10.1.2, 10.1.3, 10.1.4
Housing Services Care Coordination	% of content	10.1.8
Types of Healthy Behaviors Programs and Incentives **Data Source: Quarterly Healthy Behaviors Summary Reports**		
Medically Approved Smoking Cessation Program	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Medically Directed Weight Loss Program	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Medically Approved Alcohol or Substance Abuse Recovery Program	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Preventive Well Child Care	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Prenatal, Maternity, & Postpartum Visits	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Preventive Adult Care (PCP visits)	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Mammograms	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6
Cervical Cancer Screening	#, incentives and value	3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.1.4, 3.1.5, 3.1.6

Enrollee Participation and Completion Rates in Healthy Behaviors Programs (Mandatory and Optional)		
Number currently enrolled	#	3.1.4, 3.1.5, 3.1.6
Enrollees who completed program	#	3.1.4, 3.1.5, 3.1.
Plans Offering Program	#	3.1.4, 3.1.5, 3.1.
Plan with Most Participants	#	3.1.4, 3.1.5, 3.1.
By Gender	# (Male, Female)	3.3.1
By Age Group	# (Age Grp 0-20, 21-40, 41-60, over 60)	3.3.1
Enrollment Measures		
Medicaid Enrollees by Eligibility Group Out of Estimated Eligible Recipients	The percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients.	9.4.1
Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid	The percentage of new Medicaid enrollees by eligibility group, as identified as those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients.	9.4.1
Number of Medicaid Enrollees Per Month by Eligibility Group and/or Per-Capita of State	The number of Medicaid enrollees per month by eligibility group and/or per-capita of the state.	9.4.1
Number of New Medicaid Enrollees Per Month by Eligibility Group, as Identified by Those Without a Recent Spell of Medicaid Coverage	The number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage.	9.4.1

The following provides descriptions and numerators/denominators for the four evaluator-defined measures shown above in ***Table 4***:

Medicaid Enrollees by Eligibility Group Out of Estimated Eligible Recipients

Description: The percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients. Data for this measure will be sourced from the Integrated Public Use Microdata Series American Community Survey.

Denominator: Number of individuals likely eligible for Medicaid last year based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD), and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS).

Numerator: Number of beneficiaries covered by Medicaid (HINSCAID)

Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid

Description: The percentage of new Medicaid enrollees by eligibility group, as identified as those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients. Data for this measure will be sourced from the Integrated Public Use Microdata Series American Community Survey.

Denominator: Number of individuals likely eligible for Medicaid based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD), and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS).

Numerator: Number of beneficiaries beginning enrollment in Medicaid.

Number of Medicaid Enrollees Per Month by Eligibility Group and/or Per-Capita of State

Description: The number of Medicaid enrollees per month by eligibility group and/or per-capita of the state. Data for this measure will be sourced from the Integrated Public Use Microdata Series American Community Survey.

Denominator: Estimated current year population of Florida.

Numerator: Number of beneficiaries beginning enrollment in Medicaid.

Number of New Medicaid Enrollees Per Month by Eligibility Group, as Identified by Those Without a Recent Spell of Medicaid Coverage

Description: The number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage. Data for this measure will be sourced from the Integrated Public Use Microdata Series American Community Survey.

Denominator: N/A

Numerator: Number of beneficiaries beginning enrollment in Medicaid who did not have Medicaid coverage for at least six months prior.

5. Data Sources

This evaluation will collect both quantitative and qualitative data from a variety of sources as outlined below in ***Table 5***, "Quantitative and Qualitative Data Sources for Florida MMA Evaluation". Quantitative data will be collected predominantly from secondary sources (e.g., claims and encounter data, HEDIS performance reports, state MCO performance reports, etc.). The sole exception involving collecting primary quantitative data will involve collecting dual- eligible care coordination experiences via telephone surveys using closed-end questions.

Qualitative data will be collected using both semi-structured interviews and review of policies and procedures documents. Fully coded transcriptions of qualitative interviews will be

analyzed through iterations of content analysis and grounded theory to identify salient themes.

The cleaning of Medicaid eligibility, enrollment, encounter, and claims data is done by both the Agency and the evaluation team. The eligibility, enrollment, encounter, and claims data used in his evaluation comes from the Agency's Decision Support System (DSS) database. The evaluation team conducts numerous checks related to data integrity upon receipt of the DSS data. "Filler" codes for character variables are checked (e.g., "####" or "****") and detected filler values are set to missing. Range-checking for both numeric and character variables as well as logical consistency checks are made among age, sex, diagnosis and procedure codes. Missingness rates are calculated for each variable in each dataset and compared to missingness rates in previous years of similar data. Voided claims (detail status = V) are removed, as are preliminary records that have been superseded by subsequent revised entries. Duplicate records are deleted to eliminate redundant encounter records resulting from multiple submissions from providers.

These additional checks routinely produce questions from the evaluation team for the Agency data team concerning errors and anomalies. Answers given by the Agency data team are documented for future reference. Questions that cannot be readily answered are resolved by the involvement of additional data personnel and/or the transmittal of corrected data as needed. The HEDIS and CAHPS data used in this evaluation are independently audited prior to being submitted to the Agency. Similarly, Florida hospital discharge, emergency department, and ambulatory surgery center data are cleaned and error-checked by the Florida Health Data Center upon receipt.

Table 5. Quantitative and Qualitative Data Sources for Florida MMA Evaluation

Data Source	Time Period*	Variables
Medicaid claims, eligibility, enrollment and encounter data	Pre-MMA MMA	Pre-MMA Inclusion criteria ▪ All eligibility categories that are mandated to enroll in a MMA health plan and received services through any delivery system for at least one month during the pre-MMA time period. Note that enrollees gradually transitioned to MMA health plans beginning May 1, 2014, thus some data during the implementation period will be coded as MMA during months where the enrollee was enrolled in a MMA health plan; ▪ All claims and encounter data for drugs and services that are required to be covered by MMA plans; and ▪ All voluntary MMA participants who received services through any delivery system. Exclusion criteria ▪ All groups explicitly excluded from MMA program participation. Demographic and health status characteristics MMA Inclusion criteria ▪ All eligibility categories that are mandated to enroll in a MMA plan and were enrolled in a MMA plan for at least one (1) month during May 1, 2014 – June 30, 2017. ▪ All voluntary MMA participants; and ▪ All claims and encounter data for drugs and services that are required to be covered by MMA plans. Exclusion criteria ▪ All groups explicitly excluded from MMA program participation. Demographic and health status characteristics
Consumer Assessment of Health Care Providers and Systems (CAHPS)	Pre-MMA MMA	See Table 2 above for a complete listing of the proposed CAHPS measures for this evaluation.
CAHPS Dental Plan Survey	MMA	See Table 2 above for a complete listing of the proposed dental CAHPS measures for this evaluation. Note – The dental plans are only collecting CAHPS data for children; therefore, the evaluation will focus solely on child dental CAHPS results until such time adult dental CAHPS data become available.

Data Source	Time Period*	Variables
HEDIS & Agency-defined performance measures, including CMS Child and Adult Core Measures	Pre-MMA (where available): Annual Means CYs 2011-2013 MMA: Annual Means CY 2015 through latest date when complete data is available	See Table 3 above for a complete listing of the proposed HEDIS and Agency-defined performance measures for this evaluation.
Dental Performance Measures	MMA	See Table 3 above for a complete listing of the proposed dental performance measures for this evaluation.
Managed Care Plans' Enrollee Complaint, Grievance, and Appeals Reports	MMA	Number of grievances and appeals by type
Agency Complaints, Issues, Resolutions & Tracking System (CIRTS) Data	Pre-MMA MMA	Enrollee demographic information Type of complaint (e.g., access, quality of care, etc.) Plan enrollment
Medicaid Fair Hearing data	MMA	Date hearing requested Date hearing held Plan Name Service in Question Petitioner's Favor/Respondent's Favor
Managed Care Plans' Performance Improvement Projects (PIPs) and External Quality Review Organization (EQRO) Reports	MMA	Description and overall analyses of plan performance improvement projects (improvement strategies and data analyses) to improve HEDIS/Agency defined measures.
Managed Care Plans' Choice Materials and Managed Care Span	Pre-MMA	Plan benefit data

Data Source	Time Period*	Variables
	MMA	
Agency Quarterly and Annual Reports to CMS	MMA	Review of expanded services
Managed Care Plans' policies and procedures related to care coordination	Pre-MMA MMA	Review of policies and procedures related to care coordination
Timely Access PCP Wait Times Report	MMA	Average appointment wait times
Long-Term Care Case Management and Monitoring Reports	MMA	Case file audit reviews to determine the timeliness of enrollee assessments performed by case managers Reviews of the consistency of enrollee service authorizations performed by case managers Development and implementation of continuous improvement strategies to address identified deficiencies
Medicaid Choice Counseling Data	Pre-MMA MMA	Medicaid choice counseling data will be used to determine auto-enrollment, plan selection, and length of plan enrollment.
Florida Center for Health Information and Transparency Encounter Data	Pre-MMA MMA	All variables available in the inpatient hospital discharge, emergency department, and ambulatory surgery discharge data
MMA Managed Care Plans' reports on Healthy Behaviors programs	MMA	All available data related to each Healthy Behaviors program Caseloads (new and ongoing) for each Healthy Behaviors program at the individual recipient level Amount and type of rewards/incentives provided for each Healthy Behaviors program
Annual Milestone Statistics and Findings Report Data	MMA	LIP Payments by provider (hospital and non-hospital) Number of individuals served (hospital providers) including Medicaid, Uninsured, Total all unduplicated, Inpatient, Outpatient, and Inpatient/ Outpatient combined Average number of individuals served (hospital providers) Growth in the number of individuals served (hospital

Data Source	Time Period*	Variables
		providers) Number of encounters for specific services (hospital providers) including Medicaid, Uninsured/Underinsured, Hospital discharges, Hospital inpatient (days), Emergency care (encounters), ER visits, Hospital outpatient, Affiliated services (encounters), Prescription drugs `(number of prescriptions filled)
Florida Hospital Uniform Reporting System	DY11-DY16	This report collects financial and utilization statistics each year from Florida Hospitals.
Disproportionate Share Hospital Data	DY11-DY16	This data will be utilized as needed for uninsured and uncompensated care analyses. Note: There is presently a three-year lag in the availability of annual DSH survey data.
Medicare Cost Reports	DY11-DY16	This report includes descriptive, financial, and statistical data on hospitals and may be helpful with identifying facility characteristics, costs and charity care
Information on charity care programs including policies and criteria for all LIP funded hospitals.	DY11-DY16	Descriptive data on hospital charity care programs.
Qualitative data from interviews with health plan care coordination experts	MMA	Themes from qualitative interviews, specifically addressing: (1) care coordination strategies for enrollees needing behavioral health or non-emergency transportation services; (2) the most effective strategies for ensuring access to services; and (3) strategies for coordinating these services specifically for dual-eligible members; (4) strategies that standard MMA and Specialty MMA plans are using to improve quality of care and the strategies that are most effective; and (5) perceived care coordination effectiveness for enrollees who are homeless are at-risk for homeless
Qualitative interviews of state staff	DY15-DY22	Qualitative interviews by evaluators may also help to systematically gather information on administrative costs, particularly for understanding the allocation of state staff time required to launch and then maintain demonstration operations. Depending on the role of managed care plans in implementing the demonstration policies, states may also need to include managed care administrative costs, gathering information through interviews and potentially through secondary data sources.

Provider surveys	DY15-DY22	State-specific provider surveys, which could provide information about uncompensated care costs incurred by hospital and nonhospital providers, such as federally qualified health centers. States should field such a survey at baseline to understand changes after demonstration implementation.
Enrollee satisfaction surveys: - behavioral health and non-emergency transportation services; - expanded benefits; - dental health services, including expanded dental health benefits. - Housing assistance Services	MMA	Telephone surveys covering sociodemographic characteristics, health and functional status/needs, and experience and satisfaction with behavioral health services, non-emergency transportation services, expanded benefits, dental health services, expanded dental health service benefits, and supportive housing services.
Enrollee roster reports submitted by MMA plans to identify housing assistance services	MMA	Number of enrollees using transitional housing services, number of enrollees using mobile crisis services, number of enrollees using peer support services, number of enrollees using tenancy services, housing status, Housing Pilot enrollment and disenrollment date,
Integrated Public Use Microdata Series (IPUMS) American Community Survey	DY11-DY22	ACS HINSCAID, HIUIR, HIURULE, INCTOT, AGE, DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS
Transformed Medicaid Statistical Information System (T-MSIS)	DY9-DY22	If available, T-MSIS data will be used for out of state comparison groups. Variables will include all data necessary for identifying outcomes of interest (e.g. diagnosis and procedure codes) and confounding factors.
Healthcare Cost Report Information System (HCRIS)	Pre-MMA MMA	Variables of interest include data on total unreimbursed cost for Medicaid, SCHIP, and state and local indigent care programs; cost of charity care; and difference between net revenue and costs for Medicaid program.

Florida Hospital Uniform Reporting System (FHURS)	Pre-MMA MMA	Variables of interest include data on charity care, Medicaid revenue, total revenue, and operating expenses.

*Unless otherwise noted, Pre-MMA time period refers to SFYs 2011-12 and 2012-13. MMA time period refers to May 1, 2014 through the latest date when complete data is available.

6. Analytic Methods

This evaluation will employ both quantitative and qualitative methods in answering the research questions outlined above. The quantitative methods will include both simple descriptive methods and multivariable statistical methods while the qualitative methods will include analysis of structured administrative interview data and thematic analyses of semi-structured interview data (using content analyses and grounded theory).

The remainder of this section describes these methods in greater detail. ***Table 6*** following these descriptions lists each research question along with the associated analytic method to be used in answering that question.

Overall Analytic Design Issues

Pre-post comparisons have well-known limitations concerning the influence of intervening factors beyond the intervention under study that can bias the observed treatment effect. Similarly, post-only comparisons face the challenge of unobserved heterogeneity between the treatment and comparison groups that influence both outcomes and selection into the treatment vs. comparison groups.

Unfortunately, strong evaluation designs that address the limitations of pre-post and post-only designs such as difference-in-differences and propensity-score matching are not viable for evaluating Florida's MMA program. The exceptions where this approach may be used include selected questions in (1) the Housing Assistance Pilot (Component 10) and (2) the impact of Florida's retroactive enrollment policy change on new enrollee financial burden (Component 9). These stronger evaluation designs are not viable for much of the MMA program primarily due to the fact that Florida's statewide transition to the MMA program took place over a three-month period[5] and included over 90 percent of Florida's Medicaid enrollees. This poses special challenges for employing evaluation designs such as difference-in-differences and propensity-score matching since no suitable comparison groups were available within Florida Medicaid following MMA implementation. Comparison groups outside of Florida Medicaid provide the next-best approach for establishing causal inferences. Where possible, out-of-state data will be used to serve as comparison groups. While an out-of-state comparison group can provide a counterfactual design, the granularity of the data available may not allow for strong statistical controls over differences across the populations. Additionally, it is unlikely the independent evaluator will be able to control for additional quality improvement programs that may impact a comparison group population.

[5] This three-month period covered virtually the full transition to the MMA program, although one MMA plan (Freedom) began operations in January 2015.

Out-of-State Comparison Groups

Identifying Comparison States

The selection of states used for an out-of-state comparison group will be based on similarities to Florida Medicaid members in terms of overall demographics as well as state Medicaid programs and policies. In addition, comparison states should not have a major change in Medicaid policies during either the baseline or evaluation periods. Selection of states will be conducted on a measure-by-measure basis depending on available data. The independent evaluator will assess the feasibility of utilizing out-of-state comparison groups based on the criteria for identifying comparison states and data availability.

The menu of analytic methods generally depends on two factors related to availability of data:

1) Level of data granularity
2) Number of time periods prior to intervention

Level of Data Granularity

Beneficiary-Level Data

Data at the beneficiary-level would allow for a selection of individuals who are similar to MMA beneficiaries which would serve as a comparison group. This would provide the most flexibility in identifying a suitable comparison group for a wide selection of measures. Such data may be obtained through the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF). Due to the two-to-three year lag, with only preliminary data for 2020 available as of this writing, the T-MSIS data is expected to be feasible for only the summative evaluation report. Depending on access fees and the restrictions around using the T-MSIS data, the independent evaluator will determine the most cost-effective and feasible approach for developing a comparison group. With beneficiary-level data supplied through T-MSIS, the independent evaluator expects to be able to apply individual level propensity scoring adjustments.[6]

Moreover, with access to beneficiary-level Medicaid data, the independent evaluator can calculate rates for customized or non-standardized measures as opposed to relying on aggregate data for established quality metrics.

Aggregate Data

If beneficiary-level data are not available or are not cost-effective, established quality metrics such as measures that follow CMS Core Set specifications can utilize aggregate data in the form of benchmark information or data from out-of-state health plans. The level of granularity of the benchmark data and available time periods will dictate the type of statistical testing possible. For instance, some methods such as difference-in-differences require distributional measures of the data such as standard deviation or variance, and/or sample sizes. If these data are not available, it will not be possible to calculate the standard errors necessary for making statistical inferences. It is possible, however, to implement other methods such as interrupted time series or synthetic controls with aggregated rate data, but as described

[6] Bradley, K., J. Heeringa, R.V. Pohl, J.D. Reschovsky, and M. Samra. “Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations.” Washington, DC: Mathematica, revised October 2020.

below, require sufficient number of data points prior to intervention.

Pre-Intervention Data Availability

If the source of out of state data are limited to few data points prior to implementation, then the independent evaluator will apply a difference-in-differences approach, which can be conducted on as little as one baseline data point.[7] If additional but limited data points are available (for example between 3 and 6 data points), then the independent evaluator will explore either an interrupted time series approach with comparison group(s) or synthetic controls. With additional data points, the likelihood of successfully applying the synthetic control methods increases.

Certain components of the evaluation, however, may be able to utilize an in-state comparison group. For example, because there are limits to the number of enrollees who can participate in the Housing Assistance Pilot, individuals who are placed on a waiting list for the program may serve as controls, which may allow for standard and/or modified difference-in-differences analysis of the Housing Assistance Pilot. While there are no members on the waitlist at time of writing, this approach may be used for late interim reports or the summative report if the program has reached its capacity and there are individuals on the waitlist.

Furthermore, evaluating the impact of Florida's retroactive enrollment policy change on new enrollee financial burden poses special challenges to traditional pre-post and post-only research designs. The large number of new Florida Medicaid enrollees each month will likely convey sufficient statistical power to detect even minute differences across groups in financial burden as statistically significant. In addition, because financial burden can change due to a myriad of factors beyond unpaid medical bills (e.g., job loss, unexpected financial losses, and non-health family emergencies), the potential for intervening time factors to create history bias is very high.

For these reasons, we are proposing to use modified difference-in-differences designs to assess new enrollee financial burden associated with the February 2019 retroactive enrollment policy change. The modified difference-in-differences designs relax the stringent parallel time trends assumption of standard difference-in-differences designs. These designs are discussed in detail in Attachment 6 of this document.

The remainder of the MMA evaluation questions will employ the best approach given constraints on available data and/or as dictated by the research question under study. In general, a pre-post perspective (e.g., ITS with or without comparison group, difference-in-differences, or synthetic controls) will be used when the focus is on the overall impact of the MMA intervention on costs and utilization. A post- only perspective will be used when the research question is focused on some aspect of the MMA program operation, such as separate vs. comprehensive MMA and LTC service organization. Multivariable statistical models, including propensity scoring adjustments, will be used whenever feasible to control for other factors that might influence the outcome.

Propensity Score Matching

Propensity score matching will be used to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics,

[7] Pohl, K. R., and Bradley, K. "Selection of Out-of-State Comparison Groups and the Synthetic Control Method." Washington, DC: Mathematica, October 2020.

including demographic factors and health conditions prior to implementation of the demonstration.[8] Propensity score matching has been used extensively to match individuals from an eligible comparison group to individuals in the intervention group.[9] However, there are several risks to the use of propensity scores and subsequent matching on the propensity score .

Propensity Score Risks

Risk	Description
Insufficient coverage	Not enough individuals in the eligible comparison group similar enough to intervention population for 1:1 matching
Unbalanced groups	Observable characteristics of the intervention and comparison groups after matching are not balanced

When confronted with insufficient coverage, the independent evaluator will first explore alternative specifications in either the propensity score model and/or the matching algorithm before moving to alternative approaches. For example, instead of a typical 1:1 greedy matching algorithm, the independent evaluator will explore matching with replacement or optimal matching algorithms.[10] If alternative matching algorithms do not yield a matched comparison group with sufficient coverage and balance, then propensity score weighting will be explored as the next step. Propensity score weighting utilizes the full eligible comparison group and assigns a higher statistical weight to beneficiaries who are predicted to be part of the intervention but were not. A risk of this methodology is that the analysis may be dominated by a handful of beneficiaries with extremely high weights.

Balance between the matched comparison and intervention groups will be assessed using a three-pronged approach to evaluate the similarity between the intervention group and comparison groups across observable characteristics, or covariates. The **Error! Reference source not found.** summarizes each of the three prongs.

Assessment Approaches

Assessment Approach	Advantage	Cautionary Note
Covariate-level statistical testing	Provides quantitative evidence, or lack thereof, of significant differences between matched groups	Susceptible to false positives for large sample sizes and false negatives for small sample sizes
Standardized differences	Does not rely on sample size	No universal threshold to indicate balance or unbalance
Omnibus test	Provides a single quantitative assessment of balance across all covariates as a whole	Susceptible to false positives for large sample sizes and false negatives for small sample sizes

Each of these approaches ultimately assesses the similarity of the *mean* of the distribution for each covariate. Additional metrics pertaining to the distribution should also be considered as part of the balance assessment, such as reporting the standard deviations.[11]

[8] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

[9] Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications,* SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

[10] See, e.g., Austin P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057–1069. doi:10.1002/sim.6004; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285163/.

[11] Austin P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational

These categories represent a starting place for building the comparison group and may not reflect the final selection identified by the independent evaluator.

Similarities in observable characteristics between the intervention population and those meeting exemptions will be assessed and if systematic differences are found, propensity score matching, or weighting, will be used to normalize the comparison group to match the intervention group.

Identifying and Accounting for Impacts of the COVID-19 Public Health Emergency

The COVID-19 public health emergency (PHE) impacted Medicaid programs, enrollment, utilization patterns, state expenditure patterns in unprecedented ways in terms of scope, magnitude, and duration. The resulting impacts, particularly for CY 2020, generally dominate any programmatic impacts, particularly for program elements that may have been scheduled for implementation during the PHE. Separating PHE and demonstration effect is particularly challenging for this evaluation since DY 15-17 (the years most impacted by the PHE) primarily represent continuations of previous programmatic elements.

Impacts from the PHE vary by state, but *generally*, CY 2019 and early Q1 2020 represent negligible or very small PHE impacts. Beginning in late Q1 and through Q2 of 2020, the data reflect the maximum impact resulting from the PHE and the PHE effects dominate most demonstration waiver program impacts, particularly for demonstrations, such as this, where few if any programmatic changes were implemented during this period. Beginning in Q3 and Q4 of 2020, the PHE impact diminished but remained significant. During this period, PHE impacts can still dominate program effects, but the exact trajectory of the PHE impact, including its degree of persistence over time are not currently well understood, particularly with regional variations in subsequent spikes in COVID cases and the emergence of COVID variant strains.

Beginning in CY 2021 fewer PHE impacts are generally observed; however, as with the previous period, the exact trajectory of the PHE impacts, including their degree of persistence and the effects of subsequent infection rate spikes and COVID variants may still drive significant impacts that could be confounded with or mistaken for demonstration effects, such as an increase in utilization resulting from pent-up demand for services. Additionally, the PHE has resulted in fundamental changes across a wide range of health care, including the widespread adoption and availability of telehealth services; changes which may not be the result of a demonstration.

The independent evaluator will employ a range of approaches to adjust or account for PHE impacts throughout the course of the evaluation. The specific approach used for a given measure will depend on several factors that will not be known until the evaluation activities covered by this design are underway. Some of these factors include:

- The quality and availability of data pertaining to specific measures in the evaluation design and the appropriateness of the data for the PHE adjustment method;
- The availability and reliability of PHE-related data such as COVID infection rates as well as measures of hospital and emergency department capacity; and,
- The availability and quality of multiple-state data covering a sufficient baseline period

Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

through at least CY 2021.

Once the data have been collected, validated, and reviewed, the independent evaluator will determine and employ the most rigorous method based on the content of the measure, any observable PHE impacts, and available data.

A brief overview of the range of methods that may be implemented are described below, ranging from the least to the most complex/rigorous.

- Dropping observations for periods in which the PHE impacts dominate demonstration effects to such a degree that no method can reliably or accurately separate demonstration effects from the PHE impacts.
- Adjust baseline periods, where appropriate, from pre-PHE period to a post CY 2020 period, ensuring that demonstration effects are measured and tested against a baseline period that more accurately reflects the post-PHE changes in the provision and utilization of health care.
- Restrict the analyses to beneficiaries who were continuously enrolled in Medicaid before the PHE through the evaluation period.
- Implement case mix (or risk) adjustments across the entire PHE trajectory to account for variations in Medicaid enrollment resulting from the PHE.
- Develop a composite measure of PHE impact based on available measures of "COVID intensity", such as COVID case rates, including variations over time and across geographic regions. This will allow for a proxy measure of the PHE impact across time and geographic regions.
- Employ an event study method, estimating impacts for each year in the demonstration rather than across the entire duration of the demonstration.
- Estimate alternative counterfactuals, using interrupted time series.
- Leverage multiple-state data, such as T-MSIS, combined with time-series data and geographic measures of PHE intensity, such as COVID infection rates, measures of hospital/ED capacity, and other relevant PHE policies across several comparison state to develop a high frequency (e.g., quarterly or monthly) estimate of the PHE impact trajectory over demonstration years possibly impacted by the PHE. In conjunction with a multiple-state control/comparison group, this approach would allow the independent evaluator to estimate a PHE-only counterfactual against which to test the presence and magnitude of demonstration effects.

Each approach has unique strengths and weaknesses that will vary by measure, data source, and the degree of the PHE impact. The independent evaluator will provide a complete description of the methods used as well as a justification for its use across all measures included in the evaluation. Additionally, the independent evaluator will conduct sensitivity analyses across all measures and methods used to separate PHE and demonstration effects to determine the extent to which the particular PHE adjustment may have changed the outcome of the measure

Statistical Testing and Modeling

The independent evaluator will utilize the best analytic approach given the type of measure, research question, and available data.

Multivariable statistical models, including propensity score matching, will be used when analyzing individual enrollee encounter cost and utilization data to control for factors that influence costs and utilization and isolate the effect of the characteristic under study (e.g., the MMA intervention and separate vs. comprehensive MMA and LTC services).

Synthetic Control Method

If data are available from a large number of other states and for sufficient number of pre-intervention time periods, the independent evaluator will first seek to implement the synthetic control method prior to conducting alternative analyses. This method, as described in CMS' guidance on Section 1115 demonstration evaluations, "involves constructing a single comparison group from a pool of potential comparison states (the "donor pool") by combining them so that the newly constructed (synthetic) comparison group resembles the treatment group as closely as possible on levels and trends in preintervention outcomes."[12] Although this approach is the most restrictive in terms of requiring the most number of comparison states and pre-intervention data points, it is flexible in terms of level of data necessary. For example, if the independent evaluator cannot obtain beneficiary-level data or measures of uncertainty in aggregate data are not available, aggregate data in the form of statewide or plan-level rates may still be used.

Interrupted Time Series

When a suitable comparison group cannot be found and data can be collected at multiple points in time before and after the implementation of the program, an ITS methodology can be used. This analysis is quasi-experimental in design and will compare a trend in outcomes between the baseline period and the evaluation period for those who were subject to the program.

In ITS, the measurements taken before the demonstration will be used to predict the outcome as if the demonstration did not occur. The measurements collected after the demonstration are then compared to the predicted outcome to evaluate the impact the demonstration had on the outcome. The ITS model is:

$$Y_t = \beta_0 + \beta_1 time_t + \beta_2 post_t + \beta_3 time \times post_t + \mu_t$$

where Y_t is the outcome of interest for the time period *t*, *time* represents a linear time trend, *post* is a dummy variable to indicate the time periods post-implementation, and *time×post* is the interaction term between time and post. The coefficient, β_0, identifies the starting level of outcome *Y*, β_1 is the slope of the outcome between the measurements before the program, β_2 is the change in the outcome at a various point in time, and β_3 is the change in the slope for the measurements after the program.

Assuming that the measurements taken after the implementation of the demonstration would have been equal to the expectation predicted from the measurements taken before the demonstration in the absence of the intervention, any changes in the observed rates after implementation can be attributed to the program.

A limitation of interrupted time series is the need for sufficient data points both before and after program implementation.[13] To facilitate this methodology, the independent evaluator may consider additional baseline data points using prior year calculations, and/or calculating quarterly rates where feasible, if multiple years both pre-and post-implementation are

[12] Pohl, K. R., and Bradley, K. "Selection of Out-of-State Comparison Groups and the Synthetic Control Method." Washington, DC: Mathematica, October 2020.

[13] Baicker, K., and Svoronos, T., (2019) "Testing the Validity of the Single Interrupted Time Series Design," *NBER Working Paper 26080,* https://www.nber.org/papers/w26080.pdf; Bernal, J.L., Cummins, S., Gasparrini, A. (2017) "Interrupted time series regression for the evaluation of public health interventions: a tutorial," *International Journal of Epidemiology,* 46(1): 348-355, https://doi.org/10.1093/ije/dyw098; Penfold, R. B., Zhang, F. (2013) "Use of Interrupted Time Series Analysis in Evaluating Health Care Quality Improvements," *Academic Pediatrics*, 13(6): S38 - S44, https://doi.org/10.1016/j.acap.2013.08.002.

available to control for seasonality in quarterly data.

If out-of-state data are available, a variation of the ITS approach to include a comparison group can be implemented.[14]

Comparison to National Benchmarks

The independent evaluator will compare rates using statistical testing (e.g., chi-square, t-tests) for established quality metrics to national benchmarks or national surveys where available but cannot implement more robust methods such as interrupted time series, synthetic controls, or DiD.

Medicaid Expenditures

The impact of factor under study (e.g., the MMA program) will be assessed using a two-part mixture model which first assesses the odds of having any expenditure or use using a random effects logit model (Equation 1) that accounts for clustering by month and by individual, and then uses a random effects log-linear generalized least squares regression (Equation 2) that also accounted for clustering by month and by individual. Both models assess the impact of the MMA program by including an indicator for whether or not the observation was from an individual enrolled in an MMA plan during the MMA study period. This shows the shift in the intercept associated with the MMA program (i.e., the average difference in PMPM expenditures or use between the pre-MMA and MMA periods). The two equations estimated used the following specifications: given month, while ln (PMPM $) is the natural log of expenditures by an individual in any given month given that they incurred any expenditures.

$$\ln\left(\frac{(any\ \$ = 1)}{p(any\ \$ = 0)}\right) = MMA \cdot \beta 1 + \text{Age} \cdot \beta 2 + \text{Gender} \cdot \beta 3 + \text{Race} \cdot \beta 4 + \text{RiskScore} \cdot \beta 5 + \varepsilon \text{it}$$

$$\ln(PMPM\ \$)_{it} = MMA \cdot \beta 1 + \text{Age} \cdot \beta 2 + \text{Gender} \cdot \beta 3 + \text{Race} \cdot \beta 4 + \text{RiskScore} \cdot \beta 5 + \varepsilon \text{it}$$

To obtain an estimate of the likely difference in expenditures due to the MMA program, average PMPM expenditures were predicted assuming all enrollees continued in the pre-MMA program using the multivariate models, and then average PMPM expenditures were calculated again to determine what PMPM expenditures would have been if the trend in expenditures had instead followed the trend observed in the MMA program.

The multivariate model specifications for the comparison of pre-MMA to specialty MMA plans and pre-MMA to standard MMA plans was essentially the same except only observations from specialty MMA plan enrollees were used to assess expenditures during the MMA period for the specialty MMA analysis while only observations from standard MMA plan enrollees during the MMA period were used for the standard MMA plan analysis.

As discussed above, the multivariate model comparing service utilization associated with participation in the Housing Assistance Pilot will use a standard or modified difference-in-difference approach, where changes in utilization from the year prior to implementation of the Pilot to utilization in the year after implementation for participating enrollees will be compared to changes in utilization over the same time period for enrollees who were placed on the waiting list for participation in the Housing Assistance Pilot. A modified difference-in-

[14] Contreary, K., K. Bradley, and S. Chao. "Best Practices in Causal Inference for Evaluations of Section 1115 Eligibility and Coverage Demonstrations." Oakland, CA: Mathematica Policy Research, June 2018

differences approach will also be employed to study the impact of the retroactive enrollment policy change on new enrollee financial burden (see Research Question 9.1.3).

Qualitative Analyses

Qualitative research questions in this evaluation are found in Components 1, 2, 6, 8, 9, and 10:

- ***RQ 1.4.3****: What strategies are standard MMA and specialty MMA plans using to improve quality of care?*
- ***RQ 1.4.4****: Which of the strategies used by standard MMA and specialty MMA plans are most effective in improving quality and why?* ***RQ 2.1.5****: How do enrollees rate their experience and satisfaction with the expanded benefits that are offered by their health plan?*
- ***RQ 6.1.4****: What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for behavioral health services for dual-eligible enrollees?*
- ***RQ 6.1.5:*** *What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for non-emergency transportation services for dual-eligible enrollees?*
- ***RQ 6.1.6:*** *How do dual-eligible enrollees rate their experience and satisfaction with* the *delivery of care they receive related to behavioral health services?*
- ***RQ 6.1.7****: How do dual-eligible enrollees rate their experience and satisfaction with* the *delivery of care they receive related to non-emergency transportation services?*
- ***RQ 8.4.3****: How do enrollees rate their experiences and satisfaction with the expanded benefits offered by their dental health plans?*
- ***RQ 9.1.1****: How will eliminating retroactive eligibility change enrollment continuity?*
- ***RQ 9.2.1:*** *Do beneficiaries subject to the retroactive eligibility waiver understand that they will not be covered during enrollment gaps?*
- ***RQ 9.3.1:*** *What are common barriers to timely renewal for those subject to the retroactive eligibility waiver?*
- ***RQ 10.1.4****: How did MMA plans implement the Pilot program?*
- ***RQ 10.1.8****: Is care coordination more effective for the study population as a result of the Housing Assistance Pilot Program?*
- ***RQ 11.1.1:*** *What are the administrative costs incurred by the state to implement and operate the demonstration?*
- ***RQ 11.2.3:*** *What are the impacts of eligibility and coverage policies on provider uncompensated care costs?*

Methods

Qualitative interviews with MMA plan experts. Experts in quality of care (RQs 1.4.3, 1.4.4), care coordination (RQs 6.1.4, 6.1.5, RQ 10.1.8), and program implementation (10.1.1, 10.1.2, 10.1.3, 10.1.4) at each of the MMA plans will be identified to participate in in-depth interviews. Each plan's contract manager will assist the investigators in identifying and contacting the appropriate experts. Identified experts will receive an introductory email that includes: the purpose of the study, contact information of qualitative team personnel who can answer questions about the study or the request and assist with any technical issues. In addition, the email will notify experts that we would like to schedule a 30- to 60-minute telephone interview with them. To assist the evaluation team in preparing for the interview, the introductory email will include a form-fillable PDF document with preliminary questions addressing the topics to be covered in the interviews (described below). The MMA plan experts will be asked to prepare written responses to these questions and email the completed PDF form to the study team prior to their scheduled interview.

The research teams will develop qualitative interview guides with a list of questions relevant to Research Questions 1.4.3, 1.4.4, 6.1.4, 6.1.5, 10.1.1, 10.1.2, 10.1.3, 10.1.4 and 10.1.8, respectively, which will be asked of all MMA plans for RQs 1.4.3, 1.4.4, 5.1.4 and6.1.5, and for MMA plans participating in the Housing Pilot for 10.1.1, 10.1.2, 10.1.3, 10.1.4 and 10.1.8. All data collection tools will be reviewed by the Agency prior to administration. The interview guides will include questions for plans that also participate in the LTC program to address the role LTC case managers (6.1.4, 6.1.5) have in addressing the respective topics. Before each MMA plan's scheduled telephone interview, the research teams will review: (1) the MMA plan's updated Policy and Procedure document(s) provided by the Agency related to quality of care and performance improvement (1.4.3, 1.4.4) or coordination of behavioral health services and non- emergency transportation services (6.1.4, 6.1.5); and (2) the MMA plan's written responses to the preliminary questions in PDF format. These reviews may generate follow-up questions and points of clarification tailored to each specific health plan, which will be added to the plan's telephone interview guide prior to the plan's scheduled interview. They also will help to streamline the interview process and minimize respondent burden.

Follow-up telephone interviews will be conducted with the same experts who were initially contacted and who provided the written PDF responses, or appropriate delegated individuals who are knowledgeable in the areas of interest. In addition, participants may include other health plan experts in the interviews. Interviews will follow a qualitative, semi-structured format. Interviews will be conducted by trained qualitative interviewers by telephone (lasting 30 to 60 minutes), audio recorded and transcribed for coding and analysis.

The qualitative team that comprises researchers from UF, UAB and FSU will administer the interviews that are specific to their component areas.

Qualitative interview analysis. Qualitative research teams will use Atlas.ti (V8) or Nvivo to analyze interview transcripts produced for research questions 1.4.3, 1.4.4, 6.1.1, 6.1.2, and 6.1.3, following iterations of content analysis and grounded theory. For each research question, an initial codebook of priori themes will be developed based on the interview guide. Coding of transcripts will be conducted concurrently with data collection and reviewed in team meetings to ensure inter-rater reliability. Following grounded theory methods, reviewers will define codes for new themes that emerge in the analysis; as new codes are produced, the codebook will be updated and previously-coded transcripts will be back-coded to capture

the new themes. After all MMA plan interviews have been completed and their transcripts coded, the research teams will conduct a content analysis to determine the most common themes and relevant co-occurrences among the themes. Based on findings of the content analysis, the research teams will conduct targeted queries to identify patterns in responses and exemplary quotes.

Member surveys. The research teams will design structured telephone surveys to be administered to MMA plan members, addressing experiences and satisfaction with expanded health plan benefits (2.1.5), coordination of behavioral health and non-emergency transportation for dual-eligible members (6.1.6, 6.1.7), expanded benefits offered by prepaid dental health plans (8.4.3), new enrollee health status (9.1.2), enrollee understanding of retroactive enrollment changes and barriers to enrollment renewal (9.2.1and 9.3.1), and enrollee experiences with whether their services needs were met, integration of services, involvement in care, and satisfaction with services provided through the Housing Pilot program (10.1.9). The surveys will be administered to MMA and prepaid dental plan members (2.1.5, 8.4.3), dual-eligible MMA plan members (5.1.6, 6.1.7) who were enrolled in an MMA standard or MMA specialty plan in the last 12 months, MMA new enrollees (9.1.2), MMA enrollees subject to the new retroactive enrollment policy (9.2.1 and 9.3.1), and plan members who participated in the Housing Assistance Pilot (10.1.9). Sources of survey questions are specific to the research questions and described in the sections below. Additional questions may be developed by the research teams upon written approval of the Agency.

Telephone surveys will be conducted by trained interviewers by phone. Participants will have the option to complete the surveys in English or Spanish. Telephone survey data will be analyzed by the research teams using SPSS V23, SAS, or Stata.

Four measures utilize CAHPS beneficiary surveys. The independent evaluator will use existing and/or historic CAHPS data administered by health plans in the analysis of these measures, depending on data availability. As these surveys have already been fielded and the data already exist, the independent evaluator will have limited influence over the sample sizes of these surveys. These previously administered CAHPS surveys (as well as future surveys) have followed (and will follow) the standard National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) Specifications for Survey Measures, which requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey and 1,650 for the CAHPS 5.0 Child Medicaid Health Plan Survey[15,16].

For the measures that rely on customized survey questions, a separate power calculation was conducted to determine the required sample sizes to assess various effect sizes; we chose to compare a 3 percent, 5 percent, and 10 percent proportional difference, which corresponds to 1.5, 2.5, and 5 percentage point change from 50 percent, respectively. Using a standard power level of 0.80, an alpha level of 0.05 and a two-sided test, we calculated the required sample sizes using both a chi-square test and z-test for difference in proportions.

Proportion Difference	Chi-square n	Z-test n
0.015	17,437	17,438
0.025	6,274	6,276

[15] HEDIS is a registered trademark of NCQA.
[16] National Committee for Quality Assurance. *HEDIS® 2021, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2021.

Proportion Difference	Chi-square n	Z-test n
0.05	1,565	1,566

A sample size that is powered to detect a proportional difference of 5 percent, a value that is appropriate given the proposed measures is ideal. However, this would require a total number of surveys of 41,861 (6,276 * 6.67), assuming a 15 percent response rate. However, since budgetary constraints are a concern, then 10,446 (1,566 * 6.67) total surveys will likely be used to detect a 10 percent proportional difference.

The State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate.

Provider surveys. It is expected that FHURS and HCRIS data will be available and sufficient to investigate RQ 11.2.3. However, provider surveys may be administered to answer RQ 11.2.3, if FHURS and/or HCRIS data are not available or do not sufficiently address the research question. In that event, provider surveys will be developed by the independent evaluator and power calculations provided in the interim and summative reports.

Qualitative issues and approaches for specific questions.

Research Questions 1.4.3 and 1.4.4
In addition to plan document reviews and interviews with plan experts, this component will review the *2015-2016 Florida Annual Performance Improvement Project Validation Summary Report* produced by the Health Services Advisory Group to identify specific performance improvement projects (PIPs) offered by health plans. During the in-depth interviews, experts will be specifically asked about their own performance improvement projects, including associated indicator rates. In addition, during the in-depth interviews experts will be asked to comment on which projects are most effective at improving quality and why they are effective.

Research Question 2.1.5
A random sample of MMA enrollees who used at least one expanded benefit during the previous 12 months will be included in this study.

Research Questions 6.1.6, 6.1.7, and 10.1.8
Experts in care coordination at the MMA and MMA specialty plans will include individuals at all 11 MMA standard plans and 4 of the MMA specialty plans. Among the MMA standard plans, Amerigroup, Better Health, and Simply are owned by the same parent company (Anthem) and share the same policies and procedures; these three plans will therefore be considered as a single unit for analysis (i.e., only one “Anthem” interview will be conducted, covering Amerigroup, Better Health, and Simply). Among the six MMA specialty plans, two will be excluded because they are specific to children and do not cover the dual-eligible population of interest in this study (Children’s Medical Services and Sunshine Child Welfare). The remaining four MMA specialty plans (Clear Health Alliance, Freedom Health, Magellan Complete Care, and Positive Health) will be included in this study. A total of 13 health plan units will be included in the analysis.

Research Questions 1.5.6 and 1.5.7
A stratified random sample of dual-eligible survey respondents will be selected from the populations of adult dual-eligible enrollees (18+ years) who were continuously enrolled in the

same MMA standard plan (Group 1) or MMA specialty plan (Group 2) during the 12 months prior to sampling.

The survey tool to be administered for research questions 1.5.6 and 1.5.7 may include: (1) items from the CAHPS Health Plan Survey for Medicaid, Version 4.0 supplemental set addressing health plan transportation, (2) the Experience of Care and Health Outcomes (ECHO) Survey – a validated survey tool from the Agency for Healthcare Research and Quality that assesses experiences with behavioral health care, (3) other questions on non-emergency transportation provided in correspondence with AHCA, and (4) questions from the Medicare Health Beneficiary Survey to collect information on self-reported health and functional status for dual-eligible members.
The survey will have the option to be completed by sampled members or (in cases where the member is physically or mentally unable to participate) by proxy respondents (such as family members) who are familiar with the member's health and health care.

Research Question 8.4.3
Sampling and other survey methods specific to RQ 8.4.3 will likely be similar to those used for RQs 2.1.5, 1.5.6 and 1.5.7and will be determined after more information on the operation and utilization rates of the prepaid dental health program becomes available.

Research Question 9.1.1
RQ 9A proposes to survey hospital and nursing facilities to determine their changes in enrollment application procedures following or in anticipation of the change in retroactive enrollment policy. Sampling and other survey methods for RQ 8.1.1 will likely be similar to those used for RQs 1.4.3 and 1.4.4.

Research Question 9.1.2
RQ 9.1.2will survey new MMA enrollees to measure their health status. Note: The lack of new enrollee health status data prior to the change in retroactive enrollment policy may limit the ability to conduct analyses of these data.

Research Question 9.2.1
RQ 9.2.1 examines enrollee understanding of the change in retroactive enrollment policy and the implications of this change for Medicaid coverage during enrollment gaps. The survey sampling frame for RQ 9.2.1 will include men and non-pregnant women as the population most likely to be impacted by the policy change. Both new and existing enrollees will be chosen at random for the survey since the retroactive policy change applies to both groups.

Research Question 9.3.1
RQ 9.3.1 examines enrollee perceptions of common barriers to timely renewal of Medicaid coverage following the change in retroactive enrollment policy. The survey sampling frame and inclusion criteria for RQ 9.3.1 will be the same as for RQ 9.2.1.

Research Questions 10.1.1, 10.1.2, 10.1.3, and 10.1.4
RQs 10.1.1, 10.1.3, 10.1.3, and 10.1.4 examine how participating MMA plans implemented the Housing Assistance Pilot. MMA plan staff with knowledge of the Pilot implementation process will be identified and administered qualitative surveys to assess steps used to implement the Pilot.

Research Question 10.1.8
RQ 10.1.8 examines whether care coordination is more effective for the study population as a result of the Housing Pilot program. Care coordinators at each participating MMA plan will

be selected to participate in qualitative surveys. Questions will address how plans measure care coordination and to identify relevant outcomes being measured by plans. This information will be subsequently used to assess the association of care coordination activities with relevant study outcomes using quantitative methods.

Research Question 11.1.1
Research Question 11.1.1 examines administrative costs incurred by the state to implement and operate the demonstration. Qualitative interviews will systematically gather information on administrative costs, particularly for understanding the allocation of state staff time required to launch and then maintain demonstration operations. They state may also conduct data collection through interviews and secondary sources on managed care administrative costs.

Research Question 11.2.3
Research Question 11.2.3 examines the impacts of eligibility and coverage policies on provider uncompensated care costs. The state-specific provider survey, will provide information about uncompensated care costs incurred by hospital and nonhospital providers, such as federally qualified health centers. The state will field surveys at baseline to understand changes after demonstration implementation.

Table 6. Design Table for the Evaluation of the Demonstration

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
Component 1: The effect of managed care on access to care, quality and efficiency of care, and the cost of care				
Q1.1.1: What barriers do enrollees encounter when accessing primary care services? Q1.1.2: What barriers do enrollees encounter when accessing preventive services?	-Frequencies of complaints, grievances, and appeals related to access to care	-MMA enrollees reporting complaints, and issues to (1) the Agency Complaints, Issues, Resolutions & Tracking System (CIRTS) or (2) individual plan reports of complaints, grievances, and appeals	-Agency Complaints, Issues, Resolutions & Tracking System (CIRTS) data -Plan data on frequencies of complaints, grievances, and appeals related to access to care -Medicaid Fair Hearing data	-Descriptive statistics and t-tests as applicable. Analyze overall ratings variables related to access to primary care and preventive services
Q1.2.1: What changes in the accessibility of services occur with MMA implementation, comparing accessibility in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) to MMA plans?	**-Standard measures and composites of the CAHPS survey:** -Getting Needed Care -Getting Care Quickly -Rate the Number of Doctors -Health Plan Information and Customer Service **- MMA program weighted HEDIS**	-MMA program as a whole compared to Reform and 1915 (b) waiver plans utilizing CAHPS data -MMA program weighted HEDIS means compared to the weighted means for Reform and 1915 (b) waiver plans prior to implementation of	-CAHPS, HEDIS, encounter data as necessary -NCQA Quality Compass Benchmarks -T-MSIS (for MMA program weighted HEDIS means measures)	-Synthetic controls -ITS -Descriptive statistics and t-tests as applicable. Analyze overall ratings variables related to accessibility of

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
	means: - Adolescent Well-Care Visits -Adults' Access to Preventive/Ambulatory Health Services (20-44 years, 45-64 years, 65+ years, Total) -Breast Cancer Screening -Cervical Cancer Screening -Childhood Immunization Status (Combo 2, Combo 3) Children and Adolescents' Access to Primary Care Practitioners (12-24 months, 25 mos-6 years, 7-11 years, 12-19 years) -Chlamydia Screening in Women (16-20 years, 21-24 years, Total) -HIV-Related Outpatient Medical Visits (2 visits ≥182 days apart) -Immunizations for Adolescents (Combo 1) -Lead Screening in Children -Prenatal and Postpartum Care (Timeliness of Prenatal Care, Postpartum Care) -Frequency of Ongoing Prenatal Care/Prenatal Care Frequency (≥ 81% of expected visits) -Transportation Availability -Well-Child Visits in the First 15 Months of Life (0 visits, 6+ visits) -Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	the MMA program		services
Q1.3.1: What changes in the utilization of services for enrollees are evident post-	Utilization: - Inpatient -Outpatient -ED -Professional	-Pre-MMA vs. MMA periods -Enrollees eligible for enrollment in a	-Medicaid claims, eligibility, enrollment, encounter data	-Synthetic controls -ITS

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
MMA implementation, comparing utilization of services in the pre-MMA period (FFS, Reform plans and pre-MMA 1915(b) waiver plans) to utilization of services in post-MMA implementation ? Q1.3.2: What changes in the utilization of services for enrollees are evident post-MMA implementation, comparing utilization of services in specialty MMA plans versus standard MMA plans for enrollees eligible for enrollment in a specialty plan (e.g., enrollees with HIV or SMI) who are enrolled in standard MMA plans versus enrollees in the specialty plans?	(Physician, Specialist)	specialty plan (e.g. enrollees with HIV or SMI) who are enrolled in standard MMA plans versus enrollees in specialty plans	-NCQA Quality Compass Benchmarks -T-MSIS	-Univariate analysis -Multivariate analysis. Multivariate controls will include age, gender, health status (to the extent possible), and race/ethnicity
Q1.4.3: What strategies are standard MMA and specialty MMA plans using to improve quality of care? Q1.4.4: Which of the strategies used by standard MMA and specialty MMA plans are	-Descriptions of Performance Improvement Projects (PIPs), including their objectives, interventions, and outcomes -Themes from qualitative interviews with plan experts on quality of care	-Standard plan populations -Specialty plan populations -Populations outlined in PIPs -Representatives of MMA and MMA specialty plans	-EQRO reports and plan PIPs as available. -Qualitative Interviews	-Descriptive analyses -Qualitative analyses (interviews with health plan Quality Improvement contacts)

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
most effective in improving quality and why?				
Q1.5.1: What changes in timeliness of services occur with MMA implementation, comparing timeliness of services in pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) to post-MMA implementation plans?	-Standard measures and composites of the CAHPS survey: -Getting Care Quickly -Average PCP appointment wait times for urgent care, routine sick visits, and well care visits -MMA program weighted HEDIS and other performance measure means: -Prenatal and Postpartum care (Prenatal, Postpartum)	-MMA program as a whole compared to Reform and 1915 (b) waiver plans for CAHPS timeliness of services data -Pre-MMA implementation plans (Reform plans and 1915(b) waiver plans) and post-MMA implementation plans -Comparison of Florida MMA program weighted means to Medicaid National Means and Percentiles for HEDIS measures	-CAHPS (Adult and Child): Getting Care Quickly survey measure -Timely Access PCP Wait Times report -HEDIS measures related to timeliness of services -Non-Emergency Transportation Timeliness Report -NCQA Quality Compass Benchmarks -T-MSIS (for PPC measure)	-Synthetic controls -ITS -Descriptive statistics and t-test. Analyze overall ratings variables related to enrollee perceptions of timeliness of services (e.g., getting care quickly, timeliness of prenatal care, postpartum care and transportation timeliness)
Q1.6.1: What is the difference in per-enrollee cost by eligibility group pre-MMA implementation (FFS, Reform plans and pre-MMA 1915(b) waiver plans) compared to per-enrollee costs in the MMA period (MMA plans as a whole, standard MMA plans and specialty MMA plans)?	-Per-member per-month expenditures as measured by monthly risk-adjusted capitated payment to plans	-Pre-MMA beneficiaries enrolled in FFS, Reform and 1915 (b) waiver plans at any point in time during DY8 -Beneficiaries in MMA plans at any point in time during DY9- DY16	-Medicaid FFS and capitation claims, Medicaid eligibility data	-Univariate analysis -Multivariate regression and interrupted time series analyses (as appropriate) to assess PMPM expenditures before and after implementation of the MMA program as well as across standard MMA and specialty MMA plans. Evaluators will examine trends in PMPM expenditures over time. Multivariate controls will include age,

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
				gender, risk score, and race/ethnicity.
Component 2: The effect of customized benefit plans on beneficiaries' choice of plans, access to care, or quality of care				
Q2.1.1: What is the difference in the types of expanded benefits offered by standard MMA and specialty MMA plans? Q2.1.2: How do plans tailor the types of expanded benefits to particular populations?	-Descriptive statistics of plan benefits over time, including the number of expanded benefits offered per plan, as well as the average number of expanded benefits across plans, for both specialty and standard MMA plans	-Standard and specialty plans that offer expanded benefits	-Health plan choice materials and Agency quarterly and annual reports to Federal CMS; evaluators will use these data sources to identify any expanded/additional services plans cover -Other health plan benefit data as identified	-Descriptive analyses
Q2.1.3: How many enrollees utilize expanded benefits? Q2.1.4: Which expended benefits are enrollees most commonly using?	-Number of enrollees that use expanded benefits. -Expanded benefits that are used most frequently by enrollees.	-Users of expanded benefits	-Encounter data -Data on the types of expanded benefits offered by each plan.	-Descriptive analyses
Q2.2.1: How does Emergency Department (ED) and inpatient hospital utilization differ for those enrollees who use expanded benefits (e.g. additional vaccines, physician home visits, extra outpatient services, extra primary care and prenatal/perinatal visits, and over-the-counter drugs/supplies) compared to those enrollees who do not?	-ED utilization -Inpatient hospitalizations	-Users of expanded benefits vs non-users of expanded benefits	-Encounter data	-ITS with comparison group -Multivariate analyses, when applicable & to the extent possible
Beginning with the evaluation of DY11 (SFY 2016-17) Q2.1.5: How do	-Enrollee satisfaction with expanded benefits	-Health plan enrollees	-Surveys	-Qualitative analyses

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
enrollees rate their experiences and satisfaction with the expanded benefits that are offered by their health plan?				
Component 3: Participation in the Healthy Behaviors programs and its effect on participant behavior or health status				
Q3.1.1: What Healthy Behaviors programs do MMA plans offer? Q3.1.2: What types of programs are offered in addition to the three required programs (medically approved smoking cessation program, the medically directed weight loss program, and the medically approved alcohol or substance abuse treatment program)?	-Types and number of Healthy Behaviors programs	-MMA standard and specialty plans	-MMA managed care plan reports	-Descriptive analyses
Q3.2.1: What incentives and rewards do MMA plans offer to their enrollees for participating in Healthy Behaviors programs?	-Incentives and rewards offered by the plans to enrollees participating in HB programs.	-MMA standard and specialty plans	-MMA managed care reports on healthy behaviors	-Descriptive analyses

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
Q3.1.4: How many enrollees participate in each Healthy Behaviors program? Q3.1.5: How many enrollees complete Healthy Behaviors programs? Q3.1.6: Which types of Healthy Behaviors programs attract higher numbers of participants? Q3.4.1: What differences in service utilization occur over the course of the demonstration for enrollees participating in Healthy Behaviors programs versus enrollees not participating (DY13 and beyond)?	-Healthy Behaviors enrollees (gender, age) -Healthy Behaviors enrollees (race/ethnicity, health status beginning with the evaluation of DY13 – SFY 2018-19) -Healthy Behaviors program types - Service utilization (evaluation of DY13 and beyond)	-Healthy Behaviors program enrollees	-Healthy Behaviors plan summary reports, quarterly -Individual data, DY13 and beyond	-Descriptive analyses -Multivariate analyses for 3E, DY13 and beyond
Component 4: The impact of LIP funding on hospital charity care programs				
For the evaluation of DY10 (SFY 2015-16) only Q4.1.1: How many Medicaid recipients receive services in LIP funded hospitals? Q4.1.2: How many uninsured recipients receive services in LIP funded hospitals? Q4.1.3: How many underinsured recipients receive services in LIP funded hospitals?	-Number of uninsured/underinsured patient served in LIP funded hospitals in DY10	-Hospitals that received LIP funding in DY10	-LIP providers -Payment amounts and type of payments (category) made to each provider. -"Annual Milestone Data": number of uncompensated care/uninsured patients served, types and number of uncompensated care services and encounters provided to the uninsured	-Descriptive statistics and univariate analyses as applicable and to the extent possible

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
For the evaluation of DY10 (SFY 2015-16) only Q4.2.1: What types of services are being provided to Medicaid recipients receiving care in LIP funded hospitals?	-Number and types of services provided to uninsured/underinsured patients served in LIP funded hospitals in DY10	-Hospitals that received LIP funding in DY10	- LIP providers -"Annual Milestone Data": number of uncompensated care/uninsured patients served, types and number of uncompensated care services and encounters provided to the uninsured	-Descriptive statistics and univariate analyses as applicable
Beginning with the evaluation of DY11 (SFY 2016-17) Q4.3.1: How many uncompensated charity care recipients receive services in LIP funded hospitals? Q4.3.2: How does the number of uncompensated charity care recipients receiving services in LIP funded hospitals compare among hospitals in different tiers of LIP funding? Q4.3.3: What types of services are being provided to uncompensated charity care recipients receiving care in LIP funded hospitals? Q4.3.4: What is the difference in the type and number of services offered to uncompensated charity care patients in hospitals receiving LIP funding?	-Volume of services provided to uninsured patients: adjusted days (total inpatient days adjusted by patient-care revenues for outpatient services) -Dollar amount of charity care provided: gross revenue, net revenue, operating expense	-All organizations receiving LIP funding beginning with the evaluation of DY11	-FHURS data: annual financial and utilization statistics for hospitals (include gross revenues & net revenues for uncompensated care patients, and operating expenses) -LIP data: LIP providers -Payment amounts and type of payments (category) made to each provider -LIP funding tiers including the specific organizations included in each tier -"Annual Milestone Data": number of uncompensated care/uninsured patients served, types and number of uncompensated care services and encounters provided to the uninsured -Medicare cost reports	-Descriptive statistics and univariate analyses as applicable

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
			--DSH reporting data as available - Information on hospital charity care programs (policies, procedures, descriptions etc.)	
Beginning with the evaluation of DY12 (SFY 2017-18) Q4.4.1: What is the impact of LIP funding on the number of uncompensated charity care patients served in FQHCs, RHCs, and medical school physician practices? Q4.4.2: What is the impact of LIP funding on the types of services provided for uncompensated charity care patients served in FQHCs, RHCs, and medical school physician practices?	-Number of uncompensated charity care patients served -Types of services provided for each provider within each provider type category	-LIP funded FQHCS, RHCs, and medical school physician practices	-Number of uncompensated charity care patients served and the types of services provided in FQHCs, RHCs, and medical school physician practices -FHURS data: annual financial and utilization statistics for hospitals (include gross revenues & net revenues for uncompensated care patients, and operating expenses) - Payment amounts and type of payments (category) made to each provider - LIP funding tiers including the specific organizations included in each tier -"Annual Milestone Data": number of uncompensated care/uninsured patients served, types and number of	-Descriptive and univariate analyses, to the extent possible

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
			uncompensated care services and encounters provided to the uninsured - Medicare cost reports - DSH reporting data as available	
Component 6: The impact of efforts to align with Medicare and improving beneficiary experiences and outcomes for dual eligible individuals				
Q6.1.1: How many MMA enrollees are also Medicare recipients (dual-eligible)? Q6.1.2: To what extent do dual-eligible enrollees utilize behavioral health services? Q6.1.3: To what extent do dual-eligible enrollees utilize non-emergency transportation services? Q6.1.4: What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for behavioral health services for dual-eligible enrollees? Q6.1.5: What specific care coordination strategies and practices are most effective for ensuring access to and quality of care for non-emergency transportation	-Enrollee counts (6A) -Content analysis results for plans' care coordination practices related to behavioral health and non-emergency transportation services -Qualitative themes from interviews with plan experts on care coordination -CAHPS measures of experience and satisfaction with delivery of non- emergency transportation services; and ECHO measures of experience and satisfaction with behavioral health services	-Representatives of MMA and MMA specialty plans (care coordination experts) -Dual-eligible members in MMA and MMA specialty plans	-Medicaid encounter, eligibility, and enrollment data -Florida Health Data Center hospital and emergency department encounter data for dual-eligibles receiving care under Medicare auspices -MMA and MMA specialty plan P&P documents on coordination of behavioral health and non-emergency transportation services - Follow up Qualitative Interviews - Medicaid eligibility and enrollment data for telephone interview-eligible sample pool of dual-eligibles - Telephone survey results (frequencies for response categories for	-Descriptive analysis -Qualitative analysis using Atlas Ti, grounded theory and content analysis for plan care coordination experts -Descriptive analysis of telephone interview data

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
services for dual-eligible enrollees? Q6.1.6: How do dual-eligible enrollees rate their experience and satisfaction with delivery of care they received related to behavioral health services? Q6.1.7: How do dual-eligible enrollees rate their experience and satisfaction with delivery of care they received related to non-emergency transportation services?			each question)	
Component 7: The effectiveness of enrolling individuals into a managed care plan upon eligibility determination in connecting beneficiaries with care in a timely manner				
Q7.1.1: How quickly do new enrollees access services, including expanded benefits in excess of State Plan covered benefits, after becoming Medicaid eligible and enrolling in a health plan? Q7.1.2: Among new enrollees, what is the time to access services for enrollees who are enrolled under Express Enrollment compared to enrollees who were enrolled prior to the implementation of Express Enrollment?	-Time to access services from enrollment date to date of first service use	New MMA enrollees (7.1.1, 7.1.2) New Medicaid enrollees in pre-MMA HMO and PSN plans in DY7 (7.1.2) -New MMA enrollees who selected their MMA plan (7.1.1) -New MMA enrollees who were auto-enrolled in an MMA plan (7.1.1) -New MMA enrollees who switched plans within 120 days of initial enrollment (7.1.1)	-Eligibility and Encounter data -Enrollment data that indicates auto- enrolled vs. enrollee-selected and whether the enrollee switched plans within 120 days	-Descriptive statistics and t-tests as applicable

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
		-New MMA enrollees who did not switch plans within 120 days of initial enrollment (7.1.1)		
Component 8: The effect the Statewide Medicaid Prepaid Dental Health Program has on accessibility, quality, utilization, and cost of dental health care services				
Q8.1.1: How does enrollee utilization of dental health services vary by age, gender, race/ethnicity, and geographic area? Q8.2.1: What changes in dental health service utilization occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?	Dental Utilization: - Inpatient -Outpatient -ED -Professional (Physician, Specialist)	-Pre-PDHP period for the two SFYs immediately preceding SMPDHP implementation -PDHP period for SFYs following establishment of prepaid dental program -Enrollees eligible for enrollment in a prepaid dental plan	-Medicaid claims, eligibility, enrollment, encounter data for dental services	-ITS -Univariate analysis -Multivariate analysis. Multivariate controls will include age, gender, health status (to the extent possible), and race/ethnicity.
Q8.2.1: What changes in dental health service utilization occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?	**-Dental performance measures listed in Table 3:** -Annual Dental Visit -Dental Treatment Services -Sealants for 6–9-Year-old Children at Elevated Caries Risk -Preventative Dental Services **The following four performance measures were not reported by plans prior to PDHP:** -Oral Evaluation -Topical Fluoride for Children at Elevated Caries Risk -Ambulatory Care Sensitive Emergency Department Visits for	-Pre-PDHP period for the two SFYs immediately preceding PDHP implementation -PDHP period for SFYs following establishment of prepaid dental program -Child enrollees eligible for enrollment in a prepaid dental plan	-PDHP performance measure reports to the Agency	-Univariate analyses of temporal changes in dental quality measures using statistical tests of changes

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
	Dental Caries in Children -Follow-up after Emergency Department Visits for Dental Caries in Children			
Q8.2.3: What changes in the accessibility of dental services occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?	**-Measures from CAHPS Dental Survey related to Access to Services (see Table 3):** -Percentage of respondents reporting their dental appointments are usually or always as soon as they want (vs. sometimes or never) - Percentage of respondents reporting they usually or always get an appointment with their dental specialist as soon as they want (vs. sometimes or never) - Percentage of respondents reporting they usually or always spend 15 minutes or less in the waiting room before seeing someone for their appointment (vs. sometimes or never) -Percentage of respondents reporting someone usually or always tells them why there is a delay or how long the delay will be if they have to wait more than 15 minutes in the waiting room before being seen for an appointment (vs. sometimes or never) - Percentage of respondents answering "somewhat yes" or "definitely yes" when asked whether they get to see a dentist as soon as they want if they have a dental emergency (vs.	-PDHP program CAHPS access to care results examined over time	-CAHPS data described in Table 3 -NCQA Quality Compass benchmarks	-ITS -Comparison to benchmarks -Descriptive statistics and t-tests as applicable. Analyze overall ratings variables related to accessibility of services

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
	"somewhat no" or "definitely no")			
Q8.3.1: What barriers do enrollees encounter when accessing dental health services?	-Frequencies of complaints, grievances, and appeals related to access to care for dental services	- Statewide Medicaid Prepaid Dental Health Program enrollees reporting complaints, and issues to (1) the Agency Complaints, Issues, Resolutions & Tracking System (CIRTS) or (2) individual plan reports of complaints, grievances, and appeals	-Agency Complaints, Issues, Resolutions & Tracking System (CIRTS) data -Dental plan data on frequencies of complaints, grievances, and appeals related to access to care - Medicaid Fair Hearing data	-Descriptive statistics and t-tests as applicable. Analyze overall ratings variables related to access to primary care and preventive services
Q8.4.1: How many enrollees utilize expanded benefits provided by the dental health plans? Q8.4.2: Which expended benefits provided by the dental health plans are most commonly used by enrollees?	- Number of dental plan enrollees that use expanded dental benefits -Expanded dental benefits that are used most frequently by dental enrollees	-Users of expanded dental benefits	-Dental encounter data -Data on the types of expanded benefits offered by each dental plan.	-Descriptive analyses
Q8.5.1: How does enrollee utilization of dental health services impact dental-related hospital events (e.g., Emergency Department, Inpatient hospitalization)? Q8.5.2: How does utilization of expanded benefits offered by the dental health plans impact dental-related hospital events?	-Medicaid dental encounter records for dental plan enrollees merged by Medicaid enrollee ID with MMA encounter records for hospital ED and inpatient use -Rates of dental service utilization and associated dental-related hospitalizations	-Statewide Medicaid Prepaid Dental Health Program enrollees who also use MMA services	-Medicaid dental and medical encounter data, eligibility, enrollment, encounter data	-Univariate analysis -Multivariate analysis. Multivariate controls will include age, gender, health status (to the extent possible), and race/ethnicity
Q8.6.1: What changes in per-enrollee cost for dental health services occur with	-Per-member per-month expenditures as measured by monthly risk-adjusted capitated payment to plans	-Pre-PDHP beneficiaries enrolled in FFS, Reform and 1915 (b) waiver plans	-Medicaid FFS and capitation claims related to dental services	-Univariate analysis -Multivariate regression and

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
the implementation of the Statewide Medicaid Prepaid Dental Health Program?		at any point in time during pre-PDHP period -PDHP beneficiaries in dental plans following PDHP roll-out	-Medicaid and dental eligibility data	interrupted time series analyses (as appropriate) to assess PMPM expenditures before and after implementation of the PDHP program. Evaluators will examine trends in PMPM expenditures over time. Multivariate controls will include age, gender, risk score, and race/ethnicity
Q8.3.2: How do enrollees rate their experiences and satisfaction with dental health services, including timeliness of dental health services, provided by their dental health plans?	-CAHPS dental survey Measures as listed in this table for Question 8.2.3	-PDHP program child enrollees	-CAHPS Dental Services Survey -NCQA Quality Compass benchmarks	-Descriptive statistics and t-test. Analyze overall ratings variables related to enrollee perceptions of timeliness of Services -ITS -Comparison t benchmarks
Q8.4.3: How do enrollees rate their experiences and satisfaction with the expanded benefits offered by their dental health plans?	-Enrollee satisfaction with expanded benefits	-PDHP plan enrollees	-Surveys	-Qualitative analyses
Component 9: The impact of the waiver of retroactive eligibility on beneficiaries and providers.				
Q9.1.1: How will eliminating retroactive eligibility change enrollment continuity?	-Pre-post changes in the probability of enrollment renewal for Medicaid cohorts both before and after the policy change -Qualitative information on how hospitals and nursing facilities have changed their enrollment procedures following	-Enrollment renewal data for (1) Medicaid enrollee cohorts prior to January 2019 (last month prior to policy change) and (2) Medicaid enrollee cohorts following January 2019 up until the last month available after the policy change	-Primary: Medicaid eligibility and enrollment data -Secondary: Qualitative results of surveys/interviews of hospital and nursing facility administrators for context.	-ITS -Pre-post logistic regressions of enrollment renewal controlling for demographics (age and sex), eligibility group, health status (Clinical Risk Group), and retroactive

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
	or in anticipation of the policy change			enrollment policy.
Q9.1.2: How will eliminating retroactive eligibility change the enrollment of eligible people when they are healthy relative to those eligible people who have the option of retroactive eligibility?	-Self-assessed health status based on new enrollee survey or -SF-12 scores (beneficiary survey #1; under development)	-New Medicaid enrollees	-Beneficiary survey #1 (under development) on new enrollees re self-assessed health status and possibly SF-12 health status instrument. (See Appendix II, Table A-1) **NOTE: To the best of the evaluation team's knowledge, there does not exist a source for self-assessed health status or SF-12 scores from new Medicaid enrollees prior to the policy change. This precludes our ability to address this research question.**	-Difference-in-differences testing (if possible) or pre-post statistical models (if possible) of self-assessed health status and/or SF-12 scores -The evaluation team will also explore administering the SF-12 tool
Q9.1.3: How will eliminating retroactive eligibility affect new enrollee financial burden?	-(1) Individual new enrollee medical debt verified by collection agencies prior to the new enrollee's application date.	-New Medicaid enrollees	Credit reporting data on new Medicaid enrollee medical and non-medical debt immediately prior to enrollment in Medicaid. Data obtained via contract from TransUnion LLC	-(1) Modified difference-in-differences models (as explained in Attachment 6) or interrupted time-series models of total and medical debt credit reporting data
Q9.1.4: How will eliminating retroactive eligibility affect provider uncompensated care amounts? Q9.1.5: How will eliminating retroactive eligibility affect provider financial performance (income after expenses)?	-Hospital and SNF Uncompensated Care Expenditures -Hospital and SNF net income and rates of return -Hospital net change impact of UCC: UCC – LIP payments Hospital and SNF Uncompensated Care Expenditures	- Florida hospital and SNFs serving Medicaid enrollees	- CMS Healthcare Cost Report Information System (HCRIS) Hospital and Skilled Nursing Facility datasets (when available for 2019) - Florida Hospital Uniform Reporting System (FHURS) (if HCRIS data post policy change is	-Difference-in-Differences models (if possible) or pre-post statistical models examining uncompensated care amounts, net income/rates of return, and uncompensated care net of LIP payments

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
Q9.1.6: How will eliminating retroactive eligibility affect the net financial impact of uncompensated care (UCC – LIP payments)?	-Hospital and SNF net income and rates of return -Hospital net change impact of UCC: UCC – LIP payments		unavailable) - Florida Low Income Pool expenditure reports **Note: FHURS data is available approximately 180 days (or 6 months) after the fiscal year ends for each hospital.**	
Q9.2.1: Do beneficiaries subject to the retroactive eligibility waiver understand that they will not be covered during enrollment gaps? Q9.3.1: What are common barriers to timely renewal for those subject to the retroactive eligibility waiver?	-Beneficiary responses on beneficiary survey #2 to questions pertaining to their (1) understanding of the change in retroactive enrollment policy and its implications for their Medicaid coverage during enrollment gaps and (2) perceptions of common barriers to timely renewal	-Random telephone sample of Medicaid enrollees subject to the new retroactive enrollment policy (i.e., male and non-pregnant women)	-Beneficiary Survey #2 dealing with understanding of the policy change and common barriers to timely renewal. -Beneficiary Survey #2 is under development and will be submitted to CMS for review and approval prior to fielding.	-Descriptive tabulations and cross-tabulations of question responses by sex, age group, and enrollment length.
Q9.4.1**:** Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?	- Percentage of Medicaid Enrollees by Eligibility Group Out of Estimated Eligible Medicaid Recipients -Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid -Number of Medicaid Enrollees Per Month by Eligibility Group and/or Per-Capita of State -Number of New Medicaid Enrollees Per Month by Eligibility Group, as Identified by Those Without a Recent Spell of Medicaid Coverage	Medicaid Eligibility Groups as identifiable in ACS data and MMIS data	Integrated Public Use Microdata Series American Community Survey	-ITS -Difference-in-differences (if out-of-state or multiple state data are available) -Pre-test and post-test -Descriptive time series

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
Component 10: The impact of the behavioral health and supportive housing assistance pilot on beneficiaries who are 21 and older with serious mental illness (SMI), substance use disorder (SUD) or SMI with co-occurring SUD, and are homeless or at risk of homelessness due to their disability. (This component will begin with DY 14 through DY 19 unless CMS grants an extension of the housing pilot.)				
Q10.1.1: How many MMA plans participate in the Housing Assistance Pilot program? Q10.1.2: How many enrollees are participating in the Housing Assistance Pilot, by plan? Q10.1.3: How does participation in the Housing Assistance Pilot vary by gender, age, race/ethnicity and health status of enrollees? Q10.1.4: How did MMA plans implement the Pilot programs?	-Total number of participating MMA plans -Total number of enrollees receiving housing assistance services per plan -Total number of enrollees receiving housing assistance services by gender, age, race/ethnicity -Total number and type of services and diagnosis code(s) each enrollee had one year prior to entering the program and while in the program - Implementation processes used by participating MMA plans	-MMA enrollees receiving housing assistance services -MMA program staff involved with the implementation process	-Enrollee Roster Report submitted by MMA plans -Qualitative interview to assess implementation	-Descriptive statistics (means, medians, standard deviations, etc.) -Descriptive tabulations of question responses from qualitative interviews
Q10.1.5: What is the frequency of use for the specific services (transitional housing services, mobile crisis services, peer support, tenancy services) offered by the housing assistance program by plan? Q10.1.6: What is the duration of use for the specific services (transitional housing services, mobile crisis services, peer support, tenancy services) offered by the housing assistance program by plan? Q10.1.7: What is the proportion of enrollees who are successfully	-Total number of enrollees using transitional housing services -Total number of enrollees using mobile crisis services -Total number of enrollees using peer support -Total number of enrollees using tenancy services	-MMA enrollees receiving housing assistance services	-Enrollee Roster Report submitted by MMA plans	-Descriptive statistics (means, medians, standard deviations, etc.)

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
discharged from the Pilot but subsequently become homeless again and resume using services?				
Q10.2.1: Based on Medicaid data submitted by the MMA plans, do enrollees in the study population have fewer avoidable hospitalizations and emergency department visits than they did prior to receiving housing assistance services?	-Total number of potentially preventable hospitalizations per enrollee -Total number of potentially preventable emergency department visits per enrollee	-MMA enrollees with a diagnosis of SMI and homeless or at risk of being homeless	-Medicaid claims, eligibility, enrollment and encounter data - Enrollee Roster Report submitted by MMA plans to identify enrollees using housing assistance services	-Difference-in-difference multivariate analyses comparing changes in utilization rates between the population enrolled in MMA plans offering housing assistance services who are participating in the pilot program and enrollees in the same MMA plans who are eligible for the pilot program but are placed on a waiting list and are not yet participating in the pilot program
Q10.3.1: Are there changes in utilization of MMA services (specifically PCP visits, Outpatient visits, pharmacy services and behavioral health services) in the study population compared to their service utilization prior to participation in the Pilot program?	-Total number of PCP visits per enrollee -Total number of outpatient visits per enrollee -Total number of pharmacy claims per enrollee -Total number of behavioral health service visits per enrollee	-MMA enrollees with SMI who are homeless or at risk of being homeless	-Medicaid claims and encounter data, specifically looking at utilization of PCP visits, outpatient visits, pharmacy services and behavioral health services - Enrollee Roster Report submitted by MMA plans to identify enrollees using housing assistance services	-Difference-in-difference multivariate analyses comparing changes in utilization rates between the population enrolled in MMA plans offering housing assistance services who are participating in the pilot program and enrollees in the same MMA plans who are eligible for the pilot program but are placed on a waiting list and are not yet participating in the pilot program
Q10.1.8: Is care coordination more effective for the study population as a result of the Pilot program?	-Qualitative assessment of care coordination effectiveness before and after implementation of the Pilot program -Percentage of participants achieving housing permanency -Percentage of participants who days of homelessness were reduced	-MMA plan staff with knowledge of care coordination conducted by the plan -Pilot Participants	-Qualitative data based on survey responses to a Vendor-created survey of MMA staff, including Care Coordinators -Participating MMA plans roster reports	-Descriptive statistics

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
	-Percentage of participants diagnosed with a substance use disorder receiving medication assistance treatment -percentage of participants with serious mental illness who are compliant with medication management requirements			
Q10.1.9: What are enrollee experiences with the Pilot program, including whether service needs were met, their experiences with integration of services, involvement in their care, and satisfaction with the services provided?	-Pilot program participants responses to questions pertaining to service needs, integration of care, involvement in care, and satisfactions with services	-Housing Assistance Pilot program participants	-Responses to Vendor-created survey assessing experiences and satisfaction with services provided through the Pilot program.	-Descriptive Statistics
Q10.1.10: What are the costs of the Pilot program, including the costs of services provided to enrollees and the costs to administer the program?	-Per-member-per-month expenditures as measured by paid amounts on encounter data. -Program administrative costs reported by participating MMA plans and AHCA	-Housing Assistance Pilot program participants -Enrollees placed on the waiting list for the Housing Assistance Pilot program	-Medicaid encounter data -Administrative costs reported by participating MMA plans and AHCA	-Univariate analysis -Multivariate regression analysis using a difference-in-difference approach to compare changes in expenditures before and after implementation of the Housing Assistance Pilot.
Component 11: Investigate cost outcomes for the demonstration as a whole, including but not limited to: administrative costs of demonstration implementation and operation, Medicaid health service expenditures, and provider uncompensated costs. Finally, the state must use results of hypothesis tests and cost analyses to assess demonstration effects on Medicaid program sustainability.				
Q11.1.1: What are the administrative costs incurred by the state to implement and operate the demonstration?	-Administrative costs associated with (1) implementation and (2) operation of the demonstration	-No comparison group per CMS guidance	-Current and past Agency budgets. Statewide Medicaid Monthly Enrollment Reports. Qualitative interviews of state agency staff.	-Estimates of fixed and variable administrative costs based on statistical models related administrative costs to enrollment levels.
Q11.2.1: What are the short-term effects of eligibility and coverage policies on Medicaid health service expenditures?	-Longitudinal health services expenditures per member per month (PMPM) for pre-MMA and MMA periods	-Medicaid enrollees assigned to the demonstration and those who would have been assigned to the demonstration in the pre-MMA period.	-Amount paid to providers from Medicaid claims and encounter files during pre-MMA and MMA periods, respectively.	-Two-part cost PMPM regression models controlling for enrollee sociodemographics, risk score, and the presence of the demonstration.

Research Question	Outcome Measures Used	Sample or Population Subgroups Compared	Data Sources	Analytic Methods
Q11.2.2: What are the long-term effects of eligibility and coverage policies on Medicaid health service expenditures?				
Q11.2.3: What are the impacts of eligibility and coverage policies on provider uncompensated care costs?	-Uncompensated care costs for hospitals and nursing homes in Florida by year for the pre-MMA and MMA periods.	-Florida hospital and nursing home providers in the FHURS and HCRIS.	-Florida Hospital Uniform Reporting Systems (FHURS) and Healthcare Cost Report Information System (HCRIS). Provider surveys.	-Statistical cost models examining provider uncompensated care costs as a function of patient and hospital characteristics.
Q11.2.4: What are the impacts of eligibility and coverage policies on combined total costs (administrative, health services, and provider uncompensated care costs)?	-Outcome measures for 11.1.1, 11.2.1, 11.2.2, and 11.2.3, i.e., administrative and health services expenditures as well as provider uncompensated care costs.	-Annual Medicaid enrollee and user cohorts along with annual Medicaid hospital and nursing home providers	-Agency budgets Medicaid encounters FHURS and HCRIS	-Accounting tallies and analyses will be applied to the results of RQ 11.1.1-11.2.3 to reach a conclusion about the overall impact of the demonstration on combined total costs.

D. Methodological Limitations

Limitations of the evaluation include the design, the data sources or collection process, analytic methods and the state's efforts to minimize the limitations. Additionally, this section includes information about features of the demonstration that effectively present methodological constraints the state would like CMS to consider in its review.

- Current and subsequent years will continue to show that the MMA demonstration remains non-complex and mostly unchanged; therefore, evaluation results may be limited in providing additional or divergent findings from prior evaluations. In addition, the MMA program continues to operate smoothly without administration changes, with minimal appeals and grievances, and with no known issues with CMS 64 reporting or budget neutrality. Consequently, the new STCs were modified to simplify and streamline the state's reporting requirements to CMS, moving from quarterly to annual reporting. In addition, monthly calls with CMS are now on a periodic basis as the need is determined.

- Individual level Healthy Behaviors data were available beginning with the evaluation of DY13. However, the lack of individual level Healthy Behaviors data for the evaluations of DY10, DY11 and DY12 was a limitation because service utilization patterns will not be known for specific enrollees. For example, it was not possible to know if participation in the program results in more appropriate use of services if the ability to link to individual enrollment, encounter and claims data is not possible.

- Dental CAHPS became available in July 2021 and will be used to address RQ 8.2.3 (What changes in the accessibility of dental health services occur with the implementation of the Statewide Medicaid Prepaid Dental Health Program?) and/or RQ 8.3.2 (How do enrollees rate their experiences and satisfaction with dental health services, including timeliness of dental health services, provided by their dental health plan?)

Also, responses from dual-eligibles to telephone interviews concerning their assessments of their health care may unavoidably reflect a combination of Medicare and Medicaid experiences for behavioral health services.

Florida implemented the MMA program statewide over a period of three months and enrolled the great majority of Florida Medicaid recipients into MMA at that time. Consequently, there does not exist an appropriate comparison group within Florida Medicaid following the implementation of the MMA program. This poses major issues for conducting either a standard difference-in-differences or propensity score matching analysis. Standard difference-in-differences analysis requires data on both treatment and comparison groups both prior to and subsequent to the implementation of the MMA program. Florida's shift of the vast majority of its Medicaid recipients into the MMA program over a very short period of time precludes identifying a comparison group from within Florida Medicaid post-implementation. While other groups (e.g., the privately insured in Florida or other states' Medicaid enrollees) could furnish a comparison group, such diverse groups are likely to violate the parallel slopes assumption of difference-in- differences since they will be subject to different spatial and temporal trends than MMA enrollees.

Using such heterogeneous groups for propensity score matching to the MMA population poses similar challenges since such groups have intrinsic differences in geographical location and insurance coverage provisions that cannot be controlled through matching.

A significant limitation in evaluating retroactive enrollment (Component 9) is the inability to identify enrollees after the policy change who would have been eligible for retroactive enrollment under the rules in effect prior to the policy change. The Agency estimates that only a small percentage of new non-pregnant Medicaid enrollees qualified for retroactive enrollment prior to the policy change. Consequently, the statistical precision of any effect of the policy change on current new enrollees who would have qualified for retroactive enrollment under the previous policy will likely be reduced by the presence of the large number of current new enrollees who would have been ineligible for retroactive enrollment under the previous policy.

E. Attachments

1. Independent Evaluator.

In 2022, the Agency contracted with Health Services Advisory Group, Inc. (HSAG) to conduct the independent evaluation of the MMA program. The Agency provided HSAG with a description of the objectives and have approved the evaluation design. The principal investigator is Paul Niemann, PhD, whose contact information is provided below:

Paul Niemann, PhD
Director
Data Science & Advanced Analytics
Health Services Advisory Group, Inc.
303-570-2588 | pniemann@hsag.com

2. No Conflict of Interest.

The state has assured that the Independent Evaluator will conduct a fair and impartial evaluation, will prepare an objective Evaluation Report, and that there will be no conflict of interest. "Conflict of Interest" statements have been signed by appropriate Agency staff attesting to the following: No immediate family or business partners have financial interest in the vendor; no immediate family or business partners have a personal relationship with the vendor or their representatives; no gratuities, favors, or anything of monetary value has been offered to or accepted by the vendor or their representatives; no state parties have been employed by the vendor within the past 24 months; no discussions to seek or accept future employment with the vendor or their representatives; and, no other conditions exist which may cause conflict of interest.

3. Evaluation Budget.

The costs presented in the table below include the total estimated cost, as well as a breakout of estimated staff, administrative, and other costs for each aspect of the evaluation. The following describes the activities that will be performed under each activity description.

- Key Informant Interviews – costs include protocol development, outreach to potential interviewees, conducting interviews, and synthesis of results.
- Provider Focus Groups/Surveys – similar to key informant interviews, costs include protocol development, outreach to potential interviewees, conducting interviews, and synthesis of results.
- Member/Beneficiary Surveys – ***Staff/Administrative*** costs include development of survey instruments, sampling protocols, monitoring response rates, and high level synthesis of results. ***Other*** costs include direct costs of conducting the survey (e.g., printing, postage, and computer-assisted telephone interviewing).
- Measure Calculation – costs include development of detailed measure specifications, data acquisition and validation, as well as measure coding, calculation, and validation.
- Analysis and Reporting – ***Analysis*** costs include synthesis of qualitative and quantitative data and results, statistical analyses, and hypothesis testing, as well as triangulation of results across all data sources, measures, and hypotheses. ***Reporting*** costs include drafting the interim and summative draft and final reports, in addition to the annual monitoring reports.

Evaluation Area/Task	Interim Report 1	Interim Report 2	Interim Report 3	Final Summative Report
Key Informant Interviews				
Staff Costs	$ 53,295	$ 43,605	$ 43,605	$ 53,295
Administrative Costs	$ 40,205	$ 32,895	$ 32,895	$ 40,205
Other Costs	$ -	$ -	$ -	$ -
Total Costs	**$ 93,500**	**$ 76,500**	**$ 76,500**	**$ 93,500**
Provider Focus Groups/Surveys				
Staff Costs	$ 53,295	$ 43,605	$ 43,605	$ 53,295

Evaluation Area/Task	Interim Report 1	Interim Report 2	Interim Report 3	Final Summative Report
Administrative Costs	$ 40,205	$ 32,895	$ 32,895	$ 40,205
Other Costs	$ -	$ -	$ -	$ -
Total Costs	**$ 93,500**	**$ 76,500**	**$ 76,500**	**$ 93,500**
Member/Beneficiary Surveys				
Staff Costs	$ 56,100	$ 45,900	$ 45,900	$ 56,100
Administrative Costs	$ 42,075	$ 34,425	$ 34,425	$ 42,075
Other Costs	$ 182,325	$ 149,175	$ 149,175	$ 182,325
Total Costs	**$ 280,500**	**$ 229,500**	**$ 229,500**	**$ 280,500**
Measure Calculations				
Staff Costs	$ 319,770	$ 261,630	$ 261,630	$ 319,770
Administrative Costs	$ 241,230	$ 197,370	$ 197,370	$ 241,230
Other Costs	$ -	$ -	$ -	$ -
Total Costs	**$ 561,000**	**$ 459,000**	**$ 459,000**	**$ 561,000**
Analysis and Reporting				
Staff Costs	$ 479,655	$ 392,445	$ 392,445	$ 479,655
Administrative Costs	$ 361,845	$ 296,055	$ 296,055	$ 361,845
Other Costs	$ -	$ -	$ -	$ -
Total Costs	**$ 841,500**	**$ 688,500**	**$ 688,500**	**$ 841,500**
Total	**$ 1,870,000**	**$ 1,530,000**	**$ 1,530,000**	**$ 1,870,000**

4. Timeline and Major Milestones.

Table 7 outlines the timeline for conducting the evaluation activities, including deliverable submissions and activities related to the renewal and reprocurement of a contractor.

Table 7. MMA Evaluation Activities, December 31, 2017-December 31, 2030

Deliverable / Activity	Due Date
Evaluation Design submitted to CMS*	January 31, 2018
MMA Interim Report - Project 2 DY10: Component 3 (Healthy Behaviors)	April 2, 2018
MMA Interim Report - Project 3 DY10: Component 4 (LIP)	April 2, 2018

Deliverable / Activity	Due Date
MMA Interim Report - Project 1 DY10: Components 1, 2, 5, and 7 (Access, Quality, Cost)	May 1, 2018
Revised Evaluation Design submitted to CMS*	May 7, 2018
MMA Interim Report - Project 4 DY10: Component 6 (Dual-Eligibles)	May 15, 2018
DY11 MMA Program Medicaid Data Request and Verification	Request Due: July 2, 2018 Verification Due: 30 calendar days after data delivery
DY11 Florida Center Data Request and Verification	Request Due: July 2, 2018 Verification Due: 30 calendar days after data delivery
Stakeholder Debriefing Materials	September 4, 2018
Stakeholder Debriefing and Summary	Thirty (30) calendar days after Debriefing completion
Annual Monitoring Report due to CMS*	September 30, 2018
MMA Interim Report-Project 1 DY11-Components 1, 2, 5, and 7 (Access, Quality, Cost)	May 1, 2019
MMA Interim Report-Project 2 DY11-Component 3 (Healthy Behaviors)	April 1, 2019
MMA Interim Report-Project 3 DY11-Component 4 (LIP)	March 1, 2019
MMA Interim Report-Project 4 DY11-Component 6 (Dual-Eligibles)	May 15, 2019
Agency contract with UF is renewed for three (3) years	July 1, 2019

Deliverable / Activity	Due Date
DY12 MMA Program Medicaid Data Request and Verification	Request Due: July 2, 2019 Verification Due: 30 calendar days after data delivery
DY12 Florida Center Data Request and Verification	Request Due: July 2, 2019 Verification Due: 30 calendar days after data delivery
Annual Monitoring Report due to CMS*	September 30, 2019
MMA Interim Report- Project 3 DY12- Component 4 (LIP)	September 3, 2019
MMA Interim Report- Project 2 DY12- Component 3 (Healthy Behaviors)	October 1, 2019
MMA Interim Report-Project 1 DY12- Components 1, 2, 5, and 7 (Access, Quality, Cost)	November 1, 2019
MMA Legislative Report on the Waiver of Medicaid Retroactive Eligibility on Beneficiaries and Providers	November 22, 2019
MMA Interim Report-Project 4 DY12- Component 6 (Dual-Eligibles)	January 15, 2020
DY13 MMA Program Medicaid Data Request and Verification	Request Due: April 30, 2020 Verification Due: 30 calendar days after data delivery
DY13 Florida Center Data Request and Verification	Request Due: April 30, 2020 Verification Due: 30 calendar days after data delivery
Annual Monitoring Report due to CMS*	September 30, 2020

Deliverable / Activity	Due Date
DY14 MMA Program Medicaid Data Request and Verification	Request Due: October 1, 2020 Verification Due: 30 calendar days after data delivery
DY14 Florida Center Data Request and Verification	Request Due: October 1, 2020 Verification Due: 30 calendar days after data delivery
DY13 and DY14 Enrollee Satisfaction Survey Materials	October 1, 2020
DY13 and DY14 Health Plan Qualitative Administrative Interview Materials	October 1, 2020
MMA Interim Report – Project 6 – Component 9 (Waiver of Medicaid Retroactive Eligibility) DYs 13-14	October 15, 2020 (draft) December 1, 2020 (Final)
DY14 MMA Program Component 10 (Housing Assistance Pilot) Data Request and Verification	December 15, 2020
MMA Interim Report- Project 3 DYs 13 and 14- Component 4 (LIP)	February 1, 2021 (draft) March 1, 2021 (final)
MMA Interim Report- Project 2 DYs 13 and 14- Component 3 (Healthy Behaviors)	February 15, 2021 (draft) March 15, 2021 (final)
MMA Interim Report-Project 4 DYs 14 and 14- Component 6 (Dual-Eligibles)	February 15, 2021 (draft) March 15, 2021 (final)
MMA Interim Report – Project 1 DYs 13 and 14 – Components 1, 2, and 7 (Access, Quality, Cost)	March 1, 2021 (draft) April 1, 2021 (final)
MMA Interim Report- Project 5 - DY 14- Component 8 (Pre-paid Dental Health Program)	April 1, 2021 (draft) May 15, 2021 (final)
MMA Preliminary Report – Project 7 – DY14 – Component 10 (Housing Assistance Pilot)	May 5, 2021

Deliverable / Activity	Due Date
Draft Evaluation Design due to CMS*	July 18, 2021
MMA Final Report – DY14 – Project 7 – Component 10 (Housing Assistance Pilot)	August 16, 2021
Annual Monitoring Report due to CMS*	September 30, 2021
DY15* MMA Program Medicaid Data Request and Verification	October 1, 2021
Summative Evaluation Report (DYs 9-14) due to Agency	November 1, 2021 (draft) April 1, 2022 (final)
DY15 Enrollee Satisfaction Survey Materials	December 3, 2021
DY15 Health Plan Qualitative Administrative Interview Materials	December 3, 2021
MMA Interim Report – Project 6 – Component 9 (Waiver of Retroactive Eligibility) DYs 13-15	December 15, 2021 (draft) February 15, 2022 (final)
MMA Interim Report – Project 3 DY15 – Component 4 (LIP)	February 1, 2022 (draft) March 15, 2022 (final)
MMA Interim Report – Project 2 DY15 – Component 3 (Health Behaviors)	March 1, 2022 (draft) April 15, 2022 (final)
MMA Interim Report – Project 1 DY 15 Components 1, 2, 5, and 7 (Access, Quality, Cost)	April 1, 2022 (draft) May 16, 2022 (final)
MMA Interim Report – Project 4 DY 15 – Component 6 (Dual Eligibles)	April 15, 2022 (draft) May 31, 2022 (final)
MMA Interim Report – Project 5 - DY15- Component 8 (Pre-paid Dental Health Program)	April 30, 2022 (draft) June 4, 2022 (final)

Deliverable / Activity	Due Date
Summative Evaluation Report (DYs 9-14) due to CMS*	June 30, 2022
Annual Monitoring Report due to CMS*	September 30, 2022
Annual Monitoring Report due to CMS*	September 30, 2023
Interim Evaluation Report for DY 15-17 due to CMS*	December 31, 2024
Interim Evaluation Report for DY 15-19 due to CMS*	December 31, 2026
Draft Interim Evaluation Report for DY 15-22 due to CMS*	December 31, 2029
Draft Summative Report due to CMS*	December 31, 2031

*Deliverables due to CMS.

5. Modified Difference-in-Differences Approach

This section explains the two modified difference-in-differences methods that the evaluation team will employ in addressing selected questions in (1) the Housing Assistance Pilot (Component 10) and (2) the impact of Florida's retroactive enrollment policy change (Component 9). To set the stage for these modified approaches, we first present the standard difference-in-differences framework.

Standard Difference in Differences

Evaluations have commonly employed a pre-post design where the treatment group outcome is observed both prior to treatment and subsequent to treatment. The difference in outcomes between the post-treatment period and the pre-treatment period is then an estimate of the treatment effect. The obvious danger in such designs is that intervening time factors (sometimes called historical bias) that coincide with the implementation of treatment may introduce bias into the estimated treatment effect.

Another common approach employs treatment and comparison groups where the comparison group is chosen to resemble the treatment group as closely except that the

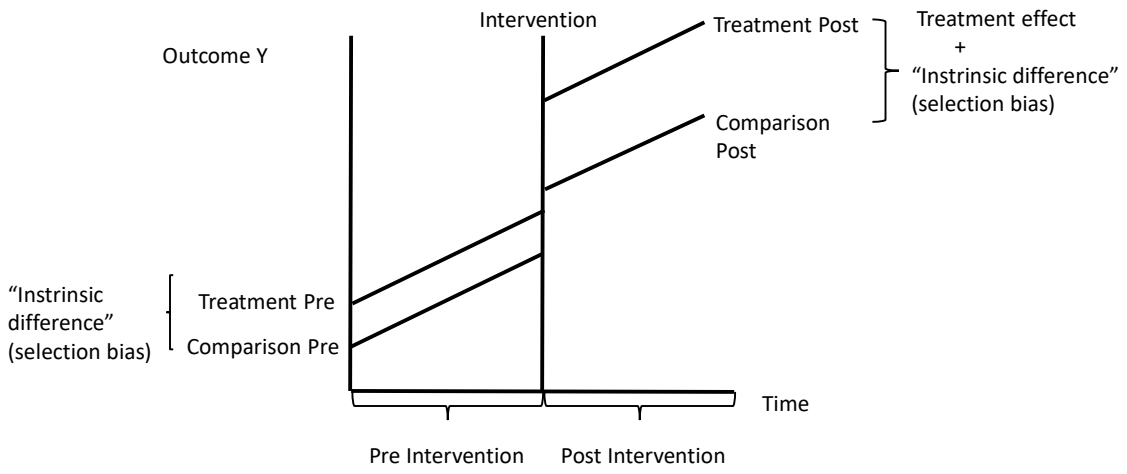
comparison group only receives usual care. The difference in outcomes between the treatment and comparison groups is then taken as an estimate of the treatment effect. The most common problem here is that treatment and comparison groups may differ from one another in unobserved ways that influence both choice of treatment and outcomes, leading to the selection bias described above.

Difference-in-differences (D-i-D) is a research design that attempts to deal with both intervening factors and unobserved selection bias (Imbens & Wooldridge J, 2007). One drawback to D-i-D is that it requires more data than just pre-post observations on a treatment group as in a pre-post design or just a treatment and comparison group observed during the treatment period. D-i-D requires observing both a treatment and comparison group observed both prior to treatment (the pre period) and subsequent to treatment (the post period).

How D-i-D Works

Figure 2[17] illustrates how difference-in-differences isolates the true treatment effect in the presence of biased selection. We observe both the treatment and comparison group both before and after the intervention in implemented. During the pre-intervention period, both the treatment and comparison groups are observed under usual care. At the intervention point, the comparison group continues to receive usual care while the treatment group transitions to the new intervention. D-i-D isolates the intrinsic difference or selection bias between the treatment and comparison groups by measuring the differences in outcomes in the two groups during the pre-intervention period when both groups are under usual care. To do this, the D-i-D approach assumes that both the treatment and comparison groups' time trends are equal. This is commonly called the "constant slopes" assumption.

Figure 2 - How D-i-D Works



Treatment effect = (Treatment Post – Comparisonl Post) – (Treatment Pre – Comparison Pre)

In the post-intervention period, the true treatment effect is obscured by the presence of the intrinsic difference between the two groups. Taking the difference between the treatment and control groups in the post-intervention period gives the sum of the true treatment effect and the intrinsic difference between the groups (the first difference in difference-in-differences). Then, subtracting from that difference the difference between the treatment and comparison groups in the pre-intervention period (the second difference in difference-in differences) gives the true treatment effect alone.

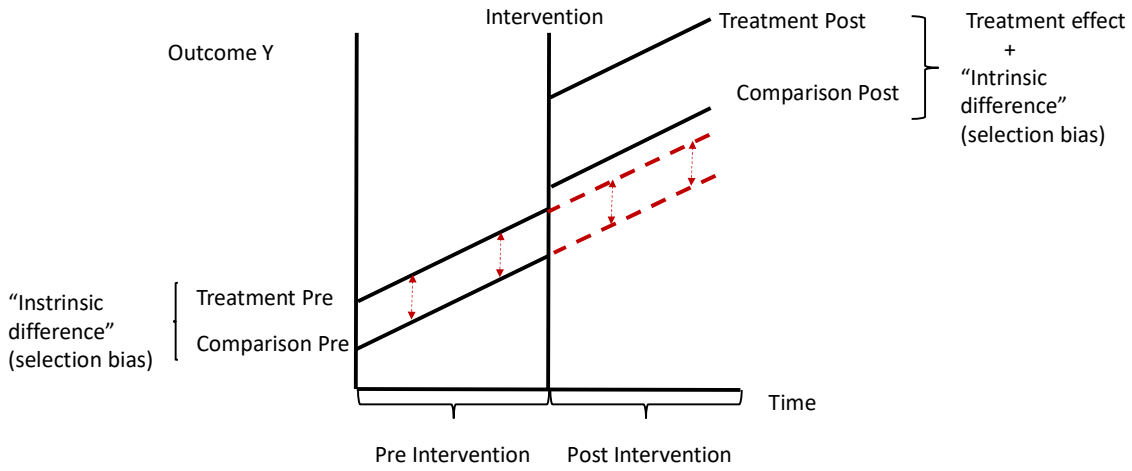
Assumes Equal Time Trends

Figure 3 shows why D-i-D must assume time trends for the treatment and comparison groups. Only if the time trends are the same will D-i-D yield a stable estimate of the intrinsic difference between the treatment and comparison groups. This is especially important when you have insufficient data across time to examine the treatment and comparison time trends in your data. When sufficient data are available, you can check this assumption by

[17] Figure 1 has been omitted from this attachment for purposes of brevity.

comparing the trends across time for the treatment and comparison groups.

Figure 3 - D-i-D Assumes Equal Time Trends for Treatment and Comparison Groups



Treatment effect = (Treatment Post – Comparson Post) – (Treatment Pre – Comparison Pre)

How is D-i-D Implemented?

D-i-D is simple to implement in practice if data for the treatment and comparison groups are available both pre-intervention and post-intervention. The basic D-i-D model incorporates:

1) a pre/post period dummy variable, POST, where POST=1 during the post-implementation period
and POST=0 during the pre-implementation period,
2) a treatment/comparison group dummy variable, GROUP, where (GROUP=1 for the treatment group
and GROUP=0 for the comparison group),
3) the statistical interaction between these two main effects, POST x GROUP, and
4) the additional control variables, X, used in outcomes models (e.g., age, sex, and health status).

The D-i-D regression equation is

$$Y = \alpha + \beta_P POST + \beta_G GROUP + \beta_{DiD} POSTxGROUP + \beta_X X + \varepsilon$$

Y is the outcome under study, X represents the control variables, the β's are the model coefficients, and ε is the disturbance term.

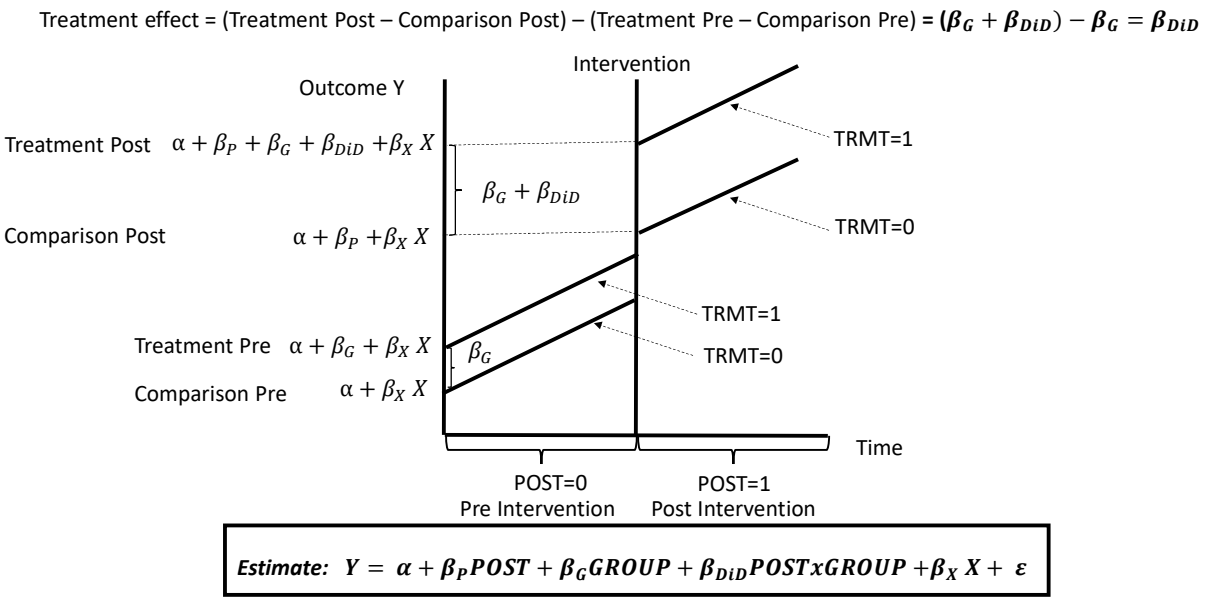
Figure 4 shows graphically the way D-i-D works based on the D-i-D statistical model. In Figure 4, the outcome Y is on the vertical axis and time is on the horizontal axis. The horizontal axis is divided into pre- and post-intervention segments. The four straight lines in Figure 4 correspond to the treatment and comparison groups in the pre and post periods. The four model coefficient sums plotted on the Y axis show the predicted treatment and

comparison values for both the pre and post periods. Notice that the difference between the treatment pre and comparison pre values gives β_G, which is a measure of the intrinsic difference between the two groups prior to implementation. The difference between the treatment post and comparison post values gives the sum of the interaction coefficient, β_{DID}, and the intrinsic difference between the two groups, β_G. The difference-in-differences treatment effect is found by subtracting the treatment-comparison difference in the pre-period from the treatment-comparison difference in the post-period:

$$(\beta_G + \beta_{DiD}) - \beta_G = \beta_{DiD}$$

The coefficient on the interaction term, β_{DiD}, is the estimated treatment effect in a linear D-i-D model.

Figure 4 – How is D-i-D Implemented?



Testing and Relaxing the Strict Assumptions of Difference-in-Differences

One approach for testing and relaxing the strict assumptions of D-i-D is to introduce a time trend main effect along with two-way interactions between time and POST and time and GROUP and a three-way interaction between time, POST, and GROUP as specified in the following equation (Harman, Lemak, Al-Amin, Hall, & Duncan, 2011):

$$Y = \alpha + \beta_t time + \beta_P POST + \beta_G GROUP + \beta_{Pt} POSTxtime + \beta_{Gt} GROUPxtime + \beta_{DiD} POSTxGROUP + \beta_{DiDt} POSTxGROUPxtime + \beta_X X + \varepsilon$$

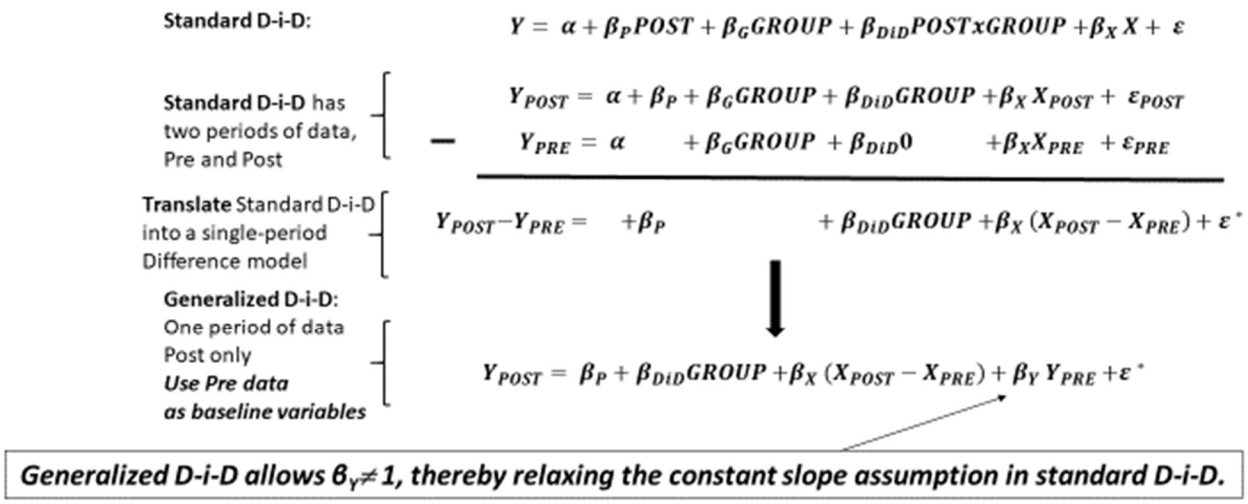
Even when the number of time periods in the pre and/or post periods preclude estimating time trends, the standard D-i-D assumptions can be relaxed. University of Florida faculty member Keith Muller has observed that the standard D-i-D model can be translated from a two period, pre/post model into a single period, post-only model (Wegman et al., 2015). This single period model uses the baseline (pre-period) variables to relax the D-i-D constant slope assumption.

Figure 5 shows how the standard D-i-D model is translated into this more flexible formulation. First, the standard D-i-D model is separated into two parts, one for the post period and one for the pre period. Then, these two equations are differenced to produce a single equation difference model. Lastly, the pre-period outcome, Y_{PRE}, is placed among the regressors with a coefficient, β_Y, to be estimated. When β_Y is treated as a coefficient to be estimated rather than forced to equal one as in standard D-i-D, the constant slope assumption is relaxed.

To be fair, however, this approach to D-i-D is not free of assumptions. The constant slope assumption is replaced with a constant baseline proportionality assumption based on the baseline value of Y. However, it is easy to add an interaction between Y_{PRE} and GROUP so that the constant baseline proportionality assumption can differ between the treatment and comparison groups.

While not perfectly flexible, this modification increases the generality of this D-i-D formulation. Note that this D-i-D formulation subsumes the standard D-i-D formulation as a special case when $\beta_Y=1$. Testing H_0: $\beta_Y=1$ and rejecting H_0: $\beta_Y=1$ in favor of H_A: $\beta_Y\neq1$ tells you that this new model formulation fits your data better than the standard D-i-D formulation.

Figure 5 – Relaxing the DiD Constant Slopes Assumption



Conclusion

We believe that testing for and relaxing the strict assumptions of D-i-D are important for studying the effects of retroactive enrollment policy on new Medicaid enrollee debt in Florida. In particular, we plan to use linked credit reporting data on medical debt for new Medicaid enrollees both prior to and subsequent to the change in retroactive enrollment policy. Consequently, we will have a very large sample size that will likely yield sufficient statistical power to detect very small changes in medical debt as statistically significant. It is therefore critical to disentangle the effects of retroactive enrollment policy from the other factors than can influence medical indebtedness (enrollee income, employment changes, physical and mental health status, etc.) as discussed in the introduction.

In addition, selecting a control group for D-i-D is difficult since Florida chose to implement the retroactive enrollment policy statewide at a single point in time (February 2019). Consequently, it will likely be necessary to use pregnant women and children as the control group since they remained under the previous retroactive enrollment policy. Unfortunately, the assumption of constant slopes for men and non-pregnant women vs. pregnant women and children is especially tenuous given the obvious differences between these groups. This too argues for exploring techniques for testing and relaxing the constant trends assumptions in standard D-i-D.

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F. Appendix

Florida Responses to "CMS Implications of COVID-19 for Section 1115 Demonstration Evaluations: Considerations for States and Evaluations"[18]

A. Introduction

This section presents the Florida MMA evaluation team's comments and responses to the issues and questions raised by CMS concerning the impact of COVID-19 on the MMA evaluation. The comments and responses are in italics following the relevant CMS material.

B. Documenting demonstration implementation and evaluation changes

The COVID-19 pandemic is likely to affect demonstration implementation in multiple ways, including by changing provider and beneficiary behavior and rapidly increasing the pool of Medicaid beneficiaries enrolled in demonstrations. For example, providers may have adopted telehealth strategies, changing service delivery and potentially health outcomes for demonstration beneficiaries in ways that might persist in the long term. In addition, the pandemic has caused some states to pause or delay implementation of approved section 1115 demonstration policies, such as monthly payment requirements. These implementation changes, in turn, may necessitate adjustments to evaluations.

Comment: We agree that the COVID-19 pandemic will have widespread impacts on Florida Medicaid and on the Florida MMA program in particular. The impacts on the MMA program specifically should be centered on the ongoing MMA program since no new MMA program implementations have been paused or delayed by the COVID-19 pandemic. Nevertheless, the changes stemming from COVID-19 are

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profound and will likely limit the comparisons of evaluation results prior to, during, and following COVID-19. In addition, the three most recent components of the MMA evaluation (the prepaid dental and supportive housing programs and the retroactive enrollment policy changes) were implemented within one to two years of the start of the COVID-19 pandemic. Consequently, COVID-19 may delay the maturation of those components. Caution will be needed in interpreting early year-to-year changes in the evaluation results for those recently implemented programs.

Suggested topics and questions for state consideration. The following questions may be useful as states think through evaluation challenges caused by COVID-19 and engage with their evaluators:

- How will changes to the demonstration affect the logic models or driver diagrams that guide the evaluation? Are all expected demonstration outcomes the same as before the pandemic? What new modifying or confounding factors, such as use of telehealth, might change expected outcomes? Which of these new factors are likely to be temporary, and which are likely to be persistent?

  Response: We do not believe that COVID-19 will directly affect our logic models or driver diagrams, but COVID-19 will undoubtedly independently influence many of the outcomes examined in the MMA evaluation. In particular, the likely reduction in face-to-face utilization and the associated increase in telehealth services bear close scrutiny. The magnitudes of these utilization changes need to be measured initially and monitored over time to gauge any lasting impacts stemming from COVID-19.

- In what ways will demonstration implementation changes affect planned evaluation activities?

  Response: We do not believe that COVID-19 will change any demonstration implementations since all the MMA evaluation components were implemented prior to the COVID-19 pandemic.

- How can states keep evaluators informed about demonstration changes? Are evaluators able to document changes to demonstration implementation so they can (1) consider how to amend planned evaluation activities and (2) use that information to interpret outcomes?

  Response: The evaluation team is currently relying on and will continue to rely on the Agency's website that chronicles changes stemming from the COVID-19 emergency, "Brief Description of Changes During the State of Emergency", at https://ahca.myflorida.com/COVID-19_Medicaid.shtml#alerts .

- How does the timing of the demonstration approval period interact with the timing of the pandemic? That is, did the demonstration start before, during, or after the pandemic, and what does that mean for the evaluation design? Are there opportunities to observe demonstration outcomes before the pandemic began?

  Response: All the MMA evaluation components were implemented prior to the COVID-19 pandemic. Consequently, baseline data are available for all MMA components. As discussed above, the greater concern may be about observing the evolution of the initial impacts of the more recent MMA components (i.e., prepaid dental, supportive housing, and retroactive enrollment) into longer term, steady-state impacts.

- How can evaluators account for large numbers of new demonstration beneficiaries? Are new demonstration beneficiaries likely to differ from previously enrolled beneficiaries in systematic ways, and if so, should evaluators conduct subgroup analyses to understand how these beneficiaries interact with demonstrations?

Response: We recognize that there are likely to be many new people enrolled in Medicaid due to the pandemic and they will likely differ somewhat from other enrollees. We view subgroup analyses defined by pre-post COVID-19 changes in enrollment by eligibility group as the best way to address this.

C. Collecting primary data

The pandemic is likely to affect primary data collection—both interviews and surveys—in multiple ways. States may decide to update data collection plans to reflect respondent availability, the need to avoid in-person data collection, the need to update survey instruments to reflect changes to demonstration policies or the health care or economic landscape (for example, changes to employment opportunities given furloughs and layoffs), the likelihood of confounded responses (that is, different responses during the pandemic), and/or the need to update sample designs to account for newly enrolled beneficiaries or subgroups with disproportionately high pandemic impacts. Some states may experience high survey response rates because beneficiaries are easier to reach at home. However, beneficiaries' responses will undoubtedly be affected by the pandemic. Providers may be relatively difficult to survey or interview if they are busy with the pandemic response, although providers' availability and responsibilities are also changing rapidly.

States that planned to collect primary data in 2020 may decide to postpone it because of the factors noted above. Whether it is possible to postpone primary data collection and still use it as a data source for a given evaluation depends on the timing of the demonstration period—for example, it would not be possible to postpone a planned 2020 survey until 2021 and still use it for the evaluation of a current demonstration period that ends in 2020. In addition to timing considerations, states making the decision to postpone, change, or move forward with primary data collection must balance the budgetary impacts of changes, the usefulness of data collected, the burden to respondents, and the importance of primary data for the evaluation.

Comment: The MMA evaluation team has already begun to modify survey and interview content as well as the timing of data collection to reflect the broad reach of COVID-19. We expect these modifications to content and timing to continue as needed as the pandemic evolves. To date, these adjustments have only had minimal impacts on our primary data collection, but this will likely change as COVID-19 evolves and as our data collection efforts move past the first few months of 2020.

Suggested topics and questions for state consideration. Primary data collection requires a significant investment of evaluation resources. CMS encourages states to discuss the need to update data collection plans and the impact that might have on evaluation budgets with their evaluators. The following questions may be useful:

- What is the advice of evaluators on whether and how to postpone primary data collection? Does this vary by respondent type? Can data collection reasonably be postponed given unknown timing of the pandemic and the timing of the demonstration period? What are the cost implications of timing changes and what priority should be placed on making such changes?

  Response: The evaluation team has coordinated and will continue to coordinate adjustments to the MMA primary data collection efforts with the Agency moving forward. These adjustments do vary by the nature of the intended respondents, the importance of the evaluation topic, and the likely impact of COVID-19 on the topic, so answers must be tailored to the specific circumstances at hand. At this point, we do not foresee any changes in costs stemming from any potential postponements.

- Do survey instruments or interview discussion guides require updates to reflect changes to

demonstration implementation or the health care or economic landscape (such as employment opportunities)? When will changes to demonstration activities be settled enough to redesign instruments? What are the cost implications of instrument changes and what priority should be placed on making such changes?

Response: To date, we have identified required updates for specific instruments prior to their fielding and plan to continue this process in the future. We will confer with the Agency on a case-by-case basis when significant redesign and adaptation become necessary.

- How important is it to update survey samples to support subgroup analyses of newly enrolled beneficiaries and/or those with disproportionate pandemic impacts? How can evaluators define subgroups with disproportionate pandemic impacts for the purposes of changing the sample? What are the cost implications changing the sample design and what priority should be placed on making such changes?

  Response: We are in the process of monitoring changes in enrollments across eligibility groups as COVID-19 progresses to identify important subgroups based on the individual questions that comprise the MMA evaluation. Identifying specific subgroups with disproportionate pandemic impact on a per enrollee basis is especially challenging and will likely come as a result of a focused, in-depth evaluation of COVID-19 alone.

D. Using time trends and comparison groups

All time trends—meaning changes in observed demonstration outcomes over time—will be affected by the pandemic, to varying degrees. Evaluation designs that use comparison groups, such as difference-in-differences and regression discontinuity designs, will be more robust than trends and time series designs because they help to adjust for changes brought about by the pandemic. However, strong comparison groups must be similar to demonstration groups, including in terms of their COVID-19 impacts. CMS recognizes that states and their evaluators may be unable to assess the similarity of COVID-19 impacts on demonstration and comparison groups because the full extent of these impacts is still unknown and the best ways to measure impacts are not yet settled. CMS further recognizes that some states using designs without a comparison groups may be unable to introduce one to their approved designs.

In some cases, using interrupted time series analysis may be a relatively robust approach, because this design uses many observations over a long period and does not require (1) a known trajectory for the pandemic or its effects or (2) a similar comparison group. CMS recommends that states avoid using pre/post designs, if possible.

Comment: The MMA evaluation team agrees with the above comments. We believe it will be close to impossible to separate out COVID impacts using difference-in-difference since COVID is impacting everyone (i.e., no comparison group is available). While it's possible that some Medicaid enrollees will be more affected than others, that will be very hard to determine. Interrupted time series that accounts for the period coinciding with the pandemic is probably the most feasible approach.

Suggested topics and questions for state consideration. The following questions may be useful as states think through evaluation challenges caused by COVID-19 and engage with their evaluators:

- Which components of the planned evaluation design use comparison groups? Can evaluators feasibly assess the similarity of COVID-19 impacts on demonstration and comparison groups?

Response: The MMA evaluation has not relied on comparison groups because the entire MMA implementation was universal and was implemented over a short three-month period. This has made it impossible to identify a truly comparable in-state comparison group for the MMA evaluation and is the major reason that the MMA evaluation has relied on interrupted time-series analyses.

- If the evaluation design includes time-based designs, would evaluators recommend changing them to better account for the pandemic? How many observation periods can be included?

  Response: Yes. The MMA evaluation team is considering the use of pre-MMA, MMA pre-COVID, MMA during COVID, and MMA post-COVID periods.

- Are there any opportunities to strengthen planned evaluation designs to account for the pandemic? If the evaluation design includes more than one analytic approach, should certain approaches receive greater focus?

  Response: In addition to the four-period time construct described in the answer to the previous question, the MMA evaluation team is considering whether geographic-specific monthly COVID-19 incidence rates might be a useful control variable for those observed outcomes which are likely to vary directly with COVID incidence rates.

E. Isolating demonstration effects

Because of the magnitude of the changes brought about by the pandemic, it will be challenging to isolate demonstration effects from pandemic effects. CMS acknowledges that, for some demonstration outcomes, pandemic effects will be much larger than demonstration effects were expected to be, making any demonstration effects impossible to observe. In those cases, states and their evaluators may judge that some planned impact analyses—depending on the timing of the pandemic during the demonstration approval period—are unlikely to produce viable evidence about demonstration effects and are not worth the resource investment. States and their evaluators should identify such demonstration outcomes and keep CMS informed with explanations of any corresponding modifications to planned evaluation activities. In such scenarios, states are still encouraged to provide data or trends that show changes to expected demonstration outcomes even if those outcomes are not attributable to demonstration policies.

Comment: We agree that disentangling COVID-19 impacts from changes in the demonstration impacts may be difficult or impossible in some cases. However, most MMA components have several years of pre-COVID MMA estimated impacts to serve as a baseline for evaluating COVID period changes.

Isolating demonstration effects may also be difficult if the beginning of the demonstration period coincides with the beginning of the pandemic. In that case, it will be unclear whether states should attribute observed changes to the demonstration or to the pandemic. Conversely, demonstrations ending in 2020 or those spanning 2020—for example, if data collection is planned for 2019 through 2021—may be able to exclude some months in 2020 from analyses of demonstration outcomes, or to conduct robustness checks to explore the effects of including peak pandemic months. Exact months to exclude may not be clear until more information about the trajectory of the pandemic becomes available.

Comment: Fortunately, the MMA program has no component whose beginning or ending coincides with the start of the COVID-19 period.

Suggested topics and questions for state consideration. The following questions may be useful as states think through evaluation challenges caused by COVID-19 and engage with their evaluators:

- What is the relative expected magnitude of demonstration and pandemic effects for demonstration outcomes? Does it make sense to try to observe all planned demonstration outcomes, or only some?

  Response: This is difficult if not impossible to determine in the absence of information about the impact of COVID-19. However, given the relatively stable early MMA impacts as a baseline, it should be possible to highlight where either temporal changes in COVID-19 main effects or COVID-19 interactions with the MMA program have an outsize net impact.

- Do evaluators expect to be able to isolate demonstration effects to support conclusions about demonstration policies, and if so, how do they plan to do this?

  Response: Yes. In addition to pre-COVID-19 MMA impacts, we expect to control for MMA impacts during and after the COVID-19 pandemic. Also, as discussed above, we plan to use geographic-specific COVID-19 incidence rates as a control variable where feasible to help disentangle COVID-19 and MMA impacts.

- What covariates (measures) might be related to the pandemic, but not to the demonstration, and therefore appropriate to use as controls?

  Response: We believe that geographic-specific COVID-19 incidence rates is one important such covariate.

- If evaluators expect to proceed with planned analyses, is it feasible to drop certain months from those analyses, or to conduct robustness checks that assess the effect of including or excluding them?

  Response: At a minimum, it should be possible to conduct sensitivity tests by alternately including and excluding those months where COVID-19 incidence rates changed dramatically to measure the sensitivity of the estimated MMA impact to these changes.

F. Interpreting findings

Finally, even if states and their evaluators can adjust evaluation approaches in some of the ways suggested above, the severity of pandemic impacts will require cautious interpretation of observed outcomes. CMS requests that all interim and summative evaluation reports include discussions of potential confounding from the pandemic for each observed outcome or set of findings. Careful interpretation of findings is especially important because best practices for isolating demonstration effects in the context of the pandemic are not settled and because isolating demonstration effects may not be feasible for all demonstrations.

Comment: We agree with this assessment and plan to use extreme caution in interpreting any dramatic change in the estimated MMA impact that coincides with substantial changes in COVID-19 incidence rates.

Appendix II. Data Sources Examined for New Medicaid Enrollee Health Status for Research Question 8.1.2

Table A1. Data Sources Examined for Retroactive Enrollment Evaluation Question 8.1.2

Data Source	Frequency	Owner	Medicaid Coverage?	Enrollment Length?	Health Status?	State of Residence?	Remarks
Current Population Survey (CPS)	Monthly	U.S. Departme nt of the Census	Yes	No	Yes	Yes	
National Health Interview Survey (NHIS)	Annual	National Center for Health Statistics (NCHS)	Yes	No	Yes	Yes	
Medical Expenditure Panel Survey (MEPS)	Annual	Agency for Healthcare Research and Quality (AHRQ) /NCHS	Yes	Yes	Yes	Yes	MEPS provides in-depth information on a limited national sample. The likely sample size for *new* Florida Medicaid enrollees, however, is likely in the single digits.
National Health and Nutrition Examination Survey (NHANES)	Annual	NCHS	Yes	No	Yes	Yes	
American Community Survey (ACS)	Annual	Urban Institute	Yes	No	Yes	Yes	
Behavioral Risk Factors Surveillance Survey (BRFSS)	Annual	Census	Yes	No	Yes	Yes	
National Ambulatory Medical Care Survey (NAMCS)	Annual	Centers for Disease Control (CDC)	Yes	No	Yes	Yes	
National Survey of Family Growth	5 year cycle	CDC/NCHS	Yes	No	No	Yes	
National Immunization Survey	Annual	National Center for Immunization and Respiratory Diseases (NCIRD)/ CDC	Yes	No	No	Yes	
National Survey of Children's Health	Annual	Health Resources	No	No	Yes	No	

Data Source	Frequency	Owner	Medicaid Coverage?	Enrollment Length?	Health Status?	State of Residence?	Remarks
		and Services Administration / Maternal and Child Health Bureau (HRSA/ MCHB)					
National Home and Hospice Care Survey	Conducted periodically; not conducted since 2007	CDC	Yes	No	No	Yes	Conducted in 1992, 1993, 1994, 1996, 1998, 2000, 2007
Medicare Current Beneficiary Survey	3 data releases annually	Office of Enterprise Data and Analytics (OEDA) / Centers for Medicare and Medicaid Services (CMS)	As a source of payment	No	Yes	No	
CDC Wide-ranging Online Data for Epidemiologic Research (WONDER)	Continuous	CDC	No	No	No	No	
CMS Chronic Conditions Public Use Files	Annual	CMS	No	Yes (for Medicare)	No	No	
Dartmouth Health Care Atlas	Annual	The Dartmouth Institute of Health Policy and Clinical Practice	No	No	No	No	Based on aggregate data
Healthcare Cost and Utilization Project (HCUP) – Nationwide Inpatient Sample (NIS) and State Inpatient Databases (SID)	Annual	AHRQ	Yes	No	No	Yes	Inpatient discharge data record from community hospitals in the state
Medicare and Medicaid Statistical Supplement	Annual	CMS	Aggregate information on Medicaid payments	No	No	No	
National Healthcare Quality and Disparities Report	Annual	AHRQ	No	No	No	Report on performance of healthcare system	

Data Source	Frequency	Owner	Medicaid Coverage?	Enrollment Length?	Health Status?	State of Residence?	Remarks
National Vital Statistics System	Continuous	NCHS	No	No	No	Yes	Data on births and deaths
Youth Risk Behavior Surveillance System	Every two years	CDC	No	No	No	No	