FINANCIAL ALIGNMENT INITIATIVE

# Illinois Medicare-Medicaid Alignment Initiative: Third Evaluation Report

November 2022

FINANCIAL ALIGNMENT INITIATIVE
ILLINOIS MEDICARE-MEDICAID ALIGNMENT INITIATIVE:
THIRD EVALUATION REPORT

By

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# Glossary of Acronyms

| | |
|---|---|
| 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 |
| HDM | Home-delivered meal |
| HEDIS | Healthcare Effectiveness Data and Information Set |
| HFS | Illinois Department of Healthcare and Family Services |
| HOS | Health Outcomes Survey |
| HRA | Health risk assessment |
| ICP | Individual care plan |
| ICT | Interdisciplinary Care Team |
| IRE | Medicare Independent Review Entity |
| LTSS | Long-term services and supports |
| MA | Medicare Advantage |
| MARx | Medicare Advantage Prescription Drug System |
| MAXIMUS | the enrollment broker for the MMAI demonstration |

| | |
|---|---|
| MCO | Managed care organization |
| MDS | Minimum Data Set |
| MLR | Medical loss ratio |
| MMAI | Medicare-Medicaid Alignment Initiative |
| MMCO | Medicare-Medicaid Coordination Office |
| MMP | Medicare-Medicaid Plan |
| MOU | Memorandum of Understanding |
| NF | Nursing facility |
| SNF | Skilled nursing facility |
| PCP | Primary care physician or provider |
| PHE | Public Health Emergency |
| PMPM | per member per month |
| POC | Plan of care |
| SDRS | State Data Reporting System |
| SPMI | Serious and persistent mental illness |

# 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.

The Illinois Medicare-Medicaid Alignment Initiative (MMAI) demonstration began in March 2014. Illinois and CMS competitively selected eight health plans to operate Medicare-Medicaid Plans (MMPs): six in Greater Chicago and two in Central Illinois. As of 2018, six plans were still participating. In 2021 there were five MMPs, due to an acquisition resulting in the consolidation of two MMPs.

> Illinois extended integrated care to over 86,600 dually eligible beneficiaries through passive enrollment and a statewide extension in 2021, and by encouraging MMAI enrollment through mandated MLTSS enrollment. Implementation of MMAI's model design was done with a high degree of fidelity and in 2021, MMPs became an enrollment option in all counties. While the demonstration's impact was limited due to low enrollment, integration of Medicare and Medicaid services provided many benefits to enrollees, resulted in high levels of satisfaction, and overall improved the beneficiary experience. According to advocacy group representatives, care coordination was also key to helping enrollees use their benefits and manage the health care system.
>
> Although an impact analysis showed the demonstration had mixed results including no savings to the Medicare program and unfavorable impacts on most service utilization and quality of care measures, the enrollment of relatively healthier and lower-cost beneficiaries in the MMPs made it challenging to reduce service utilization and achieve cost savings. Ultimately, through improved provider relations and continued work to improve quality, ensure network adequacy, and maintain a focus on care coordination, thousands more dually eligible beneficiaries in Illinois received integrated care.

The Illinois Department of Healthcare and Family Services (HFS) administers MMAI. 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 by plan. Adults over the age of 21 are eligible to participate in the demonstration if they: are entitled to Medicare Part A benefits and enrolled in Medicare Parts B and D; receive comprehensive Medicaid benefits in the Aged, Blind, and Disabled category; and reside in the service area. From March 2014 through June 2021, MMAI operated in two service areas; since July 1, 2021, the service area has been the entire State.

**Illinois Demonstration Coverage Area**

**Greater Chicago service area**

| | | |
|---|---|---|
| 1. Cook | 3. Kane | 5. Lake |
| 2. DuPage | 4. Kankakee | 6. Will |

**Central Illinois service area**

| | | |
|---|---|---|
| 7. Champaign | 12. Logan | 17. Piatt |
| 8. Christian | 13. Macon | 18. Sangamon |
| 9. DeWitt | 14. Menard | 19. Stark |
| 10. Ford | 15. McLean | 20. Tazewell |
| 11. Knox | 16. Peoria | 21. Vermilion |

Rest of the state was added in July 1, 2021

CMS contracted with RTI International to monitor demonstration implementation and to evaluate its impact on beneficiary experience, quality, utilization, and cost. The evaluation includes individual State-specific reports like this one. This third evaluation report for the Illinois MMAI demonstration describes its implementation and analysis of the demonstration's impacts. We include qualitative evaluation information for calendar years 2020 and 2021 and quantitative results for the cost outcome during the first 5 demonstration years, March 2014 through December 2019. We include results for the first 4 demonstration years only for all service utilization outcomes. We did not evaluate demonstration year 5 (calendar year 2019) because MMP encounter data for that year were deemed to be incomplete. We used a variety of data sources to prepare this report (see *Appendix A*).

This analysis includes the application of the demonstration's medically needy exclusion criteria, specified in the three-way contract.[1] Previous evaluation reports did not apply this exclusion due to the lack of available and reliable Medicaid eligibility data for all years. As such, the results reported here are different than what was previously reported.

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[1] For the three-way contract (original), please see https://www.cms.gov/files/document/ilcontract.pdf

## Highlights

| | |
|---|---|
| **Integration of Medicare and Medicaid** | MMAI was extended statewide during 2021. Rather than divide the State into regions, the State required the MMPs to serve the entire State. |
| | Provider contracting in the new counties was challenging for most of the MMPs. One MMP completed its network in all counties on time by leveraging a provision in its existing Medicare Advantage and Medicaid contracts that allows the plan to add new products by contract amendments or notices to providers. |
| | The statewide extension provides beneficiaries across Illinois with an integrated option, and a choice between five MMPs in most counties. |
| **Eligibility and Enrollment** | Enrollment in MMAI grew by 48 percent during 2020–2021, due to the extension of MMP service areas statewide, and the moratorium on Medicaid eligibility terminations. |
| | Most enrollment growth occurred during the final 4 months of 2021, when beneficiaries in new counties across the State were passively enrolled. |
| | Three MMPs grew their enrollment by more than 80 percent from December 2020 to December 2021, because those plans were eligible to receive passive enrollment in nearly all counties across the State. |
| **Care Coordination** | Using virtual technology for care coordination had its advantages and disadvantages. MMPs reported being impressed by how well some enrollees adapted to the use of digital technologies, and would like to continue its use, particularly for low-risk and rural populations. Other enrollees struggled and needed in-person engagement. |

| | |
|---|---|
| **Care Coordination (continued)** | The overall percentage of enrollees that MMPs were unable to reach continued to be high across years, averaging 25 to 30 percent. Three MMPs were placed on performance improvement plans to bring their rates down to a maximum of 35 percent. MMPs implemented solutions including hiring vendors to do more "boots on the ground" enrollee identification, enhancing oversight of care coordinators, and using claims data to gather additional contact information for enrollees. |
| | Care coordinator recruitment and turnover was a challenge for MMPs in some areas of the State. MMPs cited reductions in an eligible workforce due to the PHE and competition from health care systems as contributing factors. |
| **Stakeholder Engagement** | During 2020–2021, the MMPs held virtual or telephonic meetings of their enrollee advisory committees, due to the PHE. One MMP said that shifting to virtual meetings had doubled the attendance. The MMP provided training on technology for committee members prior to the meetings. |
| **Financing and Payment** | Several MMPs expressed concern about the inadequacy of the Medicaid LTSS capitation rates. LTSS costs in MMAI were higher than the baseline LTSS costs in Medicaid managed care. |
| **Quality of Care** | In general, MMPs have improved their performance on quality measures, although improvement has been uneven across MMPs and over time. MMPs' rehospitalization rates were higher in 2020 than in previous years, possibly reflecting the effect of COVID-19. |
| | Healthcare Effectiveness Data and Information Set (HEDIS) rates for primary care visits, high blood pressure management, care for older adults, and screenings for breast cancer generally declined in 2020. MMPs noted that enrollees were less likely to visit their doctors due to the PHE. |

| | |
|---|---|
| **Quality of Care (continued)** | All six MMPs met the benchmarks or gap closure targets[2] for all 2019 core and State-specific quality withhold measures, with the exception of two MMPs that did not meet the annual flu vaccine measure. For the 2020 quality withhold analysis, all MMPs were eligible for the quality withhold adjustment for an extreme and uncontrollable circumstance, and therefore all MMPs received 100 percent of the withheld amount based solely on full reporting of the quality withhold measures. |
| **Beneficiary Experience** | During the 2019–2021 reporting period, Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results indicate that the majority of enrollees were satisfied with their MMAI plans and the care management they receive. |
| | Stakeholders reported few challenges with access to services in 2020–2021. The State and MMPs reported an increased focus on addressing social determinants of health and improving enrollee access to telehealth. |
| **Demonstration Impact on Service Utilization and Quality of Care** | As shown in **Table ES-1,** over the course of the first 4 demonstration years, all service utilization measures including inpatient and skilled nursing facility (SNF) admissions, emergency department (ED) visits, and physician visits increased among all demonstration eligible beneficiaries, relative to the comparison group. However, there was no demonstration impact on the quality of care measures (e.g., 30-day readmissions) relative to the comparison group. |

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[2] For certain measures, an MMP can also earn a "met" designation by reducing the gap between its performance in the prior year and the current year benchmark by a stipulated improvement percentage, typically 10 percent.

| | |
|---|---|
| **Demonstration Impact on Service Utilization and Quality of Care (continued)** | The demonstration had a less favorable effect on beneficiaries with long-term services and supports (LTSS) use, compared to those without LTSS (*Table ES-1*). The demonstration effect for those with LTSS use was an unfavorable increase in the probability of inpatient admissions, the probability of ED visits, and the probability of SNF admissions, but a favorable increase in the number of physician visits, relative to the demonstration effect for the non-LTSS population. The demonstration was also associated with an unfavorable increase in the monthly number of preventable ED visits, the probability of ambulatory care sensitive condition (ACSC) admissions (overall and chronic), and the number of 30-day readmissions for LTSS users, 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 favorable increase in physician visits, but also an unfavorable increase in the probability of SNF admissions, 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 a cumulative increase in Medicare Parts A and B expenditures during the demonstration period relative to the comparison group.[3] |

*Table ES-1* summarizes the cumulative impact estimates for the Illinois demonstration during demonstration years 1–4 (2014 through 2018), 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.

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[3] Impact estimates on Medicaid expenditures are not included in this report due to quality concerns with Illinois' Medicaid claims data. See *Appendix F, Section F.4* for more information.

**Table ES-1**
**Summary of Illinois cumulative demonstration impact estimates for demonstration period,**
**March 1, 2014–December 31, 2018**

| 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 | Increase[R] | Increase[R] | NS |
| 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 | NS | Increase[R] | NS |
| Monthly probability of any emergency department (ED) visits | Increase[R] | Increase[R] | NS |
| Monthly number of preventable ED visits per 1,000 beneficiaries | NS | Increase[R] | NS |
| Probability of 30-day follow-up after mental health discharge | NS | NS | N/A |
| Monthly probability of any skilled nursing facility (SNF) admission | Increase[R] | Increase[R] | Increase[R] |
| Annual probability of any long-stay nursing facility use | Increase[R] | N/A | N/A |
| Monthly number of physician evaluation and management visits per 1,000 beneficiaries | Increase[G] | Increase[G] | Increase[G] |

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 $\alpha$ = 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 5-year demonstration period and the annual effect for each demonstration year.

**Table ES-2**
**Summary of Illinois demonstration effects on total Medicare expenditures among all eligible beneficiaries, March 1, 2014–December 31, 2019**

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

NS = not statistically significant.
NOTES: Statistical significance is defined at the $\alpha = 0.05$ level. For numeric estimates of the demonstration's effect on total Medicare expenditures, see *Figure 28* in **Section 6, Demonstration Impact on Cost Savings**. Red color-coded shading indicates where the direction of the DinD estimate was unfavorable. To ensure accessibility for text readers and individuals with visual impairments, cells shaded red receive a superscript "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 (program: ily_dy5_1482_GLM.log).

# 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 to test, in partnerships with States, integrated care models for dually eligible enrollees. The Illinois Medicare-Medicaid Alignment Initiative (MMAI) demonstration began on March 1, 2014. Under MMAI, eligible beneficiaries enroll in a capitated MMP that covers all services available under Medicare and Medicaid, as well as care coordination and flexible benefits, which vary from plan to plan.

The demonstration was originally scheduled to end on December 31, 2017. In 2016 it was extended by 2 years, and in 2019 it was extended for an additional 3 years, through December 31, 2022 (Illinois three-way contract, 2013; amended Illinois three-way contract, 2016; amended Illinois three-way contract, 2019). In 2021 the demonstration was extended for an additional year, through December 31, 2023 (amended Illinois three-way contract, 2021).[4] The First Evaluation Report includes extensive background information and early implementation information about the demonstration. The Second Evaluation Report provides implementation updates for mid-2017 through 2019.

## 1.2 Purpose of this Report

CMS contracted with RTI International to monitor implementation of the demonstrations under the Financial Alignment Initiative and to evaluate their impact on beneficiary experience, quality, utilization, and cost. In this report we include qualitative evaluation information for calendar years 2020 and 2021 (demonstration years 6 and 7, respectively), with relevant updates from early 2022. We provide updates to previous evaluation reports in key areas, including enrollment, care coordination, beneficiary experience, and stakeholder engagement activities, and discuss the challenges, successes, and emerging issues identified during the reporting period. We present results on quality of care and service utilization measures from March 1, 2014, through December 31, 2018, as well as results on Medicare costs for the period spanning March 1, 2014, through December 31, 2019.

## 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.

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[4] In 2022, as part of the contract year 2023 Medicare Advantage and Part D rulemaking making process, 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) and contingent upon submitting to CMS a transition plan by October 1, 2022. Thus, it is possible that the demonstration in Illinois could be extended beyond December 31, 2023.

## Data Sources

### SITE VISIT INTERVIEWS

Site visits

Quarterly monitoring calls with CMS and Illinois Department of Healthcare and Family Services (HFS) officials

### DEMONSTRATION DATA AND MATERIALS

State Data Reporting System (SDRS) submissions

Demonstration policies, contracts, and other materials

### BENEFICIARY SATISFACTION DATA

Medicare Advantage Prescription Drug Plan Consumer Assessment of Healthcare Providers and Systems (CAHPS)

### COMPLAINTS AND APPEALS DATA

MMP data reported to HFS and CMS

Complaint Tracking Module (CTM)

Medicare Independent Review Entity (IRE)

### QUALITY DATA

State-specific quality measures

Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures

### SERVICE UTILIZATION DATA

CMS Medicare Beneficiary Summary Files

CMS fee-for-service Medicare claims and encounter data

Nursing Home Minimum Data Set

Medicare enrollment files

Area Health and Resources Files

American Community Survey

### COST DATA

CMS Medicare Advantage and Part D Inquiry System (MARx) data

Quality withhold repayments

Medicare Part A claims

Medicare Part B claims

Medicaid Analytic eXtract (MAX) claims

Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF)

# Demonstration Design and State Context

## 2.1    Changes in Demonstration Design

MMAI is a capitated model demonstration that originally operated in two regions—Greater Chicago and Central Illinois. The design of the demonstration is described in the First Evaluation Report. Illinois did not receive Federal implementation funds for the demonstration.[5]

The Illinois three-way contract was amended several times to make changes regarding financing, quality measures, and other operational aspects of the demonstration, without changing the demonstration design (see the Second Evaluation Report). The two most recent amendments, in 2019 and 2021, made changes that were important to this report timeframe (see **Table 1**). See **Section 3.3, Care Coordination** and **Section 3.5, Financing and Payment** for more details on these changes.

> ### Implementation Effectiveness: Fidelity
>
> As the demonstration is now in its 6th year, 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 policy makers, 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**, although overall to date the MMAI demonstration has been implemented with a high degree of fidelity to the original design, it also underwent several key changes affecting implementation. The delays in implementing mandatory managed long-term services and supports (MLTSS) for LTSS users who opted-out or disenrolled from MMAI may have affected the enrollment rate for that population. State officials said this delay may have affected demonstration effectiveness.

Table 1
Illinois three-way contract amendments

| September 2019 | July 2021 |
|---|---|
| • Extended the demonstration by 3 years, through December 31, 2022. <br> • Increased the aggregate savings rate to 6 percent for demonstration years 6, 7, and 8 (2020–2022). <br> • Increased the Medical Loss Ratio (MLR) targets. | • Extended the demonstration by 1 year, through December 31, 2023. <br> • Extended the demonstration statewide. <br> • Updated financing provisions to reflect the additional year and new counties. <br> • Adjusted care coordination requirements. |

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[5] Only States that were awarded original design grants from CMS were then also eligible for Federal funds to support planning and funds to support implementation.

*Table 2* illustrates the major changes to key MMAI demonstration characteristics from its start in early 2014 to early 2022.

**Table 2**
**Key changes to Illinois MMAI over the course of the demonstration**
**(March 2014 through early 2022)**

| Key demonstration feature | Changes to the original demonstration design |
|---|---|
| Timeline | MMAI was extended through December 31, 2023. |
| Eligibility | No changes. |
| Geography/ Number of participating MMPs | The Central Illinois region originally had two MMPs. One MMP left the demonstration at the end of 2015. There were several changes in the number of MMPs in the Greater Chicago region from 2015 through 2021; originally there were six plans and at the end of 2021 there were five. |
| Services/Carve-outs | No changes. |
| Payment structure | The Medicaid capitation payment structure was revised in 2016, replacing NF and HCBS waiver rates with blended LTSS rates. |
| Other changes | Implementation of mandatory MLTSS for dually eligible beneficiaries was delayed until mid-to-late 2016 for Greater Chicago. The original concept was to launch MLTSS concurrent with MMAI. MLTSS was launched in mid-to-late 2019 for Central Illinois and other counties across the State, so it was in place prior to the statewide expansion of MMAI. |

HCBS = home and community-based services; LTSS = long-term services and supports; MLTSS = managed long-term services and supports; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan; NF = nursing facility.

## 2.2    Overview of State Context

In 2018, the State launched a new statewide Medicaid managed care program called HealthChoice Illinois, which consolidated three programs and reduced the number of managed care organizations (MCOs) (see the Second Evaluation Report). Mandatory MLTSS for dually eligible beneficiaries was incorporated into the new program, and in 2019 MLTSS was extended statewide.

State officials said in 2020 that reducing the number of MCOs helped providers by reducing the number of entities for contracting, credentialing and enrollment, prior authorization, and billing. This benefited MMAI by reducing the burden on providers who participated in both Medicaid managed care and MMAI. They said it had also helped the State manage health plan performance more effectively.

During 2020–2021, the State launched several initiatives which were added to the MMAI contract in 2021. In response to racial disparities highlighted by the COVID-19 public health emergency (PHE), Illinois Medicaid required MCOs to implement their own initiatives to increase health equity. The State launched an event notification system to provide timely notifications of hospital admission, discharge, and transfer (ADT) events (Illinois HFS, n.d.).

The State also launched the Community Transition Initiative (CTI), which provides financial incentives to encourage MCOs and MMPs to transition enrollees out of nursing facilities (NFs) and maintain them in the community. The CTI will expand on efforts under the Williams and Colbert consent decrees, which the State has been implementing for several years to help NF residents return to the community. For additional details on the CTI and ADT, see **Section 3.3, Care Coordination**.

Throughout the demonstration period, the State has worked to upgrade Medicaid IT systems, including the eligibility system and the Medicaid Management Information System (MMIS) system; however, legacy systems still presented some challenges for MMAI during 2020–2021. For example, the three-way contract allows Medicare providers to participate in MMP networks without enrolling as Illinois Medicaid providers, but the State's claims-processing system did not recognize the Medicare-only providers, so the State was unable to process MMAI encounter data until 2020–2021 (see **Section 3.5, Financing and Payment**). Additionally, the State's enrollment system has been unable to match beneficiaries with PCPs for passive enrollment, unless the PCPs are Medicaid providers (see **Section 3.2, Eligibility and Enrollment**).

# 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

MMAI was extended statewide during 2021. Rather than divide the State into regions, the State asked the MMPs to operate statewide.

The statewide extension provided an integrated option for beneficiaries across the State, and alignment between the MMPs and MCOs facilitated continuity of care.

Provider contracting in some of the new counties was challenging for most of the MMPs.

As discussed in the Second Evaluation Report, in 2018–2019 the State addressed challenges for providers by reducing the total number of MCOs and MMPs, increasing alignment between MMAI and HealthChoice plans, and addressing provider concerns about billing and other processes. Several health plans operating in Illinois were acquired by national companies, which also affected alignment and the number of plans. In this section we provide updates on these activities and on demonstration integration structures.

### 3.1.1    Joint Management of the Demonstration

Illinois and CMS jointly manage the demonstration through the Contract Management Team (CMT), which holds a monthly meeting with each of the MMPs to review performance data, discuss current priorities, and collect and share best practices. During 2021, the PHE and the statewide extension were discussed each month, and efforts to locate and engage enrollees were frequent topics. Other topics, which varied from month to month, included flu vaccination outreach, participation of enrollees in care plan development, Healthcare Effectiveness Data and Information Set (HEDIS) and Consumer Assessment of Healthcare Providers and Systems (CAHPS) results, care coordination for enrollees with dementia, and participation in interdisciplinary care teams.

The CMT continued to closely monitor the MMPs' unable-to-reach rates, which had been high for several years, and several MMPs were placed on performance improvement plans during 2021 (see *Section 4.3, Care Coordination*). One MMP said in 2020 that the CMT's focus on this challenge was helpful, and that the discussions enabled them to "learn some best practices… share some of our best practices…[and] brainstorm ways to improve."

### 3.1.2 Integrated Delivery System

*Medicare-Medicaid Plans*

There was considerable progress on aligning the MMPs with MCOs during 2021, as companies extended their MMPs statewide to match the service areas of their MCOs, as shown in *Table 3*. State officials sought greater alignment to provide dually eligible beneficiaries with choices between MMPs and MCOs, and to facilitate continuity of care for enrollees wishing to transition between programs, by allowing them to stay with a plan operated by the same company and the same service area. The Humana MMP was not aligned with an MCO, and the CountyCare MCO was not aligned with an MMP, but enrollees and members in other companies' MMPs and MCOs could transition smoothly between MMAI and MLTSS.

**Table 3**
**Alignment between MMPs and MCOs in July 2021**

| Parent company | MMP | MMP service area | MCO | MCO service area |
| --- | --- | --- | --- | --- |
| CVS | Aetna | Statewide | Aetna | Statewide |
| Cook County Health | – | – | CountyCare | Cook County |
| Health Care Service Corporation | BCBS | Statewide | BCBS | Statewide |
| Humana | Humana | Statewide | – | – |
| Centene | Meridian | Statewide | Meridian | Statewide |
| Molina | Molina | Statewide | Molina | Statewide |

– = Not applicable.

Two of the original Illinois MMPs were consolidated during this timeframe. Centene acquired Meridian in 2019 and operated two MMPs during 2020—their newly-acquired MMP, Meridian Complete, and their original MMP, IlliniCare, which was renamed Meridian Total. The two plans were consolidated effective January 1, 2021. CMS said the consolidation was fairly smooth.

*Preparations for Statewide Extension*

The statewide extension was originally planned to launch on January 1, 2021. Rather than dividing the State into regions and selecting MMPs for each region, all of the MMPs were required to operate statewide.[6] During 2020 and 2021, the MMPs built their provider networks in new areas.[7] State officials expected challenges because many of the new counties were rural, with limited numbers of providers. In addition, State officials noted that "providers are not going to want to contract with four or five [plans]" because each additional contract increased their

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[6] Two provider-led organizations operating MCOs only in Cook County were also invited to participate; the Cook County plans would have been allowed to operate only in that one populous county, to align with their MCOs. One plan applied twice, but withdrew both times. The other plan did not apply.
[7] Four of the MMPs expanded into Central Illinois, as well as the extension counties, while Molina expanded into the Greater Chicago region, as well as the balance of the state.

administrative burden. The PHE added to the challenges, making it difficult to engage providers.[8]

The CMT delayed the launch from January to July 2021, primarily due to the PHE. The delay provided additional time for MMPs to complete their networks; several preliminary reviews in 2020 had revealed numerous gaps. State officials maintained the requirement that MMPs operate statewide despite the challenges, with at least three MMPs approved in a county for passive enrollment.[9]

MMPs submitted their networks for a formal review in March 2021. This review found that only one MMP achieved network adequacy in all 102 counties; the other plans had gaps that disqualified them from receiving any enrollment in between five and 28 counties. Results of this review were used for the first wave of passive enrollment in September 2021, as well as for opt-in enrollment, which began 2 months earlier.

After reviewing results of the first network review, the CMT decided to allow MMPs to submit their networks again in June. The results of the second submission determined eligibility to receive enrollment in counties for the October, November, and December waves. In September 2021, MMPs submitted their networks a third time, for the annual network review. This time, at least three MMPs were approved in 99 of the 102 counties; thus, passive enrollment will be used for monthly passive enrollment in all but three counties during 2022.

One MMP said in 2022 that provider contracting for statewide extension had gone smoothly for them, because their existing contracts with Medicare and Medicaid providers had provisions allowing the plan to add new products through notices or amendments. That MMP was the first and only plan to achieve network adequacy in every county across the State. In contrast, another MMP had to negotiate new contracts with providers, according to State officials, which was particularly challenging since the MMP was not able to meet face-to-face with providers due to the PHE.

*Provider Billing Challenges*

The State continued provider billing forums during the reporting period, to allow provider groups to discuss billing issues with the MCOs and MMPs, although the meetings were shorter and less frequent, and fewer provider groups participated, than in the past. State officials cited the forums as a success for 2020. Two MMPs said that the meetings had helped improve provider relations, making it easier to contract with providers. The State also updated the online provider complaint form.

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[8] MMPs in all of the demonstration states submitted attestations of network adequacy in 2020, rather than submitting their complete networks, to allow them to focus on the PHE. This helped the Illinois MMPs focus their attention on extension.

[9] In counties where fewer than three MMPs qualified for passive enrollment, the MMPs which achieved network adequacy were eligible for opt-in enrollment only. MMPs also qualified to receive opt-in enrollment if they had only one deficiency in a county and it was not a PCP or hospital.

*Value-based Payment Arrangements*

MMPs continued to report that pay-for-quality incentives were the most common form of value-based payment (VBP) arrangement. Many Illinois providers have been reluctant to assume risk, according to MMPs and the State. State officials said in early 2022 that they were amending the Medicaid managed care contract to require MCOs to assess provider readiness for alternative payment methods, then develop and implement plans to move providers into risk arrangements. They plan to add a similar provision to the MMAI contract.

State officials said the PHE had exposed serious quality and health equity issues in some NFs serving predominately minority populations. Although MMPs and the State said in the past that it is challenging to improve poor quality facilities or move residents to better facilities, one MMP said in 2020 that they had implemented VBP for NFs and supported living facilities. In response to the problems exposed by the PHE, the State worked with stakeholders to draft Medicaid nursing facility payment reform legislation, which was enacted in May 2022 (Illinois HFS, 2021; Illinois Office of the Governor, 2022).

## 3.2    Eligibility and Enrollment

> Enrollment in MMAI grew by more than 50 percent during 2020–2021, due to the extension of MMP service areas statewide, as well as the moratorium on Medicaid terminations.

> Most enrollment growth occurred during the final 4 months of 2021, when beneficiaries in new counties across the State were passively enrolled.

> Three of the five MMPs grew their enrollment by more than 80 percent during 2021, because they were eligible for passive enrollment in nearly all counties across the State.

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 the moratorium on Medicaid terminations during the PHE, and the statewide extension of MMAI in 2021.

### 3.2.1   Enrollment Summary

There were no changes in the eligibility requirements for the demonstration during 2020–2021. The number of beneficiaries eligible for the demonstration increased by nearly 95,000 in 2021 when the demonstration was extended statewide (see *Figure 1*). Total enrollment increased by almost 32,000 during 2020–2021, due to passive enrollment of beneficiaries in the new counties, as well as the moratorium on Medicaid terminations.

**Implementation Effectiveness: Reach**

"Reach" is an individual-level measure of participation and refers to the percentage of persons who receive or 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 1* shows the changes in enrollment and in the percentage of eligible beneficiaries enrolled during the demonstration to date. After varying from 30.2 to 38.3 percent in 2014 through 2020, the percentage of eligible beneficiaries who were enrolled declined to 35.5 percent in December 2021, due to the influx of new enrollees from the statewide extension. Overall, the demonstration to date has been able to reach, on average, about one-third of eligible beneficiaries.

**Figure 1**
**MMAI demonstration enrollment and eligibility at the end of each calendar year, 2014–2021**
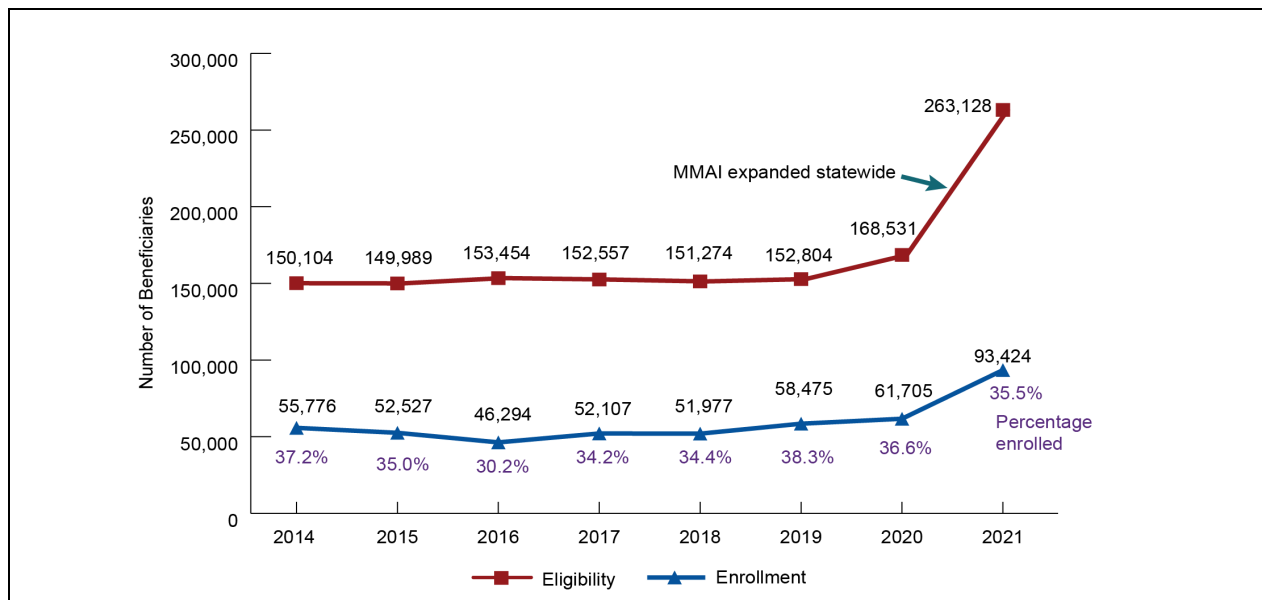


MMAI = Medicare-Medicaid Alignment Initiative. FFS = fee-for-service; SDRS = State Data Reporting System.
NOTE: Enrollment and eligibility data reported in the SDRS may not match the finder file data used for quantitative analyses, because of the timing for completing and submitting the finder file versus 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

There was monthly passive enrollment of newly-eligible beneficiaries during most months of 2020 and 2021. The State did not passively enroll beneficiaries for January 1 effective dates, to avoid confusion during Medicare open enrollment. In March and April 2020, no enrollment notices were mailed because State officials did not want people to receive Part D disenrollment notices during the beginning of the PHE, and the State's enrollment broker closed for 2 weeks as they shifted to remote work.

Passive enrollment was a key element of phased enrollment in most counties when MMP service areas were extended statewide in the second half of 2021.[10] The first opt-in enrollments were effective July 1. Passive enrollment began in September and continued through December. Only enrollees who did not use LTSS were enrolled in September and October, with LTSS users enrolled during November and December. According to the State, approximately 45,000 beneficiaries in the new counties received passive enrollment notices during these 4 months. The State said a final wave of approximately 7,400 notices was mailed in November for February 2022 enrollment, primarily to LTSS users identified through an updated crosswalk between MMPs and MA plans.

The State and MMPs said passive enrollment in the new counties went smoothly, and it had a significant impact on MMP enrollment. Three MMPs experienced rapid growth during the second half of 2021, with two plans growing by over 90 percent, and another by over 80 percent, primarily because they were eligible for passive enrollment in most of the new counties. The other two MMPs received considerably fewer new enrollees because their network challenges made them ineligible for enrollment in many of the new counties (see *Section 3.1, Integration of Medicare and Medicaid*).

State officials and MMPs said in early 2022 that the opt-out and disenrollment rate for phased enrollment appeared to be lower than in the past, although it was too soon to know how many passive enrollees would be retained long-term. Some beneficiaries did not realize their coverage had changed until they tried to fill prescriptions, according to the State, so they did not call the enrollment broker until after their enrollments took effect.

### 3.2.3    Outreach and Options Counseling

HFS continued to rely on the enrollment broker and stakeholders to communicate with beneficiaries, except for the enrollment mailings. The statewide extension was challenging for options counselors, according to stakeholders, because counselors in the new counties were just learning about MMAI. According to options counseling stakeholders, many beneficiaries in the new counties do not have internet access and prefer to receive counseling in person, which was not feasible due to the PHE.

### 3.2.4    Factors Influencing Beneficiary Enrollment Decisions

Some factors influencing beneficiaries have remained the same throughout the demonstration to date, such as the popularity of zero prescription drug copays and some of the

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[10] Passive enrollment was only used in counties where three or more MMPs passed their network adequacy reviews and qualified for passive enrollment (see *Section 3.1, Integration of Medicare and Medicaid*).

other flexible benefits. Enrollment mailings from the State included a comparison chart that helps beneficiaries compare MMPs' flexible benefits.

During this report timeframe many beneficiaries in the new counties were already enrolled in managed care prior to MMAI enrollment, because Medicaid managed care and mandatory MLTSS for dually eligible beneficiaries had gone statewide in 2018 and 2019, respectively.[11] As a result, some dually eligible beneficiaries had experience with managed care prior to the extension of MMAI. One MMP said their company's care coordinators explained the advantages of MMAI to MLTSS enrollees in simple terms, such as having one card for MMAI versus multiple cards for MLTSS (i.e., MCO, Medicare, and Part D plan).

Keeping existing PCPs and other providers remained a concern for beneficiaries, who are typically reluctant to change PCPs and other providers. Although the State's passive enrollment algorithm tried to match beneficiaries with their current health plans and primary care providers (PCPs), the State's inability to process Medicare encounters posed a challenge for PCP matches, according to CMS in 2020.

There was much less resistance to the demonstration from providers during statewide enrollment in 2021 than during the early years of the demonstration, although several providers sent letters to patients and one ran an ad discouraging patients from enrolling in MMAI, according to one MMP and a stakeholder.

### 3.2.5   Medicaid Eligibility Challenges

Medicaid redeterminations remained a concern during 2020–2021, although a moratorium on terminating beneficiaries' enrollment during the PHE was implemented in 2020. The moratorium was still in effect in early 2022, but the State, MMPs, and stakeholders expressed concern that when it ends, all MMAI enrollees—and all other Medicaid beneficiaries—will need to have redeterminations over a 12-month period.

State officials said they were concerned that the resumption of redeterminations would have a disproportionate impact on racial and ethnic minorities, and had asked the MMPs to help enrollees maintain their Medicaid coverage. Of the three MMPs interviewed in 2022, two said they have plans in place, and the third said it would like more guidance from the State about projected enrollment losses from the end of the moratorium, as well as methods to support enrollees with redeterminations.

In 2020, a stakeholder said that beneficiaries in the medically needy spend-down category—who are not eligible for the demonstration—continued to be enrolled in error (see the Second Evaluation Report). Enrollment in MMAI often led to the loss of Medicaid because the MMPs did not report enrollees' spend-down amounts to the State, as case managers do for waiver participants in fee-for-service (FFS). Despite the challenges, some beneficiaries with spend-down amounts wanted to be enrolled in integrated plans (MMPs), and the stakeholder favored including them as an eligible group for MMAI.

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[11] In contrast, MMAI initially launched in the Greater Chicago region 2 years before mandatory MLTSS for dually eligible beneficiaries. MMAI was in operation in Central Illinois for 5 years before MLTSS began.

## 3.3    Care Coordination

> The overall "unable-to-reach (locate)" percentage remained high (25–30 percent). Prior to the PHE, most MMPs reported hiring vendors to reach enrollees with "boots on the ground" techniques. The PHE forced plans to rely on telephonic outreach.

> Care coordinator recruitment and turnover has been a challenge for MMPs in some areas. MMPs cited reductions in an eligible workforce due to the PHE and competition from health care systems as contributing factors.

> During the PHE, MMPs found that some enrollees adapted well to telehealth visits for care coordination, which was advantageous for reaching low-risk and rural populations.

Care coordination continues to be a core MMP function and a major element intended to improve access to care, quality of care and improve the beneficiary experience. To accomplish these goals, care coordinators conduct health risk assessments, and develop and implement care plans. MMPs make special efforts to reach enrollees who are difficult to locate. Care coordinators' activities are monitored by the percentage of enrollees who they are able to reach, conduct an assessment for, prepare a care plan for, and identify—with the enrollee—care plan goals. Each enrollee is assigned a care coordinator who is responsible for coordinating all covered medical care, behavioral health care, and LTSS. Plans are also responsible for providing care management for enrollees in NFs. The design of MMAI's care coordination model is more fully described in the First Evaluation Report. In this section we highlight the status of and major accomplishments in key components and processes of the MMAI care coordination model: assessment, care planning, and care coordination.

In 2021, the State made several changes to its care coordination requirements to align with the Illinois MCO contract, including requiring enrollee signatures on care plans, dropping the requirement that MMPs employ clinicians who specialize in care for nursing facility residents ("SNFists"), and requiring MMPs to participate in the State's new system for facility ADT event notifications. The State also added requirements to incorporate social determinants of health into the health risk assessment (HRA), and to include community resources to address those needs in care plans (Illinois three-way contract, 2021).

### 3.3.1    Assessments

MMPs are required to administer health risk screenings to beneficiaries within 60 days of enrollment to collect information about enrollees' medical, behavioral health, and LTSS needs and history. MMPs are also required to complete a more comprehensive HRA for moderate- and high-risk enrollees within 90 days of enrollment.[12]

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[12] Plans use the results of the HRS, claims-based predictive modeling, and surveillance data, such as referrals, service authorizations, and LTSS assessments, to stratify enrollees into low-, moderate-, and high-risk categories. MMPs can opt to conduct an HRA instead of the HRS for enrollees at any risk level, as permitted by the three-way contract.

Beginning in the Spring of 2020, MMPs had to switch to conducting health risk assessments and care planning visits telephonically in response to the PHE.[13] Although MMPs reported that it was easier to reach enrollees early in the PHE due to stay-at-home orders, this changed over time. Most MMPs agreed that doing health risk assessments for high-risk and LTSS individuals over the phone was challenging. Because completing an assessment can take anywhere from 30 to 60 minutes, care coordinators sometimes struggled to keep enrollees fully engaged for that length of time. Furthermore, without the benefit of an in-home visit, care coordinators were not always able to fully assess the service needs of the member.

Despite these limitations, MMPs cited some advantages to using virtual technologies for care coordination. For example, some MMPs reported the benefits of using telephonic communication to assist rural clients where driving long distances to visit them in person could be impractical. One MMP also indicated that it would like to continue telehealth for dually eligible enrollees who are low-risk and relatively stable.

As noted in prior evaluation reports, MMPs continued to have challenges with locating and engaging a large percentage of eligible enrollees to conduct an assessment within 90 days of enrollment. As *Figure 2* shows, the percentage of enrollees who could not be reached within 90 days of enrollment increased from 33.8 percent in the fourth quarter of 2018 to 54.8 percent in fourth quarter of 2021, during passive enrollment for the statewide extension. During 2021, the CMT placed three MMPs on performance improvement plans to highlight the seriousness of the issue and direct plans' attention towards resolving the issue.

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[13] In March 2020, CMS issued a memo allowing MMPs in Illinois to temporarily suspend or limit face-to-face coordination activities required under the three-way contract.

**Figure 2**
**Percentage of members that Illinois MMAI MMPs were unable to reach following three attempts, within 90 days of enrollment, 2014–2021**
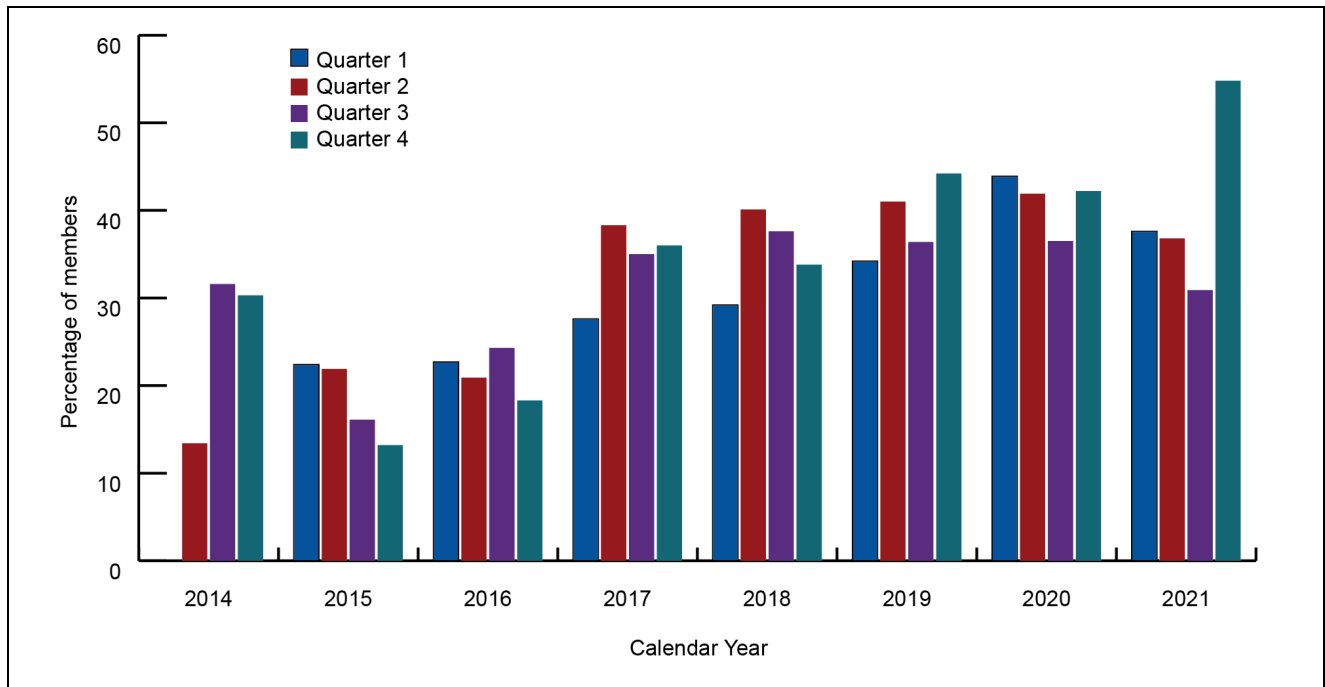


MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.

NOTES: Because the Illinois demonstration began in March 2014, data are not applicable for quarter 1, 2014. Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.

SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

In early 2022, MMPs and CMS reported a variety of strategies adopted by MMPs to improve their unable-to-reach percentages. Many of these strategies—including hiring vendors to conduct outreach, and mining different data sources such as pharmacy claims to identify alternate contact information and addresses for enrollees—have been discussed in prior evaluation reports. Other strategies shared by MMPs included creating a task force of case managers to focus solely on finding and engaging hard to reach populations, increasing oversight of outreach teams, and training care coordinators on best practices. The CMT also encouraged MMPs to apply to a technical assistance consortium on this topic for additional help. Two MMPs were selected and participated in the consortium. The CMT noted that there is no single strategy that is necessarily more effective than others in reaching these beneficiaries, but that a multifaceted approach may be required.

According to the CMT, the statewide extension, which significantly increased enrollment in MMAI and added many rural counties, made it harder for MMPs to complete health risk assessments and care plans in a timely manner. In the 2021 amended three-way contract, CMS and the State included a provision that requires MMPs to continue conducting outreach to enrollees past the 90-day deadline.[14]

> **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 coordinators, enrollees could not participate in HRAs, have care plans, or identify care goals (these activities are discussed later in this section).
>
> *Figure 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 **Table 4**, among all enrollees, the percentage of enrollees with an assessment completed within 90 days of enrollment varied from 37.3 to 74.6 percent over the course of the demonstration to date (2014–2021). Among those enrollees willing to participate and who could be reached, the percentage with an assessment completed within 90 days of enrollment also varied but remained above 90 percent between 2016–2021 except for most of 2018, when some plans focused their care coordination efforts on the statewide launch of HealthChoice Illinois, the Medicaid managed care program.

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[14] Medicare-Medicaid Alignment Initiative (MMAI) Summary of Changes to the Three-Way contract effective 7/1/2021. Available at: https://www.cms.gov/files/document/ilcontractsummary.pdf .

**Table 4**
**Illinois MMAI 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 | 409 | 74.6 | 87.6 |
| Q3 | 31,072 | 38.6 | 58.0 |
| Q4 | 16,522 | 42.8 | 63.1 |
| 2015 | | | |
| Q1 | 17,925 | 62.1 | 81.1 |
| Q2 | 4,670 | 64.9 | 84.2 |
| Q3 | 2,741 | 68.9 | 83.1 |
| Q4 | 2,262 | 68.7 | 80.9 |
| 2016 | | | |
| Q1 | 7,006 | 68.0 | 91.7 |
| Q2 | 4,586 | 69.2 | 90.7 |
| Q3 | 3,110 | 66.9 | 92.0 |
| Q4 | 2,274 | 72.2 | 91.1 |
| 2017 | | | |
| Q1 | 3,789 | 63.8 | 91.9 |
| Q2 | 6,413 | 55.4 | 93.7 |
| Q3 | 5,559 | 59.5 | 96.0 |
| Q4 | 4,669 | 58.9 | 96.8 |
| 2018 | | | |
| Q1 | 8,104 | 50.6 | 74.5 |
| Q2 | 7,746 | 45.4 | 80.7 |
| Q3 | 4,370 | 50.4 | 85.6 |
| Q4 | 5,427 | 56.0 | 91.0 |

(continued)

**Table 4 (continued)**
**Illinois MMAI 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] |
| 2019 | | | |
| Q1 | 3,467 | 58.3 | 97.4 |
| Q2 | 4,930 | 52.3 | 96.9 |
| Q3 | 7,314 | 55.4 | 93.4 |
| Q4 | 6,096 | 48.2 | 92.2 |
| 2020 | | | |
| Q1 | 3,673 | 48.4 | 95.0 |
| Q2 | 5,038 | 50.4 | 97.9 |
| Q3 | 1,650 | 55.8 | 98.9 |
| Q4 | 8,002 | 47.5 | 92.0 |
| 2021 | | | |
| Q1 | 3,055 | 52.5 | 93.2 |
| Q2 | 4,431 | 52.6 | 95.5 |
| Q3 | 4,116 | 60.4 | 98.6 |
| Q4 | 17,639 | 37.3 | 97.5 |

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.

NOTES: Because the Illinois demonstration began in March 2014, data are not applicable for quarter 1, 2014. Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.

SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

### 3.3.2 Care Planning

Within 90 days of enrollment, care coordinators are required to develop a comprehensive, person-centered plan of care for each enrollee. The plan must incorporate an enrollee's medical, behavioral health, LTSS, social, and functional needs as identified by the HRA, and include short and long-term goals. Care coordinators are required to engage enrollees in the development of the plan as much as possible. In 2021, the three-way contract was amended to require signatures from enrollees to verify this engagement. Waiver participants sign their care plans during in-person meetings, whereas other enrollees may sign either by hand, e-signature, or voice

recording.[15] Over the course of the MMAI demonstration, the CMT worked to improve the process for developing the plans to ensure enrollee participation, and to improve the content to make the plans more person-centered and user-friendly.

*Table 5* shows variation in the percentage of care plans completed within 90 days of enrollment for all enrollees from 2014–2017, from a low of 25.5 percent in late 2014 to a high of 61.3 percent in late 2016. For enrollees willing to complete a care plan and who could be reached, the percentage of enrollees with a care plan completed within 90 days of enrollment generally increased from 2014–2017, from 69.8 percent to 87.6 percent. This State-specific measure was retired in quarter 1 of 2018. We present care plan data for 2018–2021 in *Table 6* using a core measure for MMAI plan members with care plans completed within 90 days of enrollment.

**Table 5**
**Illinois MMAI 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 | 578 | 38.8 | 69.8 |
| Q3 | 31,001 | 25.5 | 50.3 |
| Q4 | 17,440 | 29.0 | 57.5 |
| 2015 | | | |
| Q1 | 18,567 | 37.5 | 51.3 |
| Q2 | 5,275 | 52.8 | 74.2 |
| Q3 | 2,820 | 49.2 | 69.0 |
| Q4 | 2,477 | 52.0 | 66.7 |
| 2016 | | | |
| Q1 | 8,031 | 55.2 | 75.7 |
| Q2 | 4,906 | 58.6 | 78.8 |
| Q3 | 3,346 | 55.8 | 79.3 |
| Q4 | 2,440 | 61.3 | 80.0 |
| 2017 | | | |
| Q1 | 4,065 | 51.8 | 81.7 |
| Q2 | 7,116 | 44.9 | 83.9 |
| Q3 | 5,894 | 46.7 | 87.7 |
| Q4 | 4,878 | 44.4 | 87.6 |

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[15] During the PHE requirements for in-person visits for waiver members and hand-signed care plans were waived, so plans could use signature or voice recordings.

**Table 5 (continued)**
**Illinois MMAI MMP members with care plans completed within 90 days of enrollment,**
**2014–2017**

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 Illinois demonstration began in March 2014, data are not applicable for quarter 1, 2014. Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.

SOURCE: RTI analysis of MMP-reported data for State-specific Measure IL 3.1 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Illinois-Specific Reporting Requirements document.

 

 

      *Table 6* shows that in 2018–2021, among all enrollees, the percentage of all enrollees with care plans completed within 90 days of enrollment varied, ranging from 27.5 percent to 45.9 percent. For enrollees willing to complete a care plan and who could be reached, the percentage of care plans completed within 90 days of enrollment increased from 54 percent to 75 percent in 2018 to between 80 percent to 95 percent between 2019–2021. Care plan completion percentages were notably higher in 2019 than in 2018. CMS noted that the roll-out of HealthChoice in 2018 may have affected care plan completion rates in that year, which were lower than in 2017. CMS reported that care plan completion rates had improved in early 2019 (as supported by *Table 6*). However, one plan continued to struggle with completion rates, and the CMT asked the plan to submit a performance improvement plan (PIP) in August 2019.

**Table 6**
**Illinois MMAI 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 | 8,039 | 34.7 | 54.5 |
| Q2 | 7,746 | 27.5 | 51.8 |
| Q3 | 4,369 | 31.2 | 54.1 |
| Q4 | 5,427 | 41.8 | 74.4 |

(continued)

**Table 6 (continued)**
**Illinois MMAI plan 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] |
| 2019 | | | |
| Q1 | 3,467 | 44.1 | 82.3 |
| Q2 | 4,930 | 41.9 | 83.4 |
| Q3 | 7,314 | 45.9 | 81.4 |
| Q4 | 6,096 | 38.5 | 78.1 |
| 2020 | | | |
| Q1 | 3,673 | 34.3 | 78.1 |
| Q2 | 5,038 | 37.3 | 91.0 |
| Q3 | 1,650 | 41.0 | 95.0 |
| Q4 | 8,002 | 32.8 | 90.0 |
| 2021 | | | |
| Q1 | 3,055 | 32.4 | 82.0 |
| Q2 | 4,431 | 35.0 | 88.0 |
| Q3 | 4,116 | 39.9 | 91.8 |
| Q4 | 17,639 | 37.3 | 85.8 |

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.

NOTES: Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.

SOURCE: RTI analysis of MMP-reported data for Core Measure 3.2 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

As shown in *Table 7*, the percentage of enrollees with at least one documented discussion of care goals in their care plan increased during the course of the demonstration to date (2014–2021). In 2017 through 2021 the percentages were always greater than 92.8 percent.

**Table 7**
**Illinois MMAI MMP members with documented discussion 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 | 37 | 78.4 |
| Q2 | 2,735 | 67.2 |
| Q3 | 9,606 | 76.5 |
| Q4 | 13,891 | 59.9 |
| 2015 | | |
| Q1 | 9,992 | 85.0 |
| Q2 | 6,130 | 89.6 |
| Q3 | 5,392 | 84.6 |
| Q4 | 6,614 | 67.4 |
| 2016 | | |
| Q1 | 5,090 | 82.7 |
| Q2 | 3,088 | 76.7 |
| Q3 | 2,699 | 86.7 |
| Q4 | 2,419 | 88.4 |
| 2017 | | |
| Q1 | 3,429 | 92.8 |
| Q2 | 3,891 | 95.6 |
| Q3 | 3,081 | 98.3 |
| Q4 | 2,454 | 96.0 |
| 2018 | | |
| Q1 | 3,387 | 98.8 |
| Q2 | 3,611 | 96.5 |
| Q3 | 3,084 | 98.2 |
| Q4 | 7,271 | 99.9 |
| 2019 | | |
| Q1 | 3,905 | 99.7 |
| Q2 | 3,623 | 98.4 |
| Q3 | 3,316 | 97.6 |
| Q4 | 3,106 | 97.2 |

(continued)

**Table 7 (continued)**
**Illinois MMAI MMP members with documented discussion 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 | 2,551 | 98.2 |
| Q2 | 2,643 | 99.9 |
| Q3 | 2,747 | 98.3 |
| Q4 | 2,557 | 97.8 |
| 2021 | | |
| Q1 | 2,423 | 97.6 |
| Q2 | 4,017 | 99.2 |
| Q3 | 5,709 | 98.7 |
| Q4 | 8,514 | 97.5 |

MMP = Medicare-Medicaid Plan; Q = quarter.
NOTES: Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure IL 3.2 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Illinois-Specific Reporting Requirements document.

### 3.3.3   Care Coordination Capacity

*Vaccination Outreach*

Addressing the PHE with their enrollees put additional demands on care coordinators. MMPs reported spending a considerable amount of time conducting outreach for COVID-19 vaccinations. One plan noted that a significant percentage of its new enrollees enrolled under the statewide extension were unvaccinated. Some of the strategies employed by MMPs to increase vaccination rates included texting enrollees information about vaccination events near their home, helping enrollees secure vaccine appointments, identifying in-home vaccination opportunities and arranging transportation to events or appointments. One MMP also described offering incentives such as offering sweepstakes where enrollees could win cruises, tickets to sporting events, and other prizes. One MMP indicated that vaccine hesitancy affected efforts to facilitate enrollee vaccinations in some areas. Throughout the PHE, the CMT encouraged the MMPs to continue their efforts to improve vaccination and booster rates.

*Staffing*

In addition to directing a large share of time and resources to conducting outreach related to COVID-19, MMPs had to ramp up care coordination staffing quickly to accommodate new enrollments from the statewide extension. One MMP described hiring and training 90 new staff in 2020. MMPs also described challenges recruiting and hiring care coordinators due to the PHE. One MMP said "it was never so difficult as it is right now to find candidates for these positions."

MMPs reported having to do more advertising than in the past, increase salaries, and offer sign-on bonuses to attract talent. One plan also noted that qualifications for care coordinators can be very narrow and specific making it hard to find candidates that meet all the requirements.

*Table 8* shows that, from 2014 through 2021 the total number of care coordinators varied, with a noticeable drop in 2018 and a noticeable increase in 2021. During the same timeframe, the percentage of care coordinators assigned to care management and conducting assessments remained above 90 percent. The enrollee load (case load) per care coordinator decreased in 2014 through 2016, then generally increased in 2017 through 2021.

**Table 8**
**Care coordination staffing at Illinois MMAI 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 | 537 | 90.7 | 117.4 | 10.1 |
| 2015 | 546 | 95.6 | 102.3 | 20.4 |
| 2016 | 590 | 94.1 | 83.5 | 21.1 |
| 2017 | 507 | 99.6 | 103.3 | 27.6 |
| 2018 | 391 | 98.0 | 136.1 | 19.0 |
| 2019 | 446 | 96.9 | 135.5 | 15.2 |
| 2020 | 419 | 94.5 | 159.0 | 14.0 |
| 2021 | 622 | 95.5 | 157.5 | 11.0 |

FTE = full time equivalent; MMP = Medicare-Medicaid Plan.
NOTES: The Illinois demonstration began March 1, 2014. Health Alliance ended its MMP operations on December 31, 2015, and Cigna-HealthSpring ended its MMP operations on December 31, 2017. Data presented after December 2015 do not include Health Alliance, and data presented after December 2017 do not include Cigna-HealthSpring.
SOURCE: RTI analysis of MMP-reported data for Core Measure 5.1 as of January 2022. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Advocates in 2022 indicated that turnover among care coordinators was a longstanding problem and became worse during the PHE. MMPs may have taken several weeks before notifying an enrollee that they had a new care coordinator. Advocates also relayed that a common complaint from enrollees was that they could not reach their care coordinator when they needed to. Nonetheless, as shown in *Table 8*, the turnover rate among care coordinators slowly increased during 2014 and 2017 but began decreasing in 2018 to 11 percent in 2021.

*Use of Specialty Care Coordination Services*

As noted in the Second Evaluation Report, MMPs' use of vendors to provide specialty care coordination began declining during 2018–2019. A few MMPs ended their contracts with behavioral health providers to coordinate care for enrollees with serious mental illnesses. Similarly, in 2020, one MMP discontinued its contract with an outside vendor to coordinate LTSS services and opted to provide this service in-house.

*Transition Care Planning*

MMPs reported some challenges to successfully transitioning enrollees to the community during the PHE. For example, prior to stay-at-home orders, one plan reported success with staffing an in-person care transition team at hospitals. The care transition teams continued to operate telephonically during the PHE but communication and relationship building with members became more difficult. Another plan indicated that shortages of home health staff led to longer hospital stays as enrollees had to wait until their care coordinators could arrange adequate home care before being discharged.

As noted earlier in this report, the updated three-way contract includes a provision requiring MMPs to connect to the State's ADT system to gain access to real-time admission and discharge notifications (Illinois three-way contract, 2021). As of early 2022, the State's vendor was working with hospitals to complete their connections, and intended to expand the initiative to other providers (Illinois HFS, n.d.). The go-live date was May 1, 2022.

Another new provision in the three-way contract provides incentives to MMPs to identify and transition enrollees who have continuously resided in a nursing facility for a minimum of 90 days into the community (Illinois three-way contract, 2021). Referred to as the CTI, plans that make successful transitions will qualify for different incentive payments 6 months after discharge. The State intends to offer additional incentives after 1 and 2 years, as long as the enrollee continues to reside successfully in the community.

To prevent nursing facility admissions, one MMP developed a nursing facility diversion work group to help enrollees acquire extra supports at home. Care coordinators brought examples to the workgroup and discussed options to help the enrollee stay in their home. They could also request authorization for interim HCBS services until waiver services were in place.

## 3.4 Stakeholder Engagement

> During 2020–2021 the MMPs held virtual or telephonic meetings of their enrollee advisory committees, due to the PHE. One MMP said that shifting to virtual meetings had doubled the attendance. The MMP provided training for committee members prior to the meetings.

In this section we describe stakeholder engagement activities during 2020 and 2021, and the impact of those efforts on the demonstration.

The State's stakeholder engagement structure did not change during the 2020–2021 reporting period. The State continued to leverage its existing Medicaid Advisory Committee for stakeholder engagement, and State officials shared information about the statewide extension of MMAI with the committee. The CMT continued to meet with the State Health Insurance Assistance Program (SHIP) and Ombudsman programs, and the CMS leads for the demonstration continued to meet with AgeOptions, which was a partner in the Make Medicare Work coalition and continues that group's training and technical assistance efforts for options counselors, case managers, and provider organizations.

During 2020 and 2021, the MMPs engaged their enrollee advisory committees, required under the demonstration, via virtual or telephonic quarterly meetings. One MMP reported doubling their member attendance since moving meetings to a virtual platform. The MMP provided early outreach and training on how to use the technology ahead of the meetings so that enrollees would feel comfortable making this shift. These meetings addressed a range of topics, such as MMP responses to COVID-19, available benefits, and enrollee feedback on processes or resources.

## 3.5    Financing and Payment

> Several MMPs expressed concern about the adequacy of the Medicaid LTSS capitation rates. LTSS costs in MMAI were higher than the baseline LTSS costs in Medicaid managed care.

In this section we provide a summary of changes to the financing and payment for MMAI since 2019, and any pertinent findings related to these changes.

As previewed in the Second Evaluation Report, the major changes impacting 2020 and beyond included an increase in the aggregate savings rate (i.e., a discount relative to Medicare and Medicaid baseline rates in the MMP capitation payments) and continued yearly increases to the target Medical Loss Ratio (MLR). Additional changes were made in the July 2021 contract amendment to reflect an additional demonstration year and new counties.

### 3.5.1   Capitation Rates

*Rating Categories and Risk Adjustment*

As discussed in detail in prior evaluation reports, Illinois implemented a blended Medicaid LTSS rate in 2016 after experiencing challenges with the original rate structure due primarily to frequent enrollee transitions between settings. The blended LTSS rates are MMP-specific, based on the distribution of enrollees who use LTSS between NFs and HCBS waivers, and are intended to incentivize MMPs to serve those beneficiaries with LTSS needs in community settings rather than in institutions.

After mandatory MLTSS was implemented statewide for dually eligible beneficiaries in 2019, the methodology for developing LTSS rates for MMAI was updated. Rather than using FFS costs for LTSS as the baseline, the actuaries began using MCOs' bids for MLTSS to develop LTSS costs for MMAI, effective for 2020. In 2021, the methodology for the blended LTSS rates was revised to add a mid-year adjustment to adjust MMPs' case mix twice each year. Prior to that amendment, the blended LTSS rates paid to each MMPs were based on its mix of NF and HCBS enrollees in January of the year. The rate amendment document noted that enrollment changes during the year could change an MMP's case mix, causing gains or losses that were not related to the effectiveness of an MMP's care management.

The statewide extension of MMAI, which added many new counties to the demonstration, meant that adjustments were needed to support MMPs in ramping up their implementation of MMAI in the new areas. For demonstration years 7 and 8 (2021 and 2022),

the first 2 years for newly active counties, special provisions for Medicare Parts A and B baseline spending rates and the coding intensity adjustment (to account for differences in diagnostic coding between fee-for-service claims and managed care encounters) are in effect. Details on these specifications can be found in the three-way contract that was effective July 1, 2021 (Illinois three-way contract, 2021).

*Quality Withhold Percentages*

CMS and the State withhold part of their respective capitation payments pending analysis of MMP performance on a set of CMS core and State-specific quality measures. The September 2019 contract extension maintained the quality withhold at 3 percent for demonstration years 6 through 8 (2020 and 2022), and the July 2021 contract extension maintained a 3 percent withhold for demonstration year 9 (2023). In early 2021, CMS finalized the results of the quality withhold analyses covering demonstration year 5 (2019). For 2019, all six MMPs in operation at the time had 100 percent of the withhold payment returned after meeting at least 80 percent of the measure criteria (CMS, n.d.-a). For demonstration year 6 (2020), all six MMPs received 100 percent of their withheld amounts, based on full reporting of applicable quality withhold measures, under special provisions used during the PHE (CMS, n.d.-b). For more details about the quality withhold measures and MMP performance, see **Section 3.6, Quality of Care**.

*Savings Percentage*

Capitation payments to the MMPs include a discount relative to Medicare and Medicaid baseline rates, referred to as the aggregate savings percentage. The aggregate savings percentage for the demonstration, which is applied equally to Medicare Parts A and B and Medicaid baseline spending amounts, increased gradually over time. The September 2019 contract extension increased the percentage to 6 percent for demonstration years 6, 7, and 8 (2020 through 2022). The July 2021 contract extension maintained the savings percentage at 6 percent for counties active prior to July 1, 2021. For the new counties, the savings percentage started at 1 percent in demonstration year 7 (2021), then increases to 3 percent in demonstration year 8 (2022) and to 5 percent in demonstration year 9 (2023).

*MMP Concerns about the Rates*

Most MMPs felt the overall Medicaid rates were adequate or, if not adequate, had been improving in recent years. Plans said there was transparency about rates and there had been improvements in the timeliness of payments and, as the demonstration matured over time, early challenges with rates had decreased. The MMPs' remaining issues included delays in setting the Medicaid rates and the omission of administrative costs from Medicaid rate development.

While one MMP said the blended LTSS rates were acceptable, other plans raised concerns. Their main concern was the use of MLTSS bids to develop MMAI LTSS rates. The MMPs said LTSS use is higher in MMAI than in MLTSS, and the Medicaid health plan association met with the State's actuary to discuss this issue. One of these plans said the risk adjustment methodology was inadequate for waiver program participants, particularly for MMPs with more enrollees in high-risk waiver programs. The MMP also said that an MMP which begins the year with a high percentage of LTSS enrollees in HCBS would receive lower payments throughout the year, even if they are successful in transitioning enrollees from NFs to HCBS, so the rate incentives for NF transitions are unevenly distributed between MMPs.

*Medical Loss Ratios*

The MLR is the percent of its capitation payments that an MMP spends on covered services, services provided in lieu of more costly covered services, and personnel costs for care coordinators. At the start of the demonstration, the three-way contract set a target MLR of 85 percent, which was the same as used for MA plans. The 2019 contract extension adjusted the MLR to increase by 1 percent in each year starting in demonstration year 6 (2020). Thus, the MLR target became 86 percent in 2020, 87 percent in 2021, and 88 percent in 2022. The July 2021 contract extension maintained the MLR target at 88 percent for demonstration year 9 (2023).

The most recent MMP MLR results available, for demonstration year 4 (2018), ranged from 88.0 percent to 95.9 percent. Only one MMP had an MLR below 90 percent that year. Some MMPs commented that they have seen deterioration in their MLRs more recently due to the change in the blended LTSS rates in 2020. MMPs voiced these concerns during rate discussions with the State. Other plans, however, continued to have few concerns with the MLR and further noted they have seen improvement in MLR with the PHE, though not necessarily among the LTSS population.

### 3.5.2   Encounter Data

All MMPs continued to submit their encounter data to CMS in a timely and complete manner, and experienced no challenges during the statewide extension.

MMPs were not able to submit encounter data to the State until recently. This was because the MMIS system would not accept encounters for services by Medicare providers, unless they were also enrolled as Medicaid providers. With this data challenge and the statewide extension on the horizon, the State dedicated time and resources to updating their technology infrastructure. During 2020–2021, the State moved to their new MMIS and requested the plans begin submitting MMAI encounters starting with 2020 and going backwards to 2018 dates of service. MMPs transitioned to the new MMIS with minimal issues. In 2022, the State will begin enforcing sanctions for late or incomplete submissions. The State's work on the MMIS was still an ongoing project in early 2022 and upgrades were being made to support analysis of the data received. The data system upgrade is intended to be completed in 2022.

## 3.6   Quality of Care

In general, MMPs have improved their performance on quality measures since 2015, although improvement has been uneven across MMPs and over time. MMPs' rehospitalization rates were higher in 2020 than in previous years, possibly reflecting the effect of COVID-19.

HEDIS rates for primary care visits, high blood pressure management, care for older adults, and screenings for breast cancer generally declined in 2020. MMPs noted that enrollees were less likely to visit their doctors due to the PHE.

All six MMPs met the benchmarks or gap closure targets for all 2019 Core and State-specific quality withhold measures, with the exception of two MMPs that did not meet the annual flu vaccine measure.

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 Measures

MMPs are required to report performance on a combination of CMS core and State-specific quality metrics. The State changed some quality measures in 2018–2019 (see the [Second Evaluation Report](#)). There were no changes in quality measures during 2020–2021. A subset of the quality measures are designated as quality withhold measures. Both CMS and the State withhold a portion of their respective components of the capitation rate, and MMPs can earn back some or all of their withheld payments based on meeting the benchmarks or gap closure targets for the quality withhold measures.[16]

For 2019, all six MMPs met all of the Core and State-specific quality withhold measures, with the exception of two MMPs that did not meet the annual flu vaccine measure (CMS, n.d.). All MMPs automatically received a "met" designation for the HEDIS measures included in the analysis, because MMPs were not required to submit 2019 HEDIS data during 2020, due to the PHE. Two MMPs did not meet the benchmark or gap closure target for the annual flu vaccine measure, based on 2019 CAHPS survey responses. Nevertheless they earned 100 percent of their withholds by meeting more than 80 percent of the measures, along with the other MMPs which met 100 percent of the measures.

For 2020, all MMPs were eligible for a quality withhold adjustment due to the PHE. As a result, all six MMPs received 100 percent of the withheld amount based solely on full reporting of the applicable CMS Core and State-specific quality withhold measures. One measure, annual flu vaccine, was designated as not applicable, because MMPs were not required to report 2020 CAHPS survey results due to the PHE.

### 3.6.2    Quality Management Activities

The State's External Quality Review Organization (EQRO) conducted the required Medicaid managed care compliance review of MMPs for the full set of standards in 2020-2021. The results of that review were not available when this report was written. The EQRO also worked with the MMPs on their Quality Improvement Projects.

During the reporting period, MMPs focused on increasing enrollees' use of preventive care, which dropped during the PHE. Plans noted decreases in primary care visits, high blood pressure control, care for older adults, and breast cancer screenings. On the other hand, the

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[16] MMPs can earn a "met" designation for a measure by meeting the benchmark set by CMS or the State. For some measures, MMPs can also earn a "met" by closing the gap between its prior year performance and the benchmark by a stipulated improvement percentage (typically 10 percent) (CMS, 2021).

emphasis on maintaining access to medications during 2020 improved control of some chronic conditions, according to an MMP.

To encourage enrollees to seek preventive services, MMPs assisted enrollees with scheduling appointments for routine screenings, preventive care, and flu shots. One plan created a booklet, referred to as a "member health story," for each enrollee that detailed the enrollee's screening history and reminded them when additional annual screenings or vaccinations were due. Plans also sent text messages and mailings to encourage enrollees to make appointments for preventive visits.

### 3.6.3 HEDIS Quality Measures Reported for Illinois Medicare-Medicaid Alignment Initiative 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 MA plans.

Five of the 13 Medicare HEDIS measures for MMP enrollees that RTI analyzes are reported in *Figures 3–8*, with results on all 13 measures appearing in *Table B-1* in *Appendix B*. RTI identified these measures in its Aggregate Evaluation Plan based on their historic completeness, reasonability, and sample size. 2015–2020 HEDIS data were available for most Illinois MMAI MMPs, although in response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. Medicare plans (including MMPs) resumed normal reporting for measurement year 2020.

Detailed descriptions of selected HEDIS measures can be found in the RTI Aggregate Evaluation Plan. Results reported in *Figures 3–8* show Illinois MMAI MMPs' 2015 through 2020 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+).[17]

Although the primary focus of HEDIS analysis is to monitor trends over time in MMP performance, the figures and appendix table also compare MMP performance to national MA plan means for reference when available. We provide the national MA plan means with the understanding that Medicare Advantage enrollees and demonstration enrollees may have different health and sociodemographic characteristics which would affect the 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 Medicare plans active in

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[17] These are hospital readmissions.

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

As shown in **_Figure 3_**, one-half of the MMPs improved performance on blood pressure control from 2015 to 2020, with the other MMPs having mixed performance over time.

**Figure 3**
**Blood pressure control,[1] 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**
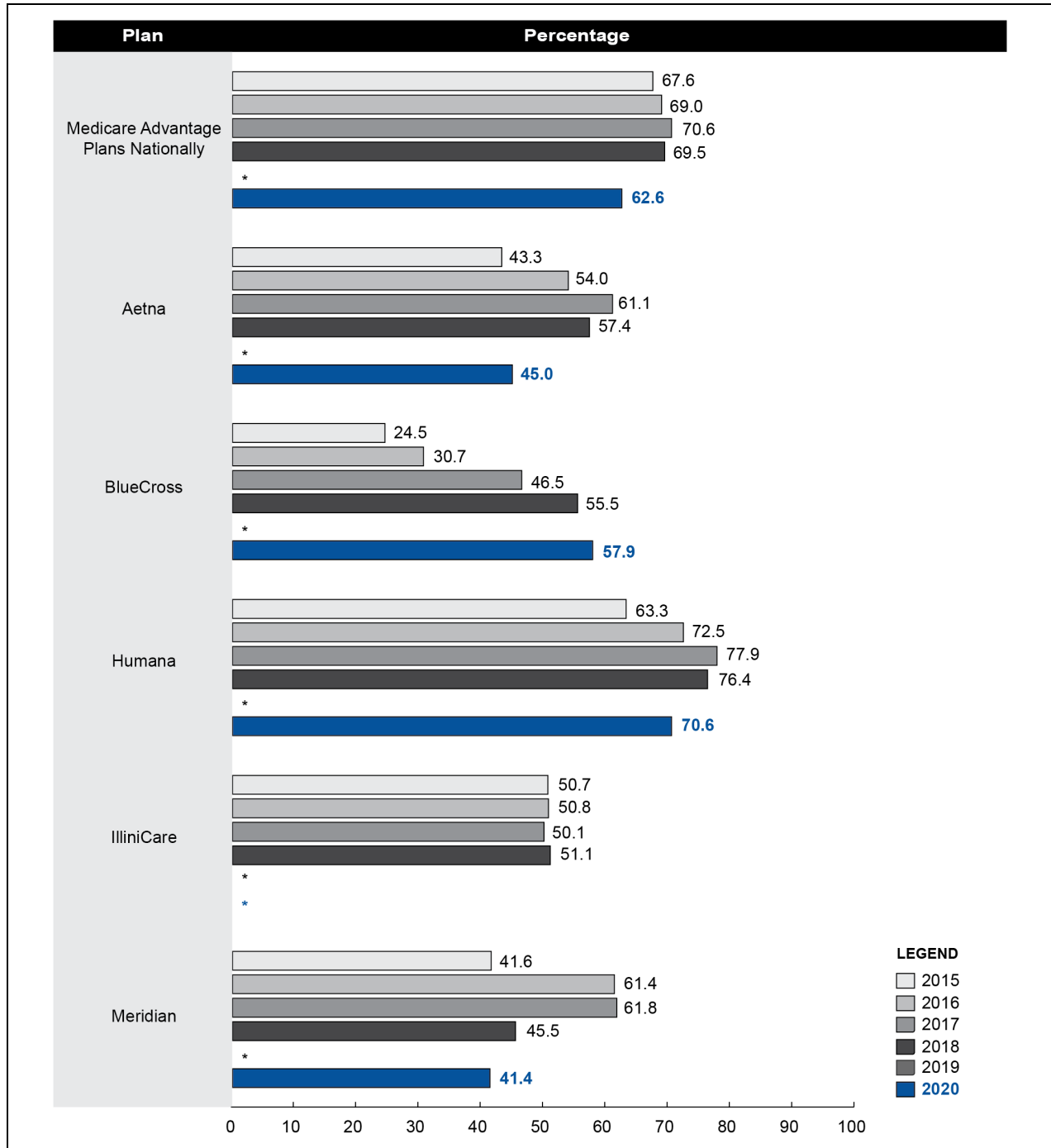


(continued)

**Figure 3 (continued)**
**Blood pressure control,[1] 2015-2020:**
**Reported performance rates for Illinois MMAI MMPs**
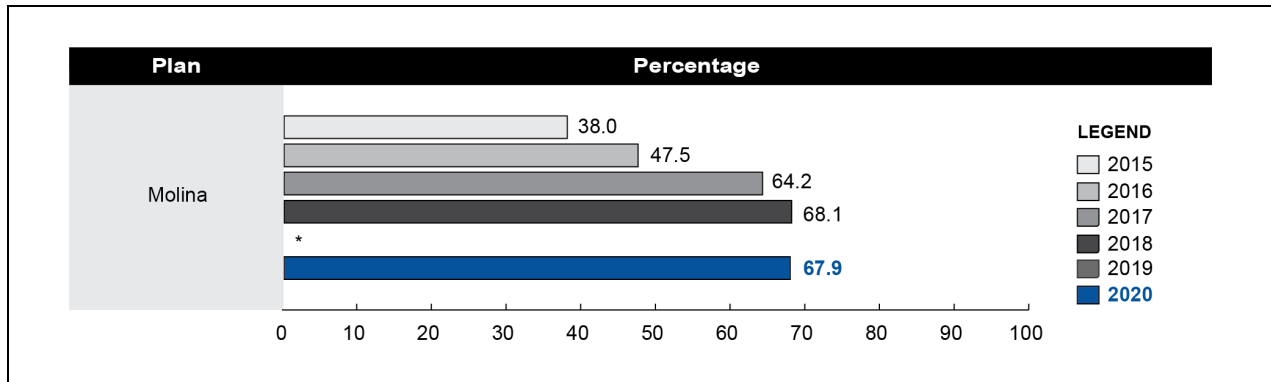


* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.

[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.

NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the 2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

*Figure 4* shows that for 30-day follow-up after hospitalization for mental illness, most MMPs had an uneven performance from 2015 to 2020. Increases were generally not steady, with some MMPs reporting dramatic year over year increases or decreases.

**Figure 4**
**30-day Follow-up after hospitalization for mental illness,[1] 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**
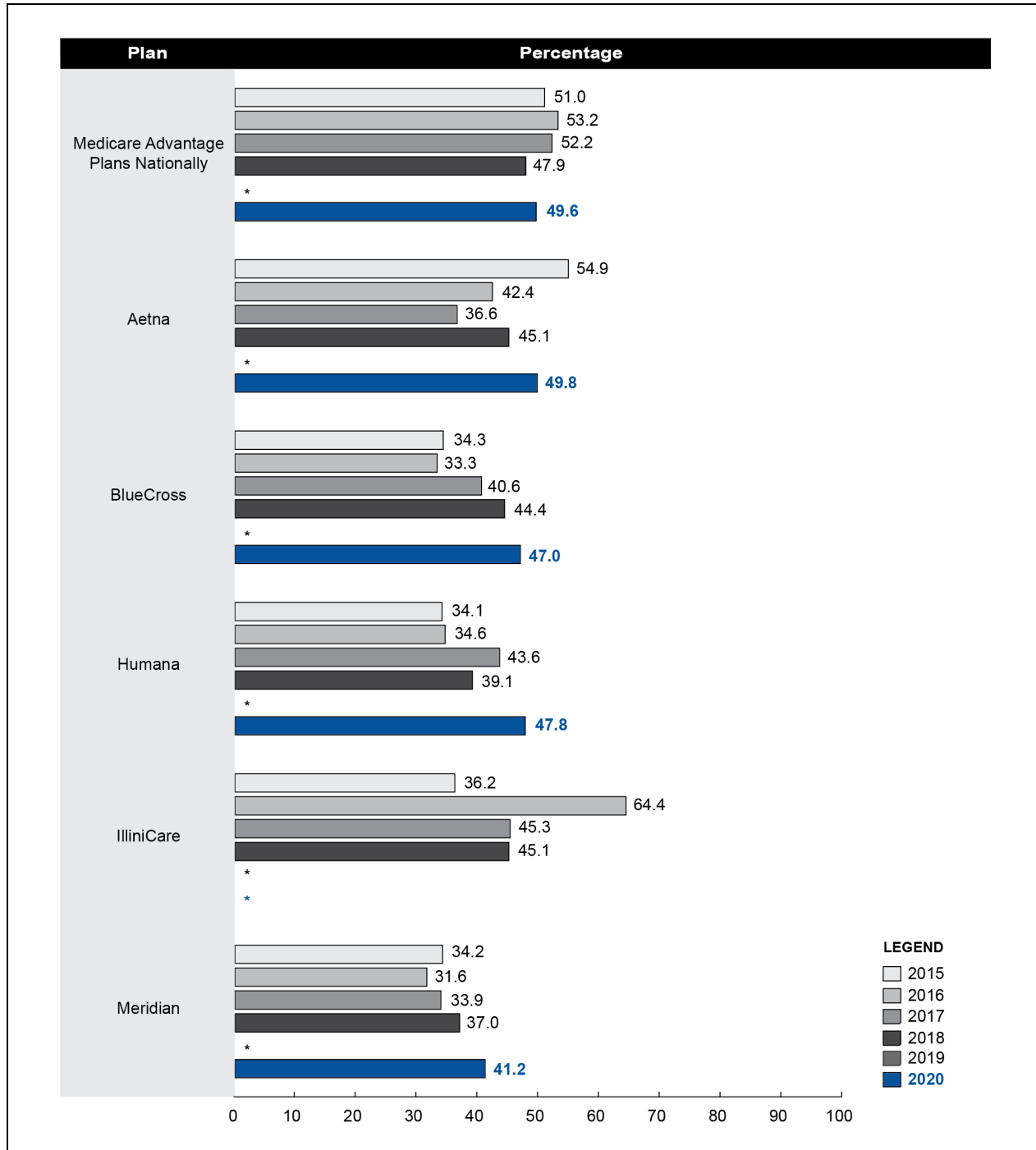


(continued)

**Figure 4 (continued)**
**30-day Follow-up after hospitalization for mental illness,[1] 2015-2020:**
**Reported performance rates for Illinois MMAI MMPs**
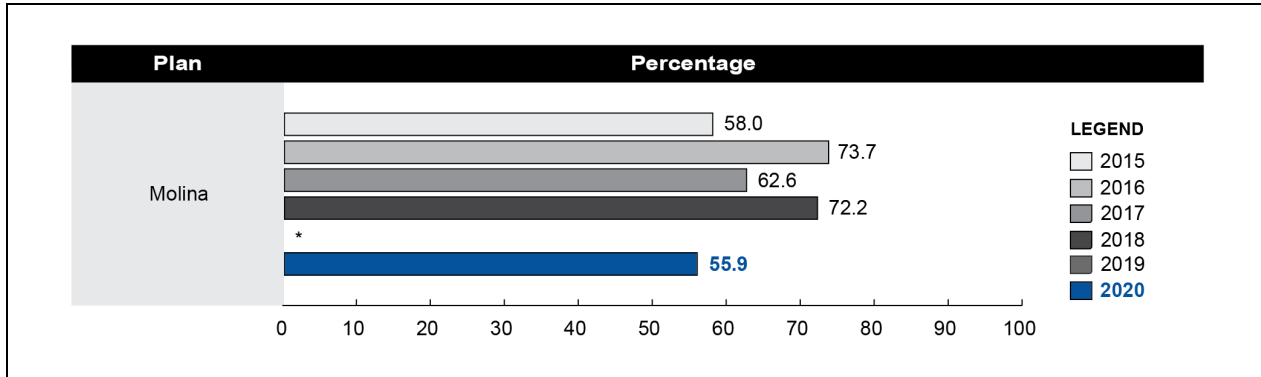


\* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MMAI = Medicare-Medicaid
   Alignment Initiative; MMP = Medicare-Medicaid Plan.
[1] NCQA implemented a significant specification change with HEDIS 2017, disallowing same-day follow-up visits.
   National benchmarks fell from HEDIS 2017 to HEDIS 2018.
NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including
   MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the
   2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.
SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

*Figure 5* shows that for controlling HbA1c levels (<8.0%), all MMPs reporting data for 2015 through 2020 had a mixed performance during this time, with most reporting dramatic increases or decreases year over year.

**Figure 5**
**Good control of HbA1c level (<8.0%), 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**
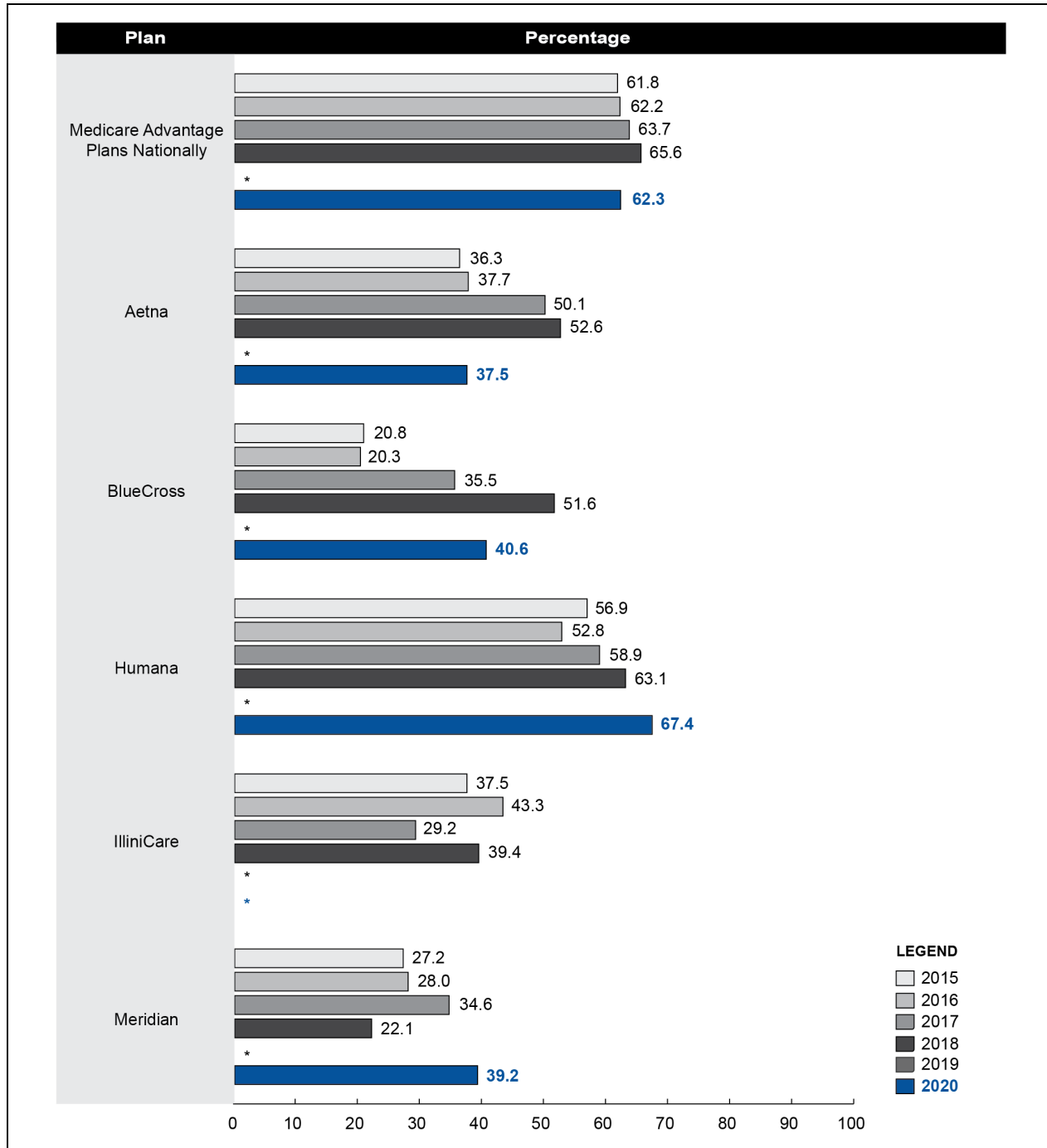


(continued)

**Figure 5 (continued)**
**Good control of HbA1c level (<8.0%), 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**

| Plan | Percentage |
|------|-----------|

Molina
- 2015: 40.4
- 2016: 46.2
- 2017: 47.9
- 2018: 58.2
- 2019: *
- 2020: 57.2

LEGEND
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
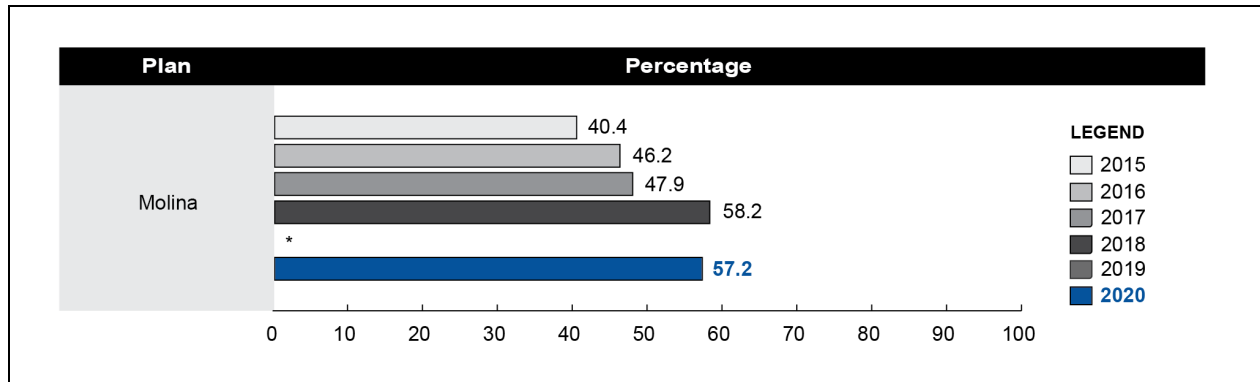
\* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.

NOTES: In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the 2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

*Figure 6* shows that for medication review (one of the Care for Older Adults measures), IlliniCare greatly improved over time, with the remaining MMPs having an uneven performance over time. National MA plan mean data are not available for the Care for Older Adult measures.

**Figure 6**
**Medication review (one of the Care for Older Adults measures), 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**
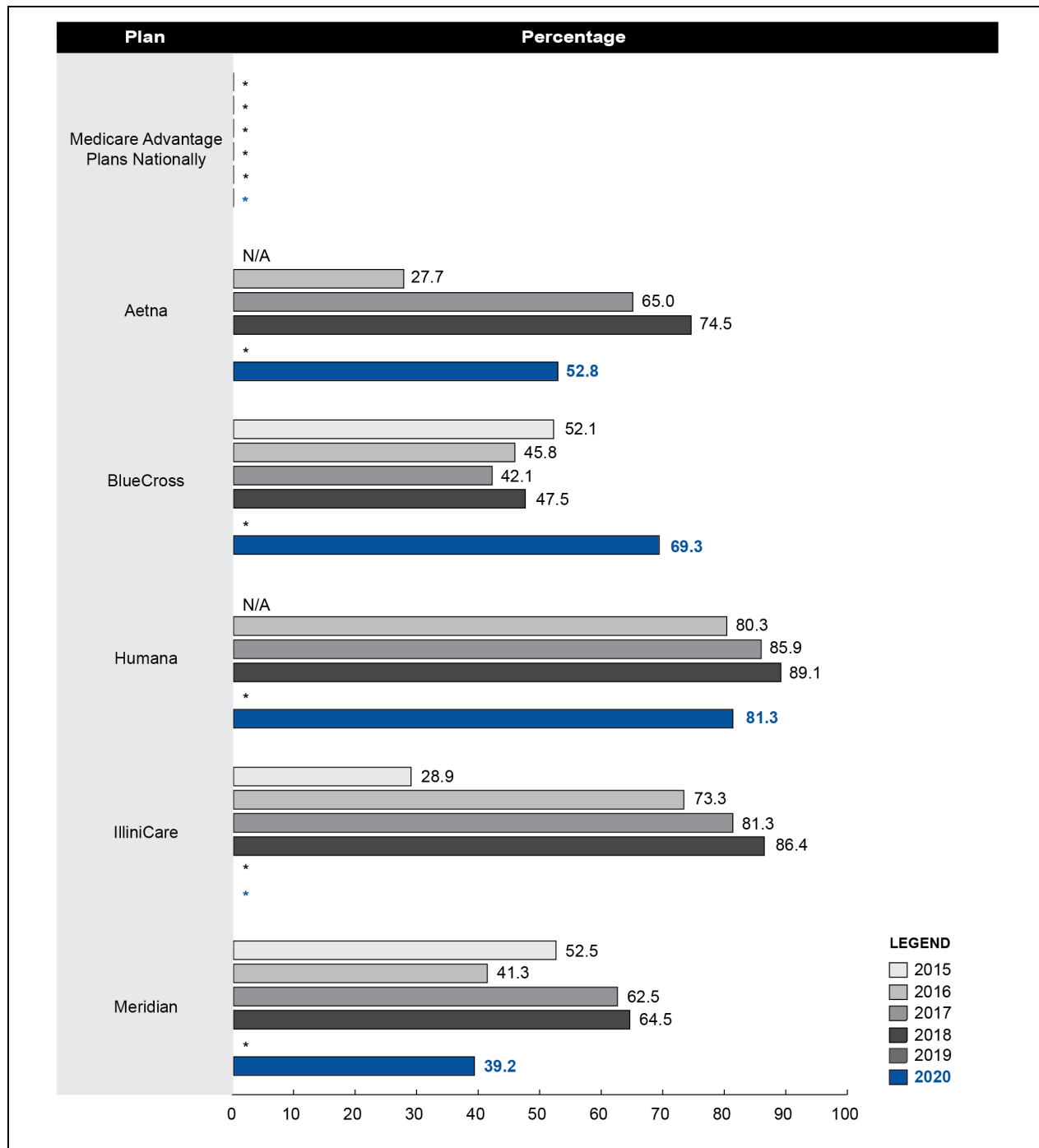
**Figure 6 (continued)**
**Medication review (one of the Care for Older Adults measures), 2015–2020:**
**Reported performance rates for Illinois MMAI MMPs**

| Plan | Percentage |
|------|-----------|

Molina
- 72.4 (2015)
- 85.7 (2016)
- 79.1 (2017)
- 85.2 (2018)
- * (2019)
- **88.1** (2020)

Scale: 0 10 20 30 40 50 60 70 80 90 100

LEGEND
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020

\* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such, or 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.

NOTES: MA plans nationally did not provide HEDIS data for this measure. In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the 2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

Plan all-cause readmissions for enrollees ages 18–64 and 65+ are reported in *Figure 7* and *Figure 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 7* shows that Aetna, Humana, and Molina gradually reduced readmissions over time for enrollees age18–64 from 2015 to 2018. The remaining plans showed little to no improvement during that time period. In 2020, most MMPs reported higher than expected readmission rates, potentially related to COVID-19.

*Figure 8* shows that Blue Cross, Humana, and Molina reported lower than expected readmissions for enrollees ages 65+ for years from 2015-2018, gradually improving over time. The remaining plans had mixed results over this time period. In 2020, all MMPs reported higher than expected readmission rates for enrollees ages 65+, also potentially related to the COVID-19 pandemic.

**Figure 7**
**Plan all-cause readmissions, ages 18–64, 2015–2020: Reported observed-to-expected ratios**
**for Illinois MMAI MMPs**

| Plan | O/E Ratio |
|------|-----------|

**Medicare Advantage Plans Nationally**
- * 
- * 
- .82
- 0.75
- * 
- **1.08**

**Aetna**
- 1.05
- 0.96
- 0.83
- 0.73
- * 
- **1.19**

**BlueCross**
- 0.72
- 1.02
- 0.94
- 0.97
- * 
- **1.17**

**Humana**
- 0.99
- 0.83
- 0.84
- 0.82
- * 
- **0.87**

**IlliniCare**
- 0.75
- 0.91
- 0.94
- 1.06
- * 
- * 

**Meridian**
- 1.10
- 1.23
- 1.21
- 1.06
- * 
- **1.06**

Scale: 0.50 — 1.00 — 1.50

**LEGEND**
- 2015
- 2016
- 2017
- 2018
- 2019
- **2020**
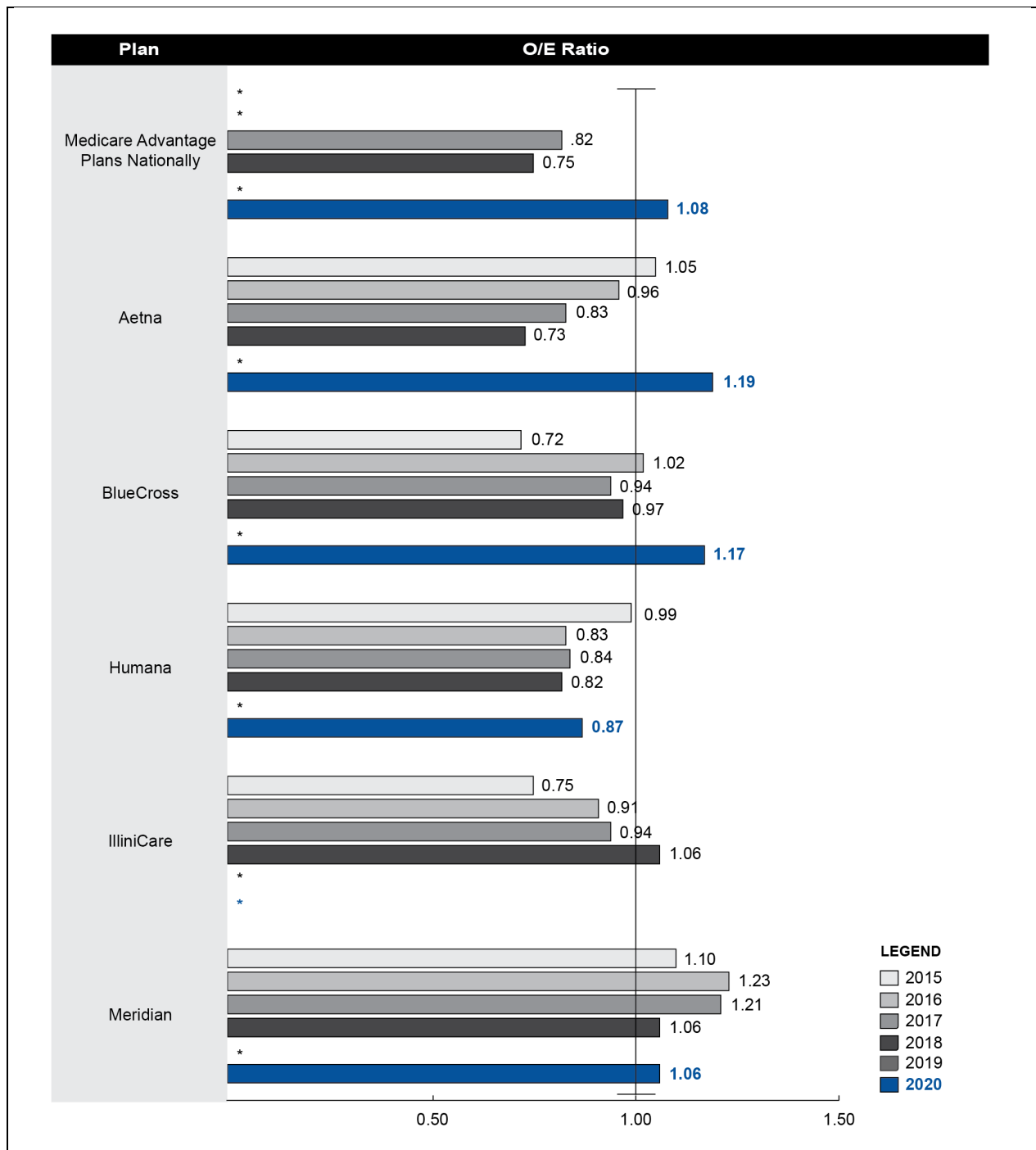
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**Figure 7 (continued)**
**Plan all-cause readmissions, ages 18–64, 2015–2020: Reported observed-to-expected ratios**
**for Illinois MMAI MMPs**
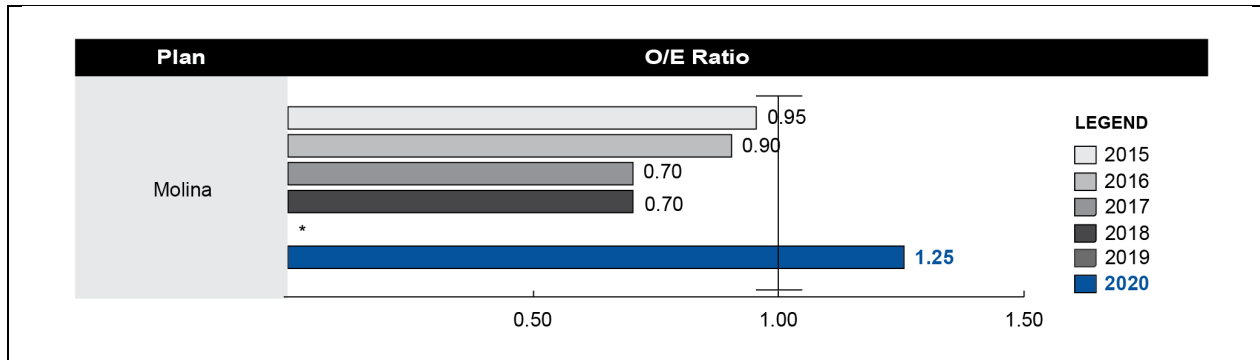


\* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.

NOTES: MA plans nationally did not provide HEDIS data for this measure in measurement years 2015 and 2016. In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the 2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

**Figure 8**
**Plan all-cause readmissions, ages 65+, 2015–2020: Reported observed-to-expected ratios**
**for Illinois MMAI MMPs**



| Plan | O/E Ratio |
|------|-----------|
| Medicare Advantage Plans Nationally | * / * / .79 / 0.71 / * / 1.12 |
| Aetna | 1.04 / 0.77 / 0.60 / 0.68 / * / 1.31 |
| BlueCross | N/A / 0.90 / 0.90 / 0.72 / * / 1.19 |
| Humana | 0.88 / 0.84 / 0.81 / 0.53 / * / 1.16 |
| IlliniCare | 0.75 / 0.87 / 0.92 / 0.65 / * / * |
| Meridian | 0.89 / 1.07 / 0.85 / 0.93 / * / 1.17 |

LEGEND
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
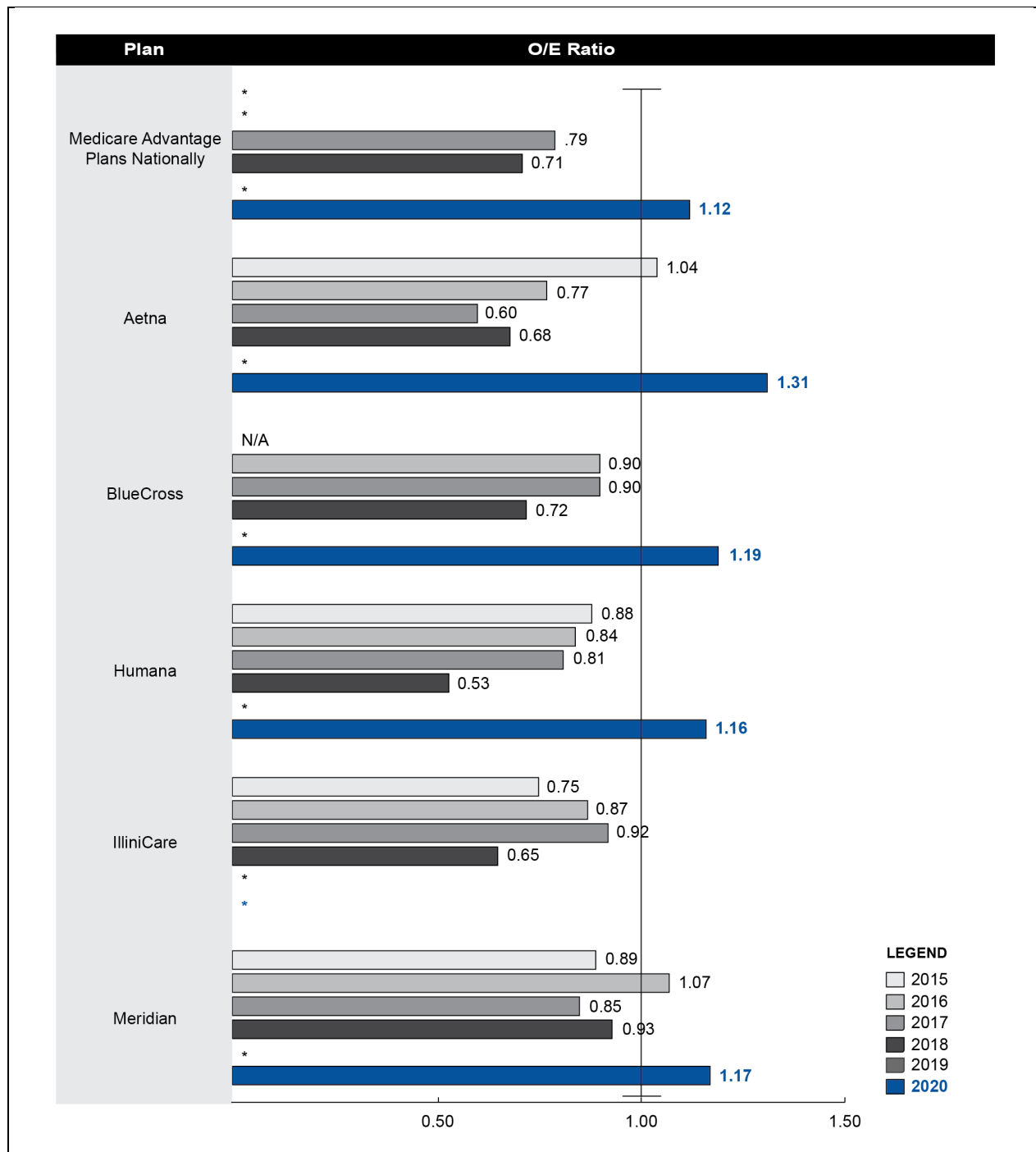
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**Figure 8 (continued)**
**Plan all-cause readmissions, ages 65+, 2015–2020: Reported observed-to-expected ratios for Illinois MMAI MMPs**



\* = data not available; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such, or 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.

NOTES: MA plans nationally did not provide HEDIS data for this measure in measurement years 2015 and 2016. In response to the COVID-19 Public Health Emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS data covering the 2019 measurement year. HEDIS data for IlliniCare covering the 2020 measurement year do not appear in the figure as the plan consolidated with Meridian for 2021.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

# SECTION 4
# Beneficiary Experience

During this reporting period, CAHPS survey results indicate that the majority of enrollees were satisfied with their MMAI plan and the care management they receive. Despite the PHE, health plan ratings improved from 2019 to 2021.

The State and MMPs reported an increased focus on social determinants of health and improving enrollee access to telehealth. Stakeholders reported few challenges with access to services between 2020 and 2021, although advocates raised concerns about the low volume of referrals for long-term home-delivered meals.

One of the main goals of the demonstration under the FAI is to improve the beneficiary experience accessing Medicare and Medicaid services. In this section we highlight beneficiary experience with MMAI, and provide information on beneficiary protections, data related to complaints and appeals, and critical incident and abuse reports. For beneficiary experience, we draw on findings from the CAHPS survey and stakeholder interviews. In response to the PHE, CMS did not require MMPs to collect CAHPS data for 2020. See *Appendix A* for a full description of these data sources.

## 4.1    Impact of the Demonstration on Beneficiaries

*Overall Satisfaction with the Demonstration*

Overall beneficiary satisfaction with the demonstration remained high in 2021; despite the PHE, health plan ratings were higher than in any previous year, although care coordination ratings declined from 2019. In *Figures 9* and *10*, we present data on two measures of overall beneficiary satisfaction from the annual CAHPS surveys.[18] *Figure 9* shows that for each of the seven MMPs that remained in the demonstration beyond 2015, enrollees' ratings of their satisfaction with their MMPs increased to the most recent data point/year for which there are data for the MMP, with some variability within MMPs over the entire period.

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[18] We provide national benchmarks from MA plans, where available, understanding that there are differences in the populations served by the MMAI demonstration and the MA population, including health and socioeconomic characteristics that must be considered in the comparison of the demonstration to the national MA contracts.

**Figure 9
Beneficiary overall satisfaction, 2015–2021:
Percentage of beneficiaries rating their health plan as a 9 or 10**



| Plan | Percentage | Sample Size |
|---|---|---|
| Medicare Advantage Plans | 62% / 61% / 64% / 64% / 66% / * / 69% | n = 148,335 / n = 142,984 / n = 188,484 / n = 180,664 / n = 173,080 / - / n = 225,148 |
| MMPs Nationally | 51% / 59% / 63% / 65% / 66% / * / 68% | n = 5,141 / n = 9,765 / n = 14,662 / n = 13,443 / n = 13,706 / - / n = 12,221 |
| Illinois MMPs | 49% / 57% / 61% / 62% / 62% / * / 64% | - / - / n = 2,021 / n = 1,800 / n = 2,028 / - / n = 1,294 |
| Aetna | 45% / 49% / 54% / 62% / 55% / * / 56% | - / n = 139 / n = 175 / n = 224 / n = 321 / - / n = 297 |
| BlueCross | 49% / 64% / 68% / 65% / 64% / * / 69% | n = 239 / n = 373 / n = 393 / n = 367 / n = 383 / - / n = 453 |
| Cigna | 46% / 56% / 64% / * / * / * / * | n = 120 / n = 181 / n = 183 / - / - / - / - |

LEGEND
☐ 2015
2016
2017
2018
2019
2020
2021
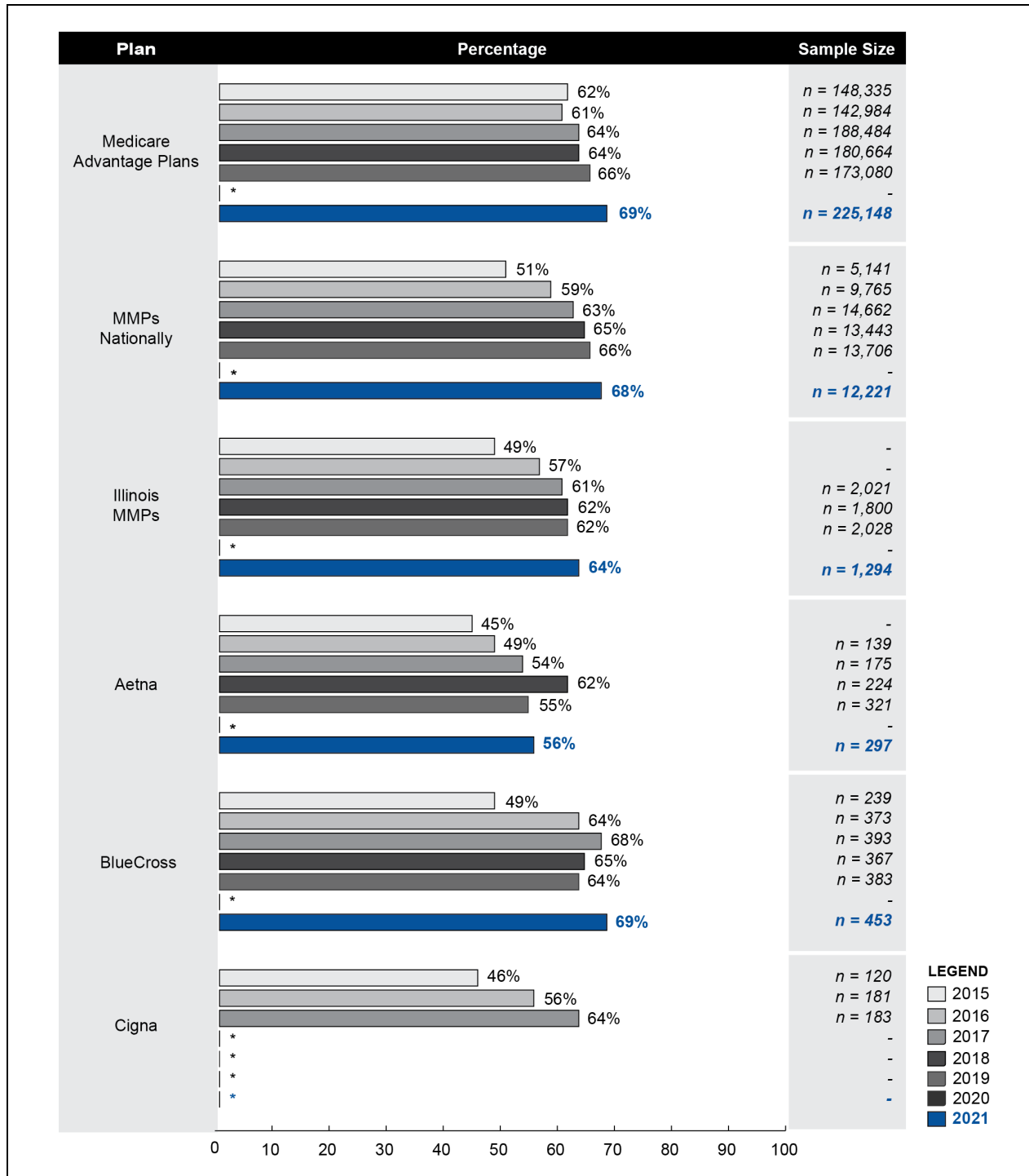
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**Figure 9 (continued)**
**Beneficiary overall satisfaction, 2015–2021:**
**Percentage of beneficiaries rating their health plan as a 9 or 10**



| Plan | Percentage | Sample Size |
|---|---|---|
| Health Alliance Connect | 60% | n = 225 |
| | * | - |
| | * | - |
| | * | - |
| | * | - |
| | * | - |
| | * | **-** |
| Humana | 51% | n = 136 |
| | 51% | n = 202 |
| | 54% | n = 194 |
| | 60% | n = 219 |
| | 59% | n = 315 |
| | * | - |
| | **67%** | **n = 259** |
| Illinicare | 53% | n = 215 |
| | 66% | n = 159 |
| | 65% | n = 148 |
| | 56% | n = 270 |
| | 62% | n = 239 |
| | * | - |
| | * | **-** |
| Meridian | 42% | n = 105 |
| | 53% | n = 139 |
| | 55% | n = 143 |
| | 55% | n = 211 |
| | 57% | n = 221 |
| | * | - |
| | * | **n = 126** |
| Molina | 52% | n = 163 |
| | 62% | n = 485 |
| | 60% | n = 786 |
| | 60% | n = 517 |
| | 67% | n = 557 |
| | * | - |
| | **74%** | **n = 164** |

LEGEND
2015
2016
2017
2018
2019
2020
2021

\* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MMP = Medicare-Medicaid Plan.

NOTES: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out of the demonstration. In response to the COVID-19 Public Health Emergency, CMS did not require MMPs to collect CAHPS data for 2020. 2021 data are not included for IlliniCare as the plan was consolidated with Meridian for 2021.

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?"

As with enrollees' ratings of their MMPs, satisfaction with their MMP's prescription drug plan varied from year to year, but showed an overall increase for most MMPs from 2015 to 2021 (see *Figure 10*).

**Figure 10**
**Beneficiary overall satisfaction, 2015–2021:**
**Percentage of beneficiaries rating their prescription drug plan as a 9 or 10**

| Plan | Percentage | Sample Size |
|------|-----------|-------------|
| **Medicare Advantage Plans** | 62% / 61% / 63% / 63% / 64% / * / 68% | n = 136,044 / n = 132,613 / n = 172,033 / n = 162,394 / n = 156,210 / - / **n = 210,209** |
| **MMPs Nationally** | 56% / 61% / 64% / 65% / 67% / * / 68% | n = 5,042 / n = 9,617 / n = 14,087 / n = 13,082 / n = 13,351 / - / **n = 12,018** |
| **Illinois MMPs** | * / * / 66% / 63% / 62% / * / 66% | - / - / n = 1,921 / n = 1,752 / n = 1,957 / - / **n = 1,260** |
| **Aetna** | 49% / 59% / 68% / 59% / 62% / * / 63% | n=115 / n = 136 / n = 173 / n = 217 / n = 309 / - / **n = 288** |
| **BlueCross** | 54% / 63% / 69% / 66% / 61% / * / 70% | n = 236 / n = 370 / n = 372 / n = 372 / n = 371 / - / **n = 441** |
| **Cigna** | 56% / 65% / 68% / * / * / * / * | n = 110 / n = 180 / n = 168 / - / - / - / **-** |

LEGEND
2015
2016
2017
2018
2019
2020
2021
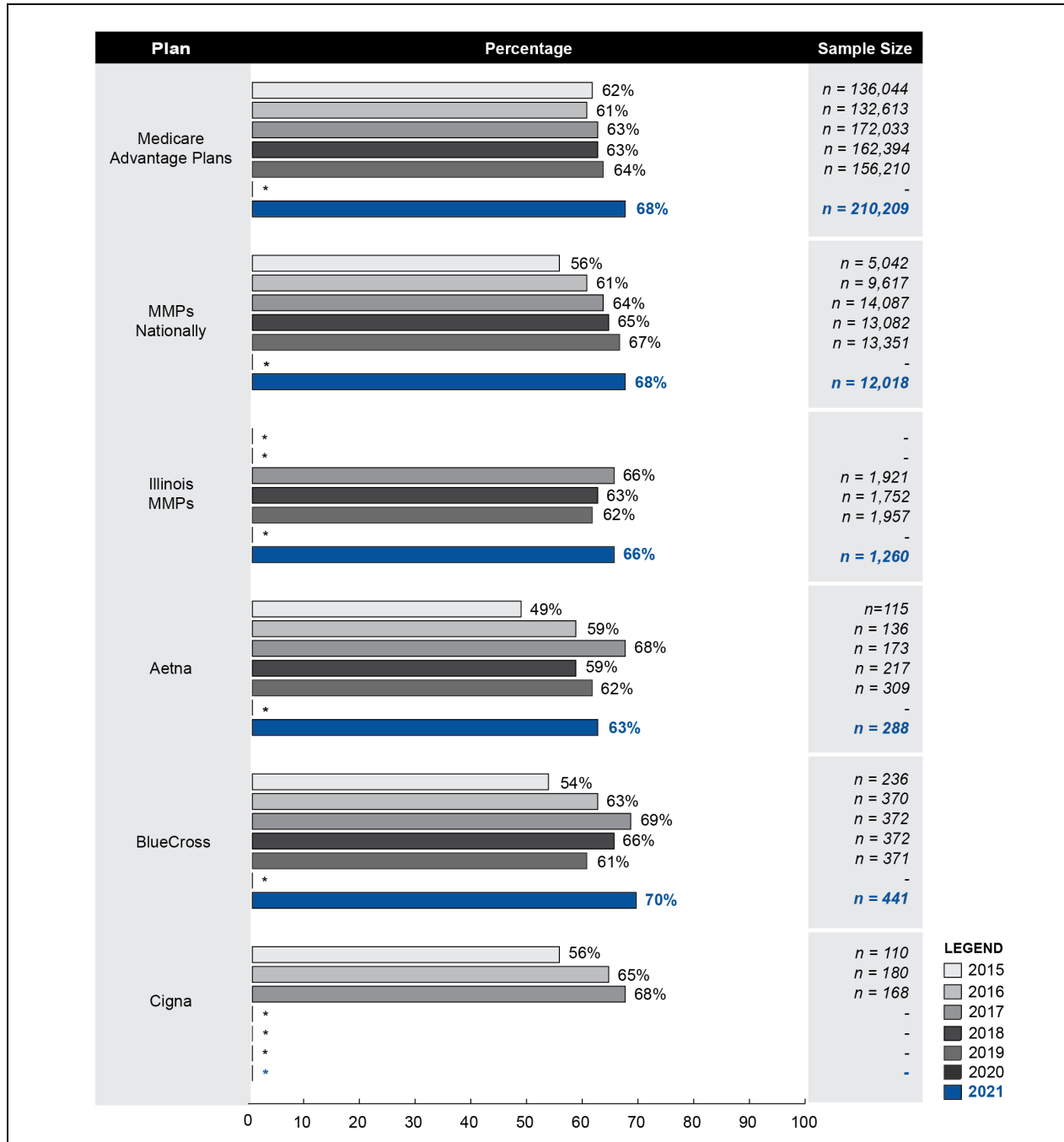
(continued)

**Figure 10 (continued)**
**Beneficiary overall satisfaction, 2015–2021:**
**Percentage of beneficiaries rating their prescription drug plan as a 9 or 10**



\* = data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MMP = Medicare-Medicaid Plan.

NOTES: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out of the demonstration. In response to the COVID-19 Public Health Emergency, CMS did not require MMPs to collect CAHPS data for 2020. 2021 data are not included for IlliniCare as the plan was consolidated with Meridian for 2021.

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?"

*Beneficiary Experience with Care Coordination*

Beneficiary experience with care coordination has varied over the course of the demonstration to date, with more positive experiences reported as the demonstration matured. An advocacy group said in 2020 that enrollees were reporting improved health due to MMAI, which they credited to care coordination, which helped them use their benefits, and obtain appointments and medical equipment. One MMP said that enrollees that actively engage with their care coordinator are thankful to have someone who can help guide them through the medical system.

MMPs increased outreach to enrollees during the PHE. One MMP reported receiving an influx of calls from enrollees wanting to voice their satisfaction with how their care coordinators followed up with them throughout the PHE and expressed concern about their overall health and well-being.

As shown in ***Figure 11***, the percentage of enrollees who reported that their health plan usually or always gave them the information they needed varied for most MMPs in 2015 through 2021.

**Figure 11**
**Beneficiary experience with care coordination, 2015–2021:**
**Percentage of beneficiaries reporting that their health plan usually or always gave them**
**information they needed**
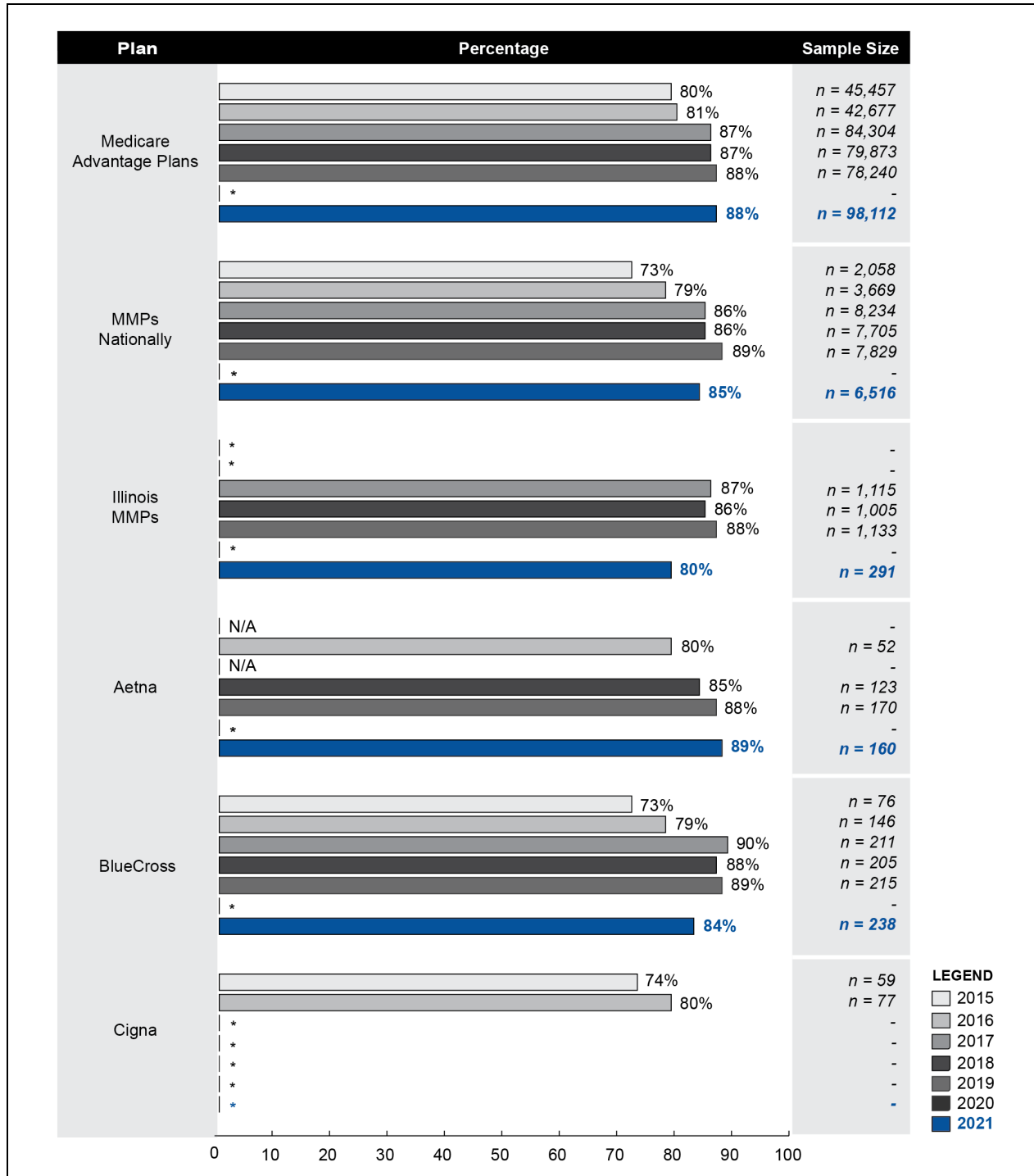


(continued)

**Figure 11 (continued)**
**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; 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: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out of the demonstration. In response to the COVID-19 Public Health Emergency, CMS did not require MMPs to collect CAHPS data for 2020. 2021 data are not included for IlliniCare as the plan was consolidated with Meridian for 2021.

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?"

CAHPS respondents were also asked about coordination between physicians. Two of the eight MMPs reported sufficient data for this measure for more than one year during the reporting period (2015–2021). As shown in ***Figure 12***, from 2015–2021 the percentage of respondents that reported their personal doctors were usually or always informed about care from a specialist varied somewhat from year to year for the two MMPs.

**Figure 12**
**Beneficiary experience with care coordination, 2015–2021:**
**Percentage of beneficiaries reporting that in past 6 months their personal doctors were usually or always informed about care from specialists**
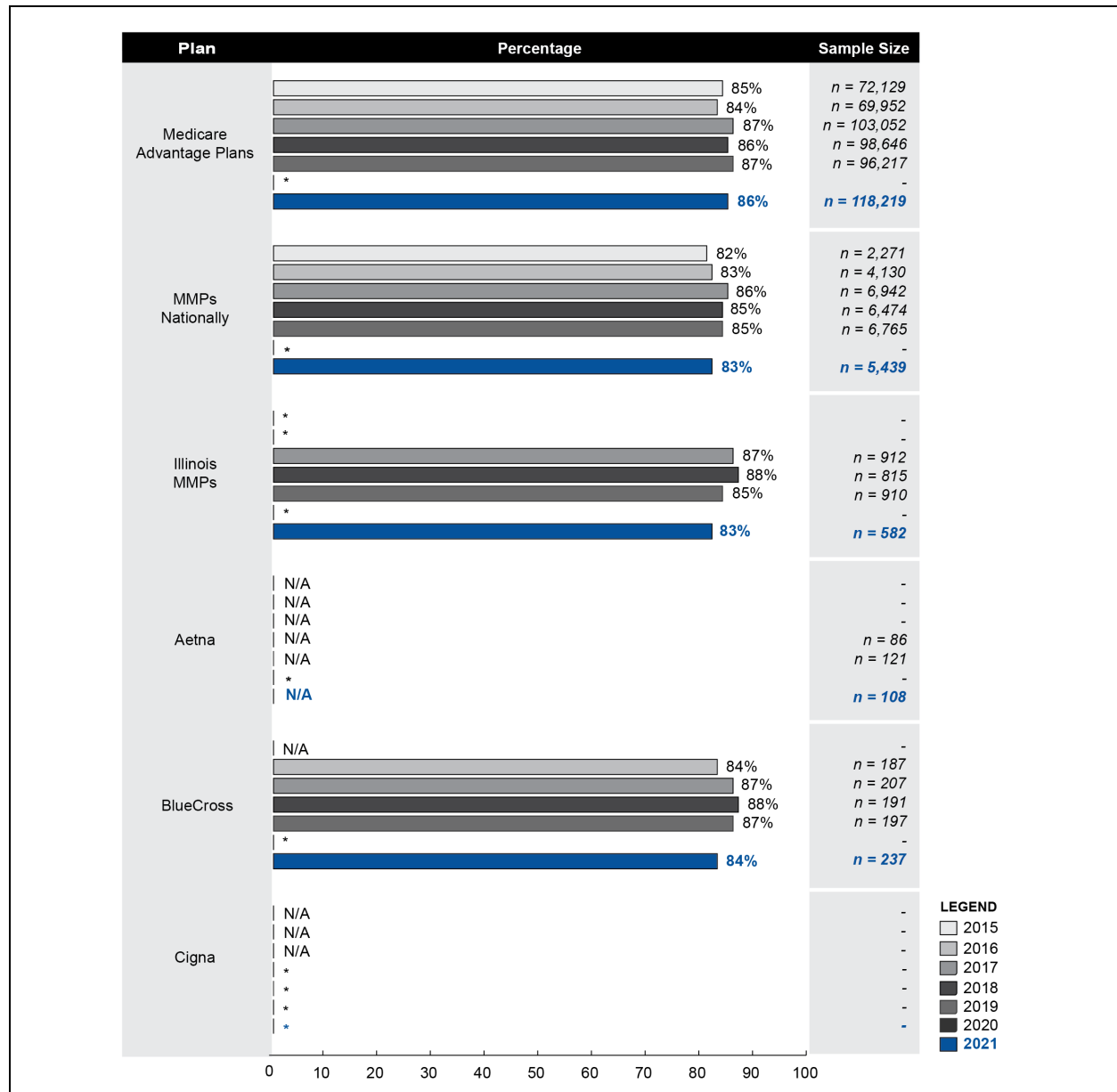
**Figure 12 (continued)**
**Beneficiary experience with care coordination, 2015–2021:**
**Percentage of beneficiaries reporting that in past 6 months their personal doctors were usually or always informed about care from specialists**



* = data not available; - =sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; 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: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out of the demonstration. In response to the COVID-19 Public Health Emergency, CMS did not require MMPs to collect CAHPS data for 2020. 2021 data are not included for IlliniCare as the plan was consolidated with Meridian for 2021. Aetna, Cigna, IlliniCare, Humana, and Meridian did not report data for any years because there were too few beneficiaries who responded to the question to allow reporting, or the score had low reliability.

SOURCE: CAHPS data for 2015–2021. 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?"

*Quality and Access to Care*

In 2020, the State and MMPs reported a focus on improving access to telehealth in response to the PHE. For example, in 2020, one MMP reported implementing a tablet lending program to provide access to telehealth services for enrollees who are unable to seek care outside of their home and do not have access to technology at home.

During the reporting period, MMPs reported an increased focus on social determinants of health. However, advocates continued to raise concerns in early 2022 about the low volume of referrals by MMPs to the Department of Aging's home-delivered meal (HDM) program, which provides long-term meals to homebound older adults, financed by Federal and State aging funds (see the Second Evaluation Report for earlier findings on this).[19] Advocates have said in the past that because MMPs are responsible for enrollees' care coordination, no other care coordinators or case managers are tasked with conducting HDM assessments and making referrals. When asked about this challenge, MMPs said they preferred to contract with their own vendors for the short-term, post-hospitalization meals they offer as flexible benefits, because the quality is better than HDMs from aging network providers. MMPs did not address long-term access to meals. Advocates said they would ask the State to add HDM assessments as a care coordination requirement for MMPs.

Transportation access and quality remained a challenge for enrollees throughout the period covered in this report. In 2021 the State said MMPs reported an increase of "no shows" during the PHE, because transportation vendors were struggling with hiring and retaining employees. To ensure enrollees' access to services was not impacted when a transportation vendor was a no show, State officials said they were working with MMPs to make sure they had contingency plans in place.

*Beneficiary Experience with Flexible Benefits*

A beneficiary advocacy group reported that enrollees who are able to access the flexible benefits offered by MMPs are generally satisfied with the demonstration. Over the years, MMPs have added certain benefits offered by other plans which were popular with enrollees and prospective enrollees. In 2021 and 2022, all of the MMPs offered zero prescription drug co-payments, an important benefit for low-income beneficiaries. Four MMPs offered rides to the pharmacy after a doctor visit, and three offered home-delivered meals for 10-14 days after a hospital or nursing facility stay. In addition, all of the MMPs offered additional dental benefits, and four of the five offered an over-the-counter product benefit (HFS, 2021).[20]

*Special Populations*

In 2021, the State reported the PHE has disproportionately affected NFs that serve predominately minority populations, which experienced higher death rates. As a result, the State prioritized health equity for minority communities, and the Department of Healthcare and Family

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[19] Many states provide HDMs as a Medicaid HCBS waiver service, to supplement HDMs financed with aging funds, but Illinois does not use any Medicaid financing for the meals.

[20] The State and its enrollment broker publish enrollment materials on the Medicare-Medicaid Alignment Initiative (MMAI) materials webpage. The page includes a comparison chart which enables prospective enrollees to compare MMPs and their flexible benefits.

Services announced efforts to reform Medicaid NF payments to improve the quality of care for MMAI enrollees and other Medicaid beneficiaries in facilities.

Also in 2021, beneficiary advocates reported that linguistic minority enrollees continued to experience challenges accessing services as a result of the limited number of network physicians who speak their languages although advocates did report an uptick of beneficiaries opting into MMAI because a certain Korean-speaking provider contracted with an MMAI plan.

## 4.2    Beneficiary Protections

Enrollees have certain protections under the demonstration. There are several options for them to report grievances or complaints, appeals, and critical incidents and abuse. Ombudsman services are available under the demonstration to assist enrollees with filing and resolving complaints, as well as providing information. Throughout the PHE, the Ombudsman program continued conducting outreach and finding inventive ways to promotes its services to MMAI enrollees. In 2020, for example, the Ombudsman partnered with the State's Department on Aging's home-delivered meal program to send out fact sheets along with 18,000 HDMs, to raise awareness of Ombudsman services available to MMAI enrollees.

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. MMAI care coordinators sometimes play an active role in resolving grievances at the MMP level. For example, in 2020, one MMP said that an enrollee's care coordinator is notified once a grievance is reported so that the care coordinator is able to assist the enrollee throughout the process.

*Figure 13* and *Figure 14* present the average number of grievances or complaints filed with the MMPs. As shown in *Figure 13*, the average number of MMP-reported grievances remained low from 2014 through 2017.

**Figure 13**
**Average number of grievances per 1,000 enrollees per quarter, 2014–2017**
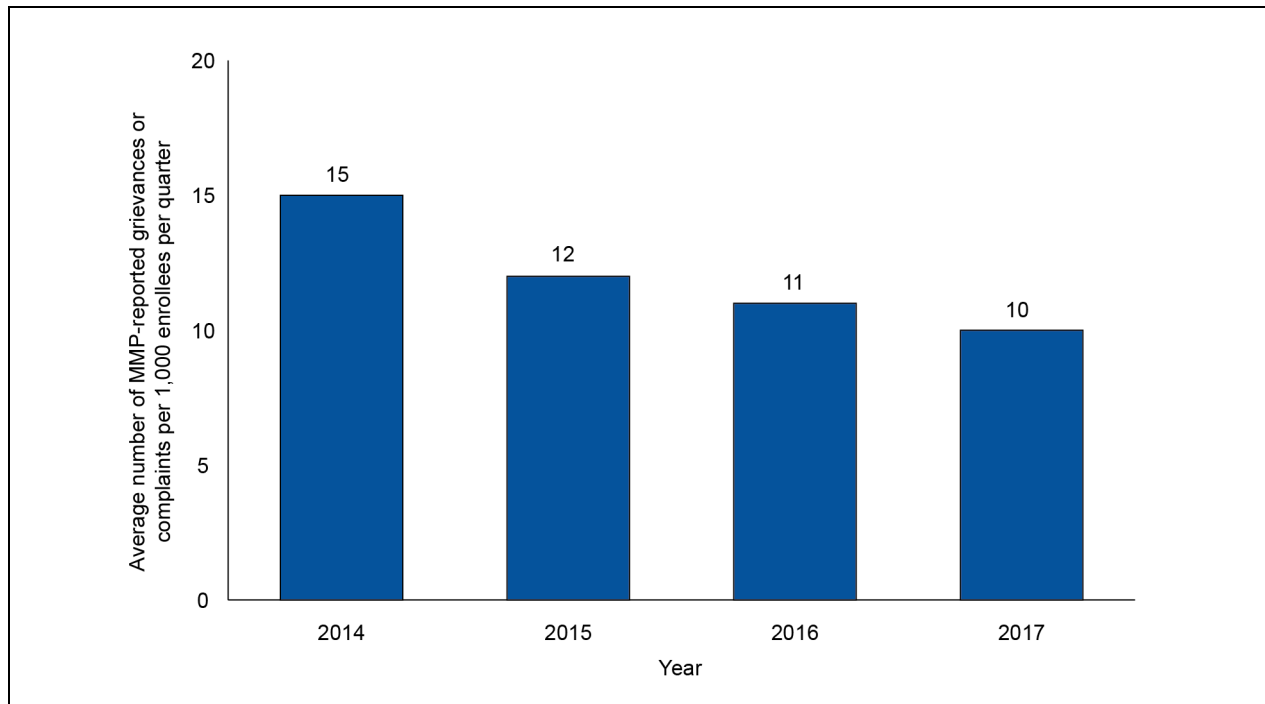


MMP = Medicare-Medicaid Plan.

The way that plan-reported grievance data were analyzed changed in 2018. The average number of MMP-reported grievances per 10,000 enrollee months per quarter, as shown in **Figure 14**, varied from 2018 through 2021.

**Figure 14**
**Average number of grievances per 10,000 enrollee months per quarter, 2018–2021**
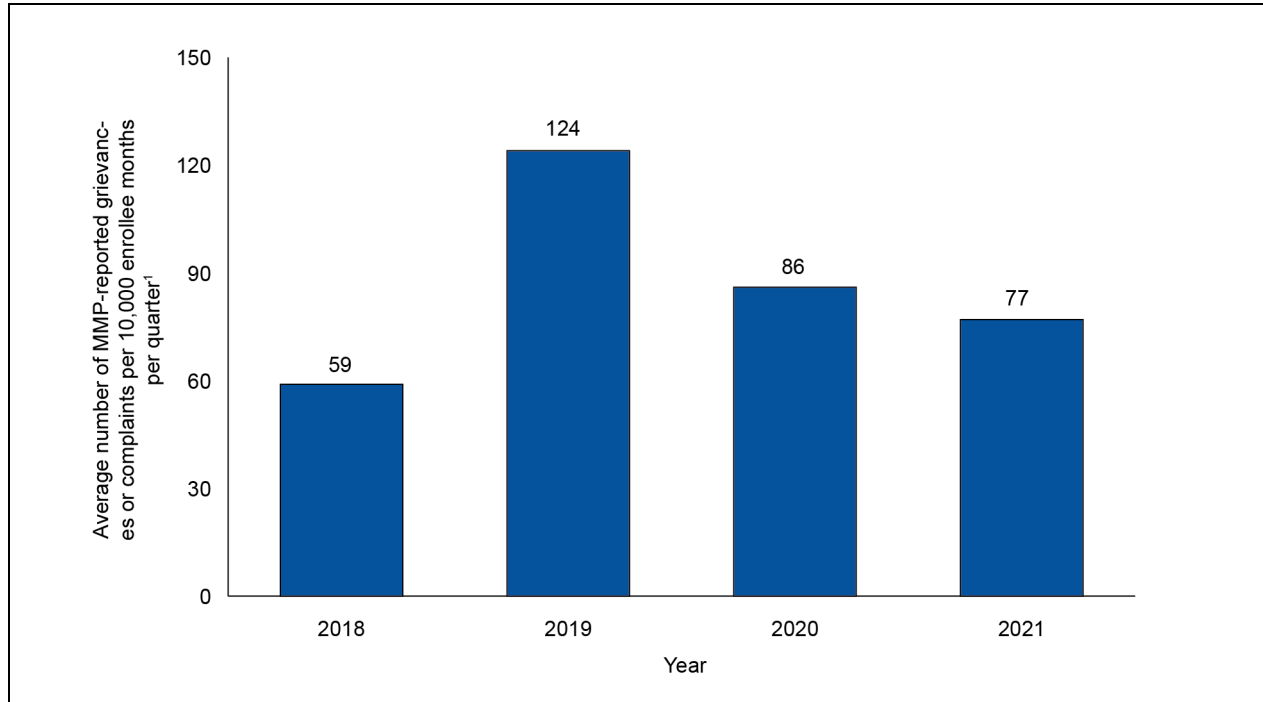


MMP = Medicare-Medicaid Plan.
[1] The way that plan-reported grievance data were analyzed changed in 2018. In 2015 through 2017, data were analyzed per 1,000 enrollees per quarter. Beginning in 2018, data were analyzed per 10,000 enrollee months per quarter.

*Figure 15* shows total complaints reported to the Complaint Tracking Module (CTM) by the Illinois Department of Healthcare and Family Services or through 1-800-Medicare in 2014–2021. The number of complaints was highest early in the demonstration, and, after some variability during the demonstration to date, rose again in 2021. Over the course of the demonstration to date, the highest number of CTM complaints were in the enrollment and disenrollment[21] category, followed by complaints in the benefits, access, and quality of care[22] category.

**Figure 15**
**Number of CTM complaints per year, 2014–2021**
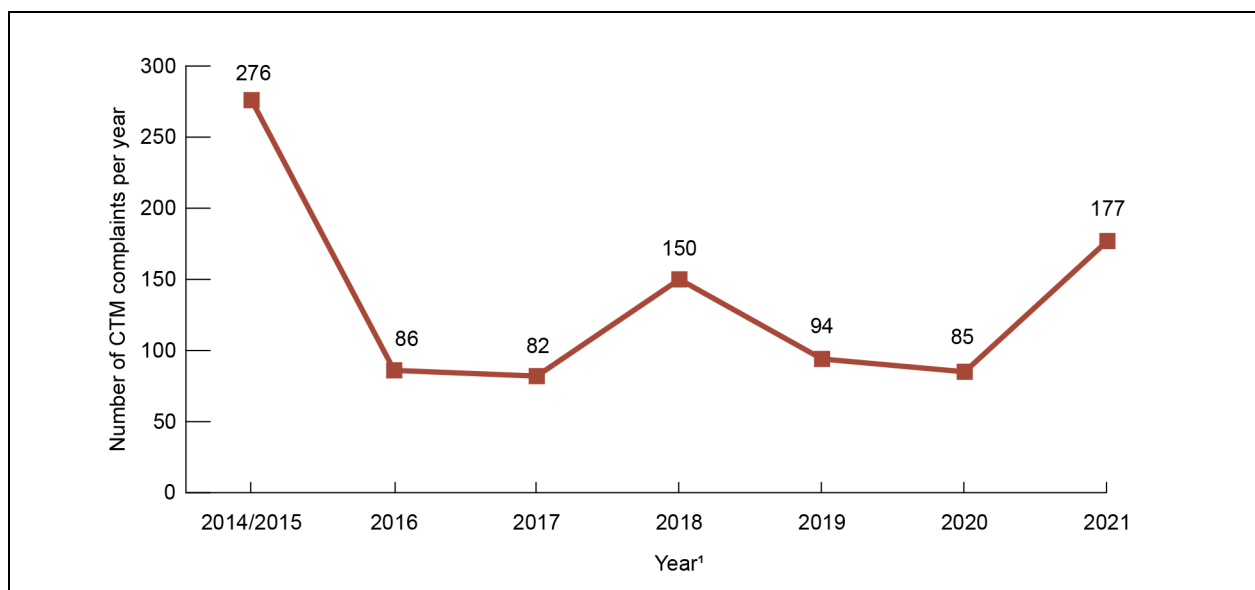


CTM = Complaint Tracking Module.
[1] Because the demonstration began in March 2014, CTM data for 2014 and 2015 were reported together.

Enrollees also have the right to appeal an MMP's decision to deny, terminate, suspend, or reduce services. Appeals must be filed with the MMP first. 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).

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[21] This category is defined as "Beneficiary is experiencing an enrollment issue that may require reinstatement or enrollment change."
[22] 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."

*Figure 16* and *Figure 17* present the average number of MMP-reported appeals. As shown in *Figure 16*, the average number of MMP-reported appeals remained low from 2014 through 2017.

**Figure 16**
**Average number of appeals per 1,000 enrollees per quarter, 2014–2017**
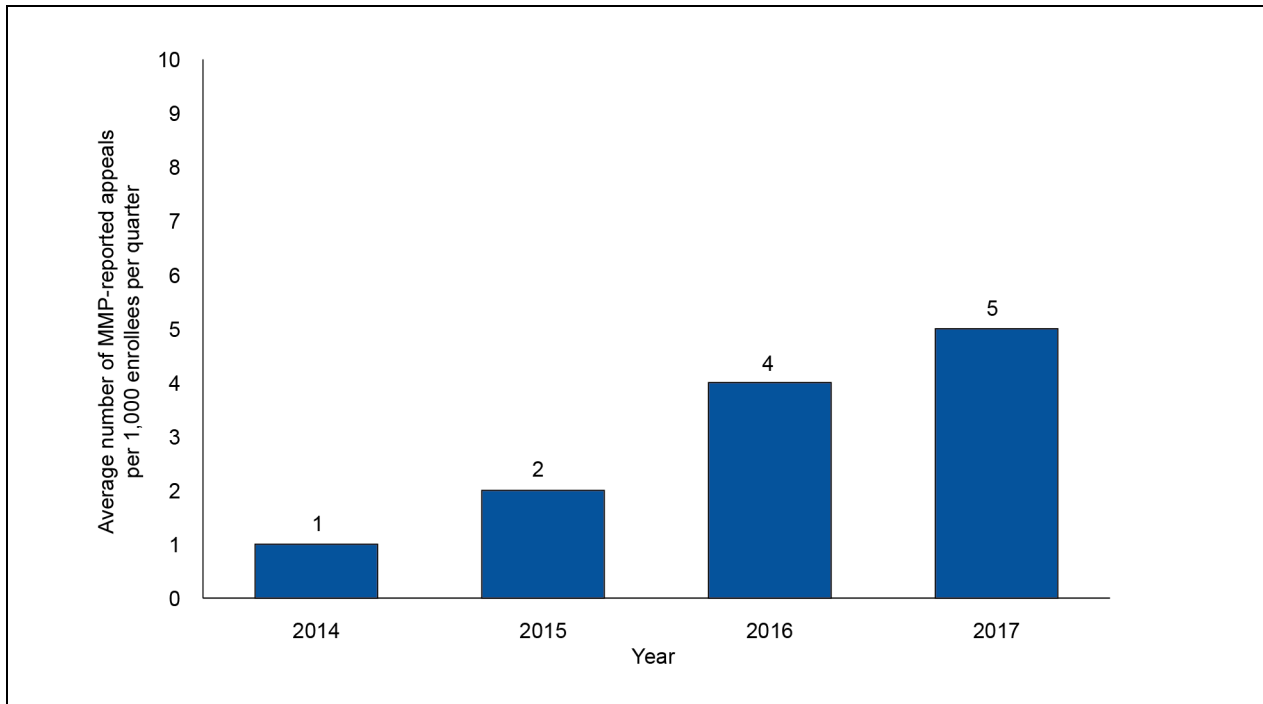


MMP = Medicare-Medicaid Plan.

The way that plan-reported appeals data were analyzed changed in 2018. As shown in *Figure 17*, in 2018 through 2021 the average number of MMP-reported appeals per 10,000 enrollee months per quarter varied.

**Figure 17**
**Average number of appeals per 10,000 enrollee months per quarter, 2018–2021**
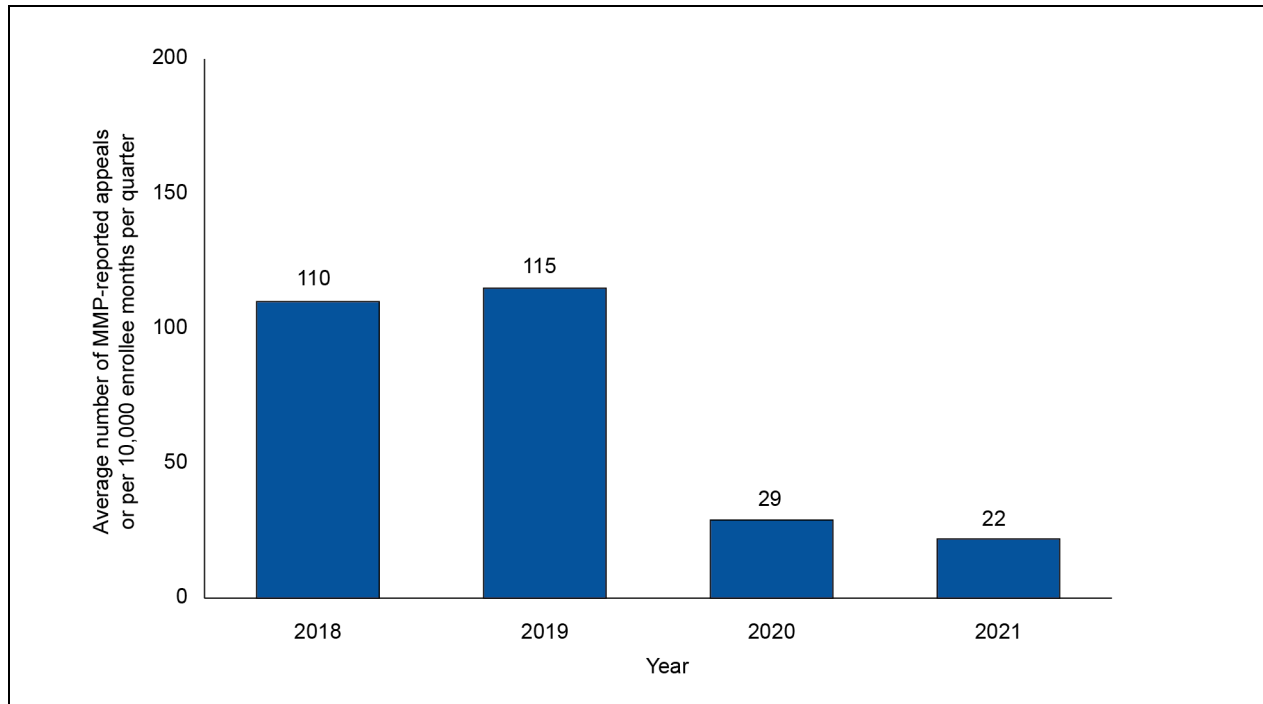


MMP = Medicare-Medicaid Plan.
[1] The way that plan-reported appeals data were analyzed changed in 2018. In 2015 through 2017, data were analyzed per 1,000 enrollees per quarter. Beginning in 2018, data were analyzed per 10,000 enrollee months per quarter.

*Figure 18* shows the total number of MMP-reported appeals reported to the IRE in 2014 through 2021. Of the 3,302 MMP-reported appeals reported to the IRE in 2014 through 2021, 77 percent of the MMP decisions were upheld, 12 percent were overturned or partially overturned, 10 percent were dismissed, and the remainder (1 percent) were withdrawn. The most common category of appeals referred to the IRE was for issues related to practitioner services.[23]

**Figure 18**
**Number of IRE appeals per year, 2014–2021**
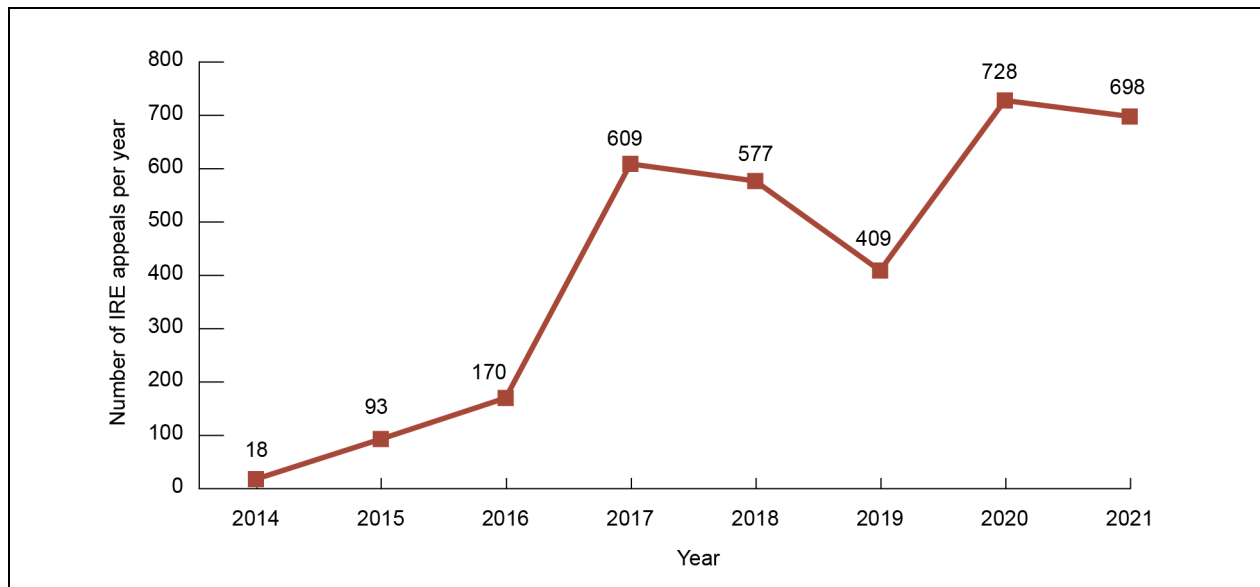


IRE = Independent Review Entity.

MMPs are required to report to CMS the number of critical incidents and abuse reports for enrollees receiving LTSS.[24] From 2014 through 2021, the number of critical incidents and abuse reports remained very low, ranging from 0–23 reports per 1,000 enrollees per quarter.

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[23] Examples of practitioner services include physician, chiropractic, dental, prosthetics/orthotics, and vision care.
[24] A critical incident is any actual or alleged event or situation that creates a significant risk of substantial or serious harm to the physical or mental health, safety, or well-being of a member. Abuse refers to willful use of offensive, abusive, or demeaning language by a caretaker that causes mental anguish; knowing, reckless, or intentional acts or failures to act which cause injury or death to an individual or which places that individual at risk of injury or death; rape or sexual assault; corporal punishment or striking of an individual; unauthorized use or the use of excessive force in the placement of bodily restraints on an individual; and use of bodily or chemical restraints on an individual which is not in compliance with Federal or State laws and administrative regulations.
https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements

# Demonstration Impact on Service Utilization and Quality of Care
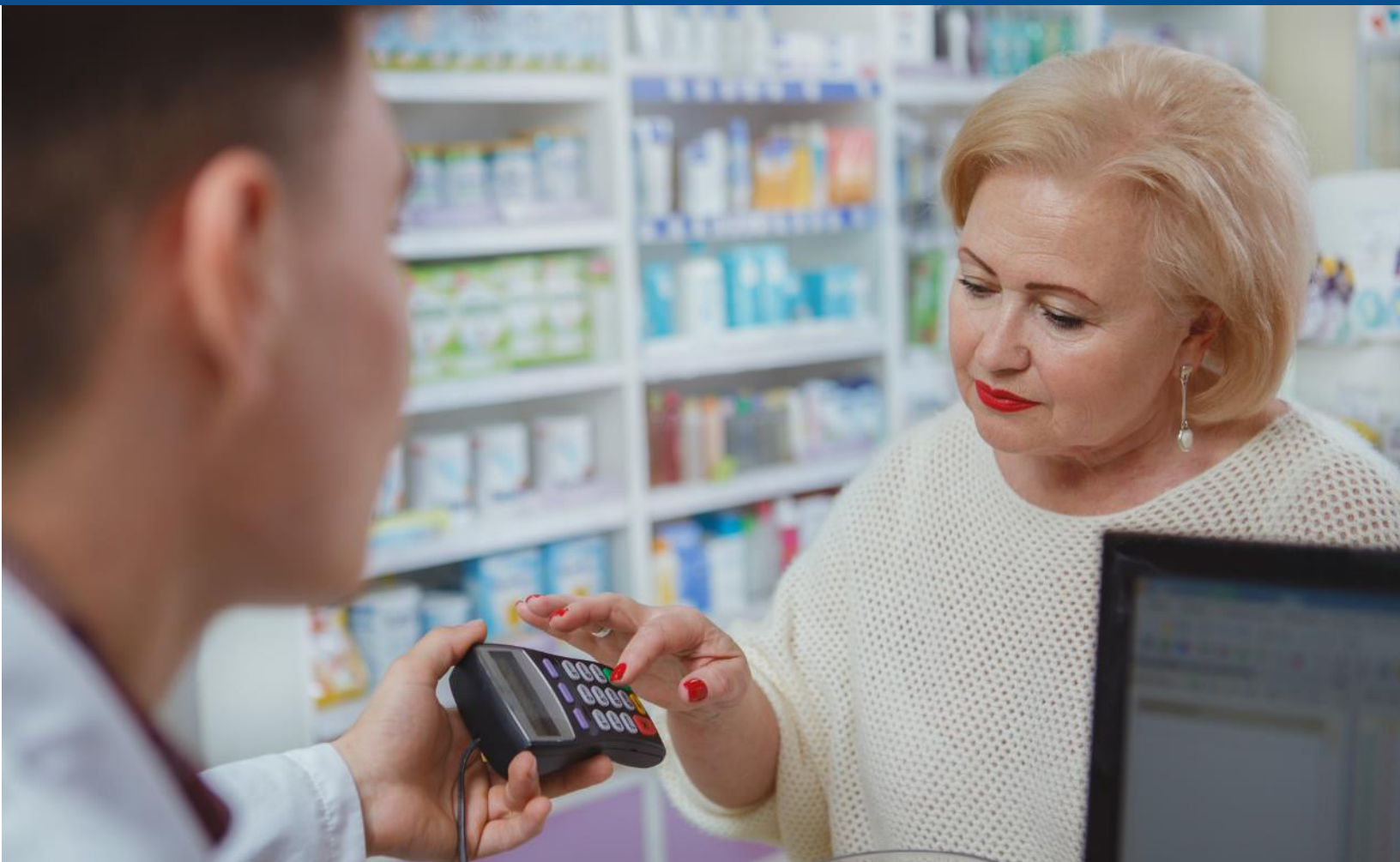
## 5.1 Methods Overview

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 Illinois demonstration in demonstration years 1–4 (March 1, 2014–December 31, 2018) on service utilization and quality of care outcomes among Illinois demonstration eligible beneficiaries. Although demonstration year 5 was included in analyses of cost savings, it was omitted for the analyses of service utilization and quality of care because complete encounter data for the MMPs was not available for that year (January 1, 2019–December 31, 2019). Moreover, we excluded enrollees from 2 MMPs due to concerns on the completeness and reliability of the encounter data (approximately 15 to 19 percent of the demonstration eligible population during the demonstration period).[25]

For this analysis, we used an intent-to-treat (ITT) approach that included all FFS Medicare-Medicaid beneficiaries eligible for the demonstration, 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 approach of the demonstration. In the analyses presented in this section, enrolled beneficiaries account for approximately 48 percent of all eligible beneficiaries (including FFS beneficiaries and MMP enrollees) in demonstration year 4.

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 D* for more detail on our 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 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.

The forest plots 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

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[25] The two MMPs removed from this analysis are Meridian and Illinicare. Two other MMPs, Health Alliance and Cigna Health Spring, dropped out of the demonstration in 2015 and 2017, respectively.

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 serious and persistent mental illness (SPMI). The interest is in understanding 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 section 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*.

Finally, this analysis applies the demonstration's Medicaid medically needy exclusion criteria, specified in the three-way contract on the Financial Alignment Initiative website.[26] Previous reports did not apply this exclusion due to the lack of available and reliable Medicaid eligibility data for all years. As such, the results reported here are different than what was previously reported

## 5.2 Demonstration Impact on Service Utilization Among Eligible Beneficiaries

Overall, all service utilization measures increased among beneficiaries in the demonstration group, relative to the comparison group. The number of physician visits increased by 14.1 percent, relative to the comparison group, a favorable result. However, the demonstration also increased the probability of any inpatient admission by 3.0 percent, emergency department (ED) visits by 2.7 percent, skilled nursing facility (SNF) admissions by 18.8 percent, and long-stay NF use by 26.7 percent, relative to the comparison group.

### 5.2.1 Cumulative Impact Over Demonstration Years 1–4

The demonstration is intended to increase use of outpatient care and HCBS, while decreasing inpatient admissions, ED visits, SNF admissions, and long-stay NF use through improvements in access to the full range of medical, behavioral health and LTSS, and improvements in quality of care and care coordination.

*Table 9* shows the cumulative impacts of the demonstration on service utilization. Monthly physician evaluation and management (E&M) visits increased more in the demonstration group, relative to the comparison group, a favorable finding for the demonstration. However, counter to the goals of the demonstration, there also was an increase in

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[26] For the original three-way contract, please see https://www.cms.gov/files/document/ilcontract.pdf.

the probability of inpatient admissions, ED visits, SNF admissions, and any long-stay NF use, relative to the comparison group.

- The cumulative effect of the demonstration on the number of physician visits was an increase of 148.9 visits per 1,000 beneficiary months, relative to the comparison group. This monthly increase represents a relative increase of 14.1 percent to the predicted number of physician visits per 1,000 beneficiary months in the comparison group during the demonstration period (1,056.6). The annualized increase in the number of physician visits was 1,786.8 visits (not shown) per year per 1,000 beneficiaries (derived by 148.9*12) relative to the comparison group.

  This increase in physician visits is consistent with the goals of the demonstration, and was especially true for LTSS users (see **Table E-2** in **Appendix E**). These findings indicate that despite implementation challenges and care coordinator turnover, as described in the First Evaluation Report, MMP activities, such as having dedicated staff to link enrollees with primary care physicians, were helping to link beneficiaries with more frequent E&M visits.

- The probability of any inpatient admission increased by 0.11 percentage points due to the demonstration, relative to the comparison group. This is a relative increase of 3.0 percent to the predicted probability of an inpatient admission among the comparison group during the demonstration period (3.81 percent).

- The cumulative effect of the demonstration on the probability of an ED visit was an increase of 0.15 percentage points, relative to the comparison group. This monthly increase represents a relative difference of 2.7 percent of the predicted probability of ED visits in the comparison group during the demonstration period (5.67 percent).

- The annual probability of any long-stay NF use increased over the course of the demonstration among demonstration eligible beneficiaries and decreased among the comparison group, suggesting that the demonstration did not have the anticipated impact on reducing NF use. The demonstration resulted in an increase of 3.78 percentage points in the annual probability of any long-stay NF use over the comparison group in the demonstration period, for a relative difference of 26.7 percent. The decrease in NF use in comparison groups is consistent with broader national trends of moving toward community-based LTSS (Degenholtz et al., 2016; Toth et al., 2022). The increase in the demonstration group in long-stay NF use could have resulted from several factors.

- As documented in the Second Evaluation Report, there were challenges with prior authorization for home care medical equipment, as well as decreases in MMP care coordinators referrals and assessments.

- Although the MMPs were required to employ SNFists (see **Section 3.3, Care Coordination**), they may have had a limited impact on facilitating discharge from nursing home stays back to the community, because their role focused on medical care provision. Due to the perceived limited effectiveness of this role, the State dropped the SNFist requirement in its MLTSS program and from the demonstration (see **Section 3.3, Care Coordination**).

- Lack of affordable housing also was cited as a barrier to transitions back to the community. State and MMP officials said it has been difficult to get residents to move to other facilities, and difficult to transition them to the community, due to challenges finding affordable housing (***Section 3.5, Financing and Payment***).

- The demonstration resulted in a 0.22 percentage point increase in the probability of any SNF admission, relative to the comparison group. This increase translates to a relative difference of 18.8 percent over the predicted probability among the comparison group in the demonstration period (1.19 percent). The demonstration also resulted in an increase in inpatient admissions, relative to the comparison group, which may have contributed to the increase in SNF use.

Caution should be used when interpreting the service utilization results. As described in the First Evaluation Report, the launch of mandatory MLTSS in 2016 in the Greater Chicago area also included expanded access to care coordination and management for the dually eligible population. While these benefits are limited to Medicaid covered services, these care coordination activities may impact these results because the ITT population may include beneficiaries enrolled in MLTSS. However, as illustrated in ***Figures 19*** and ***21–23***, the demonstration year 1 impact prior to MLTSS implementation was largely consistent with subsequent demonstration year estimates.

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

- 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 groups during the entire study period.

Findings from ***Appendix G*** illustrate that the demonstration year 1 enrolled cohort had lower inpatient and SNF use, compared to the cohort that was eligible but never enrolled in demonstration year 1. Enrolled beneficiaries also had lower rates of mortality during the demonstration period than the eligible but not enrolled group. These findings suggest that the demonstration may have had a limited favorable impact on service utilization measures.

**Table 9**
**Cumulative demonstration impact on select service utilization measures in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 4.06 | 3.91 | 0.11* (0.02, 0.21) | 3.0 | 0.0216 |
| | Comparison | 4.06 | 3.81 | | | |
| Monthly probability of any ED visit (%) | Demonstration | 5.41 | 5.81 | 0.15* (0.01, 0.30) | 2.7 | 0.0360 |
| | Comparison | 5.43 | 5.67 | | | |
| Monthly number of physician E&M visits per 1,000 beneficiaries | Demonstration | 984.67 | 1,183.90 | 148.93*** (116.93, 180.92) | 14.1 | <0.0001 |
| | Comparison | 1,007.50 | 1,056.62 | | | |
| Monthly probability of any SNF admission (%) | Demonstration | 1.22 | 1.34 | 0.22*** (0.19, 0.26) | 18.8 | <0.0001 |
| | Comparison | 1.33 | 1.19 | | | |
| Annual probability of any long-stay NF use (%) | Demonstration | 13.01 | 14.05 | 3.78*** (2.95, 4.60) | 26.7 | <0.0001 |
| | Comparison | 17.40 | 14.12 | | | |

*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 difference-in-differences (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.

### 5.2.2 Demonstration Impact in Each Demonstration Year

*Figures 19–23* show annual effects of the demonstration on all-cause inpatient admissions, ED visits, physician visits, SNF admissions, and long-stay NF use, respectively, with the cumulative effects also included as points of comparison. These annual impact estimates indicate that the Illinois demonstration increased the probability of any monthly inpatient admission in demonstration years 1 and 2 and increased the probability of monthly ED visits in demonstration years 2 through 4. The demonstration also increased the probability of SNF admissions, the probability of long-stay NF use, and the number of physician E&M visits in all 4 demonstration years.

- The Illinois demonstration increased the probability of inpatient admissions in demonstration year 1 by 0.09 percentage points per month per beneficiary and by 0.19 percentage points in demonstration year 2, relative to the comparison group (*Figure 19*).

- – While these increases in the first 2 demonstration years were significant, there were no significant differences in trends between the demonstration and comparison groups in demonstration years 3 and 4, suggesting MMPs in later years may have done a better job at providing care coordination during those years, or that care coordination introduced by MLTSS lead to increased LTSS use that could in turn decrease hospitalization risks (Bynum, Austin, Carmichael, & Meara, 2017).

- The demonstration was associated with an increase in the probability of any ED use in demonstration years 2 through 4. The probability increased by 0.13 percentage points per month per beneficiary in demonstration year 2, 0.35 in year 3, and 0.42 in year 4, relative to the comparison group (***Figure 20***).

    - – One interpretation of these findings is that, even with increased E&M visits, the demonstration did not succeed in decreasing ED visits in years 2 through 4. Alternately, as illustrated in ***Figure G-1*** in ***Appendix G***, despite slight observable decline among the demonstration enrollees from the predemonstration period to demonstration year 1, the overall trend in ED use increased slightly among the overall demonstration group during the demonstration period, while the weighted monthly percent of use among the comparison group was unchanged (see ***Table E-4*** in ***Appendix E***). Another potential, more favorable, explanation is that increased supports and care coordination could lead to an increase in outpatient ED visits for "treat and release" while reducing the need for inpatient admissions. This interpretation is consistent with the lack of increases in inpatient admissions in years 3 and 4.

    - – The Illinois demonstration increased the number of physician E&M visits in demonstration years 1 through 4 by 99.2, 93.7, 170.5 and 263.5 visits per 1,000 beneficiary months, respectively, relative to the comparison group (***Figure 21***), consistent with the cumulative findings.

- Additionally, the demonstration continued to increase the probability of SNF admissions relative to the comparison group throughout the demonstration. This increase was 0.28 percentage points in demonstration year 1, 0.23 in year 2, 0.14 in year 3, and 0.20 percentage points in year 4 (***Figure 22***).

- The demonstration increased the annual probability of any long-stay NF use in all 4 demonstration years, relative to the comparison group, by 4.6, 4.0, 3.2, and 3.4 percentage points, respectively (***Figure 23***).

    - – These unfavorable results highlight again the challenges described in the First Evaluation Report with demonstration implementation, including delays in prior authorization for home care medical equipment, and implementation challenges around the use of SNFists.

**Figure 19**
**Cumulative and annual demonstration effects on inpatient admissions in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**
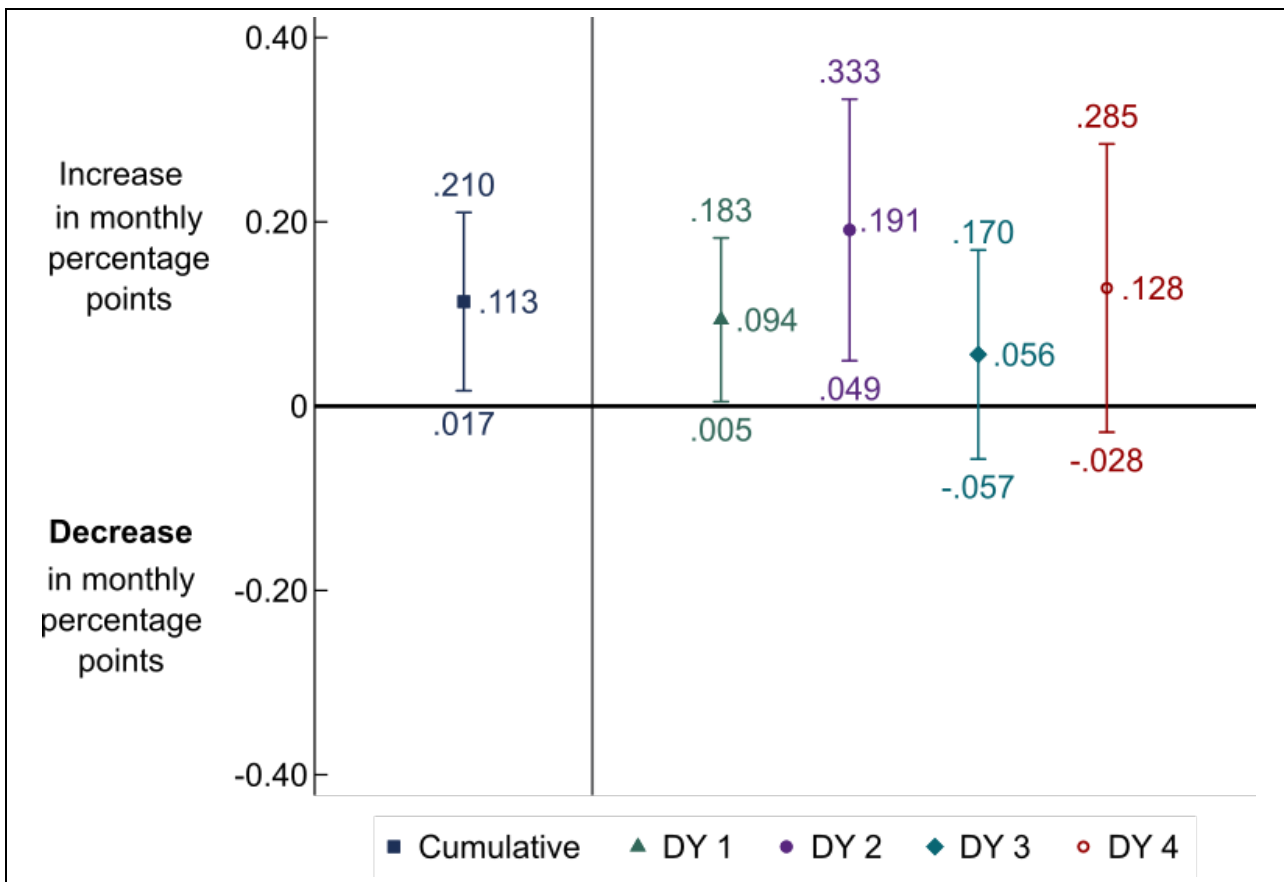


DY = demonstration year.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**. SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 20**
**Cumulative and annual demonstration effects on ED visits in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**
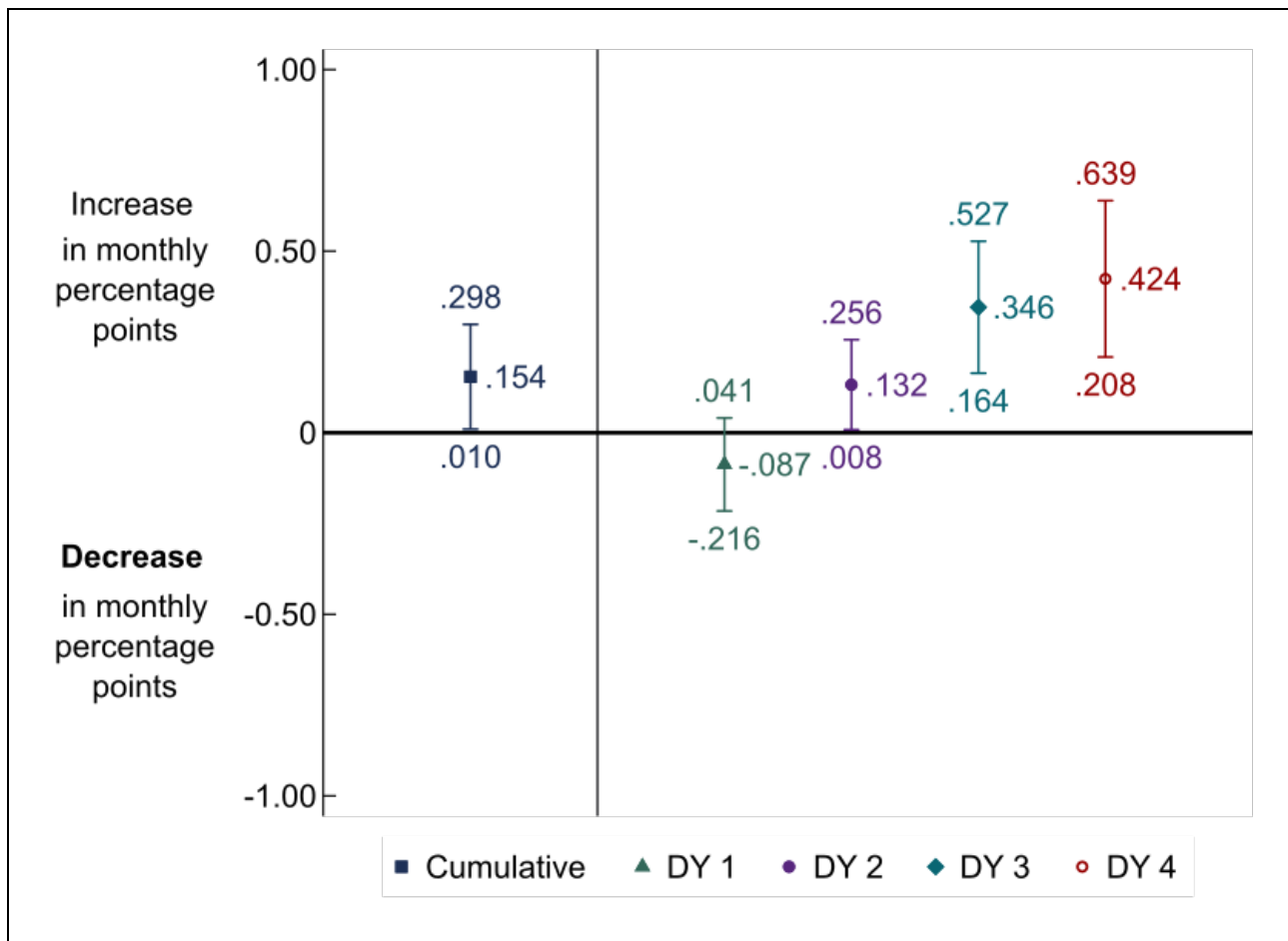


DY = demonstration year; ED = emergency department.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in
   **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 21
Cumulative and annual demonstration effects on physician E&M visits in Illinois,
demonstration years 1–4, March 1, 2014–December 31, 2018**
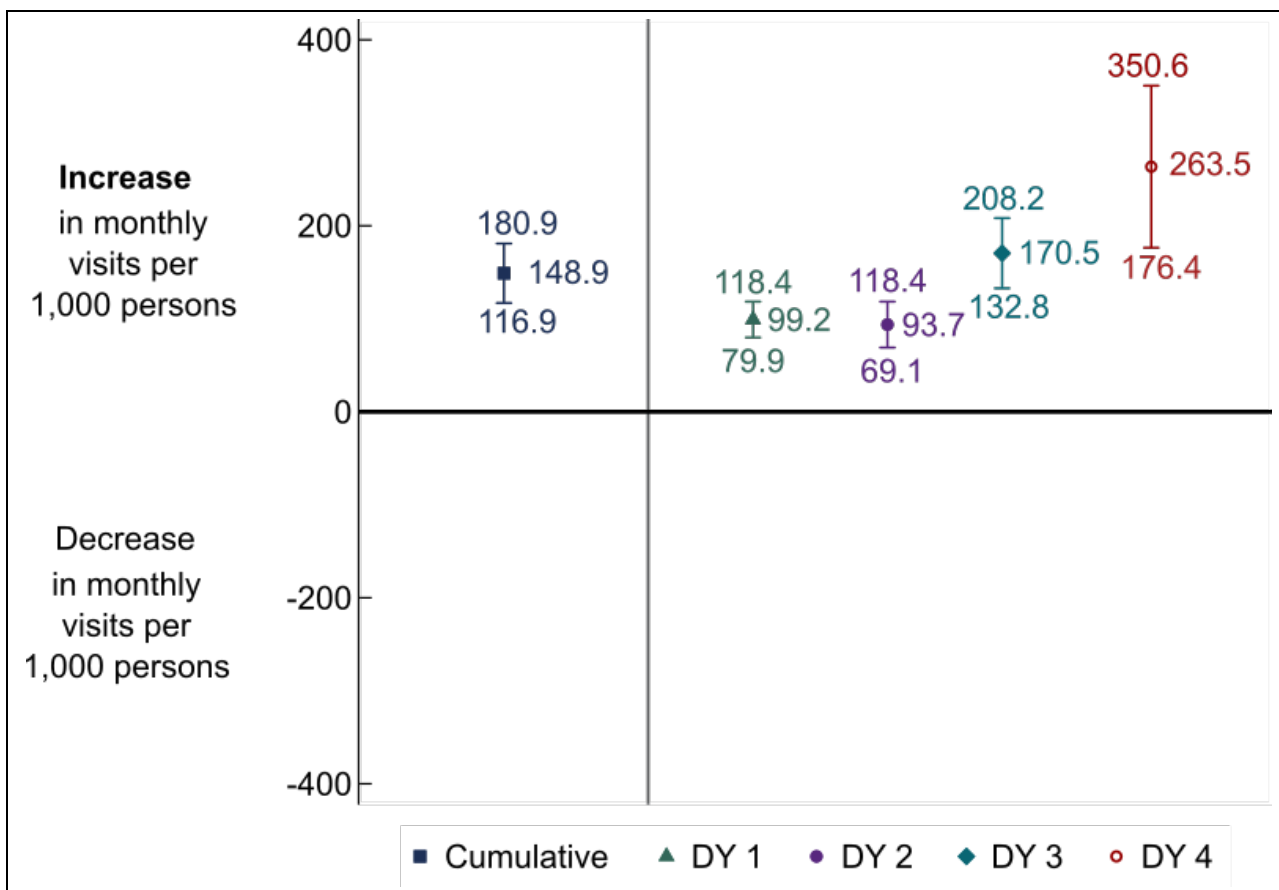


DY = demonstration year; E&M = evaluation and management.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in
    **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 22**
**Cumulative and annual demonstration effects on SNF admissions in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**
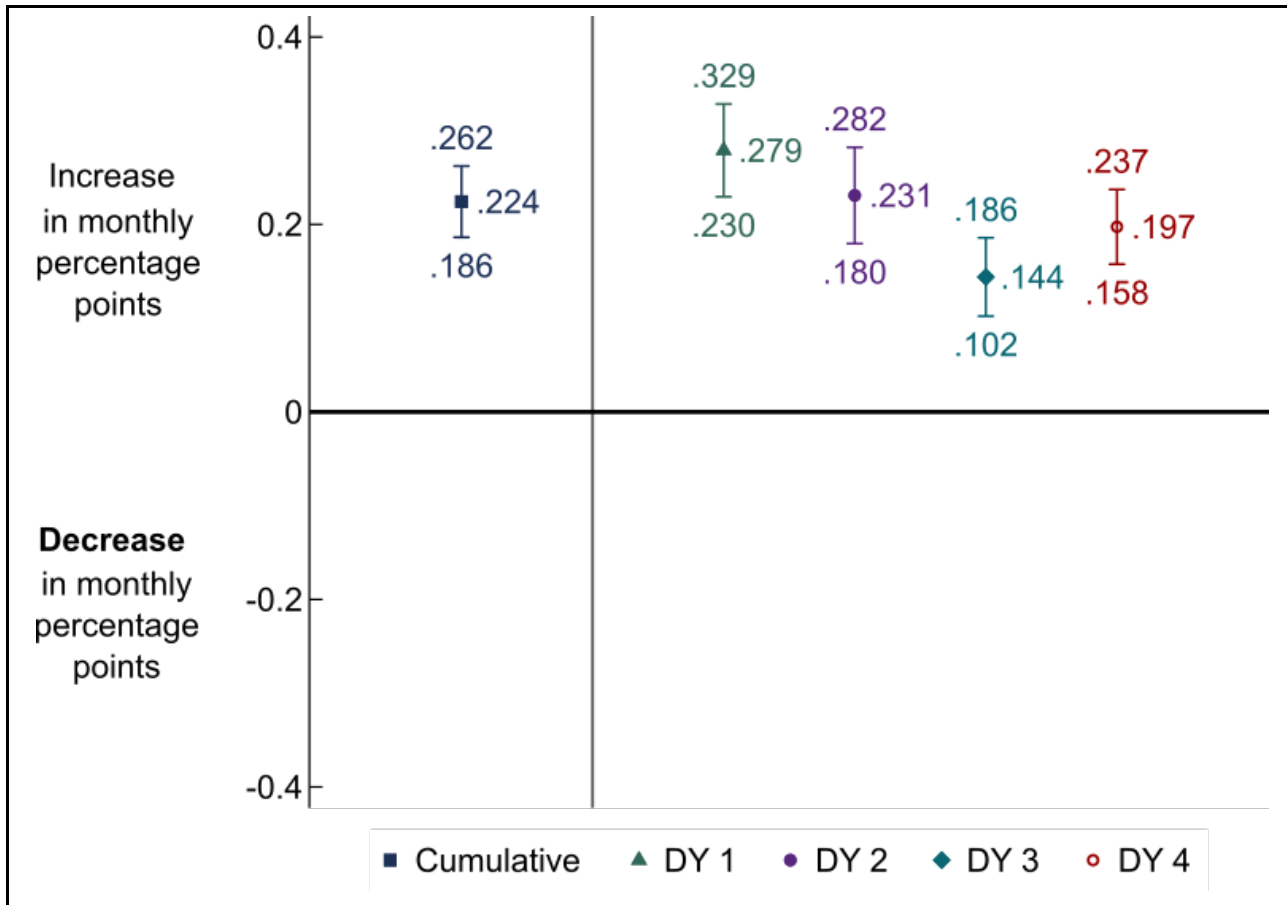


DY = demonstration year; NF = nursing facility.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 23**
**Cumulative and annual demonstration effects on long-stay NF use in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**
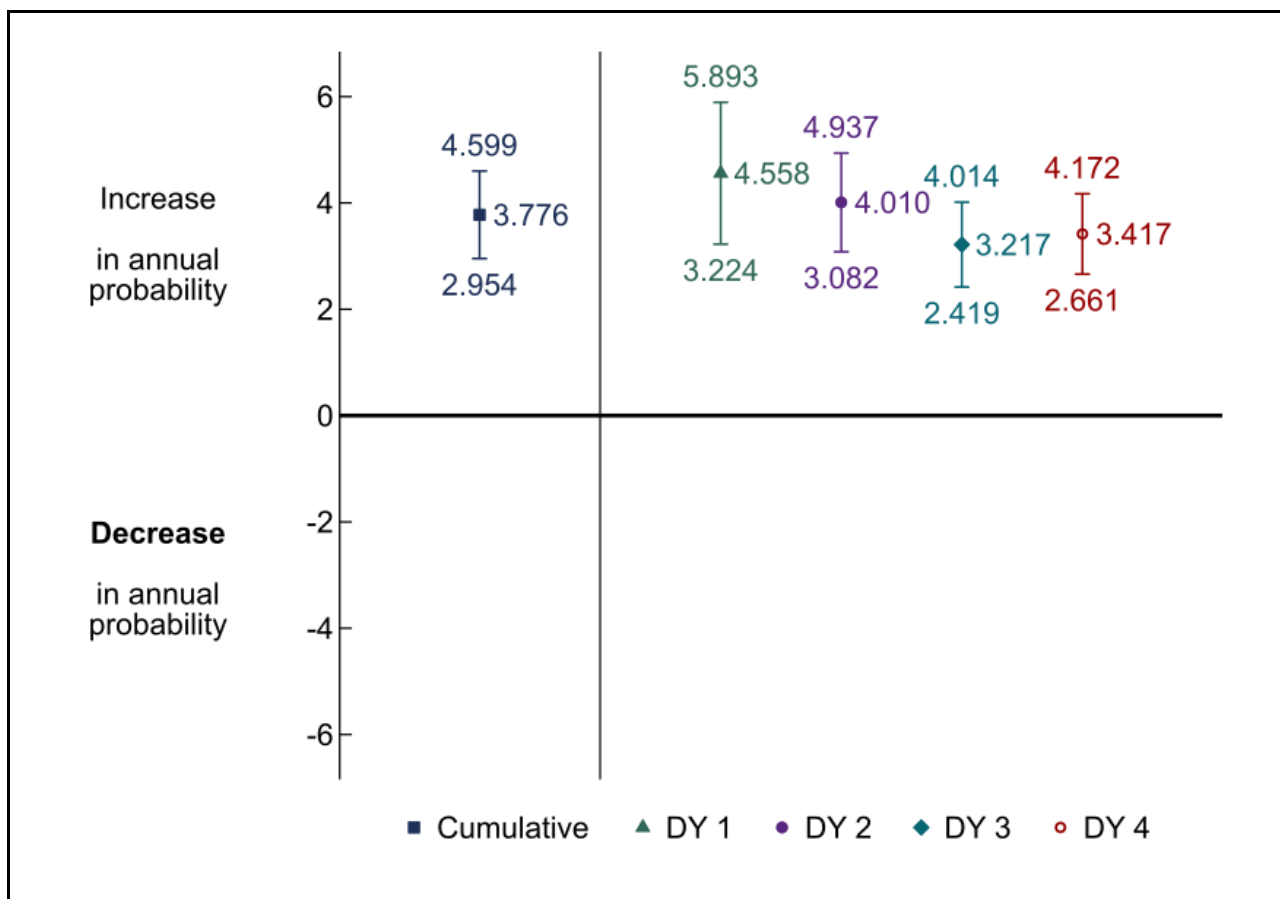


DY = demonstration year; NF = nursing facility.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Minimum Data Set data.

## 5.3    Demonstration Impact on Quality of Care Among Eligible Beneficiaries

The demonstration did not have any cumulative impact on the quality of care measures, relative to the comparison group.

### 5.3.1    Cumulative Impact Over Demonstration Years 1–4

The Illinois demonstration is expected to increase quality of care, as a result of care coordination and increased access to needed services. However, there was no cumulative impact consistent with these goals over the first 4 years of the demonstration, as evaluated by several common measures of medical quality of care. *Table 10* illustrates the cumulative impact and adjusted means for these measures.

**Table 10**
**Cumulative demonstration impact on select quality of care measures in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 31.66 | 35.03 | 0.69 (−0.73, 2.10) | NS | 0.3393 |
| | Comparison | 30.85 | 33.43 | | | |
| Monthly probability of any ACSC admission, overall (%) | Demonstration | 0.68 | 0.65 | 0.00 (−0.02, 0.03) | NS | 0.8863 |
| | Comparison | 0.73 | 0.70 | | | |
| Monthly probability of any ACSC admission, chronic (%) | Demonstration | 0.45 | 0.46 | 0.01 (−0.01, 0.02) | NS | 0.5350 |
| | Comparison | 0.47 | 0.48 | | | |
| Probability of 30-day follow-up after mental health discharge (%) | Demonstration | 43.22 | 39.74 | −0.60 (−2.83, 1.63) | NS | 0.5961 |
| | Comparison | 39.46 | 36.67 | | | |
| Number of all-cause 30-day readmissions per 1,000 discharges | Demonstration | 272.22 | 261.79 | −4.12 (−11.58, 3.35) | NS | 0.2797 |
| | Comparison | 263.06 | 256.78 | | | |

ACSC = ambulatory care sensitive condition; DinD = difference-in-differences; ED = emergency department; NS = not statistically significant.
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.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

### 5.3.2 Demonstration Impact in Each Demonstration Year

*Figures 24–28* show the demonstration's annual effects on 30-day readmission, preventable ED visits, ACSC admissions (overall), ACSC admissions (chronic), and 30-day follow-up post mental health discharge, with the cumulative impacts also shown as points of comparison. These annual impact estimates indicate that the Illinois demonstration decreased the number of 30-day readmissions in demonstration year 1, increased the monthly probability of chronic ACSC admissions in demonstration year 4, and increased preventable ED visits in demonstration years 3 and 4.

- The demonstration decreased the number of 30-day readmissions in demonstration year 1 by 14.5 readmissions per 1,000 discharges per year, relative to the comparison group, among beneficiaries with any index discharge during the year (see *Figure 24*).

This represents a relative 4.9 percent decrease from the comparison group (see ***Appendix Table E-1***).

- The relative reduction in number of 30-day readmissions in demonstration year 1 is consistent with the goals of the demonstration. However, this effect did not continue into demonstration years 2, 3, or 4. The lack of further progress could result from implementation challenges such as high turnover among care coordinators, challenges with establishing care plans within 90 days of enrollment, and possibly challenges in transitioning Illinois providers to managed care.

- The monthly probability of chronic ACSC admissions increased in demonstration year 4 by 0.05 percentage points, relative to the comparison group. This represents a relative increase of 10.5 percent from the comparison group (see ***Figure 26***).

- The monthly average number of preventable ED visits increased in demonstration year 3 by 1.9 visits per 1,000 beneficiary months, relative to the comparison group, a relative difference of 5.8 percent. In demonstration year 4, preventable ED visits again increased by 2.6 visits per 1,000 beneficiary months relative to the comparison group, a relative difference of 7.9 percent (see ***Figure 27***).

There was no statistically significant effect on the probability of a 30-day follow-up after mental health discharge in any demonstration year (see ***Figure 28***).

**Figure 24**
**Cumulative and annual demonstration effects on 30-day readmissions in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**
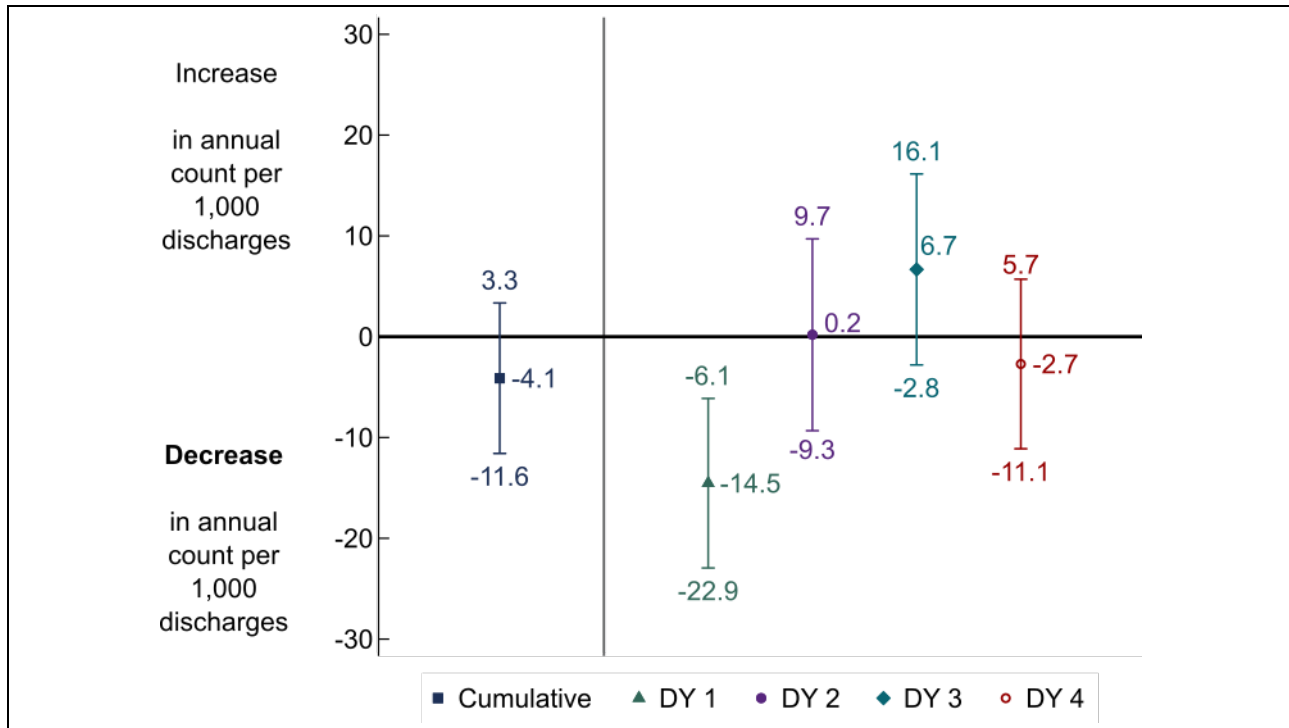


DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in
   **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data

**Figure 25**
**Cumulative and annual demonstration effects on ACSC admissions (overall) in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**
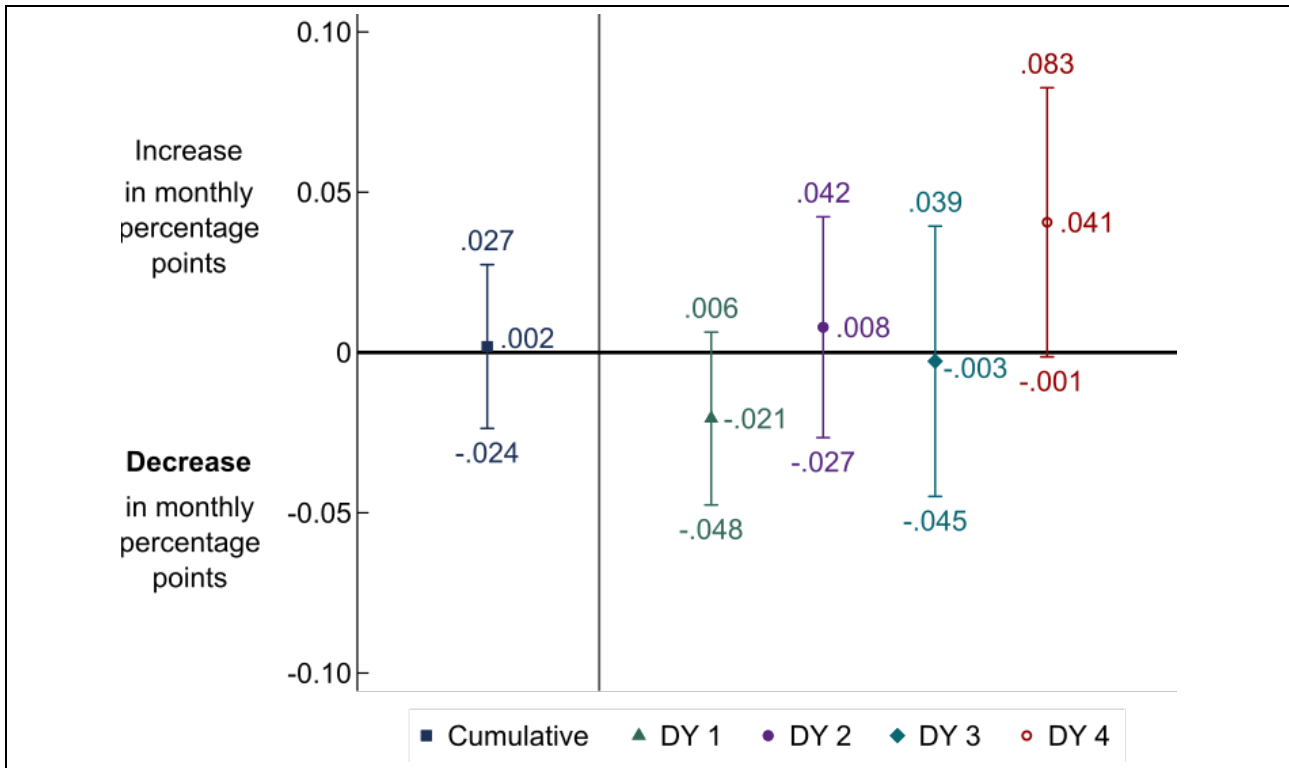


ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 26**
**Cumulative and annual demonstration effects on ACSC admissions (chronic) in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**
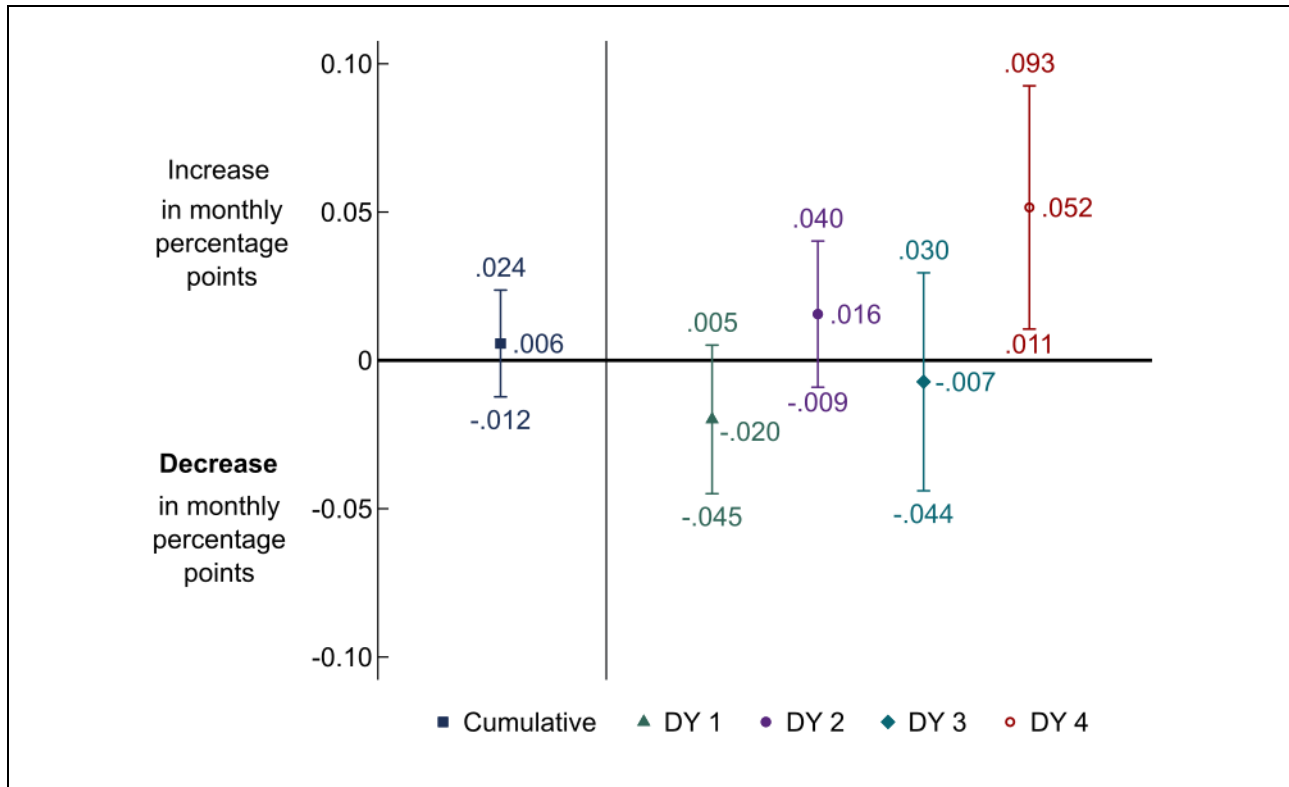


ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 27**
**Cumulative and annual demonstration effects on preventable ED visits in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**
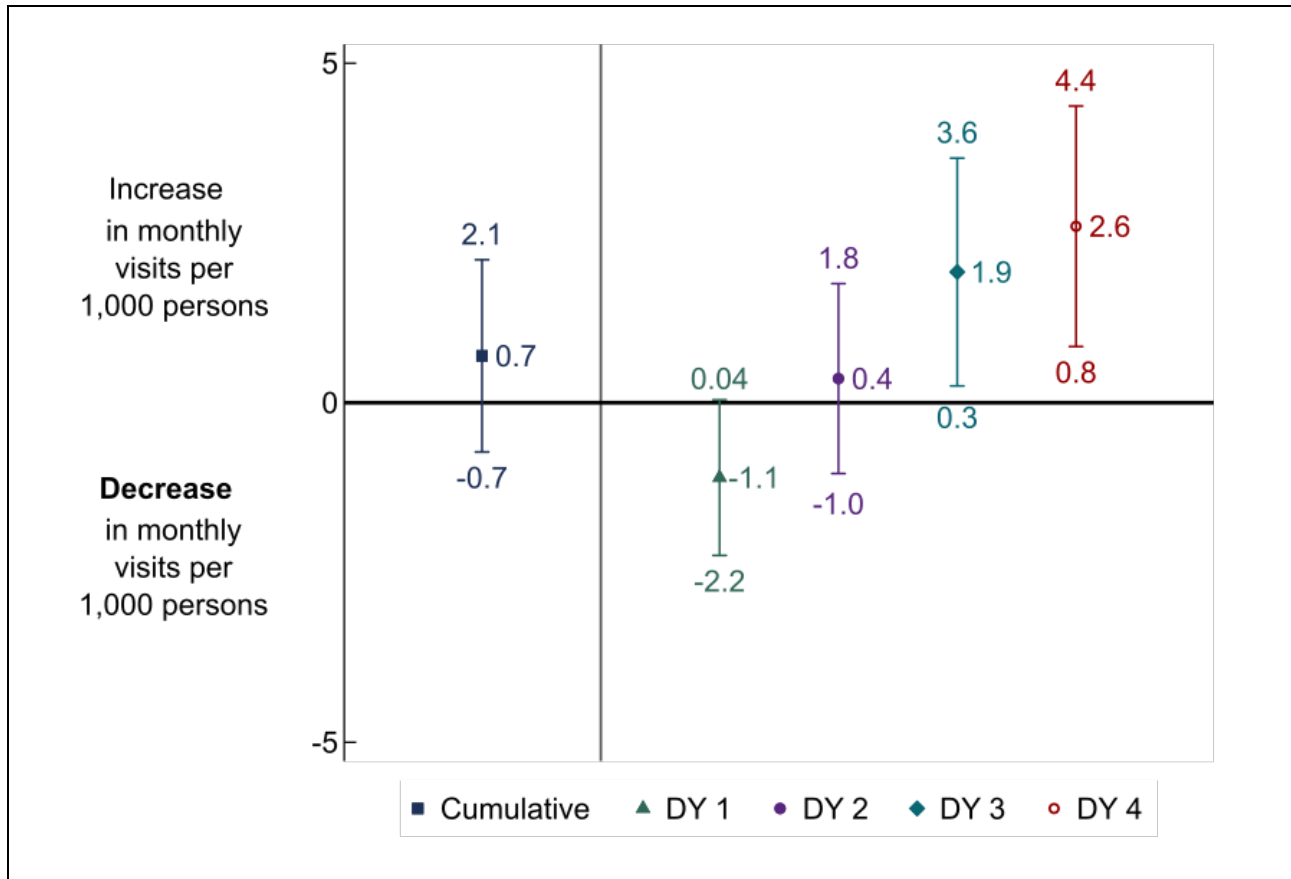


DY = demonstration year; ED = emergency department.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in
   **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

**Figure 28**
**Cumulative and annual demonstration effects on 30-day follow-up post mental health discharge in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**
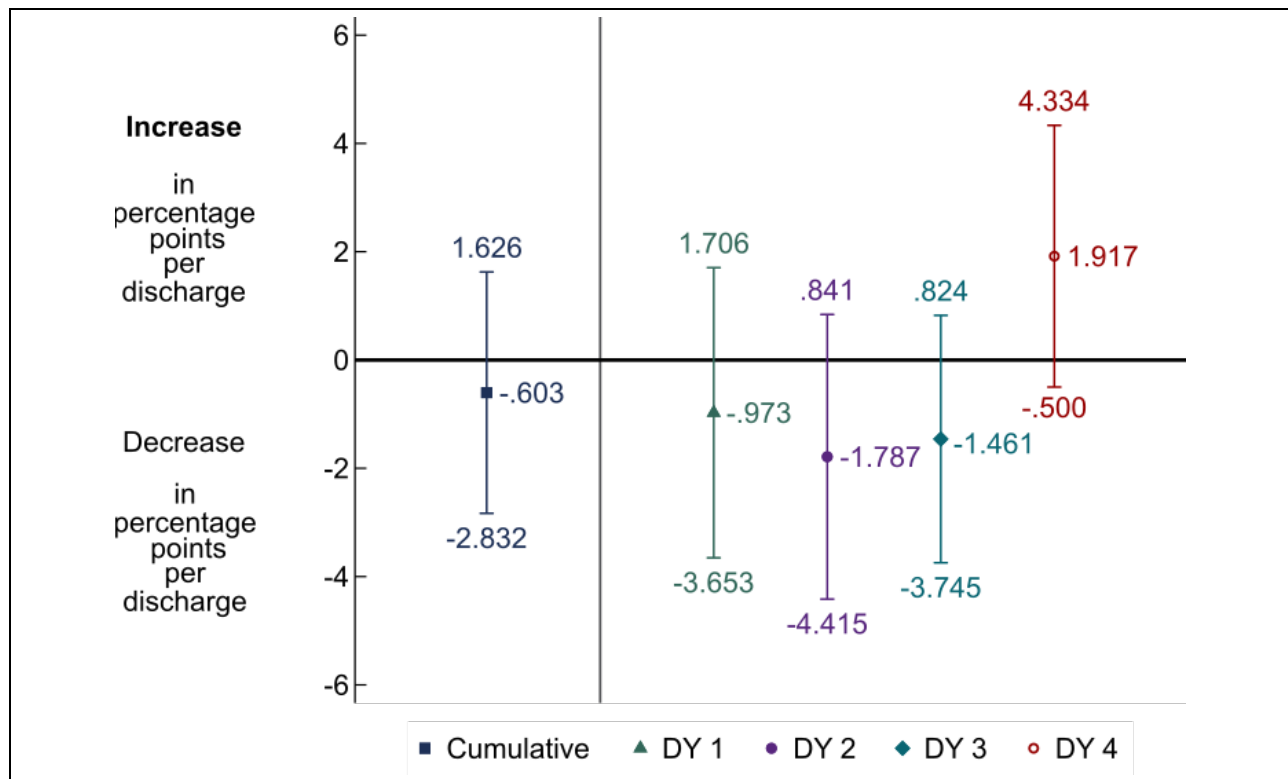


DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

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 4, the demonstration impacted the LTSS population less favorably than the non-LTSS population. The demonstration effect among those with LTSS use was an increase in the probability of any inpatient admission, SNF admission, and ED visit, relative to the demonstration effect for non-LTSS users. The demonstration was also associated with an increase in the number of preventable ED visits, the probability of any ACSC admission (overall and chronic), and 30-day readmissions among beneficiaries with LTSS use, relative to the demonstration effect among non-LTSS users. However, there was a favorable increase in the number of physician visits among those with LTSS use, relative to the demonstration effect for non-LTSS users.

The demonstration effect for beneficiaries with SPMI included an increase in the probability of SNF admissions and the number of physician visits, relative to the demonstration effect among beneficiaries without SPMI.

Among the key goals of the 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. The demonstration is expected to particularly impact service utilization and quality of care among eligible beneficiaries with LTSS needs or who have an SPMI, compared to those not in these special populations (see group definitions in *Appendix D*). However, the special population analyses indicate that the demonstration impacts were less favorable for LTSS users and mixed for beneficiaries with SPMI, relative to the demonstration impacts among non-LTSS users and those without SPMI (see *Tables E-2* and *E-3* in *Appendix E*).

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 (non-admit), physician E&M visits, outpatient therapy (physical therapy, occupational therapy, and speech therapy), and hospice use (see *Figures E-1, E-2,* and *E-3* in *Appendix E*).

### 5.4.1    Beneficiaries Receiving Long-Term Services and Supports

As indicated in *Table D-1* in *Appendix D*, about 18.2 percent of the demonstration eligible population in demonstration year 4 had any LTSS use. The demonstration impacted service utilization measures for those with LTSS use less favorably than for those with no LTSS use (see *Table 11*). Indeed, the generally unfavorable results observed in the overall population may be influenced by unfavorable findings among beneficiaries using LTSS.

For example, the difference in the cumulative demonstration effect on the probability of any monthly inpatient admission for beneficiaries with LTSS use was a 0.97 percentage point

increase, relative to the demonstration effect for beneficiaries without LTSS use. Similarly, the demonstration effect for beneficiaries with LTSS use was an increase in the probability of any ED visit of 0.57 percentage points and a 0.92 percentage point increase in the probability of a SNF admission. The number of physician visits per month also increased by 376.11 visits per 1,000 beneficiary months relative to the demonstration effect for the non-LTSS population.

In addition, among the quality of care outcomes, the demonstration effect for beneficiaries with LTSS use was an increase of 2.65 preventable ED visits per 1,000 beneficiary months and an increase of 17.55 readmissions per 1,000 discharges, relative to the demonstration effect among beneficiaries with no LTSS. Moreover, there was an increase in the probability of overall ACSC admissions by 0.15 percentage points and chronic ACSC admissions by 0.11 percentage points, relative to the demonstration effect among beneficiaries with no LTSS use.

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

**Table 11**
**Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 0.84 | 16.1 | <0.0001 | 0.64, 1.03 | 0.97*** |
| | Non-LTSS | –0.14 | –5.1 | 0.0179 | –0.25, –0.02 | |
| Monthly probability of any ED visit (%) | LTSS | 0.51 | 9.6 | <0.0001 | 0.36, 0.67 | 0.57*** |
| | Non-LTSS | –0.06 | NS | 0.6197 | –0.29, 0.17 | |
| Monthly number of physician E&M visits per 1,000 beneficiaries | LTSS | 412.41 | 25.9 | <0.0001 | 361.37, 463.46 | 376.11*** |
| | Non-LTSS | 36.30 | 4.7 | 0.0031 | 12.21, 60.40 | |
| Monthly probability of any SNF admission (%) | LTSS | 0.87 | 37.5 | <0.0001 | 0.76, 0.97 | 0.92*** |
| | Non-LTSS | –0.05 | –16.0 | <0.0001 | –0.08, –0.03 | |
| **Quality of Care Measures** | | | | | | |
| Monthly number of preventable ED visits per 1,000 beneficiaries | LTSS | 2.62 | 9.1 | 0.0009 | 1.08, 4.15 | 2.65* |
| | Non-LTSS | –0.03 | NS | 0.9783 | –2.11, 2.05 | |
| Monthly probability of any ACSC admission, overall (%) | LTSS | 0.13 | 13.4 | 0.0021 | 0.05, 0.21 | 0.15** |
| | Non-LTSS | –0.03 | NS | 0.1378 | –0.06, 0.01 | |
| Monthly probability of any ACSC admission, chronic (%) | LTSS | 0.10 | 19.6 | 0.0034 | 0.03, 0.17 | 0.11* |
| | Non-LTSS | –0.01 | NS | 0.6258 | –0.04, 0.02 | |

(continued)

**Table 11 (continued)**
**Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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) |
|---|---|---|---|---|---|---|
| Probability of 30-day follow-up after mental health discharge (%) | LTSS | –0.73 | NS | 0.6599 | –4.00, 2.54 | 0.72 |
| | Non-LTSS | –1.45 | NS | 0.2288 | –3.82, 0.91 | |
| Number of all-cause 30-day readmissions per 1,000 discharges | LTSS | 3.87 | NS | 0.5046 | –7.50, 15.24 | 17.55* |
| | Non-LTSS | –13.68 | –6.0 | 0.0221 | –25.39, –1.97 | |

*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.

### 5.4.2   Beneficiaries with Serious and Persistent Mental Illness

As indicated in **Table D-1** in **Appendix D**, 40.7 percent of the demonstration eligible population in demonstration year 4 had an SPMI. On some measures, the demonstration impacted those with SPMI differently than those without SPMI (see **Table 12**). The demonstration effect for those with SPMI on the probability of any SNF admission was a 0.12 percentage point increase, relative to the demonstration effect for those without SPMI. Additionally, the demonstration effect on the number of physician visits per 1,000 beneficiaries increased by 70.68 visits for beneficiaries with SPMI, compared to the demonstration effect among beneficiaries without SPMI.

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 12**
**Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | –0.14 | NS | 0.3378 | –0.42, 0.15 | –0.10 |
| | Non-SPMI | –0.04 | NS | 0.5220 | –0.15, 0.08 | |
| Monthly probability of any ED visit (%) | SPMI | –0.05 | NS | 0.6849 | –0.30, 0.19 | –0.12 |
| | Non-SPMI | 0.07 | NS | 0.4375 | –0.11, 0.25 | |

(continued)

**Table 12 (continued)**
**Cumulative demonstration effect on service utilization and quality of care measures,**
**beneficiaries with SPMI versus those without SPMI in Illinois,**
**demonstration years 1–4, March 1, 2014–December 31, 2018**

| Measure | Special population | Demonstration effect relative to comparison group | Relative difference (%) | p-value | 95% confidence interval | Difference in demonstration effect (SPMI versus non-SPMI) |
|---|---|---|---|---|---|---|
| Monthly number of physician E&M visits per 1,000 beneficiaries | SPMI | 155.94 | 10.6 | <0.0001 | 116.63, 195.25 | 70.68*** |
| | Non-SPMI | 85.26 | 10.4 | <0.0001 | 67.24, 103.28 | |
| Monthly probability of any SNF admission (%) | SPMI | 0.19 | 9.6 | <0.0001 | 0.12, 0.25 | 0.12*** |
| | Non-SPMI | 0.07 | 9.3 | <0.0001 | 0.04, 0.10 | |
| **Quality of Care Measures** | | | | | | |
| Monthly number of preventable ED visits per 1,000 beneficiaries | SPMI | –0.54 | NS | 0.6988 | –3.29, 2.21 | –0.96 |
| | Non-SPMI | 0.42 | NS | 0.5474 | –0.95, 1.79 | |
| Monthly probability of any ACSC admission, overall (%) | SPMI | –0.06 | NS | 0.0853 | –0.12, 0.01 | –0.06 |
| | Non-SPMI | 0.00 | NS | 0.9763 | –0.04, 0.04 | |
| Monthly probability of any ACSC admission, chronic (%) | SPMI | –0.04 | NS | 0.1697 | –0.10, 0.02 | –0.05 |
| | Non-SPMI | 0.01 | NS | 0.4576 | –0.02, 0.03 | |
| Number of all-cause 30-day readmissions per 1,000 discharges | SPMI | –5.57 | NS | 0.2756 | –15.59, 4.45 | 3.02 |
| | Non-SPMI | –8.59 | NS | 0.0644 | –17.70, 0.51 | |

*$p<0.05$; **$p<0.01$; ***$p<0.001$
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 10**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

# Demonstration Impact on Cost Savings

> Our results show an increase in Medicare Parts A and B costs during the cumulative demonstration period ($73.36 PMPM) using a DinD analysis of beneficiaries eligible for the demonstration, relative to the comparison group.

## 6.1    Methods Overview

As part of the capitated financial alignment model, Illinois, CMS, and MMPs entered into a three-way contract to provide services to MMP enrollees. MMPs receive three separate, blended, and risk-adjusted prospective capitated payments for Medicare Parts A and B, Medicare Part D, and Medicaid services. The first two payments are from the Medicare program, the third comes from the State. CMS and Illinois developed the capitation payment that accounts for the services provided and adjusts the Medicare component for each enrollee using CMS's Hierarchical Condition Category (HCC) 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.[27]

This section presents the Medicare Parts A and B cost savings analysis for demonstration years 1 to 5 (March 2014 to December 2019).

We used an ITT analytic framework that includes beneficiaries eligible for the demonstration rather than only those who 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 39 percent of all eligible beneficiaries (including FFS beneficiaries, MMP enrollees, and MA enrollees) in demonstration year 5. The remaining beneficiaries (61 percent) in the demonstration group are beneficiaries who are eligible for an MMP but are not enrolled (non-enrollees). 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-14*).

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*).

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[27] For the MOU, please see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/ILMOU.pdf
For the original three-way contract, please see https://www.cms.gov/files/document/ilcontract.pdf

*Table F-2* 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 13* 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 expenditure increased from the predemonstration period to the demonstration period in both the demonstration and comparison groups. The cumulative DinD estimate of $73.67 PMPM, which amounts to a relative difference of 5.55 percent of the adjusted mean expenditure for the comparison group during the demonstration period, is statistically significant ($p$ = <0.001). This suggests that overall, the Illinois demonstration was associated with statistically significant cost increases relative to the comparison group.[28]

**Table 13**
**Cumulative demonstration impact on monthly Medicare Parts A and B costs in Illinois, demonstration years 1–5, March 1, 2014–December 31, 2019**

| Group | Adjusted mean for predemonstration period ($) | Adjusted mean for demonstration period ($) | Relative difference (%) | Adjusted coefficient DinD ($) | *p*-value |
|---|---|---|---|---|---|
| Demonstration | $1,327.41 | $1,463.79 | 5.55% | 73.67 | <0.001 |
| Comparison | $1,271.06 | $1,326.95 | | | |

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1492_Percents.log)

In addition, we estimated the effect of the demonstration in each demonstration year. As shown in *Figure 29*, the demonstration had a statistically significant effect in all demonstration years (as shown by the confidence intervals not crossing $0), indicating an increase in Medicare costs as a result of the demonstration relative to the comparison group. Note that these estimates rely on the ITT analytic framework, only account for Medicare Parts A and B costs, and use the capitation rate for the MMP rather than the actual amount the plan paid for services.

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[28] The difference between these and previously reported estimates is due to the application of the demonstration's medically needy exclusion criteria to the current analyses. This exclusion was not possible in previous analyses due to the lack of complete and reliable Medicaid data.

**Figure 29**
**Cumulative and annual demonstration effects on monthly Medicare Parts A and B costs,**
**demonstration years 1–5, March 1, 2014–December 31, 2019**
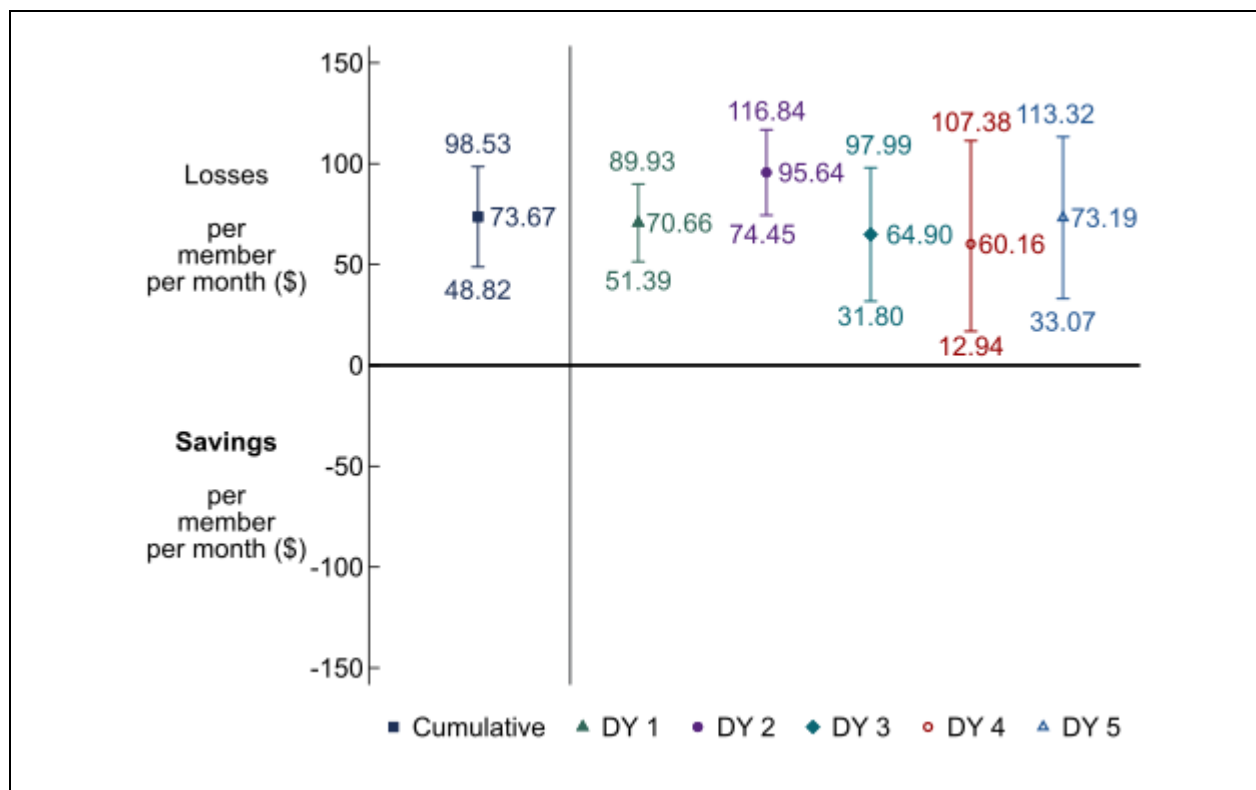


DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. "Losses"/"**Savings**" indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_cs1482_GLM.log)

To better understand these results, we conducted additional descriptive analyses comparing MMP rates with the expected FFS expenditures that would have otherwise occurred for the enrolled population. 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 were comparable with enrollees' anticipated FFS experience. We also conducted an analysis of spending and HCC characteristics among the enrolled population (enrolled through demonstration year 2) during the predemonstration period. We found that these enrollees were less expensive and healthier than the population that was demonstration eligible but never enrolled, which may make it more difficult to achieve savings. The details of these analyses are provided in *Appendix G*, along with an interpretation and explanation of the results.

# SECTION 7
## Conclusions
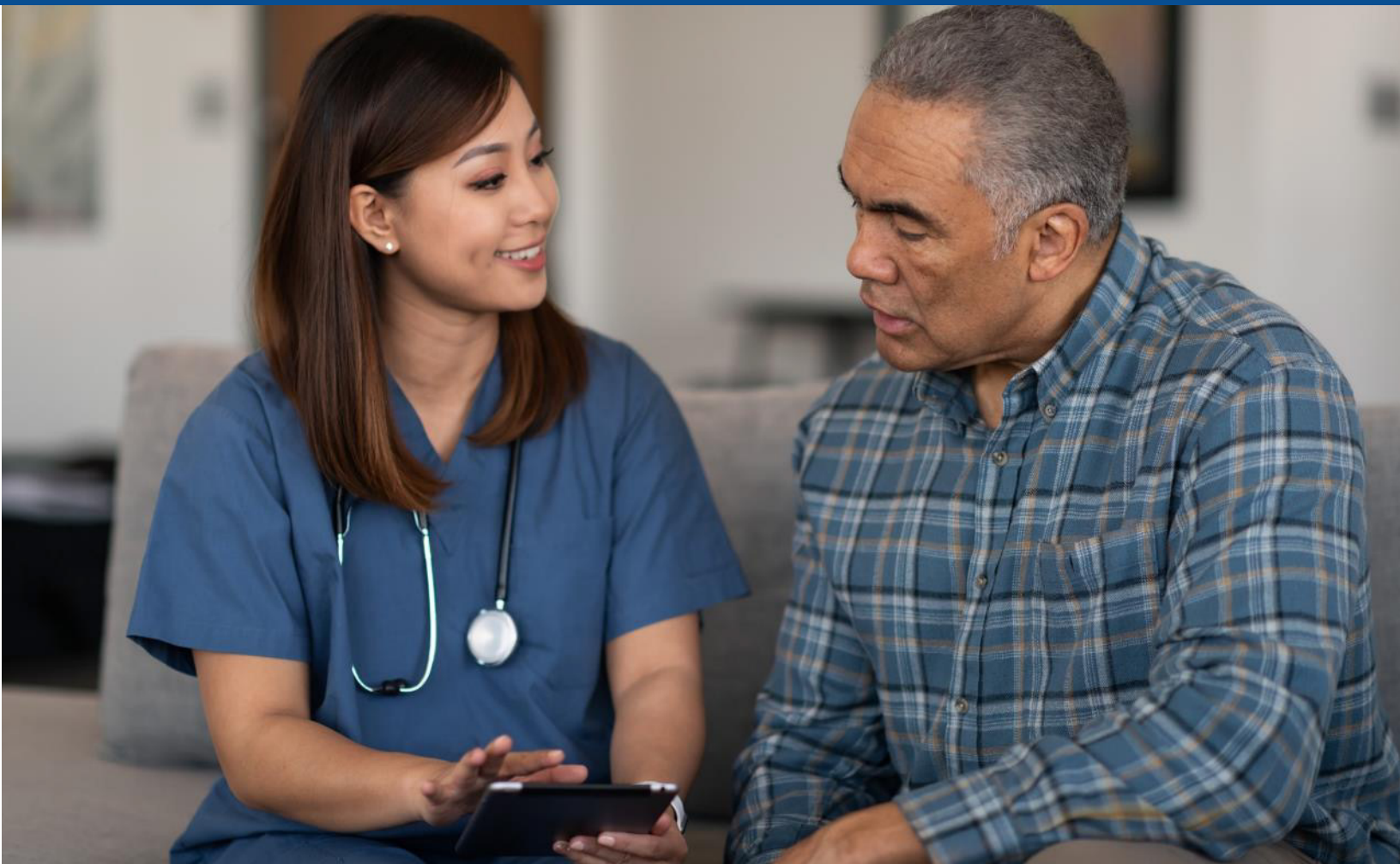
## 7.1    Implementation Successes, Challenges, and Lessons Learned

During 2021, MMAI was scaled up through the statewide extension. Enrollment in MMAI and several of the MMPs grew considerably due to passive enrollment in most of the new demonstration counties. The statewide extension made enrollment in an integrated plan an option for dually eligible beneficiaries across the State. All of the MMPs were able to complete their networks in most counties, although it took longer than expected and some gaps remained.

The statewide extension was a major step in the alignment of MMAI and the Medicaid managed care program, HealthChoice Illinois. Four of the five MMPs were operated by companies that also operated HealthChoice MCOs statewide, facilitating continuity of care for enrollees wishing to transition between programs. State officials also made changes to the three-way contract to increase alignment with the HealthChoice contract. Increased alignment helped State officials manage the programs more efficiently and effectively.

Enrollees continued to report positive experiences with the demonstration. CAHPS ratings of the MMPs were favorable and showed improvement from year to year. Even during the PHE, ratings of the MMPs improved. Enrollees liked having one plan for all of their services, care coordination, and flexible benefits. In 2021 and 2022, most Illinois MMPs offered the same popular benefits—zero prescription drug copays, rides to pharmacies after doctor visits, extra dental benefits, OTC products, and home-delivered meals after hospital stays.

MMPs reported successes in implementing telehealth during the PHE and helping enrollees adapt to the technology. State officials credited the MMPs with helping to ensure access to medications while enrollees were isolating at home.

Several initiatives by the State have addressed challenges. Provider billing forums convened by the State were credited with improving relations between providers and MMPs, as well as reducing billing challenges. An ADT event notification system was implemented, which should facilitate successful transitions from hospitals and other facilities. The State also began receiving encounter data from the MMPs, which will help it monitor service utilization trends and identify challenges that need to be addressed.

Some significant challenges remained. Locating and engaging enrollees in completing HRAs and care plans was a challenge from 2017 through 2021. The average MMP unable-to-reach rate improved during 2021 after the CMT put three MMPs on performance improvement plans, then deteriorated in the final quarter of the year due to the influx of new enrollees from the statewide extension.

Some of the ongoing challenges apply to both MMAI and HealthChoice. Illinois providers have been slow to adopt VBP arrangements, and MMPs did not report any significant progress during 2020–2021. State officials said they were taking steps to accelerate the process by adding VBP requirements to the HealthChoice contract, which they planned to add later to MMAI three-way contract.

There were several ongoing challenges with LTSS, including transitioning NF residents to the community, and serious quality issues in some NFs; the State launched initiatives in

response to both challenges. The requirement that MMPs employ SNFists to provide care management in NFs, which seemed promising, apparently did not produce the desired results and was dropped from the three-way contract. Although there was a focus on transitioning NF residents to the community, there did not appear to be any emphasis on diverting enrollees who needed LTSS to community settings, which would have been less challenging for the MMPs. Despite the emphasis on addressing social determinants of health, advocates reported ongoing challenges with getting MMP and MCO care coordinators to refer frail, homebound older adults to home-delivered meal programs that could provide long-term nutritional support.

State officials identified several lessons learned, including the importance of engaging with managed care plans, and measuring their progress. They recommended avoiding carve-outs of Medicaid services. They cited non-emergency medical transportation as an example, noting that the MMPs had been able to improve quality and reliability compared to FFS and HealthChoice, which has a transportation carve-out.

In reflecting on the demonstration overall, State officials said they would consider the same measures used for the evaluation—HEDIS and CAHPS results, service utilization, cost savings, the enrollment rate, and care coordination measures—to determine the success of the demonstration. They would compare MMAI with Illinois's other options for dually eligible beneficiaries, particularly MLTSS, and with other States' integrated programs. They said the demonstration was implemented with good fidelity to the demonstration design, although the delay in implementing MLTSS might have affected the enrollment rate. CMS members of the Illinois CMT expressed views similar to those of State officials, and added that ideally cost savings would be estimated for Medicaid, as well as Medicare.

State officials also addressed two other implementation effectiveness components, reach (percentage of dually eligible beneficiaries enrolled) and dose (unable-to-reach percentage). An enrollment lock-in would have increased the enrollment rate and provided more beneficiaries with the opportunity to experience integrated care. The high unable-to-reach rate impacted implementation—roughly one-third of enrollees were not receiving any care coordination because MMPs were unable to contact them, or the enrollees failed to complete assessments and care plans.

We agree with the State that the demonstration was implemented with good fidelity to the design. Implementing mandatory MLTSS concurrent with the demonstration might have increased enrollment of LTSS users, a critical subpopulation, but it would not have affected enrollment of non-LTSS beneficiaries. Enrolling a higher percentage of demonstration eligible beneficiaries might have improved results, but the demonstration was effective in integrating Medicare and Medicaid services for many of those who did enroll.

## 7.2    Demonstration Impact on Service Utilization and Costs

MMAI has had mixed results on service utilization and a statistically significant impact on Medicare costs.

Over the course of the demonstration, there were consistent increases in service utilization measures among Illinois demonstration eligible beneficiaries, relative to the

comparison group. These services included the monthly number of physician E&M visits, as well as inpatient admissions, ED visits, SNF admissions, and long-stay NF use, relative to the comparison group. The Illinois demonstration did not impact any of the quality of care measure that we examined. The Illinois demonstration impacted beneficiaries with LTSS use and SPMI differently than those without LTSS use and SPMI. For those with LTSS use, there was an increase in the probability of inpatient admissions, ACSC admissions (overall and chronic), ED visits, preventable ED visits, 30-day readmissions, and the number of physician E&M visits, relative to the demonstration impact among the non-LTSS population. The demonstration impact for those with an SPMI was an increase in the probability of SNF admission and the monthly number of physician visits, relative to the demonstration impact for non-SPMI beneficiaries.

These findings may in part be explained by the service utilization and health characteristics of the enrolled population. Indeed, favorable selection into the demonstration may impact the likelihood of observing any favorable demonstration impacts on these measures. We conducted additional analyses to investigate whether there were underlying differences in service utilization and mortality between those who enrolled in the demonstration and those who did not. (see *Appendix G, Figure G-1*). Demonstration enrollees had lower mortality rates than the demonstration eligible non-enrolled population (see *Appendix G, Figure G-2*). These analyses provide evidence that beneficiaries who enrolled in the demonstration were less likely to die and had lower healthcare utilization.

The demonstration did not reduce total costs to the Medicare program, relative to the comparison group. Several factors could explain why savings have not materialized. First, 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 demonstration, to alleviate concerns about selection bias in enrollment that could not be replicated in the comparison group. Enrollees represented only about 39 percent of all demonstration eligible beneficiaries thus making the eligible but not enrolled population substantially larger. Second, the pre-enrollment service use and spending analysis, as well as the mortality and HCC risk score analysis (see *Appendix G*), suggest MMP enrollees were less medically complex, limiting the impact of the demonstration on potential cost savings.

These findings should be interpreted in the broader policy context in Illinois. Particularly, Illinois made historic changes to their Medicaid managed care programs and several concurrent Medicaid policy initiatives unfolded during the demonstration period (e.g., the launch of MLTSS in 2016; the launch of HealthChoice Illinois in 2018). These changes could complicate both the demonstration implementation and its impact, confounding causal interpretation of the reported findings. Though stakeholders and enrollees spoke positively about MMAI and related care coordination efforts, ongoing challenges such as higher disenrollment among certain populations (e.g., NF residents), care coordinator turnover, and continued challenges locating and engaging eligible enrollees may have contributed to slower decreases in service utilization outcomes in the demonstration group relative to the comparison group, and poorer outcomes for beneficiaries using LTSS relative to those without LTSS.

In the first 4 demonstration years, beneficiaries with LTSS use had an unfavorable increase in most service utilization and some quality of care outcomes, relative to the non-LTSS population. Indeed, when considering the overall population without LTSS use, the

demonstration group showed decreases in inpatient and SNF admissions relative to non-LTSS users in the comparison group (see ***Appendix E, Table E-2***). Overall results that include LTSS users indicate the demonstration increases utilization relative to the comparison group for all utilization measures.

Several Illinois policies may have limited MMPs' ability to influence NF care to improve outcomes such as reducing hospitalizations for their enrollees. These policies include the State's Any Willing Provider law which may have influenced the ability of the MMPs and SNFists to be effective. The law required MMPs and MCOs to contract with any willing NF provider limiting their ability to contract selectively and apply quality standards. Moreover, MMPs also faced resistance to moving NF residents to better quality facilities, because transitions would have disrupted established relationships and possibly move them farther away from their families. As mentioned above, the State was also undergoing several shifts in its Medicaid managed care programs for dual-eligible beneficiaries during the early years of the demonstration. This included the launching of mandatory MLTSS, which NFs favored over the demonstration, because they preferred their residents be in Medicare FFS. NFs preferred Medicare FFS to avoid prior authorization and care management by the MMPs, and to take advantage of Medicare FFS payments for SNF services, which were thought to be higher than MMP payments. The State's generous bed hold policy—that continued Medicaid payment to NFs while a resident is in the hospital to reserve the bed for the resident's return—provided another incentive to send residents to the hospital. The NFs' preference for Medicare FFS and the incentive to send residents to the hospital is further compounded by residents' likely return on the higher paid Medicare SNF rate for several weeks.

In general, these findings indicate that the Illinois demonstration has had mixed results on major types of service utilization, which are possibly impacted by State-level policies and NF efforts to discourage their residents from enrolling in MMPs. Caution should be used in making causal interpretation of the demonstration impact on service utilization outcomes.

## 7.3    Summary

Over the course of the demonstration, Illinois made great strides in extending integrated care to dually eligible beneficiaries throughout the State. MMAI was implemented with a high degree of fidelity to the model design, and through passive enrollment, a statewide extension, and mandating MLTSS enrollment, Illinois was able to increase demonstration enrollment to over 93,000 dually eligible beneficiaries. Careful attention to network adequacy ensured that MMPs were an enrollment option in all counties, with passive enrollment in 99 of the 102 counties by late 2021. However, only about one-third of eligible beneficiaries were enrolled in the demonstration at any time, which limited its impact.

The demonstration's effective integration of Medicare and Medicaid services meant that most enrollees benefited from having a single card and point of contact, zero copays and other flexible benefits, care coordination, and integrated primary, specialty, LTSS, and behavioral health care. Although the demonstration may have had a wider impact if MMPs had been able to scale up and reach more people, care coordinators were effective at completing HRAs and care plans for most enrollees. These enrollees reported high levels of satisfaction, were connected to services, and were guided through the health care system.

The demonstration showed mixed results from an impact analysis. Except for increased use of physician services among demonstration eligible beneficiaries, which is a favorable finding, the demonstration's impact on other service utilization and quality of care measures were unfavorable overall, relative to the comparison group. The demonstration was associated with a relative increase in cost to the Medicare program. The enrollment of relatively healthier and lower-cost beneficiaries in the MMPs limits the potential impact of the demonstration on cost savings.

Despite the impact analysis showing mixed results, the demonstration has improved the beneficiary experience. Enrollees were offered choices, and most were pleased with MMAI. They reported improved health, which they attributed in part to the care coordination they received. Care coordination was also key to helping enrollees use their benefits, and they appreciated having care coordinators help them through the health care system. The State and MMPs improved provider relations, and the CMT worked with MMPs to improve quality, ensure network adequacy, and maintain a focus on care coordination.

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# Appendix A
# Data Sources

We used the following data sources to prepare this report.

**Key informant interviews.** The RTI evaluation team conducted virtual site visits in Illinois in 2020 and 2022. The team interviewed the following individuals: MMP, State, and CMS officials, and beneficiary advocates.

**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 PHE, CMS did not require 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 Illinois through the State Data Reporting System (SDRS). These reports include eligibility, enrollment, opt-out, and disenrollment data, and information reported by Illinois 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 Medicare-Medicaid Plans and submitted to CMS' implementation contractor, NORC.[29,30] Data reported to NORC include core quality measures that all Medicare-Medicaid Plans are required to report, as well as State-specific measures that Illinois Medicare-Medicaid Alignment Initiative (MMAI) 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[31]; and other publicly available materials on the Illinois MMAI webpage[32] and other pages in the HFS website.[33]

**Conversations with CMS and Illinois Department of Healthcare and Family Services officials**. To monitor demonstration progress, the RTI evaluation team engages in

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[29] Data are reported for 2014-2021.

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

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

[32] https://www2.illinois.gov/hfs/MedicalProviders/cc/mmai/Pages/default.aspx

[33] https://www2.illinois.gov/hfs/Pages/default.aspx

periodic phone conversations with the Illinois Department of Healthcare and Family Services (HFS) and CMS. These might include 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 HFS, and reported separately to CMS' implementation contractor, NORC,[34] through Core Measure 4.2; (2) complaints received by HFS 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 HFS and NORC, for Core Measure 4.2, and to the Medicare Independent Review Entity (IRE). This report also includes critical incidents and abuse data reported by Illinois MMPs to HFS and CMS' implementation contractor, NORC.

**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 COVID-19 public health emergency (PHE), in 2020 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, as well as the Minimum Data Set.

Medicaid service data on use of long-term services and supports (LTSS), behavioral health, and other Medicaid-reimbursed services were either not available or not useable in current form for the demonstration period and therefore are not included in this report.

**Medicare and Medicaid 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 MMAI plans 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 demonstration eligible beneficiaries who were not enrolled during the demonstration period. FFS

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

claims included all Medicare Parts A and B services. For a comprehensive list of adjustments please refer to ***Appendix F, Table F-1***.

Medicaid research identifiable files were used to calculate total Medicaid FFS and Medicaid Managed Care payments among demonstration and comparison group eligible beneficiaries. The source of Medicaid claims data for calendar years 2012–2013 (which includes the first 14 months of the predemonstration period) was the Medicaid Statistical Information Statistics (MSIS) Medicaid Analytic eXtract (MAX). The source for the Medicaid claims data for calendar years 2014–2019 (which includes with last 10 months of the predemonstration period and all 5 demonstration years) was the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF).

# Illinois MMAI MMP Performance on Select HEDIS Quality Measures, 2015–2020

*Tables B-1a* and *B-1b* provide 2015 through 2020 HEDIS performance data for Illinois MMAI 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. 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 2020.

Aetna improved over time on measures for adult body mass index (BMI) assessment and colorectal cancer screening.

Blue Cross improved over time on measures for adult BMI assessment, blood pressure control (standalone measure), effective acute phase treatment and effective continuation phase treatment (both within antidepressant medication management), and blood pressure control (within Comprehensive Diabetes Care submeasures), but worsened performance over time on emergency department visits (per 1,000 members).

Humana improved over time on measures for engagement of alcohol and other drug (AOD) dependence treatment (within initiation and engagement of AOD dependence treatment) and outpatient visits per 1,000 members.

IlliniCare improved over time on adult BMI assessment, advance care planning and medication review (both within Care for Older Adults submeasures), but worsened performance over time for breast cancer screening, receiving medical attention for nephropathy (within Comprehensive Diabetes Care submeasures), and plan all-cause readmissions (ages 18–64).

Meridian worsened performance over time on measures for adult BMI assessment and emergency department visits (per 1,000 members).

Molina improved over time on measures for adult BMI assessment, controlling poor HbA1c level (>9.0%) (within Comprehensive Diabetes Care submeasures), and outpatient visits per 1,000 members.

**Table B-1a**
**Illinois MMAI MMP performance on select HEDIS quality measures for 2015–2020[1] by MMP**

| Measure | National MA Plan Mean | Aetna | | | | | Blue Cross | | | | | Humana | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) |
| Adults' access to preventive/ ambulatory health services | 93.7 | 81.1 | 83.9 | 85.9 | 86.2 | 82.0 | 88.6 | 93.3 | 93.8 | 94.6 | 92.5 | 86.6 | 89.3 | 90.5 | 91.0 | 90.4 |
| Adult BMI assessment[2] | N/A | N/A | 69.0ᴳ | 89.3ᴳ | 94.7ᴳ | — | N/A | 68.3ᴳ | 74.9ᴳ | 80.5ᴳ | — | 96.0 | 92.2 | 94.0 | 94.3 | — |
| Blood pressure control[3] | 62.6 | 43.3 | 54.0 | 61.1 | 57.4 | 45.0 | 24.5ᴳ | 30.7ᴳ | 46.5ᴳ | 55.5ᴳ | 57.9ᴳ | 63.3 | 72.5 | 77.9 | 76.4 | 70.6 |
| Breast cancer screening | 68.9 | N/A | 51.1 | 50.2 | 54.3 | 48.6 | N/A | 61.6 | 63.6 | 63.7 | 61.5 | 64.4 | 58.1 | 65.3 | 66.0 | 71.7 |
| Colorectal cancer screening | 69.2 | N/A | 29.0ᴳ | 34.8ᴳ | 42.1ᴳ | 42.8ᴳ | — | 46.8 | 51.6 | 58.4 | 57.9 | 66.4 | 47.9 | 61.1 | 62.0 | 68.6 |
| Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis | 77.6 | 57.1 | 58.3 | 57.5 | N/A | 73.2 | 75.0 | 74.3 | 68.8 | 73.9 | 80.8 | 72.7 | 78.3 | 73.2 | 71.4 | 80.7 |
| Follow-up after hospitalization for mental illness (30 days)[4] | 49.6 | 49.8 | 54.9 | 42.4 | 36.6 | 45.1 | 34.3 | 33.3 | 40.6 | 44.4 | 47.0 | 34.1 | 34.6 | 43.6 | 39.1 | 47.8 |
| **Antidepressant medication management** | | | | | | | | | | | | | | | | |
| Effective acute phase treatment[5] | 78.2 | 100.0 | 81.3 | 66.5 | 67.9 | 74.0 | 53.3ᴳ | 54.4ᴳ | 61.4ᴳ | 68.2ᴳ | 72.0ᴳ | 77.7 | 77.4 | 80.8 | 84.2 | 87.7 |
| Effective continuation phase treatment[6] | 63.0 | 96.7 | 78.1 | 44.7 | 44.3 | 58.4 | 36.7ᴳ | 43.2ᴳ | 46.9ᴳ | 53.0ᴳ | 56.1ᴳ | 78.5 | 71.0 | 72.7 | 77.8 | 84.6 |
| **Care for older adults** | | | | | | | | | | | | | | | | |
| Advance care planning | N/A | — | 11.6 | 41.9 | 48.4 | 27.5 | 28.2 | 13.6 | 12.4 | 17.8 | 56.7 | — | 50.1 | 51.8 | 58.9 | 31.9 |
| Medication review | N/A | — | 27.7 | 65.0 | 74.5 | 52.8 | 52.1 | 45.8 | 42.1 | 47.5 | 69.3 | — | 80.3 | 85.9 | 89.1 | 81.3 |
| Functional status assessment | N/A | — | 52.8 | 65.0 | 63.5 | 66.7 | 35.8 | 17.4 | 19.5 | 37.7 | 67.2 | — | 83.0 | 80.3 | 86.1 | 65.9 |
| Pain assessment | N/A | — | 55.4 | 69.6 | 74.9 | 63.5 | 44.8 | 27.9 | 18.0 | 30.7 | 75.7 | — | 90.0 | 88.1 | 91.2 | 84.4 |

(continued)

**Table B-1a (continued)**
**Illinois MMAI MMP performance on select HEDIS quality measures for 2015–2020[1] by MMP**

| Measure | National MA Plan mean (2020) | Aetna | | | | | Blue Cross | | | | | Humana | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) |
| **Comprehensive diabetes care** | | | | | | | | | | | | | | | | |
| Received Hemoglobin A1c (HbA1c) testing | 91.7 | 84.7 | 87.0 | 92.5 | 89.5 | 80.1 | 87.6 | 91.0 | 91.0 | 94.2 | 86.4 | 86.6 | 86.6 | 89.3 | 93.0 | 89.1 |
| Poor control of HbA1c level (>9.0%) (higher is worse) | 28.0 | 56.0 | 55.3 | 38.7 | 38.4 | 55.5 | 76.2 | 74.8 | 57.7 | 40.6 | 52.8 | 34.3 | 36.5 | 28.7 | 22.7 | 24.6 |
| Good control of HbA1c level (<8.0%) | 62.3 | 36.3 | 37.7 | 50.1 | 52.6 | 37.5 | 20.8 | 20.3 | 35.5 | 51.6 | 40.6 | 56.9 | 52.8 | 58.9 | 63.1 | 67.4 |
| Received eye exam (retinal) | 67.9 | 38.9 | 50.5 | 62.3 | 66.9 | 52.3 | 49.5 | 59.8 | 62.5 | 67.9 | 59.6 | 57.9 | 63.3 | 71.5 | 74.3 | 69.3 |
| Received medical attention for nephropathy | 94.1 | 88.2 | 88.7 | 91.5 | 91.2 | 87.4 | 94.3 | 93.4 | 94.9 | 94.2 | 91.1 | 92.9 | 92.0 | 93.5 | 96.3 | 94.7 |
| Blood pressure control (<140/90 mm Hg) | 64.4 | 35.0 | 43.5 | 55.7 | 62.0 | 46.5 | 21.9[G] | 27.2[G] | 33.3[G] | 47.5[G] | 53.5[G] | 59.1 | 67.2 | 61.8 | 67.8 | 65.7 |
| **Initiation and engagement of alcohol and other drug (AOD) dependence treatment** | | | | | | | | | | | | | | | | |
| Initiation of AOD treatment[7] | 33.5 | 39.2 | 49.6 | 50.2 | 45.3 | 44.8 | 43.8 | 43.7 | 42.8 | 44.9 | 40.2 | 42.3 | 30.0 | 45.7 | 54.4 | 58.5 |
| Engagement of AOD treatment[8] | 5.2 | 7.7 | 6.7 | 9.6 | 9.8 | 5.7 | 3.6 | 7.5 | 8.5 | 10.1 | 7.3 | 3.3[G] | 4.7[G] | 6.9[G] | 6.9[G] | 11.2[G] |
| **Plan all-cause readmissions (Observed-to-expected ratio[9])** | | | | | | | | | | | | | | | | |
| Age 18-64 | 1.08 | 1.05 | 0.96 | 0.83 | 0.73 | 1.19 | 0.72 | 1.02 | 0.94 | 0.97 | 1.17 | 0.99 | 0.83 | 0.83 | 0.82 | 0.87 |
| Age 65+ | 1.12 | 1.04 | 0.77 | 0.60 | 0.68 | 1.31 | N/A | 0.90 | 0.90 | 0.72 | 1.19 | 0.88 | 0.84 | 0.81 | 0.53 | 1.16 |

(continued)

**Table B-1a (continued)**
**Illinois MMAI MMP performance on select HEDIS quality measures for 2015–2020[1] by MMP**

| Measure | National MA Plan mean | Aetna | | | | | Blue Cross | | | | | Humana | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) |
| **Ambulatory care (per 1,000 members[10])** | | | | | | | | | | | | | | | | |
| Outpatient visits | N/A | 7,648.2 | 8,826.6 | 8,068.1 | 8,302.9 | — | 14,982.6 | 10,508.0 | 10,823.6 | 11,008.5 | — | 6,397.4[G] | 7,246.0[G] | 8,156.4[G] | 8,486.5[G] | — |
| Emergency department visits (higher is worse) | N/A | 779.9 | 762.0 | 785.5 | 745.5 | — | 726.2[R] | 777.2[R] | 801.8[R] | 830.6[R] | — | 690.3 | 722.9 | 822.1 | 721.9 | — |

— = not available, where the plan did not provide HEDIS data for this measure; BMI = body mass index; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMAI = Medicare-Medicaid Alignment Initiative; 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 the 2020 measurement year.

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

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

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

[7] 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.

[8] 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.

[9] 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.

[10] 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 the 2020 measurement year.

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 2020 HEDIS measures.

**Table B-1b**
**Illinois MMAI MMP performance on select HEDIS quality measures for 2015–2020[1] by MMP**

| Measure | National MA Plan mean | IlliniCare[2] | | | | Meridian | | | | | Molina | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2020) | (2015) | (2016) | (2017) | (2018) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) |
| Adults' access to preventive/ambulatory health services | 93.7 | 96.0 | 85.2 | 85.6 | 85.0 | 80.1 | 80.6 | 84.0 | 84.0 | 80.9 | 89.9 | 94.3 | 93.1 | 91.2 | 89.7 |
| Adult BMI assessment[3] | N/A | N/A | 70.0G | 76.7G | 84.2G | N/A | 78.7R | 76.2R | 62.0R | — | N/A | 71.7G | 94.2G | 97.1G | — |
| Blood pressure control[4] | 62.6 | 50.7 | 50.8 | 50.1 | 51.1 | 41.6 | 61.4 | 61.8 | 45.5 | 41.4 | 38.0 | 47.5 | 64.2 | 68.1 | 67.9 |
| Breast cancer screening | 68.9 | N/A | 73.9R | 71.6R | 61.7R | N/A | 51.2 | 56.9 | 53.5 | 52.1 | N/A | 57.2 | 58.0 | 62.1 | 55.8 |
| Colorectal cancer screening | 69.2 | N/A | 28.3 | 37.2 | 37.0 | N/A | 30.3 | 46.2 | 44.0 | 40.7 | N/A | 40.5 | 54.7 | 51.1 | 55.5 |
| Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis | 77.6 | N/A | N/A | 51.4 | 67.4 | N/A | 60.6 | 70.2 | 86.1 | 84.0 | N/A | 71.7 | 75.0 | N/A | 71.4 |
| Follow-up after hospitalization for mental illness (30 days)[5] | 49.6 | 36.2 | 64.4 | 45.3 | 45.1 | 34.2 | 31.6 | 33.9 | 37.0 | 41.2 | 58.0 | 73.7 | 62.6 | 72.2 | 55.9 |
| **Antidepressant medication management** | | | | | | | | | | | | | | | |
| Effective acute phase treatment[6] | 78.2 | N/A | N/A | 60.9 | 66.1 | 68.6 | 60.8 | 63.6 | 60.0 | 73.1 | 73.8 | 73.9 | 64.6 | 71.4 | 80.7 |
| Effective continuation phase treatment[7] | 63.0 | N/A | N/A | 47.1 | 46.8 | 51.0 | 40.2 | 49.1 | 44.3 | 54.6 | 58.3 | 59.2 | 54.4 | 57.9 | 61.4 |
| **Care for older adults** | | | | | | | | | | | | | | | |
| Advance care planning | N/A | 5.3G | 19.7G | 33.8G | 33.8G | 11.6 | 19.6 | 32.6 | 34.6 | 15.6 | 49.9 | 69.2 | 57.1 | 63.3 | 66.7 |
| Medication review | N/A | 28.9G | 73.3G | 81.3G | 86.4G | 52.5 | 41.3 | 62.5 | 64.5 | 39.2 | 72.4 | 85.7 | 79.1 | 85.2 | 88.1 |
| Functional status assessment | N/A | 13.9 | 64.4 | 60.1 | 75.2 | 79.4 | 28.0 | 53.5 | 58.2 | 17.8 | 53.6 | 76.6 | 65.0 | 63.0 | 55.0 |
| Pain assessment | N/A | 25.9 | 69.7 | 69.3 | 76.9 | 84.9 | 39.4 | 61.8 | 65.2 | 40.4 | 72.6 | 86.6 | 83.1 | 84.4 | 86.4 |

(continued)

**Table B-1b (continued)**
**Illinois MMAI MMP performance on Select HEDIS Quality Measures for 2015–2020 by MMP**

| Measure | National MA Plan mean | IlliniCare | | | | Meridian | | | | | Molina | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2020) | (2015) | (2016) | (2017) | (2018) | (2015) | (2016) | (2017) | (2018) | (2020) | (2015) | (2016) | (2017) | (2018) | (2020) |
| **Comprehensive diabetes care** | | | | | | | | | | | | | | | |
| Received Hemoglobin A1c (HbA1c) testing | 91.7 | 91.9 | 88.4 | 86.1 | 88.3 | 82.2 | 85.6 | 85.6 | 88.3 | 82.2 | 91.0 | 92.7 | 94.9 | 91.2 | 88.8 |
| Poor control of HbA1c level (>9.0%) (higher is worse) | 28.0 | 57.7 | 50.5 | 65.2 | 53.3 | 69.6 | 65.4 | 61.1 | 72.5 | 53.3 | 49.9[G] | 44.9[G] | 41.9[G] | 30.9[G] | 30.9[G] |
| Good control of HbA1c level (<8.0%) | 62.3 | 37.5 | 43.3 | 29.2 | 39.4 | 27.2 | 28.0 | 34.6 | 22.1 | 39.2 | 40.4 | 46.2 | 47.9 | 58.2 | 57.2 |
| Received eye exam (retinal) | 67.9 | 65.8 | 67.8 | 64.7 | 69.6 | 51.4 | 55.0 | 62.0 | 63.0 | 47.2 | 40.4 | 58.9 | 69.1 | 61.1 | 56.0 |
| Received medical attention for nephropathy | 94.1 | 93.8[R] | 91.9[R] | 91.7[R] | 89.3[R] | 89.8 | 89.2 | 90.5 | 91.0 | 92.0 | 93.6 | 94.0 | 95.1 | 92.2 | 92.0 |
| Blood pressure control (<140/90 mm Hg) | 64.4 | 43.4 | 44.2 | 37.2 | 48.7 | 29.9 | 36.7 | 44.0 | 35.3 | 42.6 | 61.8 | 64.4 | 64.2 | 70.6 | 71.1 |
| **Initiation and engagement of alcohol and other drug (AOD) dependence treatment** | | | | | | | | | | | | | | | |
| Initiation of AOD treatment[8] | 33.5 | 72.4 | 50.9 | 43.7 | 48.9 | 47.7 | 50.6 | 46.4 | 41.5 | 46.9 | 39.9 | 41.1 | 39.6 | 41.5 | 33.2 |
| Engagement of AOD treatment[9] | 5.2 | 17.1 | 5.4 | 7.8 | 10.7 | 7.1 | 6.5 | 8.7 | 7.8 | 9.7 | 5.0 | 4.7 | 5.8 | 2.8 | 4.3 |
| **Plan all-cause readmissions (Observed-to-expected ratio[10])** | | | | | | | | | | | | | | | |
| Age 18-64 | 1.08 | 0.75[R] | 0.91[R] | 0.94[R] | 1.06[R] | 1.10 | 1.23 | 1.21 | 1.06 | 1.06 | 1.10 | 0.78 | 0.74 | 0.66 | 1.00 |
| Age 65+ | 1.12 | 0.75 | 0.87 | 0.92 | 0.65 | 0.89 | 1.07 | 0.85 | 0.93 | 1.17 | 0.95 | 0.90 | 0.70 | 0.70 | 1.25 |
| **Ambulatory care (per 1,000 members[11])** | | | | | | | | | | | | | | | |
| Outpatient visits | N/A | 6,701.8 | 7,716.0 | 9,624.5 | 9,501.9 | 8,020.0 | 8,654.1 | 8,757.0 | 7,960.0 | — | 7,455.3[G] | 10,259.2[G] | 11,712.1[G] | 12,353.3[G] | — |
| Emergency department visits (higher is worse) | N/A | 928.0 | 845.3 | 846.7 | 808.4 | 671.8[R] | 677.3[R] | 709.8[R] | 731.4[R] | — | 1,191.7 | 1,383.3 | 1,281.2 | 1,111.3 | — |

(continued)

# Table B-1b (continued)
## Illinois MMAI MMP performance on select HEDIS quality measures for 2015–2020 by MMP

— = not available, where the plan did not provide HEDIS data for this measure; BMI = body mass index; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; MMAI = Medicare-Medicaid Alignment Initiative; 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] 2020 measurement year data for IlliniCare do not appear in the table as the plan was consolidated with Meridian for 2021.

[3] Adult BMI assessment was retired from HEDIS in 2020. Therefore, MMPs did not provide HEDIS data for this measure for the 2020 measurement year.

[4] 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.

[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 the 2020 measurement year.

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". Values of N/A appearing for plan all-cause readmissions (18-64 and 65+) in the Second Illinois Evaluation Report have been updated in the current report to provide the actual result. Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.

SOURCE: RTI analysis of 2015 through 2020 HEDIS measures.

Appendix C

# Comparison Group Methodology for Illinois Demonstration Years 4 and 5

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

Results for comparison group selection and assessment are prepared for each demonstration year. The evaluation report for the second and third demonstration years was published in the summer of 2021. This appendix describes the comparison group identification methodology for the fourth and fifth performance years of the MMAI in Illinois (January 1, 2018–December 31, 2019) and notes any major changes in the results since the previous evaluation report. Results for the fifth demonstration year are provided in detail here; results for the fourth demonstration year are nearly identical to those for the fifth demonstration year and are not shown.

## C.1    Demonstration and Comparison Group Characteristics

The Illinois demonstration area consists of two service areas: Greater Chicago and Central Illinois. The Greater Chicago service area includes the following six counties: Cook, Lake, Kane, DuPage, Will, and Kankakee. The Central Illinois service area includes the following 15 counties: Knox, Peoria, Tazewell, McLean, Logan, DeWitt, Sangamon, Macon, Christian, Piatt, Champaign, Vermilion, Ford, Menard, and Stark. The comparison area is drawn from 28 metropolitan statistical areas (MSAs) in 10 States. The pool of comparison States was limited to those with timely submission of Medicaid data to CMS. These geographic areas have not changed since the First Evaluation Report.

Beneficiaries who are ineligible for the demonstration include those younger than 21, have Medicare as a secondary payor, not enrolled in Medicare Part A and Part B, or reside in an intermediate care facility. 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, we excluded beneficiary observations in the comparison and demonstration groups if they met medically needy criteria. Additionally, the State excluded beneficiaries receiving services under a 1915(c) waiver for adults with developmental disabilities or are participants in the Illinois Medicaid Breast and Cervical Cancer Program. However, we are unable to replicate this same exclusion in the comparison population or during the predemonstration period due to limitations of the data.

MA enrollees are eligible and may opt-in to the Illinois 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 21.2 to 29.5 percent in the demonstration group, and 35.0 to 41.7 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 | Pre-demonstration year 1 | Pre-demonstration year 2 | DY 1 | DY 2 | DY 3 | DY 4 | DY 5 |
|---|---|---|---|---|---|---|---|
| **Demonstration** | | | | | | | |
| Initial count of beneficiaries | 206,708 | 211,642 | 186,751 | 171,401 | 181,039 | 181,450 | 174,586 |
| Count of beneficiaries with Medicare Advantage | 43,803 | 48,519 | 51,470 | 48,911 | 52,594 | 53,487 | 50,170 |
| Percentage of beneficiaries with Medicare Advantage | 21.2% | 22.9% | 27.6% | 28.5% | 29.1% | 29.5% | 28.7% |
| **Comparison** | | | | | | | |
| Initial count of beneficiaries | 642,139 | 652,042 | 759,973 | 724,088 | 747,257 | 759,027 | 748,600 |
| Count of beneficiaries with Medicare Advantage | 224,921 | 240,454 | 293,965 | 290,670 | 307,991 | 316,214 | 307,508 |
| Percentage of beneficiaries with Medicare Advantage | 35.0% | 36.9% | 38.7% | 40.1% | 41.2% | 41.7% | 41.1% |

DY = demonstration year.

Further analytic exclusions were performed such as: (1) removing beneficiaries with missing geographic information, (2) removing beneficiaries with zero months of eligibility during each analytic period, (3) removing beneficiaries who moved between the demonstration area and the comparison area any time during the study period, (4) removing beneficiaries with missing Hierarchical Condition Category (HCC) risk scores, and (5) removing beneficiaries who died before the beginning of each analytic period. After applying these exclusions, the sample size of demonstration group beneficiaries was 139,449 and 185,183 in predemonstration year 1 and predemonstration year 2, respectively. The number of demonstration group beneficiaries in the five demonstration years ranged between 157,127 and 178,420. The number of beneficiaries in the comparison group ranged between 583,512 and 732,116 across 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, a rating of 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 propensity scores.

A propensity score is the predicted probability that a beneficiary is a member of the demonstration group conditional on a set of observed variables. Our propensity score models include a combination of beneficiary-level and region-level characteristics measured at the ZIP

code (ZIP Code Tabulation Area) level. Compared to the analysis for the previous evaluation report, an additional explanatory variable was added to the propensity score model that measures the share of months during the year for which a beneficiary was enrolled in an MA plan.

The logistic regression coefficients and z-values for the covariates included in the propensity model for Illinois MMAI demonstration year 5 are shown in *Table C-2*, and the magnitudes of the group differences for all variables prior to propensity score weighting are shown in *Table C-3*. The largest relative differences are that demonstration eligible beneficiaries are more likely to be Black and less likely to be Asian, are more likely to reside in an MSA, are less likely to be participating in other Medicare shared savings programs (other MDM), and have fewer months of non-MMP MA plan enrollment and fewer months of eligibility in demonstration year 5 than the beneficiaries in the comparison group. In addition, there are ZIP code level group differences associated with rates of marriage, households with members older than 60 years, and adults with self-care limitations, as well as differences associated with distances to the nearest hospital and the nearest nursing facility. These results are very similar to those of earlier demonstration years.

## C.3   Propensity Score Overlap

The distributions of propensity scores by group for demonstration year 5 are shown in *Figure C-1* before and after propensity score weighting. Estimated scores for both the demonstration group and comparison group topped out at around 0.90. The unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0.05 to 0.20. Inverse probability of treatment weighting pulls the distribution of weighted comparison group propensity scores (dotted line) very close to that of the demonstration group (solid line) across the range of propensity scores.

Any beneficiaries with estimated propensity scores less than the smallest estimated value in the demonstration group are removed from the comparison group. This resulted in the removal of only five and 32 beneficiaries from the comparison group in demonstration years 4 and 5, respectively.

**Table C-2**
**Logistic regression estimates for Illinois propensity score models**
**in demonstration year 5, January 1, 2019–December 31, 2019**

| Characteristic | Demonstration Year 5 | | |
|---|---|---|---|
| | Coef. | Standard error | z-score |
| Age (years) | 0.007 | 0.000 | 26.76 |
| Died during year (0/1) | −0.499 | 0.014 | −36.01 |
| Female (0/1) | 0.325 | 0.006 | 51.55 |
| Black (0/1) | 0.513 | 0.008 | 67.86 |
| Hispanic (0/1) | 0.323 | 0.011 | 30.15 |
| Asian (0/1) | −0.537 | 0.012 | −44.80 |
| Disability as original reason for entitlement (0/1) | −0.054 | 0.008 | −6.41 |
| ESRD (0/1) | −0.033 | 0.018 | −1.89 |
| Share of months eligible during year | −0.499 | 0.011 | −46.43 |
| Share of months Medicare Advantage plan enrollment during year | −1.656 | 0.009 | −190.13 |
| HCC risk score | 0.029 | 0.004 | 7.57 |
| Other MDM participation (0/1) | −0.820 | 0.008 | −105.82 |
| MSA (0/1) | 1.184 | 0.031 | 38.63 |
| % of pop. living in married household | −0.007 | 0.000 | −24.17 |
| % of households w/member >= 60 yrs. | −0.002 | 0.000 | −4.04 |
| % of households w/member < 18 yrs. | −0.015 | 0.000 | −34.61 |
| % of adults with college education | −0.019 | 0.000 | −65.54 |
| % of adults with self-care limitation | −0.344 | 0.002 | −137.51 |
| Distance to nearest hospital (mi.) | −0.034 | 0.001 | −26.55 |
| Distance to nearest nursing facility (mi.) | −0.156 | 0.002 | −71.19 |
| Intercept | 0.860 | 0.046 | 18.81 |

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 Illinois demonstration and**
**comparison groups, weighted and unweighted, in demonstration year 5,**
**January 1, 2019–December 31, 2019**
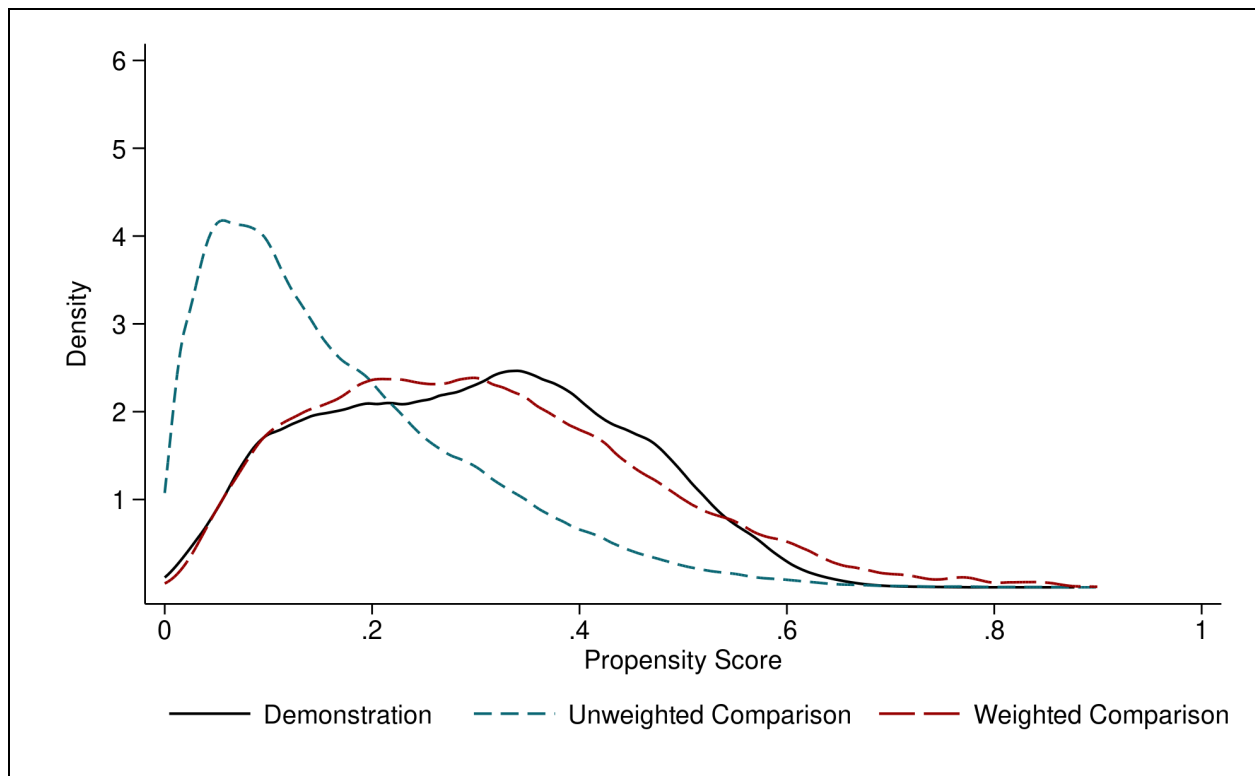


## C.4    Group Comparability

Covariate balance refers to the extent to which the characteristics used in the propensity score 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**
**Illinois dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 5: January 1, 2019–December 31, 2019**

| Characteristic | Demonstration group mean | Comparison group mean | PS-weighted comparison group mean | Unweighted standardized difference | Weighted standardized difference |
|---|---|---|---|---|---|
| Age (years) | 66.950 | 66.573 | 67.034 | 0.024 | −0.005 |
| Died during year (0/1) | 0.053 | 0.057 | 0.055 | −0.018 | −0.007 |
| Female (0/1) | 0.594 | 0.599 | 0.585 | −0.011 | 0.018 |
| Black (0/1) | 0.372 | 0.259 | 0.377 | 0.244 | −0.009 |
| Hispanic (0/1) | 0.098 | 0.071 | 0.094 | 0.100 | 0.013 |
| Asian (0/1) | 0.061 | 0.101 | 0.060 | −0.149 | 0.003 |
| Disability as original reason for entitlement (0/1) | 0.422 | 0.441 | 0.419 | −0.039 | 0.006 |
| ESRD (0/1) | 0.030 | 0.025 | 0.031 | 0.029 | −0.009 |
| Share of months eligible during year | 0.825 | 0.861 | 0.819 | −0.125 | 0.023 |
| Share of months Medicare Advantage plan enrollment during year | 0.135 | 0.308 | 0.135 | −0.448 | −0.001 |
| HCC score | 1.121 | 1.094 | 1.123 | 0.036 | −0.003 |
| Other MDM participation (0/1) | 0.160 | 0.238 | 0.161 | −0.198 | −0.002 |
| MSA (0/1) | 0.992 | 0.945 | 0.992 | 0.275 | 0.001 |
| % of pop. living in married household | 62.505 | 65.497 | 62.514 | −0.173 | 0.000 |
| % of households w/member >= 60 | 37.575 | 39.070 | 37.581 | −0.184 | −0.001 |
| % of households w/member < 18 | 31.498 | 31.282 | 31.335 | 0.026 | 0.019 |
| % of adults with college education | 29.187 | 29.827 | 28.891 | −0.037 | 0.017 |
| % of adults with self-care limitation | 3.096 | 3.555 | 3.048 | −0.271 | 0.032 |
| Distance to nearest hospital (mi.) | 3.479 | 4.856 | 3.527 | −0.355 | −0.016 |
| Distance to nearest nursing facility (mi.) | 2.447 | 3.450 | 2.422 | −0.412 | 0.015 |

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 5 in *Table C-3*. The column of unweighted standardized differences indicates that several of these variables were not balanced prior to weighting. Eleven

variables had unweighted standardized differences exceeding 0.10 in absolute value: percent Black, percent Asian, share of months eligible during the year, share of months enrolled in a non-MMP MA plan during the year, percent participating in other Medicare shared savings programs (other MDM), percent residing in an MSA, percent of population living in a married household, percent of household with a member 60 years of age or older, percent of adults with self-care limitation, and the distances (in miles) to the nearest hospital and nursing facility.

The results of propensity score weighting for Illinois demonstration year 5 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 the covariates in our model. We found the same results for demonstration year 4.

## C.5    Weights for Enrollee-only Analyses

We also applied our weighting methodology to the demonstration's enrollee-only population (approximately 25 percent of the eligible demonstration population) 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 5-year demonstration period as well as at least 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 2-year demonstration period and the 5-year predemonstration period.

As was the case among all eligible beneficiaries, the unweighted values of several covariates differed substantially between the demonstration and comparison group among enrollees in each predemonstration and demonstration year. After weighting, the standardized differences of all covariates 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, which run through demonstration year 4 only (see ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***). Compared to the methodology used to produce weights for all eligible beneficiaries, we applied two additional exclusions when calculating weights for the analyses of service utilization. The first is the explicit exclusion of beneficiaries who were ever enrolled in an MA plan. 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 analyses. The second difference is the exclusion of beneficiaries who were ever enrolled in an MMP for which complete or valid encounter data is not available.

These exclusions reduced the number of beneficiaries by roughly 63,000 in the demonstration group and by roughly 264,000 in the comparison group. The resulting demonstration group sample ranged between 92,327 and 125,400 beneficiaries each year; the comparison group sample ranged between 368,663 and 447,486 beneficiaries each year.

Despite difference in sample sizes, the results of this 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 predemonstration and demonstration year, the standardized differences of all covariates were reduced to less than 0.10 in absolute value after score weighting.

## C.7    Summary

The Illinois demonstration and comparison groups were initially distinguished by differences in six individual-level covariates as well as five area-level variables. However, propensity score weighting successfully reduced all covariate discrepancies below the generally accepted threshold for standardized differences. As a result, the weighted Illinois groups are adequately balanced with respect to all 20 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 full 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 uses 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 most appropriate 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 exclusion criteria, identified in the three-way contract on the Financial Alignment Initiative website.[35] Previous evaluation reports did not apply this exclusion due to the lack of available and reliable Medicaid eligibility data for all years.

MA enrollees are eligible and may opt-in to the Illinois 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 with any month of MA during a year, prior to exclusion, ranges from 21.2 to 29.1

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[35] For the original three-way contract, please see https://www.cms.gov/files/document/ilcontract.pdf

percent in the demonstration group, and 35.0 to 41.7 percent in the comparison group during the predemonstration and demonstration periods (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 LTSS; those with any behavioral health service use in the last 2 years for an 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 (March 1, 2012 to Feb 28, 2014) and for the 4 demonstration years (March 1, 2014, to December 31, 2018) for both the demonstration and comparison groups. While demonstration year 5 was included in analyses of cost savings, it was omitted for the analyses of service utilization and quality of care because complete and valid encounter data for the MMPs was not available for that year (January 1, 2019–December 31, 2019).

***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. This section 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 majority age group among LTSS users was age 75 and over, with 52.5 percent; otherwise under age 65 was the most prevalent age group, ranging from 36.2 percent among those eligible but not enrolled in the demonstration to 49.2 percent among demonstration eligible beneficiaries with SPMI. The population for both comparison and demonstration groups was majority female, roughly 60 percent for both populations. Black and White beneficiaries had the same distribution in the demonstration and comparison groups. Among the LTSS user demonstration population, the plurality were White (48.7 percent), and among those with SPMI in the demonstration population, the majority were White (55.6 percent).

Across all groups, the majority of beneficiaries did not have disability as the primary reason for Medicare entitlement, seldom had end-stage renal disease, and were much more likely to be reside 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 beneficiaries with scores of 2 are predicted to have twice the average annual cost. HCC scores ranged between 1.1 and 1.3 among all groups except LTSS users in the demonstration group, for which the average HCC score was 1.8.

**Table D-1**
**Characteristics of eligible beneficiaries in demonstration year 4 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 | 105,093 | 428,868 | 33,957 | 71,136 | 19,092 | 42,735 |
| Demographic characteristics | | | | | | |
| Age | | | | | | |
| 0 to 64 | 38.0 | 39.1 | 41.8 | 36.2 | 23.7 | 49.2 |
| 65 to 74 | 33.6 | 30.2 | 34.3 | 33.3 | 23.8 | 24.3 |
| 75 and older | 28.4 | 30.6 | 23.9 | 30.5 | 52.5 | 26.5 |
| Female | | | | | | |
| No | 40.0 | 40.2 | 42.7 | 38.7 | 36.1 | 36.3 |
| Yes | 60.0 | 59.8 | 57.3 | 61.3 | 63.9 | 63.7 |
| Race/ethnicity | | | | | | |
| White | 44.9 | 42.3 | 42.1 | 46.2 | 48.7 | 55.6 |
| Black | 33.2 | 34.2 | 33.6 | 33.0 | 35.4 | 30.2 |
| Hispanic | 9.9 | 6.2 | 11.5 | 9.1 | 4.6 | 7.8 |
| Asian | 6.7 | 10.1 | 6.7 | 6.7 | 8.5 | 2.9 |
| Other | 3.8 | 4.2 | 4.4 | 3.5 | 2.3 | 2.3 |
| Disability as reason for original Medicare entitlement | | | | | | |
| No | 56.3 | 56.4 | 53.3 | 57.8 | 63.0 | 43.0 |
| Yes | 43.7 | 43.6 | 46.7 | 42.2 | 37.0 | 57.0 |
| ESRD status | | | | | | |
| No | 96.8 | 96.6 | 97.5 | 96.4 | 96.4 | 96.7 |
| Yes | 3.2 | 3.4 | 2.5 | 3.6 | 3.6 | 3.3 |
| MSA | | | | | | |
| No | 0.9 | 0.9 | 0.9 | 0.8 | 0.7 | 1.0 |
| Yes | 99.1 | 99.1 | 99.1 | 99.2 | 99.3 | 99.0 |

(continued)

**Table D-1 (continued)**
**Characteristics of eligible beneficiaries in demonstration year 4 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 | 77.3 | 77.3 | 98.3 | 67.3 | 77.0 | 76.3 |
| Yes | 22.7 | 22.7 | 1.7 | 32.7 | 23.0 | 23.7 |
| HCC score | 1.2 | 1.2 | 1.0 | 1.2 | 1.8 | 1.3 |
| Market characteristics | | | | | | |
| Medicare spending per dual, ages 19+ ($) | 9,558.00 | 9,229.30 | 9,551.80 | 9,560.90 | 9,569.30 | 9,549.10 |
| MA penetration rate | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| Medicaid-to-Medicare fee index (FFS) | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Medicaid spending per dual, ages 19+ ($) | 11,936.80 | 19,308.80 | 12,220.70 | 11,801.30 | 11,922.30 | 12,030.90 |
| Fraction of dually eligible beneficiaries using NF, ages 65+ | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Fraction of dually eligible beneficiaries using HCBS, ages 65+ | 0.3 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 |
| Fraction of dually eligible beneficiaries using personal care, ages 19+ | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fraction of dually eligible beneficiaries with Medicaid managed care, ages 19+ | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| Population per square mile, all ages | 2,356.00 | 1,345.70 | 2,340.70 | 2,363.40 | 2,412.70 | 2,301.00 |
| Patient care physicians per 1,000 population | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |

**Table D-1 (continued)**
**Characteristics of eligible beneficiaries in demonstration year 4 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 | 63.8 | 63.4 | 64.0 | 63.6 | 64.3 | 65.5 |
| % of adults with college education | 29.4 | 29.0 | 28.4 | 29.9 | 33.5 | 30.9 |
| % of adults with self-care limitations | 3.1 | 3.0 | 3.1 | 3.1 | 3.0 | 3.0 |
| % of adults unemployed | 8.8 | 7.4 | 8.8 | 8.8 | 8.4 | 8.2 |
| % of household with individuals younger than 18 | 31.9 | 31.8 | 32.6 | 31.6 | 29.8 | 31.3 |
| % of household with individuals older than 60 | 36.7 | 36.8 | 36.7 | 36.8 | 36.2 | 36.5 |
| Distance to nearest hospital | 3.7 | 3.7 | 3.8 | 3.6 | 3.3 | 3.8 |
| Distance to nearest nursing facility | 2.5 | 2.5 | 2.6 | 2.5 | 2.3 | 2.6 |

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; NF = nursing facility; MA = Medicare Advantage; MSA = metropolitan statistical area; 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 slightly lower Medicaid spending per dually eligible beneficiary ($9,229 vs $9,558 in the demonstration group) and lower population density (1,345 people per sq. mi. vs 2,356 people per sq. mi. in the demonstration group). 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 nonpsychiatric, 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, 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, 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, poor short-term memory, or severely impaired decision-making skills.

**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, and long-term care hospital admissions. | • The following were identified using the last four digits of provider number:<br>– inpatient rehabilitation facilities = 3025–3099 OR the 3rd position of provider number equals 'R' or 'T'<br>– long-term care hospitalizations = 2000–2299<br>– inpatient hospitalizations = 0001–0979 OR 1300–1399; observational stays are excluded (revenue center code = 0760, 0762 AND HCPCS = G0378, G0379)<br>• 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.<br>• 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:<br>– Office or Other Outpatient = 99201–99205 or 99211–99215<br>– Nursing Facility Services = 99304–99310, 99315, 99316, or 99318<br>– Domiciliary, Rest Home, or Custodial Care Services = 99324–99328, 99334–99337 or 99339-99340<br>– Home Services = 99341-99345 or 99347–99350<br>– Initial Medicare Visit = G0402<br>– Annual Wellness Visit = G0438, G0439<br>• 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.<br>• 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.<br><br>$$\frac{\left(\frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}} * C\right)}{Prob_g} * 100$$<br><br>Numerator:<br>• $C$ = the national average of 30-day readmission rate, 0.238.<br>• $x_{ig}$ = the total number of readmissions for individual *i* in group *g*.<br>• $n_{ig}$ = the total number of hospital admissions for individual i in group g.<br>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:<br>(1) Non-emergent<br>(2) Emergent/primary care treatable<br>(3) Emergent/ED care needed – preventable/avoidable<br>(4) – *Excluded* – Emergent/ED care needed – not preventable/avoidable<br>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:<br>• Visit with a mental health practitioner AND SPMI diagnosis<br>• Visit to a behavioral health care facility<br>• Visit to a non-behavioral health care facility with a diagnosis of mental illness<br>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 ambulatory care sensitive 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); 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)<br>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)<br>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:<br>• Received a depression screening, tested positive and had a follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8431'.<br>• Received a depression screening, tested positive and follow-up plan not required is identified by CLM_LINE_HCPCS_CD = 'G8510'.<br>• Received a depression screening, tested positive and not eligible for follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8940'.<br>• Received a depression screening, tested positive, no follow-up plan and reason not documented is identified by CLM_LINE_HCPCS_CD = 'G8511'.<br>Denominator: All demonstration eligible Medicare-Medicaid beneficiaries. |

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

### 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 propensity score weighting, described in *Appendix C*. *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*.

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

| Demonstration group | Average adjusted probability of readmission |
|---|---|
| Predemonstration year 1 | |
|    Illinois | 0.2076 |
|    Comparison | 0.2076 |
| Predemonstration year 2 | |
|    Illinois | 0.2112 |
|    Comparison | 0.2100 |
| Demonstration year 1 | |
|    Illinois | 0.2128 |
|    Comparison | 0.2118 |
| Demonstration year 2 | |
|    Illinois | 0.2085 |
|    Comparison | 0.2059 |
| Demonstration year 3 | |
|    Illinois | 0.2035 |
|    Comparison | 0.2016 |
| Demonstration year 4 | |
|    Illinois | 0.2043 |
|    Comparison | 0.2001 |

*DinD Approach*

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

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

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 $\beta_0$ reflects the comparison group predemonstration period mean adjusted for demographic and market effects, $\beta_1$ reflects the average difference between post period and predemonstration period in the comparison group, $\beta_2$ reflects the difference in the demonstration group and comparison group at predemonstration, and $\beta_3$ 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:

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

This equation differs from the previous one in that separate DinD coefficients are estimated for each year. Under this specification, the coefficients $\beta_{3-k}$ 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 costs 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:

- *Run* the regression estimating the probability or level of service use or costs.

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

- *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.

- *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 admissions**
(n = 34,553,852 person months)

| Independent variables | Coefficient | Standard error | z-value | p-value |
|---|---|---|---|---|
| Post period | −0.0687 | 0.0117 | −5.88 | <0.001 |
| Demonstration group | −0.0000 | 0.0289 | −0.00 | 0.999 |
| Interaction of post period x demonstration group | 0.0294 | 0.0129 | 2.27 | 0.023 |
| Age (continuous) | 0.0055 | 0.0006 | 9.81 | 0.000 |
| Female | −0.0366 | 0.0085 | −4.32 | <0.001 |
| Black | 0.0631 | 0.0141 | 4.48 | <0.001 |
| Hispanic | −0.2136 | 0.0199 | −10.72 | <0.001 |
| Asian | −0.5041 | 0.0212 | −23.78 | <0.001 |
| Other race/ethnicity | −0.3366 | 0.0217 | −15.52 | <0.001 |
| Disability as reason for Medicare entitlement | 0.0990 | 0.0179 | 5.52 | <0.001 |
| End-stage renal disease | 1.4864 | 0.0183 | 81.21 | <0.001 |
| Participation in other Shared Savings Program | 0.1311 | 0.0285 | 4.60 | <0.001 |
| Hierarchical Condition Category score | 0.3685 | 0.0073 | 50.60 | <0.001 |
| Metropolitan statistical area residence | 0.0913 | 0.0373 | 2.45 | 0.014 |
| Medicare spending per dual, ages 19+ | −0.0000 | 0.0000 | −0.04 | 0.969 |
| Medicaid spending per dual, ages 19+ | 0.0000 | 0.0000 | 1.18 | 0.237 |
| Percent of population married | −0.0023 | 0.0005 | −4.59 | <0.001 |
| Medicare Advantage penetration rate | 0.3623 | 0.1178 | −3.08 | 0.002 |
| Medicaid-Medicare fee index | 0.1170 | 0.0899 | 1.30 | 0.193 |
| Fraction of dually eligible beneficiaries using nursing facility, ages 65+ | 0.6409 | 0.2278 | 2.81 | 0.005 |
| Fraction of dually eligible beneficiaries using HCBS, ages 65+ | 0.5714 | 0.1558 | 3.67 | 0.00 |
| Fraction of full-year duals with Medicaid Managed Care, ages 19+ | 0.0719 | 0.0270 | 2.66 | 0.008 |
| Population per square mile, all ages | 0.0000 | 0.0000 | 3.12 | 0.002 |
| Patient care physicians per 1,000 population | −0.0918 | 0.0793 | −1.16 | 0.247 |
| Percent of adults with college education | −0.0012 | 0.0006 | −1.83 | 0.068 |
| Percent of adults who are unemployed | −0.0010 | 0.0009 | −1.13 | 0.258 |
| Percent of adults with self-care limitation | −0.0019 | 0.0038 | −0.50 | 0.616 |
| Distance to nearest hospital | 0.0006 | 0.0017 | 0.36 | 0.722 |
| Distance to nearest nursing facility | 0.0076 | 0.0029 | 2.64 | 0.008 |
| Percent of households with individuals younger than 18 | −0.0019 | 0.0006 | −3.07 | 0.002 |

**Table D-4 (continued)**
**Logistic regression results on monthly inpatient admissions**
(n = 2,545,309 person months)

| Independent variables | Coefficient | Standard error | z-value | *p*-value |
|---|---|---|---|---|
| Percent of households with individuals older than 60 | −0.0021 | 0.0008 | −2.54 | 0.011 |
| Intercept | −4.2288 | 0.3852 | −10.98 | <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 Illinois, demonstration years 1–4, March 1, 2014– December 31, 2018**

| Measure | Adjusted DinD estimate | Relative difference (%) | p-value | 95% confidence interval | 90% confidence interval |
|---|---|---|---|---|---|
| **Monthly probability of any inpatient admission (%)** | | | | | |
| Cumulative | 0.11 | 3.0 | 0.0216 | 0.02, 0.21 | 0.03, 0.19 |
| Demonstration year 1 | 0.09 | 2.3 | 0.0387 | 0.00, 0.18 | 0.02, 0.17 |
| Demonstration year 2 | 0.19 | 5.1 | 0.0083 | 0.05, 0.33 | 0.07, 0.31 |
| Demonstration year 3 | 0.06 | NS | 0.3323 | –0.06, 0.17 | –0.04, 0.15 |
| Demonstration year 4 | 0.13 | NS | 0.1084 | –0.03, 0.28 | –0.00, 0.26 |
| **Number of all-cause 30-day readmissions per 1,000 discharges** | | | | | |
| Cumulative | –4.12 | NS | 0.2797 | –11.58, 3.35 | –10.38, 2.15 |
| Demonstration year 1 | –14.53 | –4.9 | 0.0007 | –22.94, –6.13 | –21.59, –7.48 |
| Demonstration year 2 | 0.19 | NS | 0.9685 | –9.32, 9.71 | –7.79, 8.18 |
| Demonstration year 3 | 6.67 | NS | 0.1674 | –2.80, 16.14 | –1.28, 14.62 |
| Demonstration year 4 | –2.71 | NS | 0.5280 | –11.12, 5.70 | –9.76, 4.35 |
| **Monthly probability of any ACSC admission, overall (%)** | | | | | |
| Cumulative | 0.00 | NS | 0.8863 | –0.02, 0.03 | –0.02, 0.02 |
| Demonstration year 1 | –0.02 | NS | 0.1343 | –0.05, 0.01 | –0.04, 0.00 |
| Demonstration year 2 | 0.01 | NS | 0.6538 | –0.03, 0.04 | –0.02, 0.04 |
| Demonstration year 3 | –0.00 | NS | 0.8988 | –0.04, 0.04 | –0.04, 0.03 |
| Demonstration year 4 | 0.04 | NS | 0.0579 | –0.00, 0.08 | 0.01, 0.08 |
| **Monthly probability of any ACSC admission, chronic (%)** | | | | | |
| Cumulative | 0.01 | NS | 0.5350 | –0.01, 0.02 | –0.01, 0.02 |
| Demonstration year 1 | –0.02 | NS | 0.1193 | –0.04, 0.01 | –0.04, 0.00 |
| Demonstration year 2 | 0.02 | NS | 0.2150 | –0.01, 0.04 | –0.01, 0.04 |
| Demonstration year 3 | –0.01 | NS | 0.7003 | –0.04, 0.03 | –0.04, 0.02 |
| Demonstration year 4 | 0.05 | 10.5 | 0.0137 | 0.01, 0.09 | 0.02, 0.09 |

(continued)

**Table E-1 (continued)**
**Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| Measure | Adjusted DinD estimate | Relative difference (%) | p-value | 95% confidence interval | 90% confidence interval |
|---|---|---|---|---|---|
| **Monthly probability of any ED visit (%)** | | | | | |
| Cumulative | 0.15 | 2.7 | 0.0360 | 0.01, 0.30 | 0.03, 0.28 |
| Demonstration year 1 | −0.09 | NS | 0.1812 | −0.22, 0.04 | −0.20, 0.02 |
| Demonstration year 2 | 0.13 | 2.3 | 0.0367 | 0.01, 0.26 | 0.03, 0.24 |
| Demonstration year 3 | 0.35 | 6.1 | 0.0002 | 0.16, 0.53 | 0.19, 0.50 |
| Demonstration year 4 | 0.42 | 7.6 | 0.0001 | 0.21, 0.64 | 0.24, 0.60 |
| **Monthly number of preventable ED visits per 1,000 persons** | | | | | |
| Cumulative | 0.69 | NS | 0.3393 | −0.73, 2.10 | −0.50, 1.88 |
| Demonstration year 1 | −1.10 | NS | 0.0595 | −2.25, 0.04 | −2.06, −0.14 |
| Demonstration year 2 | 0.36 | NS | 0.6188 | −1.04, 1.75 | −0.82, 1.53 |
| Demonstration year 3 | 1.92 | 5.8 | 0.0245 | 0.25, 3.60 | 0.52, 3.33 |
| Demonstration year 4 | 2.60 | 7.9 | 0.0040 | 0.83, 4.37 | 1.11, 4.08 |
| **Monthly probability of any SNF admission (%)** | | | | | |
| Cumulative | 0.22 | 18.8 | <0.0001 | 0.19, 0.26 | 0.19, 0.26 |
| Demonstration year 1 | 0.28 | 21.6 | <0.0001 | 0.23, 0.33 | 0.24, 0.32 |
| Demonstration year 2 | 0.23 | 19.4 | <0.0001 | 0.18, 0.28 | 0.19, 0.27 |
| Demonstration year 3 | 0.14 | 12.7 | <0.0001 | 0.10, 0.19 | 0.11, 0.18 |
| Demonstration year 4 | 0.20 | 18.5 | <0.0001 | 0.16, 0.24 | 0.16, 0.23 |
| **Annual probability of any long-stay NF use (%)** | | | | | |
| Cumulative | 3.78 | 26.7 | <0.0001 | 2.95, 4.60 | 3.09, 4.47 |
| Demonstration year 1 | 4.56 | 27.4 | <0.0001 | 3.22, 5.89 | 3.44, 5.68 |
| Demonstration year 2 | 4.01 | 28.1 | <0.0001 | 3.08, 4.94 | 3.23, 4.79 |
| Demonstration year 3 | 3.22 | 24.5 | <0.0001 | 2.42, 4.01 | 2.55, 3.89 |
| Demonstration year 4 | 3.42 | 27.7 | <0.0001 | 2.66, 4.17 | 2.78, 4.05 |

(continued)

**Table E-1 (continued)**
**Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| Measure | Adjusted DinD estimate | Relative difference (%) | p-value | 95% confidence interval | 90% confidence interval |
|---|---|---|---|---|---|
| **Probability of 30-day follow-up after mental health discharge (%)** | | | | | |
| Cumulative | −0.60 | NS | 0.5961 | −2.83, 1.63 | −2.47, 1.27 |
| Demonstration year 1 | −0.97 | NS | 0.4765 | −3.65, 1.71 | −3.22, 1.28 |
| Demonstration year 2 | −1.79 | NS | 0.1826 | −4.42, 0.84 | −3.99, 0.42 |
| Demonstration year 3 | −1.46 | NS | 0.2101 | −3.74, 0.82 | −3.38, 0.46 |
| Demonstration year 4 | 1.92 | NS | 0.1200 | −0.50, 4.33 | −0.11, 3.95 |
| **Monthly number of physician E&M visits per 1,000 persons** | | | | | |
| Cumulative | 148.93 | 14.1 | <0.0001 | 116.93, 180.92 | 122.08, 175.78 |
| Demonstration year 1 | 99.15 | 9.2 | <0.0001 | 79.90, 118.41 | 82.99, 115.31 |
| Demonstration year 2 | 93.75 | 8.8 | <0.0001 | 69.08, 118.41 | 73.04, 114.45 |
| Demonstration year 3 | 170.52 | 16.5 | <0.0001 | 132.81, 208.24 | 138.87, 202.18 |
| Demonstration year 4 | 263.50 | 25.4 | <0.0001 | 176.40, 350.60 | 190.41, 336.60 |

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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 0.84 | 16.1 | <0.0001 | 0.64, 1.03 | 0.67, 1.00 | 0.97*** |
| | | Non-LTSS users | −0.14 | −5.1 | 0.0179 | −0.25, −0.02 | −0.23, −0.04 | |
| | Demonstration Year 1 | LTSS users | 0.69 | 12.6 | <0.0001 | 0.48, 0.89 | 0.52, 0.85 | 0.89*** |
| | | Non-LTSS users | −0.20 | −7.2 | 0.0001 | −0.31, −0.10 | −0.29, −0.12 | |
| | Demonstration Year 2 | LTSS users | 1.06 | 21.3 | <0.0001 | 0.79, 1.33 | 0.84, 1.29 | 1.21*** |
| | | Non-LTSS users | −0.15 | −5.7 | 0.0017 | −0.24, −0.06 | −0.23, −0.07 | |
| | Demonstration Year 3 | LTSS users | 0.84 | 16.8 | <0.0001 | 0.63, 1.05 | 0.66, 1.01 | 0.96*** |
| | | Non-LTSS users | −0.12 | NS | 0.0742 | −0.25, 0.01 | −0.23, −0.01 | |
| | Demonstration Year 4 | LTSS users | 1.03 | 21.2 | <0.0001 | 0.81, 1.25 | 0.85, 1.21 | 1.07*** |
| | | Non-LTSS users | −0.04 | NS | 0.6860 | −0.22, 0.14 | −0.19, 0.11 | |
| Monthly probability of any ED visit (%) | Cumulative | LTSS users | 0.51 | 9.6 | <0.0001 | 0.36, 0.67 | 0.38, 0.65 | 0.57*** |
| | | Non-LTSS users | −0.06 | NS | 0.6197 | −0.29, 0.17 | −0.25, 0.14 | |
| | Demonstration Year 1 | LTSS users | 0.25 | 4.6 | 0.0091 | 0.06, 0.43 | 0.09, 0.40 | 0.57*** |
| | | Non-LTSS users | −0.32 | −5.7 | <0.0001 | −0.46, −0.17 | −0.44, −0.20 | |
| | Demonstration Year 2 | LTSS users | 0.58 | 11.1 | <0.0001 | 0.39, 0.78 | 0.42, 0.75 | 0.68*** |
| | | Non-LTSS users | −0.09 | NS | 0.3614 | −0.30, 0.11 | −0.26, 0.08 | |
| | Demonstration Year 3 | LTSS users | 0.92 | 17.3 | <0.0001 | 0.69, 1.15 | 0.72, 1.11 | 0.87*** |
| | | Non-LTSS users | 0.04 | NS | 0.7885 | −0.28, 0.37 | −0.23, 0.32 | |
| | Demonstration Year 4 | LTSS users | 0.80 | 14.9 | <0.0001 | 0.56, 1.04 | 0.60, 1.00 | 0.54* |
| | | Non-LTSS users | 0.26 | NS | 0.1507 | −0.09, 0.61 | −0.04, 0.55 | |

(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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 412.41 | 25.9 | <0.0001 | 361.37, 463.46 | 369.58, 455.25 | 376.11*** |
| | | Non-LTSS users | 36.30 | 4.7 | 0.0031 | 12.21, 60.40 | 16.08, 56.53 | |
| | Demonstration Year 1 | LTSS users | 340.20 | 21.6 | <0.0001 | 290.90, 389.50 | 298.83, 381.57 | 347.91*** |
| | | Non-LTSS users | −7.71 | NS | 0.2215 | −20.08, 4.65 | −18.09, 2.66 | |
| | Demonstration Year 2 | LTSS users | 369.97 | 23.4 | <0.0001 | 317.06, 422.88 | 325.57, 414.37 | 388.42*** |
| | | Non-LTSS users | −18.45 | −2.4 | 0.0277 | −34.88, −2.02 | −32.24, −4.67 | |
| | Demonstration Year 3 | LTSS users | 472.64 | 29.7 | <0.0001 | 406.43, 538.85 | 417.07, 528.20 | 415.08*** |
| | | Non-LTSS users | 57.55 | 7.7 | <0.0001 | 31.92, 83.19 | 36.04, 79.07 | |
| | Demonstration Year 4 | LTSS users | 602.83 | 36.3 | <0.0001 | 461.06, 744.61 | 483.85, 721.82 | 473.94*** |
| | | Non-LTSS users | 128.90 | 17.2 | <0.0001 | 70.10, 187.70 | 79.55, 178.25 | |
| Monthly probability of any SNF admission (%) | Cumulative | LTSS users | 0.87 | 37.5 | <0.0001 | 0.76, 0.97 | 0.78, 0.95 | 0.92*** |
| | | Non-LTSS users | −0.05 | −16.0 | <0.0001 | −0.08, −0.03 | −0.07, −0.03 | |
| | Demonstration Year 1 | LTSS users | 0.95 | 38.5 | <0.0001 | 0.83, 1.08 | 0.85, 1.06 | 1.03*** |
| | | Non-LTSS users | −0.07 | −19.9 | <0.0001 | −0.09, −0.05 | −0.09, −0.06 | |
| | Demonstration Year 2 | LTSS users | 0.80 | 35.7 | <0.0001 | 0.67, 0.92 | 0.69, 0.90 | 0.85*** |
| | | Non-LTSS users | −0.05 | −17.3 | 0.0007 | −0.09, −0.02 | −0.08, −0.03 | |
| | Demonstration Year 3 | LTSS users | 0.71 | 32.8 | <0.0001 | 0.61, 0.81 | 0.63, 0.80 | 0.75*** |
| | | Non-LTSS users | −0.04 | −14.0 | 0.0002 | −0.06, −0.02 | −0.06, −0.02 | |
| | Demonstration Year 4 | LTSS users | 0.89 | 44.6 | <0.0001 | 0.78, 1.00 | 0.80, 0.98 | 0.93*** |
| | | Non-LTSS users | −0.03 | −10.2 | 0.0330 | −0.07, −0.00 | −0.06, −0.01 | |

(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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 2.62 | 9.1 | 0.0009 | 1.08, 4.15 | 1.33, 3.91 | 2.65* |
| | | Non-LTSS users | −0.03 | NS | 0.9783 | −2.11, 2.05 | −1.77, 1.71 | |
| | Demonstration Year 1 | LTSS users | 0.52 | NS | 0.5681 | −1.26, 2.29 | −0.97, 2.00 | 2.31* |
| | | Non-LTSS users | −1.79 | −5.1 | 0.0061 | −3.07, −0.51 | −2.86, −0.72 | |
| | Demonstration Year 2 | LTSS users | 2.01 | NS | 0.0848 | −0.28, 4.29 | 0.09, 3.92 | 2.11 |
| | | Non-LTSS users | −0.10 | NS | 0.9207 | −2.06, 1.86 | −1.75, 1.55 | |
| | Demonstration Year 3 | LTSS users | 6.18 | 21.8 | <0.0001 | 4.36, 8.00 | 4.65, 7.71 | 5.93** |
| | | Non-LTSS users | 0.25 | NS | 0.8692 | −2.73, 3.23 | −2.25, 2.75 | |
| | Demonstration Year 4 | LTSS users | 5.16 | 17.5 | <0.0001 | 3.18, 7.14 | 3.50, 6.82 | 3.20 |
| | | Non-LTSS users | 1.95 | NS | 0.1646 | −0.80, 4.71 | −0.36, 4.27 | |
| Monthly probability of any ACSC admission, overall (%) | Cumulative | LTSS users | 0.13 | 13.4 | 0.0021 | 0.05, 0.21 | 0.06, 0.19 | 0.15** |
| | | Non-LTSS users | −0.03 | NS | 0.1378 | −0.06, 0.01 | −0.05, 0.00 | |
| | Demonstration Year 1 | LTSS users | 0.06 | NS | 0.1052 | −0.01, 0.13 | −0.00, 0.12 | 0.10* |
| | | Non-LTSS users | −0.04 | −9.3 | 0.0060 | −0.07, −0.01 | −0.07, −0.02 | |
| | Demonstration Year 2 | LTSS users | 0.16 | 16.6 | 0.0020 | 0.06, 0.26 | 0.07, 0.24 | 0.21** |
| | | Non-LTSS users | −0.05 | −10.6 | 0.0118 | −0.09, −0.01 | −0.08, −0.02 | |
| | Demonstration Year 3 | LTSS users | 0.19 | 20.0 | 0.0027 | 0.07, 0.31 | 0.09, 0.29 | 0.23*** |
| | | Non-LTSS users | −0.04 | −8.9 | 0.0376 | −0.08, −0.00 | −0.07, −0.01 | |
| | Demonstration Year 4 | LTSS users | 0.22 | 23.9 | <0.0001 | 0.11, 0.32 | 0.13, 0.31 | 0.19** |
| | | Non-LTSS users | 0.02 | NS | 0.4227 | −0.03, 0.08 | −0.03, 0.07 | |

(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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 0.10 | 19.6 | 0.0034 | 0.03, 0.17 | 0.05, 0.16 | 0.11* |
| | | Non-LTSS users | −0.01 | NS | 0.6258 | −0.04, 0.02 | −0.04, 0.02 | |
| | Demonstration Year 1 | LTSS users | 0.03 | NS | 0.3225 | −0.03, 0.09 | −0.02, 0.08 | 0.06 |
| | | Non-LTSS users | −0.03 | −7.8 | 0.0426 | −0.05, −0.00 | −0.05, −0.00 | |
| | Demonstration Year 2 | LTSS users | 0.14 | 27.0 | 0.0018 | 0.05, 0.23 | 0.07, 0.21 | 0.16** |
| | | Non-LTSS users | −0.03 | NS | 0.1764 | −0.06, 0.01 | −0.06, 0.01 | |
| | Demonstration Year 3 | LTSS users | 0.16 | 29.3 | 0.0003 | 0.07, 0.25 | 0.09, 0.24 | 0.19*** |
| | | Non-LTSS users | −0.03 | NS | 0.1875 | −0.07, 0.01 | −0.06, 0.01 | |
| | Demonstration Year 4 | LTSS users | 0.20 | 37.7 | 0.0002 | 0.09, 0.30 | 0.11, 0.28 | 0.15** |
| | | Non-LTSS users | 0.04 | NS | 0.1420 | −0.01, 0.10 | −0.01, 0.09 | |
| Probability of 30-day follow-up after mental health discharge (%) | Cumulative | LTSS users | −0.73 | NS | 0.6599 | −4.00, 2.54 | −3.48, 2.01 | 0.72 |
| | | Non-LTSS users | −1.45 | NS | 0.2288 | −3.82, 0.91 | −3.44, 0.53 | |
| | Demonstration Year 1 | LTSS users | −0.39 | NS | 0.8202 | −3.71, 2.94 | −3.18, 2.41 | 1.25 |
| | | Non-LTSS users | −1.64 | NS | 0.3098 | −4.80, 1.52 | −4.29, 1.01 | |
| | Demonstration Year 2 | LTSS users | −1.67 | NS | 0.4142 | −5.68, 2.34 | −5.03, 1.69 | 0.44 |
| | | Non-LTSS users | −2.11 | NS | 0.1958 | −5.30, 1.08 | −4.78, 0.57 | |
| | Demonstration Year 3 | LTSS users | 0.73 | NS | 0.7188 | −3.24, 4.69 | −2.60, 4.05 | 3.31 |
| | | Non-LTSS users | −2.58 | NS | 0.0650 | −5.33, 0.16 | −4.89, −0.28 | |
| | Demonstration Year 4 | LTSS users | −0.29 | NS | 0.9190 | −5.97, 5.38 | −5.06, 4.47 | −1.05 |
| | | Non-LTSS users | 0.76 | NS | 0.5706 | −1.85, 3.36 | −1.43, 2.95 | |

(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 Illinois, demonstration years 1-4, March 1, 2014–December 31, 2018**

| 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 | 3.87 | NS | 0.5046 | −7.50, 15.24 | −5.67, 13.42 | 17.55* |
| | | Non-LTSS users | −13.68 | −6.0 | 0.0221 | −25.39, −1.97 | −23.51, −3.85 | |
| | Demonstration Year 1 | LTSS users | −8.34 | NS | 0.2471 | −22.46, 5.78 | −20.19, 3.51 | 15.14* |
| | | Non-LTSS users | −23.48 | −8.8 | 0.0002 | −35.72, −11.24 | −33.75, −13.21 | |
| | Demonstration Year 2 | LTSS users | 2.75 | NS | 0.7748 | −16.07, 21.57 | −13.05, 18.54 | 11.05 |
| | | Non-LTSS users | −8.30 | NS | 0.2731 | −23.16, 6.55 | −20.77, 4.16 | |
| | Demonstration Year 3 | LTSS users | 13.88 | NS | 0.0935 | −2.34, 30.09 | 0.27, 27.49 | 16.61 |
| | | Non-LTSS users | −2.73 | NS | 0.7160 | −17.44, 11.98 | −15.07, 9.61 | |
| | Demonstration Year 4 | LTSS users | 20.57 | 8.6 | 0.0058 | 5.96, 35.18 | 8.31, 32.83 | 37.95*** |
| | | Non-LTSS users | −17.38 | −8.1 | 0.0073 | −30.07, −4.68 | −28.03, −6.72 | |

\* $p < 0.05$; \*\* $p < 0.01$; \*\*\* $p < 0.001$

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.

**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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | −0.14 | NS | 0.3378 | −0.42, 0.15 | −0.38, 0.10 | −0.10 |
| | | Non-SPMI | −0.04 | NS | 0.5220 | −0.15, 0.08 | −0.13, 0.06 | |
| | Demonstration Year 1 | SPMI | −0.08 | NS | 0.5015 | −0.32, 0.16 | −0.28, 0.12 | −0.02 |
| | | Non-SPMI | −0.06 | NS | 0.2183 | −0.16, 0.04 | −0.14, 0.02 | |
| | Demonstration Year 2 | SPMI | −0.08 | NS | 0.4545 | −0.31, 0.14 | −0.27, 0.10 | −0.10 |
| | | Non-SPMI | 0.02 | NS | 0.8451 | −0.14, 0.17 | −0.11, 0.14 | |
| | Demonstration Year 3 | SPMI | −0.26 | NS | 0.1232 | −0.58, 0.07 | −0.53, 0.02 | −0.20 |
| | | Non-SPMI | −0.06 | NS | 0.4510 | −0.20, 0.09 | −0.18, 0.07 | |
| | Demonstration Year 4 | SPMI | −0.14 | NS | 0.5257 | −0.59, 0.30 | −0.52, 0.23 | −0.12 |
| | | Non-SPMI | −0.02 | NS | 0.7008 | −0.15, 0.10 | −0.13, 0.08 | |
| Monthly probability of any ER visit (%) | Cumulative | SPMI | −0.05 | NS | 0.6849 | −0.30, 0.19 | −0.26, 0.16 | −0.12 |
| | | Non-SPMI | 0.07 | NS | 0.4375 | −0.11, 0.25 | −0.08, 0.22 | |
| | Demonstration Year 1 | SPMI | −0.36 | −4.4 | 0.0027 | −0.60, −0.13 | −0.56, −0.16 | −0.23* |
| | | Non-SPMI | −0.13 | NS | 0.0585 | −0.26, 0.00 | −0.24, −0.02 | |
| | Demonstration Year 2 | SPMI | −0.17 | NS | 0.1940 | −0.42, 0.09 | −0.38, 0.04 | −0.25* |
| | | Non-SPMI | 0.08 | NS | 0.2852 | −0.07, 0.23 | −0.04, 0.21 | |
| | Demonstration Year 3 | SPMI | 0.23 | NS | 0.1349 | −0.07, 0.53 | −0.02, 0.48 | 0.02 |
| | | Non-SPMI | 0.21 | NS | 0.1126 | −0.05, 0.46 | −0.01, 0.42 | |
| | Demonstration Year 4 | SPMI | 0.24 | NS | 0.1513 | −0.09, 0.58 | −0.04, 0.52 | −0.08 |
| | | Non-SPMI | 0.33 | 8.1 | 0.0227 | 0.05, 0.61 | 0.09, 0.56 | |

(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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | 155.94 | 10.6 | <0.0001 | 116.63, 195.25 | 122.95, 188.93 | 70.68*** |
| | | Non-SPMI | 85.26 | 10.4 | <0.0001 | 67.24, 103.28 | 70.13, 100.39 | |
| | Demonstration Year 1 | SPMI | 102.56 | 7.0 | <0.0001 | 65.25, 139.86 | 71.25, 133.87 | 49.64** |
| | | Non-SPMI | 52.91 | 6.0 | <0.0001 | 39.54, 66.29 | 41.69, 64.14 | |
| | Demonstration Year 2 | SPMI | 59.16 | NS | 0.0871 | −8.62, 126.95 | 2.28, 116.05 | 11.67 |
| | | Non-SPMI | 47.49 | 5.8 | <0.0001 | 31.78, 63.20 | 34.30, 60.68 | |
| | Demonstration Year 3 | SPMI | 157.95 | 10.9 | <0.0001 | 114.97, 200.93 | 121.88, 194.02 | 45.61* |
| | | Non-SPMI | 112.34 | 14.7 | <0.0001 | 89.76, 134.92 | 93.39, 131.29 | |
| | Demonstration Year 4 | SPMI | 308.31 | 21.0 | <0.0001 | 209.06, 407.56 | 225.02, 391.60 | 148.87*** |
| | | Non-SPMI | 159.44 | 21.1 | <0.0001 | 117.28, 201.60 | 124.06, 194.83 | |
| Monthly probability of any SNF admission (%) | Cumulative | SPMI | 0.19 | 9.6 | <0.0001 | 0.12, 0.25 | 0.13, 0.24 | 0.12*** |
| | | Non-SPMI | 0.07 | 9.3 | <0.0001 | 0.04, 0.10 | 0.05, 0.09 | |
| | Demonstration Year 1 | SPMI | 0.34 | 16.5 | <0.0001 | 0.26, 0.42 | 0.27, 0.41 | 0.23*** |
| | | Non-SPMI | 0.10 | 11.3 | <0.0001 | 0.07, 0.14 | 0.08, 0.13 | |
| | Demonstration Year 2 | SPMI | 0.16 | 7.6 | 0.0005 | 0.07, 0.25 | 0.08, 0.23 | 0.09 |
| | | Non-SPMI | 0.07 | 10.2 | 0.0004 | 0.03, 0.11 | 0.04, 0.10 | |
| | Demonstration Year 3 | SPMI | 0.03 | NS | 0.6379 | −0.08, 0.13 | −0.06, 0.11 | −0.01 |
| | | Non-SPMI | 0.03 | NS | 0.1443 | −0.01, 0.08 | −0.00, 0.07 | |
| | Demonstration Year 4 | SPMI | 0.16 | 8.9 | 0.0002 | 0.07, 0.24 | 0.09, 0.23 | 0.13** |
| | | Non-SPMI | 0.03 | NS | 0.0922 | −0.01, 0.07 | 0.00, 0.07 | |

(continued)

**Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | −0.54 | NS | 0.6988 | −3.29, 2.21 | −2.85, 1.77 | −0.96 |
| | | Non-SPMI | 0.42 | NS | 0.5474 | −0.95, 1.79 | −0.73, 1.57 | |
| | Demonstration Year 1 | SPMI | −3.37 | −7.0 | 0.0009 | −5.36, −1.38 | −5.04, −1.70 | −2.53** |
| | | Non-SPMI | −0.84 | NS | 0.1389 | −1.95, 0.27 | −1.77, 0.09 | |
| | Demonstration Year 2 | SPMI | −1.58 | NS | 0.3182 | −4.68, 1.52 | −4.18, 1.02 | −1.92 |
| | | Non-SPMI | 0.34 | NS | 0.6179 | −1.00, 1.68 | −0.78, 1.46 | |
| | Demonstration Year 3 | SPMI | 1.69 | NS | 0.2993 | −1.50, 4.88 | −0.99, 4.37 | 0.55 |
| | | Non-SPMI | 1.14 | NS | 0.2067 | −0.63, 2.91 | −0.35, 2.63 | |
| | Demonstration Year 4 | SPMI | 1.74 | NS | 0.3154 | −1.66, 5.14 | −1.11, 4.60 | −0.32 |
| | | Non-SPMI | 2.06 | 8.5 | 0.0216 | 0.30, 3.82 | 0.59, 3.54 | |
| Monthly probability of any ACSC admission, overall (%) | Cumulative | SPMI | −0.06 | NS | 0.0853 | −0.12, 0.01 | −0.11, −0.00 | −0.06 |
| | | Non-SPMI | 0.00 | NS | 0.9763 | −0.04, 0.04 | −0.03, 0.03 | |
| | Demonstration Year 1 | SPMI | −0.06 | NS | 0.0547 | −0.12, 0.00 | −0.11, −0.01 | −0.03 |
| | | Non-SPMI | −0.03 | NS | 0.1421 | −0.06, 0.01 | −0.06, 0.00 | |
| | Demonstration Year 2 | SPMI | −0.08 | −7.6 | 0.0235 | −0.14, −0.01 | −0.13, −0.02 | −0.09* |
| | | Non-SPMI | 0.02 | NS | 0.4478 | −0.03, 0.06 | −0.02, 0.06 | |
| | Demonstration Year 3 | SPMI | −0.09 | NS | 0.0618 | −0.18, 0.00 | −0.17, −0.01 | −0.10* |
| | | Non-SPMI | 0.02 | NS | 0.4933 | −0.03, 0.06 | −0.02, 0.05 | |
| | Demonstration Year 4 | SPMI | 0.01 | NS | 0.9058 | −0.09, 0.10 | −0.07, 0.08 | −0.02 |
| | | Non-SPMI | 0.02 | NS | 0.2895 | −0.02, 0.06 | −0.01, 0.06 | |

(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 Illinois, demonstration years 1–4, March 1, 2014–December 31, 2018**

| 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 | −0.04 | NS | 0.1697 | −0.10, 0.02 | −0.09, 0.01 | −0.05 |
| | | Non-SPMI | 0.01 | NS | 0.4576 | −0.02, 0.03 | −0.01, 0.03 | |
| | Demonstration Year 1 | SPMI | −0.05 | −9.7 | 0.0173 | −0.10, −0.01 | −0.09, −0.02 | −0.04 |
| | | Non-SPMI | −0.02 | NS | 0.2634 | −0.05, 0.01 | −0.04, 0.01 | |
| | Demonstration Year 2 | SPMI | −0.05 | NS | 0.0975 | −0.10, 0.01 | −0.09, −0.00 | −0.07* |
| | | Non-SPMI | 0.03 | NS | 0.0840 | −0.00, 0.06 | 0.00, 0.05 | |
| | Demonstration Year 3 | SPMI | −0.08 | NS | 0.0758 | −0.17, 0.01 | −0.16, −0.01 | −0.10* |
| | | Non-SPMI | 0.01 | NS | 0.3573 | −0.02, 0.05 | −0.01, 0.04 | |
| | Demonstration Year 4 | SPMI | 0.02 | NS | 0.6268 | −0.07, 0.12 | −0.06, 0.11 | −0.01 |
| | | Non-SPMI | 0.04 | 10.6 | 0.0191 | 0.01, 0.07 | 0.01, 0.07 | |
| Number of all-cause 30-day readmissions per 1,000 discharges | Cumulative | SPMI | −5.57 | NS | 0.2756 | −15.59, 4.45 | −13.98, 2.84 | 3.02 |
| | | Non-SPMI | −8.59 | NS | 0.0644 | −17.70, 0.51 | −16.23, −0.95 | |
| | Demonstration Year 1 | SPMI | −19.87 | −5.5 | 0.0019 | −32.42, −7.32 | −30.40, −9.34 | −4.83 |
| | | Non-SPMI | −15.04 | −5.9 | 0.0024 | −24.75, −5.32 | −23.19, −6.89 | |
| | Demonstration Year 2 | SPMI | 1.81 | NS | 0.7726 | −10.49, 14.12 | −8.51, 12.14 | 10.14 |
| | | Non-SPMI | −8.33 | NS | 0.1204 | −18.84, 2.18 | −17.15, 0.49 | |
| | Demonstration Year 3 | SPMI | 3.33 | NS | 0.6291 | −10.17, 16.83 | −8.00, 14.65 | −1.34 |
| | | Non-SPMI | 4.67 | NS | 0.4760 | −8.17, 17.50 | −6.10, 15.44 | |
| | Demonstration Year 4 | SPMI | −3.35 | NS | 0.5826 | −15.32, 8.61 | −13.39, 6.68 | 5.18 |
| | | Non-SPMI | −8.53 | NS | 0.1099 | −18.99, 1.93 | −17.31, 0.25 | |

* *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 Illinois 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 and the demonstration years (*Table E-4*). However, there were a few outcomes where some differences were apparent. For example, the demonstration group had consistently higher use of observation stays while the comparison group had consistently higher use of independent therapy. Additionally, while SNF use was slightly higher for the comparison group in the predemonstration years, the rates converged during the demonstration years.

Illinois demonstration eligible beneficiaries were similar to the comparison group in some of the RTI quality of care and care coordination measures (*Table E-5*). In general, the demonstration group had a similar rate of 30-day all-cause readmissions and preventable ED visits. However, the demonstration group had a consistently higher number of 30-day follow-up visits after mental health discharges, especially in demonstration year 4. Additionally, the demonstration group had consistently higher rates of both overall and chronic ACSC diagnoses. Finally, rates of screening for clinical depression varied widely with notably higher rates among the demonstration group in the predemonstration years and notably higher rates in the comparison group in the demonstration years, with the exception of demonstration year 4.

Finally, for most years, the demonstration eligible group had a lower rate of new long-stay NF admissions and lower long-stay use (*Table E-6*). There were differences in some characteristics of long-stay NF residents at admission: relative to the comparison group, demonstration eligible beneficiaries generally had better functional status, higher percent with low level of care need, and a lower proportion of beneficiaries with severe cognitive impairment.

**Table E-4**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| Number of demonstration eligible beneficiaries | | 97,274 | 125,382 | 110,268 | 92,317 | 102,522 | 105,093 |
| Number of comparison beneficiaries | | 368,463 | 376,459 | 447,391 | 405,396 | 414,197 | 428,868 |
| **Institutional setting** | | | | | | | |
| Inpatient admissions[1] | | | | | | | |
| % with use | | 4.8 | 4.5 | 4.4 | 4.2 | 4.0 | 4.0 |
| Utilization per 1,000 user months | Demonstration | 1,176.4 | 1,168.3 | 1,166.4 | 1,172.7 | 1,161.5 | 1,176.3 |
| Utilization per 1,000 eligible months | | 56.2 | 52.1 | 51.2 | 49.7 | 46.7 | 47.3 |
| Inpatient admissions[1] | | | | | | | |
| % with use | | 4.3 | 4.2 | 4.0 | 3.8 | 3.7 | 3.6 |
| Utilization per 1,000 user months | Comparison | 1,151.8 | 1,145.6 | 1,144.3 | 1,142.3 | 1,142.0 | 1,141.6 |
| Utilization per 1,000 eligible months | | 50.0 | 48.0 | 45.8 | 43.1 | 42.2 | 41.1 |
| Inpatient psychiatric | | | | | | | |
| % with use | | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| Utilization per 1,000 user months | Demonstration | 1,122.4 | 1,132.8 | 1,134.8 | 1,143.7 | 1,170.0 | 1,142.9 |
| Utilization per 1,000 eligible months | | 3.4 | 3.4 | 4.4 | 4.5 | 4.6 | 4.5 |
| Inpatient psychiatric | | | | | | | |
| % with use | | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| Utilization per 1,000 user months | Comparison | 1,107.5 | 1,098.1 | 1,096.0 | 1,094.6 | 1,091.2 | 1,094.5 |
| Utilization per 1,000 eligible months | | 4.3 | 4.1 | 3.1 | 2.9 | 3.0 | 3.0 |

(continued)

**Table E-4 (continued)**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| Inpatient nonpsychiatric | | | | | | | |
|   % with use | Demonstration | 4.5 | 4.2 | 4.0 | 3.9 | 3.7 | 3.7 |
|   Utilization per 1,000 user months | | 1,171.2 | 1,160.3 | 1,157.3 | 1,160.7 | 1,147.1 | 1,164.1 |
|   Utilization per 1,000 eligible months | | 52.7 | 48.7 | 46.8 | 45.1 | 42.1 | 42.8 |
| Inpatient nonpsychiatric | | | | | | | |
|   % with use | Comparison | 4.0 | 3.9 | 3.8 | 3.5 | 3.4 | 3.4 |
|   Utilization per 1,000 user months | | 1,143.9 | 1,136.9 | 1,137.8 | 1,135.7 | 1,135.1 | 1,135.4 |
|   Utilization per 1,000 eligible months | | 45.7 | 43.9 | 42.7 | 40.2 | 39.1 | 38.1 |
| Emergency department use (non-admit) | | | | | | | |
|   % with use | Demonstration | 5.9 | 5.7 | 5.4 | 5.6 | 5.7 | 5.6 |
|   Utilization per 1,000 user months | | 1,241.6 | 1,231.3 | 1,245.8 | 1,260.0 | 1,239.6 | 1,225.6 |
|   Utilization per 1,000 eligible months | | 72.7 | 70.7 | 67.3 | 70.5 | 70.2 | 68.3 |
| Emergency department use (non-admit) | | | | | | | |
|   % with use | Comparison | 6.0 | 5.9 | 5.7 | 5.7 | 5.7 | 5.6 |
|   Utilization per 1,000 user months | | 1,287.1 | 1,283.1 | 1,272.6 | 1,267.7 | 1,263.5 | 1,250.4 |
|   Utilization per 1,000 eligible months | | 77.6 | 76.2 | 72.9 | 71.8 | 71.5 | 69.5 |

(continued)

**Table E-4 (continued)**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| Emergency department use (psychiatric) | Demonstration | | | | | | |
| % with use | | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Utilization per 1,000 user months | | 1,162.6 | 1,138.4 | 1,169.5 | 1,194.7 | 1,188.1 | 1,135.4 |
| Utilization per 1,000 eligible months | | 3.0 | 2.8 | 3.1 | 3.3 | 3.3 | 3.0 |
| Emergency department use (psychiatric) | Comparison | | | | | | |
| % with use | | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| Utilization per 1,000 user months | | 1,262.9 | 1,266.0 | 1,247.9 | 1,228.1 | 1,214.2 | 1,200.3 |
| Utilization per 1,000 eligible months | | 4.8 | 4.7 | 4.2 | 3.8 | 3.9 | 3.7 |
| Observation stays | Demonstration | | | | | | |
| % with use | | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Utilization per 1,000 user months | | 1,035.8 | 1,042.9 | 1,069.8 | 1,090.3 | 1,080.4 | 1,065.7 |
| Utilization per 1,000 eligible months | | 9.3 | 10.5 | 10.4 | 11.2 | 11.1 | 10.2 |
| Observation stays | Comparison | | | | | | |
| % with use | | 0.6 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 |
| Utilization per 1,000 user months | | 1,040.8 | 1,049.2 | 1,048.7 | 1,052.4 | 1,054.6 | 1,053.2 |
| Utilization per 1,000 eligible months | | 6.3 | 6.8 | 7.3 | 8.0 | 7.8 | 7.5 |

(continued)

**Table E-4 (continued)**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| Skilled nursing facility | | | | | | | |
| % with use | | 1.0 | 1.0 | 1.3 | 1.2 | 1.1 | 1.0 |
| Utilization per 1,000 user months | Demonstration | 1,114.0 | 1,108.7 | 1,098.4 | 1,101.2 | 1,096.7 | 1,099.4 |
| Utilization per 1,000 eligible months | | 11.4 | 11.4 | 14.4 | 12.9 | 11.5 | 11.5 |
| Skilled nursing facility | | | | | | | |
| % with use | | 1.3 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 |
| Utilization per 1,000 user months | Comparison | 1,098.1 | 1,092.7 | 1,091.7 | 1,090.2 | 1,088.9 | 1,086.5 |
| Utilization per 1,000 eligible months | | 13.9 | 14.3 | 14.1 | 13.0 | 12.4 | 11.6 |
| Hospice | | | | | | | |
| % with use | | 0.8 | 0.9 | 1.3 | 1.3 | 1.1 | 1.1 |
| Utilization per 1,000 user months | Demonstration | 1,047.6 | 1,020.1 | 1,041.7 | 1,076.7 | 1,115.1 | 1,095.1 |
| Utilization per 1,000 eligible months | | 7.9 | 8.7 | 13.3 | 13.7 | 12.5 | 11.8 |
| Hospice | | | | | | | |
| % with use | | 1.2 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 |
| Utilization per 1,000 user months | Comparison | 1,068.4 | 1,023.9 | 1,014.0 | 1,013.8 | 1,014.1 | 1,013.5 |
| Utilization per 1,000 eligible months | | 12.7 | 12.9 | 14.2 | 14.4 | 13.8 | 13.1 |

(continued)

**Table E-4 (continued)**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| **Non-institutional setting** | | | | | | | |
| Physician E&M visits | | | | | | | |
| % with use | Demonstration | 49.0 | 50.6 | 53.3 | 53.6 | 53.4 | 53.5 |
| Utilization per 1,000 user months | | 1,849.5 | 1,916.1 | 2,115.6 | 2,067.6 | 2,188.1 | 2,403.3 |
| Utilization per 1,000 eligible months | | 905.8 | 969.5 | 1,127.8 | 1,109.2 | 1,168.9 | 1,284.7 |
| Physician E&M visits | | | | | | | |
| % with use | Comparison | 49.5 | 51.4 | 52.8 | 52.4 | 51.2 | 50.4 |
| Utilization per 1,000 user months | | 1,928.3 | 1,988.7 | 1,998.9 | 1,998.3 | 2,005.7 | 2,044.3 |
| Utilization per 1,000 eligible months | | 953.8 | 1,021.3 | 1,054.7 | 1,047.2 | 1,026.4 | 1,031.4 |
| Outpatient therapy (PT, OT, ST) | | | | | | | |
| % with use | Demonstration | 2.5 | 2.6 | 3.8 | 4.3 | 4.3 | 4.6 |
| Utilization per 1,000 user months | | 13,944.6 | 17,368.2 | 20,711.0 | 20,686.8 | 18,985.7 | 18,968.6 |
| Utilization per 1,000 eligible months | | 345.5 | 457.2 | 792.9 | 886.8 | 811.0 | 881.1 |
| Outpatient therapy (PT, OT, ST) | | | | | | | |
| % with use | Comparison | 3.8 | 4.0 | 4.5 | 4.8 | 4.8 | 4.8 |
| Utilization per 1,000 user months | | 19,172.8 | 20,800.7 | 22,407.6 | 23,196.5 | 22,716.3 | 22,431.3 |
| Utilization per 1,000 eligible months | | 727.8 | 822.9 | 1,007.6 | 1,118.7 | 1,094.3 | 1,082.9 |

(continued)

**Table E-4 (continued)**
**Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| Independent therapy (PT, OT, ST) | Demonstration | | | | | | |
| % with use | | 1.6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 |
| Utilization per 1,000 user months | | 14,974.9 | 14,387.5 | 14,248.5 | 13,224.0 | 13,149.0 | 13,635.6 |
| Utilization per 1,000 eligible months | | 242.2 | 221.6 | 194.9 | 187.0 | 202.3 | 199.5 |
| Independent therapy (PT, OT, ST) | | | | | | | |
| % with use | | 1.6 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 |
| Utilization per 1,000 user months | Comparison | 15,175.4 | 15,690.8 | 17,213.9 | 17,217.6 | 16,535.8 | 16,629.0 |
| Utilization per 1,000 eligible months | | 242.4 | 251.4 | 295.2 | 315.3 | 301.7 | 319.7 |
| Other hospital outpatient services | | | | | | | |
| % with use | | 26.7 | 26.7 | 24.7 | 25.8 | 26.6 | 26.5 |
| Utilization per 1,000 user months | Demonstration | — | — | — | — | — | — |
| Utilization per 1,000 eligible months | | — | — | — | — | — | — |
| Other hospital outpatient services | | | | | | | |
| % with use | | 24.3 | 24.0 | 24.0 | 24.1 | 24.5 | 24.4 |
| Utilization per 1,000 user months | Comparison | — | — | — | — | — | — |
| 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 claims and encounter data.

**Table E-5**
**Quality of care and care coordination outcomes for the demonstration and comparison groups in Illinois,**
**March 1, 2012–December 31, 2018**

| Quality and care coordination measures | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| 30-day all-cause risk-standardized readmission rate (%) | Demonstration | 22.4 | 20.7 | 20.1 | 20.5 | 20.9 | 20.4 |
| | Comparison | 20.6 | 19.5 | 19.8 | 19.5 | 19.5 | 20.0 |
| Preventable emergency department visits per 1,000 eligible months | Demonstration | 36.5 | 34.8 | 32.6 | 33.1 | 33.2 | 32.2 |
| | Comparison | 37.2 | 35.9 | 34.2 | 33.0 | 32.9 | 31.8 |
| Rate of 30-day follow-up after hospitalization for mental illness (%) | Demonstration | 43.3 | 43.7 | 42.4 | 35.1 | 35.1 | 39.3 |
| | Comparison | 42.0 | 41.3 | 40.9 | 35.1 | 34.8 | 34.7 |
| Ambulatory care sensitive condition admissions per 1,000 eligible months—overall composite (AHRQ PQI #90) | Demonstration | 9.4 | 8.5 | 8.0 | 8.5 | 8.4 | 9.5 |
| | Comparison | 8.0 | 7.6 | 7.2 | 7.4 | 7.5 | 7.2 |
| Ambulatory care sensitive condition admissions per 1,000 eligible months—chronic composite (AHRQ PQI #92) | Demonstration | 6.4 | 5.8 | 5.4 | 6.0 | 6.3 | 7.5 |
| | Comparison | 5.3 | 5.0 | 4.8 | 4.9 | 5.4 | 5.2 |
| Screening for clinical depression per 1,000 eligible months | Demonstration | 0.4 | 0.9 | 1.9 | 1.9 | 2.6 | 4.6 |
| | Comparison | 0.2 | 0.7 | 3.1 | 5.0 | 4.3 | 3.7 |

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 Illinois, March 1, 2012–December 31, 2018**

| Measures by setting | Group | Predemonstration year 1 | Predemonstration year 2 | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|---|---|
| **Annual NF utilization** | | | | | | | |
| Number of demonstration beneficiaries | Demonstration | 76,153 | 81,877 | 70,935 | 68,865 | 72,875 | 75,048 |
| New long-stay NF admissions per 1,000 eligible beneficiaries | | 9.3 | 9.6 | 19.0 | 12.4 | 11.0 | 10.6 |
| Number of comparison beneficiaries | Comparison | 265,486 | 234,161 | 292,278 | 303,766 | 289,821 | 304,395 |
| New long-stay NF admissions per 1,000 eligible beneficiaries | | 12.3 | 12.8 | 22.5 | 12.7 | 12.6 | 11.9 |
| Number of demonstration beneficiaries | Demonstration | 78,893 | 85,878 | 82,050 | 79,001 | 81,558 | 84,218 |
| Long-stay NF users as % of eligible beneficiaries | | 4.1 | 5.3 | 14.9 | 13.0 | 11.3 | 11.5 |
| Number of comparison beneficiaries | Comparison | 299,889 | 265,575 | 332,923 | 346,840 | 328,409 | 342,846 |
| Long-stay NF users as % of eligible beneficiaries | | 12.4 | 12.7 | 14.2 | 13.5 | 12.6 | 12.0 |
| **Characteristics of new long-stay NF residents at admission** | | | | | | | |
| Number of admitted demonstration beneficiaries | Demonstration | 706 | 785 | 1,349 | 854 | 804 | 792 |
| Number of admitted comparison beneficiaries | Comparison | 3,262 | 3,000 | 6,564 | 3,873 | 3,666 | 3,611 |
| Functional status (RUG-IV ADL scale) | Demonstration | 7.3 | 7.2 | 7.6 | 8.1 | 7.8 | 7.8 |
| Functional status (RUG-IV ADL scale) | Comparison | 8.3 | 8.1 | 8.6 | 8.3 | 8.1 | 8.3 |
| Percent with severe cognitive impairment | Demonstration | 36.4 | 33.0 | 31.9 | 32.6 | 30.7 | 30.6 |
| Percent with severe cognitive impairment | Comparison | 41.9 | 42.0 | 41.2 | 40.1 | 38.5 | 38.2 |
| Percent with low level of care need | Demonstration | 3.9 | 3.9 | 3.6 | 2.2 | 1.9 | 1.8 |
| Percent with low level of care need | Comparison | 1.7 | 1.6 | 1.4 | 1.8 | 1.8 | 1.8 |

(continued)

**Table E-6 (continued)**
**MDS long-stay NF utilization and characteristics at admission for the demonstration and comparison groups in Illinois, March 1, 2012–December 31, 2018**

ADL = activities of daily living; MDS = Nursing Home Minimum Data Set; NF = nursing facility; RUG = Resource Utilization Group.

NOTES: A higher score on the RUG-IV ADL scale indicates greater impairment, or worse functional status.

In January 2014, Medicaid expanded in Illinois, allowing many individuals with incomes up to 138 percent of the Federal poverty limit to enroll in traditional, full-benefit Medicaid programs via the income-related eligibility pathways. This change in eligibility requirements impacted individuals who were previously participating in the state's medically needy ("spend down") program, which provides coverage to individuals who were near the federal poverty level with significant medical expenses (e.g., nursing home residents) to participate in a limited version of Medicaid. When income-related expansion occurred, individuals with income thresholds between 100 percent and 138 percent of the Federal poverty level became newly eligible for comprehensive Medicaid coverage, including those persons previously covered by the medically needy eligibility pathway. Income-related eligibility and coverage supersedes the medically-needy program; a number of medically-needy Medicaid enrollees were automatically converted from medically needy status to income-related coverage at the start of expansion (January 2014). This change in income-related eligibility had an effect on the composition of the demonstration population because medically needy enrollees are not eligible for the demonstration. Thus, the policy change related to income-related coverage that increased income limits ("Medicaid expansion") concurrently impacted the composition of the medically needy population between December 2013 and January 2014. This change in Medicaid eligibility pathways, and subsequent eligibility for the demonstration, was most prominent among individuals residing in long-stay nursing homes who are more likely to follow the medically needy eligibility pathway. In December 2013, 69 percent of long-stay nursing home residents enrolled in Medicaid were medically needy and thus excluded from the demonstration eligible population. In January 2014 (post-expansion), only 10 percent of long-stay nursing home residents were enrolled in Medicaid via the medically needy eligibility pathway while the rest had automatically been converted to an income-related eligibility pathway, becoming newly eligible for the demonstration. Thus, the increase in long-stay nursing facility use from the predemonstration period to the demonstration period is a result of sample composition due to the change in income-related eligibility, resulting in a large number of previously ineligible nursing home residents to be considered eligible for the demonstration.

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 higher utilization than the demonstration enrollees across most service settings with the exception of inpatient psychiatric care which was higher in the demonstration group and psychiatric ED use, which was similar in both groups (Table E-7). For the quality of care and care coordination measures, non-enrollees had a higher probability of both overall and chronic ACSC admissions, except in demonstration year 4. Beginning in demonstration year 2, demonstration enrollees had higher rates of 30-day follow-up after mental health discharge (Table E-8).

**Table E-7**
**Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Illinois, March 1, 2014–December 31, 2018**

| Measures by setting | Group | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|
| Number of demonstration enrollees | | 51,627 | 29,155 | 32,154 | 33,957 |
| Number of demonstration non-enrollees | | 58,641 | 63,162 | 70,368 | 71,136 |
| **Institutional setting** | | | | | |
| Inpatient admissions[1] | | | | | |
| % with use | Enrollees | 3.3 | 3.4 | 3.1 | 3.1 |
| Utilization per 1,000 user months | | 1,184.1 | 1,204.4 | 1,153.8 | 1,237.2 |
| Utilization per 1,000 eligible months | | 39.1 | 40.9 | 35.9 | 38.8 |
| Inpatient admissions[1] | | | | | |
| % with use | Non-enrollees | 5.0 | 4.6 | 4.4 | 4.5 |
| Utilization per 1,000 user months | | 1,161.3 | 1,161.0 | 1,162.0 | 1,157.8 |
| Utilization per 1,000 eligible months | | 58.1 | 53.4 | 51.3 | 51.6 |
| Inpatient psychiatric | | | | | |
| % with use | Enrollees | 0.4 | 0.5 | 0.4 | 0.4 |
| Utilization per 1,000 user months | | 1,134.2 | 1,145.9 | 1,184.9 | 1,168.8 |
| Utilization per 1,000 eligible months | | 4.7 | 5.6 | 5.0 | 4.7 |
| Inpatient psychiatric | | | | | |
| % with use | Non-enrollees | 0.3 | 0.3 | 0.4 | 0.4 |
| Utilization per 1,000 user months | | 1,122.1 | 1,130.9 | 1,161.4 | 1,136.7 |
| Utilization per 1,000 eligible months | | 3.6 | 3.9 | 4.3 | 4.3 |
| Inpatient nonpsychiatric | | | | | |
| % with use | Enrollees | 2.9 | 3.0 | 2.7 | 2.8 |
| Utilization per 1,000 user months | | 1,174.0 | 1,189.4 | 1,134.5 | 1,218.4 |
| Utilization per 1,000 eligible months | | 34.3 | 35.3 | 30.9 | 34.0 |
| Inpatient nonpsychiatric | | | | | |
| % with use | Non-enrollees | 4.7 | 4.3 | 4.1 | 4.1 |
| Utilization per 1,000 user months | | 1,154.7 | 1,151.8 | 1,150.0 | 1,147.9 |
| Utilization per 1,000 eligible months | | 54.4 | 49.4 | 47.0 | 47.2 |

(continued)

**Table E-7 (continued)**
**Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Illinois, March 1, 2014–December 31, 2018**

| Measures by setting | Group | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|
| Emergency department use (non-admit) | | | | | |
| % with use | Enrollees | 4.9 | 4.9 | 5.3 | 5.4 |
| Utilization per 1,000 user months | | 1,294.9 | 1,315.3 | 1,269.0 | 1,254.7 |
| Utilization per 1,000 eligible months | | 63.8 | 64.3 | 66.8 | 67.8 |
| Emergency department use (non-admit) | | | | | |
| % with use | Non-enrollees | 5.5 | 5.9 | 5.8 | 5.6 |
| Utilization per 1,000 user months | | 1,226.9 | 1,235.6 | 1,220.6 | 1,213.6 |
| Utilization per 1,000 eligible months | | 67.4 | 72.7 | 70.3 | 68.3 |
| Emergency department use (psychiatric) | | | | | |
| % with use | Enrollees | 0.3 | 0.3 | 0.3 | 0.3 |
| Utilization per 1,000 user months | | 1,243.7 | 1,344.9 | 1,278.5 | 1,217.9 |
| Utilization per 1,000 eligible months | | 3.9 | 3.8 | 4.0 | 3.3 |
| Emergency department use (psychiatric) | | | | | |
| % with use | Non-enrollees | 0.2 | 0.3 | 0.2 | 0.3 |
| Utilization per 1,000 user months | | 1,133.0 | 1,121.8 | 1,130.0 | 1,093.3 |
| Utilization per 1,000 eligible months | | 2.4 | 3.1 | 2.8 | 2.9 |
| Observation stays | | | | | |
| % with use | Enrollees | 0.6 | 0.6 | 0.6 | 0.5 |
| Utilization per 1,000 user months | | 1,159.6 | 1,271.7 | 1,138.6 | 1,114.1 |
| Utilization per 1,000 eligible months | | 7.1 | 7.3 | 6.8 | 5.9 |
| Observation stays | | | | | |
| % with use | Non-enrollees | 1.2 | 1.2 | 1.2 | 1.2 |
| Utilization per 1,000 user months | | 1,052.1 | 1,053.2 | 1,067.6 | 1,054.5 |
| Utilization per 1,000 eligible months | | 12.2 | 12.8 | 13.0 | 12.2 |
| Skilled nursing facility | | | | | |
| % with use | Enrollees | 1.0 | 0.8 | 0.7 | 0.6 |
| Utilization per 1,000 user months | | 1,093.1 | 1,080.3 | 1,070.2 | 1,090.5 |
| Utilization per 1,000 eligible months | | 10.5 | 8.4 | 7.1 | 6.8 |
| Skilled nursing facility | | | | | |
| % with use | Non-enrollees | 1.5 | 1.3 | 1.2 | 1.3 |
| Utilization per 1,000 user months | | 1,101.3 | 1,107.3 | 1,099.1 | 1,101.3 |
| Utilization per 1,000 eligible months | | 16.3 | 14.8 | 13.4 | 13.8 |
| Hospice | | | | | |
| % with use | Enrollees | 0.9 | 1.1 | 1.0 | 0.7 |
| Utilization per 1,000 user months | | 1,166.5 | 1,275.7 | 1,406.5 | 1,403.5 |
| Utilization per 1,000 eligible months | | 10.2 | 13.4 | 13.6 | 10.4 |
| Hospice | | | | | |
| % with use | Non-enrollees | 1.7 | 1.4 | 1.2 | 1.3 |
| Utilization per 1,000 user months | | 1,009.2 | 1,008.7 | 1,012.2 | 1,011.7 |
| Utilization per 1,000 eligible months | | 17.0 | 13.7 | 12.4 | 12.7 |

(continued)

**Table E-7 (continued)**
**Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Illinois, March 1, 2014–December 31, 2018**

| Measures by setting | Group | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|
| **Non-institutional setting** | | | | | |
| Physician E&M visits | Enrollees | | | | |
| % with use | | 41.0 | 44.0 | 44.4 | 45.3 |
| Utilization per 1,000 user months | | 2,173.1 | 1,945.7 | 2,400.1 | 2,956.6 |
| Utilization per 1,000 eligible months | | 890.9 | 855.4 | 1,065.8 | 1,338.6 |
| Physician E&M visits | Non-enrollees | | | | |
| % with use | | 60.7 | 58.2 | 58.2 | 58.0 |
| Utilization per 1,000 user months | | 2,110.3 | 2,105.2 | 2,125.5 | 2,211.3 |
| Utilization per 1,000 eligible months | | 1,279.9 | 1,224.5 | 1,237.6 | 1,283.2 |
| Outpatient therapy (PT, OT, ST) | Enrollees | | | | |
| % with use | | 1.9 | 3.0 | 2.8 | 3.0 |
| Utilization per 1,000 user months | | 12,887.6 | 14,521.1 | 11,775.6 | 12,487.5 |
| Utilization per 1,000 eligible months | | 244.8 | 431.5 | 331.0 | 377.0 |
| Outpatient therapy (PT, OT, ST) | Non-enrollees | | | | |
| % with use | | 4.7 | 4.9 | 4.9 | 5.5 |
| Utilization per 1,000 user months | | 21,581.9 | 22,315.1 | 20,684.0 | 20,591.5 |
| Utilization per 1,000 eligible months | | 1,011.9 | 1,088.3 | 1,022.4 | 1,126.8 |
| Independent therapy (PT, OT, ST) | Enrollees | | | | |
| % with use | | 0.6 | 0.7 | 0.7 | 0.9 |
| Utilization per 1,000 user months | | 14,555.1 | 13,663.9 | 12,680.8 | 10,277.2 |
| Utilization per 1,000 eligible months | | 89.9 | 89.6 | 94.8 | 87.7 |
| Independent therapy (PT, OT, ST) | Non-enrollees | | | | |
| % with use | | 1.9 | 1.8 | 2.0 | 1.8 |
| Utilization per 1,000 user months | | 14,059.5 | 13,110.1 | 13,118.3 | 14,333.2 |
| Utilization per 1,000 eligible months | | 267.8 | 232.8 | 255.9 | 255.2 |
| Other hospital outpatient services | Enrollees | | | | |
| % with use | | 17.9 | 18.8 | 19.9 | 21.6 |
| Utilization per 1,000 user months | | — | — | — | — |
| Utilization per 1,000 eligible months | | — | — | — | — |
| Other hospital outpatient services | Non-enrollees | | | | |
| % with use | | 29.0 | 29.1 | 29.5 | 28.9 |
| 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 fee-for-service claims and encounter data.

**Table E-8**
**Quality of care and care coordination outcomes for demonstration enrollees and non-enrollees in Illinois, March 1, 2014–December 31, 2018**

| Quality and care coordination measures | Group | Demonstration year 1 | Demonstration year 2 | Demonstration year 3 | Demonstration year 4 |
|---|---|---|---|---|---|
| 30-day all-cause risk-standardized readmission rate (%) | Enrollees | 20.0 | 20.0 | 20.2 | 19.2 |
| | Non-enrollees | 19.7 | 19.4 | 19.5 | 19.7 |
| Preventable ED visits per 1,000 eligible months | Enrollees | 31.2 | 30.2 | 31.3 | 32.1 |
| | Non-enrollees | 32.5 | 34.2 | 33.4 | 32.1 |
| Rate of 30-day follow-up after hospitalization for mental illness (%) | Enrollees | 38.15 | 35.84 | 39.07 | 44.40 |
| | Non-enrollees | 46.83 | 34.83 | 33.37 | 37.11 |
| Ambulatory care sensitive condition admissions per 1,000 eligible months—overall composite (AHRQ PQI #90) | Enrollees | 5.8 | 6.4 | 6.2 | 11.6 |
| | Non-enrollees | 9.3 | 9.4 | 9.4 | 8.7 |
| Ambulatory care sensitive condition admissions per 1,000 eligible months—chronic composite (AHRQ PQI #92) | Enrollees | 4.1 | 4.6 | 4.8 | 10.1 |
| | Non-enrollees | 6.2 | 6.6 | 6.9 | 6.4 |
| Screening for clinical depression per 1,000 eligible months | Enrollees | 0.8 | 0.9 | 1.4 | 3.8 |
| | Non-enrollees | 2.5 | 2.4 | 3.1 | 5.0 |

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 Illinois 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. Black 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, though use among Black was also higher than among Hispanic or Asian beneficiaries. 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, Black beneficiaries had slightly more ED and inpatient users relative to other racial groups in months when there was any use, while White beneficiaries had the highest number of primary care E&M and outpatient therapy visits.

*Figure E-3* presents counts of services across all Illinois demonstration eligible beneficiaries regardless of having any use of the respective services. Black 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 Illinois demonstration eligible beneficiaries, January 1, 2018–December 31, 2018**
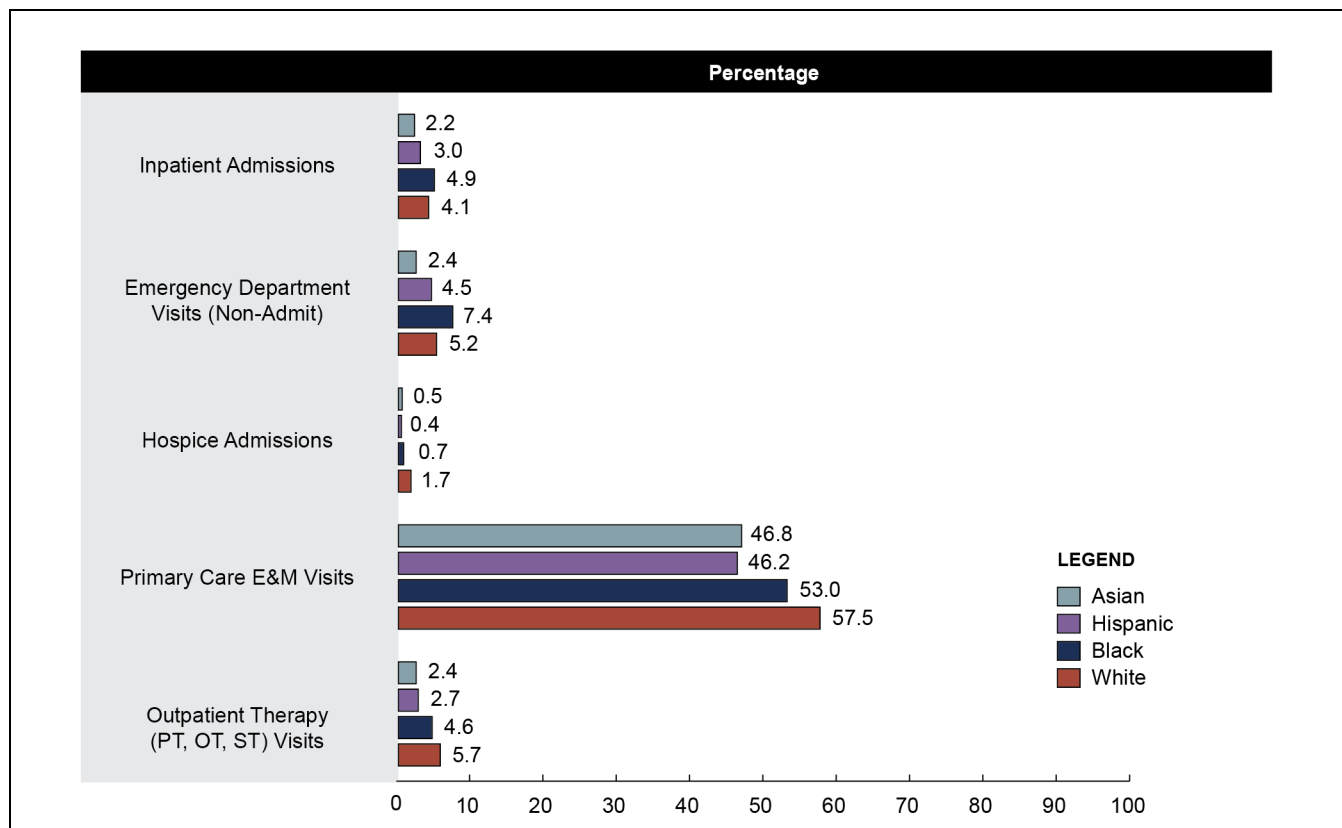


E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

**Figure E-2**
**Service use per 1,000 user months among Illinois demonstration eligible beneficiaries,**
**January 1, 2018–December 31, 2018**
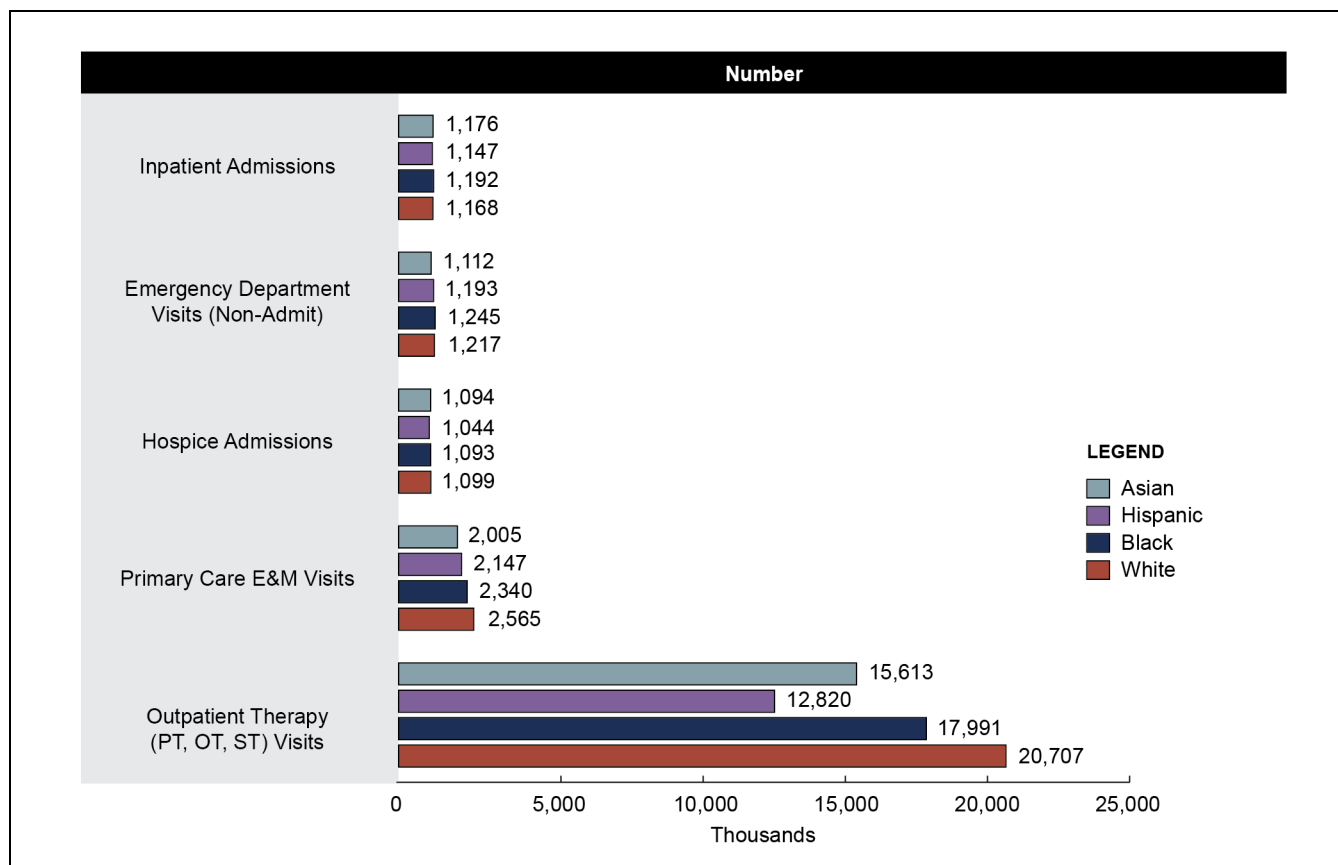


E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

**Figure E-3**
**Service use per 1,000 eligible months among Illinois demonstration eligible beneficiaries,**
**January 1, 2018–December 31, 2018**



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

# 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 the State of Illinois. Comparison group beneficiaries were identified through a two-step 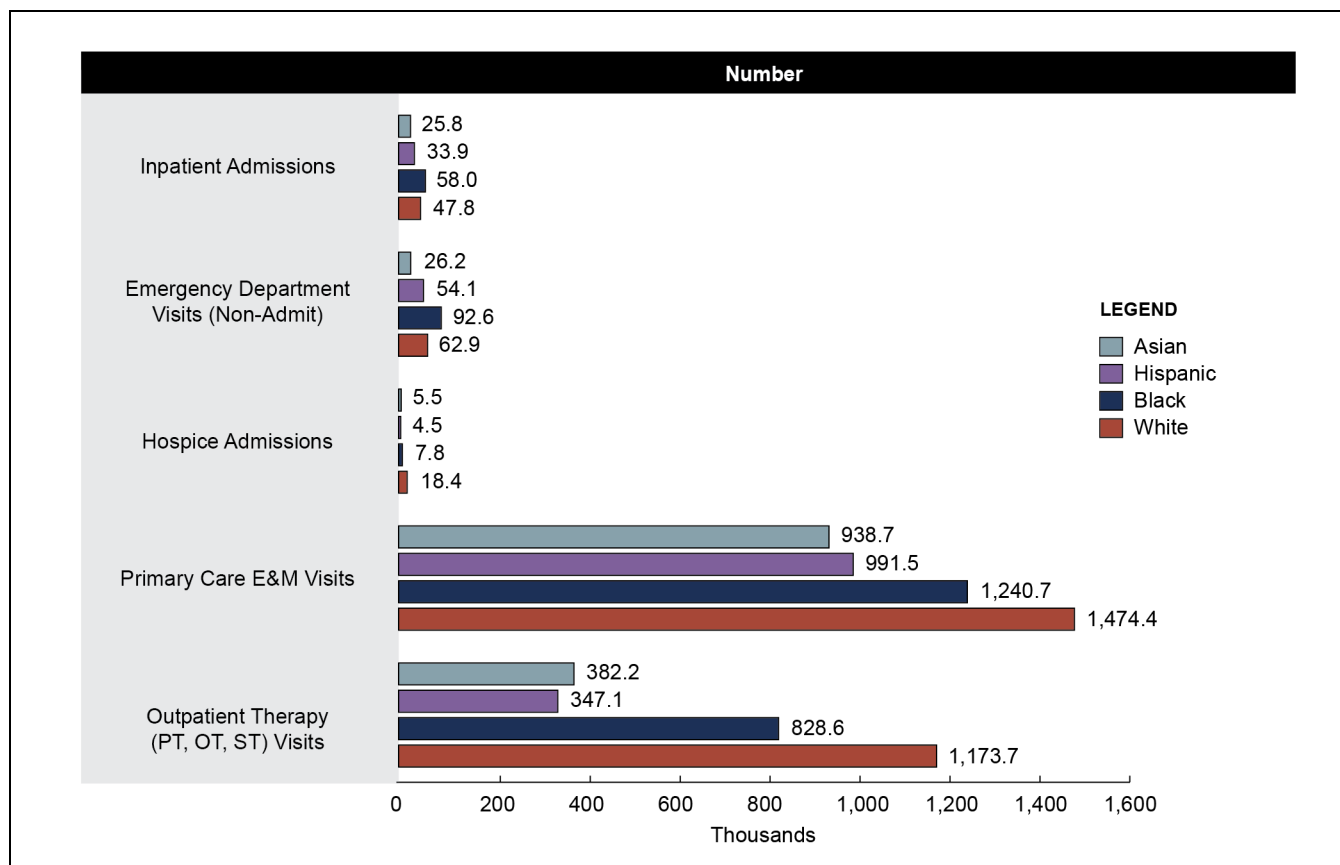process. First, we identified comparison areas based on market characteristics. Second, we applied all available eligibility criteria to beneficiaries in the identified comparison areas. This process is further described in *Appendix C*. Once the two groups were finalized, we applied propensity score 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 (December 2021). 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 March 1, 2012–February 28, 2014 | Demonstration period March 1, 2014–December 31, 2019 |
|---|---|---|
| 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 demonstration's 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.

Additionally, corrections were made to eligibility criteria from earlier reports that resulted in differences in our current impact estimates. This analysis includes the application of the demonstration's medically needy exclusion criteria, identified in the three-way contract on the Financial Alignment Initiative website.[36] Previous evaluation reports did not apply this exclusion due to the lack of available and reliable Medicaid eligibility data for all years.

**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 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, and 0.84% for CY 2019. |

(continued)

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[36] For the original three-way contract, please see https://www.cms.gov/files/document/ilcontract.pdf

**Table F-2 (continued)**
**Adjustments to Medicare expenditures variable**

| Data source | Adjustment description | Reason for adjustment | Adjustment detail |
|---|---|---|---|
| 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 blended 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, 0.81% for CY 2017, 0.82% for CY 2018, and 0.84% for CY 2019.<br>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, and 1.94% for CY 2019 to account for the disproportional share of bad debt attributable to MMP enrollees in Medicare FFS. |
| 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.<br>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 | A 1% quality withhold was applied in the first demonstration year, 2% was applied in the second demonstration year, and a 3% quality withhold was applied in the third, fourth, and fifth demonstration years but was not reflected in the capitation rate used in the analysis. | Final quality withhold repayments for CY 2014, CY 2015, CY 2016, CY 2017, CY 2018, and CY 2019 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, 3 percent for the second demonstration year, 5 percent for the third through fifth demonstration years), but do not reflect the quality withhold amounts.

For the Medicaid descriptive analysis, no adjustments were made to the claims and capitation payment amounts from the MAX and T-MSIS files.

## 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 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
    - Medicaid managed care age 19 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

### F.1.3  Populations Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as demonstration enrollees, and groups by race/ethnicity. ***Table F-3*** presents descriptive statistics of select characteristics for four population subgroups in demonstration year 5: all demonstration eligible beneficiaries, the comparison group, all MMP enrollees, and all non-MMP enrollees.

The most prevalent age group among the comparison group was age 64 and younger, with 36.3 percent, whereas the most prevalent age group among the demonstration group was 65 to 74 years (35.7 percent). For demonstration group enrollees, age 64 and younger was the most prevalent age group at 40.6 percent. All four groups were predominantly White (ranging from 40.4 to 50.7 percent) with African American being the next highest percentage (ranging from 26.8 to 38.0 percent). Among the comparison population, there was a relatively higher percentage of Asians (10.5 percent) compared to the other groups (ranging from 6.1 to 6.2 percent), and a lower percentage of Hispanics (7.3 percent) relative to the other groups (ranging from 9.4 to 11.1 percent).

Across all groups, most beneficiaries were female (56.9 to 60.8 percent), did not have disability as the primary 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 1.0 and 1.2 among all groups.

**Table F-3**
**Characteristics of eligible beneficiaries in demonstration year 5 by group**

| Characteristics | Demonstration group | Comparison group | Demonstration group, enrollees | Demonstration group, non-enrollees |
|---|---|---|---|---|
| Weighted number of eligible beneficiaries | 169,067 | 693,766 | 66,047 | 103,020 |
| Demographic characteristics | | | | |
| Age | | | | |
| 64 and younger | 35.6 | 36.3 | 40.6 | 32.4 |
| 65 to 74 | 35.7 | 32.4 | 36.1 | 35.4 |
| 75 and older | 28.7 | 31.3 | 23.3 | 32.2 |
| Female | | | | |
| No | 40.7 | 41.5 | 43.1 | 39.2 |
| Yes | 59.3 | 58.5 | 56.9 | 60.8 |
| Race/ethnicity | | | | |
| White | 41.7 | 50.7 | 40.4 | 42.6 |
| African American | 37.8 | 26.8 | 38.0 | 37.7 |
| Hispanic | 10.0 | 7.3 | 11.1 | 9.4 |
| Asian | 6.2 | 10.5 | 6.1 | 6.2 |
| Disability as reason for original Medicare entitlement | | | | |
| No | 57.6 | 58.1 | 53.5 | 60.2 |
| Yes | 42.4 | 42.0 | 46.5 | 39.8 |
| ESRD status | | | | |
| No | 97.2 | 97.0 | 97.7 | 96.8 |
| Yes | 2.8 | 3.0 | 2.3 | 3.2 |
| MSA | | | | |
| No | 0.8 | 0.8 | 0.9 | 0.7 |
| Yes | 99.2 | 99.2 | 99.1 | 99.4 |
| Participating in Shared Savings Program | | | | |
| No | 83.9 | 83.9 | 99.0 | 74.3 |
| Yes | 16.1 | 16.1 | 1.0 | 25.7 |
| HCC score | 1.1 | 1.1 | 1.0 | 1.2 |

(continued)

**Table F-3 (continued)**
**Characteristics of eligible beneficiaries in demonstration year 5 by group**

| Characteristics | Demonstration group | Comparison group | Demonstration group, enrollees | Demonstration group, non-enrollees |
|---|---|---|---|---|
| Market characteristics | | | | |
|    Medicare spending per dual, ages 19+ ($) | 9,566.8 | 9,232.6 | 9,556.1 | 9,573.7 |
|    MA penetration rate | 0.2 | 0.3 | 0.2 | 0.2 |
|    Medicaid-to-Medicare fee index (FFS) | 0.6 | 0.6 | 0.6 | 0.6 |
|    Medicaid spending per dual, ages 19+ ($) | 11,837.5 | 19,418.6 | 11,976.4 | 11,748.5 |
|    Fraction of dually eligible beneficiaries using NF, ages 65+ | 0.2 | 0.2 | 0.2 | 0.2 |
|    Fraction of dually eligible beneficiaries using HCBS, ages 65+ | 0.3 | 0.1 | 0.3 | 0.3 |
|    Fraction of dually eligible beneficiaries using personal care, ages 19+ | 0.0 | 0.2 | 0.0 | 0.0 |
|    Fraction of dually eligible beneficiaries with Medicaid managed care, ages 19+ | 0.0 | 0.8 | 0.0 | 0.0 |
|    Population per square mile, all ages | 2,400.3 | 1,367.3 | 2,352.2 | 2,431.2 |
|    Patient care physicians per 1,000 population | 0.9 | 0.9 | 0.9 | 0.9 |
| Area characteristics | | | | |
|    % of pop. living in married households | 62.5 | 62.5 | 62.7 | 62.3 |
|    % of adults with college education | 29.2 | 28.9 | 28.3 | 29.7 |
|    % of adults with self-care limitations | 3.1 | 3.0 | 3.1 | 3.1 |
|    % of adults unemployed | 8.5 | 7.0 | 8.5 | 8.5 |
|    % of household with individuals younger than 18 | 31.5 | 31.3 | 31.9 | 31.3 |
|    % of household with individuals older than 60 | 37.6 | 37.6 | 37.6 | 37.5 |
|    Distance to nearest hospital | 3.5 | 3.5 | 3.7 | 3.4 |
|    Distance to nearest nursing facility | 2.4 | 2.4 | 2.5 | 2.4 |

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.

## 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, March 2012–December 2019**
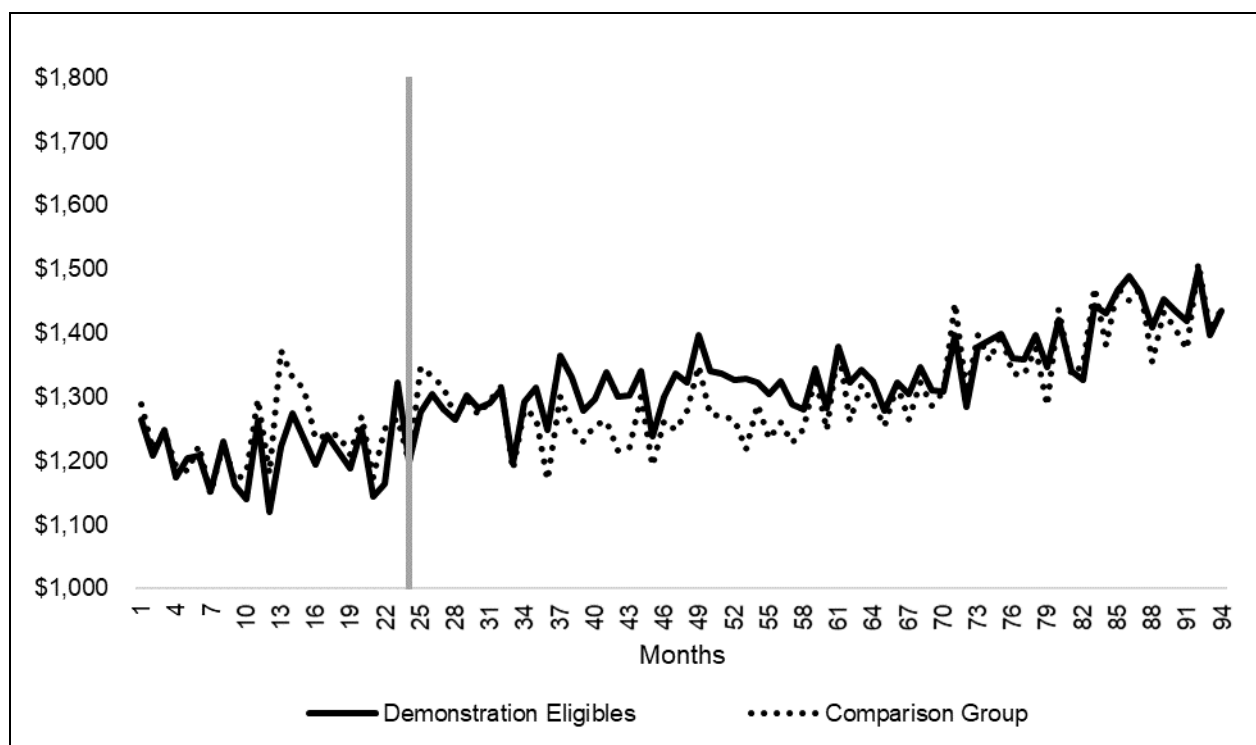


SOURCE: RTI Analysis of Illinois demonstration eligible and comparison group Medicare data (program: IL_DY5_trendfigures.log).

The DinD values in **Tables F-4, F-5, F-6, F-7,** and **F-8** 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 the **Section 6, Demonstration Impact on Cost Savings,** and **Table F-14** represent the most accurate adjusted impact on Medicare costs.

**Tables F-4, F-5, F-6, F-7,** and **F-8** show the mean monthly Medicare expenditures for the demonstration group and comparison group in the predemonstration and each demonstration period, unweighted. The unweighted tables show an increase in mean monthly Medicare expenditures during demonstration year 1-5 for the demonstration group. Additionally, the unweighted tables show an increase in Medicare expenditures during demonstration years 1–5 for the comparison group. The weighted tables display the same pattern with the comparison group showing an increase in demonstration year 1 through demonstration year 5. The weighted

demonstration group expenditures also increase in demonstration year 1-5 (*Tables F-9, F-10, F-11, F-12,* and *F-13*).

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

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 1 (Mar 2014–Dec 2015) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,293.95 ($1,275.56, $1,312.34) | $82.86 ($63.01, $102.71) |
| Comparison | $1,191.15 ($1,142.49, $1,239.81) | $1,210.43 ($1,162.28, $1,258.59) | $19.29 ($9.48, $29.09) |
| DinD | N/A | N/A | $63.57 ($41.49, $85.65) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

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

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 2 (Jan 2016–Dec 2016) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,326.29 ($1,303.05, $1,349.52) | $115.19 ($89.26, $141.13) |
| Comparison | $1,191.15 ($1,142.49, $1,239.81) | $1,215.00 ($1,162.12, $1,267.87) | $23.85 ($7.11, $40.59) |
| DinD | N/A | N/A | $91.34 ($60.59, $122.10) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

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

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 3 (Jan 2017–Dec 2017) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,322.69 ($1,296.26, $1,349.12) | $111.59 ($79.99, $143.20) |
| Comparison | $1,191.15 ($1,142.49, $1,239.81) | $1,253.28 ($1,201.15, $1,305.41) | $62.13 ($43.34, $80.92) |
| DinD | N/A | N/A | $49.47 ($12.97, $85.96) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

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

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 4 (Jan 2018–Dec 2018) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,367.03 ($1,339.97, $1,394.08) | $155.93 ($121.38, $190.49) |
| Comparison | $1,191.15 ($1,142.49, $1,239.81) | $1,319.69 ($1,262.54, $1,376.83) | $128.54 ($105.62, $151.46) |
| DinD | N/A | N/A | $27.39 (−$13.78, $68.57) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

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

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 5 (Jan 2019–Dec 2019) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,445.46 ($1,425.01, $1,465.92) | $234.37 ($205.83, $262.91) |
| Comparison | $1,191.15 ($1,142.49, $1,239.81) | $1,390.59 ($1,331.41, $1,449.78) | $199.44 ($176.96, $221.92) |
| DinD | N/A | N/A | $34.93 (−$1.18, $71.04) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

**Table F-9**
**Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 1, weighted**

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 1 (Mar 2014–Dec 2015) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,293.95 ($1,275.56, $1,312.34) | $82.86 ($63.01, $102.71) |
| Comparison | $1,234.31 ($1,176.99, $1,291.63) | $1,265.07 ($1,204.90, $1,325.23) | $30.76 ($11.26, $50.26) |
| DinD | N/A | N/A | $52.10 ($24.25, $79.96) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

**Table F-10**
**Mean monthly Medicare expenditures for demonstration group and comparison group,**
**predemonstration period and demonstration year 2, weighted**

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 2 (Jan 2016–Dec 2016) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,326.29 ($1,303.05, $1,349.52) | $115.19 ($89.26, $141.13) |
| Comparison | $1,234.31 ($1,176.99, $1,291.63) | $1,263.53 ($1,201.92, $1,325.15) | $29.22 ($5.16, $53.29) |
| DinD | N/A | N/A | $85.97 ($50.63, $121.31) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

**Table F-11**
**Mean monthly Medicare expenditures for demonstration group and comparison group,**
**predemonstration period and demonstration year 3, weighted**

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 3 (Jan 2017–Dec 2017) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,322.69 ($1,296.26, $1,349.12) | $111.59 ($79.99, $143.2) |
| Comparison | $1,234.31 ($1,176.99, $1,291.63) | $1,299.09 ($1,228.7, $1,369.48) | $64.78 ($35.12, $94.44) |
| DinD | N/A | N/A | $46.81 ($3.70, $89.93) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

**Table F-12**
**Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 4, weighted**

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 4 (Jan 2018–Dec 2018) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,367.03 ($1,339.97, $1,394.08) | $155.93 ($121.38, $190.49) |
| Comparison | $1,234.31 ($1,176.99, $1,291.63) | $1,363.92 ($1,275.72, $1,452.12) | $129.61 ($83.18, $176.04) |
| DinD | N/A | N/A | $26.32 (−$31.33, $83.98) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

**Table F-13**
**Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 5, weighted**

| Group | Predemonstration period (Mar 2012–Feb 2014) (95% confidence intervals) | Demonstration year 5 (Jan 2019–Dec 2019) (95% confidence intervals) | Difference (95% confidence intervals) |
|---|---|---|---|
| Demonstration | $1,211.09 ($1,195.33, $1,226.86) | $1,445.46 ($1,425.01, $1,465.92) | $234.37 ($205.83, $262.91) |
| Comparison | $1,234.31 ($1,176.99, $1,291.63) | $1,430.82 ($1,344.73, $1,516.91) | $196.51 ($151.18, $241.83) |
| DinD | N/A | N/A | $37.87 (−$15.54, $91.27) |

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1502_Tables.log)

## F.3    Regression Results

*Table F-14* shows the main results from the DinD analysis for demonstration years 1–5 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 1 through 5. The cumulative impact estimate over all 5 demonstration years was statistically significant suggesting that overall, the demonstration was associated with increases in Medicare costs of $73.67 per member per month (PMPM).

**Table F-14**
**Cumulative and annual demonstration effects on Medicare Parts A and B costs in Illinois, demonstration years 1–5, March 1, 2014– December 31, 2019**

| Period | Adjusted coefficient DinD ($) | *p*-value | 95% confidence interval ($) | 90% confidence interval ($) |
|---|---|---|---|---|
| Demonstration year 1 (March 2014–December 2015) | 70.66 | <0.001 | (51.39, 89.93) | (54.48, 86.83) |
| Demonstration year 2 (January 2016–December 2016) | 95.64 | <0.001 | (74.45, 116.84) | (77.85, 113.43) |
| Demonstration year 3 (January 2017–December 2017) | 64.90 | <0.001 | (31.80, 97.99) | (37.12, 92.67) |
| Demonstration year 4 (January 2018–December 2018) | 60.16 | 0.013 | (12.94, 107.38) | (20.53, 99.79) |
| Demonstration year 5 (January 2019–December 2019) | 73.19 | <0.001 | (33.07, 113.32) | (39.52, 106.87) |
| Cumulative (demonstration years 1–5, March 2014–December 2019) | 73.67 | <0.001 | (48.82, 98.53) | (52.81, 94.53) |

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1482_GLM.log)

*Table F-15* 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-15**
**Generalized linear model results on monthly Medicare expenditures**
(n = 65,050,112 person months)

| Independent variables | Coefficient | Standard error | z-value | *p*-value |
|---|---|---|---|---|
| Demonstration group | 0.0434 | 0.0406 | 1.07 | 0.285 |
| Post period | 0.0430 | 0.0097 | 4.46 | <0.001 |
| Interaction of post period x demonstration group | 0.0548 | 0.0095 | 5.77 | <0.001 |
| Age (continuous) | 0.0198 | 0.0004 | 51.39 | <0.001 |
| Asian | −0.5896 | 0.0222 | −26.57 | <0.001 |
| Black | 0.0646 | 0.0136 | 4.74 | <0.001 |
| Female | −0.0671 | 0.0095 | −7.09 | <0.001 |
| Hispanic | −0.3008 | 0.0168 | −17.87 | <0.001 |
| Other race/ethnicity | −0.4142 | 0.0276 | −14.99 | <0.001 |
| Disability as reason for Medicare entitlement | 0.2195 | 0.0196 | 11.18 | <0.001 |
| End-stage renal disease | 1.9500 | 0.0285 | 68.36 | <0.001 |
| Metropolitan statistical area residence | 0.1243 | 0.0332 | 3.75 | <0.001 |
| Participation in other Shared Savings Program | 0.1239 | 0.0231 | 5.36 | <0.001 |

(continued)

**Table F-15 (continued)**
**Generalized linear model results on monthly Medicare expenditures**
(n = 65,050,112 person months)

| Independent variables | Coefficient | Standard error | z-value | *p*-value |
|---|---|---|---|---|
| Patient care physicians per 1,000 population | −0.0266 | 0.0991 | −0.27 | 0.788 |
| Fraction of duals with Medicaid managed care, ages 19+ | 0.0841 | 0.0345 | 2.44 | 0.015 |
| Medicare Advantage penetration rate | −0.3773 | 0.1944 | −1.94 | 0.052 |
| Population per square mile | −0.0001 | 0.0000 | −3.19 | 0.001 |
| Medicaid-to-Medicare fee index (FFS) | 0.1711 | 0.1539 | 1.11 | 0.266 |
| Medicaid spending per dual | 0.0000 | 0.0000 | −2.80 | 0.005 |
| Medicare spending per dual | 0.0000 | 0.0001 | −0.49 | 0.623 |
| Fraction of duals using HCBS, ages 65+ | 0.2288 | 0.2652 | 0.86 | 0.388 |
| Fraction of duals using nursing facility, ages 65+ | −0.7498 | 0.2698 | −2.78 | 0.005 |
| Medicare Advantage status | 0.0677 | 0.0390 | 1.74 | 0.083 |
| Percent of adults with college education | −0.0007 | 0.0007 | −1.06 | 0.287 |
| Percent of adults with self-care limitation | −0.0100 | 0.0035 | −2.87 | 0.004 |
| Percent of households with individuals older than 60 | 0.0002 | 0.0007 | 0.25 | 0.804 |
| Percent of households with individuals younger than 18 | −0.0015 | 0.0009 | −1.74 | 0.082 |
| Percent of population married | −0.0011 | 0.0008 | −1.51 | 0.132 |
| Percent of adults who are unemployed | −0.0041 | 0.0013 | −3.17 | 0.002 |
| Distance to nearest hospital | 0.0014 | 0.0016 | 0.88 | 0.378 |
| Distance to nearest nursing facility | 0.0045 | 0.0032 | 1.40 | 0.161 |
| Intercept | 6.2583 | 0.4915 | 12.73 | <0.001 |

FFS = fee-for-service; HCBS = home and community-based services.

*Table F-16* 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 predemonstration 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 (March 1, 2014–December 31, 2019) and at least 3 months of eligibility in the predemonstration period (March 1, 2012–February 28, 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-16**
**Cumulative and annual demonstration effects on Medicare Parts A and B costs among enrolled beneficiaries in Illinois, demonstration years 1–5, March 1, 2014–December 31, 2019**

| Period | Adjusted coefficient DinD ($) | *p*-value | 95% confidence interval ($) | 90% confidence interval ($) |
|---|---|---|---|---|
| Demonstration year 1 (March 2014– December 2015) | 174.71 | <0.001 | (156.52, 192.89) | (159.45, 189.97) |
| Demonstration year 2 January 2016–December 2016) | 217.96 | <0.001 | (186.36, 249.56) | (191.44, 244.48) |
| Demonstration year 3 (January 2017– December 2017) | 213.60 | <0.001 | (189.19, 238.01) | (193.11, 234.08) |
| Demonstration year 4 (January 2018–December 2018) | 236.71 | <0.001 | (195.67, 277.74) | (202.27, 271.14) |
| Demonstration year 5 (January 2019–December 2019) | 279.08 | <0.001 | (230.88, 327.29) | (238.63, 319.54) |
| Cumulative (demonstration years 1–5, March 2014–December 2019) | 215.19 | <0.001 | (188.38, 241.99) | (192.69, 237.68) |

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy5_1512_enrollee.log)

## F.4    Medicaid Descriptive Results

*Table F-17* presents Medicaid descriptive statistics for FAI eligible beneficiaries in the State of Illinois, 2012 through 2019. Due to quality issues in the Medicaid claims in the TAF data in the comparison States, particularly in Pennsylvania and New York, we are only able to examine the Medicaid costs among the Illinois FAI eligible population. In Pennsylvania, the total monthly beneficiary payments in the Other Services file are classified by the Data Quality (DQ) Atlas[37] as being unusable (2016–2018); our analysis of the data confirmed that a large fraction of the Other Services capitated payment amounts are negative among the FAI comparison group in Pennsylvania. In New York, there are very high Medicaid costs which indicate errors in the data in some years. We examined the feasibility of using an in-state comparison group; but the comparison group in Illinois was significantly smaller than the demonstration group, and we could not achieve balance between the two groups using propensity scores.

The majority of FAI eligible beneficiaries (between 85 and 94 percent) in Illinois had Medicaid spending in each predemonstration and demonstration year. Total Medicaid spending increased over time, from an average of $637.52 in the first predemonstration year (March 2012 to February 2013) to an average of $958.42 in the fifth demonstration year (January 2019 to December 2019), with most of the increase occurring between the second predemonstration year

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[37] The DQ Atlas provides annual state-level quality assessments of select T-MSIS data elements.

**Table F-17**
**Monthly Medicaid spending for eligible beneficiaries in Illinois—2012–2019**

| Measure | Predemonstration Year 1 (Mar. 2012– Feb. 2013) | Predemonstration Year 2 (Mar. 2013– Feb. 2014) | Demonstration Year 1 (Mar. 2014– Dec. 2015) | Demonstration Year 2 (Jan. 2016– Dec. 2016) | Demonstration Year 3 (Jan. 2017– Dec. 2017) | Demonstration Year 4 (Jan. 2018– Dec. 2018) | Demonstration Year 5 (Jan. 2019– Dec. 2019) |
|---|---|---|---|---|---|---|---|
| Number of beneficiary months | 1,318, 182 | 1,466,225 | 2,768,035 | 1,558,619 | 1,642,708 | 1,686,072 | 1,665,203 |
| Number of beneficiaries | 136,055 | 179,460 | 167,633 | 154,060 | 172,036 | 173,376 | 167,572 |
| Users (percentage with non-zero spending within the year) | 87.2 | 85.3 | 94.0 | 90.7 | 85.7 | 86.2 | 85.9 |
| Total spending per beneficiary-month | 637.52 | 656.42 | 834.78 | 888.02 | 841.44 | 904.27 | 958.42 |
| Total spending per user month | 705.65 | 735.20 | 861.67 | 951.14 | 928.82 | 990.58 | 1,056.81 |
| Users of inpatient services (percentage with non-zero spending within the year) | 3.3 | 2.3 | 3.8 | 2.8 | 2.5 | 2.6 | 2.3 |
| Inpatient spending per beneficiary-month | 13.95 | 9.95 | 7.90 | 8.69 | 7.54 | 9.39 | 9.31 |
| Inpatient spending per user month | 396.91 | 357.30 | 196.76 | 312.88 | 290.52 | 352.84 | 399.90 |
| Users of long-term care services (percentage with non-zero spending within the year) | 5.7 | 12.2 | 15.9 | 11.7 | 5.0 | 5.7 | 4.7 |
| Long-term care spending per beneficiary-month | 102.81 | 143.63 | 353.91 | 269.17 | 74.53 | 90.19 | 69.96 |
| Long-term care spending per user month | 1,956.51 | 2,214.20 | 2,299.64 | 2,383.14 | 1,703.36 | 1,676.77 | 1,665.26 |
| Users of other fee-for-service (FFS) (percentage with non-zero spending within the year) | 86.3 | 82.5 | 79.3 | 60.0 | 55.6 | 55.5 | 52.7 |
| Other FFS spending per beneficiary-month | 517.56 | 498.56 | 260.75 | 204.42 | 84.88 | 90.18 | 77.99 |
| Other FFS spending per user month | 576.18 | 565.34 | 312.65 | 335.35 | 147.50 | 154.91 | 142.48 |

(continued)

**Table F-17 (continued)**
**Monthly Medicaid spending for eligible beneficiaries in Illinois—2012–2019**

| Measure | Predemonstration Year 1 (Mar. 2012– Feb. 2013) | Predemonstration Year 2 (Mar. 2013– Feb. 2014) | Demonstration Year 1 (Mar. 2014– Dec. 2015) | Demonstration Year 2 (Jan. 2016– Dec. 2016) | Demonstration Year 3 (Jan. 2017– Dec. 2017) | Demonstration Year 4 (Jan. 2018– Dec. 2018) | Demonstration Year 5 (Jan. 2019– Dec. 2019) |
|---|---|---|---|---|---|---|---|
| Users of other capitated services (percentage with non-zero spending within the year) | 2.1 | 1.8 | 54.5 | 52.0 | 54.8 | 58.7 | 60.1 |
| Other capitated spending per beneficiary-month | 3.21 | 4.28 | 212.22 | 405.74 | 674.49 | 714.50 | 801.16 |
| Other capitated spending per user month | 196.03 | 258.00 | 354.89 | 716.01 | 1,106.29 | 1,106.88 | 1,217.09 |

NOTES: Total spending excludes Medicaid spending for prescription drugs. Inpatient spending calculated from the T-MSIS Analytic File Inpatient claims file. Long-term spending calculated from the TAF Long-term claims file. Other spending calculated from the TAF Other Services claims file.
SOURCE: RTI analysis of Medicaid claims (program:80_Demo_Descriptives)

and first demonstration year. Total FFS spending decreased over time in tandem with increases in total capitated payments. This transition in payments is expected as beneficiaries move from FFS payment arrangements toward capitated plans. Inpatient Medicaid spending was low in all 7 years, always less than $15—this is expected because Medicare is the primary payer for inpatient care. The proportion of the FAI eligible population using FFS long-term care services was highest (15.9 percent) in the first year of the demonstration but declined to 4.7 percent in the fifth demonstration year, with average long-term care spending per user ranging from $1,665 to $2,383 over the course of the demonstration. Long-term care spending per user decreased by almost $300 across the 5 demonstration years.

The proportion of users of other FFS services declines from 86.3 percent in the first predemonstration year to 52.7 percent in the fifth demonstration year. The average spending per beneficiary-month fell from $517.56 in the first predemonstration year to a low of $77.99 in the fifth demonstration year. The proportion of the FAI eligible sample for which Other Services capitated payments are made rose dramatically, starting at 2.1 percent in the first predemonstration year and rising to 60.1 in the fifth demonstration year. Average capitated payments per beneficiary-month were lowest in the first predemonstration year ($3.21), rose to $801.16 by the fifth demonstration year.

During the 2 predemonstration years, the largest contributor to Medicaid spending in the FAI eligible population in Illinois was the other FFS spending. In the second through fifth demonstration years, the other capitated payments were the largest contributor to Medicaid spending, which is expected due to the demonstration.

# 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 unfavorable 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 eligible but never enrolled (ENE) in demonstration year 1.

- A cross-sectional analysis of mortality rates among enrolled beneficiaries and eligible but not enrolled 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, emergency department (ED) use, and skilled nursing facility (SNF) admissions. This analysis does not, however, explain statistically significant unfavorable increases in these measures.

### 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 but lower than the ENE cohort in the demonstration period. The decline in ED use among the enrolled from predemonstration to demonstration periods may reflect the impact of the demonstration. Alternatively, higher rates of treat-and-release ED visits among the enrolled during the predemonstration period may also correspond with lower inpatient admissions than among the ENE; ED visits among the ENE may be more likely to result in a hospitalization than ED visits among the enrolled.

- These differences provide evidence of favorable selection, as beneficiaries who enrolled in MMPs used fewer high-intensity and high-cost services, with exception to 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 of service utilization among eligible months by demonstration year 1 enrollment in Illinois, February 1, 2012–December 31, 2016**
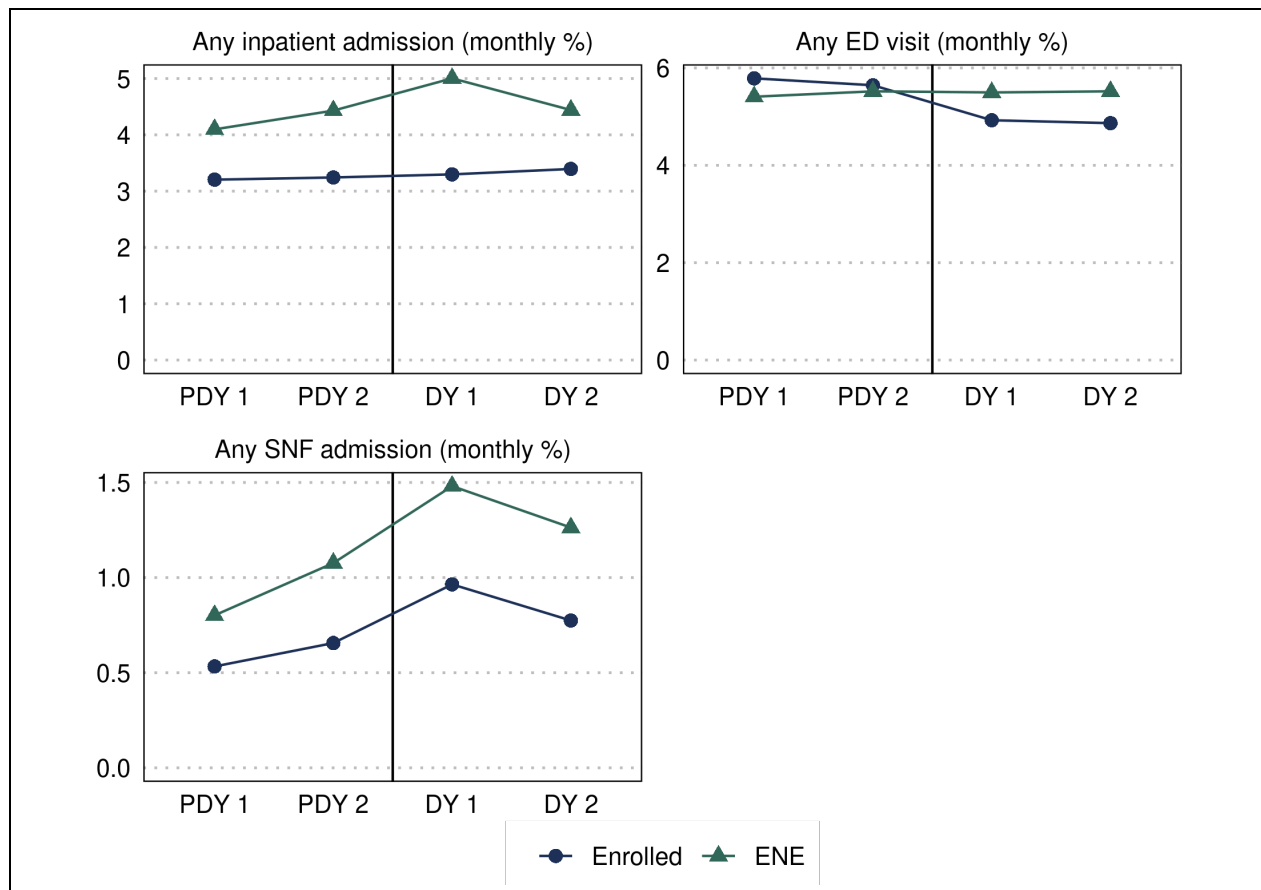


DY = demonstration year; E&M = evaluation and management; ED = emergency department; ENE = eligible but never enrolled; PDY = predemonstration year

**Table G-1**
**Service utilization by demonstration year 1 enrollment in Illinois, February 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 | 308,975 | 297,742 | 3.20 | 4.10 | 5.79 | 5.41 | 0.53 | 0.80 |
| PDY 2 | 369,777 | 355,585 | 3.24 | 4.43 | 5.64 | 5.52 | 0.66 | 1.08 |
| DY 1 | 542,461[1] | 848,253 | 3.30 | 5.00 | 4.93 | 5.50 | 0.96 | 1.48 |
| DY 2 | 277,801[2] | 435,024 | 3.39 | 4.44 | 4.87 | 5.52 | 0.77 | 1.26 |

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 Illinois 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 eligible but not enrolled 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 Illinois, February 1, 2012–December 31, 2018**
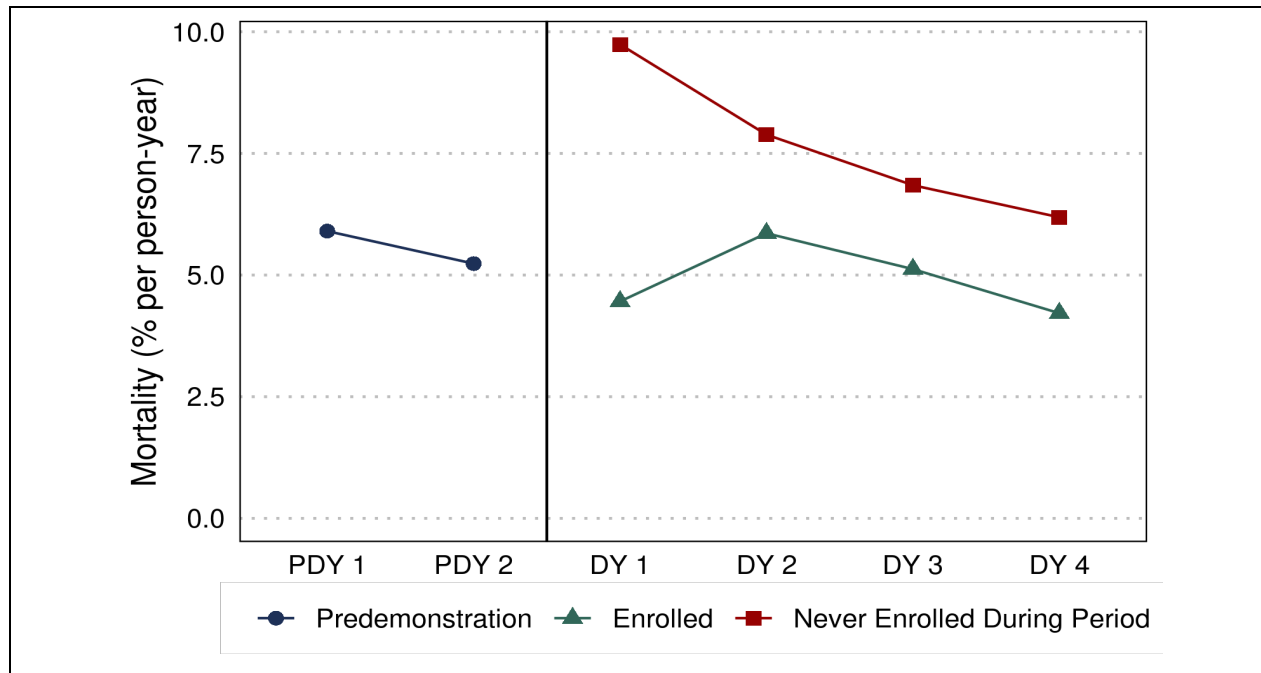


DY = demonstration year; PDY = predemonstration year.

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

| Period | Predemonstration | | Demonstration: Enrolled | | Demonstration: Never Enrolled During Period | |
|---|---|---|---|---|---|---|
| | N | Died (%) | N | Died (%) | N | Died (%) |
| PDY 1 | 1,138,630 | 5.90 | — | — | — | — |
| PDY 2 | 1,474,633 | 5.23 | — | — | — | — |
| DY 1 | — | — | 1,106,057 | 4.46 | 1,181,867 | 9.74 |
| DY 2 | — | — | 340,626 | 5.86 | 731,701 | 7.89 |
| DY 3 | — | — | 377,445 | 5.12 | 818,000 | 6.85 |
| DY 4 | — | — | 399,897 | 4.22 | 829,722 | 6.19 |

DY = demonstration year; PDY = predemonstration year; — = not applicable.
NOTES: 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 mandated that certain savings percentages be applied to the MMP capitated rate to ensure that the demonstration would result in a decrease in Medicare spending. However, our findings from an impact analysis indicate that the demonstration resulted in an increase in Medicare costs among *all* eligible beneficiaries in the demonstration group, relative to the comparison group, from demonstration year 1 to demonstration year 5, 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 capitated rate was set higher than what would otherwise have been spent in Medicare FFS.[38] Specifically, using observed FFS expenditure data available from CMS, we calculated FFS county rates by taking county-level per capita costs and dividing it by the average risk score for each county.[39] 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 Illinois 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 eligible but never enrolled. If enrolled beneficiaries are less 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 eligible but never enrolled. 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 Champaign County, Illinois. 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. [40]

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[38] The analysis is focused on FFS as over 95 percent of the beneficiaries who enrolled were previously in FFS.
[39] FFS Data (2015–2020). Available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/FFS-Data.
[40] 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-3**
**Example of RTI normalized county rate calculations for 2015 (demonstration year 1),**
**Champaign County, Illinois**

| County | Part A total per capita[1] | Part B total per capita[1] | Part A + Part B | Risk score[2] | RTI normalized FFS rate |
|---|---|---|---|---|---|
| Champaign, IL | 316.68 | 397.11 | 713.79 | 0.988614 | 722.01 |

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.

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

| County | Enrollment (bene-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 |
| Champaign | 11,772 | 1.9 | 722.01 | 674.53 | 93.4 |
| Christian | 3,406 | 0.6 | 800.97 | 745.56 | 93.1 |
| Cook | 379,865 | 62.4 | 862.20 | 872.74 | 101.2 |
| DeWitt | 1,611 | 0.3 | 781.73 | 697.98 | 89.3 |
| DuPage | 32,720 | 5.4 | 794.69 | 791.62 | 99.6 |
| Ford | 1,193 | 0.2 | 780.77 | 808.93 | 103.6 |
| Kane | 20,327 | 3.3 | 798.04 | 816.83 | 102.4 |
| Kankakee | 10,043 | 1.7 | 788.43 | 812.56 | 103.1 |
| Knox | 5,247 | 0.9 | 696.62 | 745.53 | 107.0 |
| Lake | 29,463 | 4.8 | 798.54 | 815.71 | 102.1 |
| Logan | 2,848 | 0.5 | 814.68 | 717.53 | 88.1 |
| McLean | 10,346 | 1.7 | 661.74 | 673.62 | 101.8 |
| Macon | 15,025 | 2.5 | 698.94 | 688.85 | 98.6 |
| Menard | 842 | 0.1 | 726.66 | 670.10 | 92.2 |
| Peoria | 18,450 | 3.0 | 696.67 | 674.55 | 96.8 |
| Piatt | 210 | 0.1 | 838.00 | 727.71 | 86.8 |
| Sangamon | 20,834 | 3.4 | 709.35 | 671.64 | 94.7 |
| Stark | 143 | 0.0 | 701.84 | 676.58 | 96.4 |
| Tazewell | 8,752 | 1.4 | 707.02 | 699.83 | 99.0 |
| Vermilion | 11,368 | 1.9 | 764.57 | 698.86 | 91.4 |
| Will | 24,067 | 4.0 | 842.73 | 858.61 | 101.9 |
| **Weighted Average** [2] | – | – | 824.30 | 828.31 | 100.4 |
| **Total** | 617,510 | – | – | – | – |

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, 2018 (demonstration year 4)**

| County | Enrollment (bene-months)[1] | Percent enrollment (of total eligible bene-months)[1] | RTI normalized FFS rate | Final MMP rate after application of 5% savings | MMP rate as % of RTI normalized FFS rate |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Champaign | 197 | 0.0 | 770.99 | 714.07 | 92.6 |
| Christian | 15 | 0.0 | 848.56 | 790.27 | 93.1 |
| Cook | 420,360 | 70.8 | 919.37 | 877.63 | 95.5 |
| DeWitt | 645 | 0.1 | 810.43 | 781.64 | 96.4 |
| DuPage | 39,558 | 6.7 | 833.70 | 826.99 | 99.2 |
| Ford | 569 | 0.1 | 936.30 | 862.09 | 92.1 |
| Kane | 25,191 | 4.2 | 883.08 | 824.79 | 93.4 |
| Kankakee | 12,188 | 2.1 | 883.81 | 814.46 | 92.2 |
| Knox | 3,765 | 0.6 | 760.46 | 756.12 | 99.4 |
| Lake | 32,664 | 5.5 | 860.91 | 837.21 | 97.2 |
| Logan | 8 | 0.0 | 763.95 | 790.23 | 103.4 |
| McLean | 6,997 | 1.2 | 718.29 | 690.12 | 96.1 |
| Macon | 86 | 0.0 | 742.63 | 743.33 | 100.1 |
| Menard | – | 0.0 | 807.37 | 718.04 | 88.9 |
| Peoria | 11,269 | 1.9 | 715.71 | 722.25 | 100.9 |
| Piatt | – | 0.0 | 747.63 | 868.22 | 116.1 |
| Sangamon | 124 | 0.0 | 761.70 | 709.97 | 93.2 |
| Stark | 194 | 0.0 | 722.63 | 714.01 | 98.8 |
| Tazewell | 5,317 | 0.9 | 738.34 | 741.99 | 100.5 |
| Vermilion | 5,735 | 1.0 | 771.64 | 766.87 | 99.4 |
| Will | 29,020 | 4.9 | 880.17 | 878.58 | 99.8 |
| **Weighted Average**[2] | – | – | 895.68 | 860.02 | 96.1 |
| **Total** | 598,756 | – | – | – | – |

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 are largely comparable with the RTI normalized FFS rate (overall, the weighted average MMP rate is 100.4 percent of the RTI FFS rate in demonstration year 1, and 96.1 percent in demonstration year 4). 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). The number of counties with MMP rates lower than the RTI normalized FFS rate increased in demonstration year 4, as did the gap between the two, because the FAI-mandated savings percentages applied to the MMP rates were larger in later demonstration years (***Table G-5***, column E). These findings indicate MMP rate-setting does not explain the increased costs as indicated by the DinD estimates for the demonstration group as a whole.

## G.2.2  Pre-enrollment Cohort Analysis

Our descriptive 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 among demonstration year 1 enrolled and ENE cohorts**
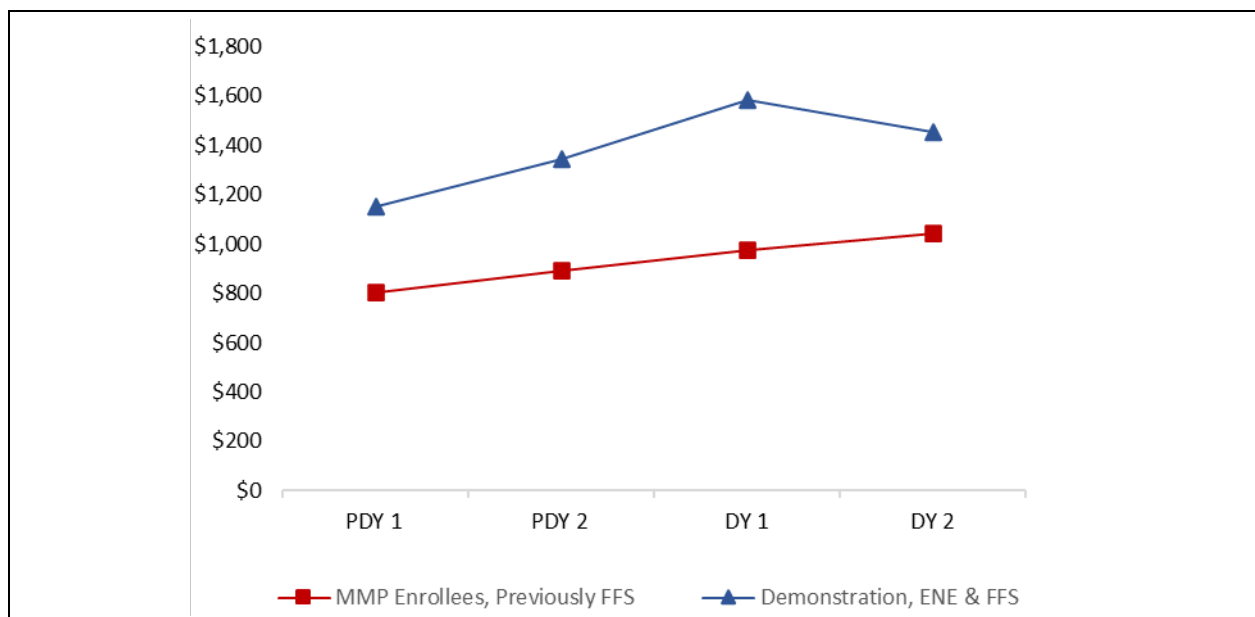


DY = demonstration year; ENE= eligible not enrolled; FFS = fee-for-service; MMP = Medicare-Medicaid Plan; PDY = predemonstration year; PMPM = per member per month.
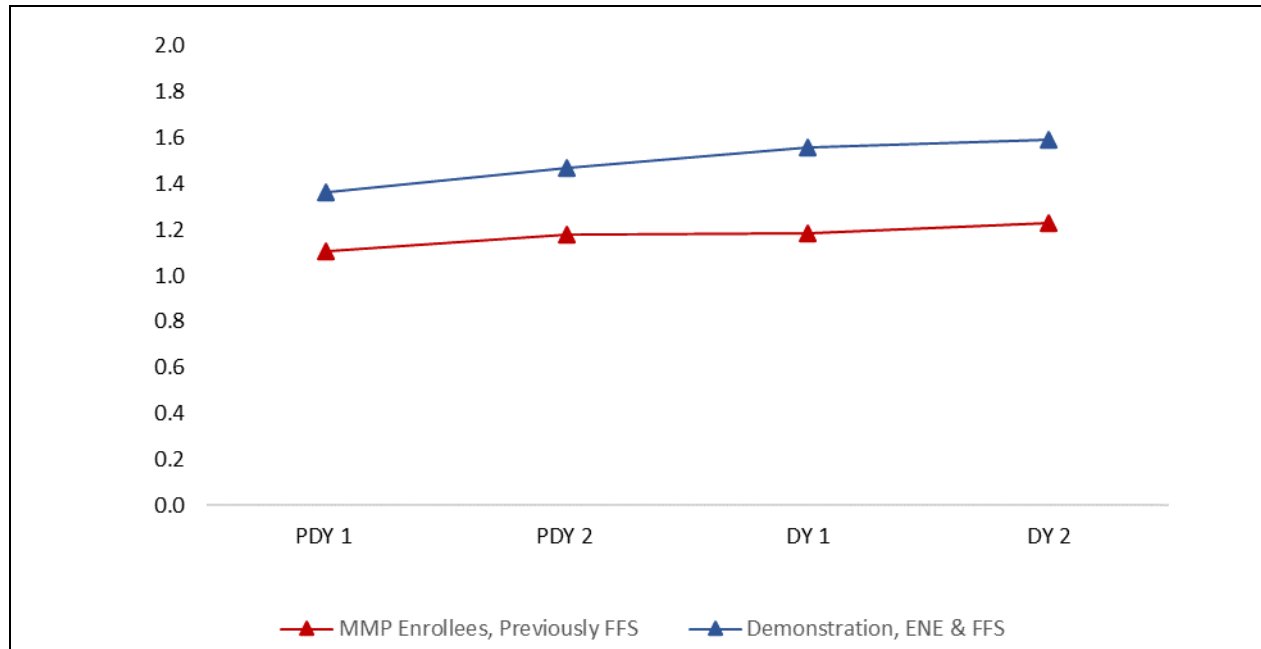NOTES: The number of observations for DY 2 represents a subset of DY 1 enrollees. PDY 1 is from March 2012 through February 2013; PDY 2 is from March 2013 through February 2014; DY 1 is from March 2014 through December 2015; DY 2 is from January 2016 through December 2016.
SOURCE: RTI analysis of Illinois 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 were clear concerns highlighted in the Second Evaluation Report.

**Figure G-5**
**Average risk score among demonstration year 1 enrolled and 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 March 2012 through February 2013; PDY 2 is from March 2013 through February 2014; DY 1 is from March 2014 through December 2015; DY 2 is from January 2016 through December 2016.
SOURCE: RTI analysis of IL pre-enrollment trends.

Finally, although the factors described here are at play for the enrollee population, the FFS eligible but not enrolled 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. The eligible but not enrolled population was substantially larger than the enrolled population (which was about 39 percent). As such, the spending among the eligible but not enrolled could obscure any savings achieved among the enrolled population. Moreover, Medicare spending in the comparison group increased at a slower rate than in the demonstration group. There may be unobservable characteristics influencing a different rate of change in Medicare spending in the comparison group relative to the demonstration group. Although the supplemental analyses presented here shed light on the 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 service utilization outcomes among all eligible beneficiaries in the demonstration group relative to the comparison group.