FINANCIAL ALIGNMENT INITIATIVE

MyCare Ohio: Third Evaluation Report

October 2023

Prepared for
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FINANCIAL ALIGNMENT INITIATIVE
MYCARE OHIO:
THIRD EVALUATION REPORT

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Glossary of Acronyms

AAA	Area agency on aging
ACSC	Ambulatory care sensitive condition
ADL	Activities of daily living
ADT	Admission, discharge, and transfer
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CMS	Centers for Medicare & Medicaid Services
CMT	Contract Management Team
CTM	Complaint Tracking Module
DinD	Difference-in-differences
D-SNP	Dual Eligible Special Needs Plan
FFS	Fee-for-service
HCBS	Home and community-based services
HCC	Hierarchical Condition Category
HEDIS	Healthcare Effectiveness Data and Information Set
HOS	Health Outcomes Survey
HRA	Health risk assessment
HSA	Health screening assessment
IRE	Medicare Independent Review Entity
LTSS	Long-term services and supports
MA	Medicare Advantage
MARx	Medicare Advantage Prescription Drug System
MDS	Minimum Data Set
MLR	Medical loss ratio
MMCO	Medicare-Medicaid Coordination Office

MMP	Medicare-Medicaid Plan
MOU	Memorandum of Understanding
NF	Nursing facility
SNF	Skilled nursing facility
PHE	Public Health Emergency
PMPM	per member per month
TCT	Transdisciplinary Care Team
SDRS	State Data Reporting System

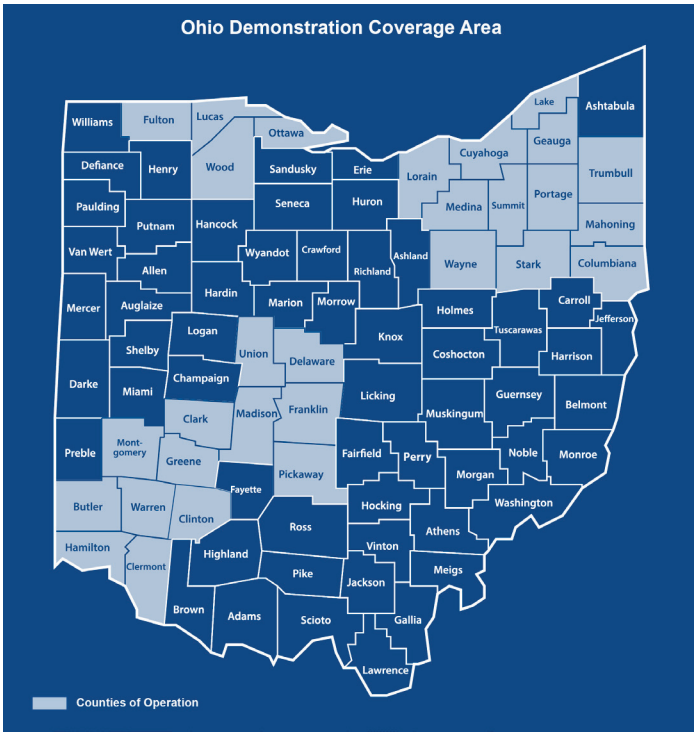
Executive Summary

The Medicare-Medicaid Coordination Office and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) created the Medicare-Medicaid Financial Alignment Initiative (FAI) to test, in partnerships with States, integrated care models for dually eligible enrollees.

Ohio and CMS launched the MyCare Ohio demonstration in May 2014. The demonstration integrates care for Medicare-Medicaid beneficiaries in seven regions, covering 29 of Ohio's 88 counties (see ***Ohio Demonstration Coverage Area*** map). The State and CMS competitively selected five health plans to operate Medicare-Medicaid Plans (MMPs). MMPs receive capitated payments from CMS and the State to finance all Medicare and Medicaid services. MMPs also provide care coordination and flexible benefits that vary from plan to plan.

The MyCare Ohio demonstration was launched in May 2014. The Ohio Department of Medicaid (ODM) administers MyCare Ohio, which serves full-benefit Medicare-Medicaid enrollees age 18 and older who are eligible for the demonstration. The demonstration serves beneficiaries in seven regions, covering 29 of Ohio's 88 counties. Nearly two-thirds of eligible beneficiaries have been enrolled in the demonstration, on average. After implementation, only minor modifications to the demonstration's design have been made over the course of the demonstration.

The demonstration was associated with a favorable impact overall on utilization and quality measures relating to hospital, skilled nursing facility (SNF), and nursing facility use, as well as follow-up care after a mental health discharge. However, the demonstration was also associated with less favorable outcomes, including an increase in ED visits as well as an increase in Medicare costs of $77.79 per member per month (PMPM) over the first 6 years of the demonstration. Factors other than demonstration effectiveness, such as the size of the Medicare Part A and B capitated rate relative to Medicare fee-for-service (FFS) payment absent the demonstration, may have contributed to this unfavorable cost finding. Nevertheless, the majority of enrollees have expressed high rates of satisfaction with their Medicare-Medicaid Plan and the care coordination it provided.



The Ohio Department of Medicaid (ODM) administers MyCare Ohio, which serves full-benefit Medicare-Medicaid enrollees age 18 and older who are eligible for the demonstration. Enrollees may include individuals residing in a nursing facility, individuals requiring a nursing facility level of care but living at home and receiving home and community-based waiver services, and other full-benefit Medicare-Medicaid beneficiaries who do not require a nursing facility level of care (often referred to as the "community well" population).

Full-benefit Medicare-Medicaid beneficiaries who are not eligible for the demonstration include individuals with intellectual and developmental disabilities (IDD) who are served

through an IDD 1915(c) home and community-based services waiver or intermediate care facilities for individuals with IDD (ICF/IDD), individuals with third-party creditable health care coverage, and enrollees in the Program of All-Inclusive Care for the Elderly. Medicare-Medicaid beneficiaries who choose not to receive their Medicare benefits through a MyCare Ohio MMP are not enrolled in the demonstration but are still required to receive their Medicaid benefits through a MyCare Ohio Medicaid managed care health plan.

CMS contracted with RTI International to monitor demonstration implementation and to evaluate its impact on beneficiary experience, quality of care, utilization, and cost. The evaluation includes individual State-specific reports like this one. This third evaluation report for the MyCare Ohio demonstration describes its implementation and includes an analysis of the demonstration's impacts on select outcomes. We include qualitative evaluation information for calendar years 2021 and 2022, and quantitative results for May 2014 through December 2020. We used a variety of data sources to prepare this report (see ***Appendix A, Data Sources***).

The impact analysis includes the application of the demonstration's medically needy exclusion criteria as well as exclusions for Medicaid 1915(c) waivers for persons with IDD in the demonstration group using the Medicaid Analytic eXtract (MAX) and Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) enrollment and eligibility files, as specified in the three-way contract.[1]

Section 5, Demonstration Impact on Service Utilization and Quality of Care and ***Section 6, Demonstration Impact on Cost Savings*** describe in more detail the impact of these exclusions on the analytic sample. Previous evaluation reports did not apply these exclusions due to the lack of available and reliable Medicaid eligibility data for all years. Thus, the results reported here are different, but more accurate, than what has been previously reported.

Highlights

Integration of Medicare and Medicaid	As of September 2023, the MyCare Ohio demonstration has been extended through December 2025. ODM is planning for a future approach to integrated care that will preserve key features of the demonstration.
	Through the Contract Management Team (CMT), which provides oversight of the MMPs and aligns Medicare and Medicaid regulations, CMS and Ohio explored accessibility issues for MyCare Ohio enrollees with disabilities, including accessibility of virtual encounters and member materials.

[1] For the three-way contract and subsequent amendments, please see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Ohio.

Eligibility and Enrollment	Just under 142,000 Medicare-Medicaid beneficiaries were eligible for MyCare Ohio in December 2021, and more than 82,000 (58 percent) were enrolled.
	ODM and some MMPs reported that in some situations, the number of beneficiaries opting out of or disenrolling from the demonstration increased in 2021. For example, one MMP's opt-out rate increased from 33 percent in 2019 to 60 percent in 2021.
	ODM and an MMP noted that the opt-out rate was higher for nursing facility residents than for community well and waiver participant populations. For example, opt-outs among nursing facility residents (50 percent) were higher than that of other enrollees (40 percent) in one MMP.
Care Coordination	Over the course of the demonstration, MMPs have been able to provide better data analytics to support targeted interventions focused on improving population health outcomes. For example, with information provided by MMPs, partnering Area Agencies on Aging (AAAs) have been able to focus on helping those most at risk for inpatient stays or emergency room visits to stay at home and avoid exacerbating their chronic conditions.
	According to a nursing facility (NF) provider representative, although some NFs continued to see care management provided by MMPs as duplicative of their own, some cited the value of medical management and navigation offered by MMPs that employ nurse practitioners as care coordinators.

Stakeholder Engagement	ODM's stakeholder engagement efforts focused on responding to the COVID-19 Public Health Emergency (PHE), especially on increasing COVID-19 vaccination rates in the MyCare Ohio population.
	During the report period, MMPs continued to hold their beneficiary advisory committee meetings virtually.
	Enrollees used advisory committee meetings to advocate for continued access to telehealth and clearer member materials so they could understand their MyCare Ohio benefits.
Financing and Payment	MMPs reported that Medicaid capitation rates were adequate during this reporting period.
	CMS and ODM applied risk corridors to Medicare and Medicaid MMP payments to mitigate risks associated with unpredictable utilization patterns and workforce shortages related to the PHE.
Quality of Care	ODM continued to promote collaboration among MMPs to enhance demonstration-wide quality improvement.
	ODM used a payment incentive to MMPs to increase vaccination rates among MyCare Ohio enrollees and promote coordination among MMPs.
	All MMPs have improved performance over time on measures for blood pressure control (standalone measure), controlling HbA1c, and medication review. Other results of Healthcare Effectiveness Data and Information Set (HEDIS) measures have been mixed across measures and MMPs over the course of the demonstration.

	Although enrollees viewed the demonstration positively, beneficiary advocates continued to question whether the demonstration effectively integrated care or improved access to and quality of services.
Beneficiary Experience	The Ombudsman and a beneficiary advocate noted that MMPs often failed to open a coverage determination when the enrollee requested services through their care manager. This meant that the appeals process was not automatically triggered as required, and the number of appeals was possibly reduced because enrollees did not know they had the right to file an appeal.
Demonstration Impact on Service Utilization and Quality of Care	As shown in ***Table ES-1,*** through the first 6 demonstration years, there was a favorable decrease in the monthly probability of any inpatient admission and any skilled nursing facility (SNF) admission, the annual probability of any long-stay NF use, and the annual number of all-cause 30-day readmissions among demonstration eligible beneficiaries, relative to the comparison group. Additionally, the demonstration was associated with a favorable increase in the probability of a 30-day follow-up visit after a mental health discharge, relative to the comparison group. However, the demonstration was also associated with a unfavorable increase in the probability of any emergency department (ED) visit and the number of preventable ED visits, relative to the comparison group.

Demonstration Impact on Service Utilization and Quality of Care (continued)	***Table ES-1*** shows that the demonstration effect for those with long-term services and supports (LTSS) use was an increase in the probability of any inpatient admissions and any SNF admission, relative to the demonstration effect for the non-LTSS population. The demonstration was also associated with an increase in the probability of ambulatory care sensitive condition (ACSC) admissions (overall and for chronic conditions) among beneficiaries with LTSS use, relative to the demonstration effect for non-LTSS users.
	Table ES-1 shows the demonstration also impacted beneficiaries with serious and persistent mental illness (SPMI) differently than those without SPMI. The demonstration effect for those with an SPMI was a decreased probability of any inpatient and SNF admission and an increase in the number of preventable ED visits, relative to the demonstration effect for those without SPMI.
Demonstration Impact on Cost Savings	As summarized in ***Table ES-2***, the demonstration was associated with an increase in Medicare Parts A and B costs over the first 6 demonstration years relative to the comparison group.[2]

Table ES-1 summarizes the cumulative effects of the Ohio demonstration on service utilization and quality of care outcomes over demonstration years 1–6 (demonstration start through 2020), relative to the comparison group. It also shows the difference in the demonstration effect for LTSS users relative to non-LTSS users, and for beneficiaries with SPMI relative to those without SPMI.

[2] RTI did not evaluate the demonstration impact on Medicaid expenditures due to multiple data quality, methodological, and Medicaid policy challenges (see ***Appendix F*** for details).

Table ES-1
Summary of Ohio cumulative demonstration effects on service utilization and quality of care measures for demonstration period, May 1, 2014–December 31, 2020

Measure	Demonstration effect (all eligible beneficiaries)	Difference in demonstration effect (LTSS versus non-LTSS)	Difference in demonstration effect (SPMI versus non-SPMI)
Monthly probability of any inpatient admission	Decrease[G]	Increase[R]	Decrease[G]
Monthly probability of any ambulatory care sensitive condition (ACSC) admission, overall	NS	Increase[R]	NS
Monthly probability of any ACSC admission, chronic	NS	Increase[R]	NS
Number of all-cause 30-day readmissions per 1,000 discharges	Decrease[G]	NS	NS
Monthly probability of any emergency department (ED) visits	Increase[R]	NS	NS
Monthly number of preventable ED visits per 1,000 beneficiaries	Increase[R]	NS	Increase[R]
Probability of 30-day follow-up after mental health discharge	Increase[G]	NS	N/A
Monthly probability of any skilled nursing facility (SNF) admission	Decrease[G]	Increase[R]	Decrease[G]
Annual probability of any long-stay nursing facility use	Decrease[G]	N/A	N/A
Monthly number of physician evaluation and management visits per 1,000 beneficiaries	NS	NS	NS

LTSS = long-term services and supports; N/A = not applicable; NS = not statistically significant; SPMI = serious and persistent mental illness.

NOTES: Statistical significance is defined at the α = 0.05 level. For additional details on results, see ***Tables E-1, E-2***, and ***E-3*** in ***Appendix E***. Green and red color-coded shading indicates where the direction of the difference-in-differences (DinD) estimate was favorable or unfavorable; green indicates favorable, and red indicates unfavorable. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R." Long-stay nursing facility use means stays lasting 101 days or more in a year. In the column for "Demonstration effect (all eligible beneficiaries)," an *Increase* or *Decrease* refers to the *relative* change in an outcome for the demonstration group compared to the comparison group, based on the DinD regression estimate of the demonstration effect during the demonstration period. The results shown in the two columns for "Difference in demonstration effect (LTSS versus non-LTSS)" and "Difference in demonstration effect (SPMI versus non-SPMI)" compare two separate DinD estimates of the demonstration effect—one for the special population of interest (e.g., LTSS users) and another for the rest of the eligible population (e.g., non-LTSS users)—and indicate whether the difference between the two effect estimates is statistically significant (regardless of whether there is an overall demonstration effect for the entire eligible population). In these two columns, an *Increase* or *Decrease* measures the *relative* change in an outcome for the special population of interest compared to the rest of the eligible population. For a given outcome, the result shown for the entire eligible population and that separately for the special population (LTSS users or those with SPMI) can be different from each other.

SOURCE: RTI analysis of Medicare fee-for-service claims and encounter data and Minimum Data Set data.

Table ES-2 summarizes the demonstration effects on total Medicare Parts A and B expenditures for all eligible beneficiaries, including both the cumulative effect over the 6-year demonstration period and the annual effect for each demonstration year.

Table ES-2
Summary of Ohio demonstration effects on total Medicare expenditures among all eligible beneficiaries, May 1, 2014–December 31, 2020

Measure	Measurement period	Demonstration effect
Medicare Parts A and B cost	Cumulative (demonstration years 1–6)	Increase[R]
	Demonstration year 1	Decrease[G]
	Demonstration year 2	NS
	Demonstration year 3	Increase[R]
	Demonstration year 4	Increase[R]
	Demonstration year 5	Increase[R]
	Demonstration year 6	Increase[R]

NS = not statistically significant.
NOTES: Statistical significance is defined at the α = 0.05 level. For numeric estimates of the demonstration's effect on total Medicare expenditures, see ***Figure 6-1*** in ***Section 6, Demonstration Impact on Cost Savings***. Green and red color-coded shading indicates where the direction of the difference-in-differences (DinD) estimate was favorable or unfavorable; green indicates favorable, and red indicates unfavorable. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R." In the column for "Demonstration effect," an *Increase* or *Decrease* refers to the *relative* change in an outcome for the demonstration group compared to the comparison group, based on the DinD regression estimate of the demonstration effect during the specified measurement period.
SOURCE: RTI analysis of Medicare claims.

SECTION 1

Demonstration and Evaluation Overview

1.1 Demonstration Description and Goals

The Medicare-Medicaid Coordination Office (MMCO) and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) created the Medicare-Medicaid Financial Alignment Initiative (FAI) to test, in partnerships with States, integrated care models for dually eligible enrollees. Under the MyCare Ohio demonstration, CMS and the Ohio Department of Medicaid (ODM) have entered into three-way contracts with five competitively selected Medicare-Medicaid Plans (MMPs) to provide integrated benefits to most full-benefit Medicare-Medicaid enrollees age 18 and older. Medicare-Medicaid beneficiaries who choose not to receive their Medicare benefits through a MyCare Ohio MMP are not enrolled in the demonstration but are still required to receive their Medicaid benefits through a MyCare Ohio Medicaid managed care plan.[3]

The MyCare Ohio MMPs are paid a capitated rate for services provided to demonstration enrollees. MMPs receive three separate, risk-adjusted prospective capitated payments. The first two payments are from the Medicare program for Medicare Parts A and B and Medicare Part D, and the third comes from the State for Medicaid services. The demonstration operates in seven regions, covering 29 of Ohio's 88 counties.

Launched May 1, 2014, the demonstration was originally contracted to end December 31, 2017. It has since been extended and is currently expected to end no later than December 31, 2025.[4]

1.2 Purpose of this Report

CMS contracted with RTI International to monitor implementation of the demonstrations under the FAI and to evaluate their impact on beneficiary experience, quality of care, service utilization, and costs. The First Evaluation Report includes extensive background information about the demonstration. The Second Evaluation Report provides implementation updates for 2017 through 2020. In this report, we include qualitative evaluation information for calendar years 2021 and 2022 (demonstration years 7 and 8, respectively). We refer to this time period as "the reporting period" or "the report period" in the qualitative narrative. We provide updates to previous evaluation reports in key areas, including enrollment, care coordination, beneficiary experience, and stakeholder engagement activities. We also discuss challenges, successes, and emerging issues identified during the reporting period.

We also present quantitative impact analysis results on quality of care, service utilization, and costs for the period spanning March 1, 2014, through December 31, 2020 (the first 6

[3] ODM refers to beneficiaries who receive only Medicaid benefits from a MyCare Ohio plan as the "opt-out" population because they opted out of receiving Medicare benefits through a MyCare Ohio MMP. ODM refers to beneficiaries who receive both Medicare and Medicaid benefits through a MyCare Ohio MMP as "opt-in" beneficiaries. For the purposes of this evaluation, we refer to the "opt-in" population as demonstration enrollees. The unenrolled Medicare-Medicaid beneficiaries are referred to as the opt-out population.

[4] In 2022, as part of the contract year 2023 Medicare Advantage and Part D rulemaking process, FAI capitated model states were given an opportunity to extend their demonstrations (no later than December 31, 2025) in order to convert their MMPs into integrated Dual Eligible Special Needs Plans (D-SNPs), contingent upon submitting to CMS a transition plan by October 1, 2022. As of September 2023, the Ohio demonstration has been extended through December 31, 2025.

demonstration years). The difference in timeframes between qualitative and quantitative analyses is due to the longer lag of secondary data used in quantitative analysis.

1.3 Data Sources

We used a variety of data sources to prepare this report (see below). See ***Appendix A, Data Sources*** for additional detail.

SECTION 2

Demonstration Design and State Context

2.1 Changes in Demonstration Design

As discussed in the Second Evaluation Report, the MyCare Ohio three-way contract was amended in 2017, modifying the care model to provide MMPs with more flexibility and prioritizing a population health approach to quality and care management. During that same reporting period, a 2019 contract amendment modified the capitation rate methodology, and added requirements relating to value-based payment arrangements and quality improvement.

During this reporting period, the three-way contract was amended three times (see ***Table 2-1***), adding risk corridors to mitigate the unpredictable impact of the PHE on service utilization, adding payment incentives to promote COVID-19 vaccinations, and other changes.

Implementation Effectiveness: Fidelity

Now that the Financial Alignment Initiative demonstrations have been in place for several years, we have identified several measures as indicators of implementation effectiveness or success, based on the standard implementation science approach, that we believe are useful for this evaluation. The four measures are: (1) fidelity of the demonstration to the original design, (2) demonstration reach, (3) implementation dose, and (4) the State's and CMS' reflections on demonstration effectiveness. We discuss each of these measures in this report, starting with fidelity.

Implementation fidelity can be considered as the degree to which an intervention is implemented as originally designed, even if adaptations to the strategy become necessary. For States, plans, and other stakeholders, including policymakers, it is helpful to reflect on the changes to the demonstration model that were made as implementation unfolded, and the impact of those changes. These findings can inform design or implementation of future models.

As seen in ***Table 2-2***, the original design of the MyCare Ohio demonstration was modified at several points over the course of the demonstration. State officials believed that changes made over the course of the demonstration were best characterized as quality improvements rather than changes to the essential design elements.

Table 2-1
Ohio three-way contract amendments

January 2021	May 2021	January 2022
• Added risk corridors to the Medicare and Medicaid capitated rate structure (effective 2021). • Added new centralized provider credentialing system through ODM.	• Extended the demonstration through 2023. • Updated access standards for adult day services and assisted living. • Added a requirement regarding incentive payments for COVID-19 vaccinations. • Added a requirement regarding COVID-19 relief payments for certain types of providers.	• Extended risk corridors to demonstration year 8 (effective 2022).

ODM = Ohio Department of Medicaid

Table 2-2 illustrates the major changes to key MyCare Ohio demonstration characteristics from the demonstration's start in early 2014 to early 2022.

Table 2-2
Key changes to MyCare Ohio over the course of the demonstration (March 2014 through early 2022)

Key demonstration feature	Changes to the original demonstration design
Timeline	MyCare Ohio was extended through December 31, 2023.[1]
Eligibility	No changes.
Geography/ Number of participating MMPs	No changes.
Services/Carve-outs	No changes.
Payment structure	The Medicaid capitation payment structure was revised in 2019, to develop rates based on actual experience rather than projected expenditures absent the demonstration. Risk corridors were added in 2021 and 2022.
Other changes	In 2018, ODM redesigned its behavioral health system, resulting in changes to behavioral health services covered under the demonstration.[2]

MLTSS = managed long-term services and supports; MMP = Medicare-Medicaid Plan; ODM = Ohio Department of Medicaid.
[1] As of September 2023, the Ohio demonstration has been extended through December 31, 2025.
[2] As discussed in the Second Evaluation Report, one MMP saw the redesign of the behavioral health system as increasing the number of behavioral health providers participating in Medicare.

2.2 Overview of State Context

Prior to the launch of MyCare Ohio—Ohio's first managed LTSS program (MLTSS)—Medicare-Medicaid beneficiaries were excluded from Ohio's managed care service delivery options.[5] Ohio offers MLTSS only in the demonstration area and only to dually eligible beneficiaries. In addition to MyCare Ohio, Ohio has a traditional Medicaid managed care program. ODM has coordinated quality management activities across all of its Medicaid managed care programs, including MyCare Ohio. ODM expected new priorities developed for the traditional Medicaid managed care plans[6] to shape the quality management priorities for MyCare Ohio.

As discussed in the Second Evaluation Report, in 2018, ODM implemented a behavioral health redesign that overhauled the behavioral health benefit package and carved behavioral health into Ohio's traditional Medicaid managed care program. Starting in 2020, in response to the Public Health Emergency (PHE), ODM and CMS waived certain Medicaid and demonstration requirements. These waivers were continued in 2021. More detail on these waivers is provided in the Second Evaluation Report.

[5] In Ohio, both the Medicaid managed care plans for dually eligible beneficiaries and MMPs are referred to as MyCare Ohio plans.
[6] Information about the "Next Generation of Ohio Medicaid Managed Care" can be found on ODM's website: https://managedcare.medicaid.ohio.gov/managed-care.

SECTION 3

Update on Demonstration Implementation

In this section, we provide updates on important aspects of demonstration implementation that have occurred since the Second Evaluation Report. This includes updates on integration efforts, enrollment, care coordination activities, stakeholder engagement activities, financing and payment, and quality management strategies.

3.1 Integration of Medicare and Medicaid

The MyCare Ohio demonstration is scheduled to conclude no later than December 31, 2025. ODM is planning for a future approach to integrated care in Ohio that will preserve key features of the demonstration.

The Contract Management Team has been exploring accessibility issues for MyCare Ohio enrollees with disabilities, including the accessibility of virtual encounter and member materials..

As discussed in the Second Evaluation Report, in 2020 and early 2021 the CMT addressed issues related to the PHE and continued regular demonstration monitoring. ODM and MMPs reported increased communication and collaboration among MMPs during the PHE. In this section we provide updates on these activities and on demonstration integration structures.

3.1.1 Joint Management of the Demonstration

Each of the five MyCare Ohio MMPs operates under a three-way contract with ODM and CMS. As members of the Contract Management Team (CMT), ODM and CMS jointly manage contracts. In addition to its performance and quality monitoring functions, the CMT serves as a vehicle for aligning Medicare and Medicaid policy and systems, streamlining communication with the MMPs, and providing technical assistance to them.

In late 2021 and early 2022, CMT activities began to pivot away from the PHE. CMS reported a renewed focus on quality work, including a specific focus on accessibility issues for MyCare Ohio enrollees with disabilities. This issue had been brought to the attention of CMS by advocates who reported enrollees' accessibility issues with virtual encounters and member materials, such as a need for closed captioning or larger font sizes.

The CMT also refocused on efforts to improve diabetes care that began before the PHE. This allowed for synergy with ODM's quality improvement projects in this area. As discussed in ***Section 3.6, Quality of Care,*** a portion of the quality withhold is specifically tied to the Diabetes Care: Blood Sugar Controlled measure (i.e., measure OCW1).

Strong collaboration among CMS, ODM, and the MMPs was again reported in early 2022 as a strength of the demonstration. For example, ODM noted that the demonstration provided an important opportunity for the State to better understand the characteristics and needs of its "community well" population, stating that although "community well" beneficiaries may not need long-term services and supports (LTSS), many have serious health conditions and have benefitted from service coordination made available through the demonstration. ODM also reported that as a result of the demonstration, the State gained a better understanding of Medicare regulations and processes through work with CMS.

ODM has been developing a plan for integrated care in Ohio that will begin after the demonstration ends no later than December 31, 2025. A draft plan, submitted to CMS in September 2022, discussed transitioning to a FIDE-SNP model and addressing priorities such as

- improving current self-direction options
- improving care coordination for members with behavioral health needs
- enhancing provider appeals processes
- reducing provider administrative burden through the Ohio Medicaid Enterprise System, an information technology system.

Some stakeholders identified risks associated with the transition to a FIDE-SNP model. The Ombudsman was concerned that ODM's partnership would not be as active under a FIDE-SNP model as under the CMT and the MMP model. Several stakeholders discussed the strength of Ohio's Area Agencies on Aging (AAAs) and wondered whether the partnership between the health plan and the AAAs would continue under the new model.

3.1.2 Integrated Delivery System

Each MyCare Ohio MMP has contracted with medical, behavioral health, and LTSS providers to deliver integrated Medicare and Medicaid services. Due in part to the PHE, Ohio (like other States) has experienced a shortage of LTSS providers, and especially personal care providers. In 2022, ODM and MMPs reported forming a collaborative to address this issue. Some MMPs conducted outreach to AAAs, home health and hospice organizations, and nursing and vocational schools to gather information about how best to address the shortages. The collaborative also discussed regulatory changes that could be made. For example, integrating training and certifications across waiver programs could address current regulatory hurdles; those received under one waiver program often do not transfer to other programs, making it difficult for potential workers to provide different services.

MMPs and stakeholder groups also identified some challenges with the integrated delivery system. For example, MMPs mentioned the difficulty of dealing with different processes and procedures in Medicare and Medicaid, including the different ways in which appeals and grievances are reported and handled in each program. One MMP also said that the claims systems were not built for Medicaid. A stakeholder group also noted the complexity involved in not having standard methods of care coordination across MMPs.

The MMPs highlighted efforts they made to educate providers on the demonstration. One MMP has better relationships with providers because they now have a more holistic picture of the services and care provided across the Medicare and Medicaid programs. Another MMP educated providers on claims and billing, and the use of telehealth during the PHE. Another MMP worked with nursing facilities to improve transitions from the hospital.

In the Second Evaluation Report, we described how MMPs successfully implemented value-based payment arrangements with nursing facilities. In 2022, two MMPs also reported using value-based payment arrangements with the AAAs. Measures used in these arrangements included those related to cancer screenings and diabetic care.

3.2 Eligibility and Enrollment

Just under 142,000 Medicare-Medicaid beneficiaries were eligible for MyCare Ohio in December 2021, and more than 82,000 (58 percent) were enrolled.

ODM reported that the number of beneficiaries opting out of the demonstration increased in 2021.

ODM and an MMP noted that the opt-out rate was higher for nursing facility (NF) residents than for community well and waiver participant populations.

In this section we provide updates on eligibility and enrollment processes, including integration of eligibility systems, enrollment methods, and outreach. We also discuss significant events affecting enrollment patterns during the timeframe covered by this report, including recent increases in the proportion of eligible beneficiaries opting out of the demonstration.

3.2.1 Enrollment Summary

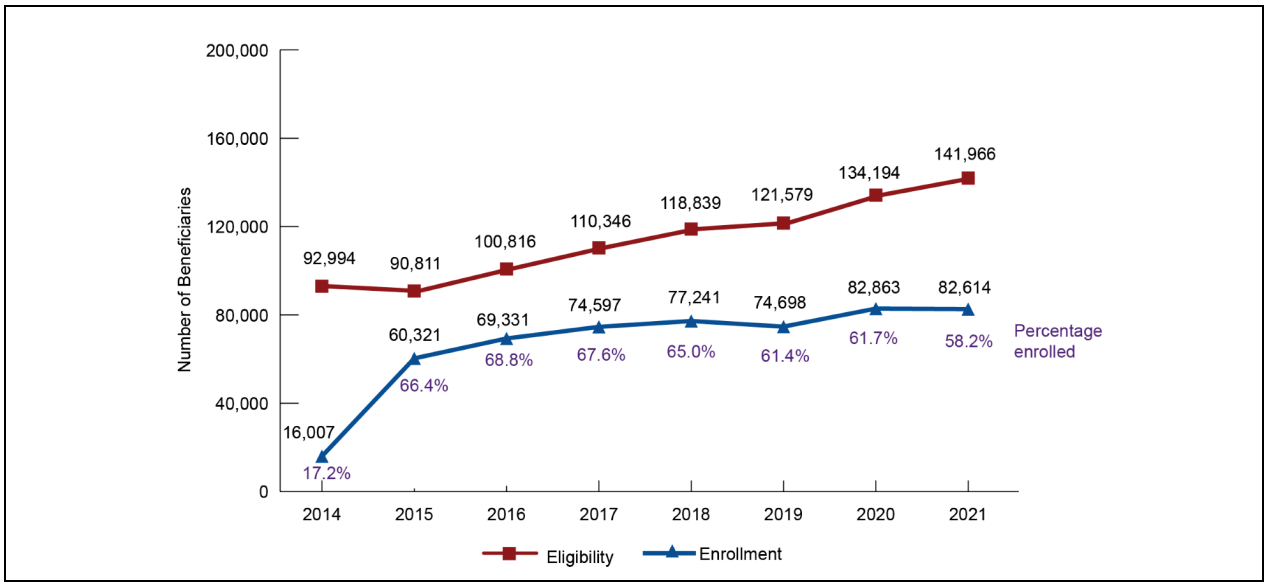
As seen in prior years, in 2021, the number of beneficiaries eligible for the MyCare Ohio demonstration increased by 6 percent to 141,966, whereas the number of those enrolled in the demonstration held steady, at 82,614 (similar to 2020). As a result, the proportion of eligible beneficiaries enrolled in the demonstration dipped to 58 percent, making it the first time since the end of the first demonstration year that this number fell below 60 percent.

Implementation Effectiveness: Reach

"Reach" is an individual-level measure of participation and refers to the percentage of persons who are affected by a policy, program or initiative. To measure this in the FAI, we examine the percentage of eligible beneficiaries who are enrolled in the demonstration.

Figure 3-1 shows the changes in enrollment and in the percentage of eligible beneficiaries enrolled during the demonstration to date. After remaining above 60 percent from 2015 through 2020, the percentage of eligible beneficiaries who were enrolled decreased to 58 percent in December 2021. ODM and MMPs attributed this decline to competition from Medicare Advantage plans. Overall, the demonstration to date has been able to reach, on average, nearly two-thirds of eligible beneficiaries.

Figure 3-1
MyCare Ohio enrollment and eligibility at the end of each calendar year, 2014–2021



FFS = fee-for-service; SDRS = State Data Reporting System.
NOTE: Enrollment and eligibility are reported as of December each year. Enrollment and eligibility data reported in the SDRS may not match the finder file data used for quantitative analyses, because of the timing for completion and submitting the finder file versus the SDRS. The definition of eligibility used here, and also in ***Section 6, Demonstration Impact on Cost Savings***, includes FFS and Medicare Advantage populations.
SOURCE: SDRS data for 2014–2021. The SDRS items used to collect eligibility and enrollment were: "Total number of beneficiaries who are eligible to participate in the demonstration" and "Total number of beneficiaries who are enrolled in the demonstration, as of the end of the given month."

3.2.2 Passive Enrollment Process and Experience

In 2022, MMPs continued to credit the design of MyCare Ohio with the relatively high rate of enrollment. All eligible Medicare-Medicaid beneficiaries must enroll in a MyCare Ohio plan, whether they receive integrated Medicare-Medicaid benefits through the MyCare Ohio plan or only their Medicaid benefits. The passive enrollment process presumes that the beneficiary will participate in the demonstration and the beneficiary must opt out of the demonstration, or actively choose to receive only their Medicaid benefits through their MyCare Ohio plan.

MMPs value the passive enrollment process but would like to limit the times each year that enrollees can opt out. Unlike other Medicare products where dually eligible beneficiaries can change products only quarterly, and those who are not dually eligible can change products only during the annual enrollment period, MyCare Ohio enrollees can opt out of the demonstration on a monthly basis. Among other challenges, this can disrupt continuity of care. In 2022 MMPs suggested limiting opt-outs to a few times a year, such as three opt-out periods.[7]

The MMPs and ODM reported that the opt-out rate had increased during 2021. One MMP, for example, said that their rapid disenrollment rate (i.e., the proportion of new enrollees

[7] Effective January 1, 2019, CMS allowed states to limit disenrollment to a quarterly rather than monthly basis. Ohio did not elect to make this change.

opting out shortly after passive enrollment) had increased from 33 percent in 2019 to 60 percent in 2021.

ODM and one MMP also noted that opt-outs among NF residents was higher than that of other enrollees. The MMP reported that 50 percent of its NF residents opted out, whereas 40 percent of the community well and waiver populations opted out. This MMP planned to work with the NFs in its network to provide more education on the value of integrated care for NF residents.

3.2.3 Factors Influencing Beneficiary Enrollment Decisions

MMPs suggested that one explanation for enrollee opt-outs was enrollees' lack of understanding of the demonstration and the benefits they can receive from an MMP. One MMP sought to better educate potential enrollees at the time of passive enrollment since it believed that those who opt out are not making an informed choice. Another MMP conducted a major marketing campaign to remind enrollees what the demonstration does for enrollees.

ODM and the MMPs also believed that the recent drop in enrollment is related to increased competition from Dual Eligible Special Needs Plans (D-SNPs). One MMP said that the supplemental Medicare benefits available in D-SNPs are richer than those available from MMPs. This MMP also acknowledged that provider networks are important to potential enrollees and that enrollees will opt out of MyCare Ohio if it means to have continued access to their preferred providers.

One MMP mentioned that the pause in Medicaid redeterminations during the PHE stabilized their enrollment to some degree. This pause, enacted nationwide by CMS, meant that States did not need to redetermine Medicaid eligibility and allowed most Medicaid beneficiaries to retain their Medicaid eligibility during the PHE.

3.3 Care Coordination

As MyCare Ohio has matured, MMPs have been able to provide better data analytics to support targeted interventions focused on improving population health outcomes.

Although some nursing facilities continued to see care management provided by MMPs as duplicative of their own, some cited the value of medical management and navigation offered by some MMP nurse care managers who have consistent involvement in the facility.

As described in the Second Evaluation Report, in alignment and coordinated with Ohio's mainstream Medicaid managed care program, MMPs were required since 2017 to adopt a population health model for care management. Starting in 2020, MyCare Ohio's care coordination model was modified to mitigate the risk of COVID-19 infection for enrollees and care managers during the PHE. In this section we provide an update on these activities and highlight the major accomplishments of the MyCare Ohio care coordination model.

3.3.1 Assessments

The three-way contract requires MMPs to complete an assessment within 75 days of enrollment. However, under waivers in place since the onset of the PHE, the MMPs have 90 days to complete the assessment and the requirement for a face-to-face assessment has been removed. The PHE likely contributed to an increase in "unable to reach" rates, particularly in NFs, where the ability to conduct a face-to-face assessment is particularly important. Although the PHE limited access to NF residents and staff, MMPs reported using different strategies to engage NF staff and access information about their enrollees. A provider representative noted that one of these strategies—having a care coordinator manager dedicated to the residents of a particular NF—was particularly successful. A dedicated care manager could build a relationship with the facility staff and learn the best strategies for working with staff to manage enrollees' care. In addition, this provider representative noted that NFs were more likely to grant access to electronic medical records to care managers with whom they had developed a longstanding relationship.

As in prior years, contacting some enrollees also continued to be a challenge. MMPs continued to express concerns about incorrect contact information for new enrollees. For one MMP, when initial outreach efforts fail, a dedicated team locates enrollees using both internal and external resources. Once they reach the member, they use information derived from the member's claims experience to engage the member about the services they need and complete a referral for an assessment. Another MMP reported coordinating with in-home providers to conduct outreach to hard-to-reach members.

Implementation Effectiveness: Dose

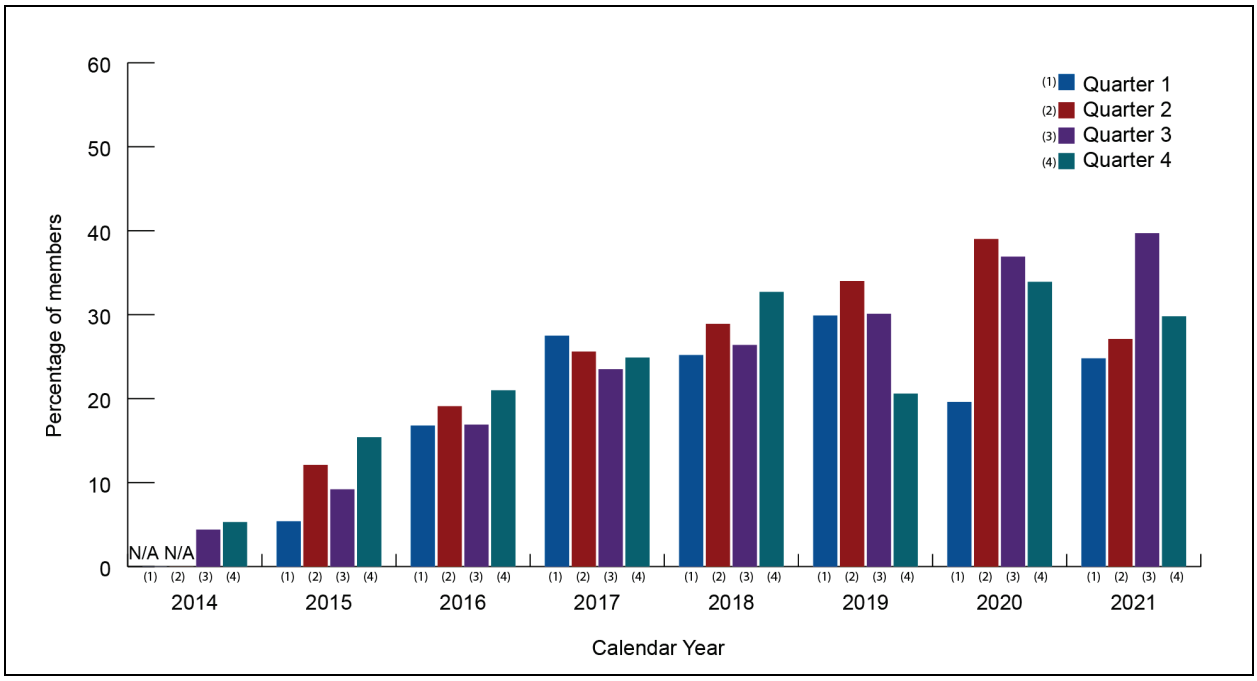
Earlier in this report, we discussed "reach," which measures the percentage of persons who receive or are affected by or participate in a *policy, program or initiative*. "Dose" is a measure of implementation effectiveness that refers to the amount of, exposure to, or uptake of an *intervention* provided to a target population within a program or initiative. In the FAI, the main intervention is care coordination.

Because we do not have a direct measure of how many enrollees receive care coordination, we use a proxy measure for dose: the percentage of enrollees that MMPs were not able to reach or locate. This measure gives a sense of how many enrollees were not able to make a choice to engage in care coordination, i.e., without connecting with care managers, enrollees could not participate in assessments, have care plans, or identify care goals (these activities are discussed later in this section).

Figure 3-2 shows that this measure generally increased over the course of the demonstration to date, suggesting that a smaller percentage of new enrollees was able to receive care coordination over time.

As shown in ***Figure 3-2***, the percentage of enrollees that MyCare Ohio MMPs were unable to reach generally increased over the course of the demonstration, with a low of 4.4 percent in quarter 3 of 2014 and a high of 39.7 percent in quarter 3 of 2021. This increase might be explained by two unrelated factors. In the first phase of enrollment in 2014, only beneficiaries who opted into the demonstration were enrolled in the demonstration. Passive enrollment for all other beneficiaries did not begin until 2015. In 2020 and 2021, the further increase in the "unable to reach" category is likely attributable to the impact of the PHE on access to enrollees.

Figure 3-2
Percentage of members that MyCare Ohio MMPs were unable to reach following three attempts, within 90 days of enrollment, 2014–2021



MMP = Medicare-Medicaid Plan; N/A = not applicable.
NOTE: Because the Ohio demonstration began in May 2014, data are not applicable for quarter 1 and quarter 2 of 2014.
SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Although the shift to virtual assessments was seen initially as an appropriate alternative to face-to-face meetings during the PHE,[8] over time, the State, the Ombudsman, CMS, MMPs, a beneficiary advocate, and AAAs all expressed their concerns about adequately capturing enrollee needs and engaging enrollees when the assessment is conducted virtually. As discussed in ***Section 4, Beneficiary Experience***, the shift to a virtual format for assessments was not ideal for some enrollees who encountered accessibility barriers. Limited cell phone data plans also constrained enrollees' ability to engage virtually. In addition, where virtual assessments were conducted, MMPs and AAAs reported that care managers could not identify an enrollee's needs as accurately without the full picture of the enrollee's circumstances provided by an in-home visit.

[8] The Second Evaluation Report has more detail on the transition to virtual assessments in the early stages of the PHE.

[It's] harder to assess people in their environment when you're not laying eyes on that home…. If you tell me everything's fine, I have to believe you. And then I get out to your home and [what] I [see and] smell … tells me a different story.

— Area Agency on Aging, 2022

As shown in ***Table 3-1***, among all enrollees, the percentage with an assessment completed within 90 days of enrollment varied across years and quarters. The percentage ranged from 43.8 to 69.8 during 2014 through 2021. Among enrollees willing to participate and who could be reached, the percentage with assessments completed within 90 days of enrollment increased noticeably over the course of the demonstration to-date, with a low of 59.1 in quarter 3 of 2014 and a high of 95.0 in quarter 3 of 2020, with percentages remaining above 85.7 in 2021.

Table 3-1
MyCare Ohio MMP members whose assessments were completed within 90 days of enrollment, 2014–2021

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with assessments completed within 90 days of enrollment[1]	
		All members	All members willing to participate and who could be reached[2]
2014			
Q1	N/A	N/A	N/A
Q2	N/A	N/A	N/A
Q3	10,333	56.1	59.1
Q4	1,899	63.6	67.7
2015			
Q1	46,901	69.8	74.8
Q2	5,390	63.5	73.4
Q3	4,377	66.9	75.0
Q4	4,905	64.0	77.9
2016			
Q1	4,206	68.4	85.0
Q2	5,442	66.2	84.5
Q3	4,771	64.8	80.0
Q4	4,765	62.9	82.8
2017			
Q1	9,035	50.8	74.6
Q2	7,492	60.2	86.0
Q3	5,416	63.9	88.9
Q4	8,482	58.0	83.5

(continued)

Table 3-1 (continued)
MyCare Ohio MMP members whose assessments were completed within 90 days of enrollment, 2014–2021

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with assessments completed within 90 days of enrollment[1]	
		All members	All members willing to participate and who could be reached[2]
2018			
Q1	4,926	61.7	87.8
Q2	8,048	59.8	92.1
Q3	5,787	65.1	93.9
Q4	9,162	59.5	94.4
2019			
Q1	6,928	58.6	91.0
Q2	8,297	55.6	92.5
Q3	5,745	58.8	92.3
Q4	3,384	68.7	92.8
2020			
Q1	3,173	67.4	89.4
Q2	11,080	50.4	91.9
Q3	6,965	52.7	95.0
Q4	5,903	52.4	93.2
2021			
Q1	2,476	57.4	85.7
Q2	2,642	57.2	89.1
Q3	9,211	43.8	90.7
Q4	6,351	54.0	87.4

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
[1] The "all members" column presents the percentage of assessments completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to participate and who could be reached" column, the percentages exclude members who were documented as unwilling to participate in an assessment, and members who the MMP was unable to reach following three documented outreach attempts.
[2] The number of members willing to participate and who could be reached cannot be calculated using the corresponding percentages in this table. As indicated in table note 1, RTI used additional data points to calculate these percentages.
NOTE: Because the Ohio demonstration began in May 2014, data are not applicable for quarter 1 and quarter 2 of 2014.
SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

3.3.2 Care Planning

MMPs have reported on care plan completion using two different measures during the demonstration. From 2014–2017, MyCare Ohio MMPs used a State-specific measure. ***Table 3-2***

shows that for all enrollees, the percentage with care plans completed within 90 days of enrollment varied from 2014 to 2017, increasing from lower percentages in quarter 2 and 3 of 2014 (19.6 and 39.1 percent) to a range of 48.6 to 59.7 percent in 2015–2017. For all enrollees willing to complete a care plan and who could be reached, the percentage increased overall, with a low of 22.3 percent in quarter 2 of 2014 and a high of 80.9 percent in quarter 3 of 2017.

Table 3-2
MyCare Ohio MMP members with care plans completed within 90 days of enrollment, 2014–2017

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members	All members willing to complete a care plan and who could be reached[2]
2014			
Q1	N/A	N/A	N/A
Q2	13,341	19.6	22.3
Q3	10,643	39.1	43.3
Q4	1,929	49.5	52.6
2015			
Q1	46,014	57.7	62.5
Q2	5,694	59.7	66.7
Q3	4,537	55.7	63.0
Q4	5,178	54.3	63.1
2016			
Q1	4,541	59.1	74.3
Q2	6,018	57.3	74.1
Q3	5,306	59.6	73.9
Q4	5,330	57.6	75.7
2017			
Q1	9,500	48.6	71.3
Q2	7,953	55.8	80.1
Q3	5,816	57.0	80.9
Q4	9,133	53.2	78.2

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
[1] The "all members" column presents the percentage of care plans completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to complete a care plan and who could be reached" column, the percentages exclude members who were documented as unwilling to complete a care plan and members who the MMP was unable to reach following three documented outreach attempts.
[2] The number of members willing to complete a care plan and who could be reached cannot be calculated using the corresponding percentages in this table. As indicated in table note 1, RTI used additional data points to calculate these percentages.
NOTES: Because the Ohio demonstration began in May 2014, data are not applicable for quarter 1. Quarter 2 of 2014 covers data for the period of May 2014 to June 2014. All subsequent quarters contain 3 months of data.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure OH 1.1 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Ohio-Specific Reporting Requirements document.

As of 2018, MMPs reported on care plan completion using a newly introduced core measure that applies across all FAI demonstrations. As shown in ***Table 3-3***, the percentage of all enrollees with care plans completed within 90 days of enrollment varied, with a low of 40.0 percent in quarter 3 of 2021 and a high of 66.7 percent in quarter 4 of 2019. Among enrollees willing to participate and who could be reached, care plan completion rates remained above 81 percent in 2018 through 2021.

Table 3-3
MyCare Ohio MMP members with care plans completed within 90 days of enrollment, 2018–2021

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members	All members willing to complete a care plan and who could be reached[2]
2018			
Q1	4,926	55.4	80.9
Q2	8,048	54.9	85.9
Q3	5,787	61.5	89.6
Q4	9,162	56.6	91.4
2019			
Q1	6,928	56.4	87.2
Q2	8,297	53.5	89.3
Q3	5,745	57.6	89.1
Q4	3,384	66.7	90.0
2020			
Q1	3,173	65.7	86.8
Q2	11,080	49.5	89.0
Q3	6,965	52.0	92.0
Q4	5,903	53.0	90.3
2021			
Q1	2,476	55.8	82.0
Q2	2,642	55.2	85.4
Q3	9,211	40.0	86.3
Q4	6,351	55.8	83.1

MMP = Medicare-Medicaid Plan; Q = quarter.
[1] The "all members" column presents the percentage of care plans completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to complete a care plan and who could be reached" column, the percentages exclude members who were documented as unwilling to complete a care plan and members who the MMP was unable to reach following three documented outreach attempts.
[2] The number of members willing to complete a care plan and who could be reached cannot be calculated using the corresponding percentages in this table. As indicated in table note 1, RTI used additional data points to calculate these percentages.
SOURCE: RTI analysis of MMP-reported data for Core Measure 3.2 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Table 3-4 shows that the percentage of enrollees with at least one documented discussion of care goals in their initial care plan was high from 2014 through 2021, remaining in the 90 percent range for all but one quarter.

Table 3-4
MyCare Ohio MMP members with documented discussions of care goals, 2014–2021

Quarter	Total number of members with an initial care plan completed	Percentage of members with at least one documented discussion of care goals in the initial care plan
2014		
Q1	N/A	N/A
Q2	N/A	N/A
Q3	3,667	92.3
Q4	3,763	90.0
2015		
Q1	15,372	94.9
Q2	7,189	83.1
Q3	9,328	91.8
Q4	6,689	91.9
2016		
Q1	4,702	90.1
Q2	3,314	91.3
Q3	3,088	92.9
Q4	3,965	93.0
2017		
Q1	4,680	91.0
Q2	4,358	89.5
Q3	5,067	92.2
Q4	4,373	91.7
2018		
Q1	5,366	96.3
Q2	4,761	96.5
Q3	5,351	97.8
Q4	5,906	98.2
2019		
Q1	5,528	98.4
Q2	5,074	97.4
Q3	3,611	96.2
Q4	2,910	94.2

(continued)

Table 3-4 (continued)
MyCare Ohio MMP members with documented discussions of care goals, 2014–2021

Quarter	Total number of members with an initial care plan completed	Percentage of members with at least one documented discussion of care goals in the initial care plan
2020		
Q1	4,312	96.5
Q2	4,921	97.3
Q3	4,246	98.3
Q4	3,203	98.6
2021		
Q1	2,007	96.5
Q2	3,482	98.7
Q3	4,282	98.8
Q4	2,883	98.6

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
NOTE: Because the Ohio demonstration began in May 2014, data are not applicable for quarter 1 and quarter 2 of 2014.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure OH 1.2 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Ohio-Specific Reporting Requirements document.

3.3.3 Care Coordination Capacity

While some challenges remained, the infrastructure supporting care coordination has matured during the course of the demonstration, enhancing care managers' capacity to integrate care and target their interventions.

Partnerships between the AAAs and MMPs

As discussed in previous evaluation reports, Ohio's model for coordinating care provides MMPs with considerable flexibility. While MMPs must contract with AAAs to provide waiver service coordination for members who are age 60 or older,[9] they have the option of delegating waiver service coordination for enrollees under age 60. They may also choose to delegate or retain responsibility for managing all other services for both the older and younger age groups. [10] Three plans designed their care model to retain all care management responsibilities,[11] except to partner with the AAAs to coordinate waiver services for enrollees age 60 and older. The remaining two opted to fully delegate care management and waiver service coordination for all

[9] MMPs may also contract with other entities that have experience working with people who have disabilities (Ohio three-way contract, 2019, p.44).
[10] See the First Evaluation Report for more detail about Ohio's care coordination model.
[11] Ohio uses "care management" to describe the function MMPs use for taking responsibility for the whole person, across the continuum of care, including acute care, LTSS, and behavioral health.

age groups to the AAAs, when the beneficiary is receiving home and community-based services (HCBS).

ODM cited the partnership between the MMPs and AAAs as a major success of the demonstration; MMPs have come to value the local knowledge AAAs have, as well as their expertise in HCBS. The AAAs have come to value the data analytics that MMPs bring to the table. With the information provided by the MMPs, AAAs are able to focus on helping those most at risk for inpatient stays or emergency room visits to stay at home and avoid exacerbating their chronic conditions. One AAA also noted that the partnership produces a bigger impact than either the MMP or AAA could make on their own. For example, the combination of MMP resources and an AAA's knowledge of the local senior centers in low-income areas enhanced vaccination outreach for the MMP.

Integration of Care

In early 2022, AAAs reported that care coordinators operating under the full delegation model (where the AAA is responsible for coordinating both waiver and health services), with access to all of the enrollee's Medicare, Medicaid and pharmacy claims, are able to help enrollees navigate the full continuum of care. One AAA noted that the fully delegated model of MyCare Ohio requires care coordinators to have a level of clinical sophistication not typically needed under other waiver programs. A significant level of effort is required to support this level of care coordination. For example, this AAA developed an infrastructure that includes patient navigators, team leads, case managers, clinical managers, and others. Their staff work with the MMP on a daily basis, so that staff have "five to six people in their ear" when they conduct home visits. By way of comparison, AAAs noted the challenges of coordinating care for those who opted out of the demonstration. Under the fully delegated model, the AAA is responsible for coordinating Medicare and Medicaid services for both opt-in and opt-out groups. However, for the opt-out (Medicaid only) group, having access to only Medicaid claims experience requires the AAAs to provide care coordination "with one hand tied behind your back."

ODM cited the positive impact of MyCare Ohio on persons eligible for Medicaid but not in need of LTSS. Although this group is often referred to as the "community well" group, they often have chronic conditions. Through MyCare Ohio, this group has been able to access care management to help them maintain their health and their independence.

When we all first started out in MyCare, nobody knew what we were doing…. [B]ut as we have been in it for several years, we are better…. Now we're doing the assessment and care plan, and we're looking in more deeply into how we can impact those social determinants of health or more deeply into how to coordinate care, to address specific disease or disease processes.

— Area Agency on Aging, 2022

Care Management for Enrollees Residing in Nursing Facilities

MMPs continued to encounter challenges managing the care of enrollees residing in NFs. As discussed in the Second Evaluation Report, the PHE made MMP staff's access to NF staff significantly more difficult. In addition, according to a provider representative, many NFs perceived the care management provided by an MMP as duplicative of the care management that the facility is required to provide under Federal law. In spite of these challenges, this same provider representative noted that some NFs valued the medical management and clinical navigation provided by MMP care coordinators who are nurse practitioners and can work closely with NF staff to "step in for the doctor to get things done."

Social Determinants of Health

As described in the Second Evaluation Report, in 2019 ODM began to make health equity a quality management priority for all of its Medicaid managed care programs. In this reporting period, the MMPs identified systems they have put in place to address health equity. One MMP uses demographic and other data to identify, at the neighborhood level, factors that can impact its enrollees' health, including transportation barriers, geographic areas with inadequate access to healthcare, and food insecurity. This MMP also invested in developing a resource finder tool powered by a nationwide comprehensive online directory of social service organizations that care coordinators can use for making needed referrals.

Another MMP reported that its experience during the PHE has helped to increase its focus on social determinants of health, and that focus is now embedded in the organizational culture and is a significant part of the assessment and care planning process. The MMP is continuing its efforts to assist enrollees with grocery delivery, pet food, low-cost internet, and housing. This MMP reported that it relies on its own housing expertise to address housing needs for enrollees.

One AAA reported that its practice for addressing social determinants of health has become more formalized over the course of the demonstration. Initially, when a care coordinator identified a needed service outside those covered under the demonstration, they would identify a resource, such as a food pantry or a heating assistance program, for the enrollee to contact. However, that type of referral was not tracked and there was no follow-up to ensure that the enrollee's needs were met. The AAA reported that its care coordinators became better at identifying when a social determinant of health is a factor in an enrollees' health and well-being and that they make sure to document, track and follow-up on their referrals.

Special Populations

During the report period, MMPs described ways they have tailored care management to the specialized needs of individuals and certain population groups. For example, one MMP reported that its medical staff and behavioral health team provide consultation for enrollees with particularly complex needs and, in unique situations, they will authorize services that would not typically be provided. Another MMP described their efforts to serve enrollees with serious and persistent mental illness (SPMI). Because providers have difficulty maintaining regular contact with their patients with SPMI, this MMP is often aware of an enrollee's hospital admission before their outpatient provider is. The MMP notifies the outpatient provider of the hospital admission so that the provider can connect with their patient. The MMP's care management and

behavioral health teams also review pharmacy and behavioral health service claims to identify gaps in care.

One AAA reported having a team dedicated to the unique needs of another special population—younger individuals who have experienced a serious injury, resulting in a chronic need for skilled nursing care. Unlike most enrollees who need assistance with activities of daily living, this special population has a higher level of need, including ventilation and almost around-the-clock care.

Staffing

Reports on staff retention varied among MMPs we interviewed. One MMP reported having significant staff turnover at the AAA level during the PHE. An AAA reported that the clinical sophistication of the MyCare Ohio demonstration has helped with care manager retention as they have found the work rewarding. Some MMPs reported using sign-on incentives to promote recruitment.

As shown in ***Table 3-5***, from 2014 to 2021 the number of care coordinators increased overall, from 867 to 1,269. The turnover rate was noticeably lower in 2018 through 2020 (7.4 to 8.7 percent) than in prior years (14.5 to 17.6 percent) but increased again to earlier levels in 2021 (15.6 percent). The percentage of care coordinators assigned to care management and conducting assessments remained above 90 percent after 2014. The enrollee load (case load) was notably lower in 2014 (22.4) and varied in 2015 through 2021 (62.1 to 74.6).

Table 3-5
Care coordination staffing at MyCare Ohio MMPs, 2014–2021

Calendar year	Total number of care coordinators (FTE)	Percentage of care coordinators assigned to care management and conducting assessments	Member load per care coordinator assigned to care management and conducting assessments	Turnover rate (%)
2014	867	82.7	22.4	17.6
2015	1,015	91.3	65.1	14.5
2016	934	99.5	74.6	16.1
2017	1,090	97.3	70.3	16.5
2018	1,165	93.6	70.9	8.7
2019	1,273	94.6	62.1	7.4
2020	1,246	91.2	73.0	7.9
2021	1,269	91.6	71.1	15.6

FTE= full time equivalent; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of MMP-reported data for Core Measure 5.1 as of April 2023. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

3.4 Stakeholder Engagement

Stakeholder engagement efforts by ODM focused on responding to the PHE, especially on increasing COVID-19 vaccination rates in the MyCare Ohio population.

MMPs continued to hold their beneficiary advisory committee meetings virtually; one MMP discussed returning to in-person meetings.

Beneficiaries used advisory committee meetings to advocate for continued access to telehealth and for clearer materials so they could understand their MyCare Ohio benefits.

In this section, we provide an update on stakeholder engagement activities at both the State and MMP level during 2021 and 2022. As reported in the Second Evaluation report, in 2017 the State discontinued large stakeholder meetings because attendance had declined. Instead, they conducted smaller meetings with individual stakeholders and MMPs. During the previous reporting period, MMPs convened beneficiary advisory committees on a quarterly basis, to solicit enrollee feedback on program management and beneficiary care. With the onset of the PHE in 2020, meeting frequency slowed and ODM's workgroups and the MMP advisory groups transitioned to a virtual format.

3.4.1 State-Level Engagement Activities

ODM's workgroup meetings continued to be held virtually through 2022. Workgroup meetings were often attended by representatives from the State departments of developmental disabilities, aging, or mental health, making access to State leadership easier for beneficiary advocates. A beneficiary advocate noted that due to the virtual nature of the meetings, it was easier for people with disabilities to join and provide their feedback.

During this reporting period, the State worked with stakeholders on several topics, including the PHE response and vaccination efforts. In 2021, the State also focused on the accessibility of the materials provided to beneficiaries and working with NF and hospice providers to streamline the billing process and prior authorization requirements.

ODM reported that engaging stakeholders continued to be a priority and, as it moves forward with transitioning the demonstration to a new approach to integrated care, it planned to seek more stakeholder input. The Ombudsman supplemented ODM's stakeholder engagement efforts by continuing to conduct enrollee outreach through community education events. The Ombudsman office also met regularly with MyCare Ohio MMPs and participated in MMP beneficiary advisory committees.

3.4.2 MMP-level Engagement Activities

One MMP described attendance at their beneficiary advisory committee meetings as "up and down." MMPs varied in their approach to returning to face-to-face meetings. One MMP

chose to continue hosting virtual meetings and found them to be successful and productive, reporting that virtual meetings were easier to attend, particularly for the long-term care population. Another MMP returned to an in-person format and offered transportation and lunch to increase attendance.

One MMP noted that advisory committees were most successful when enrollees were able to see concrete steps being taken to address the issues that were brought up. During this reporting period, MMPs were able to identify and act upon a number of opportunities for improvement. In response to the committee's request for better and more efficient communication, one MMP was able to develop an at-a-glance document to better explain the MyCare Ohio benefits and services. Another MMP restarted their gym membership benefit in response to advisory committee feedback. In another case, an MMP reported that, based on beneficiary input, it saw a need for offering continued access to telehealth after the PHE ends.

In spite of these successes, the Ombudsman cited an opportunity for improving the committees, noting that she believed NF residents were not included on MMP beneficiary advisory committees.

3.5 Financing and Payment

MMPs reported that the Medicaid capitation rates they received were adequate during this reporting period.

CMS and ODM applied risk corridors to MMP payments to mitigate risks associated with unpredictable utilization patterns and workforce shortages related to the PHE.

Effective 2020, ODM began developing Medicaid rates based on the demonstration's actual cost rather than projecting expenditures forward absent the demonstration and reducing by that amount the savings the MMPs were expected to achieve. In this section we provide a summary of changes to the financing and payment for MyCare Ohio since 2020, and any pertinent findings related to these changes.

3.5.1 Capitation Rates

Adequacy of Rates and Risk Corridors

MMPs generally agreed that Medicaid rates had been adequate during this reporting period, although one MMP noted that it had been challenging to manage their finances during the PHE, given the uncertainty about how the PHE would impact utilization over time. That MMP identified several factors contributing to these challenges, including the "devastating" impact COVID-19 had on their most acute enrollees. With the decrease in the number of enrollees with acute conditions, MMPs saw the relative proportion of "community well" enrollees increase, MMPs received a much lower capitation rate for enrollees falling into the community well group. Provider shortages were also cited as factors contributing to financial uncertainty. One MMP noted that ODM increased payment rates for personal care and other waiver services in

2021, and that MMP expects to see its expenditures increase as a result. However, this MMP also noted that the 2021 increase was still insufficient to offer competitive wages.

In 2021, CMS and ODM implemented risk corridors for the demonstration's Medicare and Medicaid rates to mitigate the risk of excessive profits or losses while the PHE persisted, along with uncertainty about utilization and the workforce shortages.[12] Although the MMPs acknowledged the appropriateness of risk corridors during times of uncertainty, they expressed hope that the risk corridors would not be required once the impact of the PHE lessened. In implementing the risk corridors, ODM and CMS worked with the MMPs to respond to their concerns about how they would be implemented, in relationship to other adjustments to the rates (e.g., the quality withhold and medical loss ratio).

Quality Withhold Percentages

For 2017 through 2022 (demonstration years 3 through 8), the quality withhold percentage for the Medicare Parts A and B rate and Medicaid rate remained constant at 3 percent. Starting in 2020 (demonstration year 6), CMS applied an additional 1 percent quality withhold to the Medicare Parts A and B rate component only. We discuss quality withhold results in ***Section 3.6, Quality of Care***.

Medical Loss Ratios

The target medical loss ratio (MLR) for the demonstration was initially set at 85 percent for MMPs, the same ratio used for Medicare Advantage plans (Ohio amended three-way contract, 2019). As discussed in the Second Evaluation Report, all of the MMPs had MLRs greater than 85 percent for the first 3 years of the demonstration. In demonstration year 4, one MMP had an MLR below 85 percent (83.8 percent) while the remaining four ranged from 85.5 to 94.6 percent. In demonstration year 5 all MMPs had MLRs greater than 85 percent, ranging from 86.9 to 91.8 percent.

Under the 2019 contract amendment, the MLR target was adjusted from 85 to 86 percent for demonstration year 6 (calendar year 2020), 87 percent for demonstration year 7, and 88 percent for demonstration year 8. As in prior years, for MLRs below 85 percent, MMPs must refund the percentage difference between their actual MLR and the 85 percent threshold, multiplied by the total capitation rate revenue. In addition, if an MMP's MLR is below the specified target MLR for a given year, it will also remit 50 percent of the percentage difference between its MLR and the adjusted MLR target multiplied by the total capitation rate revenue (Ohio three-way contract, 2019, p. 192).

3.5.2 Encounter Data

During the report period, ODM and MMPs reported that encounter data submitted by the MMPs had improved over time. MMPs said they are making only "typical" encounter errors (e.g., errors resulting from a mismatch between the State's and CMS' enrollment data), and systemic problems have been largely worked out. ODM attributed much of the improvement in encounter data to the change in the capitated rate methodology for the Medicaid component as of

[12] Risk corridors were also applied in 2022.

demonstration year 6 (calendar year 2020), which relies on encounter data to base rates on actual expenditures and provides an incentive for MMPs to improve the quality of their submissions.

Encounter data submitted by downstream providers has also improved over time. In the past, for example, for some nursing facilities, there would sometimes be a disconnect between the amount paid and the units billed. Although many of those problems had been resolved, ODM continued to experience challenges obtaining accurate encounter data from transportation providers. While ODM can see what transportation providers are paid, they are unable to capture the number of rides provided.

3.6 Quality of Care

ODM continued to use quality improvement initiatives to promote collaboration among MMPs.

In 2021, ODM used a payment incentive to MMPs to increase vaccination rates among MyCare Ohio enrollees, and promote coordination among MMPs.

All MMPs have improved performance over time on measures for blood pressure control, controlling HbA1c, and medication review. Other HEDIS measure results have been mixed across measures and MMPs over the course of the demonstration.

In this section we provide information on the quality measures for the demonstration, updates on the quality management structure and activities for the demonstration, and HEDIS results. We discuss results of the demonstration's impact on quality measures, separately defined using Medicare claims, in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***.

3.6.1 Quality Withhold

MMPs are required to report performance on a combination of CMS core and State-specific quality measures, some of which are designated as quality withhold measures. CMS and ODM withhold a percentage of their share of each MMP's capitation payment, some or all of which is paid to the MMP when specified thresholds for the quality withhold measures are met. MMPs that experienced an extreme and uncontrollable circumstance during the measurement year are eligible for 100 percent of the withheld amount, irrespective of measure performance. Due to the PHE, all MMPs were eligible for the quality withhold adjustment for an extreme and uncontrollable circumstance in calendar year 2020. Consequently, all MMPs received 100 percent of the withheld amount for calendar year 2020 based solely on full reporting of all applicable quality withhold measures. In 2021, four MMPs received 75 percent of the withheld amount and one received 100 percent (see ***Table 3-6***).

Table 3-6
Percentage of withheld capitation received by MyCare Ohio MMPs, calendar years 2014–2020

MyCare Ohio MMP	Percent of withhold received							
	2014	2015	2016	2017	2018	2019	2020	2021
Aetna Better Health	25	75	100	100	100	100	100	75
Buckeye Community Health Plan	25	75	100	75	100	100	100	100
CareSource	75	75	75	100	100	100	100	75
Molina Healthcare of Ohio, Inc.	75	100	75	100	100	100	100	75
United Healthcare Community Plan of Ohio, Inc.	25	50	100	100	100	100	100	75

SOURCES: Ohio Medicare-Medicaid Plan quality withhold analyses results for demonstration years 1 through 7 (CMS n.d.-a; CMS n.d.-b; CMS n.d.-c; CMS n.d.-d; CMS n.d.-e; CMS n.d.-f)

3.6.2 Quality Management Activities

As noted in ***Section 3.1, Integration of Medicare and Medicaid***, CMS and ODM jointly monitor the quality and performance of MMPs through their monthly meetings with each MMP. During the report period, ODM continued to use quality improvement initiatives to promote collaboration among the MMPs.

In 2021, ODM used a unique payment incentive to increase COVID-19 vaccination rates among MyCare Ohio enrollees. The payment incentive prompted MMPs to coordinate their vaccination efforts to increase the likelihood of sharing in the payment incentives by setting a statewide goal for COVID-19 vaccination rates among all enrollees. Achieving the goal meant all MMPs had to participate and all MMPs shared the incentive payment from the State when the goal was reached. No MMPs would have received any incentive if the statewide goal had not been reached.

Performance on quality measures, including HEDIS measures (discussed later in this section), are a regular agenda item discussed at CMT meetings. CMS reported a renewed focus on quality measures and other quality improvement activities since issues related to the PHE had become less urgent. One MMP expected to exceed their HEDIS goals for 2021. Another MMP reported year-over-year improvement in HEDIS measures. The MMP attributed these improvements to several activities, such as efforts to ensure that their care coordinators understand the importance of quality measures and encourage enrollees to get preventive care and screenings. The MMP also used enrollee incentives to encourage preventive care among enrollees and used mailers and text messaging to remind enrollees about preventive care. For example, they sent enrollees a "flu kit" with tissues and a thermometer to remind enrollees to get an annual flu shot.

Another MMP described using data analytics to monitor utilization trends and develop programs around these. For example, they used this method to develop a comprehensive renal care approach. This MMP also used data analytics to address social determinants of health (SDOH) and health equity. They worked with CityBlock, a technology-driven provider for

communities with complex needs that uses highly personalized, prevention-oriented health and social care to improve outcomes. CityBlock uses technology to bring together practical information, coordination, and communication for insurers and care teams. Specifically, CityBlock was developing specialized visits for the MMP's enrollees with diabetes. The MMP also utilized HelpFinder, an online search tool that provides information about support for food, housing and other social needs, to connect enrollees to needed supports.

This MMP reported approaching health equity at the macro and micro levels. At the macro level, health equity is considered at all stages of program development. And at the micro level, they use data to identify disparities across a multitude of population groups (e.g., by ethnicity, language, sexual orientation), so these inequities can be addressed. They have a health equity dashboard for this purpose. These activities are in line with ODM's quality strategy prioritizing health equity, which was first reported in 2019.

3.6.3 HEDIS Quality Measures Reported for MyCare Ohio MMPs

MMPs are required to report HEDIS data to CMS and the States. HEDIS is a measure set developed and maintained by the National Committee for Quality Assurance. It is used by the vast majority of commercial, Medicare, and Medicaid health plans to measure performance on dimensions of care and service in order to maintain and/or improve quality. In the FAI, MMPs report data on a subset of HEDIS measures that are required of all Medicare Advantage plans.

Five of the 13 Medicare HEDIS measures for MMP enrollees that RTI analyzes are reported in ***Figures 3-3*** through ***3-8***, with results on all 13 measures appearing in ***Tables B-1a***, ***B-1b,*** and ***B-1c*** in ***Appendix B.*** RTI identified these measures in its Aggregate Evaluation Plan based on their historic completeness, reasonability, and sample size. HEDIS data for 2015–2021 were available for all five MyCare Ohio MMPs. In response to the PHE, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering 2019. Medicare plans (including MMPs) resumed normal reporting for the 2020 measurement year.

Detailed descriptions of selected HEDIS measures can be found in the RTI Aggregate Evaluation Plan. Results reported in ***Figures 3-3*** through ***3-8*** show MyCare Ohio MMPs' 2015–2021 HEDIS performance data on measures for blood pressure control, 30-day follow-up after hospitalization for mental illness, good control of Hemoglobin A1c (HbA1c) levels (<8.0 percent), medication review (one of the Care for Older Adults measures), and plan all-cause readmissions (ages 18–64 and ages 65+).[13]

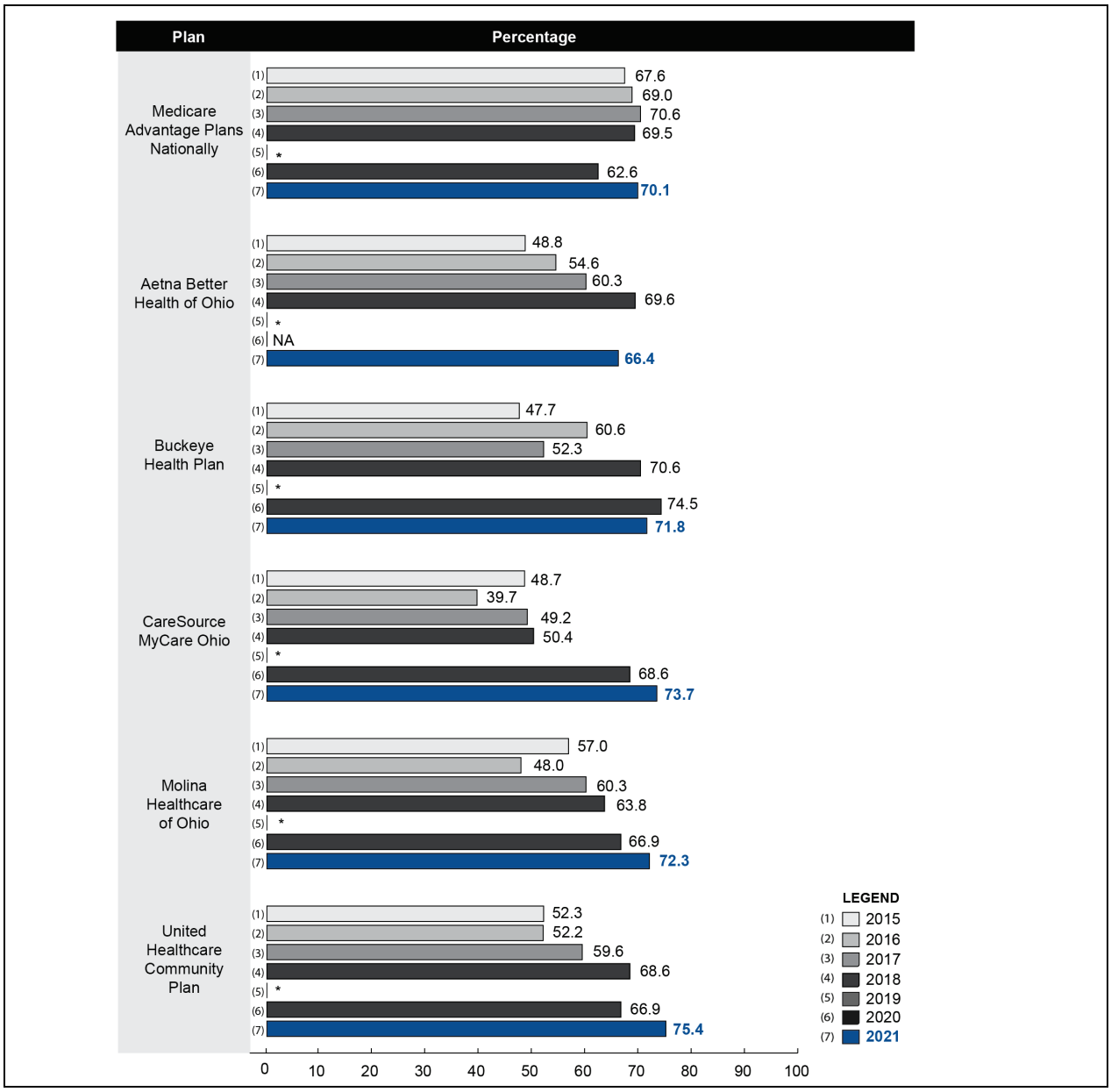
Although monitoring trends in MMP performance is the primary focus of our HEDIS analysis, the figures and appendix tables also compare MMP performance to national Medicare Advantage plan means for reference when available. We provide the national Medicare Advantage plan means with the understanding that Medicare Advantage enrollees and demonstration enrollees may have different health and sociodemographic characteristics which would affect results. Previous studies on health plan performance reveal poorer quality ratings for plans serving a higher proportion of dually eligible beneficiaries and beneficiaries with disabilities. Additionally, HEDIS measure performance, in particular, is slightly worse among

[13] These are hospital readmissions.

Medicare plans serving areas with lower income and populations with a higher proportion of minorities (ASPE, 2016). Comparisons to national Medicare Advantage plan means should be considered with these limitations in mind.

As shown in ***Figure 3-3***, all MMPs improved performance for blood pressure control from 2015 to 2021. Increases were generally steady, with some MMPs showing more variability than others year over year.

Figure 3-3
Blood pressure control[1], 2015–2021:
Reported performance rates for MyCare Ohio MMPs



* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = not applicable, where the number of enrollees in the MMP's provided HEDIS data available for inclusion in the measure was less than 30, and therefore not reported per RTI's decision rule for addressing low sample size.

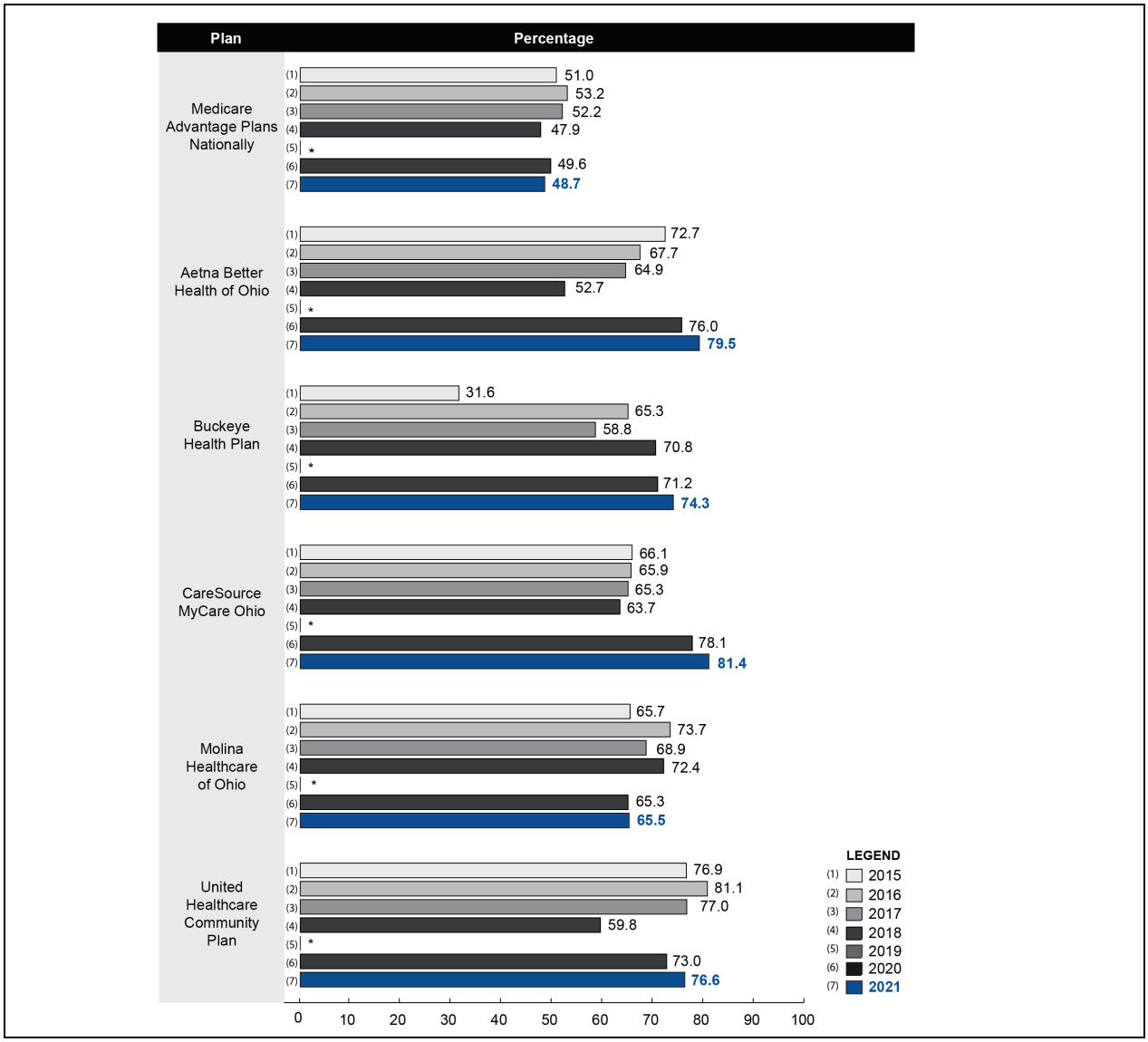
[1] The following criteria were used to determine adequate blood pressure control: less than 140/90 mm Hg for enrollees 18–59 years of age; diagnosis of diabetes and <140/90 mm Hg for enrollees 60–85 years of age; no diagnosis of diabetes and <150/90 mm Hg for enrollees 60–85 years of age.

NOTE: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Figure 3-4 shows that for 30-day follow-up after hospitalization for mental illness, most MMPs improved performance from 2015 to 2021. Increases were generally not steady, with some MMPs reporting dramatic year-over-year increases or decreases. Buckeye greatly improved over time, with the most pronounced increase between 2015 and 2016.

Figure 3-4
30-day follow-up after hospitalization for mental illness[1], 2015–2021: Reported performance rates for MyCare Ohio MMPs



*= data not available; HEDIS Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

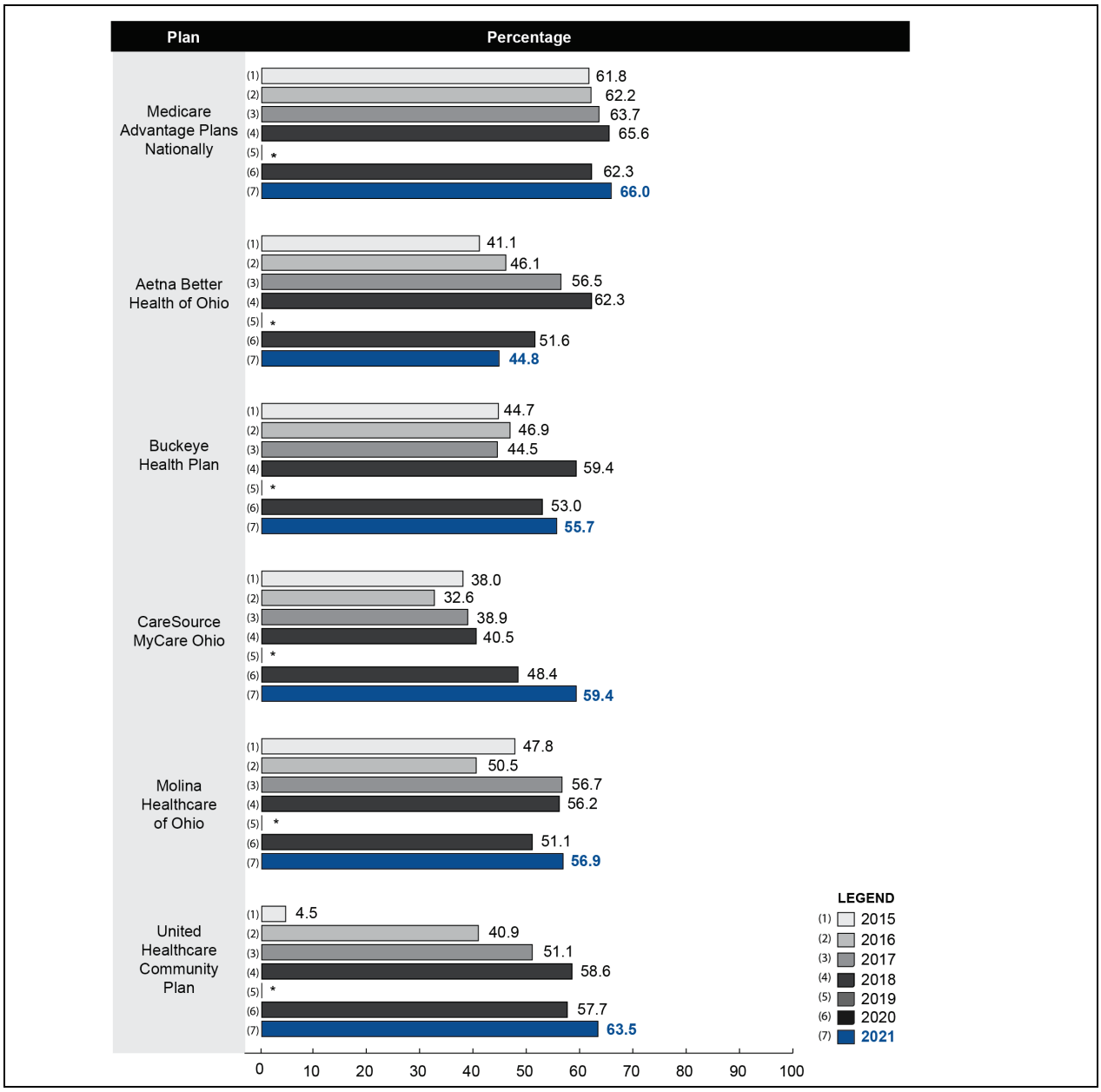
[1] NCQA implemented a significant specification change with HEDIS 2017, disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2017 to HEDIS 2018.

NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

As shown in ***Figure 3-5***, all MMPs reported an increase in performance rates for controlling HbA1c levels (<8.0%) from 2015 to 2021. United greatly improved over time, with the most pronounced increase between 2015 and 2016.

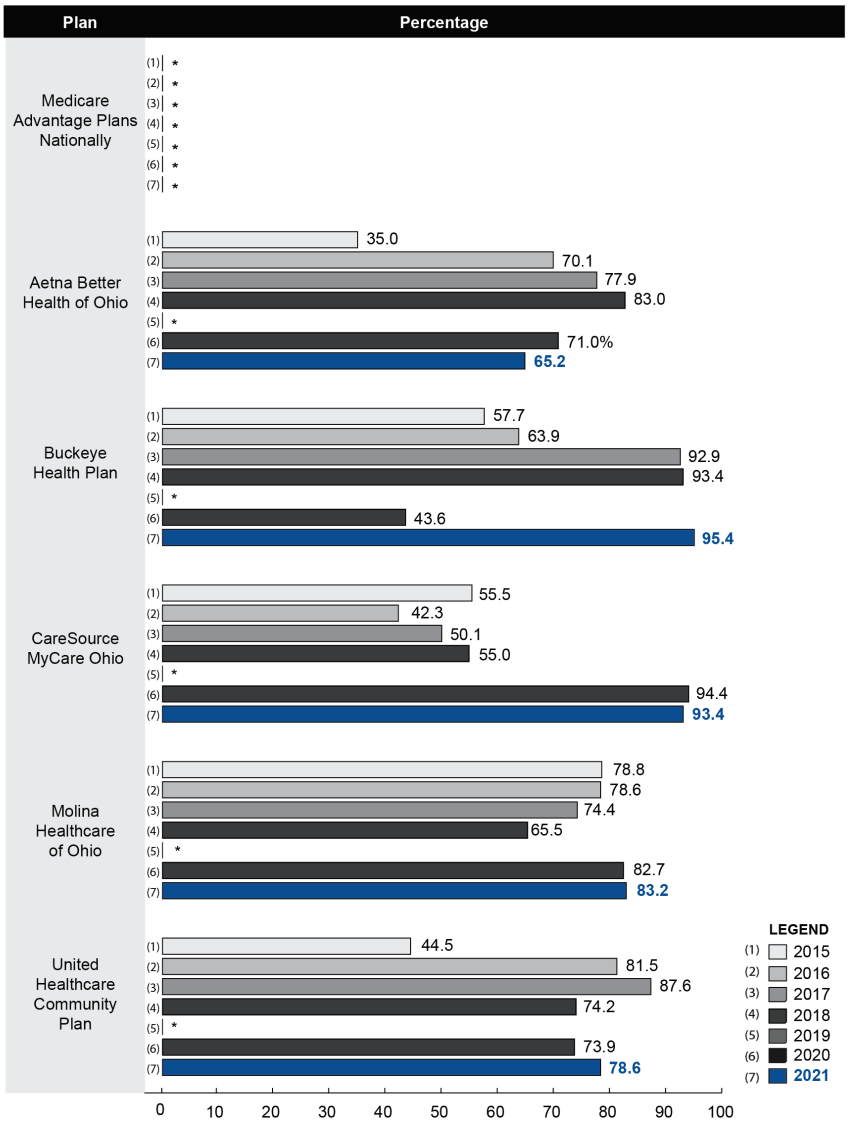
Figure 3-5
Good control of HbA1c level (<8.0%), 2015–2021:
Reported performance rates for MyCare Ohio MMPs



* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.
SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Figure 3-6 shows that for medication review (one of the Care for Older Adults measures), all MMPs improved performance from 2015 to 2021. Most MMPs reported a steady increase in performance rates while other MMPs experienced more variation year over year. Non-SNP MA plans do not report the Care for Older Adults measures, so a national MA plan mean is not available.

Figure 3-6
Medication review (one of the Care for Older Adults measures), 2015–2021: Reported performance rates for MyCare Ohio MMPs



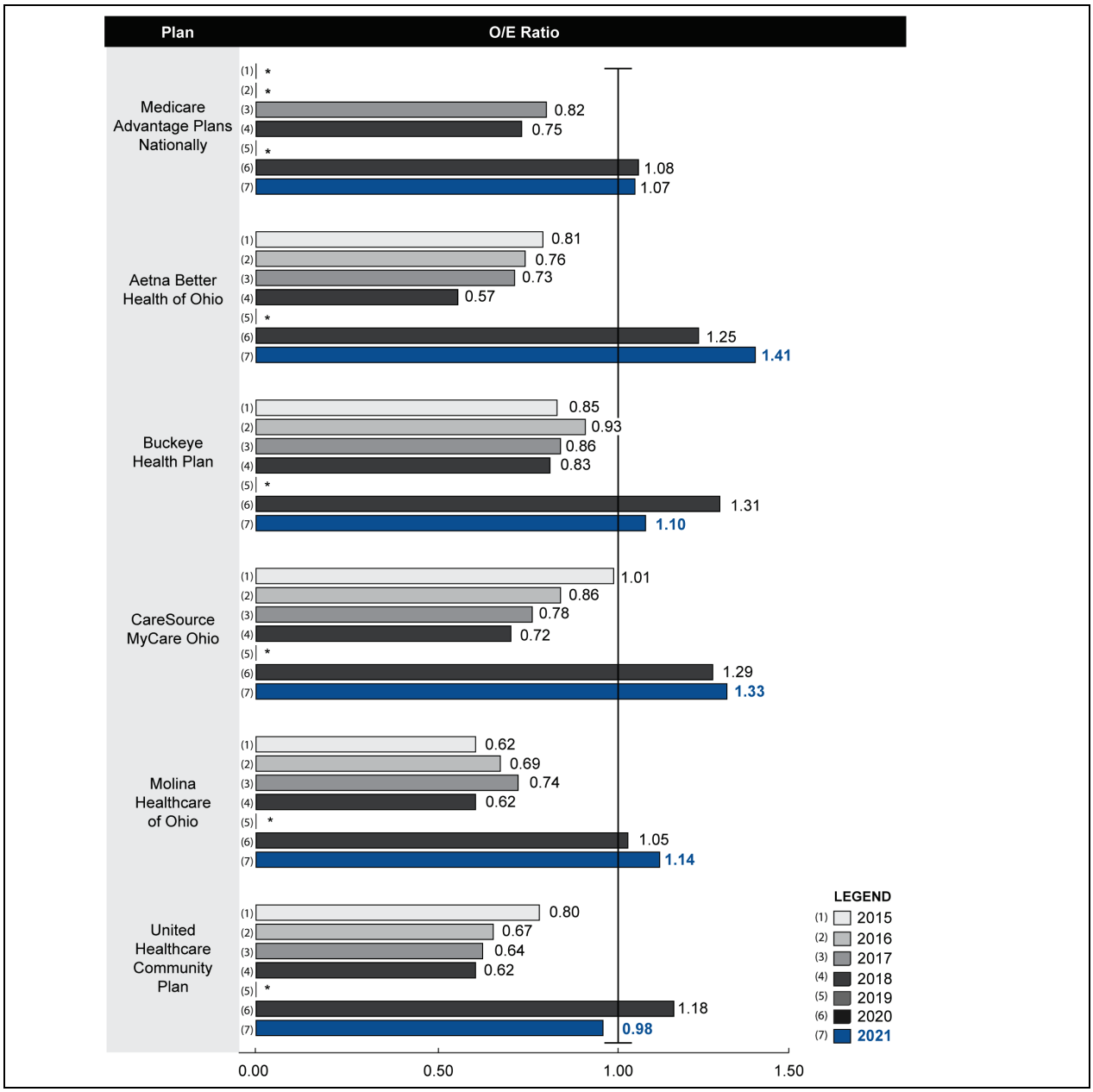
* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTE: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.
SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Plan all-cause readmissions for enrollees ages 18–64 and 65+ are reported in ***Figure 3-7*** and ***Figure 3-8***, respectively, as an observed-to-expected ratio, whereby an MMP's observed readmission rate is compared to its expected readmission rate given its beneficiary case mix. A value below 1.0 (shown by the vertical line at x = 1 in the figure below) is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.

Figure 3-7 shows that most MMPs gradually reduced readmissions over time for enrollees age 18–64 from 2015 to 2018. In 2020, all MMPs reported higher readmission rates than previous years, potentially related to COVID-19. With respect to the 2021 measurement year, United was the sole MMP to report a lower than expected readmission rate.

Figure 3-8 shows that most MMPs reported lower than expected readmissions for enrollees ages 65+ for 2015–2018, gradually improving during that time. In 2020, all MMPs reported higher than expected readmission rates for enrollees ages 65+, also, potentially because of COVID-19. In 2021, all MMPs struggled to reduce readmission rates from the previous year.

Figure 3-7
Plan all-cause readmissions, ages 18–64, 2015–2021: Reported observed-to-expected ratios for MyCare Ohio MMPs

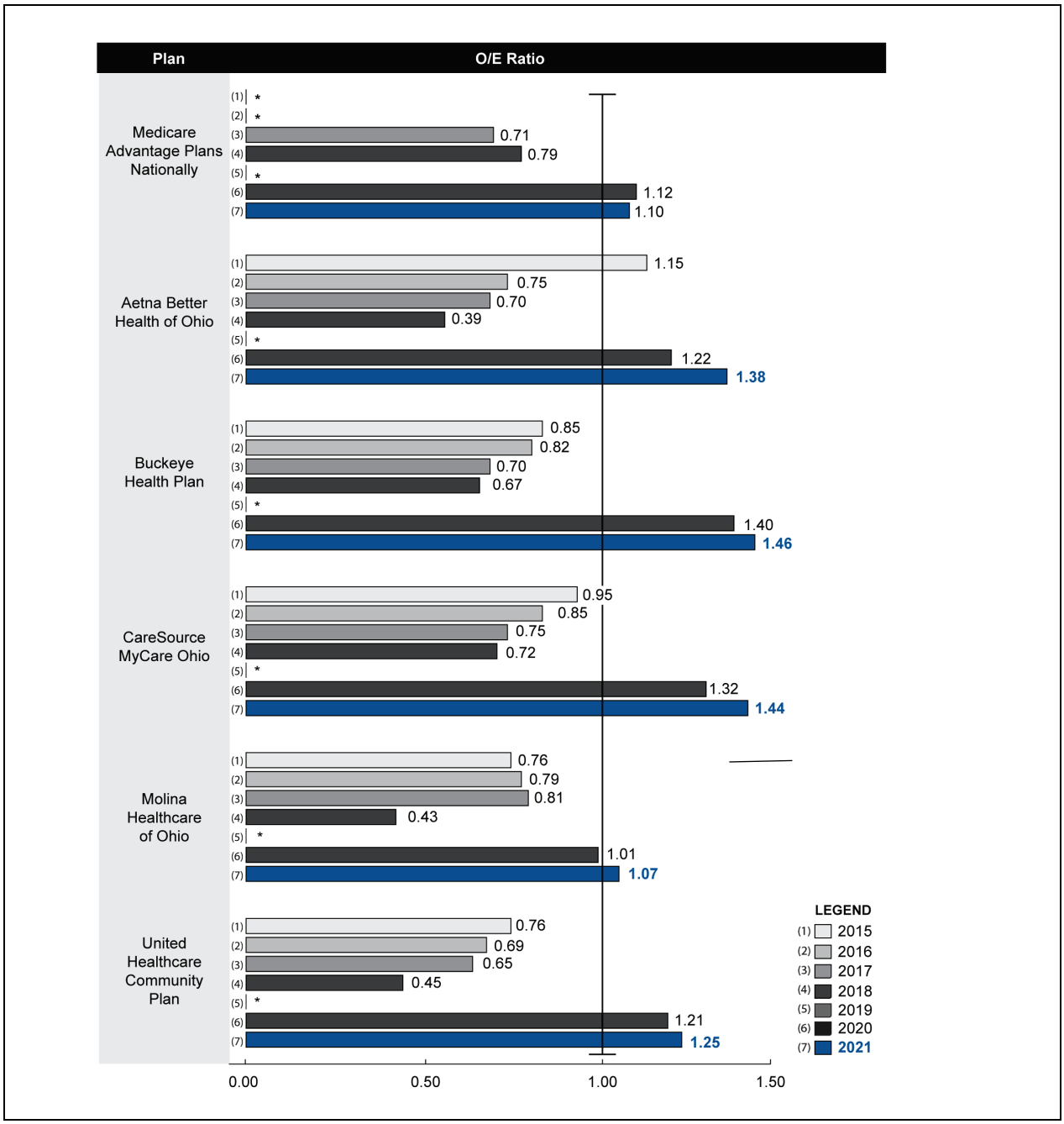


* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

NOTES: RTI did not have access to MA plan national HEDIS data for this measure in measurement years 2015 and 2016. In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Figure 3-8
Plan all-cause readmissions, ages 65+, 2015–2021: Reported observed-to-expected ratios for MyCare Ohio MMPs



*= data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTES: RTI did not have access to MA plan national HEDIS data for this measure in measurement years 2015 and 2016. In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to submit HEDIS data covering the 2019 measurement year.
SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

SECTION 4

Beneficiary Experience

Consistent with CAHPS findings described in prior reports, My Care Ohio enrollees interviewed in 2022 viewed the demonstration positively, and beneficiary advocates continued to question whether the demonstration effectively integrated care or improved access to and quality of services.

The State's focus on health equity and population health, in addition to pressures created by the PHE, have contributed to a consistent focus on addressing social determinants of health—including food, housing, and transportation—in the demonstration.

The Ombudsman and a beneficiary advocate noted that MMPs often did not provide an official written denial of for service requests, meaning the appeals process was not triggered as required.

One of the main goals of the demonstration under the FAI is to improve the beneficiary experience of accessing Medicare and Medicaid services. In this section we highlight beneficiary experience with MyCare Ohio and provide information on beneficiary protections and complaints and appeals data. For beneficiary experience, we draw on findings from beneficiary interviews, stakeholder interviews and the CAHPS survey. See ***Appendix A*** for a full description of these data sources.

4.1 Impact of the Demonstration on Beneficiaries

4.1.1 Overall Satisfaction with the Demonstration

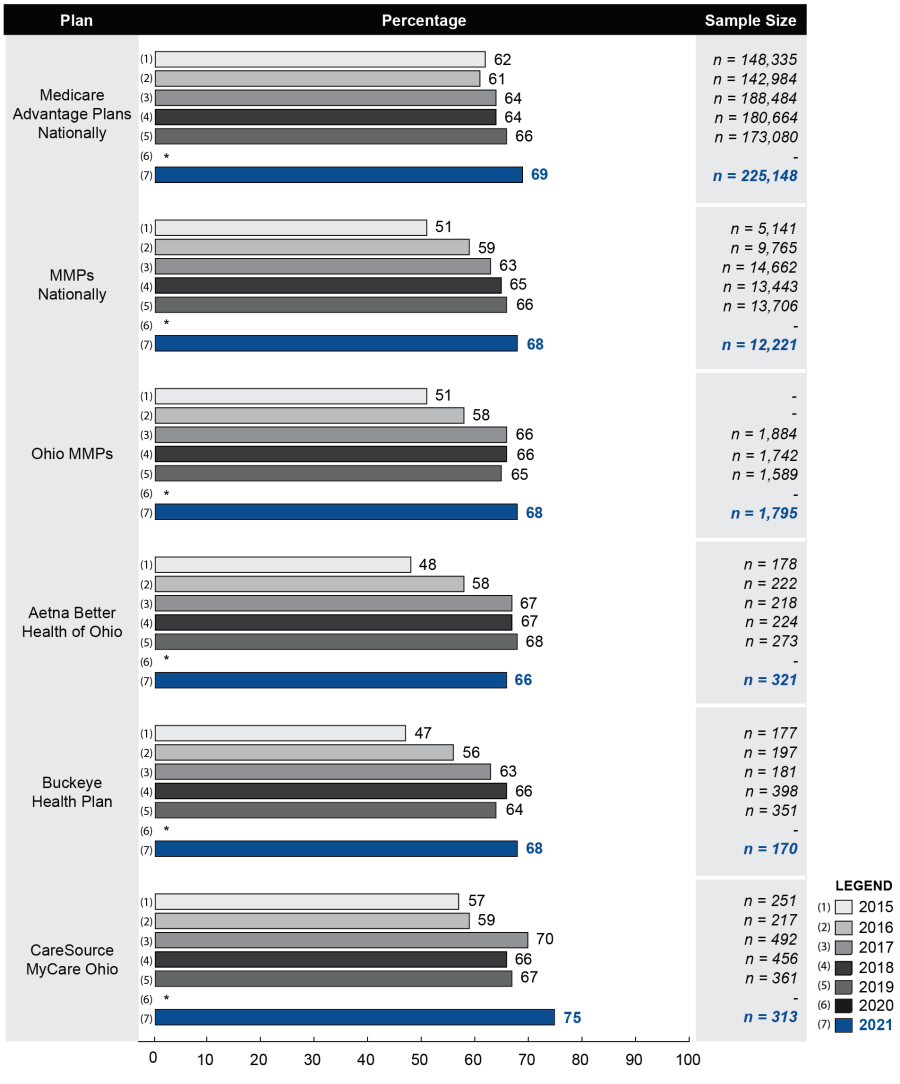
In 2022 we conducted individual interviews with 15 MyCare Ohio enrollees to ask about their experience with the demonstration. Consistent with findings from other data sources that we reported in the Second Evaluation Report, the MyCare Ohio interview participants were all extremely satisfied with the demonstration. Ten of the 15 interviewees rated their plan a 5 out of 5, and the others rated their plan a 4 or 4.5. Interviewees were especially satisfied with their access to care, services, and prescription drugs without any cost. Several reported having been unable to afford needed care or prescriptions before enrolling in the demonstration. Some also reported liking the over-the-counter (OTC) benefits wherein items such as OTC medications or supplies can be purchased with vouchers or online. Despite overall high ratings, transportation was a consistently voiced area of dissatisfaction; complaints included long waits for rides, or rides not showing up. However, most interview participants did not blame their plan for these issues. Difficulty with finding an in-network dentist was also mentioned repeatedly.

Also consistent with findings from previous reports, the Ombudsman and a beneficiary advocate continued to express their skepticism about the benefit of the demonstration. The Ombudsman believed that, for older adults, satisfaction with the demonstration could be attributed to the quality of services that have always been provided by the AAAs, even prior to the demonstration. Although enrollees were grateful for the supplemental benefits available through MyCare Ohio, the Ombudsman said that there continued to be limited evidence that MyCare Ohio has increased access to services overall. Similarly, a beneficiary advocate reported

that, based on their observation, the quality of care and access has returned to where it was before the demonstration launched, but the promise of integrated care has not been realized.

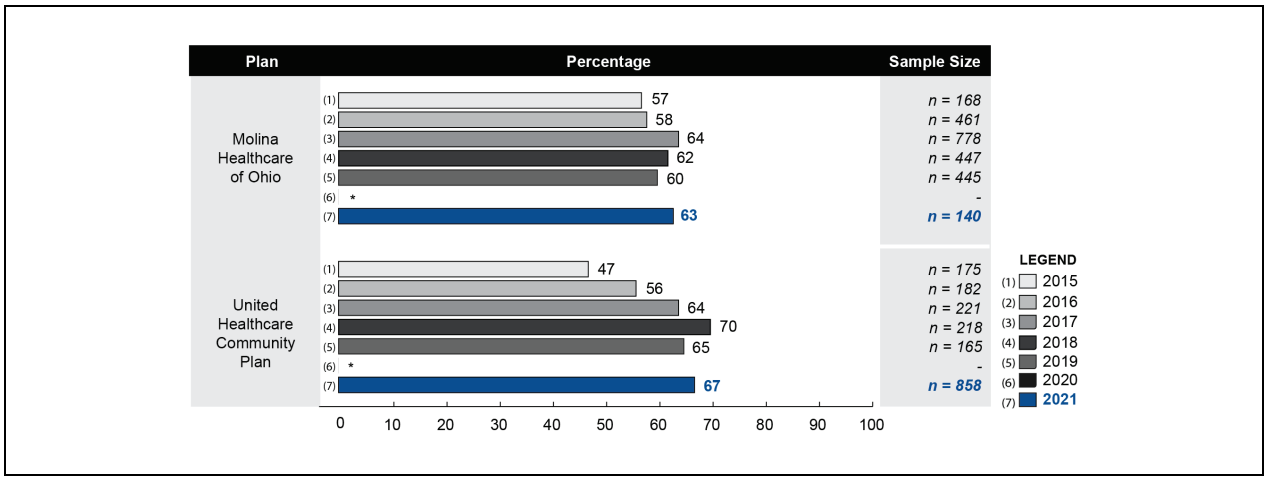
Findings from the CAHPS survey indicate that beneficiary satisfaction has improved over time, although the levels of satisfaction among survey respondents appears to be lower than that expressed in the MyCare Ohio beneficiary interviews discussed above. As shown in ***Figure 4-1***, the percentage of CAHPS respondents who rated their health plan as a 9 or 10 increased for all MMPs from 2015 to 2017. From 2018 through 2021, this percentage varied among the plans, but it remained higher than in 2015 to 2016 for all plans, thus increasing overall.

Figure 4-1
MyCare Ohio beneficiary overall satisfaction, 2015–2021:
Percentage of beneficiaries rating their health plan as a 9 or 10



(continued)

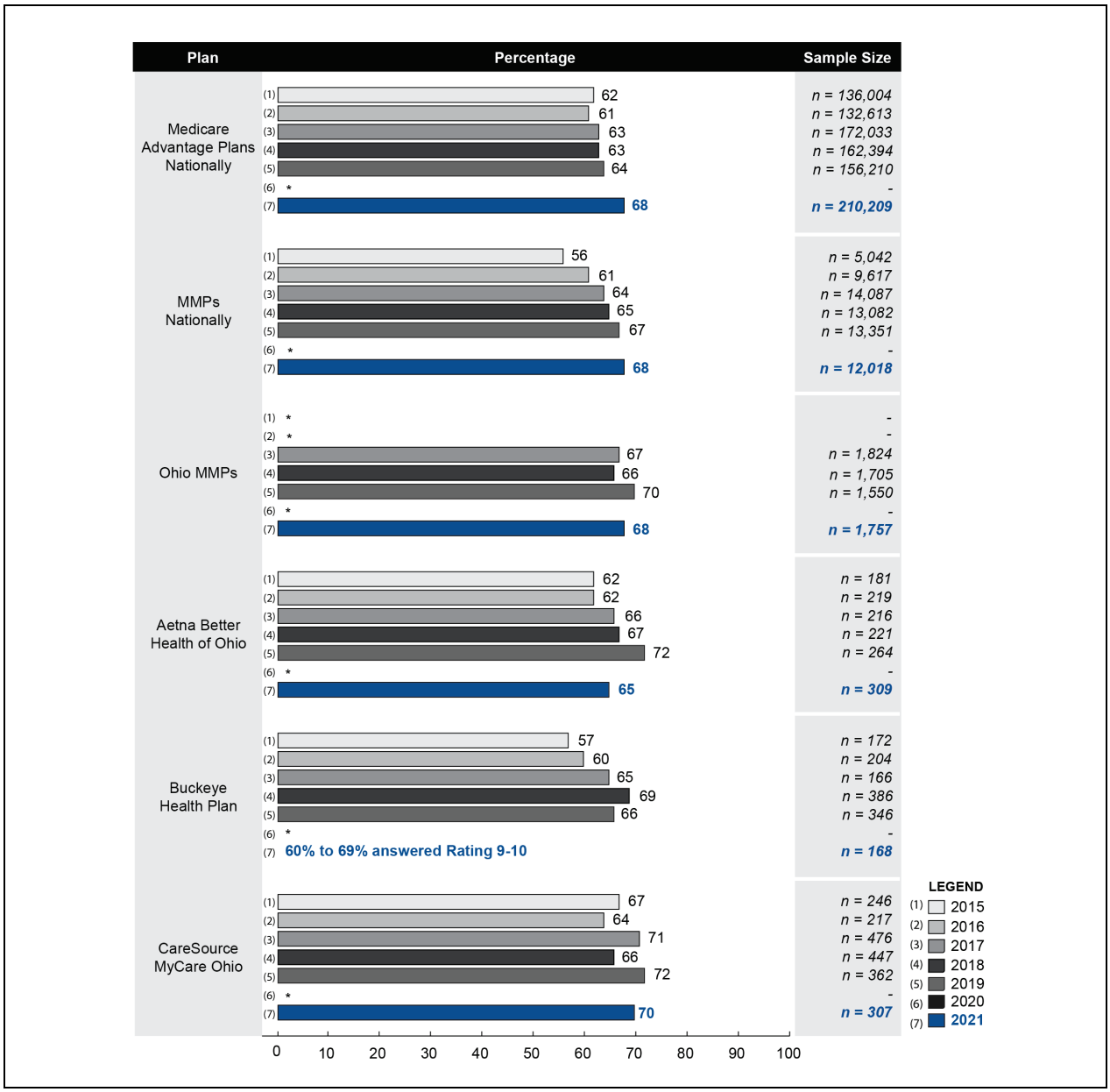
Figure 4-1 (continued)
MyCare Ohio beneficiary overall satisfaction, 2015–2021:
Percentage of beneficiaries rating their health plan as a 9 or 10



* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTE: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to collect CAHPS data for 2020.
SOURCE: CAHPS data for 2015-2021. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?"

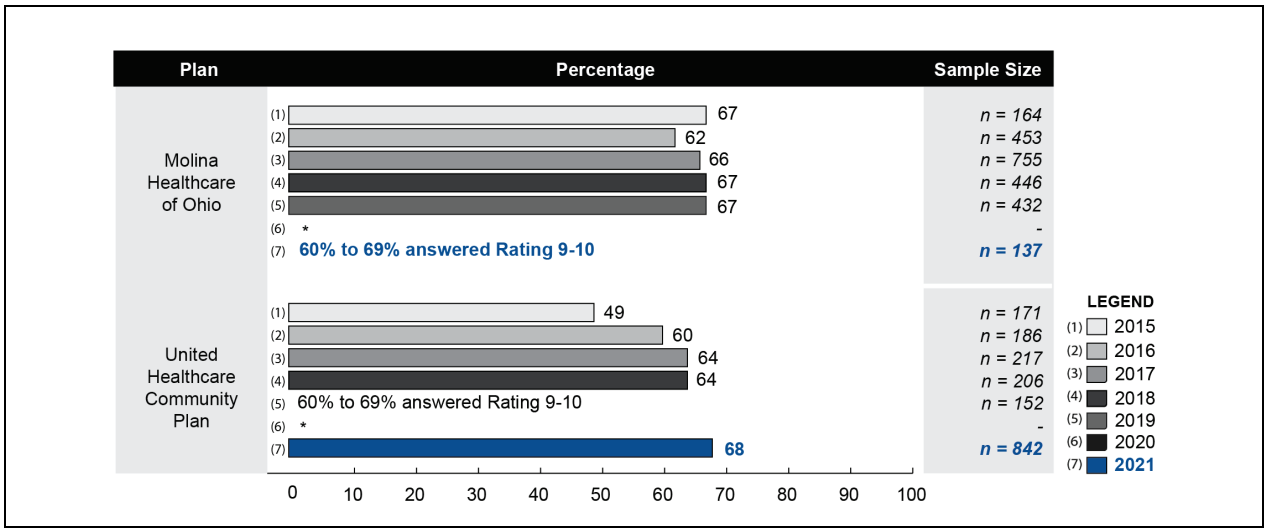
Beneficiary satisfaction with their prescription drug plan has also shown improvement over time, although not consistently across MMPs. ***Figure 4-2*** shows that the percentage of beneficiaries who rated their prescription drug plan as a 9 or 10 increased between 2015 and 2018 for three out of five MMPs. In 2019 through 2021 the percentage of respondents who rated their prescription drug plan as a 9 or 10 varied across the MMPs.

Figure 4-2
MyCare Ohio beneficiary overall satisfaction, 2015–2021:
Percentage of beneficiaries rating their drug plan as a 9 or 10



(continued)

Figure 4-2 (continued)
MyCare Ohio beneficiary overall satisfaction, 2015–2021:
Percentage of beneficiaries rating their drug plan as a 9 or 10



* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to collect CAHPS data for 2020. Instead of reporting "Suppressed" when too few members provided responses, a range is given when possible to provide meaningful information while meeting CMS disclosure requirements. A range is given when the overall number of respondents is greater than or equal to 110, and the measure does not have very low statistical reliability.
SOURCE: CAHPS data for 2015-2021. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst prescription drug plan possible and 10 is the best prescription drug plan possible, what number would you use to rate your prescription drug plan?"

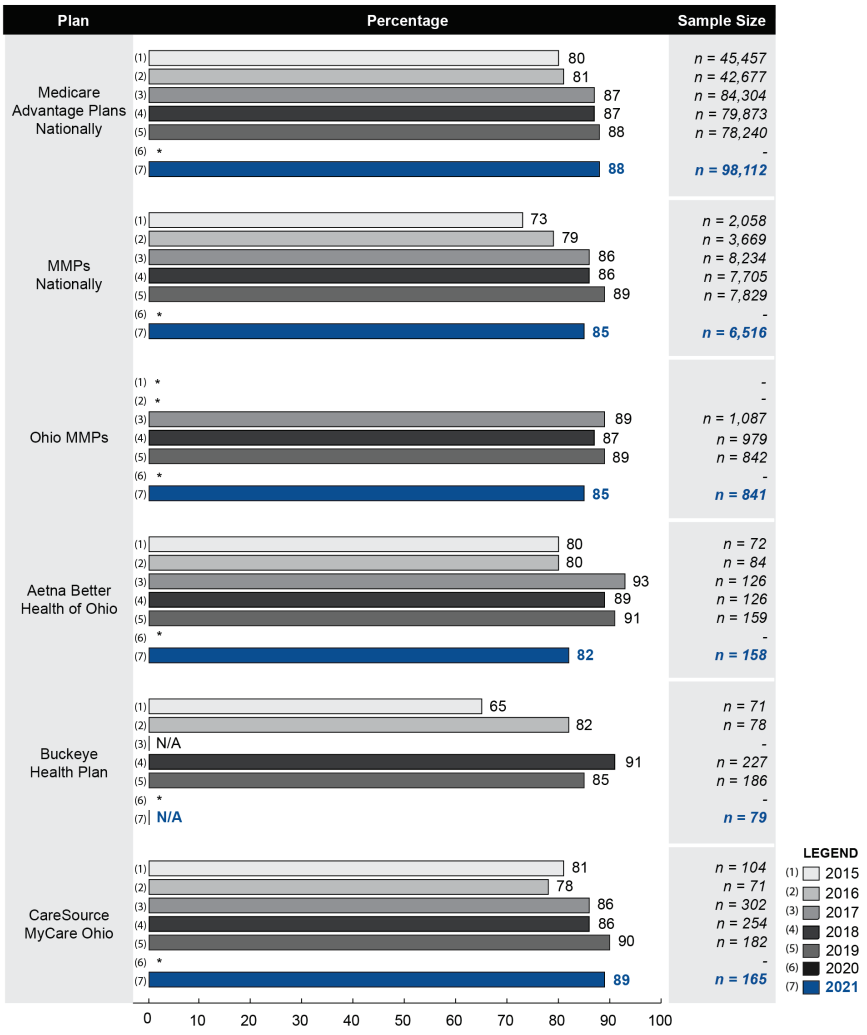
4.1.2 Satisfaction with Care Coordination

During enrollee interviews, we heard that enrollees rely on their care coordinator to varying degrees. Most of the Ohio enrollees interviewed had a care coordinator they spoke to regularly. Those that did not have a care coordinator reported not needing one and being able to reach someone at their plan when they needed help. Those with care coordinators said they spoke to that person at least twice a year, and some as often as twice a month. One interviewee blocked her care coordinator's phone number because she was tired of being reminded to get a mammogram. Interviewees said that care coordinators helped them with a range of issues that varied by enrollee and included help identifying a provider who accepted their plan, scheduling transportation, arranging for Meals on Wheels, securing medical equipment and supplies, and arranging for a pest exterminator.

Most of the Ohio enrollees interviewed reported that their care coordinator listened well, and some said their care coordinator took the time to explain things in layman's terms. Based on the CAHPS beneficiary experience survey, enrollee satisfaction with the quality of care coordination provided by the MMP has improved over time, reaching 85 to 89 percent of survey respondents in 2021. As shown in ***Figure 4-3,*** the percentage of CAHPS respondents who

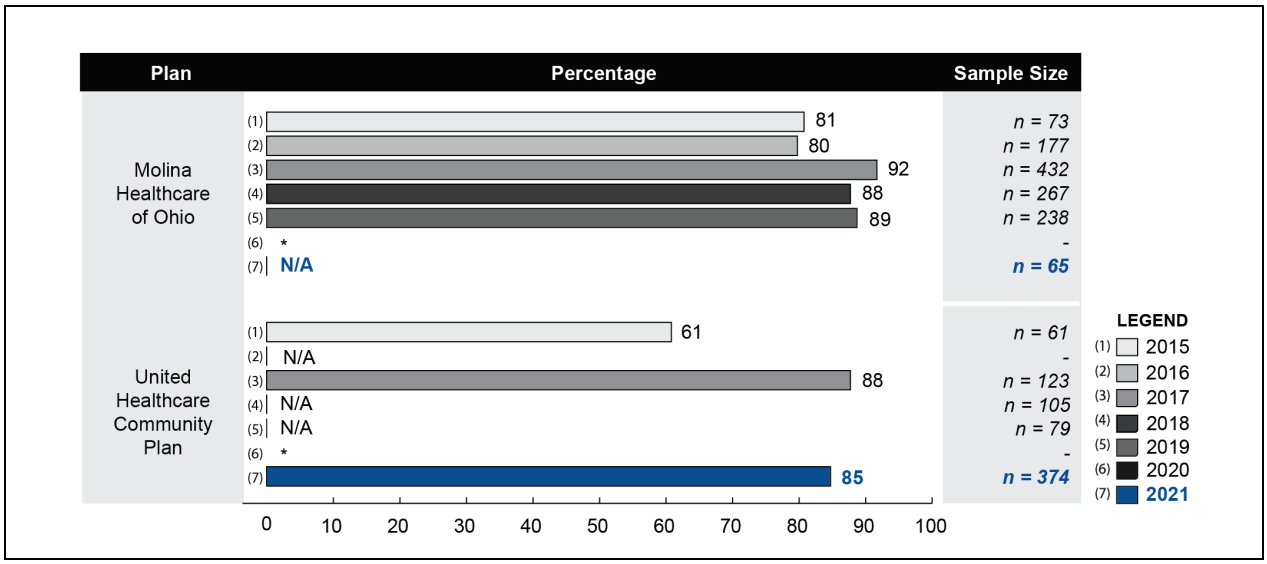
reported that their health plan usually or always gave them information they needed varied over the course of the demonstration for all MMPs, but in 2017 through 2021, percentages were higher than in 2015 and 2016 for all MMPs.

Figure 4-3
MyCare Ohio beneficiary experience with care coordination, 2015–2021: Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



(continued)

Figure 4-3 (continued)
MyCare Ohio beneficiary experience with care coordination, 2015–2021: Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



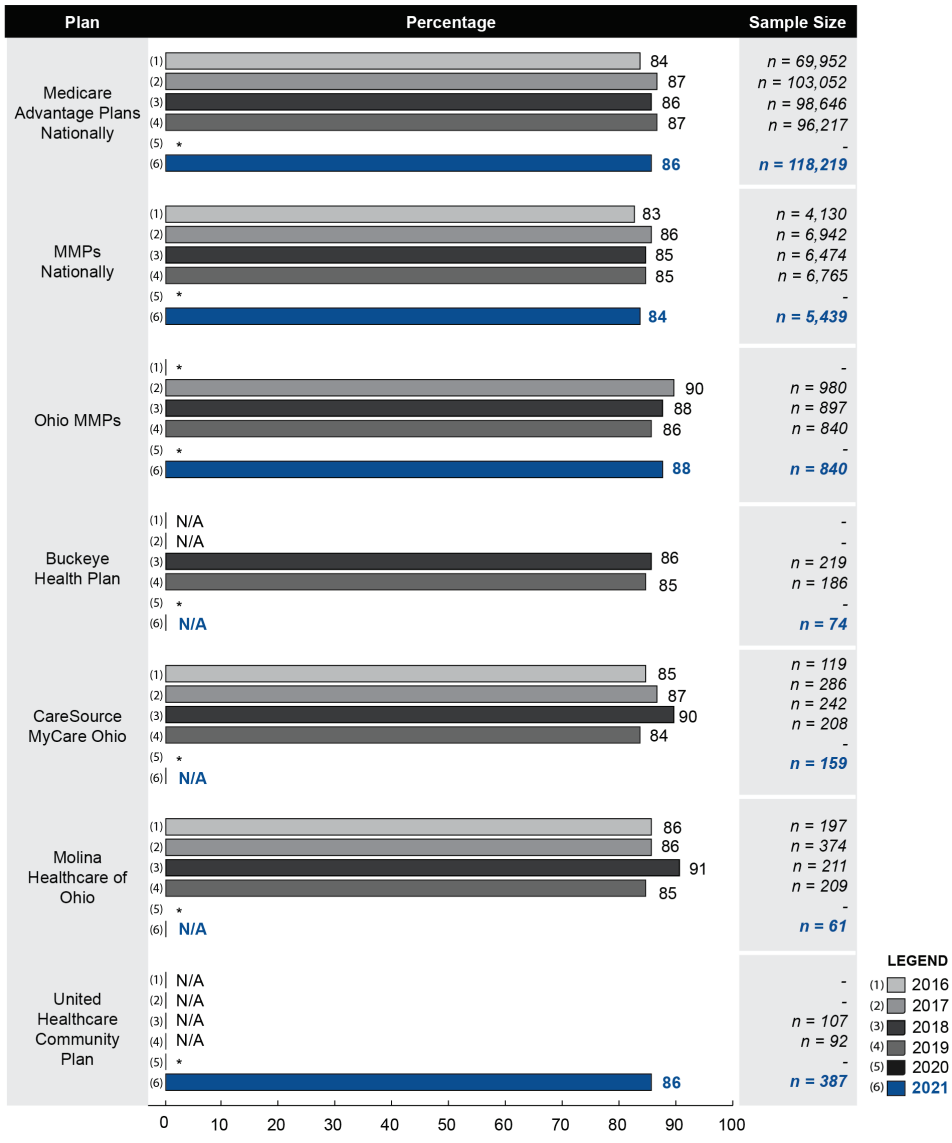
* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = "Suppressed," i.e., when too few members provided responses (new as of 2019), or when the results have very low statistical reliability.
NOTE: In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to collect CAHPS data for 2020.
SOURCE: CAHPS data for 2015-2021. The CAHPS question used for this item was: "In the last 6 months, how often did your health plan's customer service give you the information or help you needed?"

However, the Ombudsman expressed their dissatisfaction with the quality of care coordination for NF residents, noting that they were often not aware they were enrolled in MyCare Ohio and did not know who their care coordinator was. The Ombudsman stated that care coordinators are not engaged with enrollees residing in NFs and do not help enrollees transition out of those facilities. The Ombudsman was also frustrated because NFs refused to grant MMP care coordinators access to electronic health records and questioned why MMPs did not make that a priority in their contractual arrangements with NFs. (As noted in ***Section 3.3, Care Coordination***, some MMPs reported increased access to electronic health records during the PHE.)

Most of the beneficiaries interviewed also reported good communication with their primary care providers. However, they were often unsure if their providers communicated with one another. Few interviewees described being part of a care team, although one said "I'm head of the team."

As shown in ***Figure 4-4*****,** the percentage of respondents that reported their personal doctors were usually or always informed about care from specialists remained similar in 2016 through 2021 for the three MMPs with available data for this item in more than 1 year. All percentages were consistently greater than or equal to 84 percent. Data are not available for any of the MyCare Ohio MMPs on this measure for calendar year 2015.

Figure 4-4
MyCare Ohio beneficiary experience with care coordination, 2016–2021: Percentage of beneficiaries reporting that in the past 6 months their personal doctors were usually or always informed about care from specialists



* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = "Suppressed," i.e., when too few members provided responses (new as of 2019), or when the results have very low statistical reliability.

NOTES: Aetna does not appear in the chart because either too few beneficiaries answered the question to permit reporting, or the score had very low reliability. Data are not available for any of the five MyCare Ohio plans on this measure for calendar year 2015 because either too few beneficiaries answered the question to permit reporting or the score had very low reliability. In response to the COVID-19 Public Health Emergency, CMS did not require MA plans (including MMPs) to collect CAHPS data for 2020.

SOURCE: CAHPS data for 2016-2021. The CAHPS question used for this item was: "In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from specialists?"

4.1.3 Quality of and Access to Care

The MyCare Ohio beneficiaries interviewed reported that being in the demonstration had improved their lives. They experienced less stress and worry because they did not have to pay for care or prescriptions. They were glad that their needs were taken care of and that they had help in getting services and care. Two interviewees also reported having surgeries that improved their functioning, including one who could now walk after receiving knee surgery and therapy to lose weight, and one who had her sight restored in one eye.

Almost all the beneficiaries interviewed reported having good access to medical providers, including specialists. Most were able to keep their previous doctor, although some reported changing doctors at enrollment. Most of the interviewees were very pleased with the care they were receiving, and many reported receiving needed care they could not afford previously.

However, many interviewees reported having difficulty finding a dentist who would take their insurance. A beneficiary advocate stated that Ohio's shortage of dental care was also the result of a shortage of dentists who make accommodations for people with mobility impairments, noting that this problem was not limited to the demonstration.

Some interviewees also had difficulty accessing mental health providers. However, the shift to telehealth during the PHE increased access to behavioral health providers for some enrollees. One MMP reported that the shift to telehealth services was expected to have a long-term impact on the way many services are delivered because it provides a level of flexibility and privacy for many enrollees. Most My Care Ohio enrollees we interviewed reported having used telehealth during the PHE and many were continuing to do so. All but one interviewee preferred telehealth to in-person appointments, primarily because it was more convenient and allowed them to avoid transportation issues. However, as discussed in ***Section 3.1, Integration of Medicare and Medicaid***, barriers to accessing telehealth services has been a challenge for some enrollees. Among enrollees interviewed, some had issues using video and were participating by phone only.

A shortage of homecare workers also presented a significant barrier to access for MyCare Ohio enrollees and others in need of LTSS throughout the State. A beneficiary advocate cited Ohio's plan for spending American Rescue Plan Act funding for supporting and extending the HCBS workforce as one strategy for addressing these shortages. In addition, the MMPs met regularly to develop strategies for addressing the workforce shortage and were reaching out to other partners, including the AAAs, to develop a statewide initiative. Their goals included developing a communication strategy relating to training opportunities, increasing the pool of potential direct care workers, partnering with vocational schools, and working with State regulators to develop reciprocity for worker certifications across the different waiver programs. The MMPs were also exploring opportunities for assisting with background checks.

As discussed in the Second Evaluation Report, enrollees have experienced barriers to accessing independent providers under MyCare Ohio. Independent providers deliver in-home personal care and must be certified by an MMP before they can provide services and, once hired, must submit their claims through the MMP's claims submission system. Long delays in the

certification process have slowed access to the independent providers and many have had difficulty submitting their claims through the different claims submission systems used by the MMPs.[14] ODM reported that it was exploring opportunities for conducting training for MMP care managers, to improve their understanding of independent providers.

The Ombudsman reported that many complaints relating to transportation were associated with two MMPs using the same transportation vendor. After the Ombudsman realized that addressing individual enrollee complaints on a case-by-case basis was not having an impact on the transportation vendor's behavior, the Ombudsman elevated the issue to ODM's attention, noting that limited access to transportation was impacting the health of enrollees who were missing medical appointments, including dialysis and chemotherapy.

The Ombudsman reported that returning to face-to-face meetings with enrollees in 2021 provided an opportunity for Ombudsman staff to identify gaps in services that were missed by MMP telephonic care coordination.[15] For example, in one case, an enrollee who used a wheelchair could not leave her home because it had no ramps. The enrollee was not aware that she had access to ramp installation through MyCare Ohio. Ombudsman staff were also able to identify cases in which enrollees were having trouble managing their own medications, based on staff observing disorganized medications in the home. The Ombudsman noted that many of the gaps they were able to identify were consistent with those they identified prior to the PHE.

Consistent with the Second Evaluation Report, the Ombudsman reported that many NF residents were not aware of their enrollment in MyCare Ohio and did not know their care coordinator or the benefits they are entitled to. The Ombudsman also noted that supplemental benefits offered by MMPs are often not designed for the benefit of NF residents and has encouraged MMPs to offer supplemental benefits that are suited to that population.

4.2 Beneficiary Protections

4.2.1 Grievances, Appeals, and Complaints

Enrollees have the right to file a grievance with their MMP at any time. A grievance is a complaint or a dispute expressing dissatisfaction with the MMP or a provider, regardless of whether the enrollee is requesting a remedial action. Grievances are resolved at the MMP level. MMPs are required to track and report grievance data.

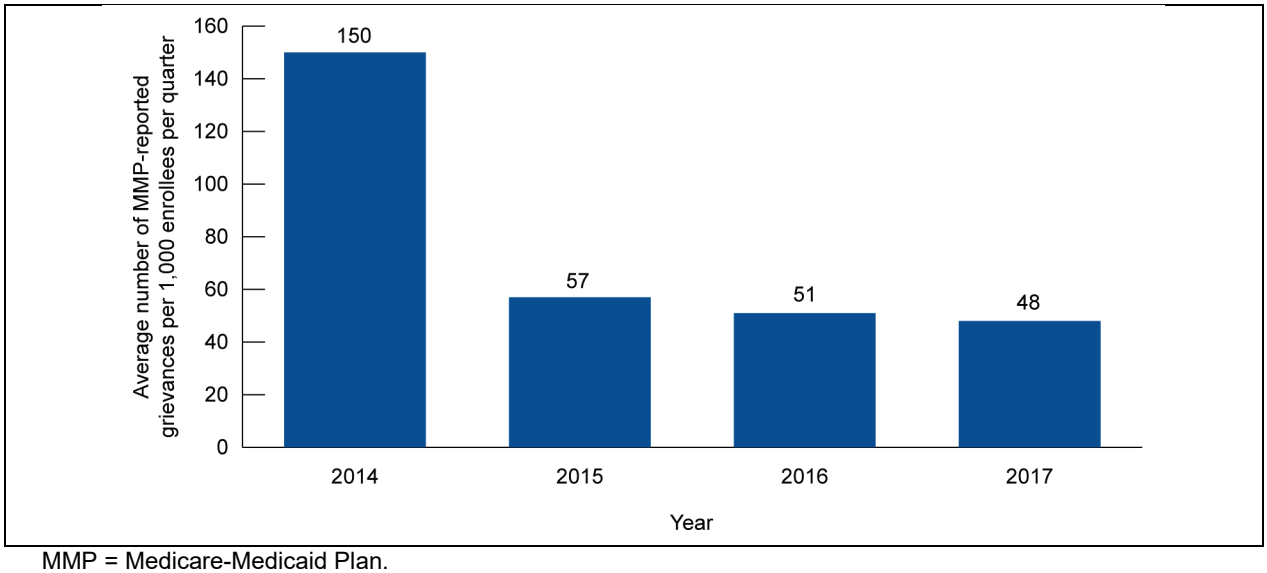
The way that plan-reported grievance data are analyzed changed in 2018; thus, we report separate data from two periods (2014–2017 and 2018–2021). In 2014 through 2017, data were analyzed per 1,000 enrollees per quarter. Beginning in 2018, data were analyzed per 10,000 enrollee months per quarter.

As shown in ***Figure 4-5***, the average number of MMP-reported grievances per 1,000 enrollees per quarter decreased from 150 in 2014 to 48 in 2017. As reported in the First

[14] ODM expects many of these concerns to be addressed through its work to centralize aspects of the enrollment and reimbursement process, and its plan to improve the enrollment process self-directed caregivers.
[15] See ***Section 3.3, Care Coordination*** for more discussion about some of the challenges related to telephonic care coordination.

Evaluation Report, the higher rate of grievances in 2014 could be attributed to the confusion resulting from passive enrollment notices issued that year.

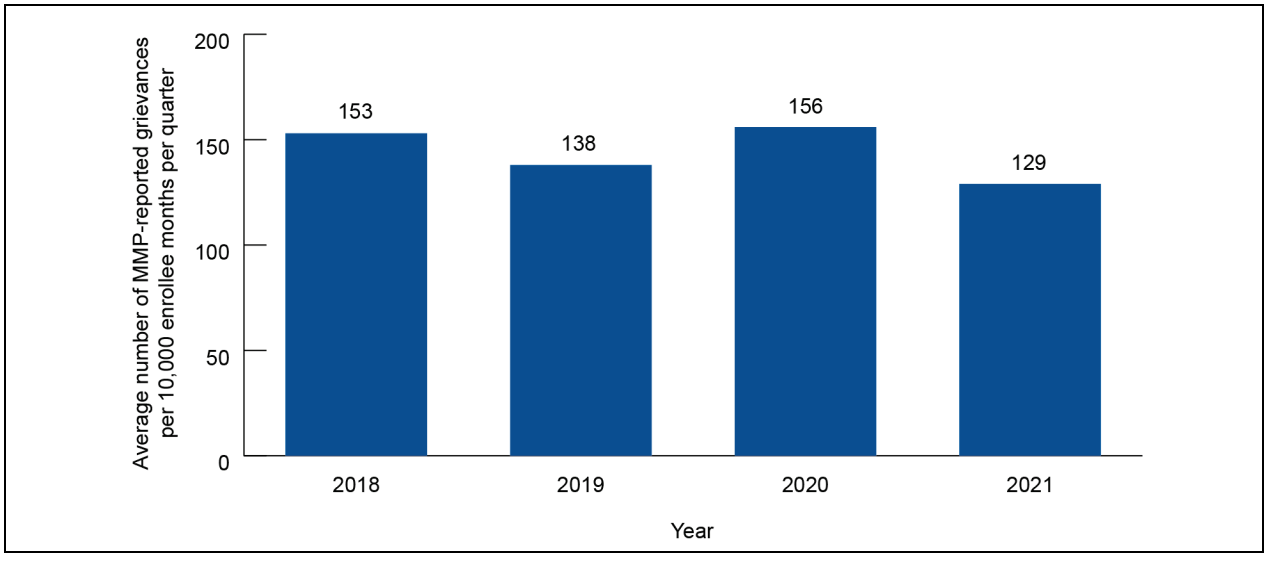
Figure 4-5
MyCare Ohio average number of MMP-reported grievances per 1,000 enrollees per quarter, 2014–2017



MMP = Medicare-Medicaid Plan.

As shown in ***Figure 4-6***, in 2018 through 2021, the average number of MMP-reported grievances per 10,000 enrollee months per quarter varied between 129 and 156.

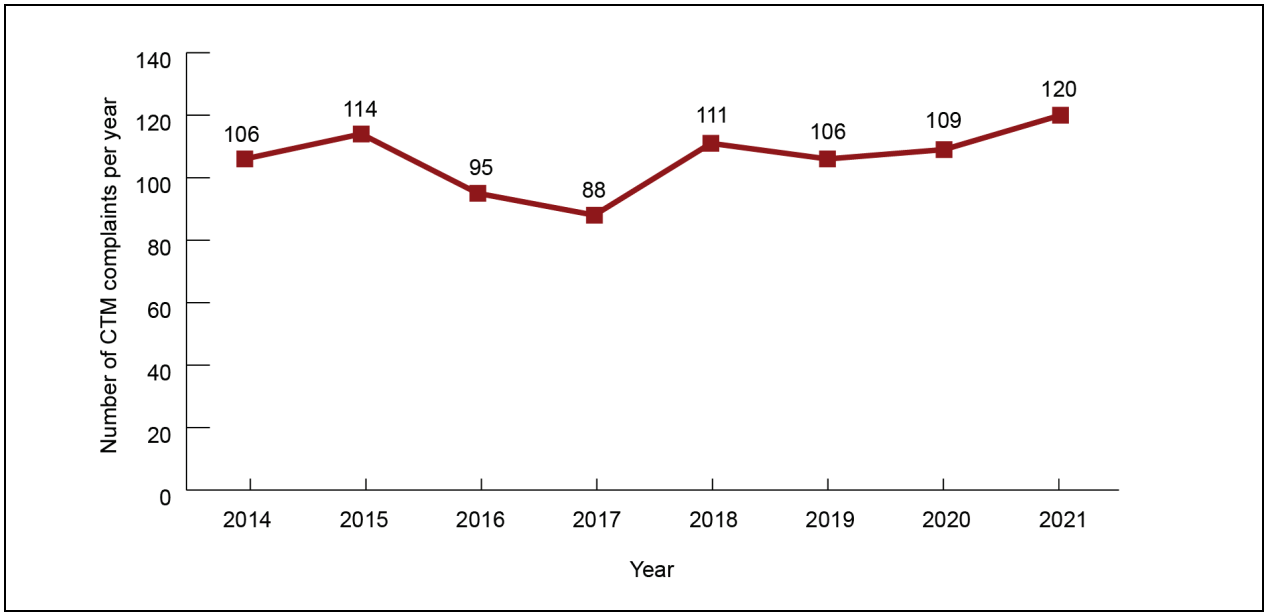
Figure 4-6
MyCare Ohio average number of MMP-reported grievances per 10,000 enrollee months per quarter, 2018–2021



MMP = Medicare-Medicaid Plan.

Figure 4-7 shows total complaints reported to the Complaint Tracking Module (CTM) by ODM or through 1-800-Medicare in 2014–2021. The number of CTM complaints varied between 88 and 120 annually. The highest number of complaints over the course of the demonstration to-date were in the enrollment and disenrollment[16] category followed by complaints in the benefits, access, and quality of care[17] category.

Figure 4-7
MyCare Ohio number of CTM complaints per year, 2014–2021



CTM = Complaint Tracking Module.

Enrollees also have the right to appeal an MMP's decision to deny, terminate, suspend, or reduce services. The first level of appeal is filed directly with the MMP. If the MMP denies an appeal involving Medicare-only services, or a service that could be covered by Medicare or Medicaid (i.e., an "overlap" service), the MMP automatically forwards the appeal to the Medicare Independent Review Entity (IRE) for the second level of appeal. The Ombudsman and a beneficiary advocate noted that MMPs often failed to open a coverage determination when the enrollee requested services through their care manager. As a result, the appeals process was not automatically triggered as required, possibly reducing the number of appeals filed.

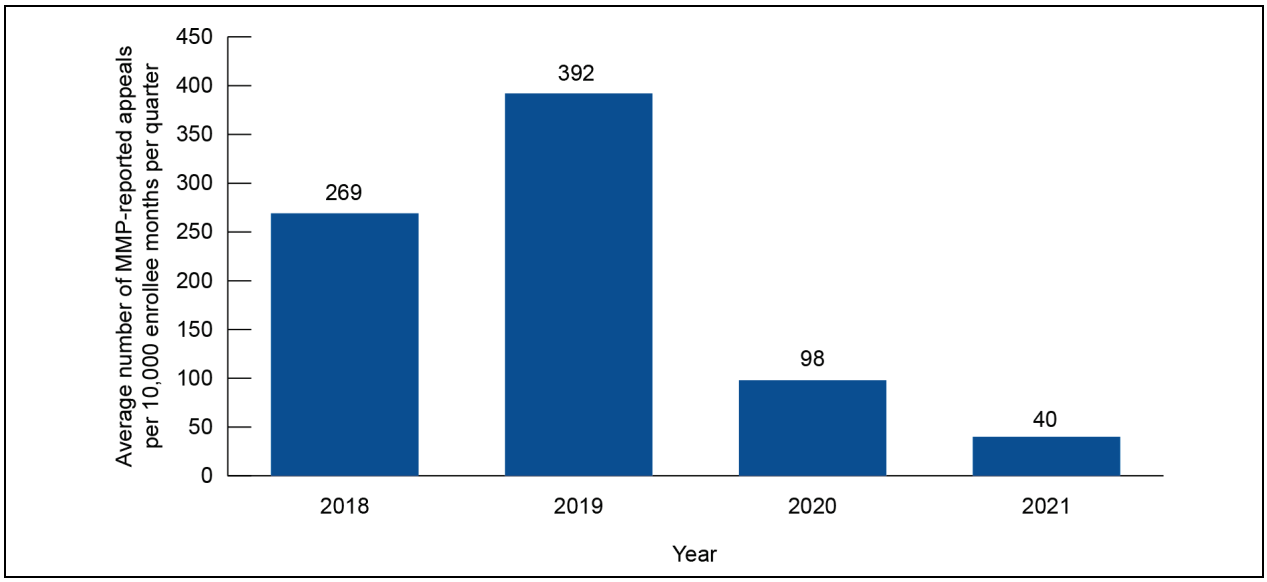
The way that plan-reported appeals data are analyzed changed in 2018; thus, we report separate data from two periods (2014–2017 and 2018–2021). In 2014 through 2017, data were analyzed per 1,000 enrollees per quarter. Beginning in 2018, data were analyzed per 10,000 enrollee months per quarter. In 2014 through 2017, the average number of MMP-reported

[16] This category is defined as "Beneficiary is experiencing an enrollment issue that may require reinstatement or enrollment change."
[17] This category is defined as "Beneficiary has difficulty securing Part D prescriptions, beneficiary has difficulty finding a network provider/pharmacy, beneficiary has concerns about the quality of care they have received, or beneficiary has concerns about a denied claim."

appeals per 1,000 enrollees per quarter remained very low, ranging from three to six (data not shown).

As shown in ***Figure 4-8,*** in 2018–2021, the average number of MMP-reported appeals per 10,000 enrollee months per quarter varied from 40 to 392. The decline in appeals in 2020 and 2021 may be linked to the decrease in service utilization during the PHE. Further, the measure specifications were changed that year and no longer capture post-service payment appeals from contract providers. As those types of appeals accounted for a substantial share of the total appeals reported by Ohio MMPs, the drop as of 2020 is likely due in large part to that specification change.

Figure 4-8
MyCare Ohio average number of MMP-reported appeals per 10,000 enrollee months per quarter, 2018–2021

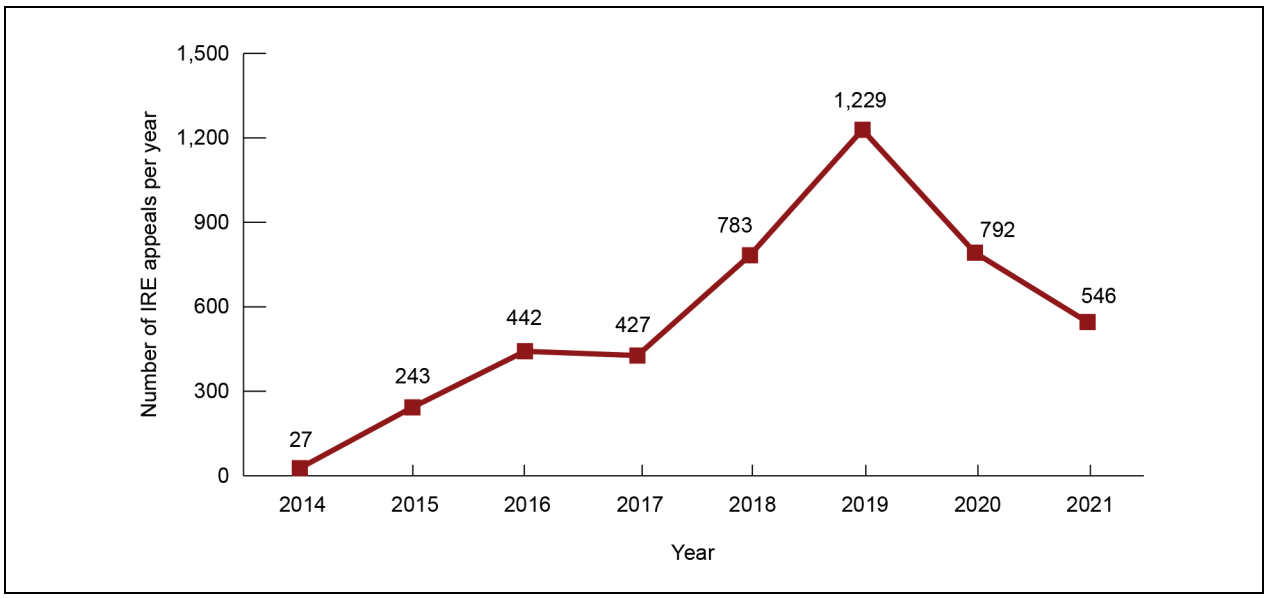


MMP = Medicare-Medicaid Plan.

Figure 4-9 shows the total number of MMP-reported appeals auto-forwarded to the IRE from 2014 through 2021. The number of appeals auto-forwarded to the IRE per year increased from 27 in 2014 to 1,229 in 2019 before decreasing to 546 in 2021. We do not have information about the increase in appeals up to 2019. However, it is likely the PHE helped to reverse this trend in 2020 and 2021. Of the 4,489 MMP-reported appeals auto-forwarded to the IRE from 2014 through 2021, 66 percent of the MMP decisions were upheld, 13 percent were overturned or partially overturned, 20 percent were dismissed, and the remainder (1 percent) were withdrawn. The most common category of appeals auto-forwarded to the IRE was for requests for practitioner services.[18]

[18] Examples of practitioner services include physician, chiropractic, dental, prosthetics/orthotics, and vision care.

Figure 4-9
MyCare Ohio number of IRE appeals per year, 2014–2021



IRE = Independent Review Entity.

SECTION 5

Demonstration Impact on Service Utilization and Quality of Care

5.1 Methods Overview

The demonstrations under the FAI are intended to shift utilization from inpatient to ambulatory care, from NF care to HCBS, and to improve quality of care through care coordination activities and the demonstrations' financial incentives. The analyses in this section evaluate the effects of the MyCare Ohio demonstration in demonstration years 1–6 (May 1, 2014–December 31, 2020) on service utilization and quality of care outcomes among Ohio demonstration eligible beneficiaries.

For this analysis, we used an intent-to-treat (ITT) approach that included all fee-for-service (FFS) Medicare-Medicaid beneficiaries eligible for the demonstration[19], not just those who actually enrolled in the MMPs. The ITT framework alleviates concerns of selection bias, supports generalizability of the results across the demonstration eligible population, and mimics the real-world implementation of the demonstration. In the analyses presented in this section, enrolled beneficiaries account for approximately 80 percent[20] of all eligible beneficiaries (including FFS beneficiaries and MMP enrollees in the denominator) in demonstration year 6.

We used a quasi-experimental difference-in-differences (DinD) regression analysis with inverse propensity weighting to estimate the impact of the demonstration on the change in the probability or frequency of service utilization and quality of care outcomes, relative to the comparison group. Our analyses were conducted using Medicare enrollment and FFS claims data, MMP encounter data, Area Health and Resource Files, and the American Community Survey. See ***Appendix C*** and ***Appendix D*** for more detail on our comparison group and analytic methodology.

To help interpret the DinD estimate, we present the DinD estimate as both the absolute change in the probability (for a dichotomous outcome) or frequency (for a count outcome) of the outcome, relative to the comparison group, and a relative percent change of the average outcome value in the comparison group during the demonstration period. Thus, a positive DinD value may correspond to a greater increase or a smaller decrease in the outcome in the demonstration group relative to the comparison group, depending on the estimated trend in the outcome.

For example, if the DinD estimate is positive and the trend is a decline in both the demonstration and comparison groups, then the interpretation of the DinD estimate is that the demonstration group had a slower decline in the outcome, relative to the comparison group. Similarly, a negative value on the DinD estimate can result from either a greater decrease or a smaller increase in the outcome depending on the estimated trend in the demonstration group relative to the comparison group.

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[19] Demonstration eligible beneficiaries also included those enrolled in Medicare Advantage (MA). Due to concerns about the quality of MA encounter data, we restricted the sample to only beneficiaries enrolled in FFS.

[20] The enrollment percentages reported in this section may be different than what was reported in ***Section 3.2, Eligibility and Enrollment*** because of the timing for completion and submitting the finder file versus the SDRS. Moreover, the sample used in this analysis excludes eligible beneficiaries who ever enrolled in Medicare Advantage, reducing the size of the denominator, which results in an increase in the percent of population enrolled. Thus, the percent enrolled in this sample is also different than what is reported in ***Section 6, Demonstration Impact on Cost Savings***.

The forest plots (e.g., ***Figure 5-1***) present a point estimate of the demonstration effect by demonstration year for each outcome, along with 95 percent confidence intervals of each point estimate. A point estimate indicates a statistically significant demonstration effect if neither the upper nor lower bound of its confidence interval crosses zero.

In addition, we discuss the effects of the demonstration on two special populations of interest: beneficiaries who use LTSS and beneficiaries with an SPMI. Our interest is to understand whether the demonstration might have had specific impacts on these two special populations. We present the demonstration effects separately for the LTSS users and for non-LTSS users, as well as for those with and without SPMI. We also discuss any interaction effect (the difference between the two effects). This chapter only describes demonstration DinD impact estimates that are statistically significant with 95 percent confidence intervals. Estimates that are not statistically significant are not discussed. We re-scaled the monthly and annual DinD estimates to reflect percentage points (for binary outcomes) and frequency per 1,000 beneficiary months (for count outcomes) for ease of interpretation. For a complete list of DinD estimates with 95 and 90 percent confidence intervals, see ***Appendix E***.

The results of this analysis are different, but more accurate, than those reported in the prior Second Evaluation Report due to applying additional exclusion criteria to the study sample. This analysis newly incorporates Medicaid-specific exclusion criteria using the Medicaid Analytic eXtract (MAX) and Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) enrollment and eligibility files that were not incorporated in the second evaluation report due to early data quality concerns with the MAX to TAF transition; additional data quality investigation and validation were possible for this evaluation report and Medicaid-derived exclusions were therefore included after further validation of the data.

We excluded beneficiaries enrolled in Medicaid 1915(c) waivers for persons with Intellectual and Developmental Disabilities (approximately 13 percent of demonstration eligible beneficiaries during the predemonstration period) or who qualify for the medically needy Medicaid program from both the comparison group (approximately 4 to 9 percent of beneficiary-months by period) and the demonstration group (less than 1 percent of beneficiary-months by period).[21] As a result, the sample more accurately reflects the demonstration eligible population than reported in the Second Evaluation Report. Moreover, adding demonstration years 5 and 6 to this analysis resulted in additional beneficiaries who enrolled in Medicare Advantage during those periods and who were thus excluded from the service utilization sample from the entire study period.

[21] We excluded beneficiaries enrolled in 1915(c) waivers from the demonstration group only because 1915(c) waiver programs in the comparison group States do not necessarily target a similar population. The vast majority of observations excluded occurred in the baseline period as the State finder file had already incorporated this exclusion.

5.2 Demonstration Impact on Service Utilization Among Eligible Beneficiaries

Overall, the demonstration was associated with a 13.2 percent decrease in the probability of any inpatient admission, a 21.7 percent decrease in the probability of any SNF admission, and a 24.7 percent decrease in the probability of any long-stay NF use, relative to the comparison group. However, the demonstration also resulted in a 16.7 percent increase in the probability of an emergency department (ED) visit, relative to the comparison group. There were no statistically significant demonstration impacts on the number of physician visits.

5.2.1 Cumulative Impact Over Demonstration Years 1–6

The key goals of the Ohio demonstration include improvements to beneficiaries' access to care and the development of an integrated system of care coordination to improve transitions between care settings. Through better care coordination, flexible benefits, outpatient management of chronic conditions, and the integration of medical care, behavioral health services and LTSS, the demonstration is intended to improve quality of care, increase use of outpatient care and HCBS, while decreasing inpatient care, ED visits, and long-stay NF use.

Table 5-1 shows the cumulative impacts of the demonstration on service utilization. The demonstration resulted in favorable decreases in monthly probability of inpatient admission, SNF admissions, and annual long-stay NF use, relative to the comparison group. However, counter to the goals of the demonstration, there also was an increase in the probability of an outpatient ED visit (without inpatient admission), relative to the comparison group. As discussed below, the relative increase in ED visits may be associated with the relative decrease in inpatient use. There was no demonstration effect on the monthly number of physician evaluation and management (E&M) visits.[22]

[22] The Second Evaluation Report indicated statistically significant increases in E&M visits; however, those findings were likely overstated due to the inclusion of chart reviews in identifying unique visits in the MMP encounter data. In May 2018, the Integrated Data Repository system changed how it displayed chart review encounters, which was that it would no longer mark them as final action encounters. Because we include final action encounters, we had been implicitly including chart review encounters for service utilization measures prior to 2018. RTI originally included chart reviews from encounters after May 2018 to ensure consistency over the demonstration period. We have since decided to remove chart reviews from the creation of any service utilization measure to avoid over counting unique services.

Table 5-1
Cumulative demonstration impact on select service utilization measures in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Regression-adjusted DinD estimate (95% confidence interval)	Relative difference (%)	p-value
Monthly probability of any inpatient admission (%)	Demonstration	5.08	4.18	–0.57*** (–0.74, –0.41)	–13.2	<0.0001
	Comparison	4.62	4.33			
Monthly probability of any ED visit (%)	Demonstration	6.29	7.12	1.12*** (0.79, 1.44)	16.7	<0.0001
	Comparison	6.90	6.69			
Monthly number of physician E&M visits per 1,000 beneficiaries	Demonstration	1,430.13	1,512.49	–4.62 (–55.28, 46.04)	NS	0.8582
	Comparison	965.28	1,024.86			
Monthly probability of any SNF admission (%)	Demonstration	2.39	1.98	–0.28*** (–0.41, –0.15)	–21.7	<0.0001
	Comparison	1.31	1.30			
Annual probability of any long-stay NF use (%)	Demonstration	30.12	25.41	–4.22*** (–5.64, –2.81)	–24.7	<0.0001
	Comparison	17.15	17.11			

*p < 0.05; **p < 0.01; ***p < 0.001
DinD = difference-in-differences; ED = emergency department; E&M = evaluation and management; NF = nursing facility; NS = not statistically significant; SNF = skilled nursing facility.
NOTES: The adjusted mean is the regression-adjusted predicted probability or number of events for the predemonstration and demonstration periods for the demonstration and comparison groups. The relative difference is calculated by dividing the DinD estimate (column heading "Regression-adjusted DinD estimate") by the predicted average for the comparison group in the demonstration period (column heading "Adjusted mean for demonstration period"). The magnitude of a relative difference could be large when the underlying denominator is small. In such cases, the relative difference should be interpreted with caution. Green and red color-coded shading indicates where the direction of the DinD estimate was favorable or unfavorable; green indicates favorable, and red indicates unfavorable.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data, and Minimum Data Set data.

Inpatient Admissions

- The monthly probability of any inpatient admissions decreased for both the demonstration and comparison groups, but there was a greater decrease among demonstration eligible beneficiaries in Ohio. This absolute difference (-0.57 percentage points) equates to a relative difference of -13.2 percent of the average predicted monthly probability of inpatient use in the comparison group (4.33 percent) during the demonstration period.

  The decrease in inpatient admissions is consistent with goals of the demonstration. The Ohio demonstration was successful in helping to provide care coordination to enrollees; as shown in ***Table 3-2*** (see ***Section 3.3.2, Care Planning***), the percent of enrollees who could be reached was stable between the end of demonstration year 1 to the end of demonstration year 5 (54.3 to 53.0 percent) and the percent of enrollees

with completed care plans who could be reached increased from 63.1 percent at the end of demonstration year 1 to 90.3 percent at the end of demonstration year 6. These activities may have helped to decrease inpatient admissions over time among those who enrolled in MyCare Ohio, as shown in ***Appendix E, Table E-7*** (decrease from monthly 4.2 percent of enrollees with any inpatient use in demonstration year 1 to 3.4 percent in demonstrate year 6).

SNF admissions

- The monthly probability of any SNF admissions decreased among the Ohio demonstration group but stayed relatively the same for the comparison group. This monthly decrease in the probability of any SNF admission among the demonstration group represents a relative difference of -21.7 percent.
  - These findings are largely driven by a decrease in the probability of SNF admissions from 2.39 to 1.98 percent in the demonstration group from the predemonstration to the demonstration period (see ***Table 5-1***), with most of the decline reflected in the significant decreases in the probability beginning in demonstration year 4 (2018) through demonstration year 6 (2020) relative to the comparison group. In particular, the biggest driver of these findings is the 54.7 percent relative decrease in the probability of any SNF admission in demonstration year 6 (see Appendix E, ***Table E-1***).
  - The decrease in SNF admissions is consistent with the goals of the demonstration and corresponds with a decrease in inpatient admissions in the demonstration group. Hospital transitional care activities, as described in ***Section 3.3.3, Care Planning*** in the Second Evaluation Report, may have contributed to this decline.

ED visits

- ***Table 5-1*** shows the demonstration's cumulative effect on the monthly probability of any ED visit was a 1.12 percentage point increase, relative to the comparison group. This monthly increase represents a relative difference of 16.7 percent.
  - These results reflect an increase in the average predicted monthly probability of ED use in the demonstration group from 6.29 to 7.12 percent from the predemonstration to the demonstration period. By contrast, the average predicted monthly probability of any ED use in the comparison group decreased slightly during that same time period.
  - While these results are unexpected, there may be a corresponding relationship with a decline in inpatient admissions. As described in the First Evaluation Report, stakeholders reported that hospital teams notify the MMP when a plan member can be discharged safely from the ED to the community. Therefore, treat-and-release ED visits may increase as a result of better coordination and planning, forestalling an inpatient admission, whereas ED visits leading to an inpatient admission are not captured in the data.

Long-stay NF admissions

- The probability of any long-stay NF admissions decreased over the course of the demonstration for both the demonstration and comparison groups, but the decrease in the demonstration group was greater suggesting that the demonstration had the desired impact on reducing NF use. The relative difference is a 24.7 percent decrease (see ***Table 5-1***).

  The decrease in NF use in both the demonstration and comparison groups is consistent with broader national trends of moving toward community-based LTSS (Degenholtz et al., 2016; Toth et al 2021). The favorable progress among the Ohio demonstration group relative to the comparison group on reducing long-stay NF use could have resulted from several factors.

  – As described in the Second Evaluation Report (see ***Section 3.3.3, Care Planning***), State officials and MMPs reported significant improvements were made over the demonstration period in efforts around transitioning beneficiaries back into the community setting from NFs and rebalancing their LTSS overall.

    Moreover, the rate of long-stay use among the demonstration group was approximately eight percentage points higher than the comparison group during the predemonstration period, perhaps increasing the potential for the demonstration to have a greater reduction in long-stay NF use over time (see ***Appendix E, Table E-6***).

    The decline in SNF use could also serve to interrupt a common pathway to long-stay NF stays. Finally, these improvements may also reflect the success MyCare Ohio has had partnering with AAAs in helping to coordinate HCBS waiver services, described in ***Section 3.3.3, Care Coordination Capacity*** in the Second Evaluation Report.[23]

These results may be impacted by the service use and health characteristics of the demonstration enrolled population. The ITT evaluation design mitigates selection bias due to voluntary enrollment in the demonstration because all enrollees are considered. However, if the demonstration enrolls beneficiaries who have lower service utilization and lower mortality rates than beneficiaries who are eligible but not enrolled, then such favorable selection may negatively impact the likelihood of observing any favorable demonstration impacts on these measures. To determine whether these characteristics are evident among demonstration enrollees, we conducted the following supplemental analyses:

[23] The expansion of MLTSS to MyCare Ohio eligible beneficiaries who did not enroll in the demonstration may have biased these results. To examine this possibility, we ran a robustness check by including an "enrollment" term in the main regression model. We expected that the coefficient and marginal effect of the "enrollment" term on the outcome to be in same direction and statistical significance of the overall effect. The result of this model supports our findings, that those who had any month of enrollment during the year had a decrease in the probability of any long-stay nursing facility use, relative to the comparison group.

- A cohort analysis comparing predemonstration utilization outcome trends among beneficiaries who were enrolled at any point during demonstration year 1 to beneficiaries who were eligible but never enrolled in demonstration year 1.
- A cross-sectional analysis of mortality rates among the enrolled, eligible but not enrolled, and the comparison group during the entire study period.

Findings from these supplemental analyses are included in ***Appendix G***, which indicate that the demonstration year 1 enrolled cohort had lower inpatient and SNF use, but higher ED use during the predemonstration period, compared to the cohort that was eligible but never enrolled in demonstration year 1. Enrolled beneficiaries had lower rates of mortality during the demonstration period than the eligible but not enrolled group. Despite this evidence of favorable selection among enrollees in the demonstration, MyCare Ohio was still able to meaningfully decrease inpatient admissions and long-stay NF use, relative to the comparison group.

5.2.2 Demonstration Impact in Each Demonstration Year

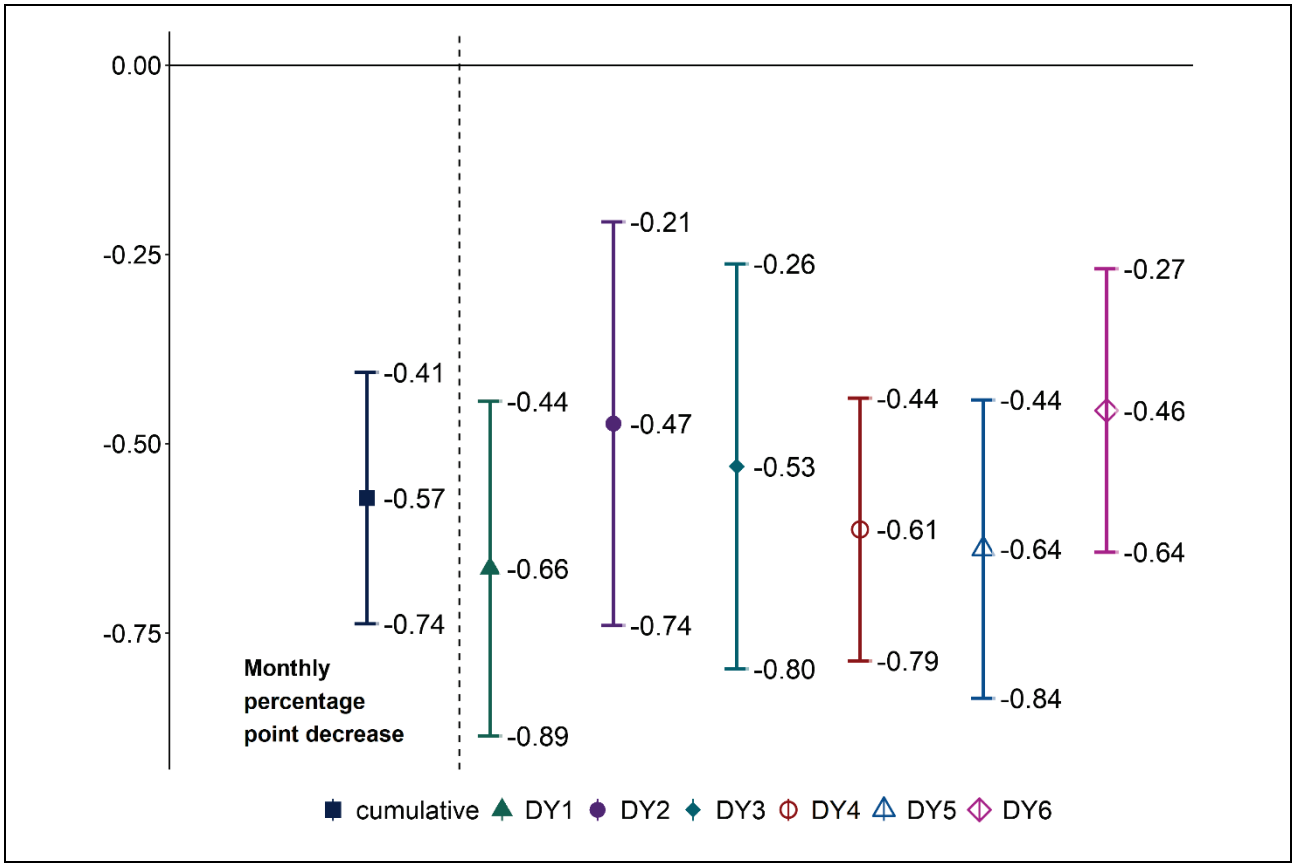
Figures 5-1 through ***5-5*** show annual effects of the demonstration on all-cause inpatient admissions (***Figure 5-1***), ED visits (***Figure 5-2***), physician visits (***Figure 5-3***), SNF admissions (***Figure 5-4***), and long-stay NF use (***Figure 5-5***), respectively, with the cumulative effects also included as points of comparison. These annual impact estimates indicate that the Ohio demonstration decreased the probability of any monthly inpatient admission and probability of any long-stay NF use in each of the 6 demonstration years and decreased the probability of any SNF admission in demonstration years 1 and 4-6, relative to the comparison group. The decrease in inpatient admissions may have contributed the relative increase in the monthly probability of any ED visit in demonstration years 2 through 6, relative to the comparison group.

Inpatient admissions, ED use, and long-stay NF use

- The Ohio demonstration decreased the probability of inpatient admissions in all demonstration years. The monthly decreases ranged from 0.46 to 0.66 percentage points from demonstration years 1 through 6, relative to the comparison group (see ***Figure 5-1***).
- The monthly probability of any ED use increased in demonstration year 2 through 6 by approximately 1 to 1.6 percentage points per year, relative to the comparison group (see ***Figure 5-2***).
- The probability of any SNF admission decreased by 0.13 percentage points per month per beneficiary in demonstration year 1 and in demonstration years 4 through 6 by 0.23, 0.39, and 0.90 percentage points, respectively, relative to the comparison group (see ***Figure 5-4***). ***Appendix E, Table E-4*** shows the weighted mean monthly percentage of ED use in the comparison group declined each demonstration year during the demonstration period, whereas the monthly percentage of ED use in the demonstration group increased through demonstration year 2 and leveled out in demonstration years 3 through 5 before decreasing in demonstration year 6 (2020).
- The annual probability of any long-stay NF use decreased among those in the demonstration group in all 6 demonstration years, relative to the comparison group.

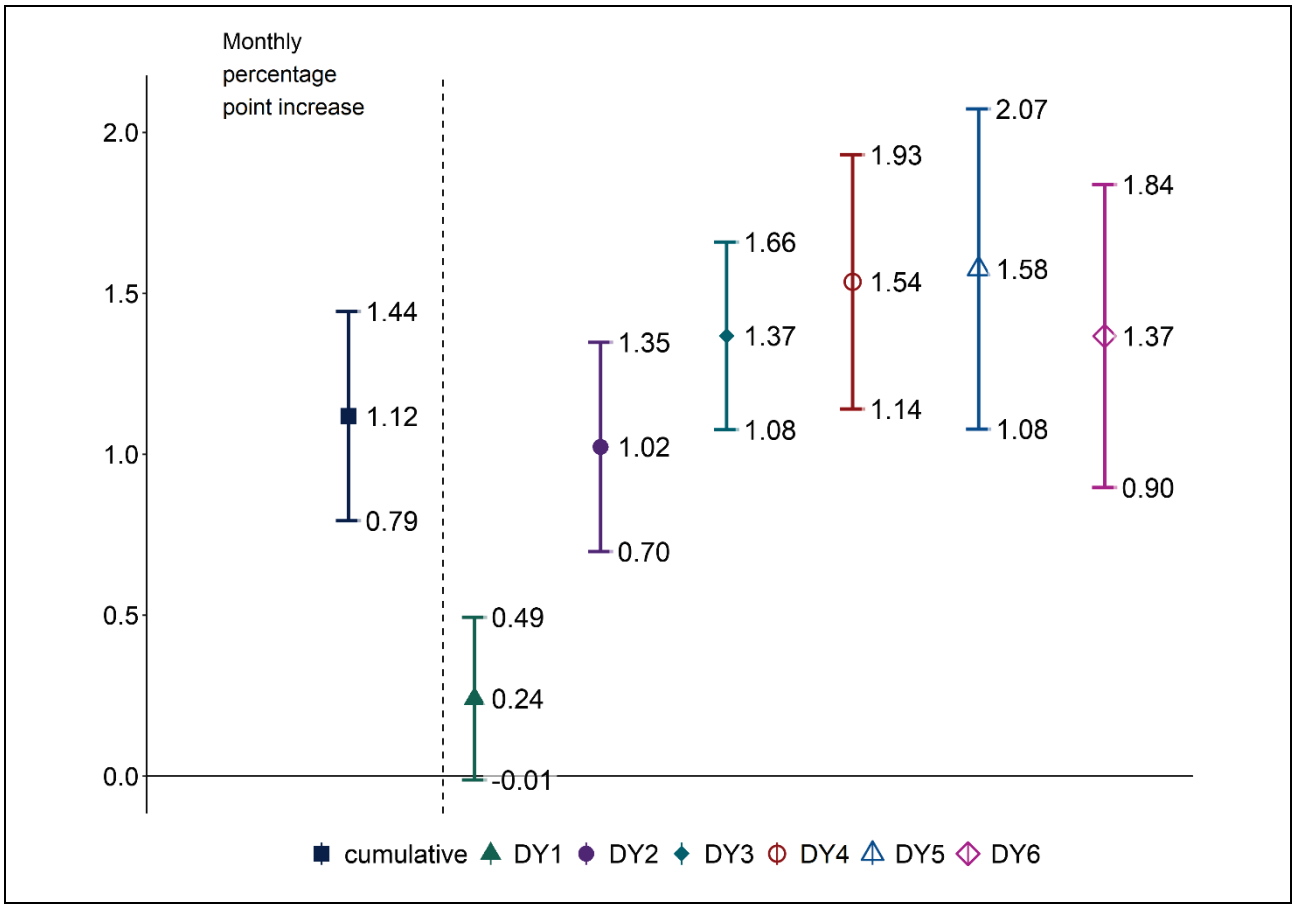
The annual decrease ranged from approximately 2 to 6 percentage points, relative to the comparison group from demonstration year 1 through 6 (see ***Figure 5-5***).

Figure 5-1
Cumulative and annual demonstration effects on inpatient admissions in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



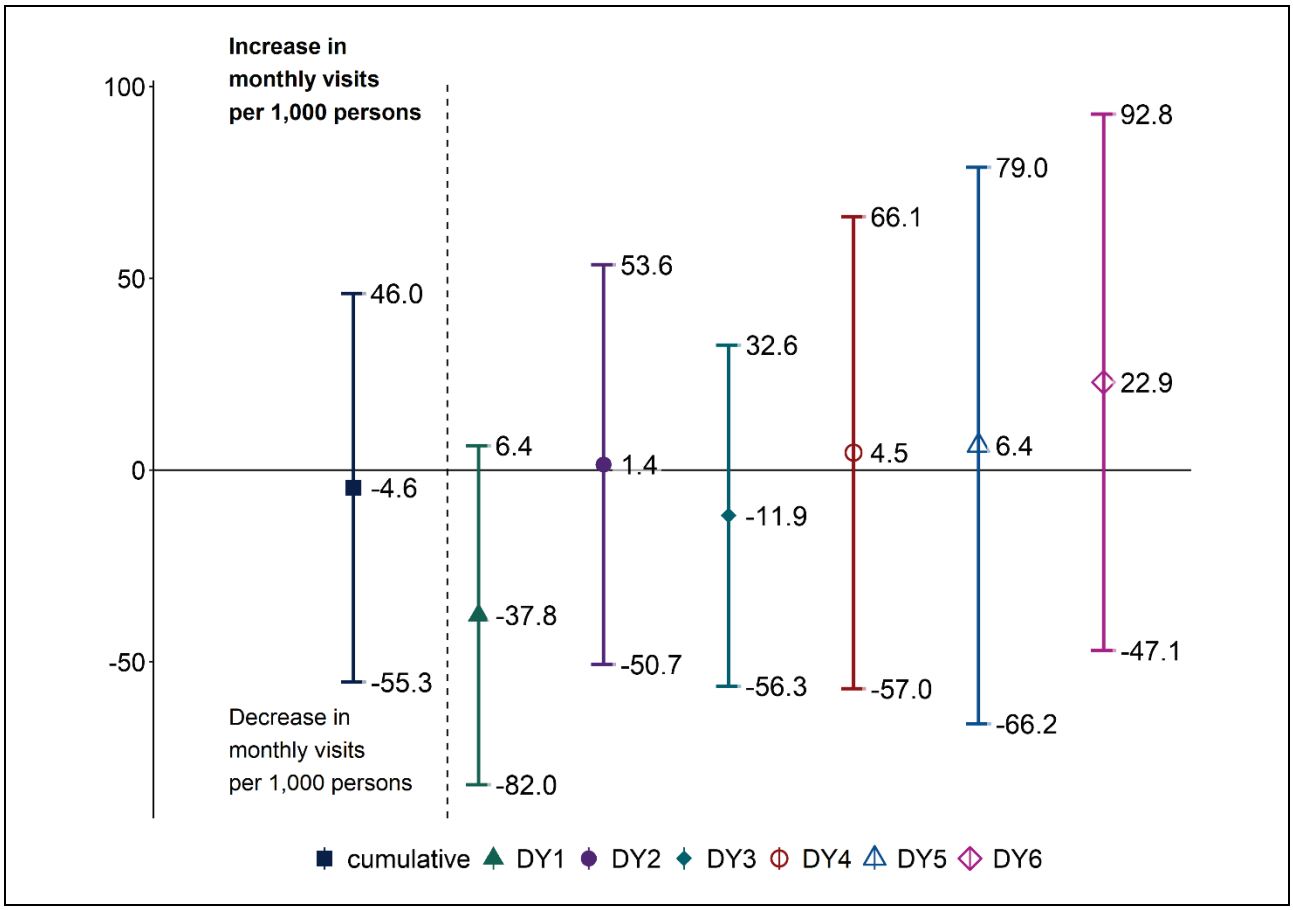
DY = demonstration year.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-2
Cumulative and annual demonstration effects on ED visits in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



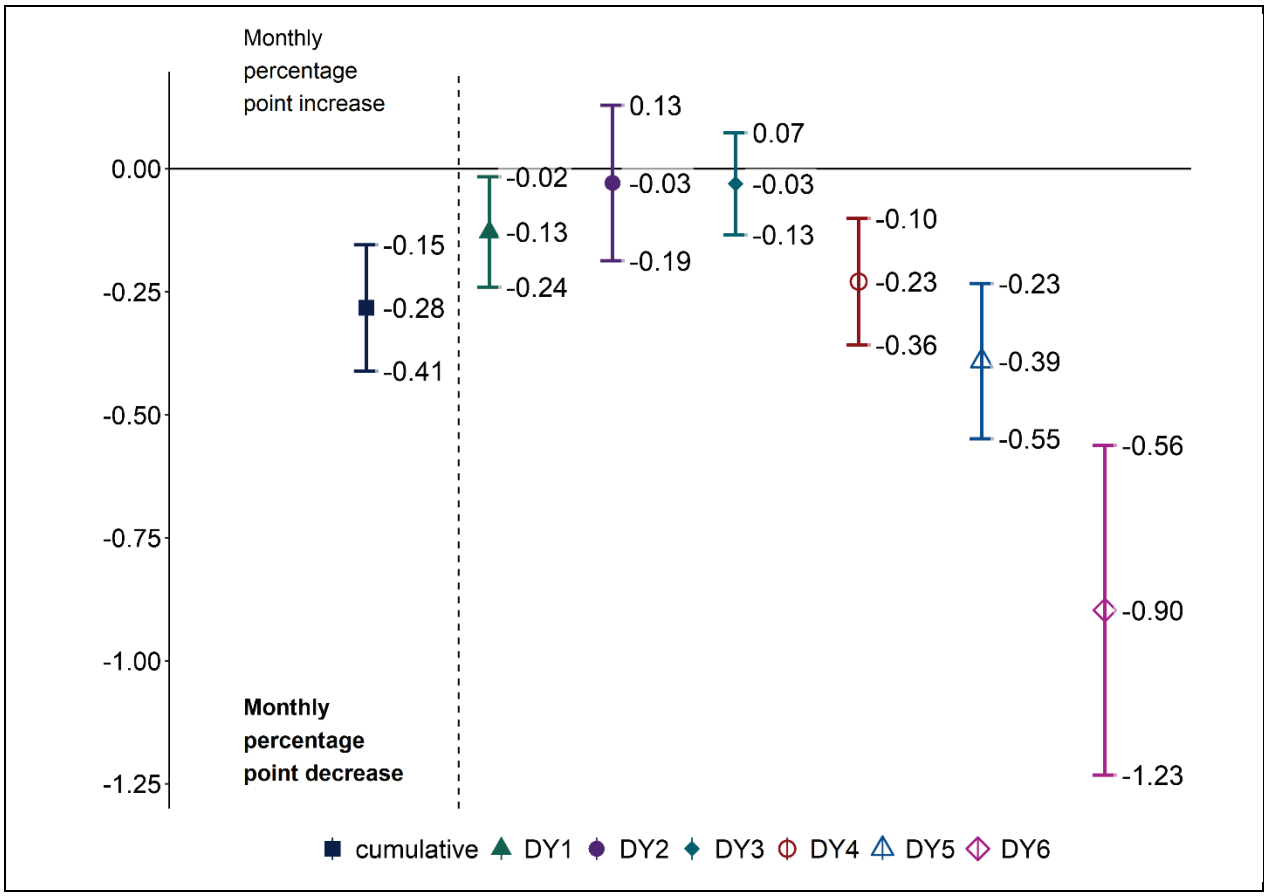
DY = demonstration year; ED = emergency department.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect is a decrease.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-3
Cumulative and annual demonstration effects on physician E&M visits in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



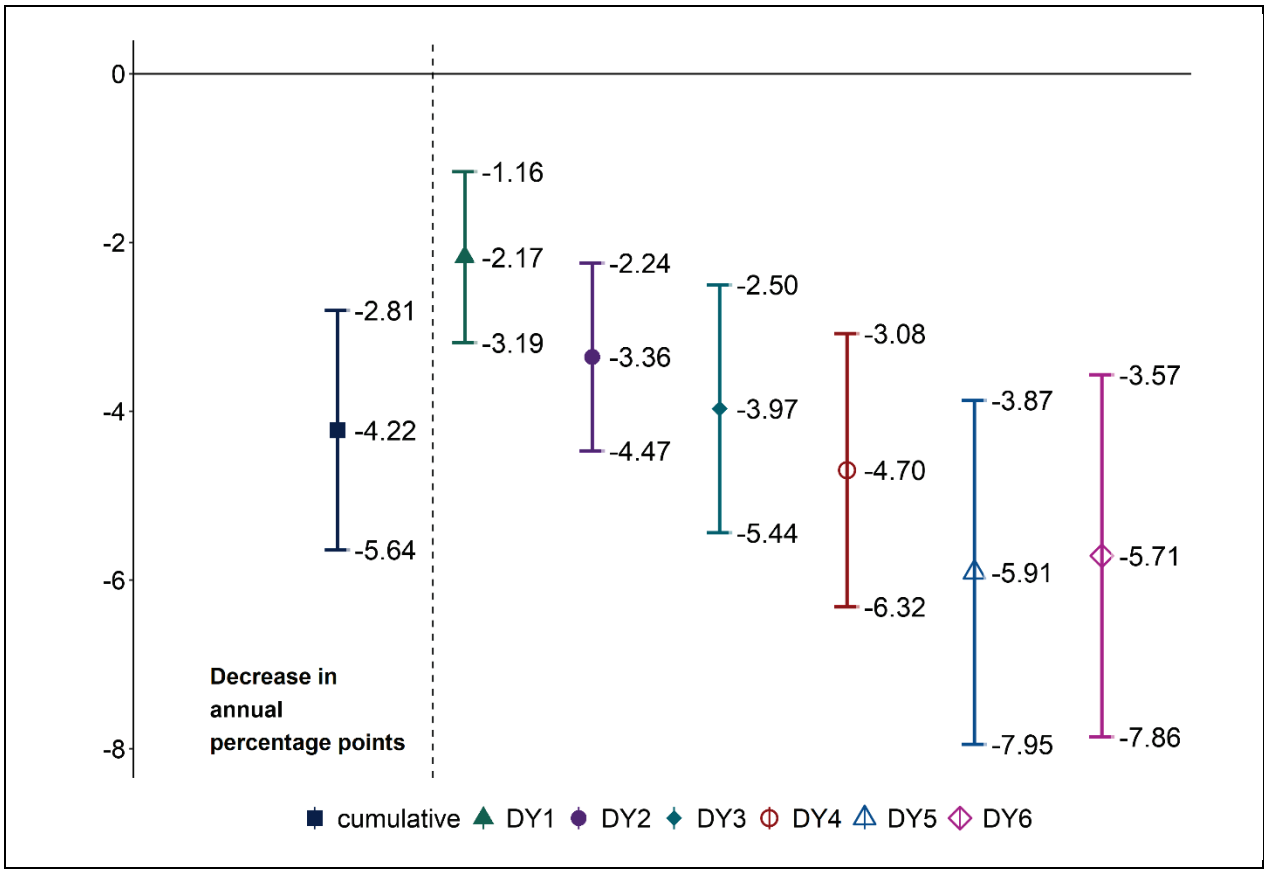
DY = demonstration year; E&M = evaluation and management.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-4
Cumulative and annual demonstration effects on SNF admissions in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



DY = demonstration year; NF = nursing facility.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-5
Cumulative and annual demonstration effects on long-stay NF use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



DY = demonstration year; NF = nursing facility.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Minimum Data Set data.

5.3 Demonstration Impact on Quality of Care Among Eligible Beneficiaries

The demonstration resulted in a favorable 14.7 percent increase in the probability of a 30-day follow-up after mental health discharge, in part due to a declining trend observed in the comparison group. The demonstration resulted in a 9.0 percent decrease in the number of all-cause 30-day readmissions, relative to the comparison group. However, the demonstration was also associated with an increase in the monthly number of preventable ED visits by 27.2 percent, relative to the comparison group.

5.3.1 Cumulative Impact Over Demonstration Years 1–6

The Ohio demonstration is expected to improve quality of care, as a result of care coordination and increased access to needed services. The demonstration resulted in a favorable

increase in the probability of having any 30-day follow-up after a mental health discharge and a favorable decrease in the number of 30-day readmissions, relative to the comparison group. The demonstration resulted in an increase in preventable ED visits, relative to the comparison group, which may correspond to the relative decrease in the monthly probability of any inpatient admission, illustrated above in ***Table 5-1.*** The cumulative impact and adjusted means for these measures are shown in ***Table 5-2***.

Table 5-2
Cumulative demonstration impact on select quality of care measures in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Regression-adjusted DinD estimate (95% confidence interval)	Relative difference (%)	*p*-value
Monthly number of preventable ED visits per 1,000 beneficiaries	Demonstration	33.99	42.97	10.80*** (8.16, 13.44)	27.2	<0.0001
	Comparison	40.17	39.63			
Monthly probability of any ACSC admission, overall (%)	Demonstration	0.90	0.79	–0.06 (–0.11, 0.00)	NS	0.0646
	Comparison	0.86	0.80			
Monthly probability of any ACSC admission, chronic (%)	Demonstration	0.54	0.51	–0.03 (–0.08, 0.03)	NS	0.3535
	Comparison	0.53	0.53			
Probability of 30-day follow-up after mental health discharge (%)	Demonstration	40.58	40.05	5.95** (1.48, 10.42)	14.7	0.0091
	Comparison	47.20	40.40			
Number of all-cause 30-day readmissions per 1,000 discharges	Demonstration	262.79	241.60	–24.07*** (–36.93, –11.20)	–9.0	0.0002
	Comparison	267.52	268.80			

*p < 0.05; **p < 0.01; ***p < 0.001
ACSC = ambulatory care sensitive condition; DinD = difference-in-differences; ED = emergency department; E&M = evaluation and management; NF = nursing facility; NS = not statistically significant; SNF = skilled nursing facility.
NOTES: The adjusted mean is the regression-adjusted predicted probability or number of events for the predemonstration and demonstration periods for the demonstration and comparison groups. The relative difference is calculated by dividing the DinD estimate (column heading "Regression-adjusted DinD estimate") by the predicted average for the comparison group in the demonstration period (column heading "Adjusted mean for demonstration period"). The magnitude of a relative difference could be large when the underlying denominator is small. In such cases, the relative difference should be interpreted with caution. Green and red color-coded shading indicates where the direction of the DinD estimate was favorable or unfavorable; green indicates favorable, and red indicates unfavorable.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data, and Minimum Data Set data.

Preventable ED visits

- Over the course of the Ohio demonstration, the monthly number of preventable ED visits increased for the demonstration group while decreasing slightly for the

comparison group, resulting in an absolute increase of 10.8 visits per month. This corresponds to a relative increase of 27.2 percent of the average predicted monthly number of preventable ED visits in the demonstration group during the demonstration period.

  - These findings suggest that despite improvements in care coordination resulting in decreases in inpatient admissions, described above, challenges remained in helping to meaningfully decrease preventable ED visits, relative to the comparison group. ***Appendix E, Table E-5*** indicates that the monthly count of preventable ED visits declined at a steeper rate in the comparison group than observed in the demonstration group.
  - As described above in the results on service utilization, there may be a corresponding relationship between visits to the ED and inpatient admissions because ED visits that result in an admission to the hospital are not included in the ED outcomes. Beneficiaries in the demonstration, relative to the comparison group, therefore, may be experiencing an increase in being discharged safely to the community directly from the ED, even for ED visits that were preventable.

30-day follow-up after mental health discharge

- The monthly probability of a 30-day follow-up after a mental health discharge declined in the comparison group from the predemonstration through the demonstration period (47.2 to 40.4 percent). In contrast, the trend was stable for the demonstration group during that time (40.58 to 40.05 percent). These differences between the two groups resulted in a nearly a 14.7 percent relative increase in the demonstration group, relative to the comparison group, even though the underlying patterns for the demonstration group was essentially flat across the predemonstration and demonstration periods.
  - These findings are largely driven by two factors: (1) the decrease in follow-up rates in the comparison group from the predemonstration to the demonstration period (see ***Table 5-2***), and (2) an increase in follow-up visits after a mental health discharge in the demonstration group beginning in demonstration year 4 (2018) through demonstration year 6 (2020) after falling in the first 3 years (see weighted means table in ***Appendix E, Table E-6***). Indeed, during the first 3 demonstration years, the demonstration did not have an impact on 30-day follow-up after a mental health discharge, but beginning in demonstration year 4, there was an increase in follow-up, which continued through demonstration years 5 and 6.
  - The increases observed in the most recent 3 demonstration years appear largely driven by increases in follow-up rates observed among MMP enrollees beginning in demonstration year 4 (see ***Table E-8*** in ***Appendix E***).
  - This finding may be confounded by Ohio's behavioral health redesign, which was first implemented in 2018. One impact of the redesign was related to changes in how behavioral health providers delivered and billed for their services and may have expanded the number of providers participating in Medicare and improved their access to behavioral health services. More details about this redesign are

available in the Second Evaluation Report (see ***Section 2.2, Overview of State Context***).

All-cause 30-day readmissions

- The number of all-cause 30-day readmissions decreased in the demonstration group relative to the comparison group by 24.07 readmissions per 1,000 discharges. This is a 9.0 percent relative decrease over the number of all-cause 30-day readmissions in the comparison group during the demonstration period (268.80 readmissions per 1,000 discharges).
  - These results reflect a decrease in the number of all-cause readmissions in the demonstration group from 262.79 to 241.60 readmissions per 1,000 discharges from the predemonstration to the demonstration period (see ***Table 5-2***). By contrast, the annual number of 30-day readmissions increased slightly in the comparison group during that same time period.
  - In MyCare Ohio, the MMPs have strong and formal relationships with the AAAs related to care coordination, with some MMPs fully delegating care management to the AAAs (see the Second Evaluation Report, ***Section 2.3.3, Care Coordination Capacity***). These relationships include alternative payment incentives relating to admissions which could be partly driving the reduction in readmissions among demonstration eligible beneficiaries. For example, one MMP official mentioned that their value-based payment arrangements with the AAAs focused primarily on trying to reduce readmissions and ED visits and leveraged quality metrics to drive the AAAs to target these outcomes (see the Second Evaluation Report, ***Section 2.3.3, Care Coordination Capacity***). While there was no evidence that this was successful in reducing overall or preventable ED visits, it may have helped decrease 30-day readmissions.

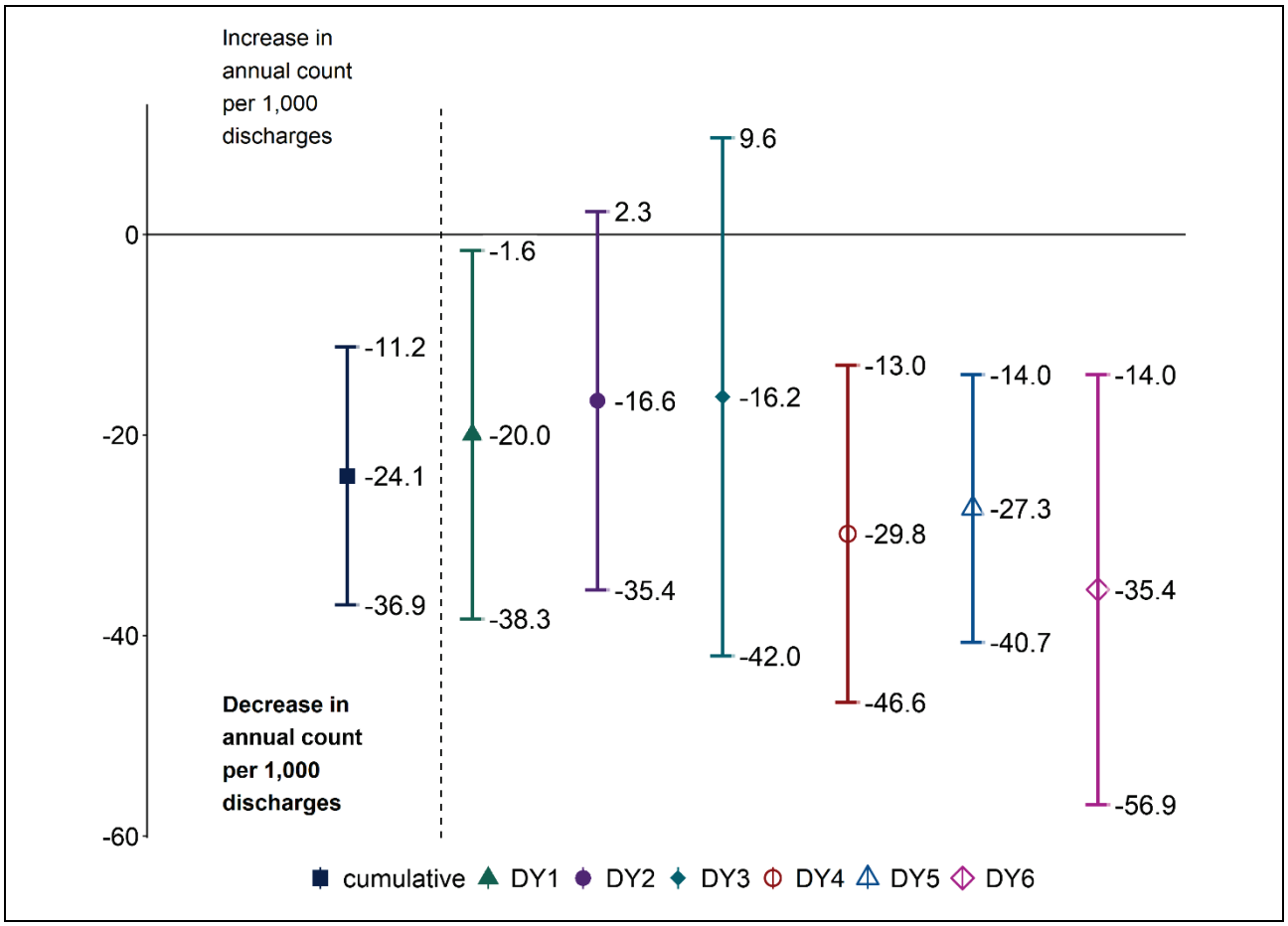
5.3.2 Demonstration Impact in Each Demonstration Year

Figures 5-6 through ***5-10*** show the demonstration's annual effects on 30-day readmissions (***Figure 5-6***), ACSC admissions (overall) (***Figure 5-7***), ACSC admissions (chronic) (***Figure 5-8***), preventable ED visits (***Figure 5-9***), and 30-day follow-up post mental health discharge (***Figure 5-10***), with the cumulative impact also shown as points of comparison. These annual impact estimates indicate that some of the cumulative quality outcomes are being driven by the most recent demonstration years. Specifically, the Ohio demonstration decreased the number of 30-day readmissions in 4 out of 6 demonstration years and increased the probability of 30-day follow-up after mental health discharge in demonstration years 4 through 6, relative to the comparison group. The demonstration was associated with a decrease in the probability of overall ACSC admissions in demonstration years 1 and 5, and an increase in the number of preventable ED visits in all 6 demonstration years, relative to the comparison group.

All-cause 30-day readmission

- The demonstration decreased the number of 30-day readmissions by 20.0 readmissions per 1,000 discharges in the first demonstration year and by approximately 27 to 35 readmissions per 1,000 discharges in later years (***Figure 5-6***).

Figure 5-6
Cumulative and annual demonstration effects on 30-day readmissions, in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data

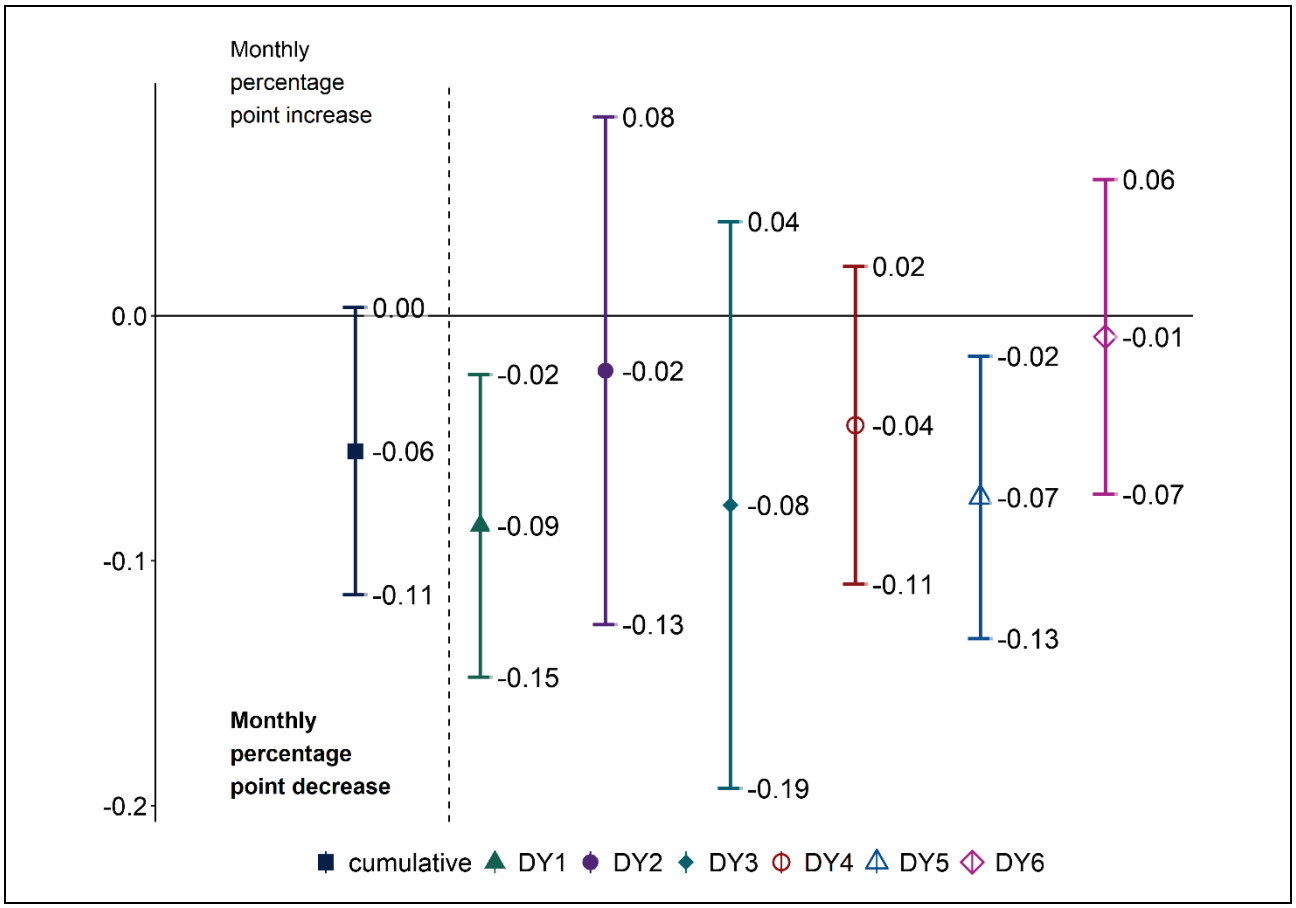
ACSC overall and chronic admissions

- The probability of overall ACSC admissions decreased by 0.09 percentage points per month in demonstration year 1 and by 0.07 percentage points per month in demonstration year 5, relative to the comparison group. Results were similar for ACSC chronic admissions (***Figures 5-7*** and ***5-8***).

Preventable ED visits

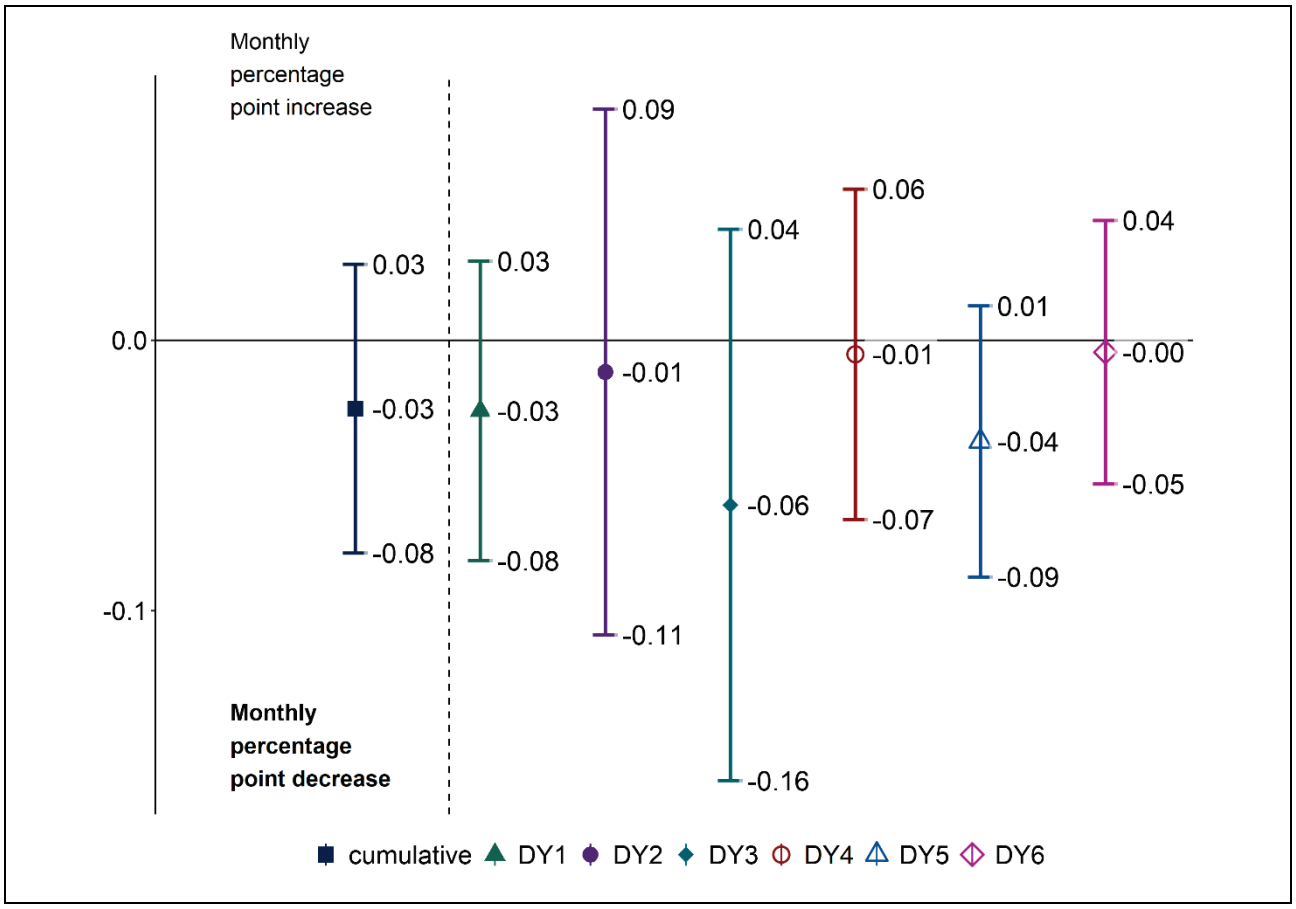
- The demonstration was associated with an increase in the number of preventable ED visits in each demonstration year, ranging from 4.7 to 13.3 visits per 1,000 from demonstration year 1 through 6, relative to the comparison group (***Figure 5-9***).

Figure 5-7
Cumulative and annual demonstration effects on ACSC admissions (overall), in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



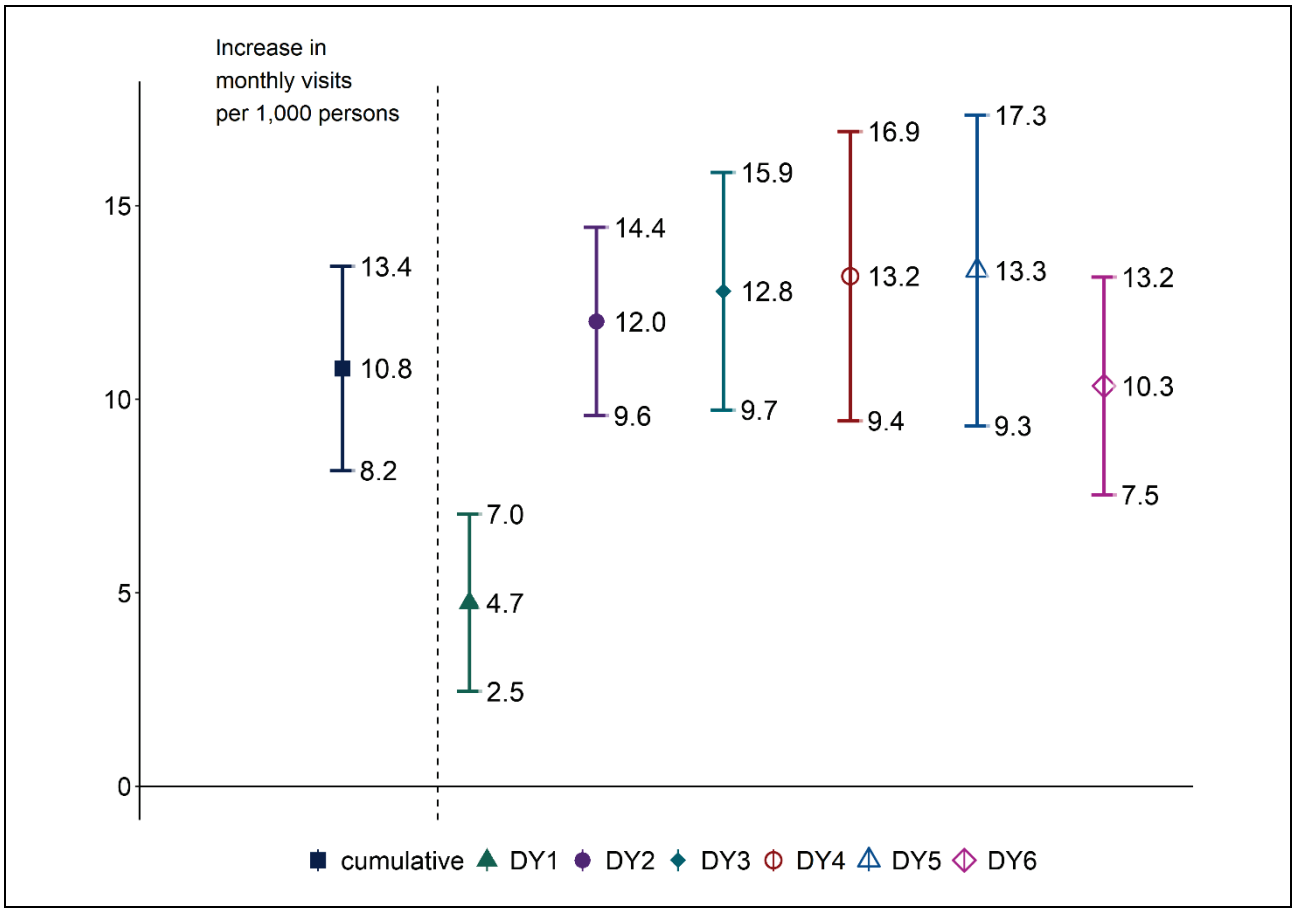
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-8
Cumulative and annual demonstration effects on ACSC admissions (chronic), in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 5-9
Cumulative and annual demonstration effects on preventable ED visits, in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

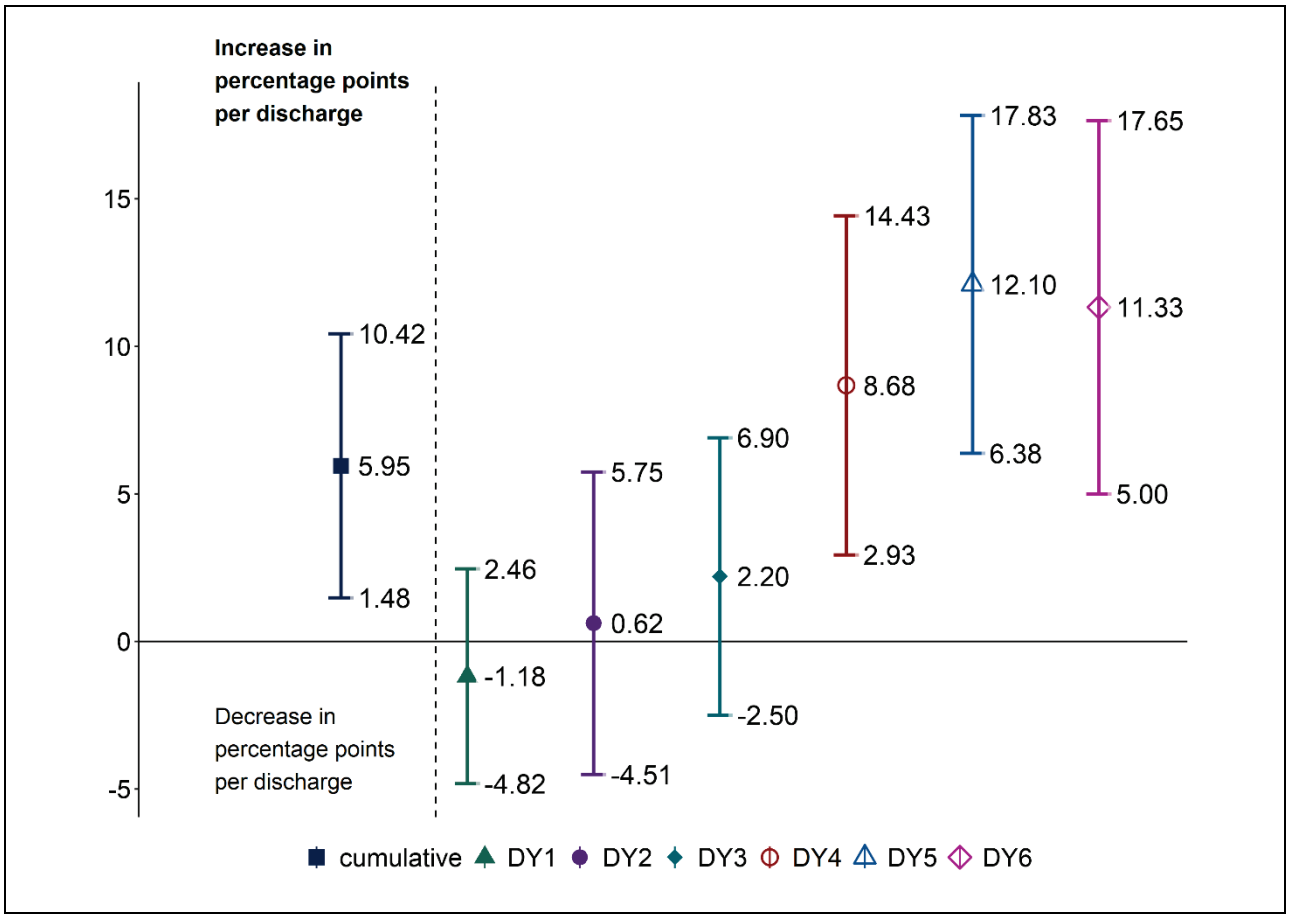


DY = demonstration year; ED = emergency department.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect is a decrease.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

30-day follow-up after mental health discharge

- The probability of a 30-day follow-up after mental health discharge increased in demonstration years 4 through 6 by 8.68, 12.10, and 11.33 percentage points, respectively, relative to the comparison group (***Figure 5-10***).

Figure 5-10
Cumulative and annual demonstration effects on 30-day follow-up post mental health discharge, in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

See ***Appendix E, Tables E-4*** through ***E-8***, for unadjusted descriptive statistics for all service use and quality of care measures for the demonstration eligible population and for demonstration enrollees (i.e., beneficiaries who enrolled in MMPs).

5.4 Demonstration Impact on Special Populations

During demonstration years 1 through 6, the demonstration impacted the LTSS population differently than the non-LTSS population. The demonstration effect for LTSS users was an increase in the probability of inpatient admissions and any SNF admission, relative to the demonstration effect for non-LTSS users. The demonstration was also associated with an increase in the probability of ACSC admissions (overall and chronic), relative to the demonstration effect among non-LTSS users.

The demonstration effect for beneficiaries with SPMI was a decrease in the probability of inpatient and SNF admissions and an increase in the number of preventable ED visits, relative to the demonstration effect for those without SPMI.

Among the key goals of the MyCare Ohio demonstration are to improve quality of care and lower spending for those with LTSS use and those with SPMI. Care coordination by the MMPs integrates medical care, behavioral health, and LTSS. While the demonstration seeks to improve care for all eligible beneficiaries, the demonstration is expected to particularly impact service utilization and quality of care among eligible beneficiaries with LTSS needs or who have an SPMI.[24] Our special population analyses indicate that the demonstration impacts were different for LTSS users and beneficiaries with SPMI, relative to the demonstration impacts among non-LTSS users and those without SPMI.[25]

In addition to these populations of focus, other special populations examined included those who were enrolled and non-enrolled. See ***Tables E-7*** and ***E-8*** in ***Appendix E*** for unadjusted descriptive statistics for demonstration enrollees and non-enrollees.

Additionally, further analyses were conducted to examine unadjusted service utilization results by racial and ethnic groups among the eligible population for select utilization measures: inpatient admissions, ED visits (without subsequent inpatient admission), physician E&M visits, outpatient therapy (physical therapy, occupational therapy, and speech therapy), and hospice use.[26]

5.4.1 Beneficiaries Receiving Long-Term Services and Supports

As indicated in ***Table D-1*** in ***Appendix D***, about 12.4 percent of the demonstration eligible population in demonstration year 6 had any LTSS use. The demonstration impacted service utilization measures for those with LTSS use differently than for those with no LTSS use (see ***Table 5-3***). For example, the demonstration was associated with a decrease in the monthly probability of any inpatient use among the beneficiaries without LTSS use, whereas there was no change in inpatient use among beneficiaries with LTSS use. The difference in the cumulative demonstration effect between beneficiaries with LTSS use relative to beneficiaries without LTSS use was a 0.46 percentage point increase in the probability of any monthly inpatient admission.

[24] See group definitions in ***Appendix D***.
[25] See ***Tables E-2*** and ***E-3*** in ***Appendix E***.
[26] See ***Figures E-1, E-2,*** and ***E-3*** in ***Appendix E***.

Similarly, the demonstration effect for beneficiaries with LTSS use was an increase in the probability of any SNF admission, relative to the demonstration effect for the non-LTSS population.

Table 5-3
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures						
Monthly probability of any inpatient admission (%)	LTSS	–0.07	NS	0.6380	–0.38, 0.23	0.46**
	Non-LTSS	–0.53	–18.2	<0.0001	–0.72, –0.35	
Monthly probability of any ED visit (%)	LTSS	0.76	12.2	<0.0001	0.43, 1.09	–0.40
	Non-LTSS	1.16	17.5	<0.0001	0.73, 1.60	
Monthly number of physician E&M visits per 1,000 beneficiaries	LTSS	13.96	NS	0.8322	–115.19, 143.10	–61.83
	Non-LTSS	75.79	11.6	<0.0001	47.31, 104.28	
Monthly probability of any SNF admission (%)	LTSS	0.22	11.9	0.0462	0.00, 0.44	0.28*
	Non-LTSS	–0.06	NS	0.0724	–0.13, 0.01	
Quality of Care Measures						
Monthly number of preventable ED visits per 1,000 beneficiaries	LTSS	9.22	27.0	<0.0001	6.72, 11.71	–0.40
	Non-LTSS	9.61	23.3	<0.0001	6.05, 13.17	
Monthly probability of any ACSC admission, overall (%)	LTSS	0.07	NS	0.1940	–0.03, 0.17	0.16***
	Non-LTSS	–0.09	–20.8	0.0002	–0.14, –0.04	
Monthly probability of any ACSC admission, chronic (%)	LTSS	0.11	22.0	0.0064	0.03, 0.20	0.20***
	Non-LTSS	–0.08	–24.4	<0.0001	–0.12, –0.04	
Probability of 30-day follow-up after mental health discharge (%)	LTSS	3.45	NS	0.2345	–2.24, 9.13	–3.33
	Non-LTSS	6.77	15.7	0.0092	1.67, 11.88	
Number of all-cause 30-day readmissions per 1,000 discharges	LTSS	–18.64	–6.7	0.0443	–36.81, –0.48	–0.59
	Non-LTSS	–18.05	NS	0.0503	–36.13, 0.02	

*p<0.05; **p<0.01; ***p<0.001
ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; LTSS = long-term services and supports; NS = not statistically significant; SNF = skilled nursing facility.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

In addition, the demonstration effect for beneficiaries with LTSS use was an increase in the probability of ACSC admissions (overall and chronic), relative to the demonstration effect among beneficiaries with no LTSS use. These findings indicate that the overall favorable effects on inpatient and SNF use were driven by the demonstration impacts among beneficiaries without any LTSS use. Improvements in inpatient use and other service utilization measures among beneficiaries with LTSS use may have been mitigated by provider shortages in Ohio, especially among personal care providers in the demonstration areas (see ***Section 4.1.3, Quality and Access to Care*** in this report).

See ***Table E-2*** in ***Appendix E*** for estimates of the demonstration effect for LTSS users and non-LTSS users in each demonstration year.

5.4.2 Beneficiaries with Serious and Persistent Mental Illness

As indicated in ***Table D-1*** in ***Appendix D***, about 58.2 percent of the demonstration eligible population in demonstration year 6 had an SPMI. On some measures, the demonstration impacted those with SPMI differently than those without SPMI (see ***Table* 5-4**). The demonstration effect for those with SPMI on the probability of any inpatient admission was a 0.44 percentage point decrease, relative to the demonstration effect for those without SPMI. The demonstration effect for those with SPMI was also a decrease in any SNF admissions and an increase in the number of preventable ED visits, relative to the demonstration effect for those without SPMI.

There are at least two factors that may explain these findings. The high levels of care plan completion rates described in ***Section 3.3.3, Care Planning*** in the Second Evaluation Report suggest that care coordinators were in part successful at engaging enrollees; those with an SPMI may have benefited more than those without an SPMI due to the former having a higher HCC score than the overall eligible population in general (see ***Appendix D, Table D-1***). Even so, there was a greater increase in preventable ED visits among those with an SPMI, than among those without an SPMI, which suggests challenges in managing beneficiary care complexity in an outpatient setting, but may also reflect a greater ability to discharge enrollees from the ED to community and avoiding an inpatient admission. Finally, caution should be used when interpreting these results. Annual estimates from 2018 through 2020 may have been confounded by the Ohio Medicaid 2018 behavioral health redesign, which may have improved access to behavioral health services.

See ***Table E-3*** in ***Appendix E*** for estimates of the demonstration effect for beneficiaries with SPMI and those without SPMI in each demonstration year.

Table 5-4
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Special population	Demonstration effect relative to comparison group	Relative difference (%)	p-value	95% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures						
Monthly probability of any inpatient admission (%)	SPMI	–0.81	–13.8	<0.0001	–1.05, –0.57	–0.44***
	Non-SPMI	–0.37	–13.8	<0.0001	–0.53, –0.20	
Monthly probability of any ED visit (%)	SPMI	1.01	11.8	<0.0001	0.59, 1.43	0.00
	Non-SPMI	1.01	21.8	<0.0001	0.78, 1.24	
Monthly number of physician E&M visits per 1,000 beneficiaries	SPMI	–38.47	NS	0.2873	–109.32, 32.39	–42.01
	Non-SPMI	3.55	NS	0.7968	–23.44, 30.53	
Monthly probability of any SNF admission (%)	SPMI	–0.40	–20.9	<0.0001	–0.58, –0.23	–0.28***
	Non-SPMI	–0.12	–19.9	0.0036	–0.20, –0.04	
Quality of Care Measures						
Monthly number of preventable ED visits per 1,000 beneficiaries	SPMI	11.59	23.4	<0.0001	8.31, 14.87	3.23**
	Non-SPMI	8.36	30.0	<0.0001	6.09, 10.64	
Monthly probability of any ACSC admission, overall (%)	SPMI	–0.06	NS	0.1593	–0.15, 0.02	–0.01
	Non-SPMI	–0.05	NS	0.1335	–0.12, 0.02	
Monthly probability of any ACSC admission, chronic (%)	SPMI	–0.02	NS	0.6281	–0.10, 0.06	0.02
	Non-SPMI	–0.04	NS	0.1548	–0.09, 0.01	
Number of all-cause 30-day readmissions per 1,000 discharges	SPMI	–21.37	–7.2	0.0038	–35.84, –6.91	6.84
	Non-SPMI	–28.22	–13.7	0.0313	–53.91, –2.53	

*p<0.05; **p<0.01; ***p<0.001
ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; NS = not statistically significant; SNF = skilled nursing facility; SPMI = serious and persistent mental illness.
NOTES: Probability of 30-day follow-up after mental health discharge is estimated on only those with a hospitalization for SPMI; the difference-in-differences estimate is reported in ***Table E-3***.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

SECTION 6

Demonstration Impact on Cost Savings

The demonstration was associated with an increase of $77.79, per member per month (PMPM), in Medicare Parts A and B costs among eligible beneficiaries over the first 6 demonstration years, relative to the comparison group.

6.1 Methods Overview

As part of the capitated financial alignment model, Ohio, CMS, and MMPs entered into a three-way contract to provide services to MMP enrollees. The MMPs receive three separate, risk-adjusted prospective capitated payments. The first two payments are from the Medicare program (for Medicare Parts A and B and Medicare Part D), and the third comes from the State (for Medicaid services). To develop a Medicare Parts A and B capitated rate for the MMPs, CMS combined the Medicare FFS Standardized County Rates and the MA projected payment rates. Each component contributed to the final rate proportionally to the target population that would be enrolled in each program absent the demonstration.[27] CMS adjusts the Medicare component for each enrollee using CMS' hierarchical risk adjustment model to account for differences in the characteristics of enrollees. For further information on the rate development and risk adjustment process, see the memorandum of understanding and the three-way contract on the FAI website.[28]

This section presents the Medicare Parts A and B cost savings analysis for demonstration years 1 through 6 (May 2015 to December 2020). We do not present a Medicaid cost savings analysis in this report (for additional details, see ***Appendix F***).

We used an ITT analytic framework that includes all beneficiaries eligible for the demonstration rather than only those who actually enrolled. The ITT framework alleviates concerns of selection bias, supports generalizability of the results among the demonstration eligible population, and mimics the real-world implementation of the demonstration. For this analysis, enrolled beneficiaries account for approximately 60 percent of all eligible beneficiaries (including FFS beneficiaries, MMP enrollees, and MA enrollees in the denominator) in demonstration year 6.[29] The remaining 40 percent of those in the demonstration group are beneficiaries who are eligible for an MMP but are not enrolled (non-enrollees). Descriptive results for the entire eligible population are provided in ***Appendix F*** (see ***Tables F-4*** through ***F-15***). Results from a separate analysis, using a more restricted definition of MMP enrollees and their comparison group counterparts, are included in ***Appendix F*** (see ***Table F-18***). The results

[27] Joint Rate Setting Process for the Financial Alignment Initiative's Capitated Model (cms.gov)

[28] For the memorandum of understanding, see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/OHMOU.pdf;
for the three-way contract (original), see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/OHContract.pdf. For the three-way contract (original), see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/OHContract.pdf.

[29] The enrollment percentages reported in this section may be different than what was reported in ***Section 3.2, Eligibility and Enrollment*** because of the timing for completion and submitting the finder file versus the SDRS; and they may be different from those reported in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care*** because of the inclusion of beneficiaries enrolled in Medicare Advantage.

of this analysis of the more restricted definition of MMP enrollees indicated that there was a statistically significant increase in cost for each demonstration year, as well as cumulatively over the entire demonstration.

To evaluate the cost implications of the demonstration, RTI performed a DinD analysis of Medicare Parts A and B expenditures that compares demonstration eligible beneficiaries who live in an area where a participating health plan operates—the demonstration group—to those who meet the same eligibility criteria but live outside those operating areas—the comparison group. The comparison group methodology is identical to the service utilization analyses (see ***Appendix C*** for details).

We made several adjustments to the monthly Medicare expenditures to ensure that observed expenditure variations are not due to differences in Medicare payment policies in different areas of the country or the construction of the capitation rates (see ***Appendix F***). ***Table F-1*** in ***Appendix F*** summarizes each adjustment and the application of the adjustments to FFS expenditures or to the capitation rate.

6.2 Demonstration Impact on Medicare Parts A and B Costs

Table 6-1 shows the magnitude of the DinD estimate of the cumulative demonstration impact on Medicare Parts A and B cost, both in absolute dollar amount and relative to the adjusted mean expenditure level in the comparison group during the demonstration period. The adjusted mean for monthly expenditures increased from the predemonstration period to the demonstration period in both the demonstration and comparison groups. The cumulative DinD estimate of $77.79 PMPM, which amounts to a relative difference of 4.96 percent of the adjusted mean expenditure for the comparison group during the demonstration period, is statistically significant (p=0.0107). This suggests that overall, the Ohio demonstration was associated with statistically significant increases in Medicare A and B costs relative to the comparison group.

Table 6-1
Cumulative demonstration impact on monthly Medicare Parts A and B costs in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

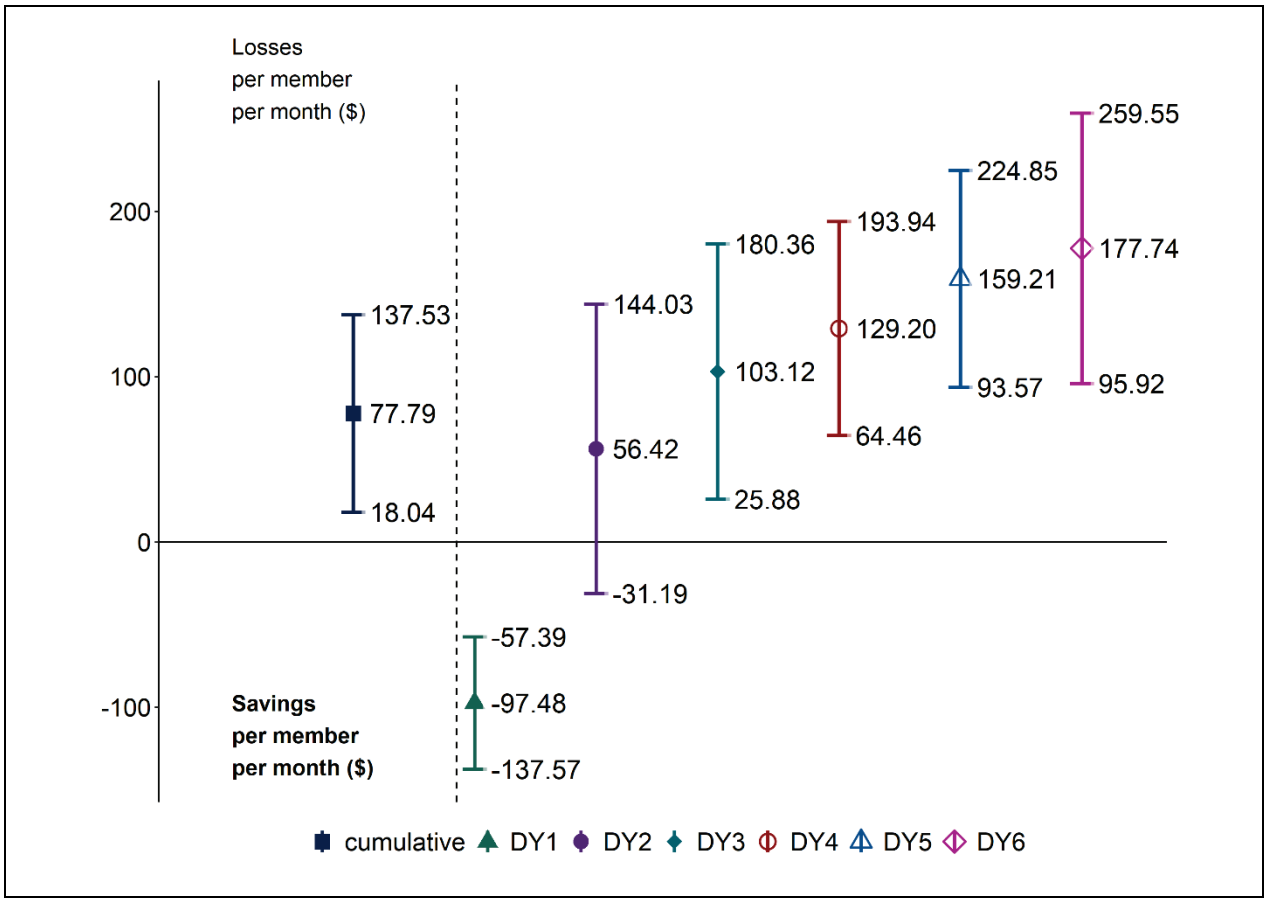
Group	Adjusted mean for predemonstration period ($)	Adjusted mean for demonstration period ($)	Adjusted coefficient DinD ($)	Relative difference (%)	*p*-value
Demonstration	1,742.59	1,830.07	77.79	4.96	0.0107
Comparison	1,562.04	1,567.23			

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims.

In addition, we estimated the effect of the demonstration in each demonstration year. As shown in ***Figure 6-1***, the demonstration had statistically significant effects in all demonstration years excluding demonstration year 2, for which there was no statistically significant effect. While for most years there were increased Medicare A and B costs, in demonstration year 1 there were statistically significant savings and in demonstration year 2, the results were not statistically significant. Note that these estimates rely on the ITT analytic framework, only account for

Medicare Parts A and B cost, and use the capitation rate for the MMP rather than the actual amount the plan paid for services.

Figure 6-1
Cumulative and annual demonstration effects on monthly Medicare Parts A and B costs in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020



DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. "Losses"/"Savings" indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group.
SOURCE: RTI analysis of Medicare claims.

Relative to the analysis presented in the Second Evaluation Report, the results in this report are slightly different but more accurate. In the current report, we were able to use the Medicaid MAX and TAF enrollment and eligibility files to identify and remove members of the demonstration group in the baseline period who were not eligible for MyCare due to their participation in other Medicaid waivers (approximately 9 to 10 percent of the demonstration group) or their medically needy status (approximately 4 to 10 percent per demonstration year among the comparison group, and less than 1 percent per year among the demonstration group). See ***Appendix C, Comparison Group Methodology*** for greater detail on these exclusions. As such, the sample more accurately reflects the demonstration eligible population than the one reported in the Second Evaluation Report. The remaining demonstration group sample had

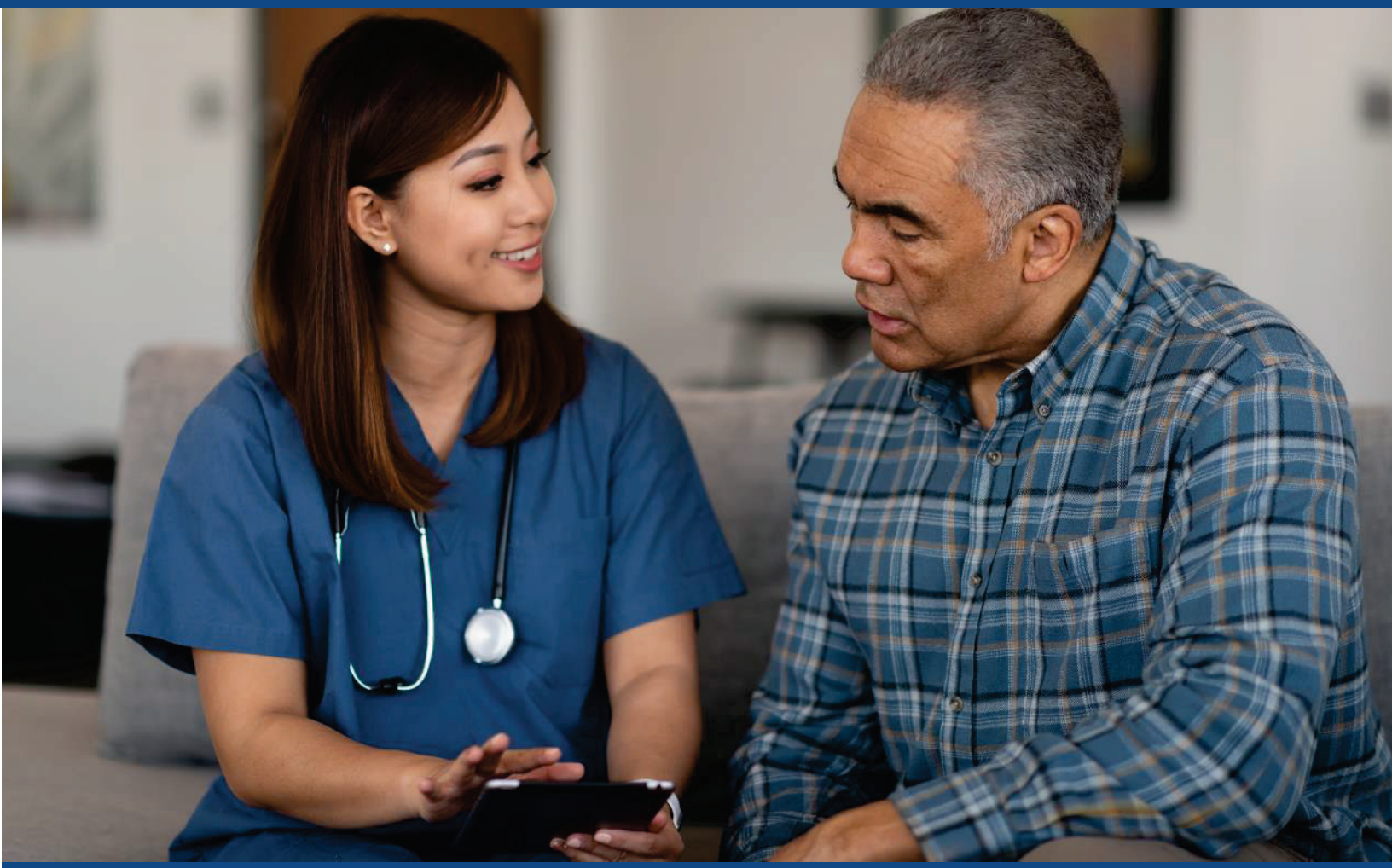
higher costs in the baseline period; and so, as expected, the DinD estimates are somewhat lower in magnitude relative to the previous report. The overall conclusions in both analyses are similar.

To better understand these results, we conducted additional descriptive analyses. The details of these analyses are provided in ***Appendix G***, along with an interpretation and discussion of the results. In the first analysis, we compared MMP rates with the expected FFS expenditures that would have otherwise occurred for the enrolled population, in demonstration years 1 and 6. The extent to which the MMP capitated payment rates are set higher or lower relative to what CMS would have paid under traditional FFS Medicare could affect the impact estimates. Overall, we found that MMP rates are largely comparable with enrollees' anticipated FFS experience in demonstration year 1; but in demonstration year 6, MMP rates were on average 10 percent higher than their estimated FFS costs (see ***Tables G-4*** and ***G-5***). The PHE in 2020 could be a contributor to this difference between the RTI-normalized FFS rate (which reflects actual 2020 expenditures) and the MMP rates (which are set prospectively and based on historical data).

We also conducted an analysis of spending and hierarchical condition category (HCC) characteristics during the predemonstration period. We found that enrollees had lower costs and were healthier than the demonstration eligible but never enrolled population (see ***Figures G-4*** and ***G-5***).

SECTION 7

Conclusions



7.1 Implementation Successes, Challenges, and Lessons Learned

In 2021, the MyCare Ohio demonstration continued to mature, with improvements in some areas while other challenges remained. AAAs reported the MMPs have produced improved data analytics to support more targeted care coordination and integrated care along the care continuum. In addition, the State has continued its efforts to promote demonstration-wide quality improvement by fostering collaboration across MMPs. For example, the State offered MMPs a shared incentive payment that they would receive only when, as a group, they met the demonstration's COVID-19 vaccination benchmarks.

A majority of enrollees participating in interviews or the CAHPS survey continued to express satisfaction with the MyCare Ohio demonstration. At the same time, a beneficiary advocate and the Ombudsman continued to doubt whether the demonstration had achieved its promised potential for improving and integrating care or expanding access to services. The Ombudsman also continued to be concerned that enrollees residing in NFs received little attention from MyCare Ohio care coordinators, creating a barrier for enrollees who wished to transition out of an NF.

The NFs themselves were also cited as a barrier to integrated care. For example, a provider advocate indicated that NFs saw services provided by the MyCare Ohio care coordinator as duplicative of the care management that NFs are required to provide under Federal law. However, MMPs that invested in building a relationship between a care coordinator and each facility were more successful in gaining access to electronic records, staff, and care meetings. Some NFs also valued the medical management provided by MMP care managers who are nurse practitioners and can work closely with NF staff and "step in for the doctor to get things done." Having "boots on the ground" in facilities, such as this, has been found to be effective in other recent CMS demonstrations.[30]

While the MyCare Ohio demonstration continued to have a high enrollment rate, in 2021 the proportion of beneficiaries who opted into the demonstration was 58 percent, dipping below 60 percent for the first time. The ODM indicated that over the course of the demonstration, the greatest number of beneficiaries opting out of the demonstration were those residing in an NF, suggesting that NFs may have been discouraging their residents from enrolling.

In spite of these challenges, both CMS and ODM see MyCare Ohio as successful overall. Noting that MyCare Ohio was the State's first managed care program for LTSS, CMS cited Ohio's success at overcoming these challenges to achieve a high rate of enrollment and steady increases in enrollee satisfaction. ODM noted that the demonstration benefitted both beneficiaries and providers. For beneficiaries, integrating Medicare and Medicaid simplifies access to the full range of services both programs can offer. For providers, the demonstration can simplify billing, payment, and communication across Medicare and Medicaid.

[30] See Tyler, D. A., Feng, Z., Grabowski, D. C., Bercaw, L., Segelman, M., Khatutsky, G., Wang, J., Gasdaska, A., & Ingber, M. (2022). CMS initiative to reduce potentially avoidable hospitalizations among long-stay nursing facility residents: Lessons learned. *Milbank Quarterly*, epub ahead of print. doi.org/10.1111/1468-0009.12594

The ongoing impact of the PHE exacerbated a shortage of direct care workers, leaving many enrollees with unmet service needs. In response, MMPs initiated a collaborative work group to develop joint strategies for addressing the shortage. They planned to expand to a statewide initiative in partnership with providers and other key stakeholders.

The PHE also contributed to the increased use of telehealth, with many beneficiaries preferring continued access to telehealth even after the risk of meeting face-to-face declined. Telehealth was particularly beneficial for behavioral health services, since it allowed enrollees to maintain a certain level of flexibility and privacy. Telehealth fell short in other areas, though. MMPs saw virtual assessments as inferior to face-to-face, because care coordinators could not accurately capture environmental information about how well enrollees managed in their own home. In addition, beneficiary advocates identified the need for improving the accessibility of virtual technology for people with disabilities, and people with limited access to computers or smart phone technology.

As the MyCare Ohio demonstration enters its final years, ODM is planning for a future approach to integrated care that preserves the key features of the demonstration. Some stakeholders identified risks associated with that transition. The Ombudsman was concerned that ODM would not have as active a partnership under a FIDE-SNP model as it has had under the CMT and the MMP model. Several stakeholders discussed the strength of Ohio's AAAs and wondered whether the partnership between the health plan and the AAAs would continue under the new approach.

7.2 Demonstration Impact on Service Utilization and Costs

Over the course of the demonstration, results were mostly favorable for several service utilization and quality of care measures among Ohio demonstration eligible beneficiaries relative to the comparison group. Specifically, the demonstration was associated with a favorable decrease in the monthly probability of any inpatient admission, any SNF admission, the annual probability of any long-stay NF use, and the number of all-cause 30-day readmissions. Demonstration eligible beneficiaries also experienced a favorable increase in the probability of a 30-day follow-up after mental health discharge. In contrast, however, there were potentially unfavorable increases in ED visits and preventable ED visits among demonstration eligible beneficiaries although these may in part be associated with the observed decrease in inpatient use (i.e., treat-and-release ED visits instead of ED visits leading to an inpatient stay). The Ohio demonstration did not impact ACSC admissions (overall and chronic) or physician visits.

As described in greater detail in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***, there are a number of possible explanations for these results. The favorable impacts on inpatient admissions, SNF use, long-stay NF use, and all-cause 30-day readmissions may in part be driven by improvements in care coordination because the majority (90 percent) of enrollees had a completed care plan by demonstration year 5,[31] and most of these beneficiaries had frequent contact with their care manager, who often was part of the AAA network.[32] In addition, the rate of long-stay NF use was substantially higher in the predemonstration period for

[31] See ***Section 2.3.2, Care Planning*** in the Second Evaluation Report.
[32] See ***Section 2.3.3, Care Coordination Capacity*** in the Second Evaluation Report.

the demonstration group than for the comparison group (see ***Appendix E, Table E-6***), which may suggest a greater potential for improvements.

The demonstration impacted some outcomes differently for those beneficiaries with LTSS use than those without LTSS. Individuals with LTSS represented approximately 12 percent of the demonstration eligible population in demonstration year 6. Compared to those without LTSS, LTSS users had unfavorable increases in the probability of any inpatient admission, SNF admission, and ACSC admissions (overall and chronic). These findings indicate that the overall favorable effects on inpatient and SNF use were driven by the demonstration impacts among beneficiaries without any LTSS use. Improvements in inpatient use and other service utilization measures among beneficiaries with LTSS use may have been mitigated by provider shortages in Ohio, especially among personal care providers in the demonstration areas (see ***Section 4.1.3, Quality and Access to Care*** in this report).

Effects of the demonstration on service utilization and quality of care were similar for people with SPMI (who made up 58 percent of the demonstration eligible population in demonstration year 6) to the overall results. However, beneficiaries in Ohio with SPMI experienced a decrease in inpatient admissions and SNF admissions, and an increase in preventable ED visits relative to the demonstration effect for those without SPMI. The high levels of care plan completion rates, described in ***Section 3.3.3, Care Planning*** in the Second Evaluation Report, suggest care coordinators were in part successful at engaging enrollees; those with an SPMI had greater health risks and may have benefited more from this engagement than those without an SPMI (see ***Appendix D, Table D-1***). Even so, there was a greater increase in preventable ED visits among those with an SPMI than among those without an SPMI, which suggests challenges in managing beneficiary care complexity in an outpatient setting, but may also reflect a greater ability to discharge enrollees from the ED to community and avoiding an inpatient admission. Finally, annual estimates from 2018 through 2020 may have been confounded by the Ohio Medicaid 2018 behavioral health redesign, which may have increased access to behavioral health services.

Although this analysis indicates that Ohio had largely favorable service utilization findings, they should be interpreted within the broader policy context in the State. Particularly, in the same year that the State launched the demonstration, it also launched another MLTSS program to automatically enroll dually eligible beneficiaries eligible for, but not enrolled in, MyCare Ohio. This effectively resulted in two concurrent Medicaid managed care programs which could have complicated the demonstration implementation and its impact. Specifically, causal interpretation of the demonstration results could be confounded by the benefits of having a program that still touches the lives of eligible beneficiaries, even if they choose not to enroll in MyCare Ohio for coverage of Medicare and Medicaid benefits. Because the MLTSS program in Ohio helps to coordinate LTSS services among the eligible non-enrolled population, favorable impacts may be due to a combination of MyCare Ohio and MLTSS. Supplemental analysis (described in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***) examining the long-stay NF use, inpatient admissions, and SNF admissions by enrollment status indicates that the enrolled beneficiary population is a larger contributor to the direction and magnitude of the overall DinD estimates than the non-enrolled population.

The results may also be partially supported by the pre-enrollment cohort analysis (see ***Appendix G, Figure G-1***). This supplemental analysis indicates that, as evidenced by the differences in inpatient and SNF admissions between the two groups, demonstration enrollees, through lower utilization of these services, appear to be healthier than the eligible but never enrolled (ENE) cohort. Although healthier beneficiaries enrolling in the demonstration could impact the ability of the MMPs to further reduce health care utilization, in Ohio we see mostly favorable findings. However, as described above, we observe the enrolled population driving the favorable results (***Section 5, Demonstration Impact on Service Utilization and Quality of Care***), while the ENE group have a smaller but still favorable contribution to the overall DinD estimates.

The unfavorable increases in ED visits and preventable ED visits among demonstration eligible beneficiaries may also be related to healthier beneficiaries enrolling in the demonstration. As described in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***, there may be a relationship between visits to the ED and inpatient admissions because ED visits that result in an inpatient admission to the hospital are not included in the ED outcomes. If beneficiaries enrolled in the demonstration are healthier, they may be able to be safely discharged home to the community directly from the ED, even for ED visits that were preventable, at higher rates relative to the comparison group.

The cumulative Medicare cost analysis found a statistically significant cost increase of $77.79 PMPM to the Medicare program over the first 6 demonstration years among demonstration eligible beneficiaries, relative to the comparison group. Although the results in demonstration year 1 indicated savings and there were null effects in demonstration year 2, the analysis of individual demonstration years found increased Medicare Parts A and B costs in years 3 through 6 relative to the predemonstration costs, even though savings percentages were applied for all the demonstration periods. Several factors could explain why savings have not materialized. The analysis of the demonstration's impact on Medicare costs used an ITT approach that included all eligible beneficiaries, not only those enrolled in the MMPs, to alleviate concerns about selection bias in enrollment that could not be replicated in the comparison group. Although the enrollees represented well over one-half of all demonstration eligible beneficiaries—thus making the eligible but not enrolled population smaller than the enrolled population—higher spending in this group could still have obscured any savings achieved among the enrolled population. Additionally, we observed favorable selection into the demonstration; enrollment of a healthier population would diminish the potential for cost savings in the demonstration.

Another possible explanation for these unfavorable findings may be that the MMP capitated rates were set higher than what would have otherwise been spent in Medicare FFS. To examine this possibility, we compared MMP rates to FFS spending in demonstration years 1 and 6 (see ***Appendix G***, ***Tables G-4*** and ***G-5***). The capitated rates were similar to FFS rates in demonstration year 1 (when our DinD analysis found significant cost decreases), but the capitated rates were on average 10 percent greater than FFS in demonstration year 6 (when our DinD analysis found significant cost increases), perhaps contributing to the direction and magnitude of the DinD estimate during that year. The PHE in 2020 could be a contributor to this

difference between the RTI-calculated FFS rate (which reflects actual 2020 expenditures) and the MMP rates, which are set prospectively based on historical data.

7.3 Summary

MyCare Ohio was launched in 2014, and only minor modifications were made to the demonstration design over the first 7 years of the demonstration. During the demonstration to date, nearly two-thirds of eligible beneficiaries have been enrolled in the demonstration, on average. The demonstration has provided enrollees with access to an integrated package of Medicare and Medicaid covered benefits with a single member identification card and through a single point of contact. In addition, enrollees have no copays, and have access to other flexible benefits.

Over the course of the demonstration, ODM adopted innovative strategies to improve the quality of care provided through MyCare Ohio. Starting in 2017, ODM required MMPs to adopt a population health approach to care management, along with a focus on health equity and social determinants of health (SDOH). ODM also began promoting collaborative quality improvement initiatives across the MMPs, prompting MMPs to coordinate resources and share strategies to improve system level outcomes. The onset of the PHE helped to reinforce the importance of both of these initiatives, as MMPs collaborated on strategies for responding to COVID-19, and care coordinators expanded their focus on addressing SDOH. In addition to these initiatives, as the demonstration has matured, MMP capacity has also matured; MMPs have improved their ability to provide care coordinators with integrated Medicare and Medicaid claims and data analytics for enhancing care coordination across the full continuum of care and permitting more targeted interventions for those at risk.

On the whole, the demonstration has produced a number of favorable outcomes. The majority of enrollees expressed high rates of satisfaction with their MMP and the care coordination provided. In addition, the demonstration was associated with an overall favorable impact on utilization and quality measures relating to hospital, SNF and NF use, and follow-up care after a mental health discharge. However, there were some unfavorable findings, such as increases in overall ED visits and preventable ED visits. These increases may have corresponded with declines in inpatient admissions (i.e., treat-and-release ED visits instead of ED visits leading to an inpatient stay), or may also be related to healthier beneficiaries enrolling in the demonstration who may be safely discharged home to the community directly from the ED at higher rates relative to the comparison group.

The demonstration was also associated with an increase in Medicare costs of $77.79 PMPM over the first 6 years of the demonstration. Factors other than demonstration effectiveness, such as favorable selection into the demonstration and MMP rates being set higher than expected when compared with FFS costs, may have contributed to this finding.

ODM is developing a plan to transition the MyCare Ohio demonstration to a FIDE-SNP model, following the end of the demonstration. Although ODM has not made a final decision about its approach to implementing a FIDE-SNP model in Ohio, it is committed to preserving the key features of the demonstration.

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Appendix A

Data Sources

We used the following data sources to prepare this report.

Key informant interviews. The RTI International evaluation team conducted virtual site visits in March and April 2022. The team interviewed State officials, Centers for Medicare & Medicaid Services (CMS) officials, the MyCare Ohio Ombudsman, a beneficiary advocate, representatives from MyCare Ohio Medicare-Medicaid Plans (MMPs), representatives of Area Agencies on Aging (AAAs), and a representative of a provider association.

MyCare Ohio beneficiary (enrollee) interviews. The RTI evaluation team conducted 15 individual interviews with beneficiaries enrolled in MyCare Ohio. The interviews took place between June 23 and July 26, 2022.

Surveys. Medicare requires all Medicare Advantage (MA) plans, including Medicare-Medicaid Plans, to conduct an annual assessment of beneficiary experiences using the Medicare Advantage and Prescription Drug Plan Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey instrument. This report includes survey results for a subset of the 2015 through 2021 survey questions. In response to the COVID-19 Public Health Emergency (PHE), CMS did not require MA plans, including MMPs, to collect CAHPS data for 2020. Findings are available at the MMP level. Some CAHPS items are case mix-adjusted. Case mix refers to the respondent's health status and sociodemographic characteristics, such as age or educational level, that may affect the ratings that the respondent provides. Without an adjustment, differences between entities could be due to case mix differences rather than true differences in quality. The frequency count for some survey questions is suppressed because too few enrollees responded to the question. Comparisons with findings from all MA plans are available for core CAHPS survey questions.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Ohio through the State Data Reporting System (SDRS). These reports include eligibility, enrollment, opt-out, and disenrollment data; information reported by Ohio on its integrated delivery system, care coordination, benefits and services, quality management, stakeholder engagement, financing, and payment; and a summary of successes and challenges. This report also uses data for quality measures reported by MyCare Ohio plans and submitted to CMS' implementation contractor, NORC.[33,34] Data reported to NORC include core quality measures that all MMPs are required to report, as well as State-specific measures that MyCare Ohio plans are required to report. Due to reporting inconsistencies, plans occasionally resubmit data for prior demonstration years; therefore, the data included in this report are considered preliminary.

Demonstration policies, contracts, and other materials. The RTI evaluation team reviewed a wide range of demonstration documents, including demonstration and State-specific information on the CMS website[35] and other publicly available materials on the MyCare Ohio

[33] Data are reported for 2014–2021.

[34] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements.

[35] https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/FinancialModelstoSupportStatesEffortsinCareCoordination.html

website.[36] The RTI evaluation team also reviewed resources publicly accessible through ODM's website.[37]

Conversations with CMS and Ohio Department of Medicaid (ODM) officials. To monitor demonstration progress, the RTI evaluation team engaged in periodic phone conversations with ODM and CMS. These conversations might have included discussions about new policy clarifications designed to improve plan performance, quality improvement work group activities, and contract management team actions.

Complaints and appeals data. Complaint (also referred to as grievance) data are from three separate sources: (1) complaints from beneficiaries reported by Medicare-Medicaid Plans to ODM, and reported separately to CMS' implementation contractor, NORC,[38] through Core Measure 4.2; (2) complaints received by ODM or 1-800-Medicare and entered into the CMS electronic Complaint Tracking Module (CTM); and (3) qualitative data obtained by RTI on complaints. Appeals data are generated by MMPs and reported to ODM and NORC, for Core Measure 4.2, and to the Medicare Independent Review Entity (IRE).

HEDIS measures. We report on a subset of Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures, a standard measurement set used extensively by managed care plans, that are required of all MA plans. Due to the PHE, in 2020 MA plans, including MMPs, were not required to report results for the 2019 measurement year.

Service utilization data. Evaluation Report analyses used data from many sources. First, the State provided quarterly finder files containing identifying information on all demonstration eligible beneficiaries in the demonstration period. Second, RTI obtained administrative data on beneficiary demographic, enrollment, and service use characteristics from CMS data systems for both demonstration and comparison group members. Third, these administrative data were merged with Medicare claims and encounter data, Medicaid encounter data, as well as the Minimum Data Set.

Medicare cost data. Two primary data sources were used to support the savings analyses: capitation payments and fee-for-service (FFS) Medicare claims. Medicare capitation payments paid to MMPs during the demonstration period were obtained for all demonstration enrollees from CMS Medicare Advantage and Part D Inquiry System (MARx) data. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (December 2021). Quality withholds were applied to the capitation payments (quality withholds are not reflected in the MARx data), as well as quality withhold repayments and risk corridor payments or recoupments based on data provided by CMS. Capitation payments and FFS Medicare claims were used to calculate expenditures for all comparison group beneficiaries, demonstration beneficiaries in the predemonstration period, and

[36] https://medicaid.ohio.gov/mycareohio
[37] https://medicaid.ohio.gov/
[38] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements.

demonstration eligible beneficiaries who were not enrolled during the demonstration period. FFS claims included all Medicare Parts A and B services. For a comprehensive list of adjustments please refer to ***Appendix F, Table F-2***.

Medicaid data. Medicaid research identifiable files were used to identify and exclude beneficiaries in the demonstration group who were not eligible for the demonstration due to waiver enrollment. Individuals participating in Medicaid due to being medically needy and those enrolled in an Intellectual Disability, Developmental Disability, or other IDD 1915c waiver were excluded from participating in FAI. Differences across states in waiver programs prevented us from excluding these beneficiaries from the comparison group. The Medicaid files were also used to identify and exclude beneficiaries in both the demonstration group and the comparison group who were medically needy. The source of Ohio Medicaid data for calendar years 2012–2014 (which includes the predemonstration period and the first 8 months of the first demonstration year) was the Medicaid Statistical Information Statistics (MSIS) Medicaid Analytic eXtract (MAX). The source for the Ohio Medicaid data for calendar years 2015–2020 (which includes the remaining demonstration years) was the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF).

Appendix B

MyCare Ohio MMP Performance on Select HEDIS Quality Measures, 2015–2021

Tables B-1a, B-1b, and ***B-1c*** provide 2015 through 2021 HEDIS performance data for MyCare Ohio MMPs. Using correlation coefficients that were 0.9 and above, or −0.9 and below, we have applied green and red shading to indicate where MMP performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, and red indicates an unfavorable one. As shown in the MMP highlights listed below, there were few improvements over time among MyCare Ohio MMPs. We did not perform any testing for statistical significance for differences across years because of the limited data available. For measures without green or red shading, year-over-year MMP performance remained relatively stable between 2015 and 2021.

- Aetna improved over time on adult body mass index (BMI) assessment.
- Buckeye improved over time on measures for adult BMI and outpatient visits per 1,000 members.
- CareSource improved over time on colorectal cancer screening.
- Molina improved over time on measures for disease modifying anti-rheumatic drug therapy in rheumatoid arthritis and emergency department visits per 1,000 members.
- United improved over time on adult BMI assessment.

Table B-1a
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

Measure	National MA Plan Mean	Aetna						Buckeye					
	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)
Adults' access to preventive/ ambulatory health services	94.2	94.2	95.3	95.2	95.3	94.5	93.8	93.0	94.2	93.6	93.8	92.9	93.2
Adult BMI assessment[2]	N/A	N/A	81.5[G]	87.8[G]	93.4[G]	—	—	N/A	88.4[G]	91.7[G]	93.4[G]	—	—
Blood pressure control[3]	70.1	48.8	54.6	60.3	69.6	N/A	66.4	47.7	60.6	52.3	70.6	74.5	71.8
Breast cancer screening	68.3	N/A	58.7	50.1	53.9	53.8	52.3	N/A	62.9	62.9	63.9	61.7	58.7
Colorectal cancer screening	68.6	N/A	42.1	50.4	52.1	52.3	54.3	N/A	50.8	56.2	52.3	66.9	60.1
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis[4]	N/A	62.1	66.5	66.3	78.1	82.4	—	60.9	71.3	76.4	76.9	79.4	—
Follow-up after hospitalization for mental illness (30 days)[5]	48.7	72.7	67.7	64.8	52.7	76.0	79.5	31.6	65.3	58.8	70.8	71.2	74.3
Antidepressant medication management													
Effective acute phase treatment[6]	79.5	93.3	90.7	61.5	62.9	79.5	74.0	82.5	62.9	67.0	62.4	80.0	69.8
Effective continuation phase treatment[7]	64.5	91.7	81.0	52.2	50.2	66.4	64.9	77.6	51.8	54.6	52.4	61.7	57.9
Care for older adults													
Advance care planning	N/A	6.9	54.4	63.5	67.6	54.9	52.1	28.4	33.7	38.2	43.8	41.5	73.5
Medication review	N/A	35.0	70.1	77.9	83.0	71.0	65.2	57.7	63.9	92.9	93.4	43.6	95.4
Functional status assessment	N/A	31.9	90.4	88.3	89.3	79.1	77.1	45.4	63.7	73.4	82.2	65.2	74.9
Pain assessment	N/A	31.7	69.2	81.5	84.4	80.4	90.8	67.8	77.4	82.7	74.5	65.7	92.0

(continued)

Table B-1a
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

Measure	National MA Plan Mean	Aetna						Buckeye					
	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)
Comprehensive diabetes care													
Received Hemoglobin A1c (HbA1c) testing	93.7	88.3	91.6	92.2	91.0	85.9	87.4	87.5	91.3	90.8	90.0	88.1	89.5
Poor control of HbA1c level (>9.0%) (higher is worse)	24.1	53.6	47.0	33.3	27.0	41.6	49.9	45.1	44.1	47.7	32.6	37.2	34.3
Good control of HbA1c level (<8.0%)	66.0	41.1	46.1	56.5	62.3	51.6	44.8	44.7	46.9	44.5	59.4	53.0	55.7
Received eye exam (retinal)	70.7	48.1	61.6	61.6	63.5	63.5	59.1	58.6	69.3	63.3	66.4	62.5	55.8
Received medical attention for nephropathy	94.9	95.4	94.5	95.1	94.2	91.7	90.5	92.4	95.1	95.6	93.7	92.9	90.3
Blood pressure control (<140/90 mm Hg)	67.4	45.9	47.7	60.1	68.9	52.3	65.0	53.5	61.6	61.8	70.3	69.3	68.4
Initiation and engagement of alcohol and other drug (AOD) dependence treatment													
Initiation of AOD treatment[8]	33.7	23.4	35.1	36.2	38.3	40.1	41.7	67.1	41.5	45.0	47.4	44.6	45.0
Engagement of AOD treatment[9]	5.4	2.8	6.0	9.2	9.3	12.9	12.2	12.8	5.9	7.7	10.7	10.3	11.2
Plan all-cause readmissions (Observed-to-expected ratio[10])													
Age 18-64	1.07	0.81	0.76	0.73	0.57	1.25	1.41	0.85	0.93	0.86	0.80	1.31	1.10
Age 65+	1.10	1.15	0.75	0.70	0.39	1.22	1.38	0.96	0.82	0.70	0.67	1.40	1.46
Ambulatory care (per 1,000 members[11])													
Outpatient visits	N/A	11,784.9	12,622.8	12,476.9	12,778.7	—	—	10,845.7 [G]	11,661.1 [G]	11,871.3 [G]	12,571.0 [G]	—	—
Emergency department visits (higher is worse)	N/A	1,349.6	1,354.5	1,440.1	1,261.0	—	—	1,546.1	1,597.6	1,594.4	1,438.9	—	—

(continued)

Table B-1a (continued)
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

— = not available, where the plan did not provide HEDIS data for this measure; AOD = alcohol and other drug; BMI = body mass index; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such data, or where the number of enrollees in the MMP's HEDIS data available for inclusion in the measure was less than 30, and therefore not reported per RTI's decision rule for addressing low sample size.

[1] In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Therefore, we omitted a column for the 2019 measurement year.

[2] Adult BMI assessment was retired from HEDIS in 2020. Therefore, MMPs did not provide HEDIS data for this measure for measurement years 2020 and 2021.

[3] The following criteria were used to determine adequate blood pressure control: less than 140/90 mm Hg for members 18–59 years of age; diagnosis of diabetes and <140/90 mm Hg for members 60–85 years of age; no diagnosis of diabetes and <150/90 mm Hg for members 60–85 years of age.

[4] Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis measure was retired from HEDIS in 2021. Therefore, MMPs did not provide HEDIS data for this measure for the 2021 measurement year.

[5] NCQA implemented a significant specification change with HEDIS 2017, disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2017 to HEDIS 2018.

[6] Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).

[7] Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).

[8] Represents percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis.

[9] Represents the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

[10] Plan all-cause readmissions are reported as an observed-to-expected ratio. A value below 1.0 is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.

[11] Measures for Outpatient visits and Emergency department visits (both within Ambulatory Care per 1,000 members) were retired from HEDIS in 2019. Therefore, MMPs did not provide HEDIS data for these measures for measurement years 2020 and 2021.

NOTES: Green and red color-coded shading indicates where performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, where red indicates an unfavorable one. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R". Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Table B-1b
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

Measure	National MA Plan Mean	CareSource						Molina					
	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)
Adults' access to preventive/ ambulatory health services	94.2	95.4	96.1	95.0	94.9	94.9	94.6	93.3	95.5	94.3	94.5	94.2	93.6
Adult BMI assessment[2]	N/A	N/A	77.4	76.4	82.7	—	—	93.0	84.9	91.3	94.7	—	—
Blood pressure control[3]	70.1	48.7	39.7	49.2	50.4	68.6	73.7	57.0	48.0	60.3	63.8	66.9	72.3
Breast cancer screening	68.3	N/A	55.4	56.0	58.9	59.1	59.3	45.2	48.4	54.7	55.3	52.9	52.2
Colorectal cancer screening	68.6	N/A	40.2 G	47.5 G	59.6 G	63.0 G	66.7 G	55.7	45.9	49.2	48.9	54.5	56.7
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis[4]	N/A	77.4	77.4	77.9	76.8	79.0	—	58.5 G	60.9 G	66.9 G	71.8 G	74.2 G	—
Follow-up after hospitalization for mental illness (30 days)[5]	48.7	66.1	65.9	65.3	63.7	78.1	81.4	65.7	73.7	68.9	72.4	65.3	65.5
Antidepressant medication management													
Effective acute phase treatment[6]	79.5	91.9	60.3	61.7	64.2	69.0	68.4	73.5	66.5	68.0	69.1	69.3	79.2
Effective continuation phase treatment[7]	64.5	87.4	48.3	49.9	51.6	52.1	53.8	64.8	56.7	57.1	56.9	55.5	64.1
Care for older adults													
Advance care planning	N/A	19.7	11.0	47.9	38.7	61.3	62.3	51.7	59.5	58.5	60.8	72.3	70.8
Medication review	N/A	55.5	42.3	50.1	55.0	94.4	93.4	78.8	78.6	74.4	65.5	82.7	83.2
Functional status assessment	N/A	38.4	33.6	73.7	75.2	73.7	68.6	63.1	71.1	69.1	60.6	65.5	66.4
Pain assessment	N/A	64.0	45.5	79.1	85.9	87.1	91.5	78.6	84.4	80.4	72.5	86.1	83.2

(continued)

Table B-1b (continued)
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

Measure	National MA Plan Mean	CareSource						Molina					
	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)
Comprehensive diabetes care													
Received Hemoglobin A1c (HbA1c) testing	93.7	87.8	86.3	88.3	91.6	89.8	91.7	90.5	89.6	90.8	93.7	87.1	89.5
Poor control of HbA1c level (>9.0%) (higher is worse)	24.1	59.9	65.1	58.4	53.3	39.2	31.1	45.8	41.4	36.5	32.6	40.9	32.6
Good control of HbA1c level (<8.0%)	66.0	38.0	32.6	38.9	40.5	48.4	59.4	47.8	50.5	56.7	56.2	51.1	56.9
Received eye exam (retinal)	70.7	61.1	65.7	68.4	70.4	70.6	69.6	55.1	68.0	66.7	63.3	61.1	61.8
Received medical attention for nephropathy	94.9	93.4	92.0	90.2	93.8	91.5	92.9	94.0	93.2	93.4	94.7	91.0	92.9
Blood pressure control (<140/90 mm Hg)	67.4	55.1	42.6	55.8	56.4	72.5	77.6	61.1	55.9	62.0	68.1	65.5	70.8
Initiation and engagement of alcohol and other drug (AOD) dependence treatment													
Initiation of AOD treatment[8]	33.7	43.7	45.6	48.7	44.0	40.6	42.9	55.1	37.2	32.8	46.0	35.6	60.1
Engagement of AOD treatment[9]	5.4	6.7	6.5	9.0	10.4	8.9	10.1	8.6	6.9	7.8	22.7	10.4	11.3
Plan all-cause readmissions (Observed-to-expected ratio[10])													
Age 18-64	1.07	1.01	0.86	0.78	0.72	1.29	1.33	0.62	0.69	0.74	0.62	1.05	1.14
Age 65+	1.10	0.95	0.86	0.75	0.72	1.32	1.44	0.76	0.79	0.81	0.43	1.01	1.07
Ambulatory care (per 1,000 members[11])													
Outpatient visits	N/A	13,607.8	14,120.9	13,700.9	12,410.2	—	—	12,007.6	12,589.4	12,536.8	12,006.0	—	—
Emergency department visits (higher is worse)	N/A	1,274.6	1,319.6	1,330.4	1,272.0	—	—	1,400.7 [G]	1,352.4 [G]	1,316.7 [G]	1,180.1 [G]	—	—

(continued)

Table B-1b (continued)
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

— = not available, where the plan did not provide HEDIS data for this measure; AOD = alcohol and other drug; BMI = body mass index; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such data, or where the number of enrollees in the MMP's HEDIS data available for inclusion in the measure was less than 30, and therefore not reported per RTI's decision rule for addressing low sample size.

[1] In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Therefore, we omitted a column for the 2019 measurement year.

[2] Adult BMI assessment was retired from HEDIS in 2020. Therefore, MMPs did not provide HEDIS data for this measure for measurement years 2020 and 2021.

[3] The following criteria were used to determine adequate blood pressure control: less than 140/90 mm Hg for members 18–59 years of age; diagnosis of diabetes and <140/90 mm Hg for members 60–85 years of age; no diagnosis of diabetes and <150/90 mm Hg for members 60–85 years of age.

[4] Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis measure was retired from HEDIS in 2021. Therefore, MMPs did not provide HEDIS data for this measure for the 2021 measurement year.

[5] NCQA implemented a significant specification change with HEDIS 2017, disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2017 to HEDIS 2018.

[6] Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).

[7] Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).

[8] Represents percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis.

[9] Represents the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

[10] Plan all-cause readmissions are reported as an observed-to-expected ratio. A value below 1.0 is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.

[11] Measures for Outpatient visits and Emergency department visits (both within Ambulatory Care per 1,000 members) were retired from HEDIS in 2019. Therefore, MMPs did not provide HEDIS data for these measures for measurement years 2020 and 2021.

NOTES: Green and red color-coded shading indicates where performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, where red indicates an unfavorable one. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R". Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Table B-1c
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

Measure	National MA Plan Mean	United					
	(2021)	(2015)	(2016)	(2017)	(2018)	(2020)	(2021)
Adults' access to preventive/ ambulatory health services	94.2	94.8	95.8	94.5	93.9	94.0	93.5
Adult BMI assessment[2]	N/A	N/A	87.0 [G]	90.0 [G]	94.7 [G]	—	—
Blood pressure control[3]	70.1	52.3	52.2	59.6	68.6	66.9	75.4
Breast cancer screening	68.3	N/A	54.5	58.8	57.7	56.8	52.8
Colorectal cancer screening	68.6	N/A	48.7	55.7	54.7	56.2	56.1
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis[4]	N/A	64.5	46.3	63.9	79.8	74.1	—
Follow-up after hospitalization for mental illness (30 days)[5]	48.7	76.9	81.1	77.0	59.8	73.0	76.6
Antidepressant medication management							
Effective acute phase treatment[6]	79.5	84.9	67.5	62.1	66.9	76.4	69.7
Effective continuation phase treatment[7]	64.5	76.8	55.6	51.2	54.0	55.4	58.4
Care for older adults							
Advance care planning	N/A	14.1	55.2	53.5	62.5	46.0	61.1
Medication review	N/A	44.5	81.5	87.6	74.2	73.9	78.6
Functional status assessment	N/A	32.6	65.9	74.0	64.2	84.0	63.0
Pain assessment	N/A	49.4	84.7	90.5	83.9	77.8	86.1
Comprehensive diabetes care							
Received Hemoglobin A1c (HbA1c) testing	93.7	83.9	85.6	86.9	89.8	88.8	92.5
Poor control of HbA1c level (>9.0%) (higher is worse)	24.1	94.6	53.8	39.7	31.9	31.6	25.8
Good control of HbA1c level (<8.0%)	66.0	4.5	40.9	51.1	58.6	57.7	63.5
Received eye exam (retinal)	70.7	51.8	63.0	58.9	54.7	55.7	65.2
Received medical attention for nephropathy	94.9	92.5	95.9	92.9	92.2	90.8	91.2
Blood pressure control (<140/90 mm Hg)	67.4	0.9	42.8	61.1	68.4	67.6	69.8
Initiation and engagement of alcohol and other drug (AOD) dependence treatment							
Initiation of AOD treatment[8]	33.7	41.1	67.6	51.7	48.4	43.2	55.4
Engagement of AOD treatment[9]	5.4	5.6	10.6	9.3	11.1	7.4	10.9
Plan all-cause readmissions (Observed-to-expected ratio[10])							
Age 18-64	1.07	0.80	0.67	0.64	0.62	1.18	0.98
Age 65+	1.10	0.76	0.69	0.65	0.45	1.21	1.25
Ambulatory care (per 1,000 members[11])							
Outpatient visits	N/A	12,738.2	13,107.4	13,110.8	13,037.9	—	—
Emergency department visits (higher is worse)	N/A	1,176.4	1,396.8	1,274.6	1,096.5	—	—

(continued)

Table B-1c (continued)
MyCare Ohio MMP performance on select HEDIS quality measures for 2015–2021[1] by MMP

— = not available, where the plan did not provide HEDIS data for this measure; AOD = alcohol and other drug; BMI = body mass index; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such data, or where the number of enrollees in the MMP's HEDIS data available for inclusion in the measure was less than 30, and therefore not reported per RTI's decision rule for addressing low sample size.

[1] In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Therefore, we omitted a column for the 2019 measurement year.

[2] Adult BMI assessment was retired from HEDIS in 2020. Therefore, MMPs did not provide HEDIS data for this measure for measurement years 2020 and 2021.

[3] The following criteria were used to determine adequate blood pressure control: less than 140/90 mm Hg for members 18–59 years of age; diagnosis of diabetes and <140/90 mm Hg for members 60–85 years of age; no diagnosis of diabetes and <150/90 mm Hg for members 60–85 years of age.

[4] Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis measure was retired from HEDIS in 2021. Therefore, MMPs did not provide HEDIS data for this measure for the 2021 measurement year.

[5] NCQA implemented a significant specification change with HEDIS 2017, disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2017 to HEDIS 2018.

[6] Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).

[7] Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).

[8] Represents percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis.

[9] Represents the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

[10] Plan all-cause readmissions are reported as an observed-to-expected ratio. A value below 1.0 is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.

[11] Measures for Outpatient visits and Emergency department visits (both within Ambulatory Care per 1,000 members) were retired from HEDIS in 2019. Therefore, MMPs did not provide HEDIS data for these measures for measurement years 2020 and 2021.

NOTES: Green and red color-coded shading indicates where performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, where red indicates an unfavorable one. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R". Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.

SOURCE: RTI analysis of 2015 through 2021 HEDIS measures.

Appendix C

Comparison Group Methodology for Ohio Demonstration Years 5 and 6

This appendix presents the comparison group selection and assessment results for the Financial Alignment Initiative (FAI) demonstration in Ohio.

Results for comparison group selection and assessment analyses are prepared for each demonstration year. The evaluation report for the second, third, and fourth demonstration years of the Ohio demonstration was publicly released in March 2022. This appendix describes the comparison group identification methodology in detail and provides the comparison group results for the fifth and sixth performance years for the Ohio demonstration (January 1, 2019–December 31, 2020) and notes any major changes in the results since the previous performance year evaluation report. Results for the fifth demonstration year are nearly identical to those for the sixth demonstration year and are omitted to conserve space.

C.1 Demonstration and Comparison Group Characteristics

The Ohio demonstration area consists of 29 counties in nine Metropolitan Statistical Areas (MSAs)—Columbus; Toledo; Canton-Massillon; Youngstown-Warren-Boardman; Dayton; Akron; Cleveland-Elyria; Springfield; and Cincinnati-Middletown—plus four counties not in MSAs. The comparison area comprises 39 counties in 14 MSAs across six states plus 46 non-metropolitan counties in Ohio. These geographic areas have not changed since the Ohio First Annual Report.

Beneficiaries who are ineligible for the demonstration include those who are under age 18, have Medicare as a secondary payor, are not enrolled in Medicare Part A and Part B, reside in an intermediate care facility, or are enrolled in the Program of All-inclusive Care for the Elderly (PACE). We assess these exclusion criteria on a quarterly basis for the demonstration and comparison group in the predemonstration period and for the comparison group in the demonstration period. We use finder files provided by the State to identify the eligible population for the demonstration group during the demonstration period, applying the exclusion criteria to the state finder file in the demonstration period to ensure comparability with the comparison group and the demonstration group during the predemonstration period.

Additionally, this analysis newly incorporates Medicaid specific exclusion criteria using the Medicaid MAX and TAF enrollment and eligibility files. We excluded beneficiaries enrolled in Medicaid 1915c waivers for persons with Intellectual and Developmental Disabilities from the demonstration group. We excluded these beneficiaries from the demonstration group only because 1915c waiver programs in the each of the comparison group states do not necessarily target a similar population. The vast majority of observations excluded occurred in the baseline period as the state finder file had already incorporated this exclusion. We also excluded beneficiaries who qualify for the medically needy Medicaid program from both the comparison group and the demonstration group.

MA enrollees are eligible and may opt into the Ohio demonstration. This report includes the MA population in the cost savings analysis, described in ***Appendix F***. However, due to concerns of the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded the MA population from the service utilization analysis, described in ***Appendix E***. The population analyzed for the service utilization outcomes includes only demonstration eligible full-benefit Medicare and Medicaid beneficiaries enrolled in Medicare FFS or in MMPs. ***Table***

C-1 displays the number and percentage of beneficiaries who were in MA during the study period and included in the cost savings analysis but excluded from the service use analysis. The prevalence of beneficiaries ever enrolled in MA ranges from 40.7 to 48.3 percent in the demonstration group, and 33.1 to 44.1 percent in the comparison group across the study period.

Table C-1
Number and percentage of beneficiaries in the demonstration and comparison groups who were enrolled in Medicare Advantage at any point during each period

Group	Predemonstration year 1	Predemonstration year 2	DY 1	DY 2	DY 3	DY 4	DY 5	DY 6
Demonstration								
Initial count of beneficiaries	1,866,783	1,861,524	2,283,944	1,302,272	1,435,505	1,578,606	1,619,266	1,710,876
Count of beneficiaries with Medicare Advantage	760,378	796,291	981,274	580,482	658,030	732,885	781,453	823,064
Percentage of beneficiaries with Medicare Advantage	40.7%	42.8%	43.0%	44.6%	45.8%	46.4%	48.3%	48.1%
Comparison								
Initial count of beneficiaries	1,616,217	1,642,987	3,106,355	1,824,349	1,885,852	1,879,428	1,888,208	1,874,007
Count of beneficiaries with Medicare Advantage	535,242	581,034	1,184,930	744,915	800,392	816,222	832,249	818,903
Percentage of beneficiaries with Medicare Advantage	33.1%	35.4%	38.2%	40.8%	42.2%	43.4%	44.1%	43.7%

DY = demonstration year.

Further analytic exclusions were performed such as removing beneficiaries with missing geographic information, removing beneficiaries with zero months of eligibility during each analytic period, removing beneficiaries who moved between the demonstration area and the comparison area any time during the entire study period, removing beneficiaries with missing Hierarchical Condition Category (HCC) risk scores, and removing beneficiaries who died before the beginning of each analytic period. After applying these exclusions, the number of demonstration group beneficiaries remained stable over the 2 predemonstration years, ranging between 154,356 and 155,004, before declining to 109,254 beneficiaries by demonstration year 2. By demonstration year 6, the number of demonstration group beneficiaries had steadily increased to 142,937. The number of beneficiaries in the comparison group ranged between 137,447 and 163,640 for the predemonstration and demonstration years.

C.2 Propensity Score Estimates

RTI's methodology examines initial differences between the demonstration and comparison groups in each analysis period to produce propensity scores (PSs), which rate how likely a beneficiary is to be part of the demonstration group based on certain characteristics. Weights are calculated based on these scores and applied to the data to improve comparability between the two groups. Comparability is evaluated in terms of individual beneficiary characteristics and the overall distributions of PSs.

A PS is the predicted probability that a beneficiary is a member of the demonstration group conditional on a set of observed variables. Our PS models include a combination of beneficiary-level and region-level characteristics measured at the ZIP code (ZIP Code Tabulation Area) level.

The logistic regression coefficients and z-values for the covariates included in the propensity model for demonstration year 6 of the MyCare Ohio capitated model are shown in ***Table C-2***, and the magnitudes of the group differences for all variables prior to PS weighting are shown in ***Table C-3***. The largest relative differences were that demonstration participants were more likely to be Black, were less likely to participate in other Medicare demonstrations, and were more likely to reside in an MSA in demonstration year 6 than beneficiaries in the comparison group. In addition, ZIP code-level group differences were observed between the two groups, the largest of which were in distances to the nearest hospital and the nearest nursing facility. These logistic regression results for demonstration year 6 are very similar to those for demonstration year 5.

C.3 Propensity Score Overlap

The distributions of PSs by group for demonstration year 6 are shown in ***Figure C-1*** before and after PS weighting. Estimated scores for both the demonstration and comparison groups topped out at around 0.99. The unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0.05 to 0.15. Inverse probability of treatment weighting pulls the distribution of weighted comparison group PSs (dotted line) very close to that of the demonstration group (solid line).

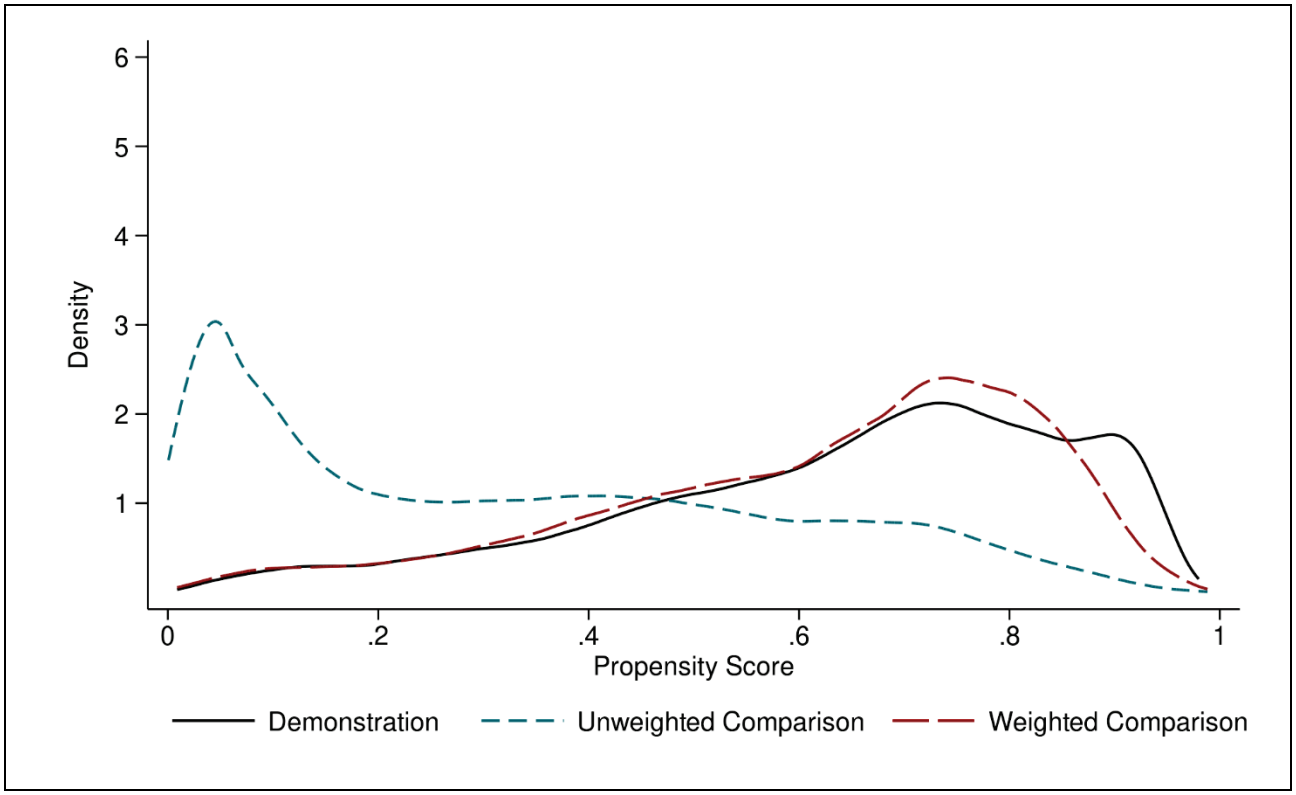
Any beneficiaries who have estimated PSs below the smallest estimated value in the demonstration group are removed from the comparison group. This resulted in the removal of 317 and 667 beneficiaries from the comparison group in demonstration years 5 and 6, respectively.

Table C-2
Logistic regression estimates for Ohio propensity score models in demonstration year 6 (January 1, 2020–December 31, 2020)

Characteristic	Demonstration Year 6		
	Coef.	Standard error	z-score
Age (years)	0.013	0.000	32.86
Died during year (0/1)	−0.092	0.018	−5.18
Female (0/1)	0.178	0.009	18.84
Black (0/1)	0.809	0.012	66.81
Disability as original reason for entitlement (0/1)	0.215	0.013	16.74
ESRD (0/1)	0.383	0.027	14.20
Share of months eligible during year	−0.072	0.019	−3.78
Share of months Medicare Advantage plan enrollment during year	−1.117	0.011	−102.58
HCC risk score	0.082	0.005	15.09
Other MDM participation (0/1)	−1.428	0.014	−103.18
MSA (0/1)	1.662	0.018	90.27
% of pop. living in married household	−0.025	0.000	−51.99
% of households w/member >= 60 yrs.	0.018	0.001	25.80
% of households w/member < 18 yrs.	−0.042	0.001	−58.58
% of adults with college education	0.017	0.000	36.26
% of adults with self-care limitation	−0.039	0.002	−16.59
Distance to nearest hospital (mi.)	−0.068	0.002	−43.21
Distance to nearest nursing facility (mi.)	−0.055	0.002	−22.15
Intercept	0.216	0.056	3.86

ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MDM = Master Data Management; MSA = metropolitan statistical area.

Figure C-1
Distribution of beneficiary-level propensity scores in the Ohio demonstration and comparison groups, weighted and unweighted, in demonstration year 6 (January 1, 2020–December 31, 2020)



C.4 Group Comparability

Covariate balance refers to the extent to which the characteristics used in the PS are similar (or "balanced") between the demonstration and comparison groups. Group differences are measured by a standardized difference (the difference in group means divided by the pooled standard deviation of the covariate). An informal standard has been developed such that groups are considered comparable if the standardized covariate difference is less than 0.10 standard deviations.

Table C-3
Ohio dually eligible beneficiary covariate means by group before and after weighting by propensity score, demonstration year 6 (January 1, 2020–December 31, 2020)

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age (years)	64.199	62.656	63.971	0.092	0.014
Died during year (0/1)	9.739	9.064	9.811	0.023	0.002
Female (0/1)	62.487	59.588	61.873	0.059	0.013
Black (0/1)	34.445	10.168	26.980	0.610	0.162
Disability as original reason for entitlement (0/1)	53.915	55.121	54.029	0.024	0.002
ESRD (0/1)	4.214	2.358	3.566	0.104	0.033
Share of months eligible during year	0.860	0.861	0.848	0.002	0.047
Share of months Medicare Advantage plan enrollment during year	0.239	0.319	0.257	0.190	0.044
HCC score	1.184	1.108	1.179	0.090	0.006
Other MDM participation (0/1)	7.815	22.908	8.536	0.428	0.026
MSA (0/1)	96.691	66.768	96.325	0.840	0.020
% of pop. living in married household	60.815	69.583	63.115	0.577	0.139
% of households w/member >= 60	39.470	41.005	39.766	0.199	0.035
% of households w/member < 18	27.957	30.272	27.702	0.333	0.035
% of adults with college education	24.553	21.690	25.244	0.222	0.051
% of adults with self-care limitation	3.615	3.489	3.530	0.057	0.036
Distance to nearest hospital (mi.)	4.437	8.647	4.501	0.891	0.019
Distance to nearest nursing facility (mi.)	3.146	6.006	3.246	0.882	0.044

ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MDM = Master Data Management; MSA = metropolitan statistical area; PS = propensity score.

The group means and standardized differences for all beneficiary characteristics are shown for demonstration year 6 in ***Table C-3***. The column of unweighted standardized differences indicates that several of these variables were not balanced prior to weighting. Eleven variables (percent Black, percent with ESRD, share of months enrolled in a non-MMP MA plan during the year, percent participating in other Medicare shared savings programs (abbreviated as other MDM), residency in an MSA, percent of population living in a married household, percent of households with an adult 60 or older, percent of households with a child 18 or younger, percent of adults with a college education, and the distances (in miles) to the nearest hospital and nursing facility) had unweighted standardized differences exceeding 0.10 in absolute value.

The results of PS weighting for Ohio demonstration year 6 are illustrated in the far-right column (weighted standardized differences) in ***Table C-3***. Propensity weighting reduced the standardized differences below the threshold level of 0.10 in absolute value for all but two (percent Black and percent of population living in a married household) covariates in our model.

C.5 Enrollee-only Results

We also applied our weighting methodology to the demonstration's enrollee-only population (approximately 33 percent of the eligible demonstration population in demonstration year 6) to produce weights for use in the impact analyses on cost savings among the demonstration enrollee population. We define the enrollee group, along with its comparison group, as follows: (1) the demonstration enrollees are those with at least 3 months of enrollment during the 6-year demonstration period as well as 3 months of eligibility during the 2-year predemonstration period, and (2) the corresponding comparison group beneficiaries are those with at least 3 months of eligibility in both the 6-year demonstration period and the 2-year predemonstration period.

As was the case among all eligible beneficiaries, the unweighted values of several covariates differed substantially between the demonstration and comparison groups among enrollees in each baseline and demonstration year. After weighting, the standardized differences of all covariates but two (percent Black and percent of population living in a married household) were reduced to less than 0.10 in absolute value.

C.6 Weights for Service Utilization Analyses

A third set of weights was produced specifically for the analyses of service utilization with one adaptation to the methodology used to produce weights for all eligible beneficiaries. Due to concerns of the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded the MA population from the service utilization analysis.

This exclusion reduced the number of beneficiaries by roughly 45,000 to 69,000 beneficiaries per year in the demonstration and comparison groups. The resulting demonstration group sample ranged between 60,444 and 94,109 beneficiaries each year; the comparison group sample ranged between 90,054 and 101,729 beneficiaries each year.

Despite difference in sample sizes, the results of the weighting analysis were similar to those for demonstration eligible beneficiaries and for demonstration enrollees. While the unweighted values of several covariates differed substantially between the demonstration and

comparison group in each baseline and demonstration year, the standardized differences of all covariates but two (percent Black and percent of population living in a married household) were reduced to less than 0.10 in absolute value after score weighting.

C.7 Summary

The Ohio demonstration and comparison groups were initially distinguished by differences in five individual-level covariates as well as six area-level variables. However, PS weighting successfully reduced all but two covariate discrepancies below the generally accepted threshold for standardized differences. As a result, the weighted Ohio groups are adequately balanced with respect to 16 of the 18 of the variables we consider for comparability. Further analysis of the enrollee group and the service utilization group yielded similar results to the main analysis on the all eligible population presented in this appendix.

Appendix D

Service Utilization Methodology

D.1 Methodology

This appendix briefly describes the overall quantitative evaluation design, the data used, and the populations and measures analyzed.

D.1.1 Evaluation Design

RTI International is using an intent-to-treat (ITT) approach for the quantitative analyses conducted for the evaluation, comparing the eligible population under each State demonstration with a similar population that is not affected by the demonstration (i.e., a comparison group). We use a quasi-experimental difference-in-differences (DinD) regression analysis with inverse propensity weighting to estimate the impact of the demonstration on the change in the probability or frequency of service utilization outcomes, relative to the comparison group.

ITT refers to an evaluation design in which all dually eligible beneficiaries eligible for the demonstration constitute the evaluation sample, regardless of whether they actively participated in demonstration models. This approach alleviates concerns of selection bias and supports generalizability of the results among the demonstration eligible population. Given the design of the demonstration, some eligible beneficiaries enroll in the demonstration to receive the interventions while others do not enroll, even though they are eligible. The relative proportion of the enrolled versus the eligible but not enrolled beneficiaries varies across the demonstration states. An ITT analysis—which includes the entire eligible population in the demonstration group and its comparison group counterpart—is an appropriate method by yielding impact estimates that would best mimic the real-world implementation of the demonstration accounting for the variability in voluntary enrollment across different states.

D.1.2 Sample Selection

The study population includes all full-benefit Medicare-Medicaid eligible beneficiaries residing in the demonstration and comparison areas who meet the demonstration eligibility criteria. For details on applying the demonstration eligibility criteria and the comparison group identification strategy, see ***Appendix C***. This analysis also includes the application of the demonstration's medically needy and 1915(c) waiver exclusion criteria, identified in the three-way contract on the FAI website.[39] The Second Evaluation Report did not include these exclusions due to the unavailability and unreliability of Medicaid eligibility data for all years.

MA enrollees are eligible and may opt-in to the Ohio demonstration. This report includes the MA population in the cost savings analysis, described in ***Appendix F***. However, due to concerns on the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded demonstration eligible beneficiaries with any MA enrollment from the service utilization analysis. Therefore, the service utilization analysis includes only beneficiaries enrolled in Medicare FFS or in an MMP throughout the study period. The prevalence of beneficiaries ever enrolled in MA ranges from 40.7 to 48.3 percent in the demonstration group,

[39] For the three-way contract (original), please see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/OHContract.pdf

and 33.1 to 44.1 percent in the comparison group across the study period. (see ***Appendix C, Table C-1***).

D.1.3 Data

Evaluation report analyses used data from several sources. First, the State provided quarterly finder files containing identifying information on all demonstration eligible beneficiaries in the demonstration period. Second, RTI obtained administrative data on beneficiary demographic, enrollment, and service use characteristics from CMS data systems for both demonstration and comparison group members. Third, these administrative data were merged with Medicare claims data on utilization and costs of Medicare services, MMP Medicare and Medicaid encounter data, as well as the Minimum Data Set (MDS).

D.1.4 Populations and Services Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as the following special populations: those receiving any Long-term services and supports (LTSS); those with any behavioral health service use in the last 2 years for serious and persistent mental illness (SPMI); demonstration enrollees; and groups by race/ethnicity.

- ***Demonstration eligible beneficiaries.*** A full-benefit Medicare-Medicaid eligible beneficiary in a quarter who met any other specific demonstration eligibility criteria.
  - Beneficiaries in the demonstration period are identified from quarterly State finder files.
  - Beneficiaries in the 2-year predemonstration period are identified by applying the eligibility criteria in each separate predemonstration quarter.
- ***LTSS.*** A demonstration eligible beneficiary with any use of institutional or home and community-based services (HCBS) during the observation year.
- ***SPMI.*** A demonstration eligible beneficiary with at least one inpatient or outpatient mental health visit for schizophrenia or episodic mood disorder within the previous 2 years of the observation year.
- ***Enrollees.*** A demonstration eligible beneficiary with any month of enrollment in the demonstration during the demonstration year.

The analyses were conducted for each year in the 2-year predemonstration period (May 1, 2012, to April 30, 2014) and for the 6 demonstration years (May 1, 2014, to December 31, 2020) for both the demonstration and comparison groups.

Table D-1 presents descriptive statistics on the independent variables used in multivariate DinD regressions for impact analyses. Independent variables include demographic and health characteristics and market- and area-level characteristics.

The PHE began in 2020 and may have influenced beneficiary access to, and use of, services differently depending on where the beneficiary resides, and how the pandemic spread through their community. To control for the influence of the PHE on service utilization

outcomes, we included the Pandemic Vulnerability Index (PVI) (Marvel et al., 2021). The PVI is a continuous county-based measure that incorporates current infection rates, testing and vaccination rates, and health and environmental factors to create an overall regression adjusted risk score.

This section also includes descriptive results presented for six groups: all demonstration eligible beneficiaries in the FAI State, its comparison group, all MMP enrollees, all non-MMP enrollees, demonstration eligible beneficiaries with any LTSS use, and demonstration eligible beneficiaries with an SPMI.

The most prevalent age group among LTSS users was age 75 and over, with 50.95 percent; otherwise 0 to 64 years was the most prevalent age group, ranging from 41.84 to 56.93 percent. The racial and ethnic distribution was slightly different between the demonstration and comparison groups; the demonstration group had more representation from African American/Black beneficiaries (31.87 percent) and slightly lower proportions of all other groups compared to the comparison group. Among demonstration LTSS users and those with SPMI, the majority were White (64.24 and 66.54 percent respectively).

Across all groups, most beneficiaries were female (58.72 to 69.90 percent), did not have end-stage renal disease, and were more likely to reside in a metropolitan area. Most groups have disability as the primary reason for Medicare entitlement, with the exception of the LTSS user demonstration population (approximately 40 percent).

The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas beneficiaries with scores of 2 are predicted to have twice the average annual cost. HCC scores ranged between 1.07 and 1.33 among all groups except LTSS users in the demonstration group, for which the average HCC score was 1.88.

Table D-1
Characteristics of eligible beneficiaries in demonstration year 6 by group

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Weighted number of eligible beneficiaries	74,158	89,121	59,276	14,882	9,227	43,179
Demographic characteristics						
Age						
0 to 64	52.10	51.91	54.67	41.84	22.95	56.93
65 to 74	26.11	24.59	26.50	24.55	26.10	22.85
75 and older	21.79	23.50	18.82	33.61	50.95	20.22
Female						
No	40.17	40.93	41.28	35.74	30.10	35.74
Yes	59.83	59.07	58.72	64.26	69.90	64.26
Race/ethnicity						
White	60.00	64.91	58.60	65.56	64.24	66.54
African American	31.87	23.91	32.94	27.64	30.69	27.82
Hispanic	1.48	3.20	1.62	0.95	0.75	1.32
Asian	2.18	2.55	2.25	1.87	1.64	0.78
Other	4.47	5.43	4.59	3.98	2.68	3.54
Disability as reason for original Medicare entitlement						
No	41.42	42.03	39.71	48.23	59.90	35.22
Yes	58.58	57.97	60.29	51.77	40.10	64.78
ESRD status						
No	94.11	94.95	94.01	94.53	95.76	94.97
Yes	5.89	5.05	5.99	5.47	4.24	5.03
MSA						
No	3.85	4.26	3.92	3.56	3.87	4.30
Yes	96.15	95.74	96.08	96.44	96.13	95.70

(continued)

Table D-1 (continued)
Characteristics of eligible beneficiaries in demonstration year 6 by group

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Participating in Shared Savings Program						
No	88.27	86.94	96.53	55.36	76.69	87.57
Yes	11.73	13.06	3.47	44.64	23.31	12.43
HCC score	1.12	1.12	1.07	1.33	1.88	1.22
Market characteristics						
Medicare spending per dual, ages 19+ ($)	9,742	9,512	9,741	9,743	9,747	9,741
MA penetration rate	0.42	0.33	0.42	0.42	0.42	0.42
Medicaid-to-Medicare fee index (FFS)	0.61	0.63	0.61	0.61	0.61	0.61
Medicaid spending per dual, ages 19+ ($)	32,456	24,098	32,466	32,416	32,458	32,441
Fraction of dually eligible beneficiaries using NF, ages 65+	0.44	0.36	0.44	0.44	0.44	0.44
Fraction of dually eligible beneficiaries using HCBS, ages 65+	0.33	0.19	0.33	0.34	0.34	0.34
Fraction of dual eligible beneficiaries using personal care, ages 19+	0.00	0.03	0.00	0.00	0.00	0.00
Fraction of dual eligible beneficiaries with Medicaid managed care, ages 19+	0.02	0.24	0.02	0.02	0.02	0.02
Population per square mile, all ages	766	307	762	782	774	760
Patient care physicians per 1,000 population	0.84	0.66	0.84	0.85	0.85	0.84

(continued)

Table D-1 (continued)
Characteristics of eligible beneficiaries in demonstration year 6 by group

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Area characteristics						
% of pop. living in married households	61.44	64.18	60.86	63.73	63.95	62.46
% of adults with college education	24.85	25.78	24.26	27.19	27.87	25.23
% of adults with self-care limitations	3.55	3.37	3.58	3.44	3.48	3.55
% of adults unemployed	7.15	6.60	7.27	6.66	6.58	6.87
% of household with individuals younger than 18	28.14	28.05	28.19	27.96	27.90	27.99
% of household with individuals older than 60	39.37	39.60	39.24	39.88	40.01	39.56
Distance to nearest hospital	4.57	4.62	4.57	4.56	4.65	4.67
Distance to nearest nursing facility	3.25	3.36	3.25	3.25	3.30	3.33
Pandemic Vulnerability Index	0.53	0.49	0.53	0.53	0.53	0.52

ESRD = end-stage renal disease; FFS = fee-for-service; HCBS = home and community-based services; HCC = Hierarchical Condition Category; LTSS = long-term services and supports; MA = Medicare Advantage; MSA = metropolitan statistical area; NF = nursing facility; SPMI = serious and persistent mental illness.
NOTE: Analysis conducted on demonstration eligible FFS population and Medicare-Medicaid Plan enrollees.

There were some differences in area- and market-level characteristics. Those who were in the comparison group resided in counties with lower Medicaid spending per dually eligible beneficiary ($24,098 versus $32,456 in the demonstration group) and lower population density (307 people per sq. mi. vs 766 people per sq. mi. in the demonstration group). Those who were in the comparison group also had slightly lower rates of MA penetration, dually eligible beneficiaries using nursing facilities and HCBS, and patient care physicians per 1,000 population. The comparison group had higher rates of dually eligible beneficiaries with Medicaid managed care. Other area- and market-level characteristics were comparable.

D.1.5 Descriptive and Regression Outcomes

This report presents several measures on various aspects of service utilization, access to care, cost, quality of care and care coordination. There are 12 settings analyzed using Medicare claims data which include both institutional and community settings: inpatient admission (including psychiatric and non-psychiatric), emergency department (ED) visits and ED psychiatric visits, observational stays, skilled nursing facility stays, hospice use, primary care, outpatient therapy (PT, OT, ST), independent therapy, and other hospital outpatient services.

We also calculate descriptive statistics for the following quality of care measures: 30-day all-cause risk-standardized readmission rate, preventable ED visits, 30-day follow-up after hospitalization for mental illness, ambulatory care sensitive condition (ACSC) admissions overall and chronic (Agency for Healthcare Research and Quality [AHRQ] Prevention Quality Indicator [PQI] #90 and PQI #92), and depression screening.

Table D-2 presents additional details on these measures and the service utilization measures used in the outcome regression models.

Nursing Facility-Related Measures

Two measures of annual NF-related utilization are derived from the MDS. Characteristics of new long-stay NF residents at admission are also included to monitor nursing facility case mix and acuity levels.

- Nursing facility admission rate
- Percentage of long-stay nursing facility users
- Functional status of new long-stay nursing facility residents
- Percent of new long-stay nursing facility residents with severe cognitive impairment
- Percent of new long-stay nursing facility residents with a low level of care need

The rate of new long-stay NF admissions per 1,000 eligible beneficiaries is calculated as the number of NF admissions for whom there is no record of NF use in the 100 days prior to the current admission and who subsequently stay in the NF for 101 days or more. Individuals are included in this measure only if their NF admission occurred after their first month of demonstration eligibility.

The percentage of long-stay NF users is calculated as the number of individuals who have stayed in an NF for 101 days or more, and who were long-stay in their last quarter of demonstration eligibility. The probability of any long-stay NF use includes both new admissions from the community and continuation of a stay in an NF.

Characteristics of new long-stay NF residents at admission are also included to monitor nursing facility case mix and acuity levels. Functional status and low level of care need are determined by the Resource Utilization Groups Version IV (RUG-IV). Residents with low care need are defined as those who did not require physical assistance in any of the four late-loss activities of daily living and who were in the three lowest RUG-IV categories. Severe cognitive impairment is assessed by the Brief Interview for Mental Status.

Table D-2
Detailed definitions and measure specifications for the utilization, quality of care, and nursing facility-related outcome measures

Outcome measure	Definition	Detailed specifications
Monthly probability of any inpatient admission	The monthly probability of having any inpatient admission in which a beneficiary has an admission date within the observed month. Inpatient admissions include acute, inpatient rehabilitation, psychiatric, and long-term care hospital admissions.	We used the CLM_ACTV_CARE_FROM_DT to calculate the number of admissions occurring within the month. • Created a 0–1 indicator for the presence of at least one admission in the month.
Monthly probability of any ED visit	The monthly probability of having any ED visit that occurred during the month that did not result in an inpatient admission.	Identified any claim with a revenue center code = 0450, 0451, 0452, 0456, 0459, or 0981 AND not followed by an inpatient admission. • Created a 0–1 indicator for the presence of at least one ED claim in the month.
Monthly number of physician E&M visits per 1,000 beneficiaries	The count of any E&M visit within the month, multiplied by 1,000, where the visit occurred in the outpatient or office setting, NF, domiciliary, rest home, or custodial care setting, a federally qualified health center or a rural health center.	Identified physician office visits on either any physician claim line, federally qualified health center claim line, or rural health center claim line: • Office or Other Outpatient = 99201–99205 or 99211–99215 • Nursing Facility Services = 99304–99310, 99315, 99316, or 99318 • Domiciliary, Rest Home, or Custodial Care Services = 99324–99328, 99334–99337 or 99339-99340 • Home Services = 99341-99345 or 99347–99350 • Initial Medicare Visit = G0402 • Annual Wellness Visit = G0438, G0439 Calculated the total number of physician office visits that occurred in the month.

(continued)

Table D-2 (continued)
Detailed definitions and measure specifications for the utilization, quality of care, and nursing facility-related outcome measures

Outcome measure	Definition	Detailed specifications
Monthly probability of any SNF admissions	The monthly probability of having any SNF admission within the month.	Identified any SNF claims with a clam type code = 4018, 4021, or 4028. • Created a 0-1 indicator for the presence of at least one *admission* in the month using CLM_ACTV_CARE_FROM_DT.
Annual probability of any long-stay NF use	The annual probability of residing in an NF for 101 days or more during the year.	Long-stay use is defined as a stay in an NF for 101 days or more as of a beneficiary's last quarter of demonstration eligibility and is derived from the Minimum Data Set (MDS).
30-day all-cause risk-standardized readmission	The rate of risk-standardized readmission, defined as the percentage of enrollees who were readmitted within 30 days following a hospital discharge, and the number of risk-standardized readmissions that occur during the year.	For both the numerator and denominator, identified all acute inpatient stays with a discharge date during the measurement period. Beneficiaries are included only if eligible during the month(s) of admission and discharge and during the 30-day follow-up period. $\frac{\left(\frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}} * C\right)}{Prob_g} * 100$ Numerator: • C = the national average of 30-day readmission rate, 0.238. • x_{ig} = the total number of readmissions for individual *i* in group *g*. • n_{ig} = the total number of hospital admissions for individual i in group g. Denominator: $Prob_g$ = the annual average adjusted probability of readmission for individuals in group *g*. Multiply by 100 to get the final measure score.
Number of all-cause 30-day readmissions per 1,000 discharges	The annual count of the number of readmissions per beneficiary period, multiplied by 1,000.	Among beneficiaries with any index inpatient admission, defined above, a readmission is defined as the having any inpatient admission within 30-days of the index discharge date

(continued)

Table D-2 (continued)
Detailed definitions and measure specifications for the utilization, quality of care, and nursing facility-related outcome measures

Outcome measure	Definition	Detailed specifications
Monthly number of preventable ED visits per 1,000 beneficiaries	A continuous variable of weighted ED visits that occur during the month, multiplied by 1,000.	Numerator: Sum of the relative percentage of ED visits per diagnosis (see 1–4 below) for conditions that are either preventable/avoidable or treatable in a primary care setting.[1] The algorithm uses four categories for ED utilization, 1–3 are included in the numerator for this measure, and 4 is excluded: (1) Non-emergent (2) Emergent/primary care treatable (3) Emergent/ED care needed – preventable/avoidable (4) *Excluded* – Emergent/ED care needed – not preventable/avoidable Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.
Probability of 30-day follow-up after mental health discharge (NQF #576)	The monthly probability of any follow-up visits within 30-days post-hospitalization for a mental illness.	Numerator: Outpatient or carrier visit with a mental health provider within 30 days from the inpatient discharge. One of the following must be met to be included: • Visit with a mental health practitioner AND SPMI diagnosis • Visit to a behavioral health care facility • Visit to a non-behavioral health care facility with a diagnosis of mental illness Denominator: Discharges for an acute inpatient setting (including acute-care psychiatric facilities) for treatment of SPMI AND no readmission within 30 days. Beneficiaries are included only if eligible during both the month of the discharge and the 30-day follow-up period.
Monthly probability of any ACSC admission—overall composite (AHRQ PQI #90)	The monthly probability of any acute discharge that meet the AHRQ PQI #90 (Prevention Quality Overall Composite) criteria within the month.	Numerator: Total number of discharges that meet the inclusion and exclusion criteria for 12 PQIs for ACSCs, including diabetes—short-term complications (PQI #1); diabetes—long-term complications (PQI #3); COPD or asthma (PQI #5); hypertension (PQI #7); heart failure (PQI #8); dehydration (PQI #10); bacterial pneumonia (PQI #11); UTI (PQI #12); angina without procedure (PQI #13); uncontrolled diabetes (PQI #14); asthma in younger adults (PQI #15); lower-extremity amputations among diabetics (PQI #16) Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.

(continued)

Table D-2 (continued)
Detailed definitions and measure specifications for the utilization, quality of care, and nursing facility-related outcome measures

Outcome measure	Definition	Detailed specifications
Monthly probability of any ACSC admission—chronic composite (AHRQ PQI #92)	The monthly probability of any acute discharge that meet the AHRQ PQI #92 criteria within the month.	Numerator: Total number of discharges that meet the inclusion and exclusion criteria for eight PQIs for ambulatory care sensitive chronic conditions including diabetes—short-term complications (PQI #1); diabetes—long-term complications (PQI #3); COPD or asthma (PQI #5); hypertension (PQI #7); heart failure (PQI #8); uncontrolled diabetes (PQI #14); asthma in younger adults (PQI #15); lower-extremity amputations among diabetics (PQI #16) Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.
Depression screening and follow-up	Number of depression screenings and positive tests, and per eligible beneficiary per month.	Numerator: Demonstration eligible Medicare-Medicaid beneficiaries whose screening for clinical depression using an age-appropriate standardized tool: • Received a depression screening, tested positive and had a follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8431'. • Received a depression screening, tested positive and follow-up plan not required is identified by CLM_LINE_HCPCS_CD = 'G8510'. • Received a depression screening, tested positive and not eligible for follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8940'. • Received a depression screening, tested positive, no follow-up plan and reason not documented is identified by CLM_LINE_HCPCS_CD = 'G8511'. Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.

[1] Definition derived from the Wagner School of Public Service, available at https://wagner.nyu.edu/faculty/billings/nyued-background.

ACSC = ambulatory care sensitive condition; AHRQ = Agency for Healthcare Research and Quality; ED = emergency department; E&M = evaluation and management; NF = nursing facility; PQI = Prevention Quality Indicator; SNF = skilled nursing facility; SPMI = serious and persistent mental illness.

D.1.6 Descriptive Statistics and Regression Methodology for Determining Demonstration Impact

Descriptive statistics. For any health care service type, we calculate average monthly utilization per 1,000 eligible months, the average monthly utilization per 1,000 user months (i.e. a user month is month in which there was any use of the service), and the average monthly percentage with any use of the service. Because full-benefit dual eligibility status for the

demonstration can vary by month over time for any individual, the analytic observations are at the monthly level. We calculate monthly averages by predemonstration and demonstration year, which account for the variation in demonstration eligibility that any one beneficiary may have.

Specifically, the utilization measures were calculated as the aggregate sum of the unit of measurement (counts, admissions, etc.) divided by the aggregated number of eligible member months (and user months) within each demonstration and comparison group by analytic year. We weight all of the descriptive statistics using inverse PS weighting, described in ***Appendix B***. ***Appendix E*** contains the descriptive tables with these results.

In addition, six quality of care and care coordination measures representing specific utilization types of interest are presented in the report. Similar to the utilization and expenditure measures, the quality of care and care coordination measures were calculated as the aggregated sum of the numerator divided by the aggregated sum of the denominator for each respective outcome within each beneficiary group.

The average adjusted probabilities for the overall eligible population are listed in ***Table D-3***.

Difference-in-Differences approach. To estimate the demonstration impact on our selected outcome measures, we conducted a multivariate DinD regression model with inverse PS weighting. We estimated two general types of models. The first model estimated the demonstration effect on the outcome over the entire demonstration period.

$$\text{Dependent variable}_i = F(\beta_0 + \beta_1 \text{PostYear} + \beta_2 \text{Demonstration} + \beta_3 \text{PostYear} * \text{Demonstration} + \beta_4 \text{Demographics} + \beta_{5\text{-}j}\, \text{Market} + \varepsilon)$$

where *PostYear* is an indicator of whether the observation is post the demonstration start, *Demonstration* is an indicator of whether the beneficiary was in the demonstration group, and *PostYear * Demonstration* is an interaction term. *Demographics* and *Market* represent vectors of beneficiary and market characteristics, respectively.

Under this specification, the coefficient β_0 reflects the comparison group predemonstration period mean adjusted for demographic and market effects, β_1 reflects the average difference between post period and predemonstration period in the comparison group, β_2 reflects the difference in the demonstration group and comparison group at predemonstration, and β_3 is the overall average demonstration effect during the demonstration period. This last term is the DinD estimator and the primary policy variable of interest, but in all regression models, because of nonlinearities in the underlying distributions, post-regression predictions of demonstration impact are performed to obtain the marginal effects of demonstration impact.

In addition, we also produce an annual effects model to estimate the demonstration impact per year:

$$\text{Dependent variable} = F\,(\beta_0 + \beta_{1\text{-}k}\text{PostYear}_{1\text{-}n} + \beta_2 \text{Demonstration} + \beta_{3\text{-}k}\text{PostYear}_{1\text{-}n} * \text{Demonstration} + \beta_4\, \text{Demographics} + \beta_{5\text{-}j}\, \text{Market} + \varepsilon)$$

Table D-3
Average adjusted probability of readmission by demonstration group

Demonstration group	Average adjusted probability of readmission
Predemonstration year 1	
Ohio	0.2253
Comparison	0.2082
Predemonstration year 2	
Ohio	0.2316
Comparison	0.2122
Demonstration year 1	
Ohio	0.2329
Comparison	0.2149
Demonstration year 2	
Ohio	0.2274
Comparison	0.2101
Demonstration year 3	
Ohio	0.2232
Comparison	0.2055
Demonstration year 4	
Ohio	0.2216
Comparison	0.2055
Demonstration year 5	
Ohio	0.2229
Comparison	0.2048
Demonstration year 6	
Ohio	0.2235
Comparison	0.2053

This equation differs from the previous one in that separate DinD coefficients are estimated for each year. Under this specification, the coefficients $\beta_{3\text{-}k}$ would reflect the impact of the demonstration in each respective year, whereas the previous equation reflects the impact of the entire demonstration period. Depending on the outcome of interest, we estimated the equations using logistic regression, Generalized Linear Models with a log link and gamma distribution, or count models such as negative binomial (e.g., for the number of monthly physician visits).

We used regression results to calculate the marginal effects of demonstration impact. To account for correlation in the error terms, we used clustered standard errors at the county level.

Two outcomes are modelled at a beneficiary period level. Both the annual probability of any long-stay nursing home visit and the annual number of readmissions are estimated at a beneficiary period level. This approach requires the use of an additional control variable to account for the variation of exposure to the potential outcome.

Impact estimates across the entire demonstration period are determined using the DinD methodology and presented in figures for all demonstration eligible beneficiaries. We present a table displaying the cumulative estimate along with the adjusted means for each group and time period for the eligible population. We also display figures showing the annual effects of the demonstration among the overall eligible population. In each figure, the point estimate is displayed for each measure, as well as the 95 percent confidence interval. If the confidence interval includes the value of zero, it is not statistically significant at that confidence level.

To determine whether the demonstration had an effect on the SPMI and LTSS populations, a triple interaction term is used to estimate the interaction effect of each special population (i.e., Demonstration * Post * LTSS). In ***Section 5, Demonstration Impact on Service Utilization and Quality of Care,*** we report the cumulative DinD estimates for both the special population of interest and the rest of the eligible population, and test the difference in the demonstration effect for each estimate. Annual triple-DinD results are shown in ***Appendix E, Tables E-2*** and ***E-3.***

The adjusted means tables presented for the full demonstration eligible population in the report provide both DinD results as well as accompanying adjusted mean values that allow direct comparisons regarding service utilization and expenditures across the predemonstration and demonstration periods, separately for the demonstration and comparison groups. To make meaningful comparisons for the adjusted mean value results, we needed to take into account any differences in population characteristics across the four groups. To do this, we replaced the data values for all demographic, health, and area-related characteristics in each group to be those of the comparison group in the demonstration period, which we selected as the reference group.

The steps involved in this process for each type of outcome measure are:

1. *Run* the regression estimating the probability or level of service use or expenditures.

2. *Predict* DinD (last two columns in each adjusted means table).

3. *Replace* the data values for three of the four groups to be those of the comparison group in the demonstration period so all four groups have the same population characteristics.

4. *Predict* the regression adjusted mean for each of the four groups using the regression coefficients stored from Step 1.

The DinD estimate is also provided for reference, along with the *p*-value and the relative percent change of the DinD estimate compared to an average mean value for the comparison group in the entire demonstration period. The relative percent annual change for the DinD estimate for each outcome measure is calculated as [Overall DinD effect] / [Adjusted mean outcome value of comparison group in the demonstration period].

Table D-4 provides an illustrative example of the regression output for each independent variable in the logistic regression on monthly inpatient admissions across the entire demonstration period.

Table D-4
Logistic regression results on monthly inpatient admission (n = 13,824,877 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Post period	−0.0710	0.0164	−4.33	<0.001
Demonstration group	0.1028	0.0371	2.77	0.006
Interaction of post period x demonstration group	−0.1385	0.0192	−7.22	<0.001
Age (continuous)	0.0028	0.0007	4.22	<0.001
Female	0.0045	0.0107	0.42	0.677
Black	0.0355	0.0171	2.07	0.038
Hispanic	−0.1187	0.0486	−2.44	0.015
Asian	−0.4282	0.0354	−12.10	<0.001
Other race/ethnicity	−0.2452	0.0265	−9.26	<0.001
Disability as reason for Medicare entitlement	0.0085	0.0169	0.50	0.616
End-stage renal disease	1.5014	0.0216	69.42	<0.001
Participation in other Shared Savings Program	0.1387	0.0314	4.42	<0.001
Hierarchical Condition Category score	0.3448	0.0084	40.97	<0.001
Metropolitan statistical area residence	0.0825	0.0449	1.84	0.066
Medicare spending per dual, ages 19+	−0.0001	0.0000	−1.80	0.072
Medicaid spending per dual, ages 19+	0.0000	0.0000	0.49	0.623
Percent of population married	−0.0021	0.0009	−2.47	0.014
Medicare Advantage penetration rate	−0.2811	0.1976	−1.42	0.155
Medicaid-Medicare fee index	0.9986	0.3675	2.72	0.007
Fraction of dually elig. beneficiaries using nursing facility, ages 65+	0.3022	0.2200	1.37	0.170
Fraction of dually elig. beneficiaries using HCBS, ages 65+	0.1680	0.1004	1.67	0.094
Fraction of dual elig. beneficiaries with Medicaid managed care, ages 19+	−0.0304	0.0711	−0.43	0.669
Population per square mile, all ages	0.0000	0.0001	0.48	0.630
Patient care physicians per 1,000 population	−0.2436	0.1895	−1.29	0.198
Percent of adults with college education	−0.0019	0.0006	−3.19	0.001
Percent of adults who are unemployed	−0.0010	0.0012	−0.80	0.426
Percent of adults with self-care limitation	0.0000	0.0028	0.00	0.997
Distance to nearest hospital	−0.0018	0.0029	−0.62	0.533

(continued)

Table D-4 (continued)
Logistic regression results on monthly inpatient admissions (n = 13,824,877person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Distance to nearest nursing facility	−0.0003	0.0041	−0.08	0.934
Percent of households with individuals younger than 18	−0.0023	0.0010	−2.24	0.025
Percent of households with individuals older than 60	−0.0016	0.0009	−1.76	0.078
Pandemic Vulnerability Index	−0.2173	0.0234	−9.29	<0.001
Intercept	−3.4863	0.4079	−8.55	<0.001

HCBS = home and community-based services.

Appendix E

Descriptive and Special Population Supplemental Analysis

Tables E-1, ***E-2***, and ***E-3*** provide the regression adjusted DinD service utilization estimates cumulatively and for each demonstration year, for all measures and populations. We provide both the 95 and 90 percent confidence intervals for a clearer understanding of the estimate's precision.

Table E-1
Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Adjusted DinD estimate	Relative difference (%)	p-value	95% confidence interval	90% confidence interval
Monthly probability of any inpatient admission (%)					
Cumulative	–0.57	–13.2	<0.0001	–0.74, –0.41	–0.71, –0.43
Demonstration year 1	–0.66	–14.0	<0.0001	–0.89, –0.44	–0.85, –0.48
Demonstration year 2	–0.47	–10.4	0.0005	–0.74, –0.21	–0.70, –0.25
Demonstration year 3	–0.53	–12.2	0.0001	–0.80, –0.26	–0.75, –0.31
Demonstration year 4	–0.61	–14.7	<0.0001	–0.79, –0.44	–0.76, –0.47
Demonstration year 5	–0.64	–15.2	<0.0001	–0.84, –0.44	–0.80, –0.47
Demonstration year 6	–0.46	–12.3	<0.0001	–0.64, –0.27	–0.61, –0.30
Number of all-cause 30-day readmissions per 1,000 discharges					
Cumulative	–24.07	–9.0	0.0002	–36.93, –11.20	–34.86, –13.27
Demonstration year 1	–19.97	–6.7	0.0332	–38.34, –1.59	–35.39, –4.54
Demonstration year 2	–16.57	NS	0.0852	–35.45, 2.30	–32.41, –0.73
Demonstration year 3	–16.19	NS	0.2194	–42.02, 9.65	–37.87, 5.49
Demonstration year 4	–29.84	–11.7	0.0005	–46.65, –13.04	–43.95, –15.74
Demonstration year 5	–27.31	–10.4	<0.0001	–40.66, –13.97	–38.51, –16.12
Demonstration year 6	–35.41	–13.6	0.0012	–56.85, –13.97	–53.41, –17.41
Monthly probability of any ACSC admission, overall (%)					
Cumulative	–0.06	NS	0.0646	–0.11, 0.00	–0.10, –0.01
Demonstration year 1	–0.09	–9.7	0.0065	–0.15, –0.02	–0.14, –0.03
Demonstration year 2	–0.02	NS	0.6712	–0.13, 0.08	–0.11, 0.06
Demonstration year 3	–0.08	NS	0.1905	–0.19, 0.04	–0.17, 0.02
Demonstration year 4	–0.04	NS	0.1765	–0.11, 0.02	–0.10, 0.01
Demonstration year 5	–0.07	–9.6	0.0117	–0.13, –0.02	–0.12, –0.03
Demonstration year 6	–0.01	NS	0.7922	–0.07, 0.06	–0.06, 0.05

(continued)

Table E-1 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Adjusted DinD estimate	Relative difference (%)	p-value	95% confidence interval	90% confidence interval
Monthly probability of any ACSC admission, chronic (%)					
Cumulative	–0.03	NS	0.3535	–0.08, 0.03	–0.07, 0.02
Demonstration year 1	–0.03	NS	0.3553	–0.08, 0.03	–0.07, 0.02
Demonstration year 2	–0.01	NS	0.8131	–0.11, 0.09	–0.09, 0.07
Demonstration year 3	–0.06	NS	0.2416	–0.16, 0.04	–0.15, 0.02
Demonstration year 4	–0.01	NS	0.8680	–0.07, 0.06	–0.06, 0.05
Demonstration year 5	–0.04	NS	0.1437	–0.09, 0.01	–0.08, 0.00
Demonstration year 6	–0.00	NS	0.8589	–0.05, 0.04	–0.05, 0.04
Monthly probability of any ED visit (%)					
Cumulative	1.12	16.7	<0.0001	0.79, 1.44	0.85, 1.39
Demonstration year 1	0.24	NS	0.0616	–0.01, 0.49	0.03, 0.45
Demonstration year 2	1.02	14.5	<0.0001	0.70, 1.35	0.75, 1.30
Demonstration year 3	1.37	19.8	<0.0001	1.08, 1.66	1.12, 1.61
Demonstration year 4	1.54	23.3	<0.0001	1.14, 1.93	1.20, 1.87
Demonstration year 5	1.58	24.0	<0.0001	1.08, 2.07	1.16, 1.99
Demonstration year 6	1.37	26.1	<0.0001	0.90, 1.84	0.97, 1.76
Monthly number of preventable ED visits per 1,000 persons					
Cumulative	10.80	27.2	<0.0001	8.16, 13.44	8.58, 13.01
Demonstration year 1	4.74	10.4	<0.0001	2.45, 7.03	2.82, 6.67
Demonstration year 2	12.01	28.7	<0.0001	9.58, 14.44	9.97, 14.05
Demonstration year 3	12.79	30.7	<0.0001	9.72, 15.86	10.21, 15.37
Demonstration year 4	13.18	33.4	<0.0001	9.44, 16.92	10.04, 16.32
Demonstration year 5	13.33	34.8	<0.0001	9.31, 17.34	9.96, 16.70
Demonstration year 6	10.34	36.1	<0.0001	7.53, 13.16	7.98, 12.70
Monthly probability of any SNF admission (%)					
Cumulative	–0.28	–21.7	<0.0001	–0.41, –0.15	–0.39, –0.18
Demonstration year 1	–0.13	–9.1	0.0249	–0.24, –0.02	–0.22, –0.03
Demonstration year 2	–0.03	NS	0.7208	–0.19, 0.13	–0.16, 0.10
Demonstration year 3	–0.03	NS	0.5644	–0.13, 0.07	–0.12, 0.06
Demonstration year 4	–0.23	–20.4	0.0005	–0.36, –0.10	–0.34, –0.12
Demonstration year 5	–0.39	–34.8	<0.0001	–0.55, –0.23	–0.52, –0.26
Demonstration year 6	–0.90	–54.7	<0.0001	–1.23, –0.56	–1.18, –0.62

(continued)

Table E-1 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Adjusted DinD estimate	Relative difference (%)	p-value	95% confidence interval	90% confidence interval
Annual probability of any long-stay NF use (%)					
Cumulative	–4.22	–24.7	<0.0001	–5.64, –2.81	–5.41, –3.03
Demonstration year 1	–2.17	–11.4	<0.0001	–3.19, –1.16	–3.02, –1.32
Demonstration year 2	–3.36	–18.4	<0.0001	–4.47, –2.24	–4.29, –2.42
Demonstration year 3	–3.97	–23.7	<0.0001	–5.44, –2.50	–5.20, –2.74
Demonstration year 4	–4.70	–28.2	<0.0001	–6.32, –3.08	–6.06, –3.34
Demonstration year 5	–5.91	–35.4	<0.0001	–7.95, –3.87	–7.62, –4.20
Demonstration year 6	–5.71	–37.9	<0.0001	–7.86, –3.57	–7.51, –3.91
Probability of 30-day follow-up after mental health discharge (%)					
Cumulative	5.95	14.7	0.0091	1.48, 10.42	2.20, 9.71
Demonstration year 1	–1.18	NS	0.5249	–4.82, 2.46	–4.24, 1.87
Demonstration year 2	0.62	NS	0.8128	–4.51, 5.75	–3.68, 4.92
Demonstration year 3	2.20	NS	0.3586	–2.50, 6.90	–1.74, 6.15
Demonstration year 4	8.68	21.8	0.0031	2.93, 14.43	3.86, 13.50
Demonstration year 5	12.10	31.1	<0.0001	6.38, 17.83	7.30, 16.91
Demonstration year 6	11.33	30.9	0.0004	5.00, 17.65	6.02, 16.63
Monthly number of physician E&M visits per 1,000 persons					
Cumulative	–4.62	NS	0.8582	–55.28, 46.04	–47.13, 37.90
Demonstration year 1	–37.84	NS	0.0935	–82.05, 6.37	–74.94, –0.74
Demonstration year 2	1.44	NS	0.9569	–50.68, 53.56	–42.30, 45.18
Demonstration year 3	–11.87	NS	0.6008	–56.34, 32.59	–49.19, 25.45
Demonstration year 4	4.55	NS	0.8848	–57.00, 66.10	–47.11, 56.21
Demonstration year 5	6.40	NS	0.8627	–66.16, 78.97	–54.50, 67.30
Demonstration year 6	22.89	NS	0.5214	–47.07, 92.84	–35.82, 81.60

ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; NS = not statistically significant; SNF = skilled nursing facility.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data, and Minimum Data Set data.

Table E-2

Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures								
Monthly probability of any inpatient admission (%)	Cumulative	LTSS users	–0.07	NS	0.6380	–0.38, 0.23	–0.33, 0.18	0.46**
		Non-LTSS users	–0.53	–18.2	<0.0001	–0.72, –0.35	–0.69, –0.38	
	Demonstration year 1	LTSS users	–0.17	NS	0.3631	–0.53, 0.19	–0.47, 0.13	0.47**
		Non-LTSS users	–0.64	–19.5	<0.0001	–0.79, –0.49	–0.76, –0.52	
	Demonstration year 2	LTSS users	0.09	NS	0.6817	–0.33, 0.50	–0.26, 0.43	0.56*
		Non-LTSS users	–0.48	–15.5	0.0002	–0.73, –0.22	–0.69, –0.26	
	Demonstration year 3	LTSS users	0.12	NS	0.6338	–0.36, 0.59	–0.29, 0.52	0.66*
		Non-LTSS users	–0.54	–18.1	0.0007	–0.86, –0.23	–0.81, –0.28	
	Demonstration year 4	LTSS users	–0.30	NS	0.1518	–0.71, 0.11	–0.65, 0.04	0.17
		Non-LTSS users	–0.47	–17.1	<0.0001	–0.70, –0.24	–0.66, –0.28	
	Demonstration year 5	LTSS users	–0.10	NS	0.6789	–0.57, 0.37	–0.49, 0.30	0.44
		Non-LTSS users	–0.54	–19.1	<0.0001	–0.77, –0.31	–0.73, –0.35	
	Demonstration year 6	LTSS users	0.05	NS	0.8484	–0.45, 0.54	–0.37, 0.47	0.49
		Non-LTSS users	–0.45	–16.8	0.0006	–0.70, –0.19	–0.66, –0.23	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures (continued)								
Monthly probability of any ED visit (%)	Cumulative	LTSS users	0.76	12.2	<0.0001	0.43, 1.09	0.48, 1.04	–0.40
		Non-LTSS users	1.16	17.5	<0.0001	0.73, 1.60	0.80, 1.53	
	Demonstration year 1	LTSS users	0.24	NS	0.1191	–0.06, 0.54	–0.01, 0.49	–0.22
		Non-LTSS users	0.46	6.0	0.0311	0.04, 0.87	0.11, 0.80	
	Demonstration year 2	LTSS users	0.87	14.0	<0.0001	0.48, 1.26	0.54, 1.20	–0.26
		Non-LTSS users	1.13	15.7	<0.0001	0.71, 1.55	0.78, 1.48	
	Demonstration year 3	LTSS users	1.14	18.3	<0.0001	0.74, 1.53	0.81, 1.47	–0.25
		Non-LTSS users	1.39	20.0	<0.0001	0.97, 1.82	1.03, 1.75	
	Demonstration year 4	LTSS users	1.20	19.1	<0.0001	0.71, 1.69	0.79, 1.61	–0.32
		Non-LTSS users	1.52	23.4	<0.0001	1.02, 2.01	1.10, 1.93	
	Demonstration year 5	LTSS users	1.21	19.1	0.0001	0.60, 1.82	0.70, 1.72	–0.29
		Non-LTSS users	1.50	23.6	<0.0001	0.88, 2.12	0.98, 2.02	
	Demonstration year 6	LTSS users	0.97	19.5	0.0006	0.41, 1.53	0.50, 1.44	–0.26
		Non-LTSS users	1.23	23.7	<0.0001	0.64, 1.81	0.74, 1.72	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures (continued)								
Monthly number of physician E&M visits per 1,000 persons	Cumulative	LTSS users	13.96	NS	0.8322	–115.19, 143.10	–94.42, 122.34	–61.83
		Non-LTSS users	75.79	11.6	<0.0001	47.31, 104.28	51.89, 99.70	
	Demonstration year 1	LTSS users	26.51	NS	0.5123	–52.80, 105.83	–40.05, 93.08	42.96
		Non-LTSS users	–16.44	NS	0.2728	–45.83, 12.95	–41.11, 8.22	
	Demonstration year 2	LTSS users	6.81	NS	0.9155	–118.94, 132.55	–98.72, 112.33	–40.20
		Non-LTSS users	47.01	6.9	0.0058	13.62, 80.39	18.98, 75.03	
	Demonstration year 3	LTSS users	–3.34	NS	0.9600	–133.78, 127.10	–112.80, 106.13	–59.44
		Non-LTSS users	56.10	8.4	0.0010	22.72, 89.48	28.09, 84.11	
	Demonstration year 4	LTSS users	–3.24	NS	0.9746	–202.64, 196.16	–170.58, 164.11	–91.92
		Non-LTSS users	88.68	13.6	<0.0001	56.80, 120.56	61.92, 115.44	
	Demonstration year 5	LTSS users	9.79	NS	0.9337	–220.77, 240.36	–183.70, 203.29	–119.24
		Non-LTSS users	129.03	19.7	<0.0001	96.07, 162.00	101.37, 156.70	
	Demonstration year 6	LTSS users	91.91	NS	0.3250	–91.13, 274.94	–61.70, 245.51	–55.08
		Non-LTSS users	146.99	25.9	<0.0001	106.56, 187.41	113.06, 180.91	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures (continued)								
Monthly probability of any SNF admission (%)	Cumulative	LTSS users	0.22	11.9	0.0462	0.00, 0.44	0.04, 0.40	0.28*
		Non-LTSS users	–0.06	NS	0.0724	–0.13, 0.01	–0.12, –0.01	
	Demonstration year 1	LTSS users	0.43	20.6	<0.0001	0.26, 0.59	0.29, 0.57	0.54***
		Non-LTSS users	–0.11	–53.6	0.0009	–0.18, –0.05	–0.17, –0.06	
	Demonstration year 2	LTSS users	0.45	24.5	0.0016	0.17, 0.72	0.21, 0.68	0.50***
		Non-LTSS users	–0.06	NS	0.2078	–0.14, 0.03	–0.13, 0.02	
	Demonstration year 3	LTSS users	0.46	28.3	0.0001	0.22, 0.69	0.26, 0.66	0.45***
		Non-LTSS users	0.01	NS	0.7315	–0.05, 0.07	–0.04, 0.06	
	Demonstration year 4	LTSS users	0.00	NS	0.9811	–0.27, 0.28	–0.23, 0.24	0.06
		Non-LTSS users	–0.05	NS	0.1081	–0.12, 0.01	–0.11, 0.00	
	Demonstration year 5	LTSS users	–0.15	NS	0.4296	–0.52, 0.22	–0.46, 0.16	–0.10
		Non-LTSS users	–0.05	NS	0.2242	–0.13, 0.03	–0.12, 0.02	
	Demonstration year 6	LTSS users	–0.85	–36.4	0.0187	–1.56, –0.14	–1.44, –0.26	–0.80*
		Non-LTSS users	–0.05	NS	0.3814	–0.18, 0.07	–0.16, 0.05	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures								
Monthly number of preventable ED visits per 1,000 persons	Cumulative	LTSS users	9.22	27.0	<0.0001	6.72, 11.71	7.12, 11.31	–0.40
		Non-LTSS users	9.61	23.3	<0.0001	6.05, 13.17	6.62, 12.60	
	Demonstration year 1	LTSS users	5.36	14.1	0.0002	2.58, 8.13	3.03, 7.69	0.14
		Non-LTSS users	5.22	10.5	0.0015	2.00, 8.44	2.52, 7.92	
	Demonstration year 2	LTSS users	11.15	33.2	<0.0001	7.94, 14.37	8.45, 13.85	–1.73
		Non-LTSS users	12.88	29.0	<0.0001	9.87, 15.89	10.35, 15.41	
	Demonstration year 3	LTSS users	11.47	33.3	<0.0001	8.66, 14.28	9.11, 13.83	–0.86
		Non-LTSS users	12.33	28.3	<0.0001	7.60, 17.07	8.36, 16.31	
	Demonstration year 4	LTSS users	12.23	36.6	<0.0001	8.94, 15.52	9.47, 14.99	0.66
		Non-LTSS users	11.57	28.5	<0.0001	6.92, 16.22	7.67, 15.47	
	Demonstration year 5	LTSS users	10.76	32.3	0.0002	5.14, 16.37	6.05, 15.47	0.18
		Non-LTSS users	10.58	26.8	<0.0001	5.38, 15.78	6.22, 14.94	
	Demonstration year 6	LTSS users	9.10	39.4	<0.0001	6.12, 12.07	6.60, 11.60	1.40
		Non-LTSS users	7.69	25.8	<0.0001	4.18, 11.21	4.74, 10.65	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Monthly probability of any ACSC admission, overall (%)	Cumulative	LTSS users	0.07	NS	0.1940	–0.03, 0.17	–0.02, 0.15	0.16***
		Non-LTSS users	–0.09	–20.8	0.0002	–0.14, –0.04	–0.13, –0.05	
	Demonstration year 1	LTSS users	–0.02	NS	0.7310	–0.14, 0.10	–0.12, 0.08	0.05
		Non-LTSS users	–0.07	–15.8	0.0020	–0.12, –0.03	–0.11, –0.03	
	Demonstration year 2	LTSS users	0.19	20.8	0.0044	0.06, 0.32	0.08, 0.30	0.26***
		Non-LTSS users	–0.07	NS	0.2347	–0.18, 0.05	–0.17, 0.03	
	Demonstration year 3	LTSS users	0.08	NS	0.3580	–0.09, 0.24	–0.06, 0.21	0.19*
		Non-LTSS users	–0.12	–23.8	0.0206	–0.22, –0.02	–0.20, –0.03	
	Demonstration year 4	LTSS users	0.08	NS	0.2683	–0.06, 0.21	–0.04, 0.19	0.15*
		Non-LTSS users	–0.07	NS	0.0656	–0.15, 0.00	–0.13, –0.01	
	Demonstration year 5	LTSS users	0.07	NS	0.4157	–0.10, 0.25	–0.07, 0.22	0.19*
		Non-LTSS users	–0.12	–27.1	0.0002	–0.19, –0.06	–0.17, –0.07	
	Demonstration year 6	LTSS users	0.16	26.1	0.0337	0.01, 0.30	0.04, 0.28	0.25***
		Non-LTSS users	–0.10	–24.6	0.0044	–0.16, –0.03	–0.15, –0.04	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Monthly probability of any ACSC admission, chronic (%)	Cumulative	LTSS users	0.11	22.0	0.0064	0.03, 0.20	0.05, 0.18	0.20***
		Non-LTSS users	–0.08	–24.4	<0.0001	–0.12, –0.04	–0.12, –0.05	
	Demonstration year 1	LTSS users	0.05	NS	0.3049	–0.04, 0.14	–0.03, 0.12	0.10
		Non-LTSS users	–0.05	–15.8	0.0211	–0.09, –0.01	–0.09, –0.01	
	Demonstration year 2	LTSS users	0.13	24.5	0.0258	0.02, 0.24	0.03, 0.22	0.18**
		Non-LTSS users	–0.06	NS	0.2797	–0.16, 0.05	–0.14, 0.03	
	Demonstration year 3	LTSS users	0.11	NS	0.0879	–0.02, 0.24	0.00, 0.22	0.23***
		Non-LTSS users	–0.11	–28.0	0.0102	–0.20, –0.03	–0.19, –0.04	
	Demonstration year 4	LTSS users	0.17	39.2	0.0026	0.06, 0.29	0.08, 0.27	0.24***
		Non-LTSS users	–0.07	–21.1	0.0074	–0.12, –0.02	–0.11, –0.03	
	Demonstration year 5	LTSS users	0.16	35.6	0.0125	0.03, 0.29	0.06, 0.27	0.27***
		Non-LTSS users	–0.11	–32.0	<0.0001	–0.17, –0.06	–0.16, –0.07	
	Demonstration year 6	LTSS users	0.22	75.0	0.0002	0.10, 0.33	0.12, 0.32	0.31***
		Non-LTSS users	–0.10	–30.1	0.0010	–0.15, –0.04	–0.14, –0.05	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Probability of 30-day follow-up after mental health discharge (%)	Cumulative	LTSS users	3.45	NS	0.2345	–2.24, 9.13	–1.32, 8.21	–3.33
		Non-LTSS users	6.77	15.7	0.0092	1.67, 11.88	2.49, 11.06	
	Demonstration year 1	LTSS users	–3.49	NS	0.2892	–9.94, 2.96	–8.90, 1.92	–4.82
		Non-LTSS users	1.33	NS	0.5822	–3.41, 6.07	–2.65, 5.31	
	Demonstration year 2	LTSS users	10.41	41.4	0.0146	2.05, 18.76	3.40, 17.42	11.29*
		Non-LTSS users	–0.89	NS	0.7974	–7.65, 5.88	–6.56, 4.79	
	Demonstration year 3	LTSS users	4.09	NS	0.1507	–1.49, 9.67	–0.59, 8.77	2.22
		Non-LTSS users	1.86	NS	0.5187	–3.80, 7.53	–2.89, 6.62	
	Demonstration year 4	LTSS users	–1.44	NS	0.7454	–10.12, 7.25	–8.73, 5.85	–11.50**
		Non-LTSS users	10.06	23.7	0.0007	4.26, 15.87	5.19, 14.93	
	Demonstration year 5	LTSS users	7.68	NS	0.0591	–0.30, 15.65	0.99, 14.37	–5.45
		Non-LTSS users	13.13	31.3	0.0002	6.26, 20.00	7.37, 18.89	
	Demonstration year 6	LTSS users	6.18	NS	0.3208	–6.02, 18.39	–4.06, 16.43	–5.16
		Non-LTSS users	11.34	28.6	0.0024	4.02, 18.66	5.20, 17.48	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Number of all-cause 30-day readmissions per 1,000 discharges	Cumulative	LTSS users	–18.64	–6.7	0.0443	–36.81, –0.48	–33.89, –3.40	–0.59
		Non-LTSS users	–18.05	NS	0.0503	–36.13, 0.02	–33.22, –2.88	
	Demonstration Year 1	LTSS users	–16.52	NS	0.1695	–40.09, 7.05	–36.30, 3.26	–3.31
		Non-LTSS users	–13.22	NS	0.2808	–37.23, 10.80	–33.37, 6.94	
	Demonstration year 2	LTSS users	–1.82	NS	0.8962	–29.12, 25.49	–24.73, 21.10	13.43
		Non-LTSS users	–15.25	NS	0.3082	–44.57, 14.08	–39.85, 9.36	
	Demonstration year 3	LTSS users	9.75	NS	0.6361	–30.65, 50.15	–24.15, 43.66	21.48
		Non-LTSS users	–11.72	NS	0.3978	–38.90, 15.45	–34.53, 11.08	
	Demonstration year 4	LTSS users	–20.80	NS	0.2181	–53.89, 12.30	–48.57, 6.98	0.96
		Non-LTSS users	–21.76	NS	0.0900	–46.91, 3.40	–42.87, –0.65	
	Demonstration year 5	LTSS users	–50.17	–18.2	0.0082	–87.34, –13.00	–81.36, –18.97	–34.72
		Non-LTSS users	–15.45	NS	0.2917	–44.17, 13.27	–39.55, 8.65	
	Demonstration year 6	LTSS users	–61.49	–22.9	0.0007	–97.02, –25.95	–91.31, –31.66	–28.65
		Non-LTSS users	–32.83	NS	0.0975	–71.66, 6.00	–65.42, –0.24	

Table E-3
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures								
Monthly probability of any inpatient admission (%)	Cumulative	SPMI	–0.81	–13.8	<0.0001	–1.05, –0.57	–1.01, –0.61	–0.44***
		Non-SPMI	–0.37	–13.8	<0.0001	–0.53, –0.20	–0.50, –0.23	
	Demonstration year 1	SPMI	–0.80	–13.1	<0.0001	–1.13, –0.47	–1.08, –0.53	–0.36*
		Non-SPMI	–0.44	–14.7	<0.0001	–0.63, –0.25	–0.60, –0.28	
	Demonstration year 2	SPMI	–0.63	–10.5	0.0019	–1.03, –0.23	–0.97, –0.30	–0.26
		Non-SPMI	–0.37	–12.9	0.0007	–0.58, –0.16	–0.55, –0.19	
	Demonstration year 3	SPMI	–0.89	–15.0	<0.0001	–1.25, –0.52	–1.19, –0.58	–0.69***
		Non-SPMI	–0.19	NS	0.0673	–0.40, 0.01	–0.37, –0.02	
	Demonstration year 4	SPMI	–0.93	–16.0	<0.0001	–1.18, –0.67	–1.14, –0.71	–0.53***
		Non-SPMI	–0.40	–15.7	0.0004	–0.62, –0.18	–0.58, –0.21	
	Demonstration year 5	SPMI	–0.88	–15.3	<0.0001	–1.15, –0.61	–1.10, –0.66	–0.42*
		Non-SPMI	–0.47	–18.2	0.0009	–0.74, –0.19	–0.70, –0.24	
	Demonstration year 6	SPMI	–0.80	–15.2	<0.0001	–1.06, –0.53	–1.02, –0.58	–0.56***
		Non-SPMI	–0.24	–11.0	0.0107	–0.42, –0.06	–0.39, –0.09	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures (continued)								
Monthly probability of any ED visit (%)	Cumulative	SPMI	1.01	11.8	<0.0001	0.59, 1.43	0.66, 1.36	0.00
		Non-SPMI	1.01	21.8	<0.0001	0.78, 1.24	0.82, 1.20	
	Demonstration year 1	SPMI	0.18	NS	0.3542	–0.20, 0.55	–0.14, 0.49	–0.14
		Non-SPMI	0.32	6.1	0.0012	0.13, 0.51	0.16, 0.48	
	Demonstration year 2	SPMI	0.85	9.6	<0.0001	0.49, 1.22	0.54, 1.16	–0.18
		Non-SPMI	1.04	21.1	<0.0001	0.73, 1.34	0.78, 1.29	
	Demonstration year 3	SPMI	1.25	14.1	<0.0001	0.84, 1.65	0.91, 1.59	–0.02
		Non-SPMI	1.27	26.3	<0.0001	1.03, 1.50	1.07, 1.46	
	Demonstration year 4	SPMI	1.42	16.5	<0.0001	0.89, 1.96	0.97, 1.87	0.10
		Non-SPMI	1.32	28.9	<0.0001	0.98, 1.65	1.04, 1.60	
	Demonstration year 5	SPMI	1.49	17.7	<0.0001	0.84, 2.14	0.94, 2.03	0.18
		Non-SPMI	1.31	28.8	<0.0001	0.95, 1.67	1.01, 1.61	
	Demonstration year 6	SPMI	1.22	17.5	<0.0001	0.64, 1.80	0.74, 1.71	0.09
		Non-SPMI	1.14	32.7	<0.0001	0.73, 1.54	0.80, 1.47	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures (continued)								
Monthly number of physician E&M visits per 1,000 persons	Cumulative	SPMI	–38.47	NS	0.2873	–109.32, 32.39	–97.93, 20.99	–42.01
		Non-SPMI	3.55	NS	0.7968	–23.44, 30.53	–19.10, 26.19	
	Demonstration year 1	SPMI	–48.04	NS	0.0961	–104.62, 8.54	–95.53, –0.56	–29.79
		Non-SPMI	–18.25	NS	0.3136	–53.75, 17.25	–48.04, 11.54	
	Demonstration year 2	SPMI	–37.36	NS	0.3055	–108.82, 34.10	–97.33, 22.61	–60.12*
		Non-SPMI	22.76	NS	0.1764	–10.24, 55.75	–4.93, 50.45	
	Demonstration year 3	SPMI	–58.81	NS	0.0644	–121.13, 3.52	–111.11, –6.50	–72.10**
		Non-SPMI	13.29	NS	0.3010	–11.90, 38.48	–7.85, 34.43	
	Demonstration year 4	SPMI	–37.32	NS	0.3991	–124.08, 49.43	–110.13, 35.48	–43.80
		Non-SPMI	6.47	NS	0.7236	–29.39, 42.33	–23.62, 36.56	
	Demonstration year 5	SPMI	–41.73	NS	0.4480	–149.52, 66.06	–132.19, 48.73	–51.78
		Non-SPMI	10.05	NS	0.5580	–23.57, 43.67	–18.17, 38.27	
	Demonstration year 6	SPMI	–31.16	NS	0.5642	–137.07, 74.75	–120.04, 57.72	–45.05
		Non-SPMI	13.90	NS	0.4024	–18.63, 46.43	–13.40, 41.20	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures (continued)								
Monthly probability of any SNF admission (%)	Cumulative	SPMI	–0.40	–20.9	<0.0001	–0.58, –0.23	–0.56, –0.25	–0.28***
		Non-SPMI	–0.12	–19.9	0.0036	–0.20, –0.04	–0.19, –0.05	
	Demonstration year 1	SPMI	–0.12	NS	0.1063	–0.27, 0.03	–0.25, 0.00	–0.03
		Non-SPMI	–0.10	NS	0.1151	–0.22, 0.02	–0.20, 0.00	
	Demonstration year 2	SPMI	–0.02	NS	0.8585	–0.24, 0.20	–0.21, 0.17	0.03
		Non-SPMI	–0.05	NS	0.4492	–0.18, 0.08	–0.16, 0.06	
	Demonstration year 3	SPMI	–0.08	NS	0.2571	–0.22, 0.06	–0.20, 0.04	–0.10
		Non-SPMI	0.02	NS	0.7241	–0.08, 0.11	–0.06, 0.09	
	Demonstration year 4	SPMI	–0.36	–20.9	0.0002	–0.55, –0.17	–0.52, –0.20	–0.28***
		Non-SPMI	–0.08	–16.5	0.0264	–0.16, –0.01	–0.14, –0.02	
	Demonstration year 5	SPMI	–0.55	–32.2	<0.0001	–0.78, –0.32	–0.74, –0.36	–0.39***
		Non-SPMI	–0.16	–32.2	0.0027	–0.27, –0.06	–0.25, –0.07	
	Demonstration year 6	SPMI	–1.38	–52.3	<0.0001	–1.88, –0.88	–1.80, –0.96	–1.06***
		Non-SPMI	–0.31	–49.3	0.0001	–0.47, –0.15	–0.45, –0.18	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures								
Monthly number of preventable ED visits per 1,000 persons	Cumulative	SPMI	11.59	23.4	<0.0001	8.31, 14.87	8.84, 14.35	3.23**
		Non-SPMI	8.36	30.0	<0.0001	6.09, 10.64	6.45, 10.27	
	Demonstration year 1	SPMI	5.38	9.8	0.0011	2.16, 8.60	2.67, 8.08	1.63
		Non-SPMI	3.75	11.7	0.0020	1.38, 6.13	1.76, 5.75	
	Demonstration year 2	SPMI	12.11	23.1	<0.0001	9.26, 14.95	9.72, 14.50	1.85
		Non-SPMI	10.26	35.3	<0.0001	7.45, 13.07	7.90, 12.61	
	Demonstration year 3	SPMI	13.79	26.9	<0.0001	10.06, 17.51	10.66, 16.91	3.64*
		Non-SPMI	10.14	33.7	<0.0001	6.90, 13.38	7.42, 12.86	
	Demonstration year 4	SPMI	13.66	27.4	<0.0001	9.38, 17.94	10.06, 17.25	2.98
		Non-SPMI	10.68	38.2	<0.0001	6.88, 14.47	7.49, 13.86	
	Demonstration year 5	SPMI	14.75	31.4	<0.0001	10.04, 19.46	10.80, 18.70	5.08**
		Non-SPMI	9.67	34.6	<0.0001	5.98, 13.37	6.58, 12.77	
	Demonstration year 6	SPMI	10.92	29.2	<0.0001	6.90, 14.93	7.55, 14.29	3.41*
		Non-SPMI	7.51	39.0	<0.0001	5.38, 9.63	5.73, 9.29	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures (continued)								
Monthly probability of any ACSC admission, overall (%)	Cumulative	SPMI	–0.06	NS	0.1593	–0.15, 0.02	–0.13, 0.01	–0.01
		Non-SPMI	–0.05	NS	0.1335	–0.12, 0.02	–0.10, 0.00	
	Demonstration year 1	SPMI	–0.09	NS	0.1072	–0.21, 0.02	–0.19, 0.00	–0.04
		Non-SPMI	–0.05	NS	0.1440	–0.13, 0.02	–0.12, 0.01	
	Demonstration year 2	SPMI	–0.01	NS	0.8836	–0.15, 0.13	–0.12, 0.10	0.03
		Non-SPMI	–0.05	NS	0.4525	–0.16, 0.07	–0.14, 0.05	
	Demonstration year 3	SPMI	–0.13	NS	0.1191	–0.28, 0.03	–0.26, 0.01	–0.11
		Non-SPMI	–0.02	NS	0.6092	–0.10, 0.06	–0.08, 0.04	
	Demonstration year 4	SPMI	–0.04	NS	0.4984	–0.14, 0.07	–0.12, 0.05	0.03
		Non-SPMI	–0.07	NS	0.0538	–0.14, 0.00	–0.13, –0.01	
	Demonstration year 5	SPMI	–0.07	NS	0.0644	–0.14, 0.00	–0.13, –0.01	0.02
		Non-SPMI	–0.09	NS	0.0836	–0.19, 0.01	–0.18, –0.00	
	Demonstration year 6	SPMI	–0.02	NS	0.6349	–0.13, 0.08	–0.11, 0.06	–0.02
		Non-SPMI	–0.01	NS	0.8751	–0.07, 0.06	–0.06, 0.05	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures (continued)								
Monthly probability of any ACSC admission, chronic (%)	Cumulative	SPMI	–0.02	NS	0.6281	–0.10, 0.06	–0.09, 0.05	0.02
		Non-SPMI	–0.04	NS	0.1548	–0.09, 0.01	–0.08, 0.01	
	Demonstration year 1	SPMI	–0.02	NS	0.6936	–0.12, 0.08	–0.11, 0.07	0.00
		Non-SPMI	–0.02	NS	0.5078	–0.09, 0.05	–0.08, 0.03	
	Demonstration year 2	SPMI	0.00	NS	0.9859	–0.13, 0.13	–0.11, 0.11	0.04
		Non-SPMI	–0.04	NS	0.4678	–0.14, 0.06	–0.12, 0.05	
	Demonstration year 3	SPMI	–0.10	NS	0.1895	–0.24, 0.05	–0.21, 0.02	–0.07
		Non-SPMI	–0.02	NS	0.5310	–0.10, 0.05	–0.09, 0.04	
	Demonstration year 4	SPMI	0.02	NS	0.7626	–0.08, 0.11	–0.07, 0.10	0.06
		Non-SPMI	–0.04	NS	0.1531	–0.11, 0.02	–0.10, 0.01	
	Demonstration year 5	SPMI	–0.02	NS	0.5155	–0.09, 0.05	–0.08, 0.04	0.04
		Non-SPMI	–0.06	NS	0.0884	–0.14, 0.01	–0.13, –0.00	
	Demonstration year 6	SPMI	–0.00	NS	0.9864	–0.08, 0.08	–0.07, 0.07	0.02
		Non-SPMI	–0.02	NS	0.3626	–0.07, 0.03	–0.07, 0.02	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	p-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures (continued)								
Number of all-cause 30-day readmissions per 1,000 discharges	Cumulative	SPMI	–21.37	–7.2	0.0038	–35.84, –6.91	–33.51, –9.24	6.84
		Non-SPMI	–28.22	–13.7	0.0313	–53.91, –2.53	–49.78, –6.66	
	Demonstration year 1	SPMI	–12.76	NS	0.3466	–39.35, 13.82	–35.07, 9.54	19.39
		Non-SPMI	–32.16	–13.8	0.0377	–62.48, –1.84	–57.60, –6.71	
	Demonstration year 2	SPMI	–16.98	NS	0.0817	–36.10, 2.14	–33.03, –0.94	–1.60
		Non-SPMI	–15.38	NS	0.4455	–54.88, 24.13	–48.53, 17.77	
	Demonstration year 3	SPMI	–14.01	NS	0.3192	–41.58, 13.56	–37.15, 9.12	3.68
		Non-SPMI	–17.69	NS	0.2208	–46.00, 10.62	–41.45, 6.07	
	Demonstration year 4	SPMI	–26.87	–9.5	0.0030	–44.61, –9.12	–41.76, –11.97	10.02
		Non-SPMI	–36.89	NS	0.1421	–86.13, 12.36	–78.21, 4.44	
	Demonstration year 5	SPMI	–18.52	–6.5	0.0067	–31.91, –5.14	–29.75, –7.29	27.41
		Non-SPMI	–45.93	–21.2	0.0023	–75.42, –16.44	–70.68, –21.18	
	Demonstration year 6	SPMI	–45.08	–15.3	0.0005	–70.30, –19.87	–66.25, –23.92	–30.66
		Non-SPMI	–14.43	NS	0.3388	–43.98, 15.13	–39.23, 10.38	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; NS = not statistically significant; SNF = skilled nursing facility; SPMI = serious and persistent mental illness.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Table E-4 presents results on the average percentage of demonstration eligible beneficiaries using selected Medicare service types during the months in which they met demonstration eligibility criteria in the predemonstration and demonstration periods. In addition, average counts of service use are presented across all such eligible months, and for the subset of these months in which eligible beneficiaries were users of each respective service type.

Data are shown for the predemonstration and demonstration period for both Ohio eligible beneficiaries (i.e., the demonstration group) and the comparison group. We also provide tables for the RTI quality of care and care coordination measures (***Table E-5***) and NF-related measures derived from the MDS (***Table E-6***). These descriptive results reflect the underlying experience of the two groups; changes over time are not intended to be interpreted as caused by the demonstration.

The demonstration and comparison groups were similar across many of the service utilization measures in each of the predemonstration (baseline) years and the demonstration years (***Table E-4***). However, there were a few outcomes where some differences were apparent. For example, ED use, skilled nursing facility (SNF) use, and physician E&M visits were higher for the demonstration group compared to the comparison group through the study period. The percentage with use of outpatient therapy was also higher in the demonstration group than in the comparison group but only for the earlier demonstration years (DY1 through DY4). The percentage with use of independent therapy, however, was higher in the comparison group compared to the demonstration group.

As with the service utilization measures, the Ohio demonstration eligible beneficiaries were similar to the comparison group in many, but not all, of the RTI quality of care and care coordination measures (***Table E-5***). In general, the demonstration group had fewer 30-day all-cause readmissions and screenings for clinical depression over all demonstration years. On the other hand, preventable ED visits were more prevalent in the demonstration group than in the comparison group across all demonstration years. The demonstration group had fewer 30-day follow-up visits after mental health discharges over the predemonstration period and during the first 3 years of the demonstration, but a greater number of these mental health visits in the last 3 demonstration years (DY4 through DY6).

Finally, across all demonstration years, the demonstration eligible group had a lower rate of new long-stay NF admissions relative to the comparison group (***Table E-6***). The demonstration group had a higher percentage of long-stay NF users relative to the comparison group over the predemonstration period and during the first 3 years of the demonstration, but a lower percentage of long-stay NF users in the last 3 demonstration years (DY4 through DY6). There were differences in some characteristics of long-stay NF residents at admission: relative to the comparison group, demonstration eligible beneficiaries had slightly better functional status, generally similar percentages with low level of care need, and a lower proportion of beneficiaries with severe cognitive impairment.[40]

[40] Functional status is measured by challenges to engage in Activities of Daily Living (ADL). A higher ADL score indicates that a beneficiary has more functional limitations than a person with a lower ADL score.

Table E-4
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Number of demonstration eligible beneficiaries		94,109	90,579	66,263	60,444	65,113	70,792	69,927	74,158
Number of comparison eligible beneficiaries		92,894	91,092	101,723	91,544	93,065	90,743	89,918	89,121
Institutional setting									
Inpatient admissions[1]	Demonstration								
% with use		6.0	5.6	4.7	4.5	4.3	4.0	4.0	3.6
Utilization per 1,000 user months		1,172.7	1,170.7	1,146.4	1,149.4	1,142.9	1,140.5	1,141.4	1,149.5
Utilization per 1,000 eligible months		70.7	65.2	53.5	52.2	49.1	45.2	45.6	41.5
Inpatient admissions[1]	Comparison								
% with use		5.3	4.9	4.8	4.5	4.3	4.2	4.2	3.7
Utilization per 1,000 user months		1,172.8	1,171.2	1,170.4	1,181.7	1,176.1	1,163.7	1,166.3	1,167.1
Utilization per 1,000 eligible months		62.1	57.5	55.6	53.6	51.1	48.5	49.1	43.4
Inpatient psychiatric	Demonstration								
% with use		0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4
Utilization per 1,000 user months		1,099.7	1,093.7	1,077.2	1,079.5	1,083.6	1,097.7	1,096.5	1,109.9
Utilization per 1,000 eligible months		4.9	4.7	3.6	4.0	3.8	4.0	4.3	4.1
Inpatient psychiatric	Comparison								
% with use		0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Utilization per 1,000 user months		1,078.6	1,083.2	1,067.1	1,072.5	1,103.5	1,068.2	1,100.6	1,084.4
Utilization per 1,000 eligible months		3.6	3.7	3.6	3.5	4.0	3.6	3.5	3.1

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Inpatient non-psychiatric	Demonstration								
% with use		5.6	5.2	4.4	4.2	4.0	3.6	3.6	3.3
Utilization per 1,000 user months		1,166.7	1,165.0	1,142.7	1,144.6	1,138.0	1,133.9	1,134.6	1,142.9
Utilization per 1,000 eligible months		65.8	60.5	49.8	48.1	45.2	41.1	41.3	37.4
Inpatient non-psychiatric	Comparison								
% with use		5.0	4.6	4.4	4.3	4.0	3.9	3.9	3.5
Utilization per 1,000 user months		1,170.1	1,165.4	1,167.6	1,177.2	1,168.0	1,161.0	1,159.2	1,163.1
Utilization per 1,000 eligible months		58.4	53.8	51.9	50.1	47.0	44.9	45.6	40.3
Emergency department use (non-admit)	Demonstration								
% with use		7.3	7.4	7.6	8.0	8.3	8.2	8.2	6.6
Utilization per 1,000 user months		1,254.2	1,248.7	1,312.3	1,373.8	1,341.9	1,328.0	1,304.8	1,295.4
Utilization per 1,000 eligible months		91.1	92.3	100.0	110.6	111.2	108.8	107.3	85.6
Emergency department use (non-admit)	Comparison								
% with use		7.2	7.2	7.4	7.0	6.9	6.6	6.6	5.2
Utilization per 1,000 user months		1,276.8	1,303.3	1,321.0	1,291.9	1,297.8	1,252.6	1,247.6	1,262.6
Utilization per 1,000 eligible months		92.0	93.7	97.7	91.0	89.6	82.7	81.8	66.2

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Emergency department use (psychiatric)	Demonstration								
% with use		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Utilization per 1,000 user months		1,230.8	1,163.2	1,209.8	1,224.3	1,186.3	1,207.3	1,190.4	1,236.2
Utilization per 1,000 eligible months		3.8	3.8	3.9	4.0	4.1	3.9	3.8	3.5
Emergency department use (psychiatric)	Comparison								
% with use		0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.3
Utilization per 1,000 user months		1,160.5	1,189.6	1,193.2	1,172.7	1,248.0	1,159.1	1,250.0	1,232.7
Utilization per 1,000 eligible months		4.3	4.1	4.8	4.2	4.8	4.0	4.4	3.9
Observation stays	Demonstration								
% with use		0.9	1.2	1.3	1.6	1.6	1.6	1.6	1.4
Utilization per 1,000 user months		1,051.5	1,044.3	1,154.6	1,245.1	1,220.8	1,206.0	1,176.1	1,135.8
Utilization per 1,000 eligible months		9.5	12.2	14.7	19.5	19.1	19.6	19.3	15.3
Observation stays	Comparison								
% with use		0.9	1.0	1.0	1.0	0.8	0.8	0.8	0.6
Utilization per 1,000 user months		1,051.5	1,050.4	1,064.5	1,062.2	1,063.1	1,044.8	1,038.5	1,040.3
Utilization per 1,000 eligible months		9.9	10.3	10.9	10.3	9.0	8.7	8.7	6.4

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Skilled nursing facility									
% with use	Demonstration	2.1	2.0	1.7	1.7	1.5	1.2	1.0	1.2
Utilization per 1,000 user months		1,108.9	1,104.5	1,104.0	1,116.9	1,120.3	1,114.3	1,102.7	1079.3
Utilization per 1,000 eligible months		23.2	21.6	18.9	18.6	16.4	13.2	11.1	12.8
Skilled nursing facility									
% with use	Comparison	1.6	1.4	1.4	1.3	1.2	1.1	1.1	1.6
Utilization per 1,000 user months		1,089.8	1,096.1	1,090.1	1,100.3	1,081.6	1,086.6	1,091.7	1071.2
Utilization per 1,000 eligible months		17.9	15.5	15.3	14.4	12.5	12.2	12.3	17.6
Hospice									
% with use	Demonstration	3.4	3.1	2.4	2.4	2.4	2.4	2.1	1.7
Utilization per 1,000 user months		1,028.9	1,012.7	1,018.0	1,014.3	1,016.5	1,038.4	1,027.6	1032.4
Utilization per 1,000 eligible months		34.6	31.2	24.4	24.5	24.8	24.6	21.4	17.1
Hospice									
% with use	Comparison	2.2	2.1	1.9	2.0	1.9	2.0	2.2	2.0
Utilization per 1,000 user months		1,080.9	1,022.4	1,014.7	1,011.9	1,013.7	1,010.5	1,013.5	1013.6
Utilization per 1,000 eligible months		23.7	21.6	19.7	20.2	19.1	20.4	21.9	20.1

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Non-institutional setting									
Primary care E&M visits	Demonstration								
% with use		62.4	62.4	58.8	59.5	57.6	56.9	57.2	51.7
Utilization per 1,000 user months		1,965.2	1,989.5	2,085.1	2,067.7	2,029.0	2,054.9	2,066.4	2,064.3
Utilization per 1,000 eligible months		1226.3	1,241.7	1,225.5	1,230.5	1168.4	1,168.7	1,182.0	1,067.0
Primary care E&M visits	Comparison								
% with use		53.9	55.7	55.1	53.9	52.2	51.5	51.7	46.0
Utilization per 1,000 user months		1,866.1	1,898.0	1,919.2	1,958.7	1,935.2	1,972.5	2,007.1	2,030.4
Utilization per 1,000 eligible months		1,006.0	1,057.6	1,056.8	1,055.8	1,011.1	1,016.5	1,037.8	933.2
Outpatient therapy (PT, OT, ST)	Demonstration								
% with use		8.5	8.5	7.6	8.1	7.3	7.4	7.2	6.5
Utilization per 1,000 user months		22,272.4	24,661.6	22,609.2	21,243.3	20,089.7	20,681.7	18,359.3	18,864.5
Utilization per 1,000 eligible months		1,892.4	2,097.9	1,719.8	1,717.3	1,462.1	1,530.7	1,327.7	1,233.2
Outpatient therapy (PT, OT, ST)	Comparison								
% with use		6.2	6.1	6.4	6.9	6.7	7.0	7.2	6.5
Utilization per 1,000 user months		25,309.6	26,703.0	27,610.1	27,047.0	26,987.8	26,965.7	24,613.9	26,229.6
Utilization per 1,000 eligible months		1,580.8	1,639.1	1,766.1	1,864.3	1,796.2	1,876.8	1,771.7	1,712.8

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Independent therapy (PT, OT, ST)	Demonstration								
% with use		0.6	0.6	0.6	0.7	0.7	0.8	0.9	0.8
Utilization per 1,000 user months		8,149.0	9,295.4	11,380.2	10,149.3	10,230.0	10,589.4	10,110.1	10,330.6
Utilization per 1,000 eligible months		51.4	54.2	72.1	72.5	73.9	83.0	93.7	81.1
Independent therapy (PT, OT, ST)	Comparison								
% with use		1.4	1.5	1.6	1.7	1.9	2.1	2.2	1.7
Utilization per 1,000 user months		9,903.6	10,436.6	10,861.5	10,629.9	11,127.8	11,405.0	10,490.3	10,096.1
Utilization per 1,000 eligible months		141.3	154.6	169.1	177.0	215.4	239.5	228.2	173.2
Other hospital outpatient services	Demonstration								
% with use		31.3	31.5	28.8	29.2	28.4	28.3	30.2	28.4
Utilization per 1,000 user months		—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—	—	—	—
Other hospital outpatient services	Comparison								
% with use		31.0	30.5	31.5	30.8	29.7	29.5	30.1	28.6
Utilization per 1,000 user months		—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—	—	—	—

— = data not available. E&M = evaluation and management; OT = occupational therapy, PT = physical therapy, ST = speech therapy.
[1] Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.
SOURCE: RTI International analysis of Medicare data.

Table E-5
Quality of care and care coordination outcomes for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Quality and care coordination measures	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
30-day all-cause risk-standardized readmission rate (%)	Demonstration	19.9	19.6	18.1	18.8	19.1	18.1	18.7	18.3
	Comparison	19.9	20.5	20.0	20.6	21.2	20.9	21.4	21.5
Preventable ED visits per 1,000 persons	Demonstration	44.2	44.5	49.5	52.9	53.2	51.5	50.3	37.5
	Comparison	43.1	44.0	46.0	41.9	41.0	37.9	36.5	27.8
Rate of 30-day follow-up after hospitalization for mental illness (%)	Demonstration	42.0	42.0	37.6	33.4	34.0	41.3	44.4	41.0
	Comparison	48.4	49.9	46.8	39.9	39.3	39.8	38.9	36.6
Ambulatory care sensitive condition admissions per 1,000 eligible months—overall composite (AHRQ PQI # 90)	Demonstration	12.4	10.9	9.2	9.5	9.0	8.0	7.8	6.2
	Comparison	11.4	9.8	9.2	9.0	9.2	7.9	8.1	6.1
Ambulatory care sensitive condition admissions per 1,000 eligible months—chronic composite (AHRQ PQI # 92)	Demonstration	7.9	7.2	6.3	6.6	6.9	5.9	5.9	4.8
	Comparison	6.9	6.0	5.6	5.9	6.6	5.2	5.5	4.4
Screening for clinical depression per 1,000 eligible months	Demonstration	0.6	1.0	1.6	1.3	1.9	5.8	5.8	6.7
	Comparison	0.4	1.1	5.8	9.1	7.4	8.1	9.8	9.9

AHRQ PQI = Agency for Healthcare Research and Quality Prevention Quality Indicator.
SOURCE: RTI International analysis of Medicare FFS claims and encounter data.

Table E-6
MDS long-stay NF utilization and characteristics at admission for the demonstration and comparison groups in Ohio, May 1, 2012–December 31, 2020

Measures by setting	Group	Predemo year 1	Predemo year 2	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Annual NF utilization									
Number of demonstration beneficiaries	Demonstration	54,588	54,710	38,838	40,562	46,666	50,437	55,130	57,683
New long-stay NF admissions per 1,000 eligible beneficiaries	Demonstration	24.0	22.2	22.6	14.9	13.2	11.8	10.8	8.9
Number of comparison beneficiaries	Comparison	60,559	60,648	63,100	63,366	67,064	63,489	68,462	67,081
New long-stay NF admissions per 1,000 eligible beneficiaries	Comparison	21.4	17.3	27.8	18.5	14.9	15.2	14.3	10.0
Number of demonstration beneficiaries	Demonstration	72,982	71,665	48,564	49,829	55,545	58,861	63,111	64,733
Long-stay NF users as % of eligible beneficiaries	Demonstration	26.6	25.2	21.3	19.4	16.7	15.0	13.3	11.9
Number of comparison beneficiaries	Comparison	73,149	72,663	74,329	75,830	79,018	74,767	80,659	76,836
Long-stay NF users as % of eligible beneficiaries	Comparison	18.3	17.5	17.3	17.7	16.0	16.1	16.2	14.4
Characteristics of new long-stay NF residents at admission									
Number of admitted demonstration beneficiaries	Demonstration	1,313	1,214	879	603	617	595	595	515
Number of admitted comparison beneficiaries	Comparison	1,299	1,050	1,756	1,175	997	964	977	671
Functional status (RUG-IV ADL scale)	Demonstration	7.8	7.8	8.0	7.8	7.5	7.4	7.5	7.3
Functional status (RUG-IV ADL scale)	Comparison	8.3	8.2	8.4	7.9	8.4	7.7	8.2	7.9
Percent with severe cognitive impairment	Demonstration	35.0	34.5	29.9	29.6	28.4	24.7	27.5	25.7
Percent with severe cognitive impairment	Comparison	38.0	38.1	35.7	34.0	31.7	37.0	35.6	36.6
Percent with low level of care need	Demonstration	1.7	1.2	1.6	2.3	2.6	2.0	1.4	1.9
Percent with low level of care need	Comparison	2.8	1.6	1.9	2.5	2.4	2.4	0.8	2.2

ADL = activities of daily living; MDS = Nursing Home Minimum Data Set; NF = nursing facility; RUG = Resource Utilization Group.
NOTE: A higher score on the RUG-IV ADL scale indicates greater impairment, or worse functional status.
SOURCE: RTI International analysis of Nursing Home Minimum Data Set data.

Tables E-7 and ***E-8*** present descriptive statistics for the demonstration enrollees, compared to those demonstration eligible beneficiaries who were eligible but not enrolled (non-enrollees), for each service by demonstration year, to help understand the utilization experience over time.

Non-enrollees generally had similar or higher utilization than the demonstration enrollees across most service settings, the exception being ED use and observational stays, which were higher for enrollees in all demonstration years (***Table E-7***). For the quality of care and care coordination measures, non-enrollees had a higher probability of 30-day all-cause readmissions, both overall and chronic ACSC admissions, and screening for clinical depression (***Table E-8***). Generally, enrollees had more preventable ED visits and 30-day follow-up visits after mental health discharge.

Table E-7
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Ohio, May 1, 2014–December 31, 2020

Measures by setting	Group	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Number of demonstration enrollees		47,157	46,223	51,335	56,098	54,964	59,270
Number of demonstration non-enrollees		52,092	17,637	17,306	18,845	19,244	17,313
Institutional setting							
Inpatient admissions[1]	Enrollees						
% with use		4.2	4.3	4.0	3.6	3.7	3.4
Utilization per 1,000 user months		1,130.6	1,146.4	1,138.6	1,130.5	1,135.1	1,142.3
Utilization per 1,000 eligible months		47.4	49.7	45.3	41.0	41.8	38.5
Inpatient admissions[1]	Non-enrollees						
% with use		5.4	5.0	5.2	4.9	4.9	4.4
Utilization per 1,000 user months		1,152.5	1,152.7	1,149.1	1,159.9	1,157.4	1,165.5
Utilization per 1,000 eligible months		62.4	57.9	60.3	57.0	56.5	51.7
Inpatient psychiatric	Enrollees						
% with use		0.3	0.4	0.4	0.4	0.4	0.4
Utilization per 1,000 user months		1,079.6	1,087.2	1,091.9	1,099.1	1,102.1	1,115.9
Utilization per 1,000 eligible months		3.6	4.3	3.9	4.0	4.4	4.3
Inpatient psychiatric	Non-enrollees						
% with use		0.3	0.3	0.3	0.4	0.4	0.3
Utilization per 1,000 user months		1,064.6	1,046.6	1,045.5	1,089.6	1,072.3	1,072.8
Utilization per 1,000 eligible months		2.9	2.9	3.0	3.9	3.8	3.1
Inpatient non-psychiatric	Enrollees						
% with use		3.9	4.0	3.6	3.3	3.3	3.0
Utilization per 1,000 user months		1,126.2	1,140.1	1,133.4	1,122.4	1,127.4	1,133.5
Utilization per 1,000 eligible months		43.8	45.3	41.3	37.0	37.4	34.1
Inpatient non-psychiatric	Non-enrollees						
% with use		5.2	4.8	5.0	4.6	4.6	4.2
Utilization per 1,000 user months		1,150.4	1,150.8	1,146.1	1,155.7	1,153.2	1,164.3
Utilization per 1,000 eligible months		59.4	55.0	57.2	53.1	52.7	48.6

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Ohio, May 1, 2014–December 31, 2020

Measures by setting	Group	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Emergency department use (non-admit)	Enrollees						
% with use		8.1	8.6	8.7	8.6	8.6	6.9
Utilization per 1,000 user months		1,367.8	1,423.1	1,373.3	1,350.5	1,322.9	1,310.2
Utilization per 1,000 eligible months		110.4	122.2	119.4	116.3	113.7	90.6
Emergency department use (non-admit)	Non-enrollees						
% with use		6.0	6.3	6.7	6.7	6.9	5.4
Utilization per 1,000 user months		1,208.2	1,193.8	1,204.5	1,230.9	1,229.9	1,209.4
Utilization per 1,000 eligible months		72.6	75.8	80.8	82.9	84.4	65.0
Emergency department use (psychiatric)	Enrollees						
% with use		0.3	0.4	0.4	0.3	0.3	0.3
Utilization per 1,000 user months		1,283.2	1,264.5	1,203.1	1,198.0	1,215.0	1,255.4
Utilization per 1,000 eligible months		4.4	4.6	4.4	4.1	4.1	3.7
Emergency department use (psychiatric)	Non-enrollees						
% with use		0.2	0.2	0.2	0.2	0.3	0.2
Utilization per 1,000 user months		1,075.2	1,037.2	1,047.8	1,264.9	1,078.2	1,074.3
Utilization per 1,000 eligible months		2.3	2.3	2.6	3.1	2.8	2.4
Observation stays	Enrollees						
% with use		1.4	1.7	1.7	1.8	1.8	1.5
Utilization per 1,000 user months		1,236.3	1,302.6	1,260.7	1,237.0	1,201.4	1,149.3
Utilization per 1,000 eligible months		16.8	22.0	20.8	21.7	21.4	17.2
Observation stays	Non-enrollees						
% with use		1.1	1.2	1.2	1.2	1.2	0.8
Utilization per 1,000 user months		1,049.6	1,038.5	1,055.3	1,064.0	1,059.5	1,045.1
Utilization per 1,000 eligible months		11.8	12.5	13.0	12.6	12.4	8.5

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Ohio, May 1, 2014–December 31, 2020

Measures by setting	Group	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Skilled nursing facility							
% with use	Enrollees	1.5	1.5	1.3	1.0	0.8	0.9
Utilization per 1,000 user months		1,111.0	1,119.8	1,120.0	1,114.8	1,096.4	1,084.2
Utilization per 1,000 eligible months		16.8	17.0	14.7	11.1	8.9	9.5
Skilled nursing facility							
% with use	Non-enrollees	2.4	2.0	2.0	1.7	1.6	2.3
Utilization per 1,000 user months		1,101.9	1,112.7	1,123.9	1,113.7	1,112.5	1,073.0
Utilization per 1,000 eligible months		26.5	22.7	22.0	19.4	17.6	24.5
Hospice							
% with use	Enrollees	1.9	2.0	2.1	2.0	1.7	1.3
Utilization per 1,000 user months		1,031.7	1,015.5	1,020.0	1,053.1	1,035.9	1,046.0
Utilization per 1,000 eligible months		19.2	20.8	21.3	20.8	17.2	14.1
Hospice							
% with use	Non-enrollees	4.4	3.6	3.7	3.6	3.5	2.8
Utilization per 1,000 user months		1,009.9	1,012.5	1,009.7	1,011.4	1,015.0	1,008.2
Utilization per 1,000 eligible months		44.2	36.0	37.5	36.5	35.2	28.5
Non-institutional setting							
Primary care E&M visits							
% with use	Enrollees	53.4	55.4	54.2	54.0	54.7	49.5
Utilization per 1,000 user months		2,152.8	2,066.9	2,014.9	2,035.8	2,030.0	2,030.1
Utilization per 1,000 eligible months		1,150.5	1,144.2	1,092.3	1,100.1	1,109.9	1,005.3
Primary care E&M visits							
% with use	Non-enrollees	73.6	71.6	69.6	67.1	66.3	60.0
Utilization per 1,000 user months		2,147.3	2,073.2	2,072.0	2,098.8	2,157.9	2,165.8
Utilization per 1,000 eligible months		1,580.2	1,483.5	1,441.4	1,409.2	1,431.0	1,298.5

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Ohio, May 1, 2014–December 31, 2020

Measures by setting	Group	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Outpatient therapy (PT, OT, ST)	Enrollees						
% with use		5.3	6.6	6.1	6.2	6.0	5.5
Utilization per 1,000 user months		18,497.7	18,768.3	17,958.3	19,126.5	16,924.5	17,426.7
Utilization per 1,000 eligible months		983.3	1,229.8	1,086.5	1,194.1	1,007.9	959.3
Outpatient therapy (PT, OT, ST)	Non-enrollees						
% with use		13.7	12.5	11.5	11.2	11.4	10.4
Utilization per 1,000 user months		25,911.5	24,729.2	23,780.8	23,425.1	20,476.0	21,544.6
Utilization per 1,000 eligible months		3,554.5	3,079.2	2,740.1	2,616.8	2,327.9	2,230.4
Independent therapy (PT, OT, ST)	Enrollees						
% with use		0.6	0.6	0.6	0.7	0.9	0.7
Utilization per 1,000 user months		10,528.3	9,410.6	9,470.1	10,186.5	9,888.9	10,338.2
Utilization per 1,000 eligible months		63.0	58.5	59.4	73.6	89.4	77.3
Independent therapy (PT, OT, ST)	Non-enrollees						
% with use		0.8	1.0	1.1	1.0	1.0	0.9
Utilization per 1,000 user months		12,806.1	11,507.5	11,675.1	11,552.5	10,722.4	10,246.1
Utilization per 1,000 eligible months		101.2	114.1	123.9	119.8	112.1	95.1
Other hospital outpatient services	Enrollees						
% with use		26.7	28.4	27.9	27.9	29.9	28.1
Utilization per 1,000 user months		—	—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—	—
Other hospital outpatient services	Non-enrollees						
% with use		32.3	31.2	30.3	29.7	30.9	29.4
Utilization per 1,000 user months		—	—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—	—

— = data not available. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.
[1] Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.
SOURCE: RTI International analysis of Medicare data.

Table E-8
Quality of care and care coordination outcomes for demonstration enrollees and non-enrollees in Ohio, May 1, 2014–December 31, 2020

Quality and care coordination measures	Group	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
30-day all-cause risk-standardized readmission rate (%)	Enrollees	17.9	18.7	18.5	17.4	18.2	17.8
	Non-enrollees	18.5	18.9	20.9	20.3	20.4	20.0
Preventable ED visits per 1,000 persons	Enrollees	55.2	58.8	57.6	55.6	53.6	40.1
	Non-enrollees	32.8	35.2	37.2	37.4	38.5	27.4
Rate of 30-day follow-up after hospitalization for mental illness (%)	Enrollees	37.4	33.9	34.5	43.3	46.6	43.2
	Non-enrollees	40.5	32.4	31.8	32.7	36.0	33.0
Ambulatory care sensitive condition admissions per 1,000 eligible months—overall composite (AHRQ PQI # 90)	Enrollees	8.3	9.0	8.5	7.3	7.2	5.8
	Non-enrollees	10.0	10.7	10.7	9.9	9.2	7.5
Ambulatory care sensitive condition admissions per 1,000 eligible months—chronic composite (AHRQ PQI # 92)	Enrollees	5.8	6.5	6.6	5.5	5.7	4.6
	Non-enrollees	6.4	6.7	7.6	6.8	6.3	5.4
Screening for clinical depression per 1,000 eligible months	Enrollees	1.3	0.8	1.9	7.0	6.9	8.0
	Non-enrollees	2.2	2.7	2.1	2.2	2.1	2.4

AHRQ PQI = Agency for Healthcare Research and Quality Prevention Quality Indicator; ED = emergency department.
SOURCE: RTI International analysis of Medicare FFS claims and encounter data.

E.1 Service Use by Demographic Characteristics of Eligible Beneficiaries

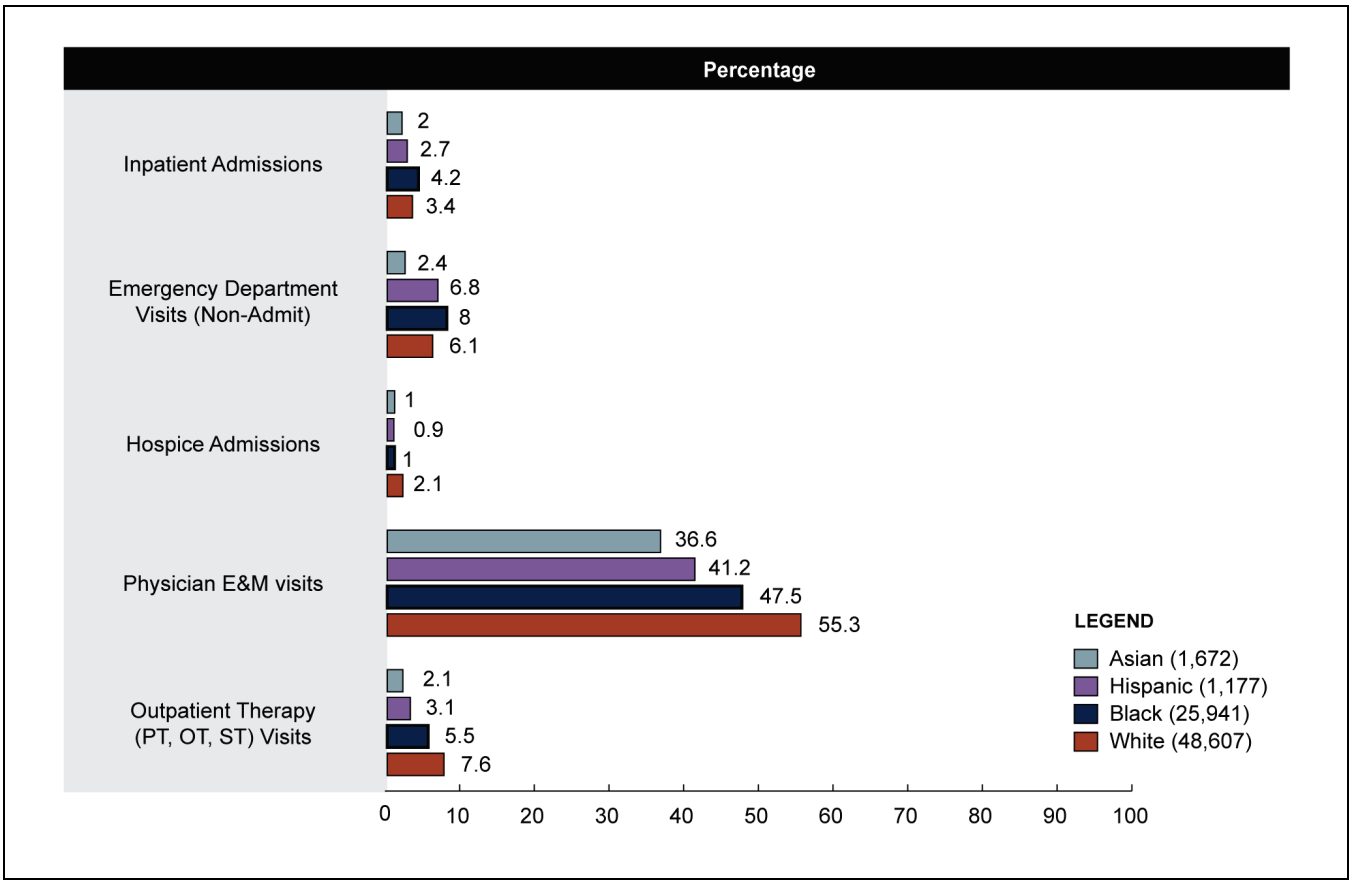
To examine any differences in racial and ethnic groups, ***Figures E-1, E-2***, and ***E-3*** provide month-level results for five settings of interest for Ohio eligible beneficiaries: inpatient admissions, ED visits (non-admit), hospice admissions, primary care E&M visits, and outpatient therapy (physical therapy, occupational therapy, and speech therapy visits). Results across these five settings are displayed using three measures: percentage with any use of the respective service, counts per 1,000 eligible beneficiaries with any use of the respective service, and counts per 1,000 demonstration eligible beneficiaries.

Figure E-1 presents the percentage of use of selected Medicare services. African American beneficiaries had slightly higher inpatient admissions and ED visits, relative to other racial categories. A higher percentage of White beneficiaries had monthly primary care visits, relative to other races. White beneficiaries also received more outpatient therapy visits and hospice admissions, compared to other racial and ethnic groups.

Regarding counts of services used among users of each respective service, as presented in ***Figure E-2***, there were limited differences across racial groups for inpatient admissions and hospice use. However, African American beneficiaries had slightly more ED visits relative to other racial groups in months when there was any use, whereas White beneficiaries had the highest number of primary care E&M and outpatient therapy visits.

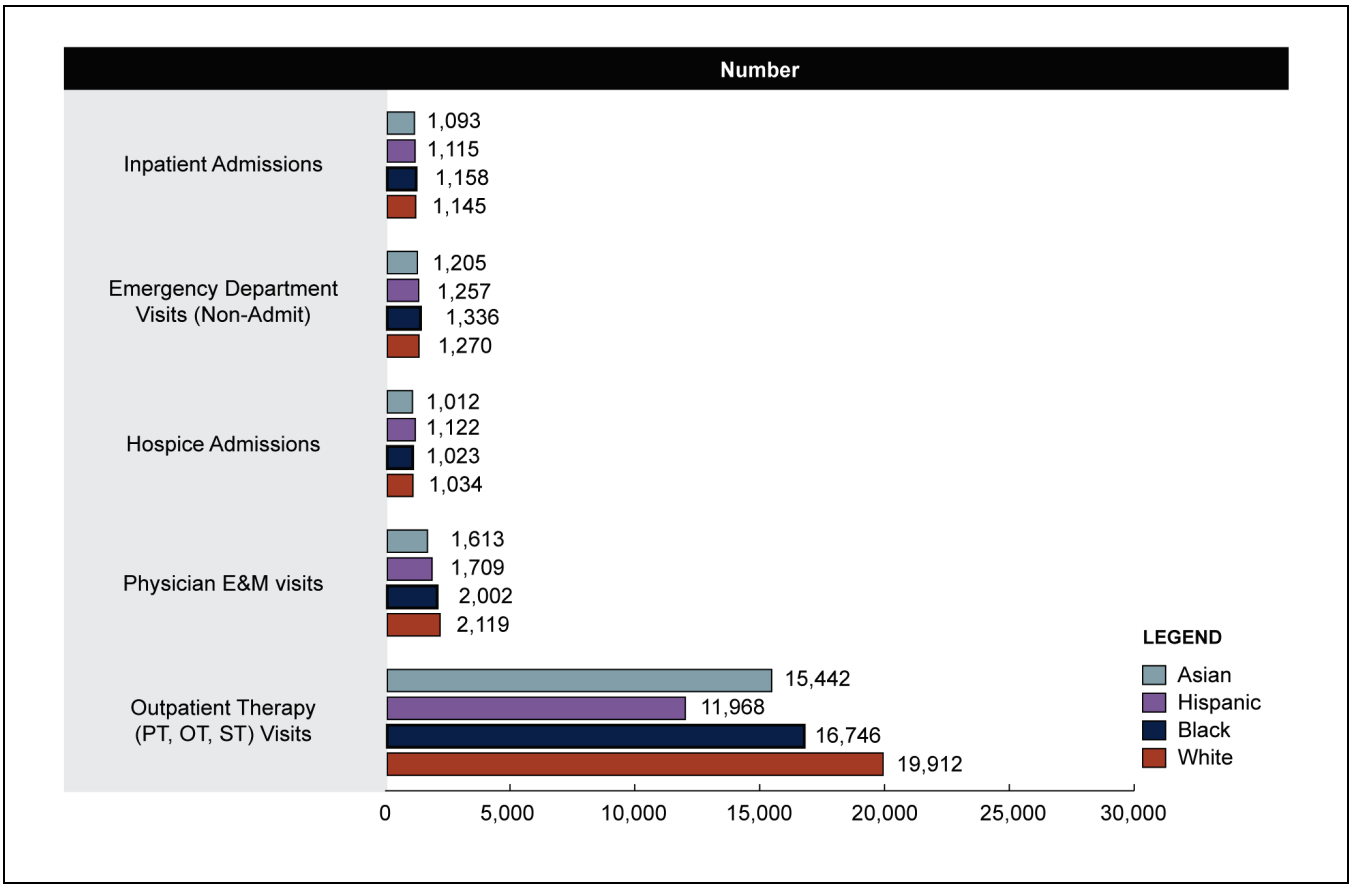
Figure E-3 presents counts of services across all Ohio demonstration eligible beneficiaries regardless of having any use of the respective services. When looking at use for all eligible beneficiaries in all eligible months, the results are quite different from those of users of services in ***Figure E-2***. African American beneficiaries had more inpatient admissions and ED visits relative to the other racial groups. White beneficiaries had more primary care E&M visits relative to the other racial groups, in addition to more hospice admissions and outpatient therapy visits.

Figure E-1
Percent with use of selected Medicare services among Ohio demonstration eligible beneficiaries, May 1, 2012–December 31, 2020



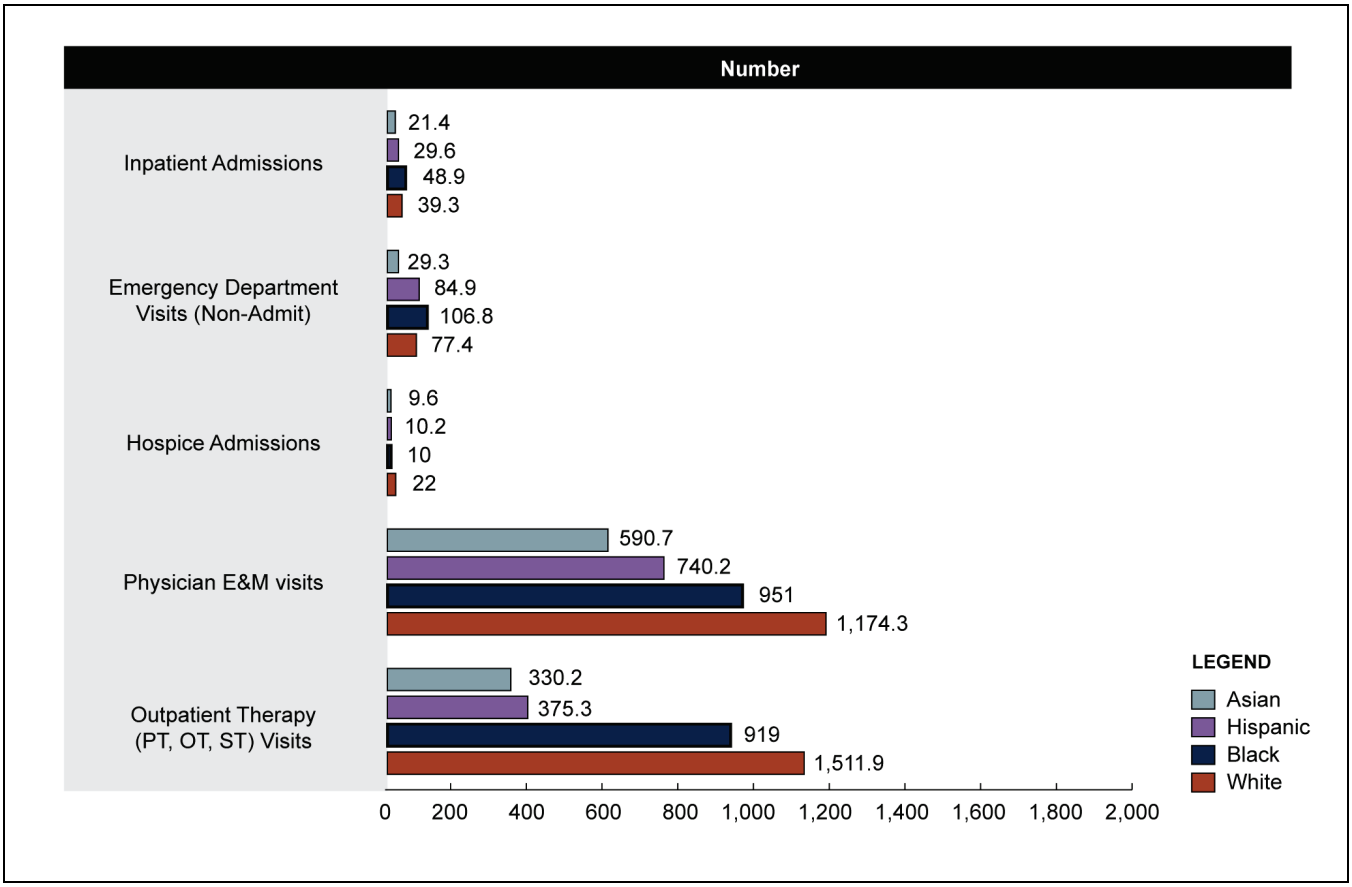
E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

Figure E-2
Service use per 1,000 user months among Ohio demonstration eligible beneficiaries, May 1, 2012–December 31, 2020



E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

Figure E-3
Service use per 1,000 eligible months among Ohio demonstration eligible beneficiaries, May 1, 2012–December 31, 2020



E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

Table E-9 presents descriptive statistics for the demonstration enrollees for services traditionally paid by Medicaid to help understand the Medicaid utilization experience over time. Nursing home and dental services are excluded from analysis due to issues with the encounter data. LTSS NF service use derived from MMP-submitted Medicaid encounters is excluded from analysis in all FAI States because CMS and RTI decided it was not possible to reliably separate Medicare SNF periods from NF stays that became LTSS NF stays. Instead, each evaluation report includes an analysis of LTSS NF use using MDS data. Second, CMS and RTI also decided that dental services in Ohio were either incomplete or had unexplained variation, precluding the use of those encounter data for analysis due to encounter data deemed incomplete.

Table E-9
Medicaid use for demonstration enrollees in Ohio, May 1, 2014–December 31, 2020

Measure	Demo year 1	Demo year 2	Demo year 3	Demo year 4	Demo year 5	Demo year 6
Personal care						
Users as percentage of enrollees per enrollee month (%)	16.4%	17.4%	16.2%	15.4%	14.8%	13.6%
Service days per enrollee month	3.00	3.29	3.13	2.98	2.87	2.71
Service days per user month	18.24	18.93	19.31	19.29	19.44	19.93
Other HCBS services						
Users as percentage of enrollees per enrollee month (%)	24.7%	23.2%	20.7%	20.7%	20.8%	20.6%
Service days per enrollee month	3.84	3.29	2.90	2.89	2.87	2.61
Service days per user month	15.53	14.22	13.98	13.98	13.82	12.69
Behavioral health services						
Users as percentage of enrollees per enrollee month (%)	13.7%	13.8%	14.2%	14.4%	16.5%	16.4%
Service days per enrollee month	0.43	0.45	0.45	0.45	0.55	0.59
Service days per user month	3.16	3.25	3.13	3.11	3.34	3.58
Non-emergency transportation services						
Users as percentage of enrollees per enrollee month (%)	8.4%	9.4%	8.6%	8.2%	8.5%	7.1%
Service days per enrollee month	0.20	0.24	0.22	0.21	0.23	0.19
Service days per user month	2.38	2.58	2.61	2.54	2.66	2.62

SOURCE: Urban Institute analysis of Ohio Medicaid encounter data for demonstration eligible beneficiaries.

Appendix F

Cost Savings Methodology and Supplemental Tables

F.1 Cost Savings Methodology

To identify the demonstration group, RTI used quarterly files on demonstration eligible beneficiaries submitted by Ohio. Comparison group beneficiaries were identified through a two-step process. First, we identified comparison areas based on market characteristics. Second, we applied all available eligibility criteria to beneficiaries in the identified comparison areas. This process is further described in ***Appendix C***. Once the two groups were finalized, we applied PS weighting in DinD analysis to balance key characteristics between the two groups.

RTI gathered predemonstration and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources, as summarized in ***Table F-1***. We obtained capitation payments paid to participating plans during the demonstration period, and payments to MA plans in the predemonstration and demonstration periods from the CMS Medicare Advantage and Part D Inquiry System (MARx). Part D payments were not included in this analysis. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (July 2022). We also used Medicare FFS claims to calculate expenditures for eligible beneficiaries who were not enrolled in an MMP or MA plan. These FFS claims included all Medicare Parts A and B services.

Table F-1
Data sources for monthly Medicare expenditures

Group	Predemonstration period May 1, 2012–April 30, 2014	Demonstration period May 1, 2014–December 31, 2020
Demonstration	Medicare FFS MA capitation	Capitation rate for enrollees MA capitation for non-enrollees Medicare FFS for non-enrollees
Comparison	Medicare FFS MA capitation	Medicare FFS MA capitation

FFS = fee-for-service; MA = Medicare Advantage.

To estimate the effect of the demonstration on Medicare expenditures, we ran a generalized linear model with gamma distribution and log link. This is a commonly used approach in analysis of health care expenditure data. The model controlled for individual demographic and area-level characteristics, employed PS weighting, and adjusted for clustering of observations at the county level. The key policy variable of interest in the model was an interaction term measuring the effect of being part of the demonstration eligible group during the demonstration period, which estimates the demonstrations effect on Medicare expenditures.

F.1.1 Adjustments to Medicare Expenditures

Several adjustments were made to the monthly Medicare expenditures to ensure that observed expenditures variations are not due to differences in Medicare payment policies in different areas of the country or the construction of the capitation rates. ***Table F-2*** summarizes

each adjustment and the application of the adjustments to FFS expenditures or to the capitation rate.

Table F-2
Adjustments to Medicare expenditures variable

Data source	Adjustment description	Reason for adjustment	Adjustment detail
FFS	Indirect Medical Education (IME)	Capitation rates do not include IME.	Do not include IME amount from FFS payments.
FFS	Disproportionate Share Hospital (DSH) Payments and Uncompensated Care Payments (UCP)	The capitation rates reflect DSH and UCP adjustments.	Include DSH and UCP payments in total FFS payment amounts.
FFS	Medicare Sequestration Payment Reductions	Under sequestration Medicare payments were reduced by 2% starting April 1, 2013. Because the predemonstration period includes months prior to April 1, 2013, it is necessary to apply the adjustment to these months of data.	Reduced FFS claim payments incurred before April 2013 by 2%.
Capitation rate (MA and MMP)	Medicare Sequestration Payment Reductions	Under sequestration Medicare payments were reduced by 2% starting April 1, 2013. Sequestration is not reflected in the capitation rates.	Reduced capitation rate by 2%.
Capitation rate (MA)	Bad debt	The Medicare portion of the capitation rate includes an upward adjustment to account for bad debt. Bad debt is not included in the FFS claim payments and therefore needs to be removed from the capitation rate for the savings analysis. (Note: "bad debt" is reflected in the hospital "pass through" payment.)	Reduced capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.93% for CY 2012, 0.91% for CY 2013, 0.89% for CY 2014, 0.89% for CY 2015, 0.97% for CY 2016, 0.81% for CY 2017, 0.82% for CY 2018, 0.84% for CY 2019, and 0.81% for CY 2020.
Capitation rate (MMP)	Bad debt	The Medicare portion of the capitation rate includes an upward adjustment to account for bad debt. Bad debt is not included in the FFS claim payments and therefore needs to be removed from the capitation rate for the savings analysis. (Note, "bad debt" is reflected in the hospital "pass through" payment.)	Reduced capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.89% for CY 2014, 0.89% for CY 2015, 0.97% for CY 2016, and 0.81% for CY 2017, 0.82% for CY 2018, 0.84% for CY 2019, and 0.81% for CY 2020. Reduced the FFS portion of the capitation rate by an additional 1.89% for CY 2014 1.71% for CY 2015, 1.84% for CY 2016, 1.74% for CY 2017, 1.77% for CY 2018, 1.94% for CY 2019, and 1.87% for CY 2020 to account for the disproportional share of bad debt attributable to MMP enrollees in Medicare FFS.

(continued)

Table F-2
Adjustments to Medicare expenditures variable

Data source	Adjustment description	Reason for adjustment	Adjustment detail
FFS and capitation rate (MA and MMP)	Average Geographic Adjustments (AGA)	The Medicare portion of the capitation rate reflects the most current hospital wage index and physician geographic practice cost index by county. FFS claims also reflect geographic payment adjustments. To ensure that change over time is not related to differential change in geographic payment adjustments, both the FFS and the capitation rates were "unadjusted" using the appropriate county-specific AGA factor.	Medicare FFS expenditures were divided by the appropriate county-specific 1-year AGA factor for each year. Capitation rates were divided by the appropriate county-specific 5-year AGA factor for each year. Note that the AGA factor applied to the capitated rates for 2014 reflected the 50/50 blend that was applicable to the payment year.
Capitation rate (MA and MMP)	Education user fee	No adjustment needed.	Capitation rates in the MARx database do not reflect the education user fee adjustment (this adjustment is applied at the contract level). Note, education user fees are not applicable in the FFS context and do not cover specific Part A and Part B services. While they result in a small reduction to the capitation payment received by MMPs, we did not account for this reduction in the capitated rate.
Capitation rate (MMP)	Quality withhold	Quality withholds are not reflected in the capitation rates in the MARx data system. A 1% quality withhold was applied in the first demonstration year, 2% was applied in the second demonstration year, a 3% quality withhold was applied in the third through fifth demonstration year, and a 4% quality withhold was applied in the sixth demonstration year.	Final quality withhold repayments for CY 2014, CY 2015, CY 2016, CY 2017, CY 2018, CY 2019, and CY 2020 were incorporated into the dependent variable construction.

CY = calendar year; FFS = fee-for-service; MA = Medicare Advantage; MARx = Medicare Advantage and Part D Inquiry System; MMP = Medicare-Medicaid Plan.

The capitation payments in MARx reflect the savings assumptions applied to the Medicare components of the rate (1 percent for the first demonstration year, 2 percent for the second demonstration year, and 4 percent for the third through sixth demonstration years), but do not reflect the quality withhold amounts.

F.1.2 Model Covariates

Model covariates included the following variables, which were also included in the comparison group selection process. Variables were included in the model after variance inflation factor testing.

- Demographic variables included in the Medicare model were:

  - Age
  - Sex
  - Race/ethnicity
  - Enrolled in another Medicare shared saving program
  - End-stage renal disease status
  - Disability as reason for Medicare entitlement
  - MA status
- Area-level variables included in the Medicare savings model were:
  - Medicare spending per dually eligible beneficiary age 19 or older
  - MA penetration rate
  - Medicaid-to-Medicare FFS fee index for all services
  - Medicaid spending per dually eligible beneficiary age 19 or older
  - Proportion of dually eligible beneficiaries using
    - Nursing facilities age 65 or older
    - HCBS age 65 or older
    - Personal care, age 65 or older
  - Physicians per 1,000 population
  - Percentage of population living in married household
  - Percentage of households with member greater than age 60
  - Percentage of households with member less than age 18
  - Percentage of adults with college degree
  - Unemployment rate
  - Percentage of adults with self-care limitation
  - MSA
  - Distance to nearest hospital
  - Distance to nearest nursing home
  - Pandemic Vulnerability Index

F.1.3 Populations Analyzed

The population analyzed for the Cost Savings outcome include all demonstration eligible beneficiaries, as well as demonstration enrollees. ***Table F-3*** presents descriptive statistics of select characteristics for four population subgroups in demonstration year 6: all demonstration eligible beneficiaries, the comparison group, all MMP enrollees, and all non-MMP enrollees.

The most prevalent age group among both the demonstration group and the comparison group was age 64 and younger (45.3 percent and 46.2 percent, respectively). For demonstration group enrollees, age 64 and younger was the most prevalent age group at 48.8 percent. All four groups were predominantly White (ranging from 59.1 to 62.3 percent) with African American being the next highest percentage (ranging from 27.0 to 35.3). Among the comparison population, there was a relatively higher percentage of Asians (2.4 percent) compared to the other groups (ranging from 1.1 to 1.8 percent) and also a higher percentage of Hispanics (3.6 percent) relative to the other groups (range 1.0 to 1.5 percent).

Across all groups, most beneficiaries were female (60.6 to 65.9 percent), had disability as the original reason for Medicare entitlement, did not have ESRD, and resided in a metropolitan area.

The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas those with scores of 2 are predicted to have twice the average annual cost. Average HCC scores ranged between 1.12 and 1.31 among all groups.

Table F-3
Characteristics of eligible beneficiaries in demonstration year 6 by group

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees
Weighted number of eligible beneficiaries	142,937	157,224	92,164	50,773
Demographic characteristics				
Age				
64 and younger	45.3	46.2	48.8	38.8
65 to 74	29.0	27.3	28.3	30.2
75 and older	25.7	26.5	22.9	30.9
Female				
No	37.51	38.13	39.37	34.15
Yes	62.49	61.87	60.63	65.85
Race/ethnicity				
White	59.5	62.3	59.1	60.3
African American	34.4	27.0	34.0	35.3
Hispanic	1.3	3.6	1.5	1.0
Asian	1.5	2.4	1.8	1.1
Other	3.2	4.7	3.6	2.4
Disability as reason for original Medicare entitlement				
No	46.08	45.97	44.05	49.77
Yes	53.92	54.03	55.95	50.23

(continued)

Table F-3 (continued)
Characteristics of eligible beneficiaries in demonstration year 6 by group

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees
ESRD status				
No	96.00	96.63	95.17	97.52
Yes	4.00	3.37	4.83	2.48
MSA				
No	3.31	3.67	3.58	2.83
Yes	96.69	96.33	96.42	97.17
Participating in Shared Savings Program				
No	92.86	91.77	97.81	83.88
Yes	7.14	8.23	2.19	16.12
HCC score	1.18	1.18	1.12	1.31
Market characteristics				
Medicare spending per dual, ages 19+ ($)	9,748.39	9,506.92	9,744.60	9,755.26
MA penetration rate	0.42	0.33	0.42	0.42
Medicaid-to-Medicare fee index (FFS)	0.61	0.63	0.61	0.61
Medicaid spending per dual, ages 19+ ($)	32,377.51	23,882.23	32,454.99	32,236.88
Fraction of dually eligible beneficiaries using NF, ages 65+	0.44	0.36	0.44	0.44
Fraction of dually eligible beneficiaries using HCBS, ages 65+	0.34	0.19	0.33	0.34
Fraction of dually eligible beneficiaries using personal care, ages 19+	0.00	0.03	0.00	0.00
Fraction of dually eligible beneficiaries with Medicaid managed care, ages 19+	0.02	0.27	0.02	0.02
Population per square mile, all ages	770.01	314.96	762.16	784.27
Patient care physicians per 1,000 population	0.84	0.67	0.84	0.84
Area characteristics				
% of pop in Medicare Advantage	20.63	26.00	NA	55.79
% of pop. living in married households	60.81	63.12	60.64	61.14
% of adults with college education	24.55	25.24	24.22	25.15
% of adults with self-care limitations	3.61	3.53	3.60	3.64
% of adults unemployed	7.28	6.88	7.29	7.27
% of household with individuals younger than 18	27.96	27.70	28.10	27.70
% of household with individuals older than 60	39.47	39.77	39.29	39.79

(continued)

Table F-3 (continued)
Characteristics of eligible beneficiaries in demonstration year 6 by group

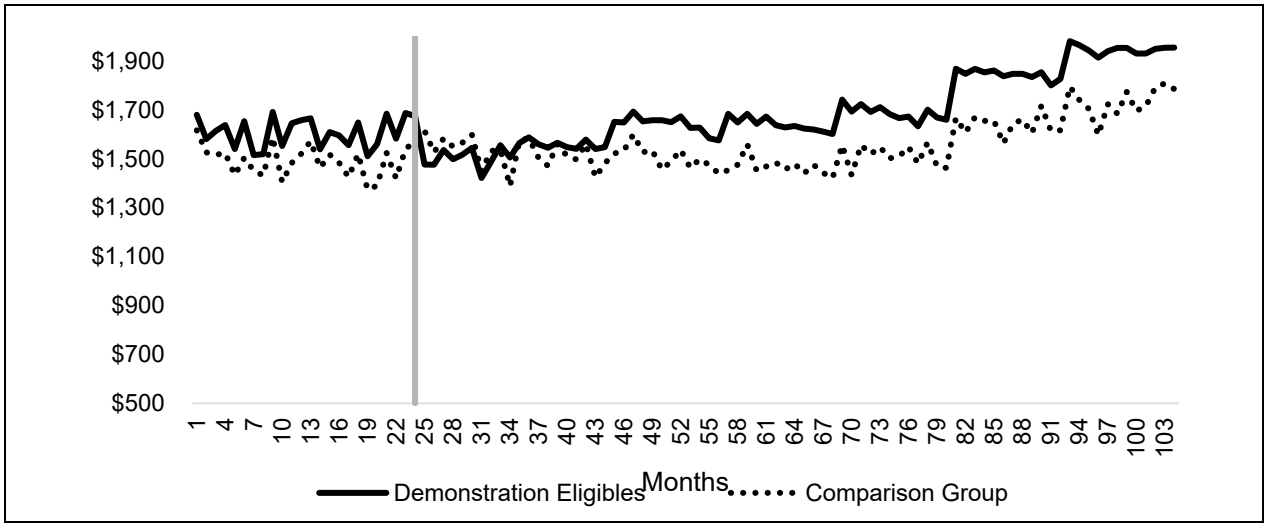
Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees
Distance to nearest hospital	4.44	4.50	4.51	4.31
Distance to nearest nursing facility	3.15	3.25	3.19	3.06
Pandemic Vulnerability Index	0.53	0.50	0.53	0.53

ESRD = end-stage renal disease; FFS = fee-for-service; HCBS = home and community-based services; HCC = Hierarchical Condition Category; NF = nursing facility; MA = Medicare Advantage; MSA = metropolitan statistical area.
NOTE: Analysis conducted on demonstration eligible FFS population and Medicare-Medicaid Plan enrollees.
SOURCE: RTI Analysis of Ohio demonstration eligible and comparison group Medicare data.

F.2 Medicare Descriptive Results

Once we finalized the adjustments to the dependent variable, we tested a key assumption of a DinD model—parallel trends in the predemonstration period. We plotted the mean monthly Medicare expenditures for both the comparison group and demonstration group, with the PS weights applied. ***Figure F-1*** shows the resulting plot and suggests that there were parallel trends in the predemonstration period.

Figure F-1
Mean monthly Medicare expenditures (weighted), predemonstration and demonstration periods, demonstration and comparison group, May 2012–December 2020



SOURCE: RTI Analysis of Ohio demonstration eligible and comparison group Medicare data.

The DinD values in ***Tables F-4, F-5, F-6, F-7, F-8,*** and ***F-9*** represent the overall impact on savings using descriptive statistics. These effects are descriptive in that they are arithmetic combinations of simple means, without controlling for covariates. The change in the

demonstration group minus the change in the comparison group is the DinD value. This value would be equal to zero if the differences between predemonstration and the demonstration year were the same for both the demonstration group and the comparison group. A negative value would indicate savings for the demonstration group, and a positive value would indicate losses for the demonstration group. However, if the DinD confidence interval includes zero, then the value is not statistically significant. These results are only meant to provide a descriptive exploration of the results; the results presented in ***Section 6, Demonstration Impact on Cost Savings*** and ***Table F-17*** represent the most accurate adjusted impact on Medicare costs.

Tables F-4 through ***F-9*** show the mean monthly Medicare expenditures for the demonstration group and comparison group in the predemonstration and each period, unweighted. The unweighted tables show a decrease in mean monthly Medicare expenditures during demonstration year 1 for the demonstration group, but an increase between demonstration years 1 and 2, and increases from demonstration years 3 through 6, with almost no change between demonstration years 2 and 3. In the comparison group, the Medicare expenditures increase from the baseline period through demonstration year 6, with the exception of a slight decline between demonstration years 1 and 2. The descriptive DinD estimates are significant and negative in demonstration year 1; in demonstration years 5 and 6, the DinD estimates are significant and positive. The weighted tables show very similar patterns in Medicare costs to those described in the unweighted tables (***Tables F-10, F-11, F-12, F-13, F-14,*** and ***F-15***).

Table F-4
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 1, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 1 (May 2014–December 2015) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,533.39 ($1,496.86, $1,569.93)	−$74.93 (−$102.91, −$46.95)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,382.22 ($1,306.19, $1,458.25)	$32.58 ($16.11, $49.06)
DinD	N/A	N/A	−$107.51 (−$138.90, −$76.12)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-5
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 2, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 2 (January 2016–December 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,640.75 ($1,592.01, $1,689.49)	$32.43 (−$3.18, $68.04)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,381.14 ($1,315.29, $1,447.00)	$31.51 ($14.13, $48.89)
DinD	N/A	N/A	$0.92 (−$37.29, $39.13)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-6
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 3, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 3 (January 2017–December 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,640.15 ($1,587.73, $1,692.57)	$31.83 (−$3.09, $66.74)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,390.83 ($1,336.25, $1,445.40)	$41.19 ($11.47, $70.90)
DinD	N/A	N/A	−$9.36 (−$53.96, $35.24)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-7
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 4, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 4 (January 2018–December 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,686.83 ($1,623.87, $1,749.79)	$78.51 ($33.25, $123.77)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,452.82 ($1,400.72, $1,504.93)	$103.19 ($72.80, $133.58)
DinD	N/A	N/A	−$24.68 (−$77.54, $28.18)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-8
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 5, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 5 (January 2019–December 2019) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,845.68 ($1,799.14, $1,892.21)	$237.36 ($204.33, $270.39)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,535.84 ($1,480.23, $1,591.44)	$186.20 ($152.86, $219.55)
DinD	N/A	N/A	$51.15 ($5.42, $96.89)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-9
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 6, unweighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 6 (January 2020–December 2020) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,947.40 ($1,908.13, $1,986.68)	$339.08 ($307.68, $370.49)
Comparison	$1,349.64 ($1,279.68, $1,419.60)	$1,623.07 ($1,551.71, $1,694.43)	$273.44 ($235.01, $311.86)
DinD	N/A	N/A	$65.64 ($16.90, $114.39)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-10
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 1, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 1 (May 2014–December 2015) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,533.39 ($1,496.86, $1,569.93)	−$74.93 (−$102.91, −$46.95)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,525.64 ($1,381.88, $1,669.41)	$33.79 ($0.08, $67.50)
DinD	N/A	N/A	−$108.72 (−$151.73, −$65.70)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-11
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 2, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 2 (Jan 2016–December 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,640.75 ($1,592.01, $1,689.49)	$32.43 ($−3.18, $68.04)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,505.85 ($1,409.16, $1,602.54)	$14.00 (−$63.50, $91.49)
DinD	N/A	N/A	$18.43 (−$66.27, $103.13)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-12
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 3, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 3 (January 2017–December 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,640.15 ($1,587.73, $1,692.57)	$31.83 (−$3.09, $66.74)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,467.28 ($1,376.49, $1,558.07)	−$24.58 (−$98.80, $49.64)
DinD	N/A	N/A	$56.40 (−$24.96, $137.77)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-13
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 4, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 4 (January 2018–December 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,686.83 ($1,623.87, $1,749.79)	$78.51 ($33.25, $123.77)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,512.82 ($1,420.99, $1,604.65)	$20.96 (−$36.53, $78.45)
DinD	N/A	N/A	$57.54 (−$14.56, $129.65)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-14
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 5, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 5 (January 2019–December 2019) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,845.68 ($1,799.14, $1,892.21)	$237.36 ($204.33, $270.39)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,639.66 ($1,537.96, $1,741.36)	$147.81 ($93.94, $201.68)
DinD	N/A	N/A	$89.55 ($27.37, $151.72)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

Table F-15
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 6, weighted

Group	Predemonstration period (May 2012–April 2014) (95% confidence intervals)	Demonstration year 6 (January 2020–December 2020) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,608.32 ($1,571.53, $1,645.12)	$1,947.40 ($1,908.13, $1,986.68)	$339.08 ($307.68, $370.49)
Comparison	$1,491.85 ($1,359.05, $1,624.66)	$1,734.96 ($1,610.48, $1,859.44)	$243.11 ($192.83, $293.39)
DinD	N/A	N/A	$95.97 ($37.44, $154.51)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims.

F.4 Medicare Regression Results

Table F-16 shows the main results from the DinD analysis for demonstration years 1–6 and for the entire demonstration period, controlling for beneficiary demographics and market characteristics. Relative to the comparison group, the demonstration was associated with statistically significant cost increases to the Medicare program during demonstration years 3 through 6, although it was not associated with a statistically significant increase in Medicare costs during demonstration year 2 and was associated with a statistically significant decrease in demonstration year 1. The cumulative impact estimate over all 6 demonstration years was statistically significant suggesting that overall the demonstration was associated with increases in Medicare costs of $77.99 per member per month (PMPM).

Table F-16
Cumulative and annual demonstration effects on Medicare Parts A and B costs in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (May 2014–December 2015)	−97.48	<0.001	(−137.57, −57.39)	(−131.12, −63.84)
Demonstration Year 2 (January–December 2016)	56.42	0.2069	(−31.19, 144.03)	(−17.11, 129.94)
Demonstration Year 3 (January–December 2017)	103.12	0.0089	(25.88, 180.36)	(38.30, 167.94)
Demonstration Year 4 (January–December 2018)	129.20	0.0001	(64.46, 193.94)	(74.87, 183.53)
Demonstration Year 5 (January–December 2019)	159.21	<0.001	(93.57, 224.85)	(104.13, 214.30)
Demonstration Year 6 (January–December 2020)	177.74	<0.001	(95.92, 259.55)	(109.07, 246.40)
Cumulative (Demonstration Years 1–6, May 2014–December 2020)	77.79	0.0107	(18.04, 137.53)	(27.64, 127.93)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims.

Table F-17 provides an illustrative example of the generalized linear model output for each covariate on mean monthly Medicare expenditures across the entire demonstration period.

Table F-17
Generalized linear model results on monthly Medicare expenditures (n = 23,502,980 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Demonstration group	0.1094	0.0561	1.95	0.051
Post period	0.0033	0.0140	0.24	0.813
Interaction of post period x demonstration group	0.0457	0.0181	2.52	0.012
Age (continuous)	0.0179	0.0004	41.36	0.000
Asian	-0.5968	0.0286	-20.84	0.000
Black	-0.0297	0.0112	-2.66	0.008
Female	-0.0278	0.0095	-2.92	0.004
Hispanic	-0.3074	0.0303	-10.14	0.000
Other race/ethnicity	-0.3194	0.0219	-14.60	0.000
Disability as reason for Medicare entitlement	0.1320	0.0135	9.76	0.000

(continued)

Table F-17 (continued)
Generalized linear model results on monthly Medicare expenditures
(n = 23,502,980 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
End-stage renal disease	1.8460	0.0275	67.10	0.000
Metropolitan statistical area residence	0.1305	0.0357	3.65	0.000
Participation in other Shared Savings Program	0.0991	0.0214	4.63	0.000
Medicare Advantage status	0.1343	0.0279	4.82	0.000
Patient care physicians per 1,000 population	0.0106	0.1752	0.06	0.952
Medicare Advantage penetration rate	-0.7061	0.1632	-4.33	0.000
Population per square mile	-0.0001	0.0001	-1.58	0.114
Medicaid-to-Medicare fee index (FFS)	-0.6085	0.3248	-1.87	0.061
Medicaid spending per dual	0.0000	0.0000	-1.33	0.182
Medicare spending per dual	0.0000	0.0001	-0.93	0.354
Fraction of duals using HCBS, ages 65+	0.1404	0.1547	0.91	0.364
Fraction of duals using nursing facility, ages 65+	0.2438	0.2489	0.98	0.327
Fraction of duals using personal care, ages 19+	-1.2219	0.4144	-2.95	0.003
Percent of adults with college education	0.0004	0.0007	0.62	0.533
Percent of adults with self-care limitation	0.0042	0.0019	2.25	0.025
Percent of households with individuals older than 60	-0.0020	0.0012	-1.62	0.106
Percent of households with individuals younger than 18	-0.0001	0.0009	-0.09	0.929
Percent of population married	-0.0004	0.0006	-0.58	0.562
Percent of adults who are unemployed	-0.0050	0.0010	-5.17	0.000
Distance to nearest hospital	0.0029	0.0018	1.56	0.118
Distance to nearest nursing facility	0.0060	0.0026	2.27	0.023
Pandemic Vulnerability Index	0.1812	0.0175	10.35	0.000
Intercept	7.0600	0.5563	12.69	0.000

FFS = fee-for-service; HCBS = home and community-based services.
SOURCE: RTI analysis of Medicare claims.

Table F-18 presents the results from the DinD analysis for the enrollee subgroup. The enrollee subgroup analysis focused on beneficiaries identified as enrolled for at least 3 months in the demonstration period and with at least 3 months of baseline eligibility. Note that a subset of the comparison group developed for the ITT analysis was used in the enrollee subgroup analyses. Comparison group beneficiaries used in the enrollee subgroup analyses were required to have at least 3 months of eligibility in the demonstration period (May 1, 2014– December 31, 2020) and at least 3 months of eligibility in the predemonstration period (May 1, 2012-April 30, 2014), analogous to the criteria for identifying enrollees. The results indicate statistically significant

additional costs associated with enrollees. This enrollee subgroup analysis is limited by the absence of person-level data on characteristics that potentially would lead an individual in a comparison area to enroll in a similar demonstration, and thus the results should only be considered in the context of this limitation.

Table F-18
Cumulative and annual demonstration effects on Medicare Parts A and B costs among enrolled beneficiaries in Ohio, demonstration years 1–6, May 1, 2014–December 31, 2020

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (May 2014–December 2015)	66.76	0.0013	(25.93, 107.58)	(32.50, 101.02)
Demonstration Year 2 (January–December 2016)	234.12	<0.001	(175.06, 293.19)	(184.55, 283.69)
Demonstration Year 3 (January–December 2017)	271.10	<0.001	(211.85, 330.35)	(221.38, 320.83)
Demonstration Year 4 (January–December 2018)	306.01	<0.001	(251.82, 360.20)	(260.54, 351.49)
Demonstration Year 5 (January–December 2019)	338.59	<0.001	(277.87, 399.32)	(287.63, 389.56)
Demonstration Year 6 (January–December 2020)	366.15	<0.001	(276.64, 455.67)	(291.03, 441.28)
Cumulative (Demonstration Years 1–6, May 2014–December 2020)	232.45	<0.001	(184.85, 280.06)	(192.50, 272.40)

DinD = difference-in-differences.
NOTE: For this enrollee-only analysis, the comparison group used in this analysis is a subset of the comparison group in the main analysis (of demonstration eligible beneficiaries).
SOURCE: RTI analysis of Medicare claims.

F.5 Medicaid Data Quality

Our evaluation team was unable to include a Medicaid cost savings analysis in this report due to multiple data, methodological, and Medicaid policy challenges. First, the contemporaneous change in Medicaid payments (resulting from Ohio's mandatory Medicaid managed care in FAI areas) for the eligible but not enrolled (ENE) population in the demonstration group, particularly since those Medicaid payments were higher for the ENEs than for the MMP enrollees, complicates the interpretation of the ITT model results. Second, there are significant data quality issues with two of the comparison group states (New York and Pennsylvania), which has led to their exclusion from other analyses, and we anticipate that the balance between the demonstration and comparison groups would be harder to achieve when these states are excluded. Lastly, to our knowledge, the provider taxes applied as a part of Ohio's FAI are not accounted for in the total costs calculated from the Medicaid data. Separately removing these taxes as an adjustment to the Medicaid costs in the demonstration group when we are unable to apply similar adjustments to the comparison group would create a bias in favor of the demonstration. In the past, our team has been able to work around some of these issues

when they appear individually (particularly the data quality issues in the comparison group), but the combination of multiple issues in Ohio prevented us from conducting a Medicaid cost savings analysis.

Appendix G

Supplemental Analyses

G.1 Service Utilization Supplemental Analyses

Improved care coordination, a cornerstone of the State's MMP demonstration efforts, is expected to impact service utilization patterns by increasing access to primary care and reducing hospitalizations and emergency care. To better understand the generally favorable demonstration impact results described in ***Section 5***, ***Demonstration Impact on Service Utilization and Quality of Care***, RTI conducted the following descriptive analyses:

- A cohort analysis comparing the predemonstration trends of select service utilization outcomes among beneficiaries who were enrolled at any point during demonstration year 1 with beneficiaries who were ENE in demonstration year 1.
- A cross-sectional analysis of mortality rates among enrolled beneficiaries and ENE beneficiaries during the entire study period.

These analyses provide more context for the DinD results reported in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***, by illustrating the predemonstration service utilization and risk profile of the beneficiaries who enrolled in the demonstration, relative to the demonstration eligible population who did not enroll. If the demonstration enrolls beneficiaries who have lower service utilization rates in the predemonstration period than the ENE, then this favorable selection into enrollment may decrease the likelihood of observing any desired demonstration impact on high-cost measures such as inpatient admissions, ED use, and SNF admissions. Alternatively, given favorable selection in the demonstration, the enrolled population may be easier to manage and to reduce utilization of high-cost services. This analysis does not, however, explain statistically significant unfavorable increases in ED use.

G.1.1 Pre-enrollment Cohort Analysis

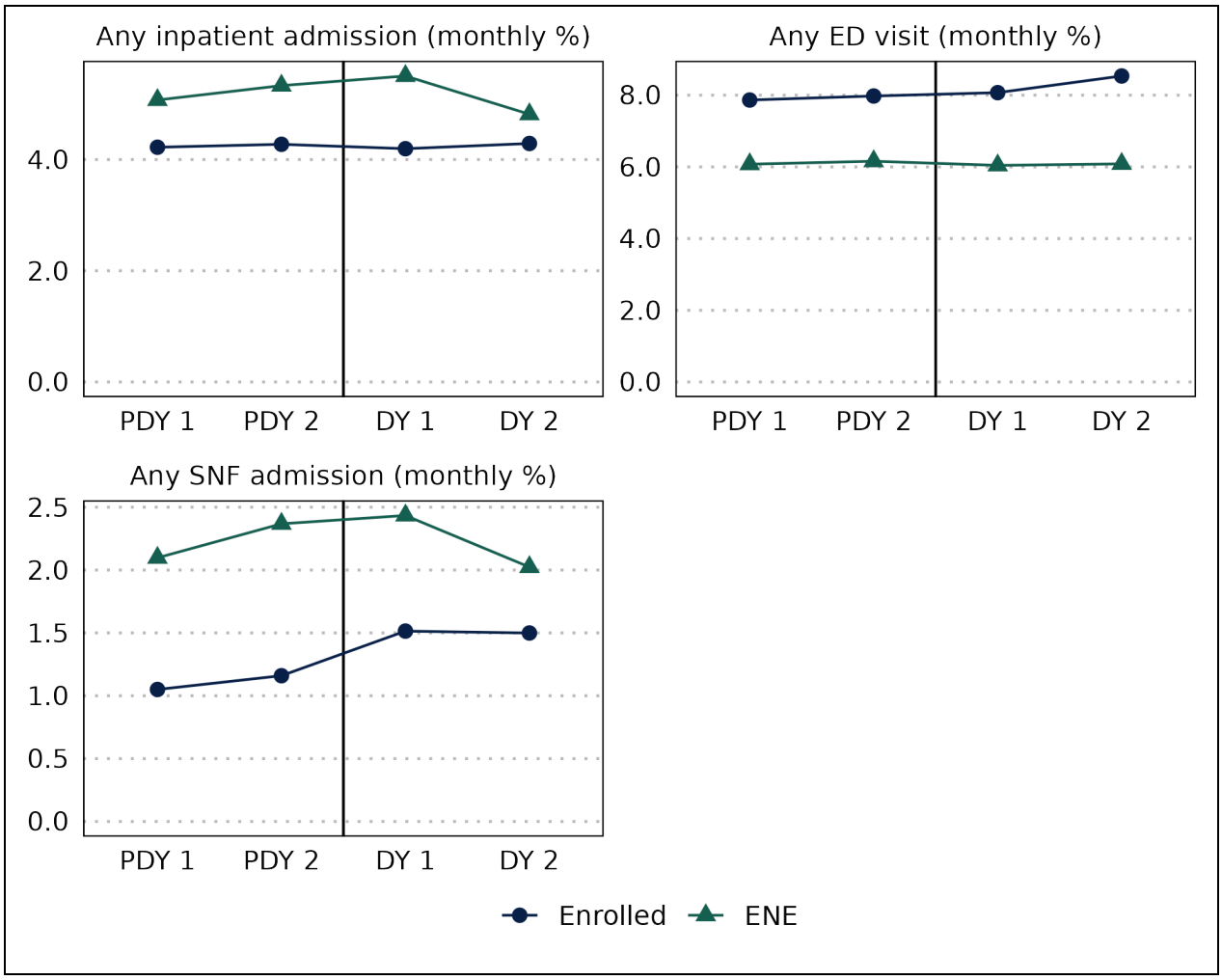
The purpose of this analysis was to compare the predemonstration utilization experience of Medicare FFS beneficiaries who enrolled in an MMP during demonstration year 1 with the utilization experience of those who were ENE in demonstration year 1. The measures we analyzed include any inpatient admission, any ED use, and any SNF admission as described in ***Appendix D.*** The analysis included individuals who were eligible during demonstration year 1. Enrolled and ENE cohorts were defined by determining whether a beneficiary was enrolled at any point during demonstration year 1. ***Figure G-1*** shows the trends for the enrolled and ENE groups in 2 predemonstration years and the first 2 demonstration years. The number of beneficiary months and utilization rates are presented in ***Table G-1***.

- The pre-enrollment differences in inpatient use and SNF use, between the demonstration year 1 enrolled and ENE cohorts provide evidence of favorable selection into the MMPs. ***Figure G-1*** illustrates that the enrolled group had lower utilization of these services compared to the ENE cohort during the predemonstration and demonstration periods.
- The monthly probability of any treat-and-release ED use did not follow this pattern, as it was higher in the enrolled cohort than the ENE cohort in the predemonstration

period. The increase in ED use in the enrolled cohort in the demonstration period, particularly year 2, align with the increased use detected in the annual regression analysis, while the relative stability of ED use among the ENE is consistent with a lack of treatment effect for that population.

- These differences in inpatient and SNF use provide evidence of favorable selection, as beneficiaries who enrolled in MMPs used fewer high-intensity and high-cost services, with the exception of ED visits, than those who were ENE.
- Favorable selection into the MMPs may impact the likelihood or extent of observing a favorable demonstration impact on these measures. The enrolled population in demonstration year 1 already had a relatively low monthly inpatient and SNF admission rate during the predemonstration period; further reductions may be more difficult to achieve through the demonstration.

Figure G-1
Monthly percent and count of service utilization among eligible months by demonstration year 1 enrollment in Ohio, May 1, 2012–December 31, 2016



DY = demonstration year; ED = emergency department; ENE = eligible but never enrolled; PDY = predemonstration year; SNF = skilled nursing facility.

Table G-1
Service utilization by demonstration year 1 enrollment in Ohio, May 1, 2012–December 31, 2016

Period	N (beneficiary months)		Any inpatient admission (monthly %)		Any ED visit (monthly %)		Any SNF admission (monthly %)	
	Enrolled	ENE	Enrolled	ENE	Enrolled	ENE	Enrolled	ENE
PDY 1	373,507	160,872	4.22	5.07	7.86	6.08	1.05	2.10
PDY 2	435,084	188,620	4.27	5.33	7.98	6.16	1.16	2.37
DY 1	490,915[1]	236,008	4.20	5.50	8.07	6.04	1.51	2.43
DY 2	375,368[2]	120,716	4.29	4.81	8.54	6.08	1.50	2.02

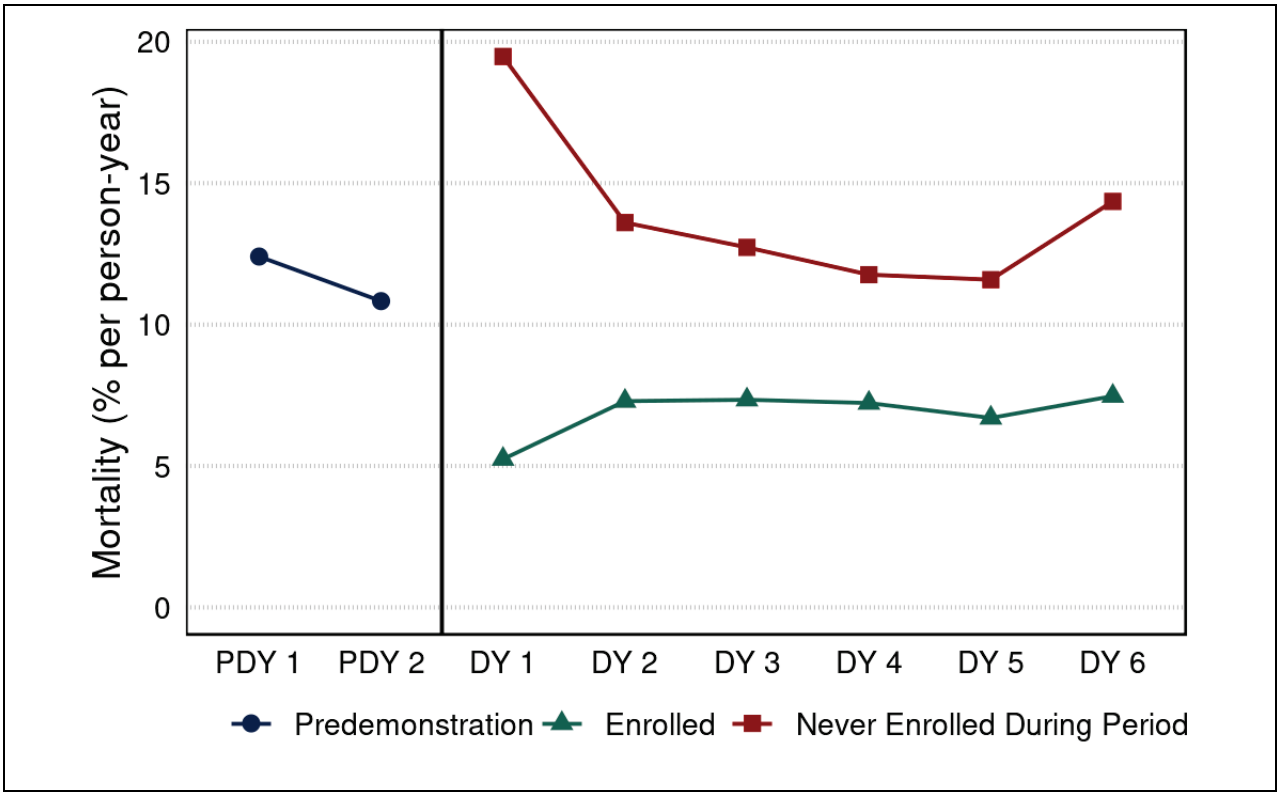
DY = demonstration year; ED = emergency department; ENE = eligible but never enrolled; PDY = predemonstration year; SNF = skilled nursing facility.
[1] N includes enrolled months among beneficiaries who enrolled in a Medicare-Medicaid Plan during DY 1.
[2] This number is a subset of DY 1 enrollees.
SOURCE: RTI analysis of Ohio demonstration eligible Medicare administrative claims and encounter data.

G.1.2 Mortality Analysis

This descriptive analysis examines mortality rates to provide additional insight into differences in health characteristics between enrolled and non-enrolled beneficiaries in the demonstration group. These differences can help understand the DinD results described in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***. A lower mortality rate observed among the enrolled population, relative to the demonstration ENE population, would suggest favorable selection into demonstration enrollment and lower the likelihood of observing favorable demonstration effects. Demonstration group eligible beneficiaries are categorized into three groups: predemonstration, enrolled during a demonstration period, and never enrolled during a demonstration period**.** Enrollment categories are based on period-level indicators, so the same beneficiary's observations may be categorized differently over time based on enrollment during a given period. ***Figure G-2*** and ***Table G-2*** show the annualized mortality rate for each group, defined as the number of beneficiaries who died during a given period divided by the number of person-years (months alive divided by 12) during the period.

- Beneficiaries who enrolled in MMPs during the demonstration period have a lower mortality rate than the demonstration eligible non-enrolled during the demonstration period.
- These findings are consistent with the pre-enrollment service utilization analysis (see ***Figure G-1***) findings that there was favorable selection in the MMPs. Favorable selection may make it less likely to observe favorable demonstration effects because a healthier enrolled population may be less likely to meaningfully benefit from greater care coordination and access to care. Lower mortality during the demonstration period among the enrolled population, compared to the eligible non-enrolled, may reflect the impact of the demonstration. However, the size of the difference suggests this is an unlikely explanation.

Figure G-2
Mortality rate among enrolled and not enrolled in Ohio, May 1, 2012–December 31, 2020



PDY = predemonstration year; DY = demonstration year.
NOTES: Mortality rates are not easily interpretable during the first demonstration year due to increased demonstration enrollment through the first demonstration year. Beneficiaries who enroll late in DY 1 are included in the mortality rate's denominator for the entire period, whereas the non-enrolled group does not select for beneficiaries who survive longer. By DY 2, the mortality rate is more comparable between the enrolled and non-enrolled beneficiaries.

Table G-2
Monthly percent of beneficiaries who died during the predemonstration and demonstration periods, May 1, 2012–December 31, 2018

Period	Predemonstration		Demonstration: Enrolled		Demonstration: Eligible not enrolled	
	N	Died (%)	N	Died (%)	N	Died (%)
PDY 1	1,074,539	12.41	—	—	—	—
PDY 2	1,040,714	10.83	—	—	—	—
DY 1	—	—	919,452	5.24	325,784	19.48
DY 2	—	—	538,205	7.29	161,035	13.61
DY 3	—	—	597,587	7.34	156,192	12.73
DY 4	—	—	651,604	7.22	166,971	11.76

— = data not available. DY = demonstration year; PDY = predemonstration year.
NOTE: The N includes the number of alive months during the year among demonstration eligible beneficiaries. Mortality rates are reported as percentages per beneficiary-year.
SOURCE: RTI analysis of Medicare fee-for-service claims and encounter data.

G.2 Cost Savings

The FAI required that certain savings percentages be applied to the MMP capitated rate to ensure that the demonstration would result in a decrease in Medicare Parts A and B spending. However, our findings from the impact analysis in ***Section 6, Demonstration Impact on Cost Savings*** indicate that the demonstration resulted in an increase relative to the baseline period in Medicare costs among *all* eligible beneficiaries in the demonstration group, relative to the comparison group, from demonstration year 3 to demonstration year 6, despite the application of savings percentages in the capitation rate for MMP enrollees. To better understand these results, we conducted three analyses:

1. We calculated and compared a normalized county-based FFS standardized rate with the actual MMP rate to determine whether the MMP Medicare Parts A and B capitated rate was set higher than what would otherwise have been spent in Medicare FFS.[41] Specifically, using observed FFS expenditure data available from CMS, we calculated FFS county rates by dividing county-level per capita costs by the average risk score for each county.[42] In this way, we obtained a county-level rate for a person whose risk is 1.0 that can be used for comparison with the MMP rate. If the MMP rates were set higher than what would have been observed under FFS, then this would help explain in part why the Ohio demonstration resulted in increased Medicare costs.

2. We compared the predemonstration spending history among those who enrolled in demonstration year 1 and those who were ENE. If enrolled beneficiaries are less

[41] The analysis is focused on FFS as over 85 percent of the beneficiaries who enrolled were previously in FFS.
[42] FFS Data (2015–2020). Available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/FFS-Data.

expensive than those who never enrolled during the predemonstration period, then this would provide additional evidence of favorable selection into the enrolled group.

3. We compared the predemonstration risk score profiles among those who enrolled in demonstration year 1 and those who were ENE. If enrolled beneficiaries have lower average risk scores than those who never enrolled during the predemonstration period, then this would provide additional evidence of favorable selection into the enrolled group.

G.2.1 Rate-setting Comparison

Table G-3 provides an example of how RTI calculated the normalized county rate using observed FFS Parts A and B expenditures for Butler County, Ohio. First, using observed FFS expenditure data available from CMS, we summed Part A and Part B per capita costs and then we divided the amount by the county-level risk score. [43]

Table G-3
Example of RTI normalized county rate calculations for 2015 (demonstration year 1), Butler County, Ohio

County	Part A total per capita[1]	Part B total per capita[1]	Part A + Part B	Risk score[2]	RTI normalized FFS rate
Butler, OH	359.71	402.96	762.67	1.005553	758.46

FFS = fee-for-service.
[1] FFS15.xlsx file found in the download titled *FFS DATA 2015 (ZIP)* from FFS Data (2015-2020) | CMS.
[2] Medicare FFS County 2021 Web.xlsx files found in the download titled *FFS DATA 2018 (ZIP)* from FFS Data (2015-2020) | CMS.

[43] Note that because the Part A total per capita costs in the actuary file includes both Part A only beneficiaries and those with both Part A and Part B, we raised the RTI rate by 3 percent to reflect the exclusion of Part A only beneficiaries in managed care (see column C, ***Tables G-4*** and ***G-5***).

Table G-4
Comparison of MMP rates to observed FFS spending, 2015 (demonstration year 1)

County	Enrollment (beneficiary months)[1]	Percent enrollment (of total eligible bene-months)[1]	RTI normalized FFS rate	Final MMP rate after application of 1% savings	MMP rate as % of RTI Normalized FFS rate
	A	B	C	D	E
Butler	21,247	3.0%	758.46	760.95	100.3%
Clark	12,307	1.7%	707.54	736.56	104.1%
Clermont	10,389	1.5%	739.01	746.97	101.1%
Clinton	3,088	0.4%	771.62	747.70	96.9%
Columbiana	11,017	1.6%	722.71	711.01	98.4%
Cuyahoga	160,208	22.8%	725.97	739.05	101.8%
Delaware	3,766	0.5%	685.25	732.15	106.8%
Franklin	83,203	11.8%	761.28	753.53	99.0%
Fulton	1,931	0.3%	771.05	708.02	91.8%
Geauga	3,666	0.5%	682.46	714.03	104.6%
Greene	7,515	1.1%	723.97	734.41	101.4%
Hamilton	69,601	9.9%	754.03	733.98	97.3%
Lake	10,009	1.4%	723.21	747.79	103.4%
Lorain	22,850	3.2%	735.59	771.18	104.8%
Lucas	55,421	7.9%	771.23	751.07	97.4%
Madison	2,311	0.3%	743.72	703.40	94.6%
Mahoning	28,057	4.0%	733.45	731.08	99.7%
Medina	6,285	0.9%	671.73	729.17	108.6%
Montgomery	49,949	7.1%	764.95	738.79	96.6%
Ottawa	2,173	0.3%	823.44	797.51	96.9%
Pickaway	3,697	0.5%	740.19	750.12	101.3%
Portage	9,275	1.3%	670.20	693.68	103.5%
Stark	34,906	5.0%	694.90	703.55	101.2%
Summit	48,008	6.8%	717.84	720.01	100.3%
Trumbull	21,051	3.0%	746.79	736.68	98.6%
Union	1,894	0.3%	722.73	748.04	103.5%
Warren	6,348	0.9%	754.25	742.81	98.5%
Wayne	7,075	1.0%	658.30	683.94	103.9%
Wood	6,242	0.9%	721.87	701.87	97.2%
Weighted Average[2]			736.76	737.55	100.0%
Total	703,489	–	–	–	–

— = data not available. FFS = fee-for-service; MMP = Medicare-Medicaid Plan.
[1] As reflected in RTI's DinD impact analysis sample.
[2] Numbers in column A are used as the weights.

Table G-5
Comparison of MMP rates to observed FFS spending, 2020 (demonstration year 6)

County	Enrollment (beneficiary months)[1]	Percent enrollment (of total eligible bene-months)[1]	RTI normalized FFS rate	Final MMP rate after application of 4% savings	MMP rate as % of RTI Normalized FFS rate
	A	B	C	D	E
Butler	26,861	3.0%	819.03	881.66	107.6%
Clark	15,252	1.7%	774.46	873.22	112.8%
Clermont	14,310	1.6%	770.17	856.99	111.3%
Clinton	4,378	0.5%	784.81	864.61	110.2%
Columbiana	14,031	1.6%	771.32	829.23	107.5%
Cuyahoga	185,675	21.0%	759.43	831.54	109.5%
Delaware	6,006	0.7%	729.81	836.29	114.6%
Franklin	112,197	12.7%	755.09	869.51	115.2%
Fulton	2,932	0.3%	719.16	830.14	115.4%
Geauga	4,127	0.5%	695.10	800.17	115.1%
Greene	10,521	1.2%	748.02	874.84	117.0%
Hamilton	89,842	10.2%	816.86	875.84	107.2%
Lake	14,857	1.7%	763.08	851.86	111.6%
Lorain	28,163	3.2%	749.45	858.93	114.6%
Lucas	70,393	8.0%	781.91	850.40	108.8%
Madison	2,894	0.3%	828.12	886.88	107.1%
Mahoning	38,702	4.4%	806.37	833.42	103.4%
Medina	10,509	1.2%	742.99	817.33	110.0%
Montgomery	59,201	6.7%	789.12	873.29	110.7%
Ottawa	3,140	0.4%	812.17	881.01	108.5%
Pickaway	5,077	0.6%	836.43	869.03	103.9%
Portage	12,802	1.4%	677.20	796.67	117.6%
Stark	41,176	4.7%	732.90	822.34	112.2%
Summit	55,615	6.3%	736.57	803.46	109.1%
Trumbull	27,118	3.1%	790.78	853.54	107.9%
Union	2,429	0.3%	807.04	872.54	108.1%
Warren	8,007	0.9%	777.98	875.62	112.6%
Wayne	10,313	1.2%	675.87	770.83	114.0%
Wood	7,297	0.8%	766.37	827.57	108.0%

(continued

Table G-5 (continued)
Comparison of MMP rates to observed FFS spending, 2020 (demonstration year 6)

County	Enrollment (beneficiary months)[1]	Percent enrollment (of total eligible bene-months)[1]	RTI normalized FFS rate	Final MMP rate after application of 4% savings	MMP rate as % of RTI Normalized FFS rate
	A	B	C	D	E
Weighted Average[2]	–	–	769.22	847.78	110.3%
Total	883,825	–	–	–	–

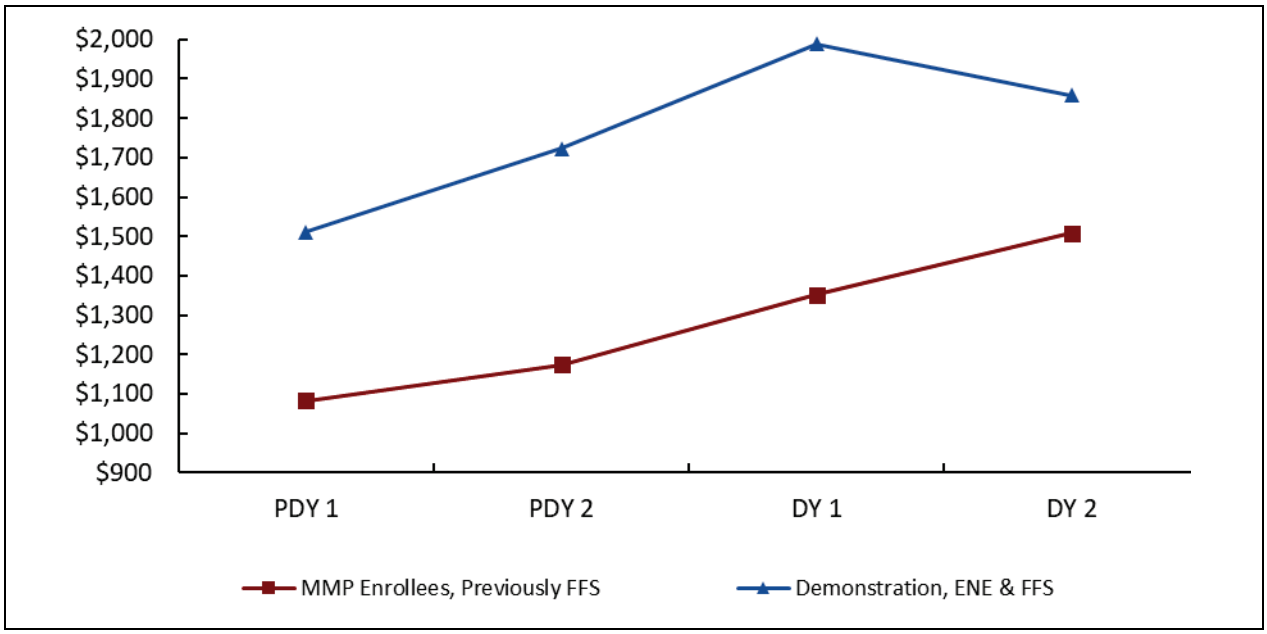
— = data not available. FFS = fee-for-service; MMP = Medicare-Medicaid Plan.
[1] As reflected in RTI's DinD impact analysis sample.
[2] Numbers in column A are used as the weights.

On a composite basis, the MMP capitation rates were not comparable to the RTI normalized FFS rate for demonstration year 6 (overall, the weighted average MMP rate is 110.3 percent) although they were comparable in demonstration year 1 (100.0 percent). Additionally, most of the MMP rates are about the same as the RTI normalized FFS rate or lower, with eight counties having rates higher than the RTI normalized FFS rate in demonstration year 1 (***Table G-4***, column E). All of the counties had MMP rates higher than the RTI normalized FFS rate in demonstration year 6, despite the larger FAI-mandated savings percentages applied to the MMP rates (***Table G-5***, column E). The findings for demonstration year 6 indicate MMP rate-setting could contribute to the increased costs as indicated by the DinD estimates. The PHE in 2020 could be a contributor to this difference between the RTI-normalized FFS rate (which reflects actual 2020 expenditures) and the MMP rates (which are set prospectively and based on historical data).

G.2.2 Pre-enrollment Cohort Analysis

Our analysis of predemonstration trends found that FFS beneficiaries with lower predemonstration FFS expenditures were more likely to enroll in an MMP plan. ***Figure G-4*** illustrates that the demonstration year 1 enrolled population was less costly during the predemonstration period than its ENE counterpart. Together with the results of the predemonstration utilization analysis shown in **Section *G.1*, *Service Utilization Supplemental Analyses***, these findings provide additional evidence of favorable selection into the MMPs at the start of the demonstration; however, favorable selection into the MMPs does not explain the increase in Medicare spending among all demonstration eligible beneficiaries described in ***Section 6, Demonstration Impact on Cost Savings***.

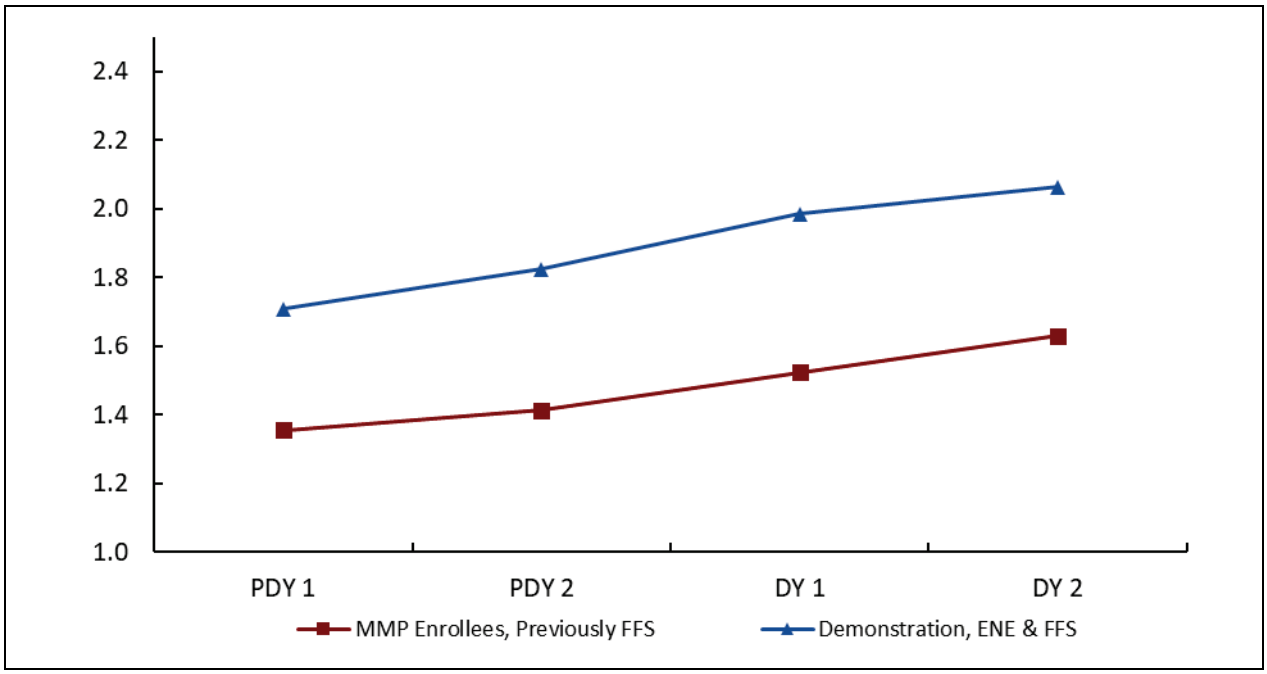
Figure G-4
Average Medicare Parts A and B costs PMPM from predemonstration period through demonstration year 2, for ENE cohorts



DY = demonstration year; ENE= eligible not enrolled; FFS = fee-for-service; MMP = Medicare-Medicaid Plan; PDY = predemonstration year; PMPM = per member per month.
NOTES: The number of observations for DY 2 represents a subset of DY 1 enrollees. PDY 1 is from May 2012 through April 2013; PDY 2 is from May 2013 through April 2014; DY 1 is from May 2014 through December 2015; DY 2 is from January 2016 through December 2016.
SOURCE: RTI analysis of Ohio pre-enrollment trends.

There are additional factors that may explain our DinD cost savings analysis findings. For instance, more thorough diagnostic coding could raise MMP payments, which could increase average payments faster in the demonstration group relative to the comparison group, although we do not have the data to support this hypothesis. ***Figure G-5*** illustrates that risk scores for the enrollees are lower than the average risk scores of the ENEs, further reinforcing the favorable selection finding from the analyses presented above. Favorable selection can occur for multiple reasons. Plans may purposefully target healthier beneficiaries, and sicker beneficiaries may decide not to enroll in the demonstration. Passive enrollment may have helped alleviate the extent of favorable selection; however, opt-out and disenrollment from the MMPs where clear concerns highlighted in the Second Evaluation Report.

Figure G-5
Average risk score from predemonstration period through demonstration year 2, for ENE cohorts



DY = demonstration year; ENE= eligible not enrolled; FFS = fee-for-service; MMP = Medicare-Medicaid Plan; PDY = predemonstration year; PMPM = per member per month.
NOTE: PDY 1 is from May 2012 through April 2013; PDY 2 is from May 2013 through April 2014; DY 1 is from May 2014 through December 2015; DY 2 is from January 2016 through December 2016.
SOURCE: RTI analysis of OH pre-enrollment trends.

Finally, although the factors described here are at play for the enrollee population, the FFS ENE beneficiaries are not affected by the savings percentages built into the MMP capitated rates. The analysis of the demonstration's impact on Medicare costs used an ITT approach that included all eligible beneficiaries, not only those enrolled in an MMP, to alleviate concerns about selection bias in enrollment that could not be replicated in the comparison group. Although the ENE population was smaller than the enrolled population (which was about 60 percent), their spending could still obscure any savings achieved among the enrolled population. While the supplemental analyses presented here shed light on the potential favorable selection of relatively healthier and lower-cost beneficiaries in MMP enrollment and help understand why favorable demonstration impacts may be difficult to observe, they do not pinpoint the drivers of Medicare cost increases and the unfavorable increases in ED use among all eligible beneficiaries in the demonstration group relative to the comparison group.