FINANCIAL ALIGNMENT INITIATIVE

Illinois Medicare-Medicaid Alignment Initiative: Second Evaluation Report

Summer 2021

Prepared for

Nancy Chiles Shaffer
Lanlan Xu
Centers for Medicare & Medicaid Services Center for Medicare & Medicaid Innovation Mail Stop WB-06-05
7500 Security Boulevard
Baltimore, MD 21244-1850

Submitted by

Angela M. Greene and Zhanlian Feng
RTI International
3040 East Cornwallis Road
P.O. Box 12194
Research Triangle Park, NC 27707-2194

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RTI INTERNATIONAL

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

By

RTI International
Scott Holladay, MPA
Molly Knowles, MPP
Emily Costilow, MA
Ira Dave, MSPH
Cleanthe (Cleo) Kordomenos, BA
Brittany D'Cruz, MPH
Yiyan Liu, PhD
Matt Toth, MSW, PhD
Joyce Wang, MPH
Giuseppina Chiri, PhD
Hannah Cohen, BS
Douglas Fletcher, BS
Nolan Sroczynski, MSPH
Sachin Peddada, BA
Wayne Anderson, PhD
Edith G. Walsh, PhD

Project Directors: Angela M. Greene, MS, MBA, and Zhanlian Feng, PhD

Federal Project Officers: Nancy Chiles Shaffer, PhD, and Lanlan Xu, PhD

RTI International

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Glossary of Acronyms

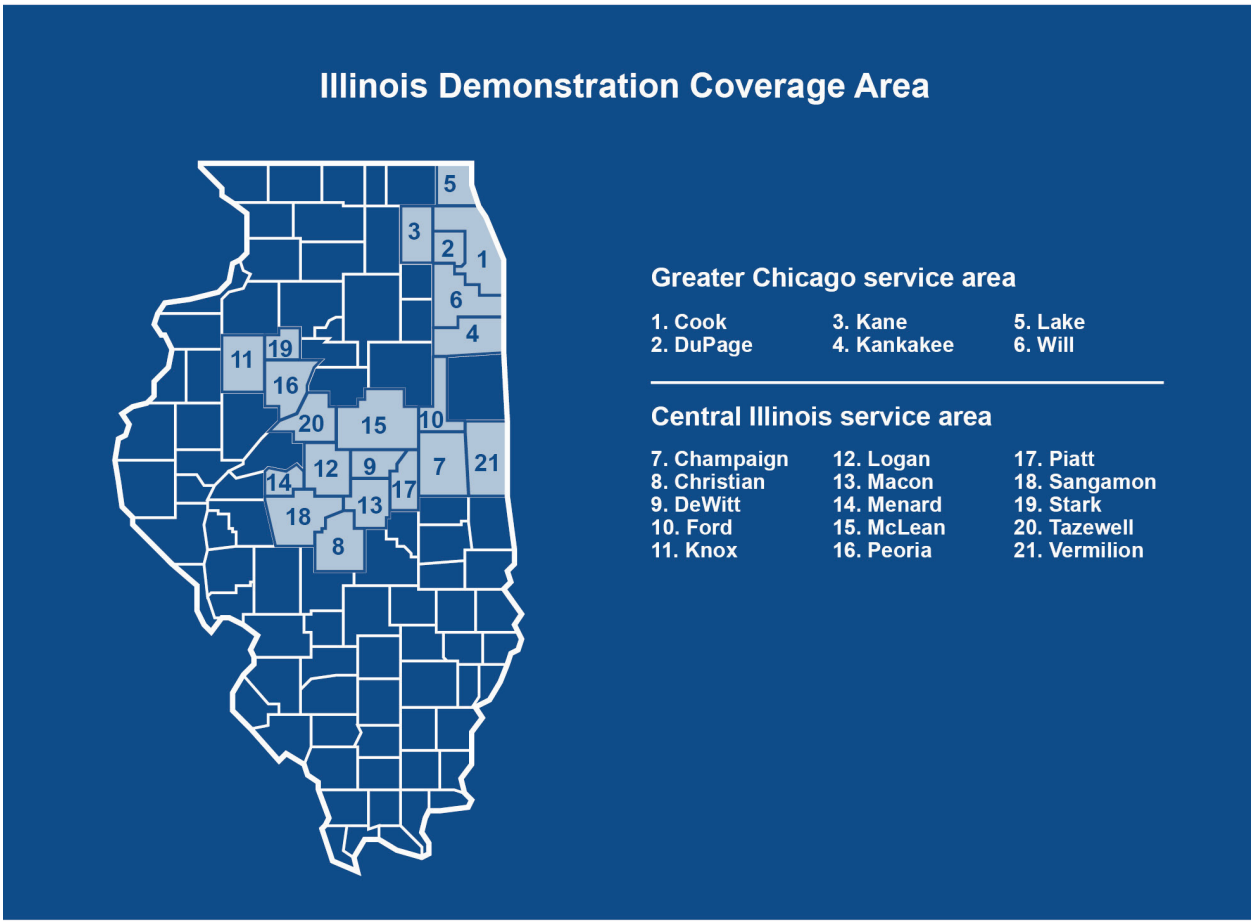
ACSC	Ambulatory care sensitive condition
ADA	Americans with Disabilities Act
ADL	Activities of daily living
AHRQ	Agency for Healthcare Research and Quality
AOD	Alcohol and other drug
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CCIP	Chronic Care Improvement Program
CCU	Care Coordination Unit
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
E&M	Evaluation and management
ED	Emergency department
EQRO	External Quality Review Organization
FAI	Financial Alignment Initiative
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
HIE	Health information exchange

HME	Home medical equipment
HRA	Health risk assessment
HRS	Health risk screening
IES	Integrated Eligibility System
IMD	Institution for Mental Diseases
IRE	Medicare Independent Review Entity
ITT	Intent-to-treat
LTSS	Long-term services and supports
MA	Medicare Advantage
MAC	Medicaid Advisory Committee
MARx	Medicare Advantage Prescription Drug System
MCO	Managed care organization
MLR	Medical loss ratio
MLTSS	Managed long-term services and supports
MMAI	Medicare-Medicaid Alignment Initiative
MMP	Medicare-Medicaid Plan
NF	Nursing facility
NQF	National Quality Forum
PIP	Performance Improvement Plan
PMPM	Per member per month
PQI	Prevention Quality Indicator
PS	Propensity score
QIP	Quality improvement project
SHIP	State Health Insurance Assistance Program
SNF	Skilled nursing facility
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) have created the Medicare-Medicaid Financial Alignment Initiative (FAI) to test, in partnerships with States, integrated care models for Medicare-Medicaid enrollees. CMS contracted with RTI International to monitor the implementation of the demonstrations and to evaluate their impact on beneficiary experience, quality, utilization, and cost. The evaluation will include a final aggregate evaluation and individual State-specific reports, such as this one.

Illinois and CMS launched the Medicare-Medicaid Alignment Initiative (MMAI) demonstration in March 2014 to integrate care for Medicare-Medicaid beneficiaries in two regions—Greater Chicago (Cook County and five surrounding counties) and Central Illinois (composed of 15 counties in the region).



At the beginning of the demonstration, Illinois and CMS competitively selected eight health plans to operate Medicare-Medicaid Plans (MMPs): six in Greater Chicago and two in Central Illinois. By 2018, only six plans were still participating.[1]

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

[1] There will be five MMPs in 2021, due to an acquisition resulting in the merger of two MMPs.

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
- are enrolled in the Aged, Blind, and Disabled category, and
- reside in one of the two service areas.

This Second Evaluation Report for the Illinois MMAI demonstration describes its implementation and early analysis of the demonstration's impacts. We include qualitative evaluation information for calendar years 2017, 2018, and 2019 (i.e., the third, fourth, and fifth demonstration years) and quantitative results for the first 3 demonstration years, from March 2014 through December 2017.

Medicare Advantage (MA) enrollees are eligible and may opt into the Illinois demonstration. This report includes the MA population in the cost savings outcome analysis, described in ***Appendix F***. However, due to concerns about the completeness and accuracy of MA encounter data for this evaluation for years prior to 2016, RTI made a key methodological change from previous reports by excluding the MA population from the service utilization analysis, described in ***Appendix E***. Encounter data submitted by MMPs participating in the MMAI demonstration were considered complete and accurate. We used a variety of data sources to prepare this report (see ***Appendix A***).

Highlights

Although MMAI faced challenges during its early years, those problems were resolved over time, leading State decision makers to pursue statewide expansion. The first 5 years of the Illinois demonstration (2014–2018) were a period of disruptive change for Illinois Medicaid, with a major shift to managed care, as well as behavioral health transformation. Some beneficiaries and providers resisted the transition to managed care, and the launch of a mandatory MLTSS program was delayed several times. By 2019, MMAI enrollment had increased, and many provider concerns had been addressed. After comparing MMAI with integrated Dual Eligible Special Needs Plans (D-SNPs), the new Governor's administration and State officials determined that MMAI was the best model and that it should be available to beneficiaries across the State.

Demonstration Design and State Context	The Illinois three-way contract was amended to extend the MMAI demonstration by 3 years, through December 31, 2022. The State also submitted a request to CMS in September 2019 to extend the MMAI service area statewide and began planning for MMPs to extend their service areas.

Integration of Medicare and Medicaid	Seven MMPs participated in the demonstration in 2017, and six participated in 2018 and 2019. In the Greater Chicago region, one plan exited at the end of 2017, leaving five MMPs in that region. The sole MMP in Central Illinois, Molina, only served members in 9 of the 15 counties from spring 2017 until spring 2019, when the plan resumed operations in the other six counties.[2,3] If the proposed statewide MMAI service area extension is approved, State officials expect plans to extend their service areas and add MMPs in both regions.
	In January 2018, Illinois launched a new Medicaid managed care program, HealthChoice Illinois, consolidating three programs.[4] The consolidation and procurement reduced the number of plans and products, which helped address provider concerns about the large number of plans. The plans and the State took additional steps to help providers contend with multiple payers' policies, procedures, and processes.
Eligibility and Enrollment	Total enrollment in MMAI grew by over 12,000 between December 2016 and December 2019, a growth rate of 26 percent, with total enrollment of 58,475 at the end of 2019 (SDRS, 2017 and 2020). The percentage of eligible beneficiaries enrolled in MMAI increased from approximately 30 to 38 percent, despite the suspension of passive enrollment in Central Illinois during 2018 and the first half of 2019.[5]

[2] The other Central Illinois MMP, Health Alliance, left the demonstration at the end of 2015 due to projected financial losses.
[3] In April 2017, MMAI beneficiaries in six Central Illinois counties were disenrolled from the Molina MMP due to network adequacy issues after three hospitals terminated their contracts with the MMP.
[4] The three Medicaid managed care programs consolidated into HealthChoice Illinois were the Family Health Plan/ACA Adults program for children, parents, and the Medicaid expansion population; the Integrated Care Program for Medicaid-only older adults and individuals with disabilities; and the MLTSS program for Medicare-Medicaid beneficiaries who use LTSS and either opted-out of MMAI, or lived outside the MMAI service area.
[5] As noted above, all Molina members in six counties were disenrolled from MMAI and new enrollment suspended in April 2017 due to the State's finding of network inadequacy. In January 2018, passive enrollment into Molina was suspended in the other nine counties due to CMS guidance prohibiting passive enrollment in areas with mandatory Medicaid managed care and only one MMP. The suspension was triggered when the State launched HealthChoice in January 2018, because enrollment was mandatory for Medicare-Medicaid beneficiaries who used LTSS. However, enrollment of Medicare-Medicaid beneficiaries was postponed at the last minute because some HCBS waiver amendments had not been approved. Passive enrollment in Central Illinois resumed in 2019.

Eligibility and Enrollment (continued)	Passive enrollment into Molina, the only MMP in Central Illinois, resumed in June 2019 for nine counties, and in September 2019 for the six other counties, where members had been disenrolled in 2017. The mandatory managed long-term services and supports (MLTSS) program, HealthChoice Illinois, extended into Central Illinois and the rest of the State, effective July 2019, which may increase opt-in enrollment into MMAI in Central Illinois in the future.
	Eligibility system challenges caused some enrollees to be terminated from Medicaid and disenrolled from MMAI, despite returning their redetermination forms on time.
Care Coordination	State officials, advocates, and CMS focus group participants generally viewed care coordination as a positive feature of MMAI.
	Assessment and care plan completion rates continued to be a challenge for some plans. Although completion rates started to improve by the end of 2017, they declined sharply in 2018. Some plans cited staffing challenges associated with the roll-out of HealthChoice Illinois. However, for most plans, the rates rose again in 2019.
Financing	For the contract extension, the aggregate savings percentage applied to the Medicare and Medicaid capitation rates will increase from 5 to 6 percent for demonstration years 6 through 8 (2020–2022), and the medical loss ratio (MLR) target percentages will increase each year (amended Illinois three-way contract, 2019). Although plans expressed concern about the increased MLR percentages, none discussed withdrawing from the demonstration.
Quality of Care	Most MMPs improved performance over time on Healthcare Effectiveness Data and Information Set (HEDIS) measures related to blood pressure control, 30-day follow-up after hospitalization for mental illness, good control (<8.0%) of HbA1c levels, medication review (within measures of care for older adults), and plan all-cause readmissions for enrollees ages 18–64 and 65+.

Beneficiary Experience	A large majority of CMS focus group participants in 2018 said they were very satisfied or satisfied with their MMPs. Advocates reported that beneficiaries typically like the demonstration if their regular providers are in their plans' networks, which was consistent with focus group findings.
	Stakeholders said that care coordination, flexible benefits—especially zero copayments for prescription drugs—and the ability to receive all benefits through one plan, are popular features of MMAI, consistent with focus group findings.
	Illinois MMPs' Consumer Assessment of Healthcare Providers and Systems survey results for overall satisfaction and care coordination generally showed improvement from 2015 to 2019. In 2019, over 60 percent of Illinois enrollees across all MMPs gave their plans a rating of 9 or 10.
Demonstration Impact on Service Utilization and Quality of Care	As shown in ***Table ES-1,*** over the course of the first 3 demonstration years, the impact of the demonstration on service utilization outcomes was mixed. Although the cumulative number of monthly physician visits increased among all demonstration eligible beneficiaries relative to the demonstration group (a favorable finding), the probability of ambulatory care sensitive condition (ACSC) admissions (overall and chronic), and the probability of any long-stay nursing facility (NF) use also increased relative to the comparison group (an unfavorable finding). There were no demonstration impacts on inpatient admissions, emergency department (ED) visits, preventable ED visits, 30-day all-cause readmissions, or 30-day follow-up after mental health discharge.
	The demonstration impacted the population who receive long-term services and supports (LTSS) differently than the non-LTSS population (***Table ES-1***). The demonstration effect for those with LTSS use was an increase in the probability of inpatient admissions, the probability of ED visits, and the number of physician visits, relative to the demonstration effect for the non-LTSS population. The demonstration was also associated with an increase in the monthly number of preventable ED visits, and the probability of ACSC admissions (overall and chronic), relative to the demonstration effect for non-LTSS users.

Demonstration Impact on Service Utilization and Quality of Care (continued)	***Table ES-1*** shows the demonstration also impacted beneficiaries with serious and persistent mental illness (SPMI) differently than those without SPMI. The demonstration effects for those with an SPMI were an increased probability of ED visits, the monthly number of preventable ED visits, and the probability of any monthly ACSC admission (overall), relative to the demonstration effect for those without SPMI.
Demonstration Impact on Cost Savings	Overall, the demonstration had no significant impact on Medicare Parts A and B costs. As summarized in ***Table ES-2***, relative to the comparison group, the demonstration was not associated with statistically significant gross savings or losses to the Medicare program during demonstration years 1 and 3,[6] although it was associated with a statistically significant increase in Medicare costs during demonstration year 2. However, the cumulative impact estimate over all 3 demonstration years was not statistically significant.
	The savings calculations are based on Medicare Parts A and B spending either through fee-for-service or MA/MMAI capitated rates. These estimates do not include Medicaid or Medicare Part D expenditures, nor do they consider the actual payments for services paid by the MMAI plans.

Table ES-1 summarizes the cumulative impact estimates for the Illinois demonstration during demonstration years 1–3 (demonstration start through 2017), 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.

[6] The demonstration year 1 effect estimate differs from the results shown in the First Evaluation Report. This difference is due to changes in our methodology. See ***Appendix F*** for more details.

Table ES-1
Summary of Illinois cumulative demonstration impact estimates for demonstration period (March 1, 2014–December 31, 2017)

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

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

NOTES: Statistical significance is defined at the α = 0.05 level. For additional details on results, see ***Tables E-1, E-2***, and ***E-3*** in ***Appendix E***. SNF admissions were not analyzed as they were deemed incomplete. 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 3-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

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

NS = not statistically significant.
NOTES: Statistical significance is defined at the α = 0.05 level. For numeric estimates of the demonstration's effect on total Medicare expenditures, see ***Figure 17*** in ***Section 6***. Red color coded shading indicates where the direction of the DinD estimate was unfavorable. To ensure accessibility for text readers and individuals with sight disabilities, 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_dy3_1610_GLM.log).

SECTION 1

Demonstration and Evaluation Overview

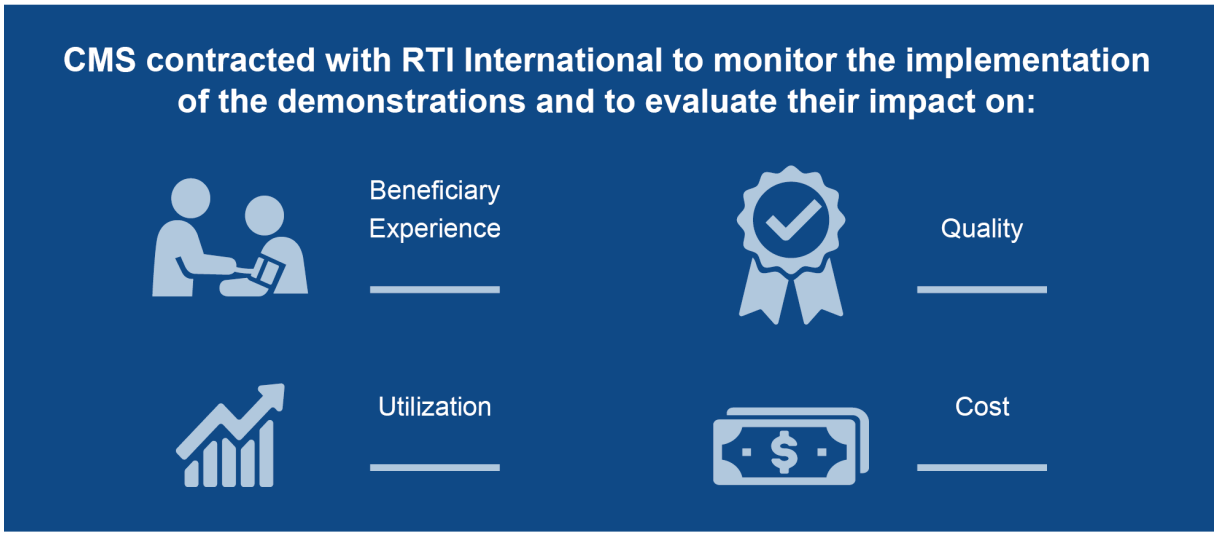
1.1 Demonstration Description and Goals

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

The Illinois 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). The First Evaluation Report includes extensive background information about the demonstration.

1.2 Purpose of this Report



In this report we include qualitative evaluation information for calendar years 2017, 2018, and 2019 (i.e., the third, fourth, and fifth demonstration years), and provide updates in key areas including:

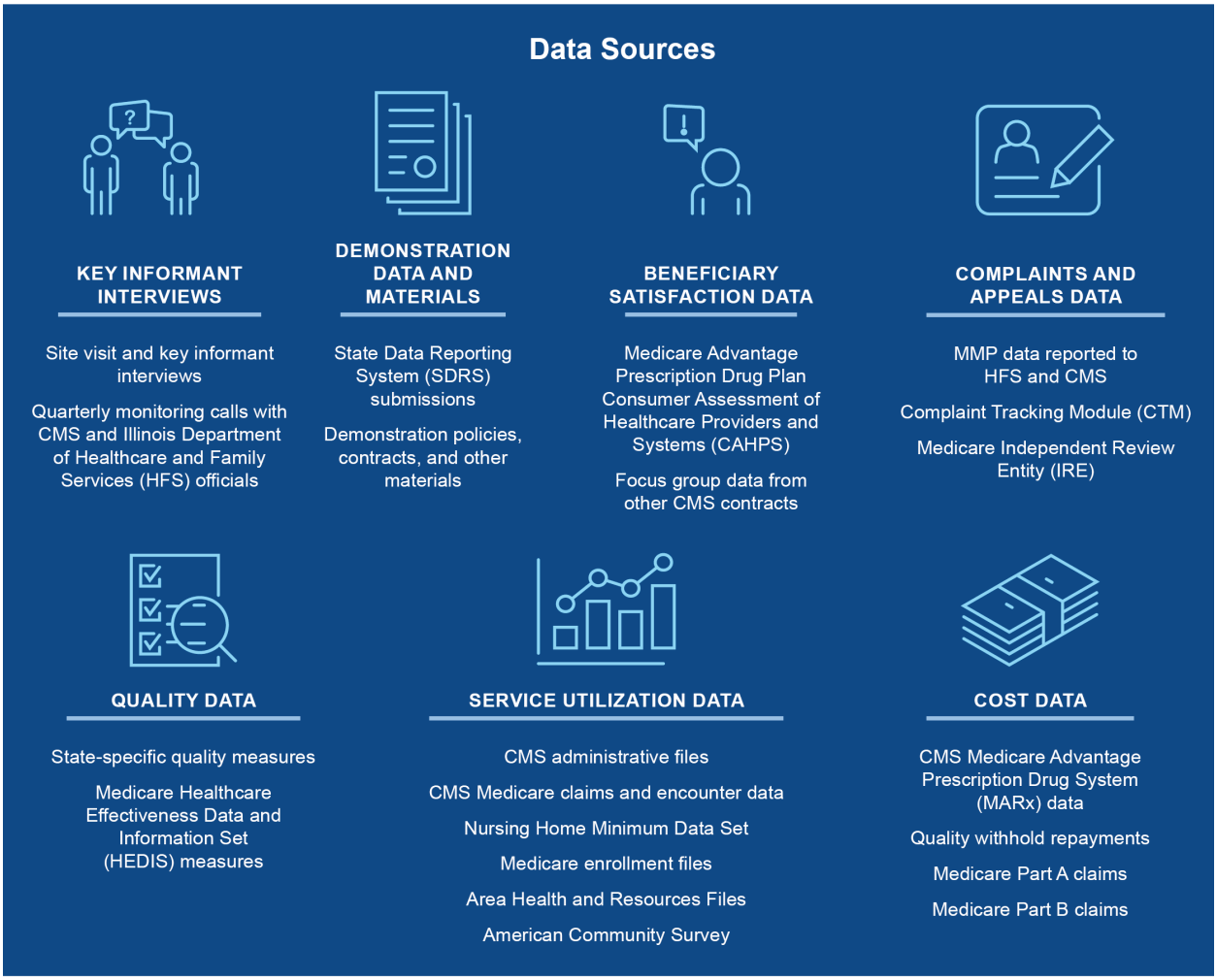
- enrollment,
- care coordination,
- beneficiary experience, and
- stakeholder engagement activities.

We also discuss challenges, successes, and emerging issues identified during the reporting period. We present quantitative analysis results on quality of care, service utilization,

and costs for the entire demonstration period spanning March 1, 2014, through December 31, 2017.

1.3 Data Sources

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



SECTION 2

Demonstration Design and State Context

2.1 Changes in Demonstration Design

MMAI is a capitated model demonstration in which the State of Illinois, CMS, and each of eight MMPs across two regions entered into a three-way contract in 2014 to provide comprehensive, coordinated care for beneficiaries. From January 2018 through December 2020, this partnership has included only six of the original eight MMPs.[7] We describe the design of the contract and details of the demonstration in the First Evaluation Report. Illinois did not receive Federal implementation funds for its demonstration.

The three-way contract with each plan has been amended several times to make changes regarding financing, quality measures, and other operational aspects of the demonstration, without changing the demonstration design. We discuss some of those changes in ***Section 3, Update on Demonstration Implementation***.

The most recent amendment extended the demonstration by 3 years, from an end date of December 31, 2019, to December 31, 2022 (amended Illinois three-way contract, 2019). A new governor took office in January 2019, and in the State's request to extend the demonstration, submitted to CMS in March 2019, the State noted that the new administration needed additional time to analyze available data on the effectiveness of the MMAI demonstration compared to integrated D-SNPs (Illinois, 2019a).

Noteworthy changes in the most recent contract amendment include an increase in the aggregate savings rate, from 5 percent in demonstration years 3, 4, and 5, to 6 percent for demonstration years 6, 7, and 8 (2020–2022), and increases in the Medical Loss Ratio (MLR) targets, as discussed in ***Section 3.5, Financing and Payment***.

In September 2019, the State submitted a request to extend the MMAI service area statewide, effective January 1, 2021 (HFS, 2019c).[8] State officials said the new administration considered the experience of States using integrated D-SNP models and consulted with the State's actuaries before deciding that MMAI was the best option for integrated care, financing, and operations. In its request, the State noted that service area extension would give all Medicare-Medicaid beneficiaries in the State an opportunity to receive Medicare and Medicaid benefits and care coordination from an integrated MMAI plan.

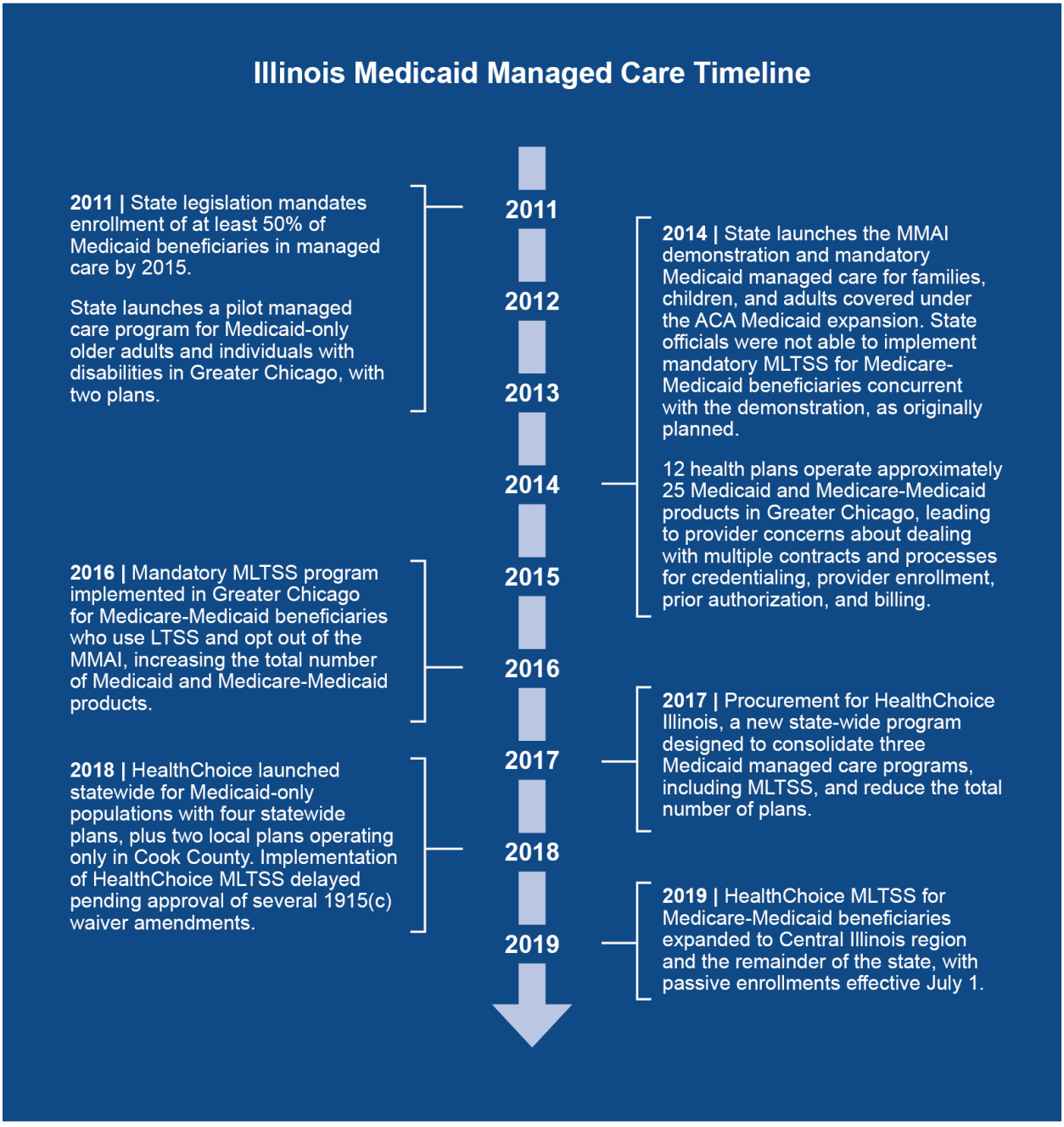
Although the State's managed LTSS (MLTSS) program was extended statewide on July 1, 2019, as discussed below, beneficiaries only had a choice between MMAI and MLTSS in the Greater Chicago and Central Illinois regions.

2.2 Overview of State Context

Illinois's managed care programs for Medicare-Medicaid and Medicaid-only enrollees have evolved through consolidation and expansion, as outlined in the Illinois Medicaid Managed

[7] In 2021, there will be five MMPs rather than six, due to Centene's acquisition in 2019 of WellCare, which owned Meridian. Centene merged their IlliniCare MMP with the Meridian MMP, effective for 2021.
[8] The effective date for statewide service area extension was later changed to July 2021 due to the coronavirus pandemic.

Care Timeline (see below). This reflects the State's goal of increasing managed care enrollment and lessening the challenges for providers as they deal with multiple managed care organizations. We discuss the impact of these changes on the demonstration in ***Section 3.1, Integration of Medicare and Medicaid***.



As discussed in the First Evaluation Report, Illinois experienced several major changes during the early years of the demonstration, particularly the launch and expansion of Medicaid managed care programs, behavioral health transformation, and changes in the Medicaid eligibility system. According to State officials, the rapid pace of change led to delays in the implementation of mandatory MLTSS for Medicare-Medicaid beneficiaries. Some stakeholders

expressed frustration in 2019 that the State's continued focus on new programs had resulted in less attention to MMAI over the years, particularly in regard to outreach, education, and stakeholder engagement.

Illinois State leadership changed hands in January 2019. During the previous administration, the HealthChoice Illinois procurement was a focal point, as was reducing the number of Medicaid managed care plans. The current administration has been involved in several issues related to Medicaid managed care and MMAI, which we discuss in more detail in ***Section 3.1, Integration of Medicare and Medicaid***.

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SECTION 3

Update on Demonstration Implementation

In this section, we provide updates on important aspects of the demonstration that have occurred since the First 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

During 2017–2019, the State continued to expand options for Medicare-Medicaid beneficiaries in Central Illinois, reduce the total number of Medicare-Medicaid Plans (MMPs) and managed care organizations (MCOs) in Greater Chicago, and increase alignment between MMAI and HealthChoice-MLTSS plans.

After Illinois' rapid transition to Medicaid managed care in 2014, many providers were overwhelmed by the large number of MCOs and MMPs, each with their own contracts and processes. The State and plans have made changes to billing, prior authorization, credentialing, and provider enrollment, and reduced the total number of plans.

MMPs have taken steps to improve the performance of their networks. Most MMPs have implemented value-based payments, and some plans have terminated the contracts of providers with quality issues.

The MMAI demonstration integrates Medicare and Medicaid services. Enrollees receive a unified set of benefits and care coordination from a Medicare-Medicaid plan, which receives capitation payments for Medicare Parts A and B, Part D, and Medicaid. Illinois, CMS, and the plans provide an integrated experience for enrollees through alignment of policies, procedures, and systems.

In this section we provide an update on these alignment structures.

3.1.1 Joint Management of the Demonstration

The CMS-State Contract Management Team (CMT) manages the demonstration, monitoring data reported by the MMPs to CMS's implementation contractor, and discussing trends, challenges, and special topics in monthly meetings with each plan. During 2018 and 2019, meeting topics included:

- care transitions,
- discharge planning,
- transportation,
- member language preferences,
- care plan reviews,

- MMP efforts to reach members,
- response rates on the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, and
- flu prevention.

One of the CMT's most important tasks in 2018 and 2019 focused on handling MMP compliance issues. The CMT took action in 2018 to address two MMPs' challenges with timeliness of responses to grievances and appeals (see ***Section 4.2, Beneficiary Protections***). Later in 2018, the State and CMS stopped passive enrollment for one of the MMPs, citing a significant drop in assessments and care plans completed within 90 days of enrollment, as well as ongoing concerns about noncompliance with grievance and appeal requirements (see ***Section 3.3, Care Coordination***) (HFS and CMS, 2018). In 2019, another MMP was required to develop and implement a Performance Improvement Plan (PIP) to improve its assessment and care plan completion rates (personal communications with CMS, 2019).

3.1.2 Medicare-Medicaid Plans

During 2017, 2018, and 2019, the State continued its efforts to:

- expand options for Medicare-Medicaid beneficiaries in Central Illinois,
- reduce the number of MCOs in Greater Chicago, and
- increase alignment between MMAI and HealthChoice-MLTSS plans.[9, 10]

Increased alignment between plans will facilitate transitions for beneficiaries with home and community-based services (HCBS) care plans. The State made progress on all three objectives during 2018 and 2019, although some proposed changes will not be effective until 2021. Health plan acquisitions also affected the lineup of plans. ***Table 1*** shows the MMAI and MLTSS plans available in both regions after changes in 2016, 2018, and 2019, and the expected array of plans in 2021.

[9] Illinois considers an MMP and an MCO to be aligned if they are operated by the same managed care company.
[10] The MLTSS program for Medicare-Medicaid beneficiaries became part of HealthChoice Illinois, the State's consolidated Medicaid managed care program, effective January 1, 2018, for the Greater Chicago region. MLTSS was added to HealthChoice Illinois in Central Illinois and the remainder of the State in July 2019. MLTSS enrollees' cards are titled "HealthChoice Illinois MLTSS" to alert providers that their plans cover a limited benefit package of Medicaid benefits (Medicaid LTSS, behavioral health, and transportation), rather than comprehensive Medicaid benefits.

Table 1
Medicare-Medicaid Plans and Medicaid MCOs by service area, after launches and extensions

MLTSS launch in Greater Chicago, July 2016	HealthChoice Illinois statewide launch, January 2018	MLTSS statewide extension, July 2019	Proposed MMAI statewide extension July 2021
Greater Chicago			
6 MMPs 4 MLTSS plans (all aligned with MMPs) 18 other Medicaid MCOs[1]	5 MMPs 7 MCOs (all delivered MLTSS, 3 aligned with MMPs)	5 MMPs 6 MCOs (all delivered MLTSS, 3 aligned with MMPs)	5 MMPs 5 MCOs (all deliver MLTSS, 4 aligned with MMPs)
Central Illinois			
1 MMP 0 MLTSS plans 4 other Medicaid MCOs	1 MMP 5 MCOs (none delivered MLTSS,[2] 1 aligned with an MMP)	1 MMP 4 MCOs (all delivered MLTSS, 1 aligned with an MMP)	5 MMPs[3] 4 MCOs (all deliver MLTSS, all aligned with MMPs)[4]

MCO = managed care organization; MLTSS = managed long-term services and supports; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.

[1] The "other MCOs" were Medicaid managed care plans that did not serve Medicare-Medicaid beneficiaries. In 2018, the number of plans was reduced by the consolidation of three programs into HealthChoice Illinois, and a procurement resulting in the selection of five statewide plans plus two plans serving only Cook County.

[2] HealthChoice Illinois launched on January 2018, and at that time MLTSS was only operating in the Greater Chicago region. MLTSS was extended statewide through the HealthChoice MCOs in July 2019. MCOs are aligned with MMPs if they are both owned by the same managed care company.

[3] All five MMPs are expected to operate statewide effective July 1, 2021, although the table only shows Greater Chicago and Central Illinois. The statewide extension will provide increased choices to Medicare-Medicaid beneficiaries across the State.

[4] There are four statewide HealthChoice MCOs, plus one MCO that operates only in Cook County

Several setbacks in Central Illinois delayed the launch of MLTSS and preparations for new MMPs in that region until 2019.

After Health Alliance withdrew at the end of 2015 due to projected losses, Molina was the region's only MMP, and the region was not included in the initial MLTSS launch in 2016. Early in 2017, all MMAI enrollees were disenrolled from Molina in six counties due to network challenges (see ***Section 3.2, Eligibility and Enrollment***). In 2017, two plans applied to extend to the Central Illinois region but were unable to complete their networks and withdrew their applications. One plan told State officials it was stretched thin while it developed a statewide network for its HealthChoice bid, and the other plan said providers were hesitant to commit to joining a network until they were sure HealthChoice would actually be implemented.

The HealthChoice procurement in 2017 resulted in the selection of four plans to operate statewide MCOs—BlueCross and BlueShield, IlliniCare (Centene), Meridian, and Molina. All of them also operated MMPs. Aetna submitted a bid for HealthChoice and was not selected, but remained in MMAI. Neither Cigna-HealthSpring nor Humana submitted bids for HealthChoice; Humana remained in MMAI, while Cigna-HealthSpring withdrew from MMAI at the end of 2017. State officials said that in 2018 the administration considered limiting MMAI to the four statewide plans selected for HealthChoice, in order to increase alignment between the two programs, but CMS was not supportive, and it was dropped.

As discussed earlier in this report, in the fall of 2019, Illinois submitted a request to CMS to extend MMAI statewide, effective in January 2021. State officials invited the current MMPs to submit notices of intent to expand their service areas. In addition, the two HealthChoice plans operating only in Cook County—NextLevel and CountyCare—were invited to submit proposals for MMAI in Cook County, in order to increase alignment and facilitate transitions between HealthChoice-MLTSS and MMAI plans, but neither plan joined the demonstration.[11] As a result, there will be five statewide MMPs, including a merged Meridian-IlliniCare MMP operating under the Meridian brand.

3.1.3 Provider Arrangements and Services

Provider Challenges with Managed Care Processes

During the early demonstration years, provider groups reported significant challenges associated with the proliferation of Medicaid and MMP products in the Greater Chicago market in 2014. As discussed in the First Evaluation Report, many providers were overwhelmed by the number of plans, each with their own contracts and processes for credentialing, utilization review, and billing. The HealthChoice launch in 2018 provided some relief for providers by reducing the number of Medicaid and Medicare-Medicaid Plan products in the Chicago market from nearly 30 in 2017 to 12 in 2018.

The State addressed provider concerns about credentialing by adding a credentialing function to the web-based claims processing system it was developing, known as IMPACT (Illinois Medicaid Program Advanced Cloud Technology) (HFS, 2017a; HFS, n.d.-a). The credentialing function, added in 2017, allows providers to submit their credentials one time to satisfy the credentialing requirement for all Medicaid plans. However, providers still need to submit additional information for provider enrollment directly to each plan, such as their hours of operation. In 2018, the uniform credentialing process was expanded to include Medicaid and Medicare providers participating in MMAI (HFS, 2018a).

The plans addressed other provider concerns by posting resources on the website of the Illinois Association of Medicaid Health Plans, including a comprehensive billing guide, a standardized template for provider directory listings, provider manuals, links to prior authorization resources, key contacts and escalation documents, and provider training requirements (Illinois Association of Medicaid Health Plans, 2018). State officials said the billing manual is aimed at Medicaid providers and does not include information on billing for Medicare services, but it is still helpful for many providers who serve MMAI enrollees.

Throughout the implementation of its managed care programs, the State convened meetings between providers and plans, although some provider groups complained that the State did not follow through to ensure that plans resolved their concerns. In 2018, the new administration reemphasized providers' concerns by increasing meeting frequency and formalizing the meetings, according to State officials and stakeholders. The State convened

[11] State officials said in 2020 that NextLevel did not apply because the plan was being acquired by Centene. CountyCare, the Medicaid plan owned by the Cook County Health, a large safety net provider, did not apply either. Instead, Cook County Health applied through its partnership with MoreCare, an MA plan, but that application was later withdrawn.

biweekly day-long forums, with a time slot for each provider type. State officials said the Medicaid director at the time was very involved in the meetings. Safety net hospitals had their own meeting, and the Medicaid director started an adopt-a-hospital program for health plans to work directly with safety net hospitals on billing issues.[12] In 2019, State officials said it was eye opening for plans to see how much assistance those hospitals needed with billing.

The State also launched a provider complaint portal in 2018 that providers can use to submit complaints about unresolved issues with Medicaid managed care plans and MMPs to State officials, after health plans have reviewed the complaints (HFS, n.d.-b). State officials said most complaints received through the portal related to billing issues.

A behavioral health provider said that the provider forums were very helpful and the discussions very detailed, down to the level of denial codes. However, the provider said it still faced significant issues dealing with the plans. For example, when mental health billing codes changed, providers were required to use the new codes, but neither the plans nor the State were prepared to accommodate the new codes, so payments were delayed. Prior authorization also remained an issue, with each plan using different forms and requirements, and some plans adding new restrictions in early 2018, adding to the challenges of complying with each payer's requirements and processes.

Provider Networks and Payments

In 2019, MMPs and CMT members described efforts by the plans to improve provider performance by implementing value-based payment methods, terminating the contracts of low-performing providers, and other strategies. Two plans said they had some full and partial risk arrangements with providers, and one of them said 70 percent of its members received care from providers in risk arrangements. At least three plans had shared savings arrangements in place with some providers or were preparing to implement them (personal communications with CMS, 2019). To address the low number of MMAI enrollees, some plans aggregated providers' performance data across products, combining MMAI data with HealthChoice or MA data.

One plan said it had terminated a number of primary care contracts and was trying to steer MMAI enrollees to primary care providers who had better outcomes and were willing to contract for quality. The plan was targeting the MMAI population because there are more medical providers willing to serve beneficiaries with Medicare and Medicaid than with Medicaid only.

Because of the State's Any Willing Provider law, MMPs have found it challenging to terminate the contracts of low-performing nursing facilities. The law requires plans to contract with facilities that are willing to accept standard rates and meet the plan's quality standards. The State must approve each plan's quality standards, and State officials said in 2019 that two health plans had approved standards. Another plan said in 2019 that it is embedding care coordinators in facilities to learn why some facilities have higher hospital admission rates than others.

[12] Safety net hospitals provide health care for individuals regardless of their insurance status, either by legal obligation or mission. Safety net hospitals primarily serve individuals who are uninsured or covered by Medicaid and CHIP, so prior to 2014 they had limited experience with managed care.

MMPs, State officials, and beneficiary advocates have also had ongoing concerns about transportation quality. Two MMPs said they changed transportation vendors, one in 2017 and the other in 2018. Both plans said that service improved as a result of the changes.

Advocates mentioned significant cuts in Medicaid reimbursement rates for home medical equipment (HME) suppliers by one of the health plans participating in MMAI and HealthChoice. The cuts, effective January 1, 2018, ranged from 10 to 50 percent (Olsen, 2018). During 2018, two other MMPs also announced cuts in HME reimbursement rates (Goldberg, 2018). It was not clear how the rate cuts would affect access for MMAI enrollees, because the cuts did not apply to Medicare-covered equipment and supplies.

After two hospital systems terminated their contracts with Molina at the end of 2016, the State determined that the plan's network in six counties was no longer adequate, as discussed in the First Evaluation Report. After HealthChoice launched in 2018, Molina was able to bring the hospitals back into their network.[13] MMPs operating in the Greater Chicago region did not experience the same challenges maintaining their networks, but certain provider types in short supply, such as psychiatrists and oral surgeons, continued to pose a challenge in both regions.

3.2 Eligibility and Enrollment

MMAI enrollment grew by 26 percent between December 2016 and December 2019, from 46,294 to 58,475. More than 38 percent of eligible beneficiaries were enrolled at the end of 2019.

Enrollees value care coordination, flexible benefits, and having one plan for Medicare and Medicaid. Most MMPs offered zero copays for prescription drugs in 2019.

Medicaid terminations spiked in 2018 due to changes to the State's eligibility system and efforts to eliminate a backlog of redeterminations.

By December 2019, 58,475 dually eligible beneficiaries were enrolled in the MMAI demonstration, representing 37 percent of the total eligible population. In this section we provide updates on eligibility and enrollment processes, including integration of eligibility systems, enrollment methods, and outreach. We also outline significant events affecting enrollment patterns during the timeframe covered by this report, including the departures of Cigna-HealthSpring and the last three D-SNPs, suspension and resumption of passive enrollment in Central Illinois, and challenges related to Medicaid eligibility determinations.

As discussed in the First Evaluation Report, phased enrollment into MMAI ended in early 2015 and monthly passive enrollment began in November 2015, stabilizing enrollment levels. In July 2016, the State launched the new MLTSS program in the Greater Chicago region, which

[13] See the First Evaluation Report for additional discussion on why the hospital contracts were terminated.

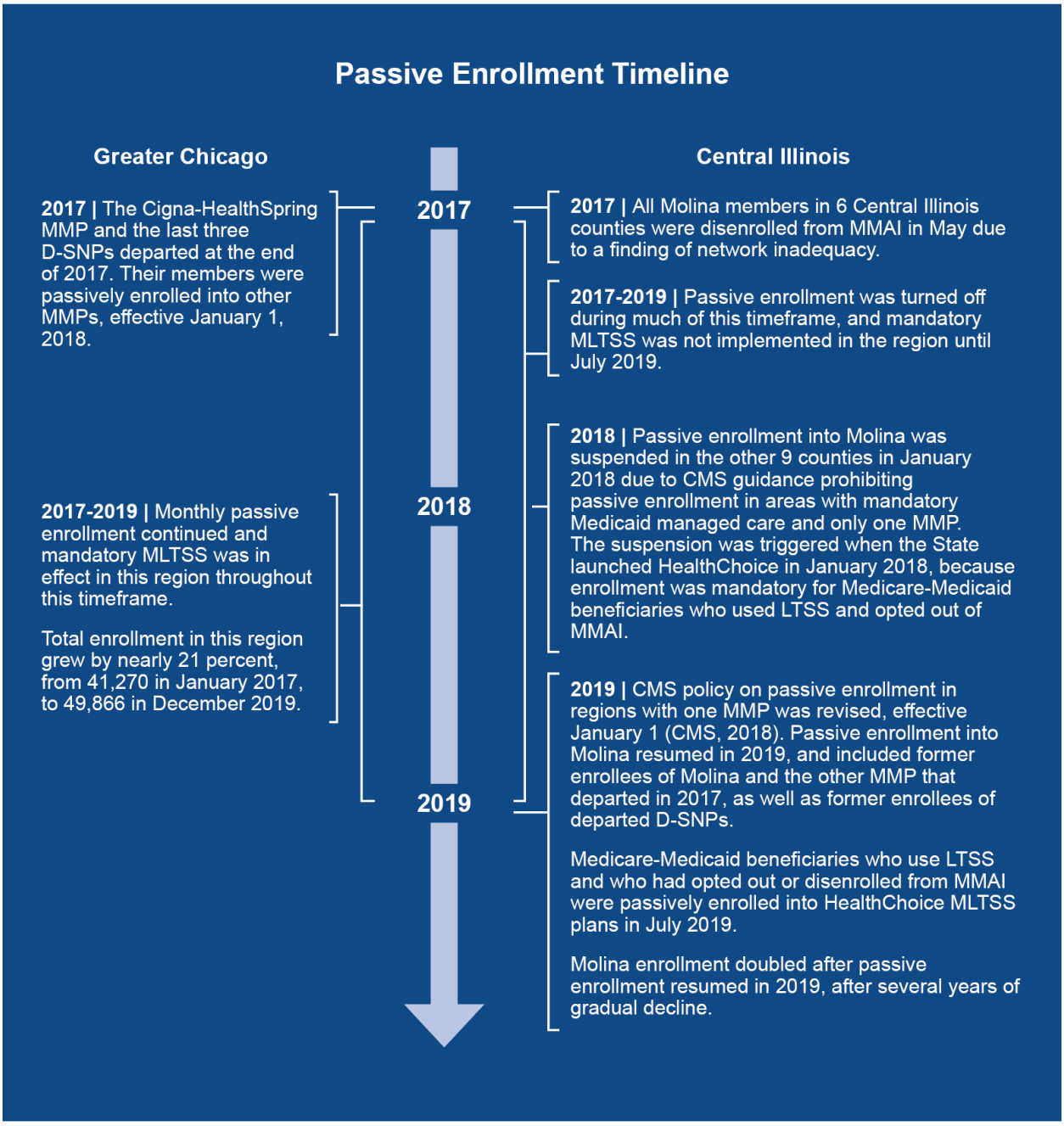
encouraged some beneficiaries in that region to opt into MMAI instead of enrolling in the new MLTSS program (later called Health Choice Illinois MLTSS).

3.2.1 Eligibility

There were no changes in the eligibility requirements for the demonstration during the timeframe of this report.

3.2.2 Passive Enrollment Process and Experience

Although monthly passive enrollment continued throughout 2017–2019, there was no passive enrollment in Central Illinois for most of this timeframe. As a result, total MMP enrollment in Central Illinois declined considerably between early 2017 and early 2019. The Passive Enrollment Timeline (see below) reports the factors leading to enrollment growth in the Greater Chicago region and drops in enrollment in Central Illinois.



MMAI continued to experience substantial opt-out and disenrollment rates during the timeframe of this report. MMPs experienced an increase in disenrollments due to loss of Medicaid eligibility during 2018 and 2019, as discussed later in this section. Despite that challenge, total enrollment and the rate of enrollment grew between December 2016 and November 2019, as shown in ***Table 2***.

Table 2
Demonstration enrollment at the end of each calendar year, 2016–2019

Enrollment indicator	Number of beneficiaries			
	December 2016	December 2017	December 2018	December 2019
Eligibility Beneficiaries eligible to participate in the demonstration as of the end of the month	153,454	152,577	151,274	152,804
Enrollment Beneficiaries currently enrolled in the demonstration at the end of the month	46,294	52,107	51,977	58,475
Percentage enrolled Percentage of eligible beneficiaries enrolled in the demonstration at the end of the month	30.2%	34.1%	34.3%	38.3%
Percentage eligible not enrolled	69.8%	65.9%	65.7%	61.7%

NOTE: Due to the COVID-19 pandemic, data for December 2019 have not yet been reported.
SOURCE: RTI International: State Data Reporting System (SDRS), quarterly reports for the quarters ending February 28, 2017, February 28, 2018, February 28, 2019, and November 30, 2019.

The State, enrollment broker, and MMPs continued to use a series of processes developed earlier to identify and resolve discrepancies in the enrollment files. In 2018, State officials said discrepancies had stabilized at a manageable volume of 300–400 per month and were identified and resolved during the same month.

Due to other priorities, rapid reenrollment has been delayed in the State for several years. The State has been unable to implement it to date. Rapid reenrollment is used for Medicaid managed care but the feature was turned off for MMAI, as discussed in the First Evaluation Report. A proposed new passive enrollment algorithm, which has also been under discussion for some time, was also delayed. The aim would be to assign a larger percentage of passive enrollees to plans with higher scores on the Healthcare Effectiveness Data and Information Set (HEDIS).

3.2.3 Outreach and Education

HFS's outreach and education about MMAI to beneficiaries was restricted to enrollment letters, which were mailed with an easy-to-read chart comparing the MMPs and their flexible benefits. HFS continued to rely on the enrollment broker, MMPs, options counselors, and providers to answer questions from prospective and current enrollees.

State officials said the launch of HealthChoice, including the unsuccessful statewide launch of MLTSS planned for April 2018, provided an opportunity to reeducate providers and other stakeholders about the differences between MMAI and MLTSS. In addition to the provider notices about HealthChoice, the State issued a provider notice describing changes in the options

for Medicare-Medicaid beneficiaries (Illinois HFS, 2017b).[14] A coalition of advocacy groups provided a webinar for options counselors and others who work with Medicare-Medicaid beneficiaries, as well as materials to help beneficiaries understand MMAI and MLTSS.

Advocates said the 2018 changes in Medicaid managed care, discussed earlier in this report, created considerable confusion among options counselors and others in their networks. To address this challenge, the Make Medicare Work coalition conducted education about HealthChoice, MLTSS, and MMAI for their statewide network, including in-person trainings, webinars, and dissemination of materials. Additionally, a one-time State Health Insurance Assistance Program (SHIP) grant in 2018 funded MMAI outreach in suburban Cook County.

3.2.4 Factors Influencing Beneficiary Enrollment Decisions

In 2019, State officials and advocates cited several important features that impacted enrollment decisions. Enrollees continue to value care coordination, flexible benefits, and having one plan for both Medicare and Medicaid. State officials and advocates said that zero copays for prescription drugs continue to be a "huge selling point" for beneficiaries who take multiple medications, and rides to the pharmacy were also popular. Most, but not all, of the MMPs offered zero copays as a flexible benefit in 2019 (see ***Section 4.1, Impact of the Demonstration on Beneficiaries***).

State officials and advocates involved in options counseling cited three reasons beneficiaries decide to opt out or disenroll: either they dislike the fact that their providers are out of network, they have billing issues with in-network providers, or their providers encourage them to leave MMAI. One State official noted in 2019, "We continue to hear from our callers over and over again, 'I just want to keep my Medicare how it is now.'" And an advocate said the same year that "The only reason we ever hear of people wanting to opt out is…network issues." State officials, however, said they were not hearing complaints about provider networks.

Mandatory MLTSS was implemented in the Greater Chicago region in 2016, and in Central Illinois in 2019. It was generally viewed as encouraging opt-in enrollment into MMAI, because challenges with MLTSS tend to make MMAI more attractive. Advocates said in 2017 that the MLTSS beneficiary experience was marred by confusion among providers and fragmentation between three programs (MLTSS, Medicare Parts A/B and D), and MMPs noted that it was more difficult to provide care coordination for MLTSS enrollees.

These challenges continued in 2018 and 2019 as HealthChoice plans assumed responsibility for MLTSS, and the program was rebranded as "HealthChoice Illinois–MLTSS." Advocates said the rebranding was confusing for medical providers, who declined to serve some enrollees who presented their HealthChoice-MLTSS cards for services, rather than their Medicare cards. Although most stakeholders said MLTSS motivated beneficiaries to enroll in MMAI, one MMP said it experienced movement in the opposite direction, from MMAI to MLTSS.

[14] Changes in early 2018 included the planned statewide launch of HealthChoice-MLTSS, which was later cancelled, changes in the plans offering MLTSS in the Greater Chicago region, the departure of the Cigna-HealthSpring MMP, and the departure of the last three D-SNPs (see ***Section 2.2, Overview of State Context***).

3.2.5 Medicaid Eligibility Challenges

The State's challenges with Medicaid eligibility redeterminations, discussed in the First Evaluation Report, peaked in 2018.[15] MMAI enrollment data show approximately 1,800 more involuntary disenrollments in 2018 than in 2017, a 20 percent increase (RTI, SDRS, 2018, 2019). State officials had hoped that an online portal for the Integrated Eligibility System (IES) would streamline redeterminations by enabling many beneficiaries to respond online rather than by mail.

When the portal was finally implemented in January 2018—after more than a year of delays—the State attempted to clear up a backlog of redeterminations. This led to a surge in terminations, with tens of thousands terminated across the entire Medicaid population. In 2018, State officials said the volume was high because many beneficiaries had not had redeterminations for some time and were no longer eligible. Advocates, however, reported that many beneficiaries who met eligibility criteria and returned their forms on time were terminated due to delays in processing forms and auto-cancellations by the new system.

As discussed earlier in this section, there were also delays in reinstating beneficiaries who had been incorrectly terminated, and rapid reenrollment was not available to reenroll beneficiaries in their MMPs.

As State officials became aware of the situation, they implemented a grace period to allow more time for processing returned forms. MMPs continued to assist enrollees with redeterminations, and the State provided them with files that included renewal dates for all enrollees. State officials said redeterminations had much less impact on MMAI enrollees than on the general Medicaid population, due to the help provided by the MMPs. HFS was very responsive to the needs of MMAI enrollees who were disenrolled.

Even on a Friday night at 4:15 [the Illinois HFS staff] will call the pharmacy and be calling Medicare and trying to get all the records in sync to help get the beneficiaries their medicines.

— HFS staff member, 2019

Advocates said increased terminations due to Medicaid eligibility redeterminations were still an issue in 2019. During that year, the new administration hired more caseworkers and retired staff were brought back on short-term contracts to process forms, according to State officials.

Enrollment of beneficiaries in the Medically Needy Spend Down category into MMAI was another Medicaid eligibility issue in 2018 and 2019. Although beneficiaries with spend

[15] Illinois is a 209(b) State and determines eligibility for all Medicaid beneficiaries and applicants, including Supplemental Security Income beneficiaries. Medicaid eligibility is determined by the Department of Human Services rather than HFS, which administers Medicaid.

down are not eligible for the demonstration, advocates and State officials said some beneficiaries' files were miscoded, causing them to be passively enrolled. Aging network stakeholders said there were "hundreds of examples," and that MMPs did not have systems in place to report spend down amounts to HFS, causing beneficiaries to lose Medicaid and be disenrolled from MMAI until eligibility was reestablished.

State officials said in 2019 that an interagency work group was addressing eligibility system issues, including redetermination and spend down.

3.3 Care Coordination

In 2019, CMT members believed care coordination had improved over the course of the demonstration; however, stakeholders noted that there were still challenges with staffing and identifying care coordinators for some individual enrollees.

Some MMPs' completion rates for assessments and care plans dropped sharply from 2017 to 2018, when they shifted resources to the launch of HealthChoice. The CMT stopped passive enrollment for one MMP and required another MMP to develop and implement a PIP. Rates rose again in 2019.

In this section we provide a summary of the MMAI care coordination model. We highlight the status of and major accomplishments in key care coordination components and processes: assessment, care planning, coordination of long-term services and supports (LTSS), and information exchange.

3.3.1 Care Coordination Model

Care coordination continues to be a core MMP function. 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 nursing facilities (NFs) by employing clinicians known as SNFists, who specialize in care management for NF residents (Illinois three-way contract, 2013, p. 50; MOU, 2013, pp. 66–7). The design of MMAI's care coordination model is more fully described in the First Evaluation Report.

The MMAI care coordination design has not changed, although State officials mentioned in 2019 that they were considering removing the SNFist requirement for care coordination among NF residents. The State removed this requirement for its HealthChoice Medicaid managed care plans because some plans did not think that SNFists added value; as part of its effort to increase alignment with HealthChoice contract requirements, the State is considering removing the requirement for MMPs in the future.

In 2019, CMS and State officials reported that they thought care coordination had improved over the course of the demonstration, both anecdotally and based on plan-reported results that indicated fewer emergency department (ED) visits. Additionally, one beneficiary advocate said she thought care coordination quality had improved among plans because she had

not heard any complaints during her organization's outreach with beneficiaries, which was different than in previous years.

However, in 2019 other stakeholders noted their concerns with care coordination (see ***Section 4.1, Impact of the Demonstration on Beneficiaries***). A provider noted that in some cases, providers and members found it difficult to determine members' assigned care coordinators; for example, they had trouble obtaining care coordinators' contact information, or had trouble getting plans to call them back with this information. An advocacy group representative also mentioned that the MMPs seemed to implement care coordination in different ways and vary in the service levels they provide.

3.3.2 Assessments

In 2018 and 2019, the CMT continued to focus on improving MMPs' completion rates for health risk screenings (HRSs) and health risk assessments (HRAs).[16] A member of the CMT shared that in April 2019, the CMT discussed with the MMPs the variety of approaches they used for completing assessments. For example, one plan generally skips the HRS and only conducts the HRA for moderate- and high-risk members, which is a permissible practice as long as the HRA is done in a shorter timeframe. In 2019, another plan was exploring the use of a mail assessment.

During the 2019 site visit, CMS and MMPs reported that it was still a struggle for plans to contact and engage members, particularly those who were passively enrolled (see ***Table 3***). The percentage of enrollees that MMPs were unable to reach in three attempts was higher overall in 2017–2019 than in the 3 previous years. During 2017–2019, the percentage of unreachable enrollees ranged from 28 to 44 percent.

As reported in the First Evaluation Report, the MMPs continued to use a variety of strategies to address challenges with locating and engaging members. Strategies included working with vendors for outreach efforts and using claims data to identify providers used by enrollees to get more current enrollee contact information. In 2019, one plan reported creating an onboarding care coordination pod, or team, for all new members. This team worked exclusively with new members, enabling the plan to provide more intense outreach and engagement to new members. The plan found that the team could immediately escalate cases of members who needed more attention. The team then transitioned the members to regular care coordinators after their first year of enrollment. The MMP found that the onboarding team had been very successful in increasing member retention.

[16] MMPs are required to administer HRSs to beneficiaries within 60 days of enrollment to collect information about enrollees' medical, behavioral health, and LTSS needs and history. Plans use the results of the HRSs, 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 (Illinois three-way contract, 2016, p. 45). MMPs are also required to complete more comprehensive HRAs for moderate- and high-risk enrollees within 90 days of enrollment. MMPs can opt to conduct an HRA instead of the HRS for enrollees at any risk level, as permitted by the three-way contract.

Table 3
Percentage of members that Illinois plans were unable to reach following three attempts, within 90 days of enrollment, 2014–2019

Quarter	Calendar year 2014	Calendar year 2015	Calendar year 2016	Calendar year 2017	Calendar year 2018	Calendar year 2019
Q1	N/A	22.4	22.7	27.6	29.2	34.2
Q2	13.4	21.9	20.9	38.3	40.1	41.0
Q3	31.6	16.1	24.3	35.0	37.6	36.4
Q4	30.3	13.2	18.3	36.0	33.8	44.2

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 June 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

As indicated in ***Table 4***, the percentage of all members with an assessment completed within 90 days of enrollment varied over the course of the demonstration. For members that the plans were able to reach and engage, assessment completion rates remained above 80 percent for all but two quarters in 2014 and the first quarter of 2018. Completion rates were above 90 percent throughout all of 2016 and 2017, and from the fourth quarter of 2018 through all of 2019.

In follow-up conversations about completion rates, CMS said the health plans that had large drops in completion rates during the first quarter of 2018 mentioned staffing challenges due to the roll-out of HealthChoice. The CMT stopped passive enrollment for one MMP and required another MMP to implement a PIP in response to these large declines in completion rates.

The CMT has also focused on improving data collection and standardizing the way plans report their completion rates. In 2019, CMS officials discussed the challenge of getting accurate assessment completion rates because of variations in MMPs' data reporting. State officials reported that plans can no longer remove "unable to reach" members or members who declined care coordination from their monthly completion rates submitted to the CMT. The State believed this will encourage the plans to continue efforts to find those members or be forced to report lower completion rates. The State uses the same approach for HealthChoice plans.

Table 4
Members whose assessments were completed within 90 days of enrollment, 2014–2019

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of assessments completed within 90 days of enrollment	
		All members	All members willing to participate and who could be reached
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	61.3
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
2019			
Q1	3,467	58.2	97.4
Q2	4,930	52.3	96.9
Q3	7,314	55.4	93.4
Q4	6,096	48.2	92.2

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 June 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

3.3.3 Care Planning

Table 5 indicates that the percentage of care plans completed within 90 days of enrollment varied from 2014 to 2017 for all members, ranging from 26 percent in quarter 3 of 2014 to 59 percent in quarter 2 of 2016. For all members documented as willing and reachable, after variability in 2014 and 2015, the percentage steadily increased from 2016 to 2017, reaching 88 percent in quarters 3 and 4 of 2017.

Table 5
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 care plans completed within 90 days of enrollment	
		All members	All members willing to participate and who could be reached
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

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. This measure (IL 3.1) was retired in quarter 1 of 2018; care plan data for 2018 are presented in ***Table 6*** for Core Measure 3.2.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure IL 3.1 as of June 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

We report separate data for care plan completion rates beginning in 2018 because the State-specific care plan completion measure was retired in January 2018. We instead use a CMS core measure for members with a care plan completed within 90 days of enrollment for 2018 and 2019. As shown in ***Table 6***, 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 shown in ***Table 6***). However, one plan continued to struggle with completion rates, and the CMT asked the plan to submit a PIP in August 2019.

Table 6
Members with care plans completed within 90 days of enrollment, 2018–2019

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of care plans completed within 90 days of enrollment	
		All members	All members willing to participate and who could be reached
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
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

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 Core Measure 3.2 as of October2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

In addition to working together to improve care plan completion rates, the CMT worked with MMPs to improve the content of care plans. In September 2016 and again in June 2018, the CMT reviewed a sample of care plans from each MMP during their monthly CMT calls; following both the 2016 and 2018 reviews, the CMT sent out best practices documents. In 2018, CMS officials thought that the care plans had improved from the first round of care plan reviews in 2016, particularly in capturing measurable goals for the members and making the care plans more person-centered.

The data in ***Table 7*** reflect these improvements. The percentage of members with at least one documented discussion of care goals in their initial care plans generally increased over the course of the demonstration, with a low of 60 percent in quarter 4 of 2014 and highs greater than 93 percent in 2017 through 2019.

Table 7
Members with documented discussion of care goals, 2014–2019

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	60.5
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

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 June 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Illinois-Specific Reporting Requirements document.

In 2019, State officials noted one particular challenge with care coordinators making inappropriate referrals to the State's Care Coordination Units (CCU), which conduct functional assessments for the State's aging waiver. In some cases, care coordinators apparently referred members for HCBS based on their HRSs, without first conducting a complete assessment and

asking about the enrollee's preferences and needs. When the CCUs reached out to the enrollees to conduct the functional assessment, some enrollees declined and said they were not interested in HCBS. In the spring of 2019, State officials noted that they were following up with health plan executives and care coordination supervisors.

3.3.4 Care Coordination at the Plan Level

As shown in ***Table 8***, from 2014 through 2019, the total number of care coordinators across all MMPs varied, ranging from 391 (2018) to 590 (2016). During the same timeframe, average caseloads varied from 83.5 to 136.1 and were generally higher when there were fewer care coordinators and lower when there were more care coordinators. Turnover rates varied, from 10.1 to 27.6 percent, and did not follow any apparent patterns related to numbers of care coordinators or caseloads. In 2019, even with turnover at the lower end of the range (15.2 percent), several plans noted that they continued to struggle with turnover. To address the turnover challenges, one plan relied on temporary staff to have adequate caseload ratios. Most of these additional staff took on work that could be handled by nonclinical staff, such as setting up appointments or making outreach calls, to allow the care coordinators to be out in the field and meet with members.

Table 8
Care coordination staffing, 2014–2019

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

FTE = full time equivalent.
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 June 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

MMPs' use of vendors to provide specialty care coordination appeared to have declined by 2019, as several plans ended their contracts with a behavioral health provider to coordinate care for enrollees with serious mental illnesses. One plan continues to use vendors to coordinate LTSS and behavioral health services, although the plan's own staff coordinate medical services. CMT members expressed concern about the plan's arrangement for members with behavioral health conditions, because the MMP and vendor care coordinators exchange records electronically, without any discussion.

Transition Care Planning

Plans reported various strategies to assist members transitioning between settings. In 2018, one plan reported that it has a care transitions team that is embedded in the hospital discharge planning process. The plan also embedded care coordinators in several long-term care facilities. Another health plan implemented a care transitions telephone line for providers to use so they do not need to contact a member's specific care coordinator to give discharge and care transition information.

In addition to plans' care transition activities, the CMT started a discharge planning improvement initiative in September 2018 through a series of CMT calls with the MMPs that focused on members hospitalized with behavioral health conditions. The State had previously sought to build off of lessons learned from a similar process with HealthChoice Illinois plans. The CMT used one monthly meeting to discuss hospital discharge planning and another to review cases for follow-up after behavioral health hospitalizations. State officials identified the CMT's work with MMPs as a care coordination success. The State and CMS both mentioned that the four plans also participating in HealthChoice were at an advantage, already having experience with these efforts, and were therefore further along in improving their care transition processes than the two MMPs not in HealthChoice.

In 2019 several plans with MMAI and HealthChoice products participated in a discharge planning workgroup with the Illinois Hospital Association. Each plan was paired up with a hospital to test a variety of strategies to address avoidable hospitalizations. Overall, the State thought the pilots were successful, as avoidable hospitalization days among members decreased. While not MMAI-specific, MMAI enrollees in these plans benefited from these efforts.

Information Exchange

As of 2019, Illinois did not have a health information exchange (HIE) in operation. State officials had said in 2017 that they were preparing a request for a proposal to procure a vendor to operate a statewide HIE. In 2018, State officials reported that they had shifted their efforts to implementing a separate admission, discharge, and transfer system rather than a full HIE system. The State started the procurement process in 2018 but did not award any contracts. In 2019 State officials reported that they were in the process of starting the procurement again.

3.4 Stakeholder Engagement

An advocacy coalition continues to play an important role by communicating information about MMAI, Medicare, and Medicaid to options counselors and others and providing feedback from its network to the State.

In this section we describe stakeholder engagement activities from 2017 through 2019 and the impact of those efforts on the demonstration.

Illinois leveraged its existing Medicaid Advisory Committee (MAC) and the MAC Public Education Subcommittee for the demonstration, as discussed in the First Evaluation Report. The State's stakeholder engagement structure did not change during the 2017–2019 reporting period.

During that time, meetings of the MAC and the Public Education Subcommittee focused on major Medicaid issues, including HealthChoice Illinois, the behavioral health transformation, and challenges with the IES and Medicaid redeterminations. MMAI received little attention, according to State officials and advocates.

The Make Medicare Work coalition continued to play an important role by communicating information about MMAI, Medicare, and Medicaid to SHIP counselors, housing service coordinators, Federally Qualified Health Center staff, and others who work with beneficiaries at the grassroots level. The coalition also collected feedback from its network and shared it with State officials and CMS. State officials credited the coalition with informing them about several issues in 2018 and 2019, including problems with Medicaid redeterminations and issues with home-delivered meal access (see ***Section 3.2, Eligibility and Enrollment*** and ***Section 4.1, Impact of the Demonstration on Beneficiaries***).

3.5 Financing and Payment

The aggregate savings percentage applied to capitation rates will increase from 5 percent to 6 percent for 2020–2022, while the MLR target will increase each year, from 85 percent in 2019 to 88 percent in 2022.

In this section we outline changes in financing and payment since the third demonstration year (2017) and relevant findings relating to these changes. Whereas MMPs expressed varying concerns about MMAI financing in the past, as reported in the First Evaluation Report, they raised few concerns during this reporting period.

3.5.1 Rate Methodology

Rating Categories and Risk Adjustment

MMAI plan payments are based on risk-adjusted capitation rate categories. These rates are discounted to achieve savings to Medicare and Medicaid and are subject to quality withholds.

In 2016, the State implemented a blended Medicaid LTSS rate, as discussed in the First Evaluation Report. One plan expressed concern in 2018 that the ratio of enrollees in HCBS to institutional settings was beyond its control because there was so much movement among members in and out of plans during the year, which was similar to concerns other plans expressed in 2017. The State mentioned that plans often requested some lag time for calculating the plans' blended LTSS rates to allow the long-term care segments (i.e., members in HCBS and institutional settings) to be updated so the plans can get credit for their actual case mix.

Effective January 1, 2018, the State added a Medicaid rate cell for enrollees residing in an Institution for Mental Diseases (IMD) on the first day of the month (amended Illinois three-way contract, 2018). The IMD rate is a separate, State-funded capitation payment for IMD stays of more than 15 days in a calendar month. As the State noted in 2018, this update was an administrative change for the State and did not affect payments to the plans. The IMD rate was already in use for Medicaid managed care plans.

In 2019, the State mentioned that its actuaries were working on updating the Medicaid rate methodology to reflect that MLTSS was implemented statewide by July 2019. The original rates were built assuming that those not in MMAI would be in Medicaid fee-for-service. However, after July 2019, all Medicare-Medicaid beneficiaries who use LTSS are enrolled in MLTSS if they were not enrolled in an MMP.[17]

Savings Percentages

The aggregate savings percentages for the demonstration were determined in advance by CMS and the State, based on the expectation that the demonstration could achieve savings for both parties while paying adequate rates to MMPs. The savings percentages would be applied equally to the Medicare Parts A and B and Medicaid baseline spending amounts. The savings percentages would not be applied to the Part D component of the capitation rate (amended Illinois three-way contract, 2016, pp. 138–9). CMS monitors Part D costs on an ongoing basis, and material changes may be factored into future year savings percentages (amended contract, 2016, p. 139).

The savings percentage was 1 percent in demonstration year 1 and increased gradually to 5 percent in demonstration years 3, 4, and 5 (2017, 2018, and 2019). For the contract extension, the aggregate savings percentage applied to the Medicare and Medicaid capitation rates will increase to 6 percent for demonstration years 6, 7, and 8 (2020–2022) (amended Illinois three-way contract, 2019). In 2019 State officials said the plans expressed concern about the increased percentage, but none of them discussed withdrawing from the demonstration.

Quality Withhold Percentages

For demonstration years 3 through 5 (2017 through 2019), the quality withhold was 3 percent, and the contract extension maintains the 3 percent quality withhold through demonstration year 8 (2022). In August 2020, CMS published the results of quality withhold analyses covering demonstration year 4, which covers calendar year 2018. In 2018, one of the six plans in operation at that time had 100 percent of the withhold payment returned after meeting at least 80 percent of the measure criteria. Four plans received 75 percent of their withholds for meeting between 60 and 79 percent of the criteria. One plan received 50 percent of its withhold for meeting between 40 and 59 percent of the criteria. The average percentage of withhold received among all MMAI MMPs was 75percent (CMS, 2020).

Medical Loss Ratio

The three-way contracts initially set a target MLR of 85 percent for MMPs, the same ratio used for MA plans (amended Illinois three-way contract, 2016). All of the MMPs had MLRs greater than 85 percent for the first 3 years of the demonstration. In demonstration year 1, the plans' MLRs ranged from 85.1 to 109.0 percent, with only one plan's MLR exceeding 100 percent. In demonstration year 2, the plans' MLRs ranged from 85.6 to 101.3 percent, and three plans had MLRs just over 100 percent. In demonstration year 3, the plans' MLRs ranged from 89.8 to 101.8 percent, and only one plan had an MLR over 100 percent.

[17] The updated rate methodology was implemented January 1, 2020. We will discuss details in the next report.

Under the contract extension, the MLR target will be adjusted to 86 percent for demonstration year 6, 87 percent for demonstration year 7, and 88 percent for demonstration year 8. As in prior years, for MLRs below 85 percent, plans will refund the percentage difference between their actual MLR and the 85 percent threshold, multiplied by the total capitation rate revenue. In addition, in such cases plans will also refund 50 percent of the difference between 85 percent and the target MLR, multiplied by the total capitation rate revenue. If a plan's MLR is below the specified target MLR for a year and above 85 percent, the plan will also remit 50 percent of the percentage difference between its MLR and the target multiplied by the total capitation rate revenue (amended Illinois three-way contract, 2019). The only MMP that commented on the MLR said it had no concerns with the change.

3.5.2 Encounter Data

In 2018, the State reported that there were still many gaps in the encounter data. The State was not receiving the encounter data from the plans; rather, the plans submitted the data to CMS and the State then received an extract for the State actuaries. Although the three-way contract allows Medicare providers to participate in MMAI without enrolling as Medicaid providers, to encourage maximum provider participation, the State's data system is not designed to recognize Medicare-only providers, creating a challenge for processing encounters submitted by some providers.

In 2019, the State reported that it was still unable to process encounter data although it plans to update its Medicaid Management Information System to be able to process encounter data in the near future. The State also reported that the completeness of the plans' encounter data submissions varied by month.

3.5.3 Cost Experience

Overall, the plans we interviewed provided minimal feedback on the adequacy of rates during the reporting period. Several of the plans mentioned that their cost experience varied by special population, with members living in nursing facilities being the primary cost drivers. As mentioned earlier in this report, two plans were taking steps to terminate contracts with low-performing facilities, while another was hoping to transition residents out of poor performing facilities. 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.

In 2019, two MMPs noted that longer tenure with a plan had a positive impact on beneficiaries' utilization. One plan found that members who had been with the plan for 13 months or longer had larger decreases in ED and inpatient admissions compared to members with shorter enrollment periods. Another plan also found improved utilization among members who were enrolled longer in their plan, including a steady increase in members appropriately using physician service, reflecting the benefits of care coordination.

3.6 Quality of Care

During 2017–2018, the State worked to increase alignment between MMAI and HealthChoice Illinois on quality measures and improvement. MMPs' Quality Improvement Projects continued after the Federal requirement was dropped, and alignment with MCOs' PIPs increased.

A number of State-defined measures reported by MMPs were replaced with HEDIS measures. From 2015 through 2018, most MMAI MMPs generally saw improved performance on blood pressure control, 30-day follow-up after hospitalization for mental illness, good control of Hemoglobin A1c (HbA1c) levels (<8.0 percent), medication review (within measures of Care for Older Adults), and plan all-cause readmissions (ages 18–64 and ages 65+).

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. Results on the demonstration's impact on quality measures, separately defined using Medicare claims, are discussed in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care***.

3.6.1 Quality Measures

MMPs are required to report standardized quality measures. In 2016, the State designated 12 HEDIS measures as State-specific quality measures to use for monitoring purposes. This change was made to align more closely with HealthChoice—which uses HEDIS measures—and to facilitate comparisons between MMPs and national MA benchmarks. In 2018, the State retired 16 State-specified measures that had previously been suspended in 2017; they were all State-defined measures which the State decided to replace with HEDIS measures.

During that same time, the State also retired the "members with care plans within 90 days of enrollment" measure after determining that the measure was no longer needed, as all MMPs report timely care plan completion under the new Core Measure 3.2 (see ***Section 3.3, Care Coordination***). The measure on Americans with Disabilities Act (ADA) compliance was also retired, as it was no longer necessary to monitor after confirming that plans had an ADA compliance process in place (CMS, 2018a).

Although the State did not make any further changes to the State-specific quality measures in 2019, it updated the State-specific quality withhold measures to drop the Care for Older Adults measure after demonstration year 5 and add the Adults' Access to Preventive/Ambulatory Health Services for years 6 through 8; both are HEDIS measures (amended Illinois three-way contract, 2019). State officials said they made the change to align quality withhold measures between MMAI and HealthChoice Illinois.

3.6.2 Quality Management Structure and Activities

The State's external quality review organization (EQRO), Health Services Advisory Group, continues to work with MMPs on quality review activities, including validating performance measures and quality improvement projects (QIPs), and conducting on-site compliance reviews.

By fall 2018, the State had moved to a rapid-cycle QIP process for MMPs. Although QIPs are no longer required by CMS (CMS, 2018b), the State retained the QIP requirement and rapid-cycle process for the MMPs to continue increased alignment between MMAI and HealthChoice, which uses a rapid-cycle process for PIPs. The MMPs no longer use the CMS template for QIPs, but rather use the same templates that HealthChoice plans use for PIPs.

For plans that participate in both MMAI and HealthChoice, the QIP and PIP topics are aligned, so only one project and submission are required. Plans can choose one of two topics for their QIPs during this cycle: follow-up after hospitalization for mental illness or care transitions using the National Committee for Quality Assurance specifications under Medicare. The MMPs only report QIP/PIP results to the State; CMS has asked the State to share these results. The Chronic Care Improvement Program (CCIP) requirement continues; although the reporting requirement ended in 2016, plans must maintain internal documentation regarding the status of their CCIPs.

As part of the MMAI rapid-cycle QIPs, MMPs must pass through a series of five modules to pilot their individual projects. The timeline for completing the modules is flexible because plans have to pass each module before they can move on to the next module.[18] As of November 2019, none of the MMPs had completed their first full cycle of modules. State officials expected plans to move slowly through the modules for their first project, as they will be learning a new process. In the past, Illinois has encouraged its plans to collaborate on their PIPs or QIPs; collaboration has included working on the same topics, testing some of the same interventions, and sharing data. State officials said in 2019 they expected less collaboration among the MMPs with the new rapid-cycle process, although the State's EQRO would help coordinate efforts as appropriate.

In addition to updating the QIP process, the CMT continued to meet with MMPs to discuss quality management strategies. In May 2019, the CMT held discussions with MMPs about challenges and highlights on quality performance. MMAI MMPs' significantly lower scores on medication reconciliation compared to other MMPs nationally was one focus of these discussions. In discussions with the CMT, plans said they thought reconciliation often occurred but was not documented, or was not documented where the plans expected to find it. MMPs told the CMT they were working with the providers to improve providers' work with patients and their clinical documentation. In May and June 2019, plans said that the medication reconciliation measure was also challenging because the measure specifications are narrow.

[18] For Module 1, plans focus on documenting baseline data from the past year. Module 2 focuses on developing a data collection plan. During Module 3, plans decide on the interventions they will test, and plans are required to develop a process map and show how they will identify if an activity is not working. Module 4 is the implementation module, and plans wrap up the project during Module 5.

Plans also reported in our interviews on a variety of strategies used to improve quality of care. Many plans focused on provider education to improve processes and documentation, and some plans' value-based payment programs incentivize good performance on HEDIS measures. In addition to their efforts targeting providers, at least some plans targeted members directly with reminders and incentives for completing health screenings and immunizations.

One plan reported conducting health education classes in the community for members with chronic conditions, and another conducted in-home diabetic eye exams. Some plans said their care management systems flag members' gaps in care so their staff can remind members, and some plans have strengthened their quality management teams by hiring additional staff or training current staff for quality management activities.

In June 2019, the CMT discussed 2018 HEDIS and Health Outcome Survey data with MMPs. The CMT focused on several measures on which MMAI MMPs performed poorly compared to other MMPs, including "osteoporosis management in women who had a fracture," "medication reconciliation post discharge," "care for older adults" measures, and "comprehensive diabetes care" measures. Plans reported that the denominators for the osteoporosis measure tended to be very low, and thus a few members could have a dramatic impact on the rate.

The CMT asked plans to focus and report to the CMT on measures related to controlling high blood pressure and medication reconciliation, because the MMAI MMP rates on these measures tend to lag behind those of other MMPs. The State and CMS both noted in 2019 that the CMT was pleased with the plans' efforts at quality improvement.

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 Medicare Advantage (MA) plans.

Five of the 13 Medicare HEDIS measures for MMP enrollees that RTI analyzes are reported in ***Figures 1–6***, with results on all 13 measures appearing in ***Tables B-1a*** and ***B-1b*** in ***Appendix B***. RTI identified these measures in RTI's Aggregate Evaluation Plan based on their completeness, reasonability, and sample size. Calendar year data for 2015–2018 were available for most Illinois MMAI MMPs, with the exception of some measures where certain MMPs did not report data in 2015 and 2016. 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. Medicare plans (including MMPs) resumed normal reporting for measurement year 2020, with that data becoming available later in 2021.

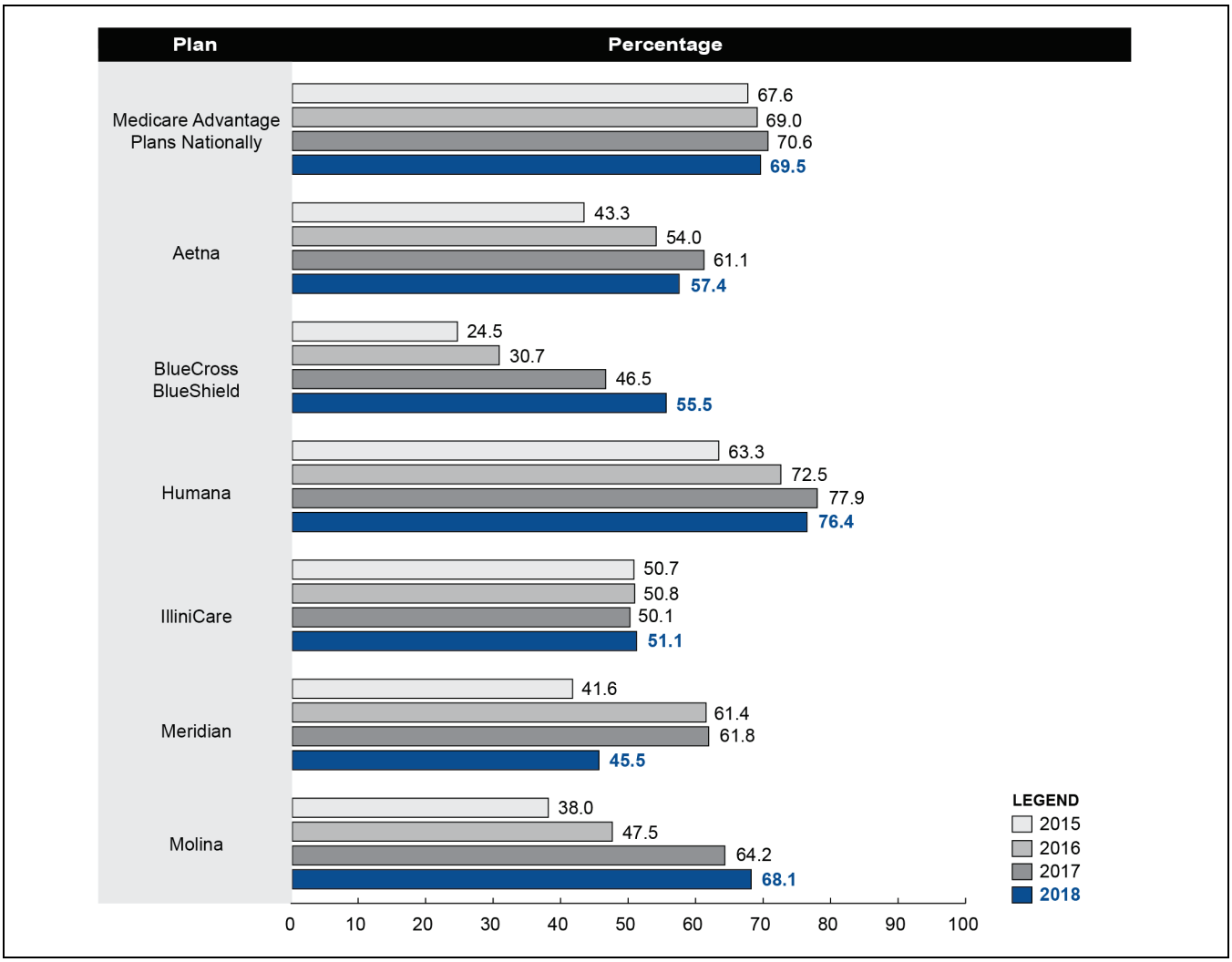
Detailed descriptions of the measures can be found in the RTI Aggregate Evaluation Plan. Results reported in ***Figures 1–6*** show 2015 through 2018 HEDIS performance data for

Illinois MMAI MMPs on blood pressure control, 30-day follow-up after hospitalization for mental illness, good control of hemoglobin A1c (HbA1c) levels (<8.0 percent), medication review (within measures of Care for Older Adults), and plan all-cause readmissions (ages 18–64 and ages 65+).

Although the primary focus of HEDIS analysis is to monitor trends over time in MMP performance, the figures and appendix tables also compare MMP performance to national MA plan means for reference when available. We provide national MA plan means with the understanding that MA enrollees and demonstration enrollees may have different health and sociographic 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 plans active in areas with lower income and populations with a higher proportion of minorities (ASPE, 2016). Benchmarks should be considered with these limitations in mind.

As shown in ***Figure 1***, most MMPs improved performance on blood pressure control from 2015 to 2018, with some MMPs showing steadier patterns of improvement than others.

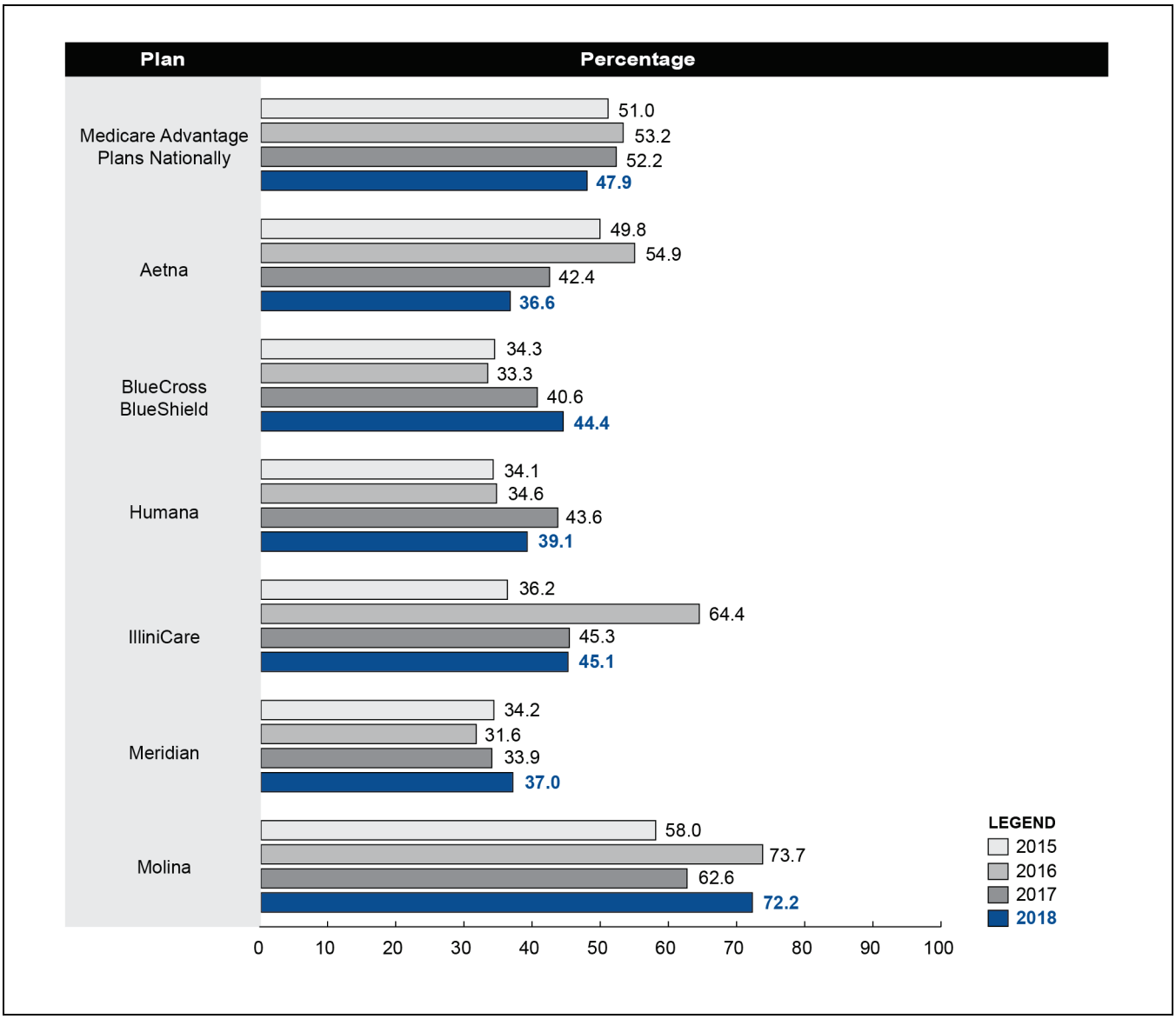
Figure 1
Blood pressure control,[1] 2015–2018: Reported performance rates for Illinois MMAI MMPs



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.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

Figure 2 shows that for 30-day follow-up after hospitalization for mental illness, most MMPs improved performance from 2015 to 2018. However, increases were generally not steady, with some MMPs reporting dramatic year-over-year increases or decreases.

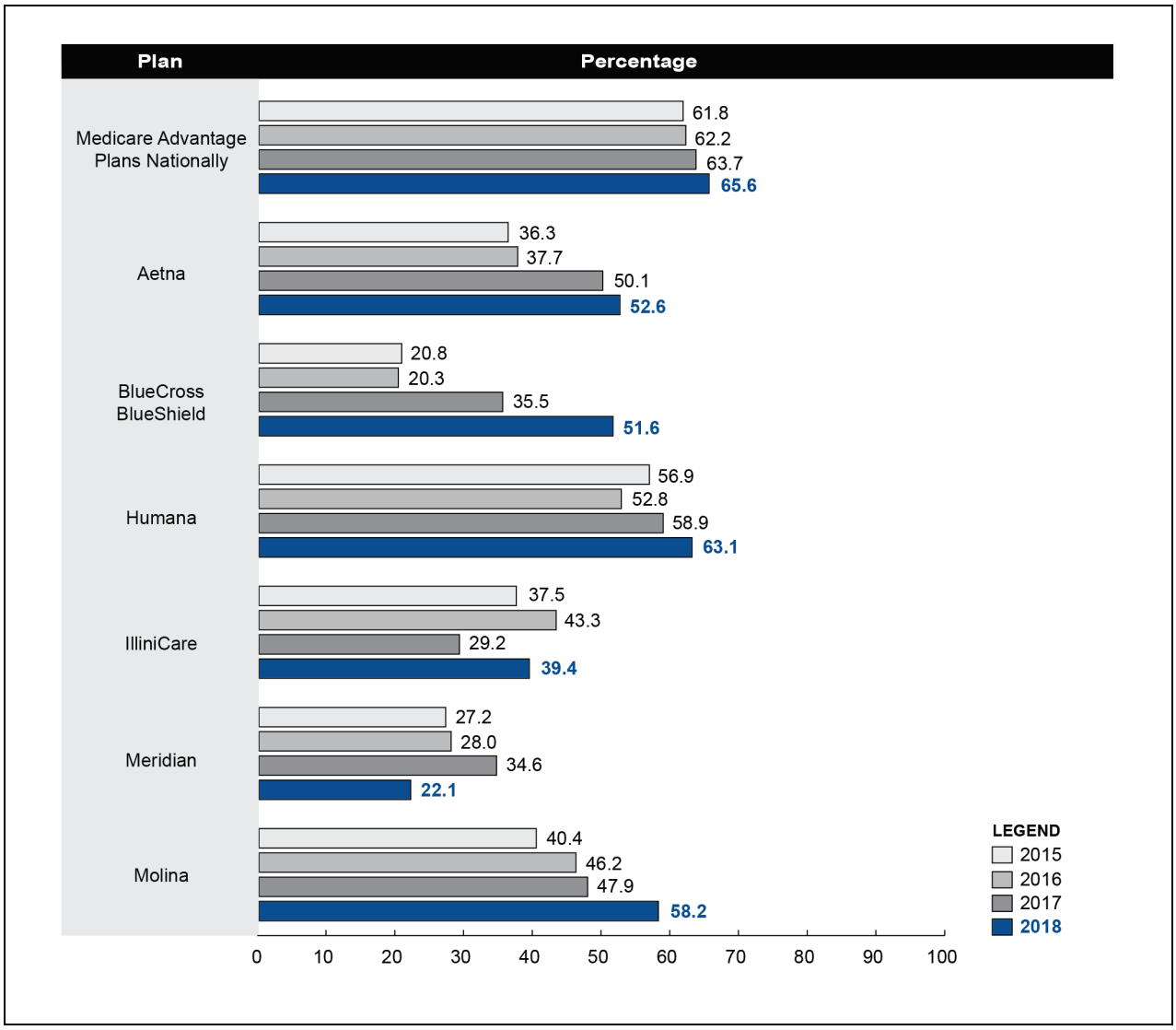
Figure 2
30-day Follow-up after hospitalization for mental illness, 2015–2018: Reported performance rates for Illinois MMAI MMPs



MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

As shown in ***Figure 3***, most MMPs improved performance on controlling HbA1c levels (<8.0 percent) from 2015 to 2018. Some MMPs reported steady increases year over year while others reported more dramatic increases and decreases year over year.

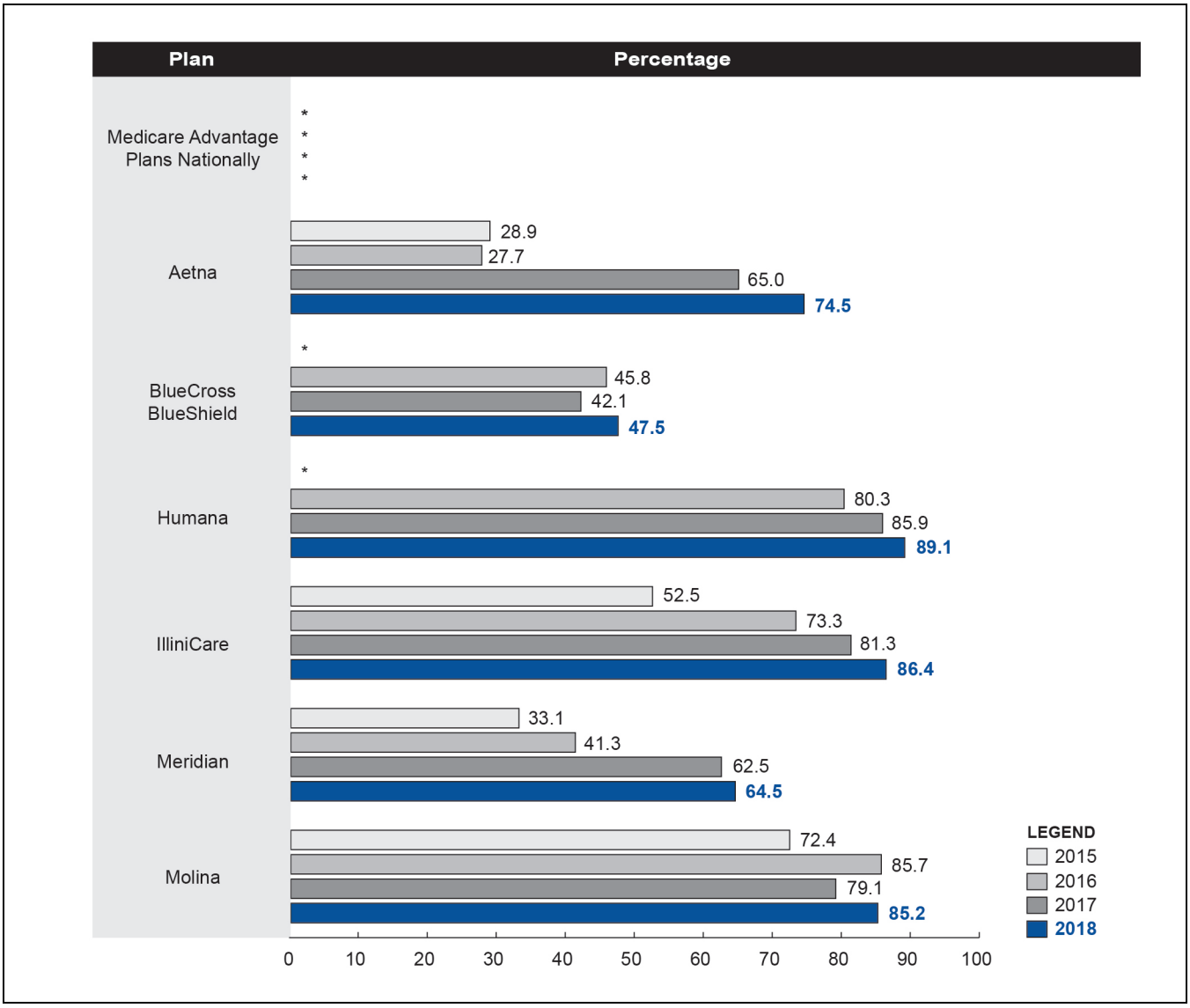
Figure 3
Good control of HbA1c level (<8.0%), 2015–2018: Reported performance rates for Illinois MMAI MMPs



MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

Figure 4 shows that for medication review (within measures of Care for Older Adults), all MMPs reporting data for 2015 through 2018 improved performance during this time. BlueCross BlueShield and Humana did not provide 2015 HEDIS data for this measure, but improved performance from 2016 to 2018.

Figure 4
Medication review (within measures of Care for Older Adults), 2015–2018: Reported performance rates for Illinois MMAI MMPs

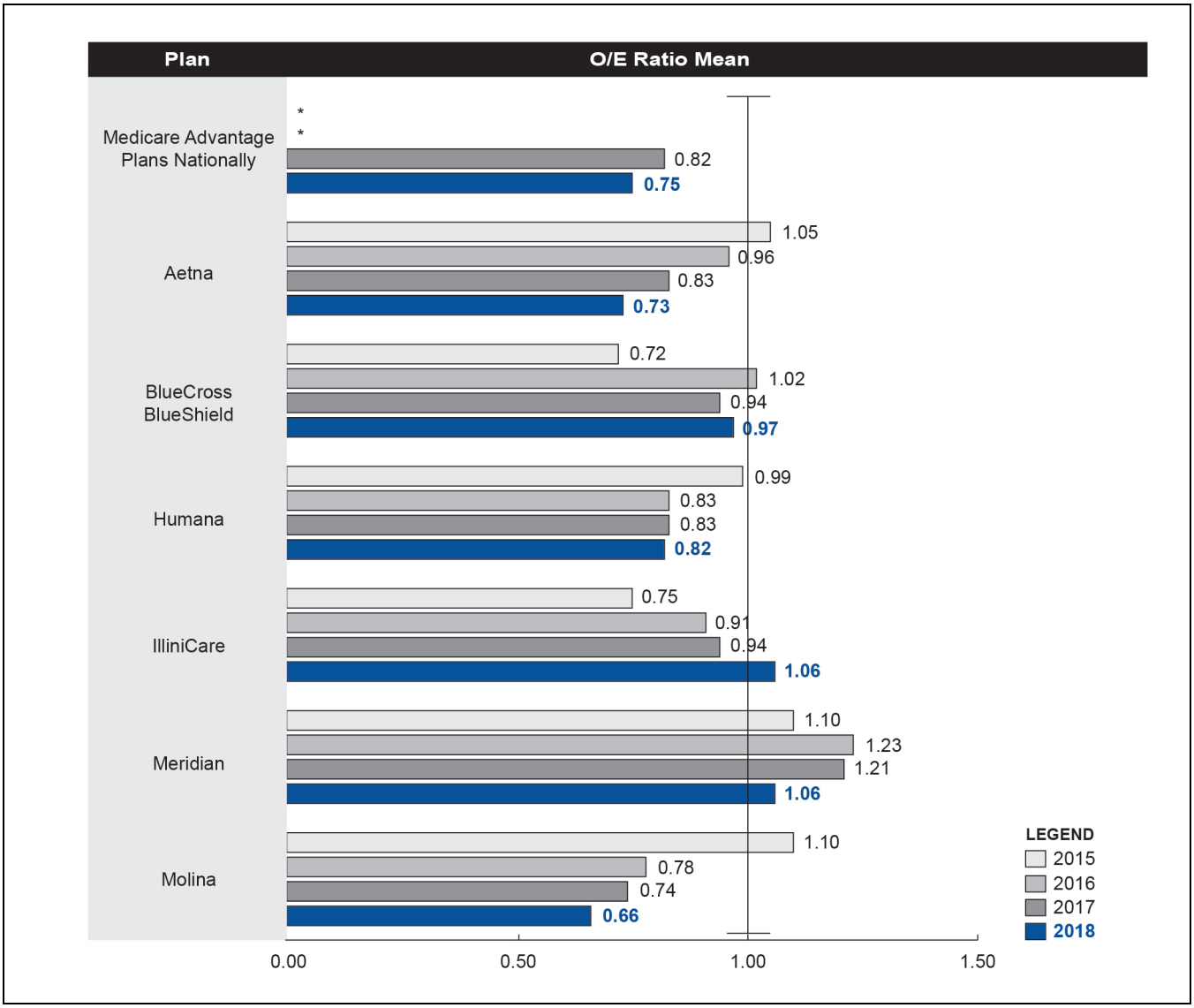


* = not available, where MA plans nationally and/or MMPs did not provide HEDIS data for this measure; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

Plan all-cause readmissions for enrollees ages 18–64 and 65+ are reported in ***Figure 5*** and ***Figure 6***, respectively, as an observed-to-expected ratio mean, whereby an MMP's observed readmission rate is compared to its expected readmission rate given its beneficiary case mix; a

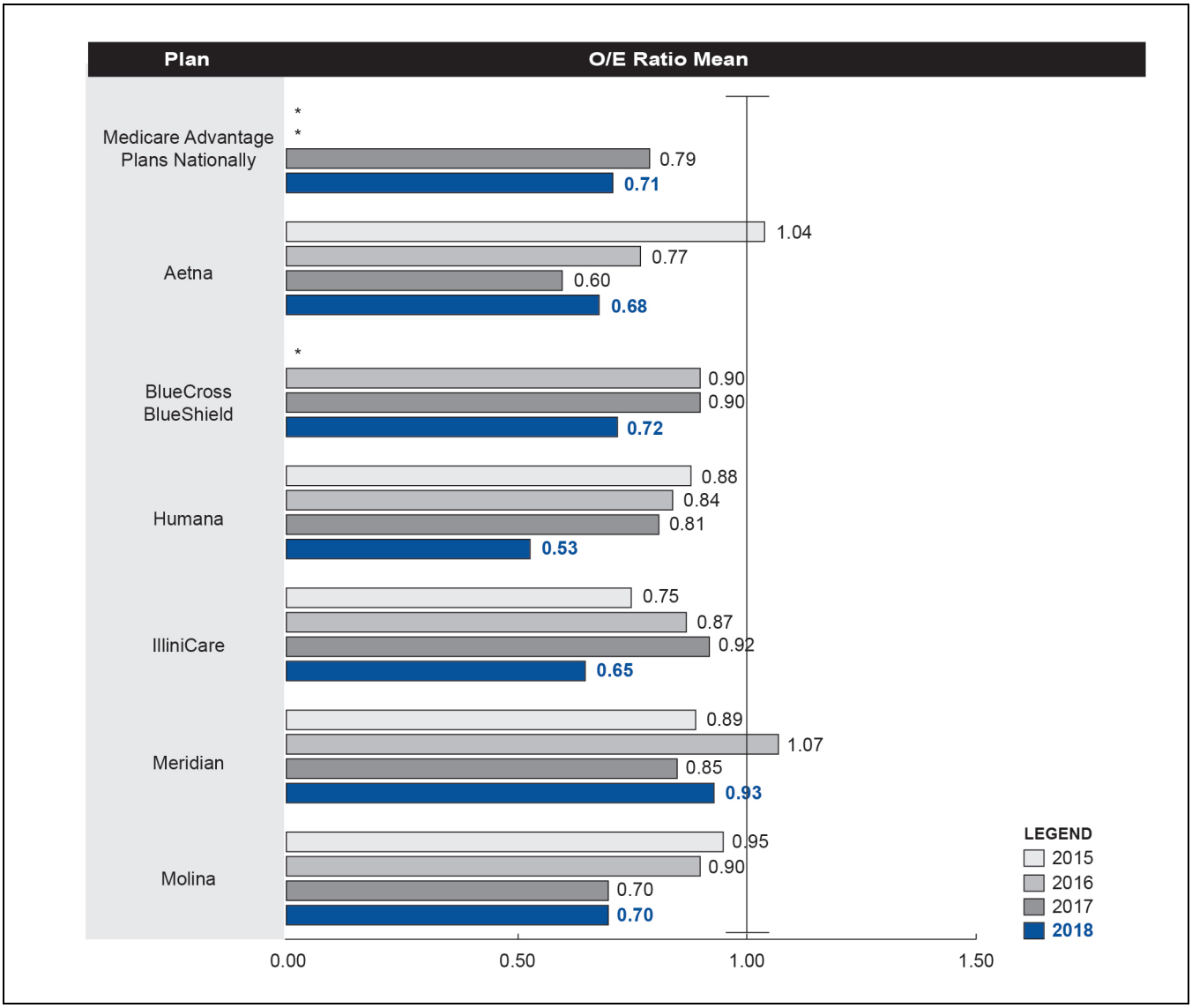
value below 1.0 (shown by the vertical line at $x = 1$ in the figure below) is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix. ***Figure 5*** shows that most MMPs reported lower than expected readmissions for enrollees age 18–64 from 2015 to 2018. Some MMPs reported higher than expected readmission rates in early demonstration years, but generally made progress year-over-year to improve performance. ***Figure 6*** shows a similar trend but for enrollees age 65 and older.

Figure 5
Plan all-cause readmissions: Ages 18–64, 2015–2018: Reported observed-to-expected ratio means for Illinois MMAI MMPs



* = not available, where RTI did not have access to MA plan national HEDIS data for this measure; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

Figure 6
Plan all-cause readmissions: Ages 65+, 2015–2018: Reported observed-to-expected ratio means for Illinois MMAI MMPs



* = not available, where RTI did not have access to MA plan national HEDIS data for this measure, or where MMPs did not provide HEDIS data for the measure; MMAI = Medicare-Medicaid Alignment Initiative; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2015 through 2018 HEDIS measures.

Quality Withhold Measure Results

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 measures. The CMS core and State-specific measures are evaluated together to determine the percent of the withhold for which each MMP qualifies.

For demonstration years 3 (2017) and 4 (2018), the plans varied on their performance on the CMS core measures:

- All plans operating in 2017 and 2018 met the benchmark or gap closure target for the medication adherence for diabetes medications measure, and all but one plan met the benchmark for the encounter data measure in both 2017 and 2018.[19]
- In 2017, five of the seven plans met the plan all-cause readmissions measure benchmark, and similarly in 2018, five of the six plans met the benchmark.
- In 2017, three of the seven plans met the gap closure target for the annual flu vaccine measure. In 2018, the number of plans meeting the target improved to four of the six plans.
- Three of the seven plans met the benchmark or gap closure targets for the follow-up after hospitalization for mental illness measure in 2017. Similarly, three of the six plans met the benchmark or gap closure target in 2018.
- In 2017, five of the seven plans met the gap closure target or benchmark for controlling blood pressure. This measure was discontinued in 2018.

For the State-specific quality withhold measures, all plans met the benchmark (timely and accurate reporting) for the movement of members within service populations measure in 2017 and 2018. All but one plan met the care for older adults benchmarks in both 2017 and 2018. Plans performed less well on the initiation and engagement of AOD-dependent treatment measure, with only two of the seven plans meeting the benchmark in 2017, and one of the six plans meeting the benchmark in 2018 (CMS, 2019, 2020).

[19] For demonstration years 2–5, MMPs could receive a "met" designation for most CMS core quality withhold measures either by meeting the benchmark or by closing the gap between their previous year's performance and the benchmark (CMS, 2018c, p. 1).

SECTION 4

Beneficiary Experience

Advocates reported that beneficiaries typically like the demonstration if their regular providers are in their plans' networks. Popular features are care coordination, flexible benefits—especially zero copayments for prescription drugs—and the ability to receive all benefits through one plan.

MMP CAHPS survey results for overall satisfaction and care coordination, as reported through four measures, generally showed improvement from 2015 to 2019.

One of the main goals of the demonstration under the FAI is to improve the beneficiary experience accessing Medicare and Medicaid. 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. We also include information on the experience of special populations.

For beneficiary experience, we draw on findings from the CAHPS survey, focus groups conducted under another CMS contract, and stakeholder interviews. See ***Appendix A*** for a full description of these data sources.

4.1 Impact of the Demonstration on Beneficiaries

4.1.1 Overall Satisfaction with the Demonstration

In CMS focus groups, conducted in 2018, a majority of participants were satisfied or very satisfied with their MMPs and their experiences with MMAI. In 2018 and 2019 stakeholders and State officials in RTI site visit interviews provided insights into the positive experiences reported by many enrollees. They said that enrollees liked care coordination, and they liked receiving their Medicare and Medicaid services through one plan. Flexible benefits were also popular with enrollees, particularly zero copays for prescription drugs and transportation to the pharmacy after medical appointments.

> *I am very satisfied. I have not had any problems with my coordinator, doctor, whatever. I even have a specialist. I just know that I have not received any bills.*
>
> – CMS focus group participant, 2018

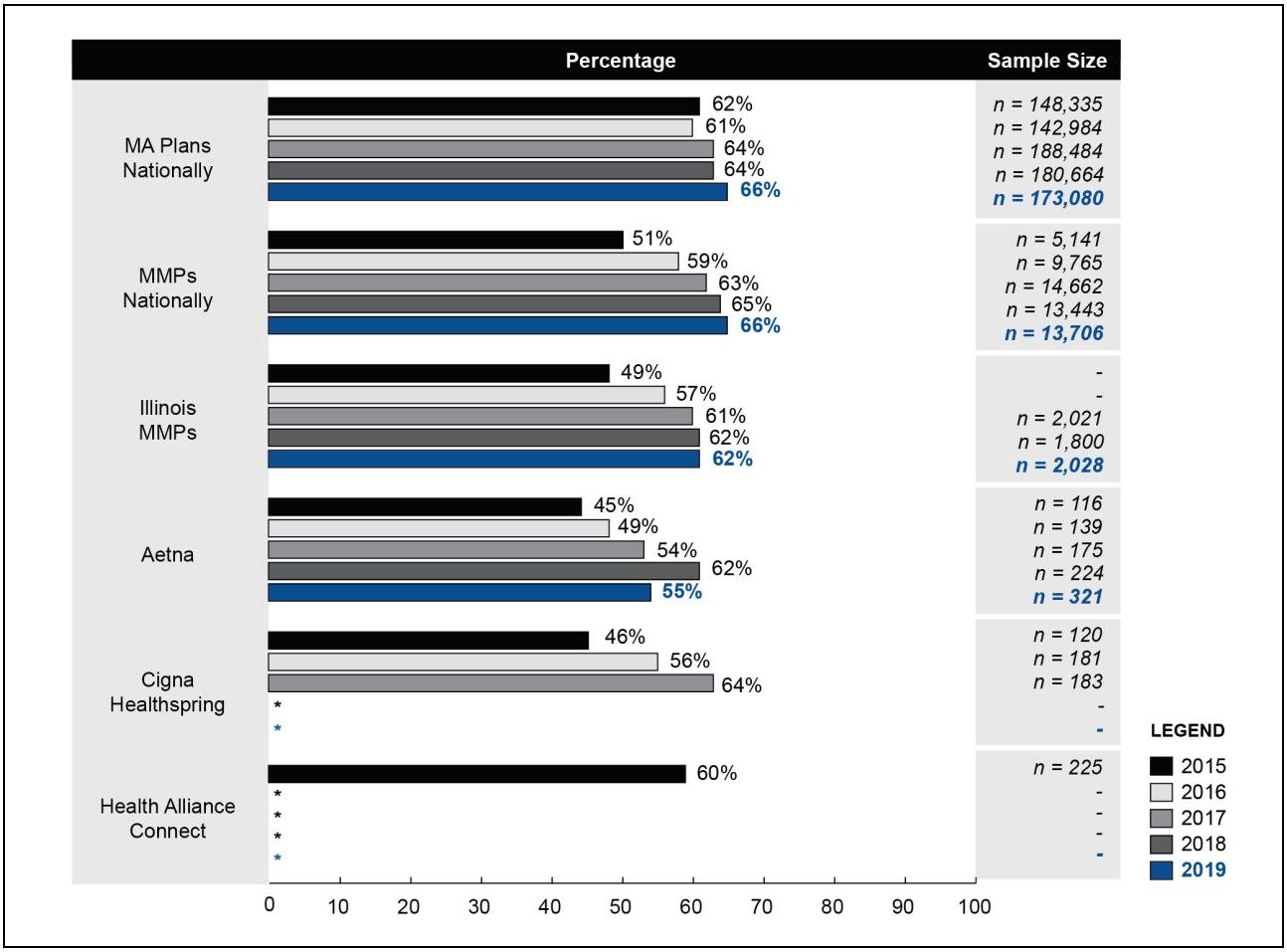
Stakeholders and focus group participants mentioned that enrollee satisfaction was closely tied to whether their providers are in their plans' networks. State officials said enrollees who are dissatisfied with provider networks and other aspects of the demonstration tended to disenroll.

I've heard good stories from people that as long as their providers are in network, [MMAI] works out well for them...

– Beneficiary advocate, 2018

In ***Figures 7*** and ***8***, we present data on two measures of overall beneficiary satisfaction from the annual CAHPS surveys.[20] ***Figure 7*** shows that enrollees' ratings of their MMPs varied from 2015 to 2019 but showed an overall increase for each of the six plans that reported data for all of those years.

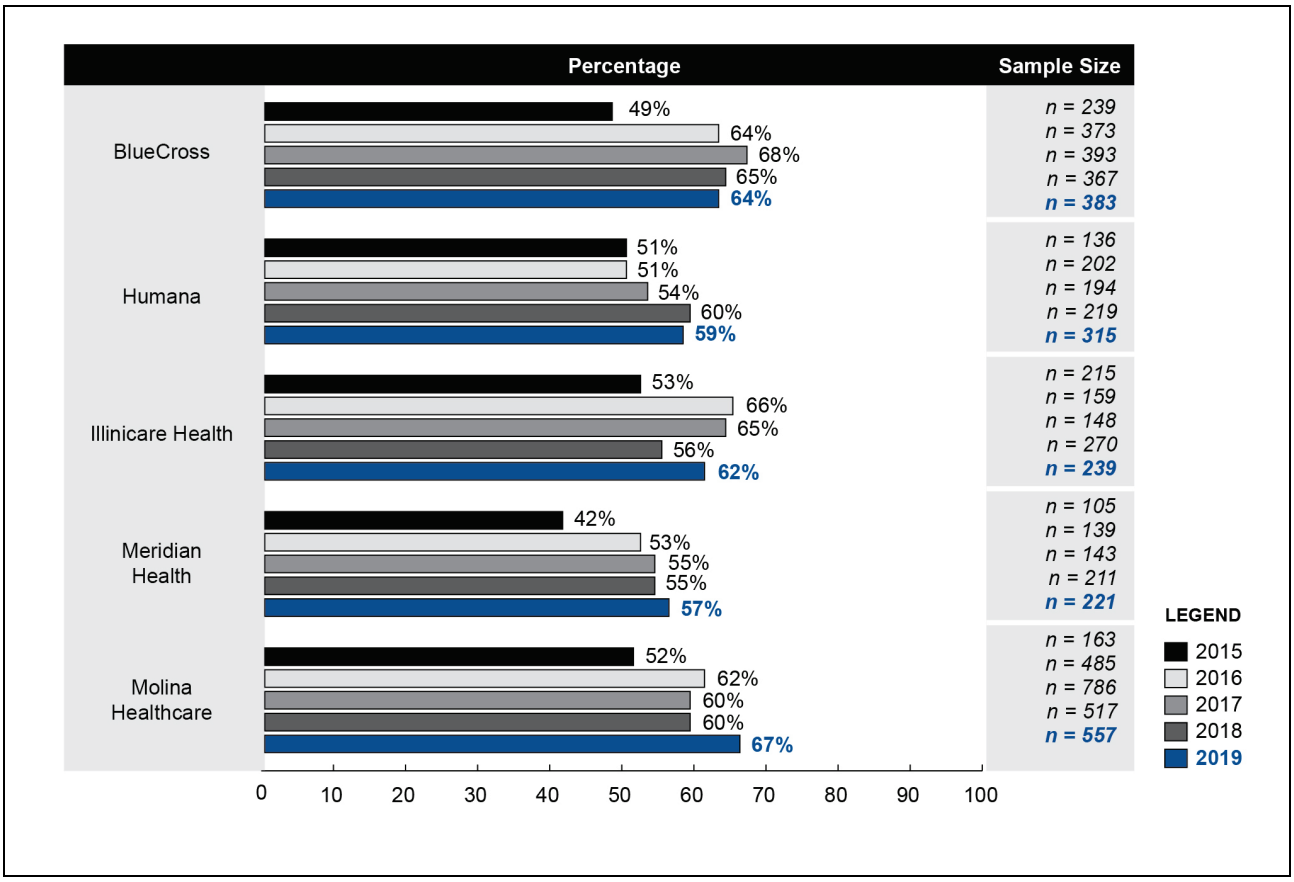
Figure 7
Beneficiary overall satisfaction, 2015–2019: Percentage of beneficiaries rating their health plan as a 9 or 10



(continued)

[20] 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.

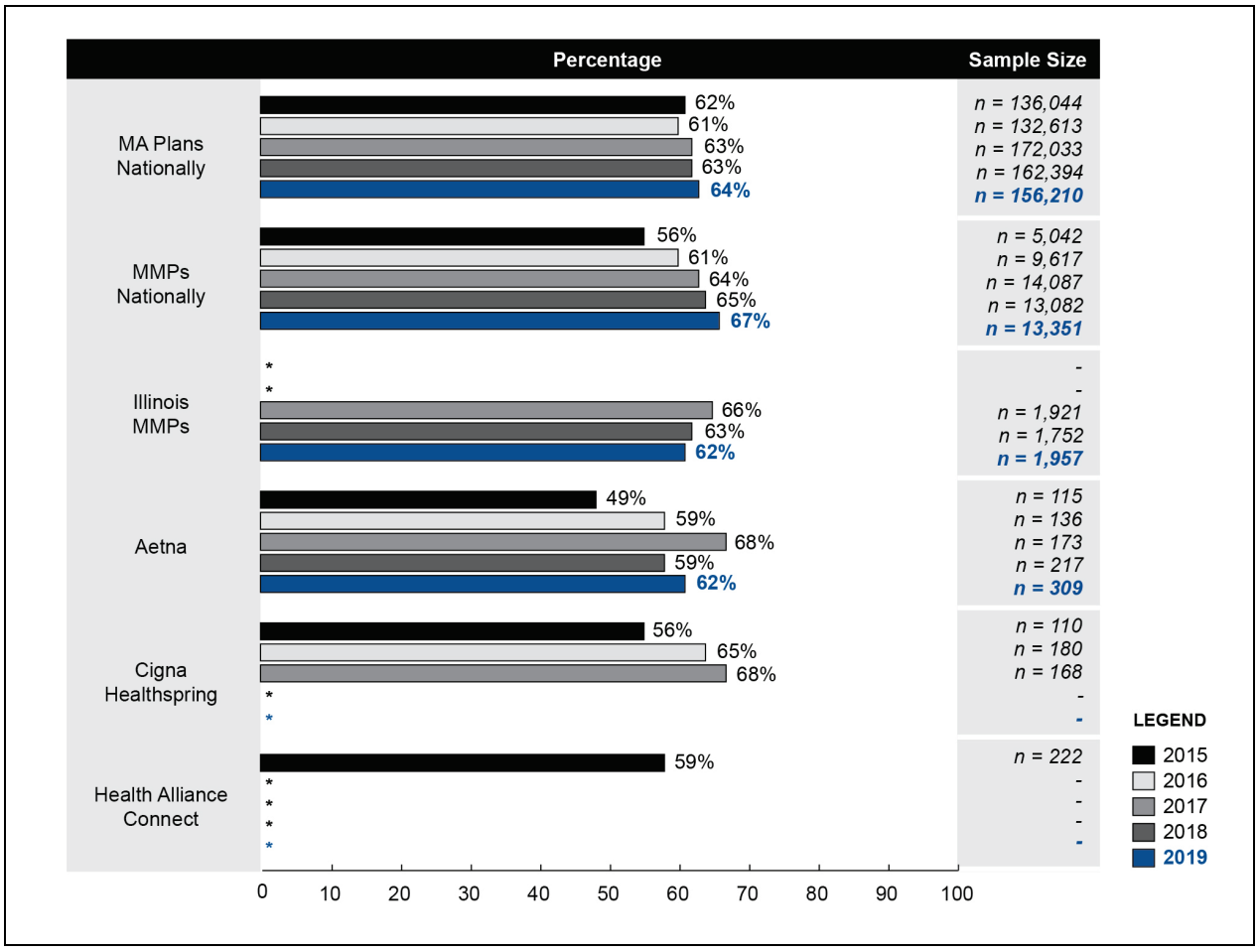
Figure 7 (continued)
Beneficiary overall satisfaction, 2015–2019: Percentage of beneficiaries rating their health plan as a 9 or 10



CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTE: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out.
SOURCE: CAHPS data for 2015–2019. 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?"

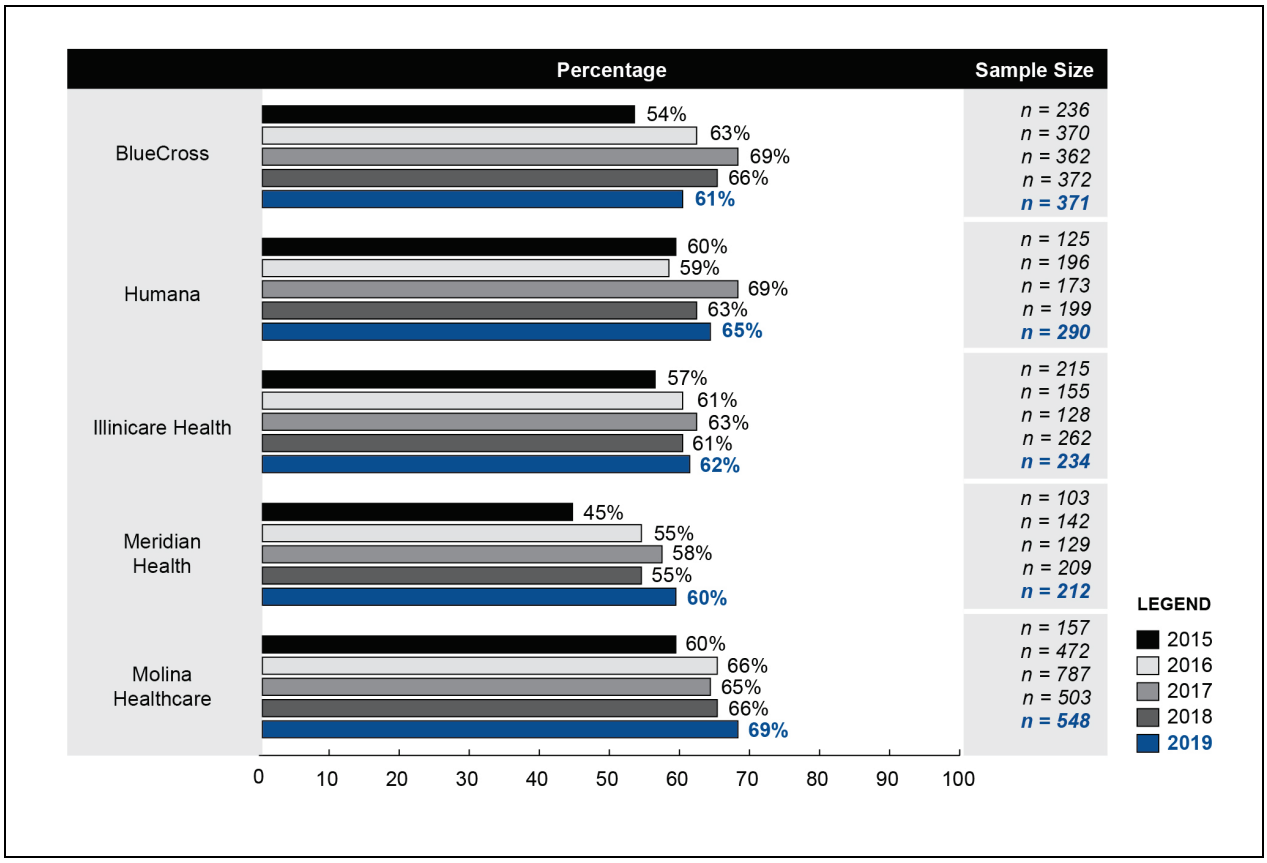
Enrollees also rated satisfaction with their MMP's prescription drug plan (see ***Figure 8***). As with enrollees' ratings of their MMPs, satisfaction with their MMP's prescription drug plan varied from 2015 to 2019 but showed an overall increase for the six plans that reported data for all of those years.

Figure 8
Beneficiary overall satisfaction, 2015–2019: Percentage of beneficiaries rating their prescription drug plan as a 9 or 10



(continued)

Figure 8 (continued)
Beneficiary overall satisfaction, 2015–2019: 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; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.
NOTE: Data beyond 2015 are not included for Health Alliance Connect as the plan dropped out.
SOURCE: CAHPS data for 2015–2019. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst prescription drug plan possible and 10 is the best prescription drug plan possible, what number would you use to rate your prescription drug plan?"

4.1.2 New or Expanded Benefits

Flexible benefits offered by the MMPs helped enrollees access health and health-related services, and over the course of the demonstration to date, a growing number of plans have offered several popular benefits. In 2019, four plans offered zero prescription copays, compared to two in 2017.[21] Five plans offered rides to the pharmacy in 2019, compared to three in 2017. In 2017, only one plan offered meals after a hospital or NF stay, and three plans offered this benefit in 2019.

[21] A fifth MMP offered zero copays for Medicaid-covered prescriptions, but had copays for medications covered by Part D.

One focus group participant said that "[t]he good thing about [my plan] is when you are sick, when you go to the hospital, and you're real sick, they send you a month's worth of food."[22] Plans continued to offer other popular flexible benefits as well, including extra dental benefits, over-the-counter product benefits, and wellness programs (Illinois HFS, 2019).

4.1.3 Care Coordination

In 2019, advocates said that enrollees who received care coordination services were generally pleased, and in some cases care coordination helped attract beneficiaries to enroll in the demonstration. CMS focus group participants in 2018 were also generally positive about their experiences with care coordination. "A care coordinator facilitates all my needs," said one focus group participant.

When I came out of the nursing home, people were in line to deliver everything. I needed a wheelchair, walker, and stick. [My care coordinator] was pretty good.

– CMS focus group participant, 2018

Although care coordination is generally a positive demonstration feature, advocates said that some enrollees continue to have difficulty contacting their care coordinators, and some enrollees still did not realize they have care coordinators, as discussed in ***Section 3.3, Care Coordination***. The Ombudsman program said that when they tried to reach care coordinators, the plans sometimes had trouble connecting them to the enrollee's care coordinator. Turnover among care coordinators also created challenges for enrollees.

...[W]ith [my MMP], they call me every month. [My plan gives me] a new case manager every month and they are always asking the same questions.

– CMS focus group participant, 2018

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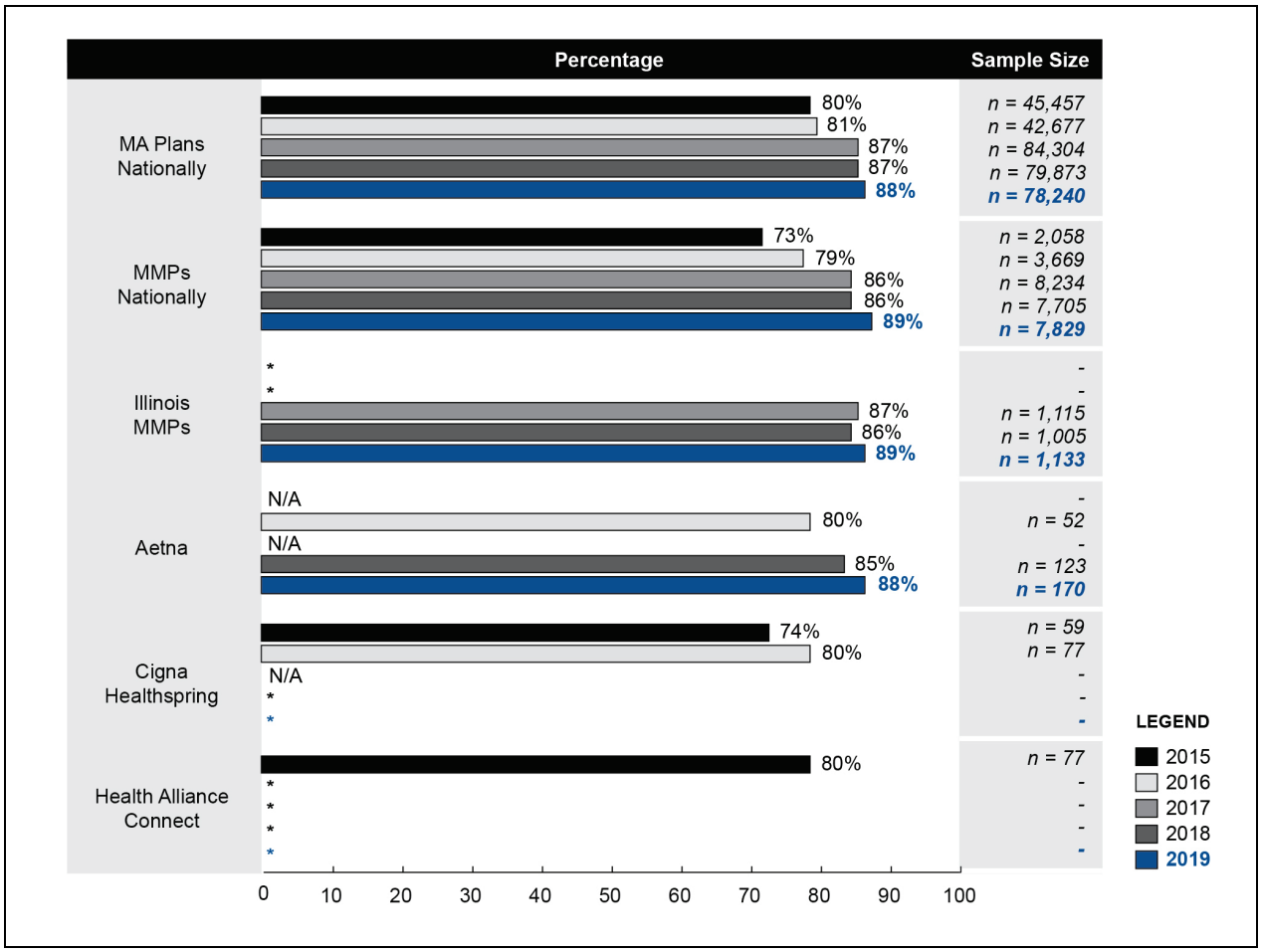
[22] The meals after hospitalization benefit offered by some plans is typically 10 to 14 days.

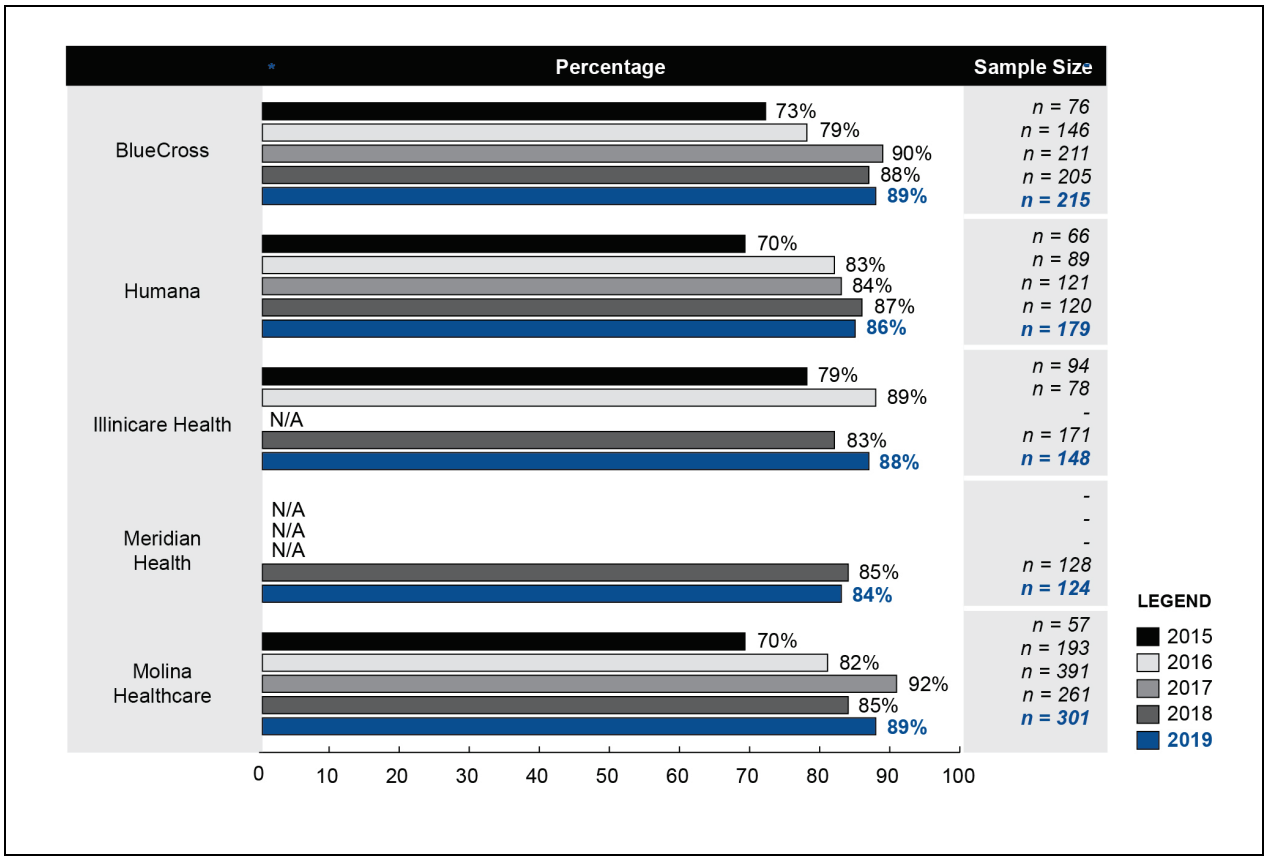
On another aspect of care coordination, CAHPS survey respondents were asked whether their health plan usually or always gave them information they needed (see ***Figure 9***). In 2015–2019, for the MMPs for which data were available, percentages were generally comparable to the national MA and MMP averages, and increased overall during that period.

Figure 9
Beneficiary experience with care coordination, 2015–2019: Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



(continued)

Figure 9 (continued)
Beneficiary experience with care coordination, 2015–2019: Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



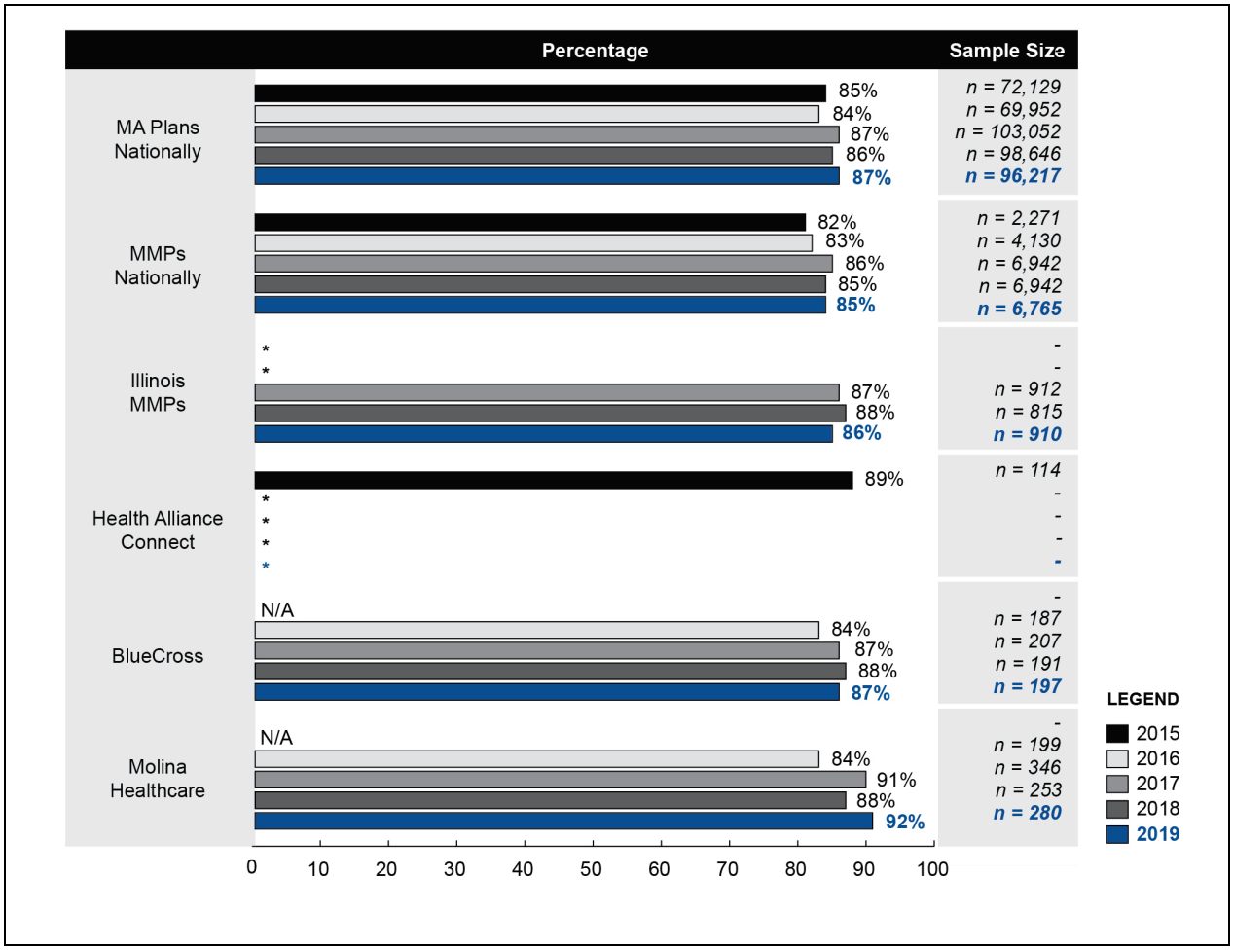
* = data not available; - = sample size data not available. CAHPS = Consumer Assessment of Healthcare Providers and Systems; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = "Suppressed," i.e., when too few members provided responses (new as of 2019); or when the results have very low statistical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

NOTES: Meridian Health plan did not provide data for any of the years for this item. Data beyond 2015 are not included for Health Alliance Connect since the plan dropped out.

SOURCE: CAHPS data for 2015–2019. This item was case mix adjusted. 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. Only two of the seven MMPs reported sufficient data for 2016–2019 on the percentage of respondents reporting that their personal doctors were usually or always informed about care from a specialist (see ***Figure 10***). Responses for those two plans were similar to or higher than the national MA and MMP averages. Only one Illinois MMP reported data for this measure in 2015.

Figure 10
Beneficiary experience with care coordination, 2015–2019: Percentage of beneficiaries reporting that in past 6 months their personal doctors were usually or always informed about care from specialist



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

NOTES: Data beyond 2015 are not included for Health Alliance Connect since the plan dropped out of the demonstration. IlliniCare Health, Aetna, Cigna-HealthSpring, Humana, and Meridian Health 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 2016–2019. This item was case mix adjusted. The CAHPS question used for this item was: "In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from specialists?"

4.1.4 Quality and Access to Care

In 2019, an advocacy group said it had noticed improvement in MMP networks in the Greater Chicago region; the previous year, some CMS focus group participants said their regular doctors were not in their MMPs' networks. Challenges continued in Central Illinois due to a limited number of providers. State officials said they suggested that plans ask out-of-network providers to sign single case agreements to serve existing patients enrolled in MMAI; they did not say whether that approach was successful.

According to State officials and advocates, transportation access and quality continued to be a challenge, although these challenges were not limited to MMAI. State officials said in 2018 that all of the plans struggled with transportation, and there were consistently many complaints from enrollees. An advocacy group said there were many problems with the transportation broker under Medicaid fee-for-service (FFS), but beneficiaries had eventually found providers that worked for them. Under the demonstration, enrollees often had to start over with new brokers and provider networks. A CMS focus group participant said that "[b]efore January 1, my transportation service was wonderful. But they changed the company that did the scheduling. Then it all went to hell and back." Transportation continued to be a challenge in 2019, according to stakeholders.

HCBS

State officials said in 2018 they thought access to HCBS waiver services had improved under the demonstration, although they were not receiving encounter data so they could not verify that. The State took several steps in 2018 to increase utilization of home modifications, holding a meeting for the plans on which modifications are covered, which modifications are useful to members, and how to get bids.

The decline in referrals to home-delivered meals (HDMs) continued to be an access challenge, as discussed in the First Evaluation Report. In Illinois, HDMs are funded by Federal and State aging funds, and HCBS waivers are not used for financing the service. In 2018, aging network stakeholders said they expected managed care plans would refer too many beneficiaries for HDMs, because the plans do not have to pay for them, but instead referrals declined. Aging network stakeholders raised this issue to CMS and the State as an issue of concern for beneficiaries. State officials attributed the problem to turnover and gaps in training of care coordinators. The CMT also raised this issue with plans, discussing referrals and the need to train plan staff about how to complete referrals. To further address the problem, the Department of Aging developed a standard nutritional screening and intake form for care coordinators to use and conducted a webinar for care coordinators in 2018.

Stakeholders said in 2019 that some enrollees had called to complain that their meals had stopped; apparently, those enrollees received temporary meals after hospitalizations as a flexible benefit through a provider contracted by the plans, but the plans did not assess enrollees' need and refer them to an aging network provider for ongoing HDMs. The area agency on aging was working to address the issue with the plans at the time of this report.

4.1.5 Medicaid Eligibility Issues

The State's challenges with Medicaid redeterminations and spend down, discussed earlier in this report, had adverse effects on beneficiary experience. In 2018, advocates said many MMAI enrollees who wanted to be in the demonstration were involuntarily disenrolled, disrupting their coverage and continuity of care. Advocates said beneficiaries also experienced delays reenrolling in Medicaid.

Erroneous enrollment of beneficiaries eligible for Medicaid in the spend down category also caused interruptions in Medicaid eligibility and continuity of care. Advocates said the experience was upsetting for beneficiaries because beneficiaries were accidently enrolled in a program they had not selected, then disenrolled, even if they liked MMAI. Some other beneficiaries in the spend down category would like to enroll in MMAI if they could, according to advocates.

4.1.6 Special Populations

HCBS Participants

Stakeholders in the aging network said MMAI works well for HCBS waiver participants compared to FFS and the MLTSS program. In 2018, an advocate said that navigating Medicare FFS, Medicaid, Medicare Part D, and an HCBS waiver by themselves was "a nightmare, a complete nightmare" for waiver participants, adding that "we see better results for beneficiaries that are able to stay within MMAI rather than the siloed program [MLTSS]." Advocates said that although MLTSS plans provide care coordination, it is less effective because the plans only cover a limited set of Medicaid benefits. State officials agreed and said they receive fewer complaints about MMAI than MLTSS.

A provider agency representative said in 2019 that NF transitions were a challenge, due to long delays in obtaining prior authorizations for HME, such as CPAP machines and insulin pumps. Although delays also occur in FFS, the provider said that rather than providing more flexibility, the MMPs were requiring more authorizations.[23]

Linguistic Minorities

Many MMAI enrollees in Chicago have primary languages other than English. Advocates said in 2019 that linguistic minority beneficiaries tended to opt out or disenroll from MMAI due to the limited number of network physicians who speak their languages. An advocacy group for linguistic minority older adults and HCBS providers found that if MMAI enrollees can link to network providers who speak their languages, they will remain enrolled. However, other advocates said that even if they are in network, linguistic minority physicians often encourage patients to disenroll from MMAI because provider staff face language barriers dealing with managed care plans.

[23] Nursing facilities are responsible for durable medical equipment for their residents, and payers do not approve home medical equipment until the resident moves to the community, according to the provider. This makes it difficult to train residents to use new equipment prior to discharge and to ensure that the equipment is available as soon as the resident transitions to their new home in the community.

4.2 Beneficiary Protections

Beneficiaries receiving services under MMAI have the right to make complaints and appeal adverse decisions about their services. Ombudsman services are available to assist demonstration enrollees with filing complaints and appeals. As discussed in the First Evaluation Report, State officials reported in 2019 that one of the common reasons for enrollee complaints to the Ombudsman was difficulty trying to reach their care coordinators, often due to high turnover among care coordinators. In 2019, State officials noted that members had submitted complaints about MMPs denying or reducing hours of in-home services without sending notices to members and providers. The State was addressing that issue by requiring the MMPs to pay providers if the MMPs had not notified providers.

State officials noted the Ombudsman program's continued challenge with trying to reach the MMAI population. Similarly, in CMS focus groups, participants said they were not familiar with the Ombudsman and said that if they had a problem related to their MMAI plan, they usually would call the plan (e.g., member services) or their care coordinator.

An EQRO review of plans in 2017 found that two plans were failing to provide timely responses to appeals and grievances. The findings for one of the plans were similar to those of a 2016 CMS audit of the plan. As a result of the review, the State put both MMPs on corrective action plans and issued financial sanctions to both. One plan completed and closed its State corrective action plan in August 2018. However, due to ongoing concerns of the same nature with the other MMP, CMS conducted another audit of it and identified similar timeliness issues related to appeals and grievances, as well as other issues. As a result, CMS put the MMP on a corrective action plan in 2018, and issued civil monetary penalties. Additionally, due to the audit findings as well as a significant drop in timely assessments and care plans completions, the State and CMS stopped passive enrollment for the MMP that year. In 2019, State officials reported that the plan had improved and completed its corrective action plan. The CMS corrective action plan was still open.

The following is a summary of grievance (complaint) and appeals data received from (1) data reported by MMPs on complaints made directly to them[24]; (2) data reported on the Complaint Tracking Module (CTM) for complaints received by Illinois Department of Public Health and 1-800-Medicare[25]; (3) data reported by the Independent Review Entity, which is a second-level review of Medicare appeals[26]; and (4) qualitative information collected by the evaluation team. Reporting periods vary across these sources.

Over the course of the demonstration, the method by which MMP reported grievances data are analyzed has changed. From 2014 through 2017,data were analyzed per 1,000 enrollees. The number of MMP-reported grievances per 1,000 enrollees showed a decreasing trend during this time period. Grievances were highest in quarter 3 of 2014 with 16.5 grievances per 1,000 enrollees, and lowest, at 8.4 per 1,000 enrollees, in quarter 4 of 2016. Effective January 2018, the method changed to analyze grievances per 10,000 enrollee months. From 2018 through 2019, the

[24] MMP Reported Data provided to RTI by CMS.
[25] Data obtained from the CTM within the Health Plan Management System by RTI.
[26] Data provided to RTI by CMS.

number of grievances per 10,000 enrollee months steadily increased with a low of 36.5in quarter 1 of 2018 and a high of 137.4 in quarter 2 of 2019.

Data reported to the CTM for the period March 2014 through December 2019 do not show a consistent trend, but generally declined, from 278 in 2015 to 97 in 2019. For all five demonstration years (2014–2019) the highest numbers of complaints were in two categories: enrollment and disenrollment; and benefits, access, and quality of care.

In 2019, the State discussed how the CMT encouraged MMPs to use their complaints data to look for trends and identify opportunities for care coordinators to follow up with members. During recent EQRO reviews, State officials found that care coordinators were often unaware of member grievances related to challenges with trying to find a specific provider type.

As with grievance data, effective January 2018 the method by which appeals data were analyzed changed from appeals per 1,000 enrollees to appeals per 10,000 enrollee months. The number of appeals per 1,000 enrollees remained low from 2014 to 2017, ranging from 0.1 to 6.5. The number of appeals per 10,000 enrollee months in 2018 and 2019 ranged from 71.5 to 198.8.

A total of 1,876 appeals were reported to the Medicare Independent Review Entity (IRE) from 2014 through 2019. Of these, 1,385 (73.8 percent) were upheld, 230 (12.6 percent) were dismissed, 211 (11.3 percent) were overturned, 24 (1.3 percent) were partially overturned, and 26 (1.4 percent) were withdrawn. The most common category of appeals referred to the IRE was for practitioner services,[27] followed by appeals for the acute inpatient hospital, clinical/lab/X-ray, and nursing home categories.

MMPs are required to report to CMS's implementation contractor, NORC, on the number of critical incidents and abuse reports for members receiving LTSS. The number of reports per 1,000 members varied but remained low during the demonstration to date, with a low of 0.4 in quarter 3 of 2014 and a high of 8.5 in quarter 3 of 2019.[28]

[27] Examples of practitioner services include physician, chiropractic, dental, prosthetics/orthotics, and vision care.
[28] Critical incidents refers to 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/Downloads/ILReportingRequirements2019.pdf

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SECTION 5

Demonstration Impact on Service Utilization and Quality of Care

5.1 Methods Overview

The FAI demonstrations 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 1–3 (March 1, 2014–December 31, 2017) on service utilization and quality of care outcomes among Illinois demonstration eligible beneficiaries. Additionally, a number of modifications were made to this report that resulted in differences from the First Evaluation Report. First, the service utilization analyses in this section include FFS Medicare-Medicaid demonstration eligible beneficiaries only, whereas the previous analyses included eligible beneficiaries in both FFS and Medicare Advantage. Second, corrections were made to impact estimates from the first evaluation report that resulted in differences in our current impact estimates for demonstration year 1 (see ***Appendix D*** for additional details).

Methods Snapshot

Study design: Difference-in-differences (DinD) quasi-experimental design using beneficiary months of demonstration eligibility.

Population: FFS Medicare-Medicaid beneficiaries eligible for the demonstration in Illinois in demonstration years 1–3, approximately 34.5 percent (***Table D-1***) of whom were enrolled during demonstration year 3. Comparison group beneficiaries were from areas with characteristics similar to the demonstration area.

Data: Medicare FFS claims, MMP encounter data, Medicare enrollment files, Area Health and Resources Files, and the American Community Survey.

Statistical analysis: Logistic regression and negative binomial regressions with inverse propensity score weighting.

See ***Appendix D*** for more detail.

For this analysis, we used an intent-to-treat (ITT) approach that included all beneficiaries eligible for the demonstration, not just those who actually enrolled in the MMPs, to alleviate concerns of selection bias and to support generalizability of the results among the demonstration eligible population. We begin by analyzing the cumulative effect of the demonstration on service utilization over demonstration years 1–3 and then report the annual effects for each outcome and demonstration year using forest plots.

We used a quasi-experimental 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. We used Medicare enrollment and claims and encounter data to conduct this analysis.

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 may correspond to 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 point estimate indicates a statistically significant demonstration effect if neither its upper nor lower bound of the 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 impacted LTSS users differently than non-LTSS users. We present the demonstration effects separately for LTSS users and for non-LTSS users, and also discuss any interaction effect (the difference between the two effects). After that, we present the same type of results for beneficiaries with and without SPMI. For a complete list of DinD estimates with 95 and 90 percent confidence intervals, please see ***Appendix E***.

5.2 Demonstration Impact on Service Utilization Among Eligible Beneficiaries

Overall, the demonstration increased the number of physician visits by 5.1 percent, relative to the comparison group. However, the demonstration also increased the probability of having any long-stay NF use by 5.1 percent, relative to the comparison group. There were no demonstration impacts on the probability of any inpatient admission or ED visit.

5.2.1 Cumulative Impact Over Demonstration Years 1–3

The demonstration is intended to increase use of outpatient care and HCBS, while decreasing inpatient care, ED visits, 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 the probability of any long-stay NF use, relative to the comparison group. There was no demonstration effect on the probability of ED visits or inpatient admissions.

- The demonstration cumulative effect on the number of physician visits was an increase of 0.0562 visits per month per beneficiary, relative to the comparison group. This monthly increase represents a relative difference of 5.1 percent of the predicted number of physician visits in the comparison group during the demonstration period

(1.0909). The annualized increase in the number of physician visits was 0.67 visits per year (derived by 0.0562*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***). 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 evaluation and management visits.

- Although the probability of any long-stay NF admissions decreased over the course of the demonstration, the decrease in the comparison group was greater, suggesting that the demonstration did not have the anticipated impact on reducing NF use. The relative difference is a 5.1 percent relative increase (***Table 9***). The decrease in NF use in both the demonstration and comparison groups is consistent with broader national trends of moving toward community-based LTSS (Degenholtz et al., 2016). The limited progress relative to the comparison group on reducing long-stay NF use could have resulted from several factors.

  - As documented in the First Evaluation Report, there were challenges with prior authorization for home care medical equipment.

  - 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***).

- 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 skilled nursing facility (SNF) stays back to the community, because their role focused on medical care provision. However, as shown in ***Table E-2*** in ***Appendix E***, the demonstration was also associated with an increase in the probability of inpatient admissions and ED visits for LTSS users, relative to non-LTSS users, suggesting that the SNFist role was not achieving its intended goal related to medical care provision.

  - Due to the perceived limited effectiveness of this role, Illinois dropped the SNFist requirement in its MLTSS program and was considering dropping the requirement from the demonstration (see ***Section 3.3, Care Coordination***).

- 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. Although State officials describe the care coordination in MLTSS as more limited because it does not directly address Medicare services, this care coordination may impact some of these results. Beneficiaries in Medicare FFS who are not enrolled in MLTSS are part of the demonstration ITT population for these analyses and comprise about 18 percent of the total dually eligible population in Illinois each year (HFS, n.d.-c), confounding causal interpretation of these findings.

Table 9
Cumulative demonstration impact on select service utilization measures for eligible beneficiaries in Illinois, March 1, 2014–December 31, 2017

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted DinD estimate (95% confidence interval)	*p*-value
Probability of inpatient admission	Demonstration	0.0420	0.0392	NS	−0.0005 (−0.0015, 0.0005)	0.3198
	Comparison	0.0408	0.0385			
Probability of ED visit	Demonstration	0.0566	0.0588	NS	0.0008 (−0.0003, 0.0019)	0.1515
	Comparison	0.0573	0.0586			
Count of physician E&M visits	Demonstration	1.1311	1.1652	5.1	0.0562*** (0.0360, 0.0763)	<0.0001
	Comparison	1.1131	1.0909			
Probability of SNF admission	Demonstration	—	—	—	—	—
	Comparison	—	—			
Probability of any long-stay NF use	Demonstration	0.2090	0.1873	5.1	0.0077*** (0.0036, 0.0118)	0.0002
	Comparison	0.1793	0.1517			

* p <0.05, **p < 0.01, ***p < 0.001; — = data not available; 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 monthly 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*). SNF admissions were not analyzed as they were deemed incomplete.
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 11–14 show annual effects of the demonstration on the probability of any all-cause inpatient admissions, probability of any ED visits, number of physician visits, and probability of any long-stay NF use, respectively, with the cumulative effects also included as points of comparison. These annual impact estimates indicate that the Illinois demonstration decreased the probability of any monthly inpatient admission in demonstration year 3, while also increasing the probability of any monthly ED visits in demonstration year 3. The number of physician visits increased in each of the 3 demonstration years, while long-stay NF use increased in demonstration years 1 and 2 only, relative to the comparison group.

- The Illinois demonstration decreased the probability of inpatient admissions in demonstration year 3 by 0.14 percentage points per month per beneficiary, relative to the comparison group (***Figure 11***).
  - This decrease is consistent with the goals of the Illinois demonstration. Although the cumulative results show no statistically significant impact on this measure, the annual findings indicate progress in achieving the desired effect over time.
  - However, as with results reported in ***Section 5.2.1***, this result should be interpreted with caution; the launch of mandatory MLTSS in 2016 in the greater Chicago area also included expanded access to care coordination and management

for MLTSS enrollees. While the demonstration's focus on increased access and quality in medical care (see impact on physician E&M services) might be the greatest factor in preventing inpatient admissions, care coordination in either MLTSS or the MMAI could lead to increased LTSS use that could in turn decrease hospitalization risks (Bynum, Austin, Carmichael, & Meara, 2017).

  - Examples of this potential risk reduction include increased assistance with meals, shopping, medication management, transfers, ambulation and bathing which in turn could reduce the risk of medication nonadherence, dehydration, falls and other adverse events that could result in ED visits and hospitalization.

- The Illinois demonstration increased the number of physician E&M visits in demonstration years 1 through 3 by 0.0398, 0.0292, and 0.1108 visits per month per beneficiary, respectively, relative to the comparison group (***Figure 13***). These favorable annual findings are consistent with the cumulative findings.

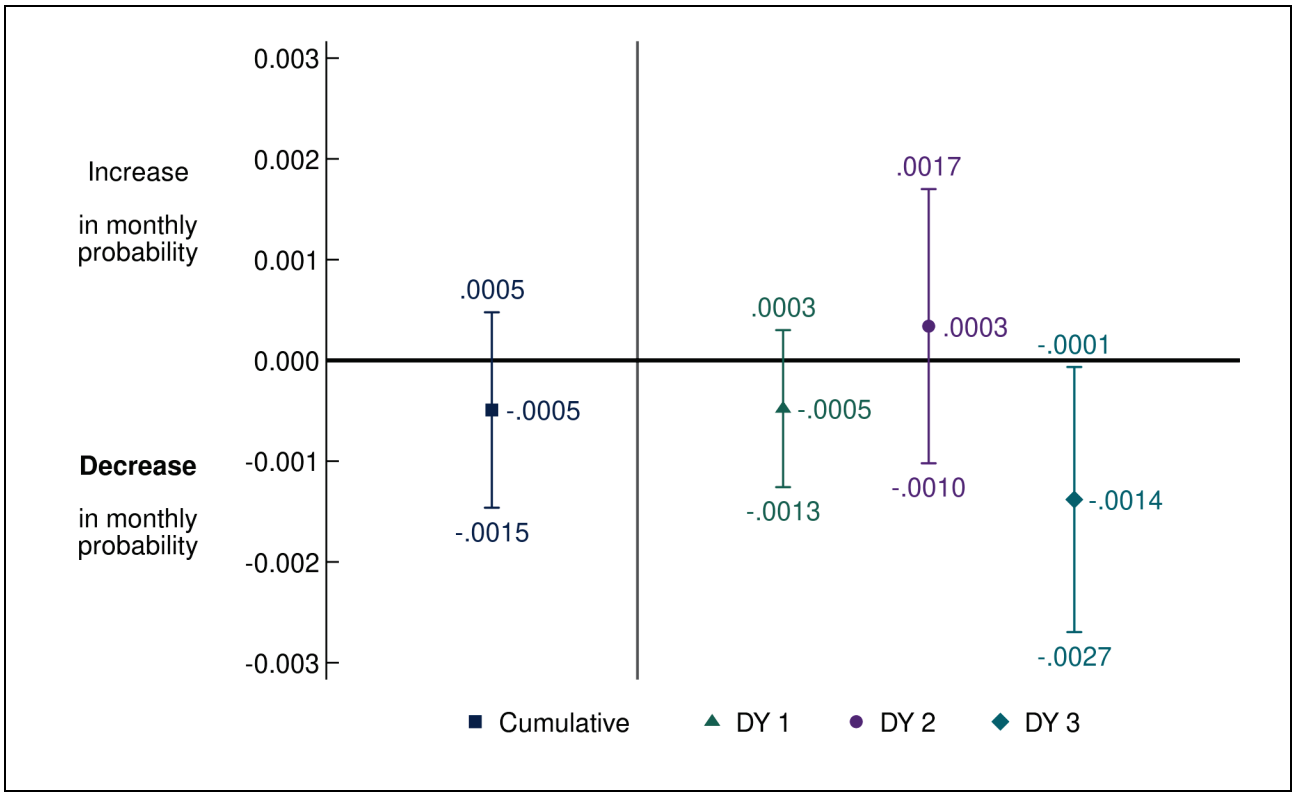
- The probability of any ED use increased by 0.36 percentage points per month per beneficiary in demonstration year 3, relative to the comparison group (***Figure 12***).

  - There are two possible interpretations of this finding: (1) the demonstration, even with increased E&M visits, did not succeed in decreasing ED visits in year 3; or (2) more enrollees who presented at the ED were able to return home rather than be admitted as inpatients due to increased supports and care coordination. Our ED use outcome is defined as any ED visit that did not result in an inpatient admission. Thus, 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 decrease in inpatient admissions observed in demonstration year 3.

- The demonstration increased the annual probability of any long-stay NF use in demonstration years 1 and 2, relative to the comparison group, by 1.62 and 0.66 percentage points, respectively (***Figure 14***). There was no demonstration impact on this measure in demonstration year 3 (as that confidence interval crosses zero).

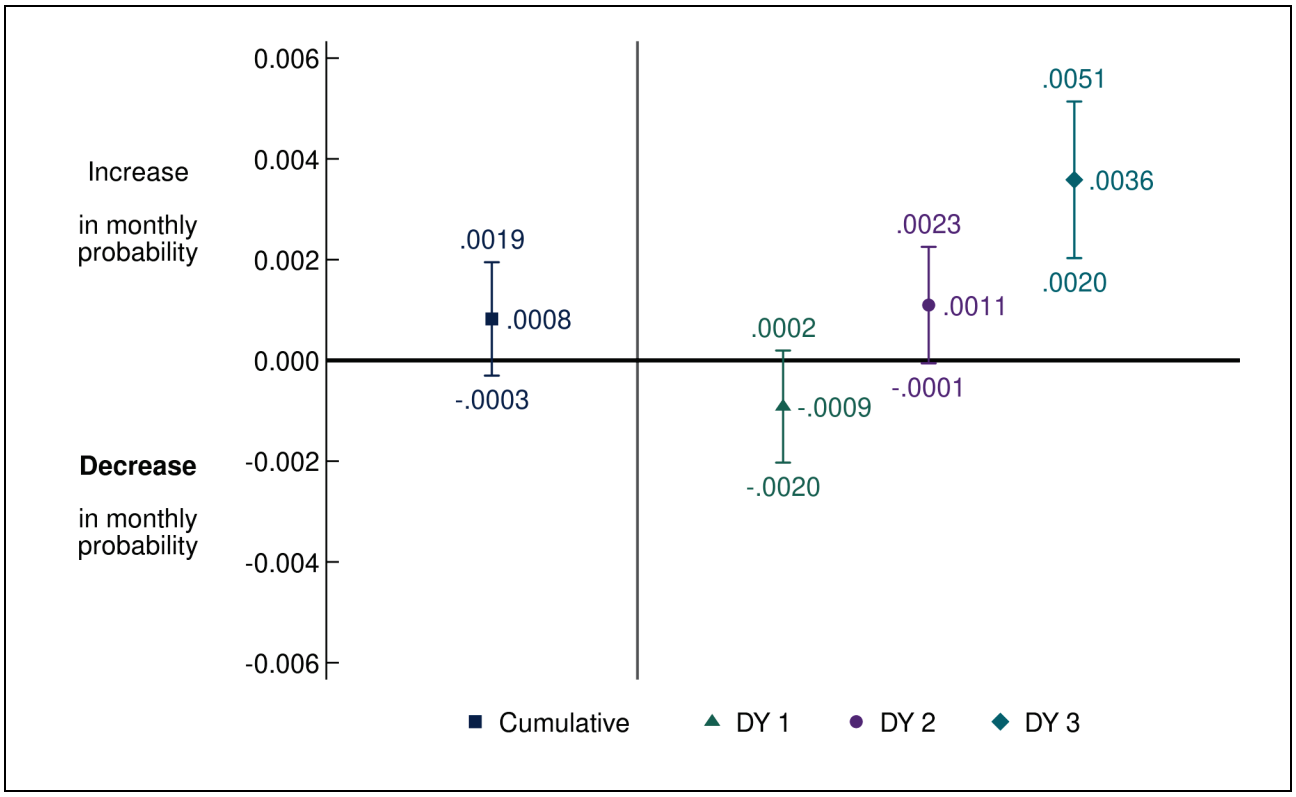
  - These mixed results highlight again the challenges described in the First Evaluation Report with demonstration implementation, but suggest that there was some progress in demonstration year 3.

Figure 11
Cumulative and annual demonstration effects on inpatient admissions, March 1, 2014–December 31, 2017



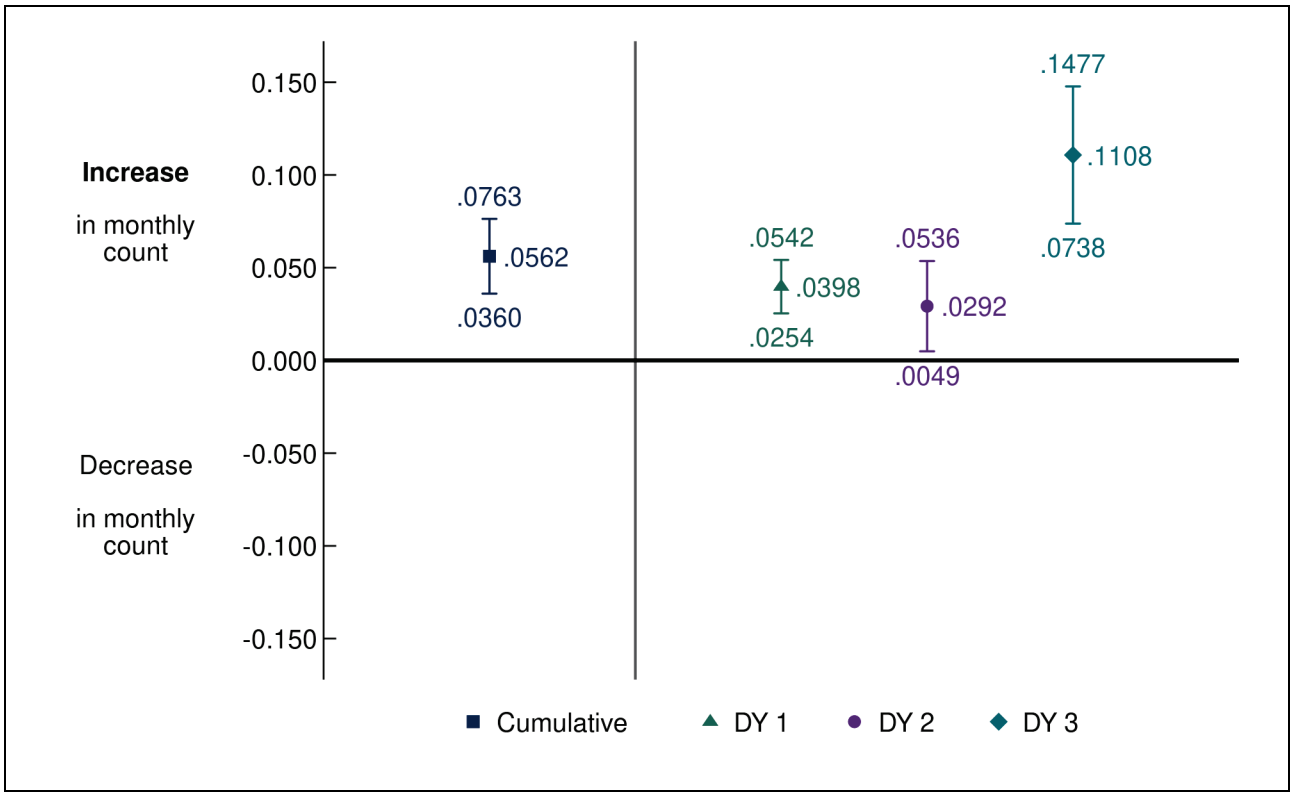
DY = demonstration year.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 12
Cumulative and annual demonstration effects on ED visits, March 1, 2014–December 31, 2017



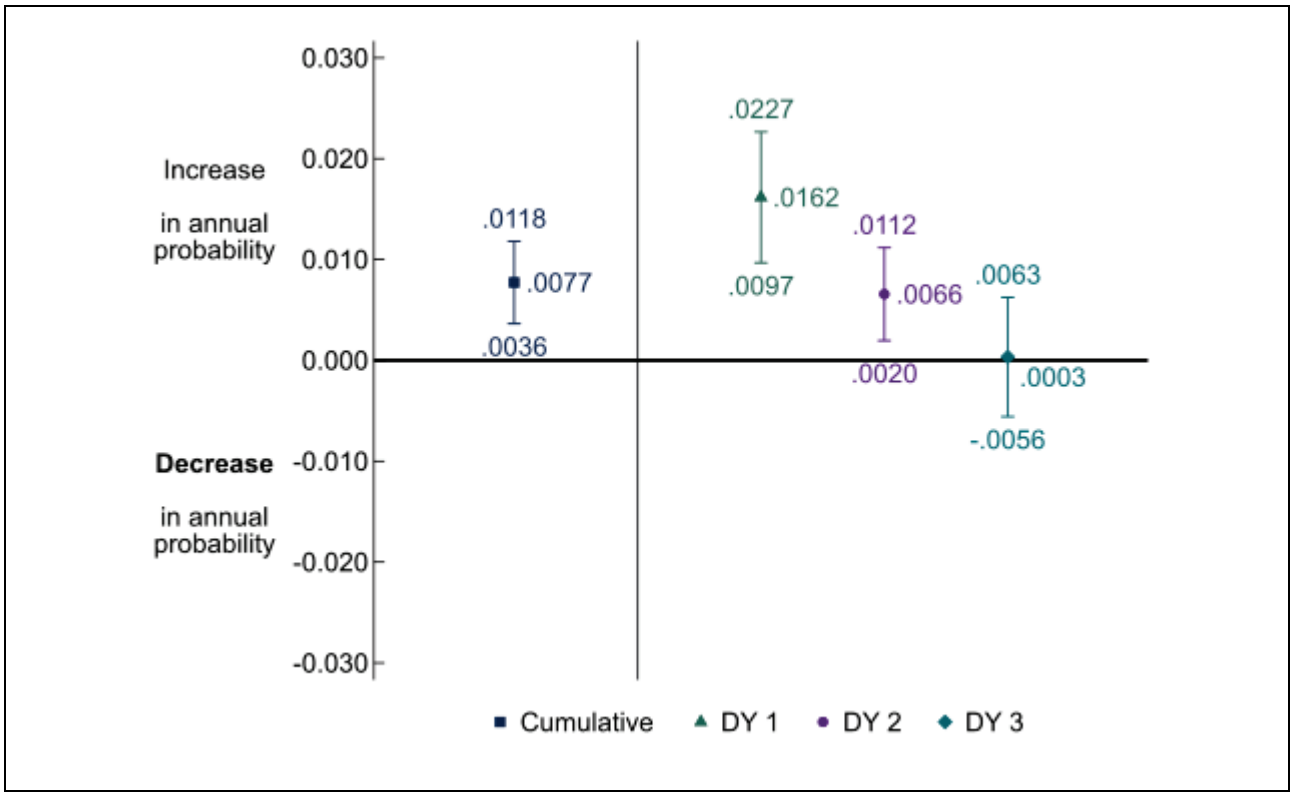
DY = demonstration year; ED = emergency department.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 13
Cumulative and annual demonstration effects on physician E&M visits, March 1, 2014–December 31, 2017



DY = demonstration year; E&M = evaluation and management.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 14
Cumulative and annual demonstration effects on long-stay NF use, March 1, 2014–December 31, 2017



DY = demonstration year; NF = nursing facility.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Minimum Data Set data.

5.3 Demonstration Impact on Quality of Care Among Eligible Beneficiaries

The demonstration resulted in a 3.7 and 5.1 percent increase in the probability of ACSC admissions, overall and chronic, respectively, relative to the comparison group.

5.3.1 Cumulative Impact Over Demonstration Years 1–3

The Illinois demonstration is designed to increase quality of care, as a result of care coordination and increased access to physician services. However, there was no cumulative impact consistent with these goals over the first 3 years of the demonstration, as evaluated by several common measures of medical quality of care (namely, preventable ED visits, 30-day all-cause readmissions, and the probability of 30-day follow-up after mental health discharge). Although the demonstration was not associated with any cumulative effect on inpatient admissions or ED visits, described above, there was a cumulative increase in ACSC admissions

(overall and chronic), relative to the comparison group. ***Table 10*** illustrates the cumulative impact and adjusted means for these measures.

- The Illinois demonstration resulted in a 0.03 and 0.02 percentage point increase in the monthly probability of ACSC admissions (overall and chronic, respectively), relative to the comparison group. The monthly probability of having any ACSC admission (overall) decreased from 0.72 percent in the predemonstration period to 0.62 percent during the demonstration period. However, this was a slower decrease than what was observed in the comparison population, resulting in a relative increase of 3.7 percent in the probability of having any overall ACSC admission. A similar trend was observed for chronic ACSC admissions.
  - Despite focus group findings on improved access to services through care coordinators, a little more than one-half of enrollees had care plans completed within 90 days of enrollment in 2016 (demonstration year 2), but less than half in 2014 and 2015 (demonstration year 1), raising questions around the ability of care coordinators to fully engage enrollees early in the demonstration (see Section 4.1.2 of the First Evaluation Report).

Table 10
Cumulative demonstration impact on select quality of care measures for eligible beneficiaries in Illinois, March 1, 2014–December 31, 2017

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted DinD estimate (95% confidence interval)	*p*-value
Count of preventable ED visits	Demonstration	0.0328	0.0350	NS	0.0006 (−0.0002, 0.0014)	0.1609
	Comparison	0.0332	0.0348			
Probability of ACSC admission, overall	Demonstration	0.0072	0.0062	3.7	0.0003* (0.0000, 0.0005)	0.0212
	Comparison	0.0082	0.0068			
Probability of ACSC admission, chronic	Demonstration	0.0050	0.0042	5.1	0.0002** (0.0001, 0.0004)	0.0043
	Comparison	0.0057	0.0046			
Probability of 30-day follow-up after mental health discharge	Demonstration	0.3764	0.3923	NS	−0.0140 (−0.0318, 0.0039)	0.1253
	Comparison	0.3457	0.3747			
Count of all-cause 30-day readmissions	Demonstration	0.2805	0.2642	NS	−0.0059 (−0.0138, 0.0021)	0.1494
	Comparison	0.2676	0.2573			

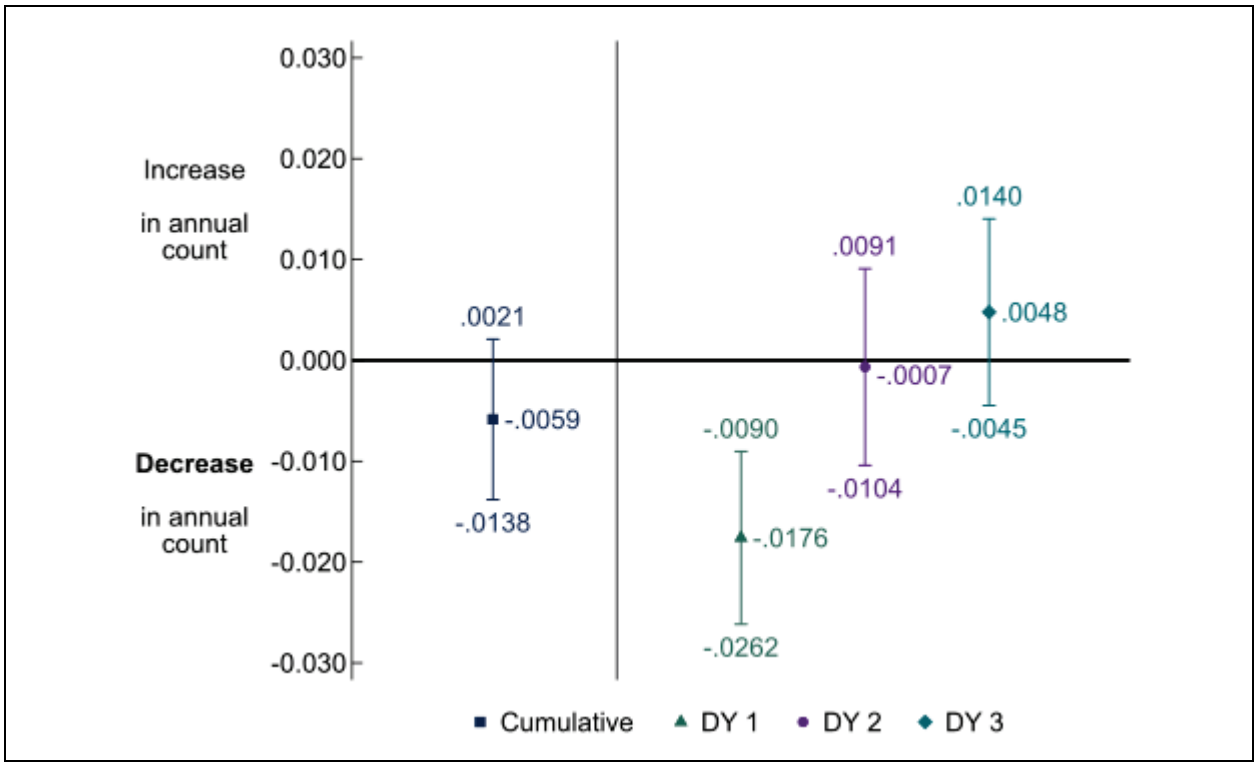
* p <0.05, **p < 0.01, ***p < 0.001; ACSC = ambulatory care sensitive condition; DinD = difference-in-differences; ED = emergency department; NS = not statistically significant.
NOTES: The adjusted mean is the regression-adjusted predicted probability or number of monthly events for the predemonstration 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*).
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

5.3.2 Demonstration Impact in Each Demonstration Year

Figures 15–19 show the demonstration's annual effects on the number of 30-day readmissions, preventable ED visits, and the probability of ACSC admissions (overall), ACSC admissions (chronic), and 30-day follow-up post mental health discharge, with the cumulative impact 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 and increased the probability of overall and chronic ACSC admissions in demonstration year 2. The demonstration also increased the number of preventable ED visits in demonstration year 3.

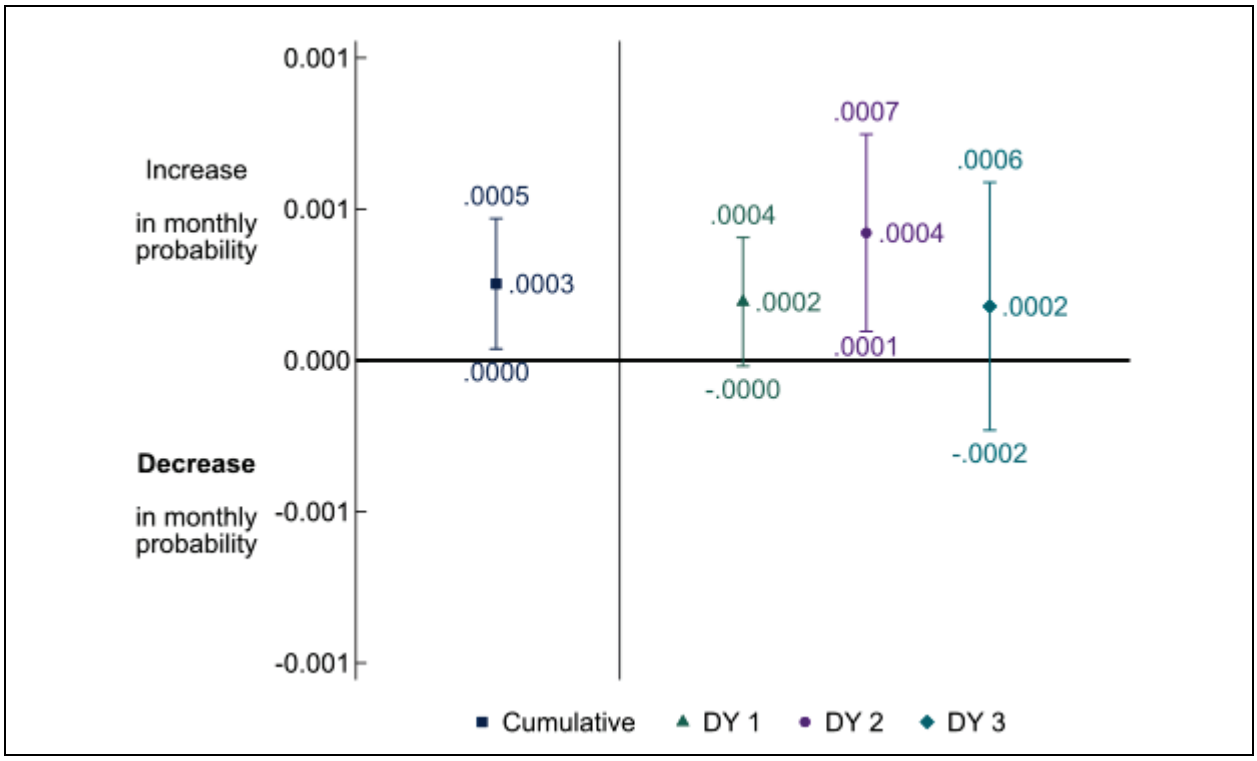
- The demonstration decreased the number of 30-day readmissions in demonstration year 1 by 0.0176 readmissions per year, relative to the comparison group, among beneficiaries with any index discharge during the year (***Figure 15***).
- The probability of overall and chronic ACSC admissions also increased in demonstration year 2 by 0.04 percentage points per month for both measures, relative to the comparison group (***Figure 16*** and ***Figure 17***).
- The monthly average number of preventable ED visits increased in demonstration year 3 by 0.0025 visits, relative to the comparison group (***Figure 18***).
- 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 and 3. Moreover, increases in probability of ACSC admissions (overall and chronic) in demonstration year 2 and number of preventable ED visits in year 3 could result from implementation challenges such as high turnover among care coordinators, challenges with establishing care plans within 90 days of enrollment, and provider network challenges.
- There was no statistically significant effect on the probability of a 30-day follow-up after mental health discharge in any demonstration year (***Figure 19***).

Figure 15
Cumulative and annual demonstration effects on the annual count of 30-day readmissions, March 1, 2014–December 31, 2017



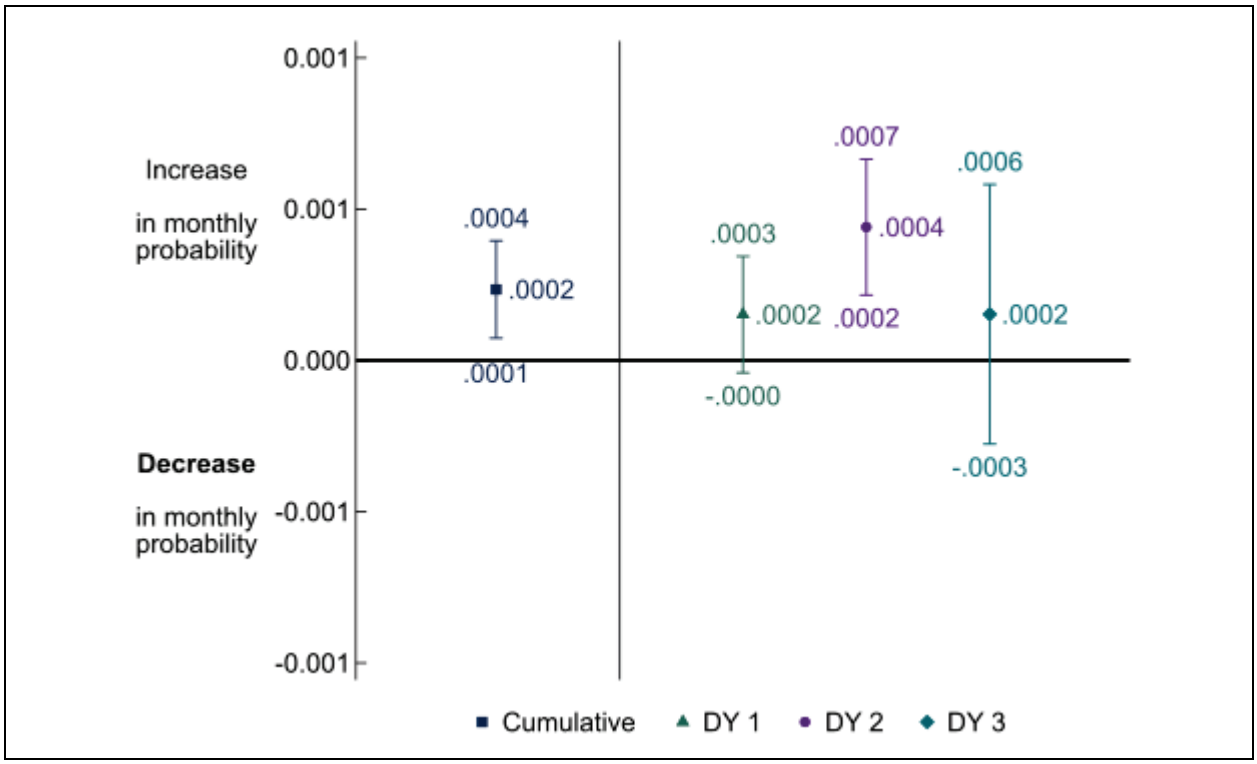
DY = demonstration year.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data

Figure 16
Cumulative and annual demonstration effects on the monthly probability of ACSC admissions (overall), March 1, 2014–December 31, 2017



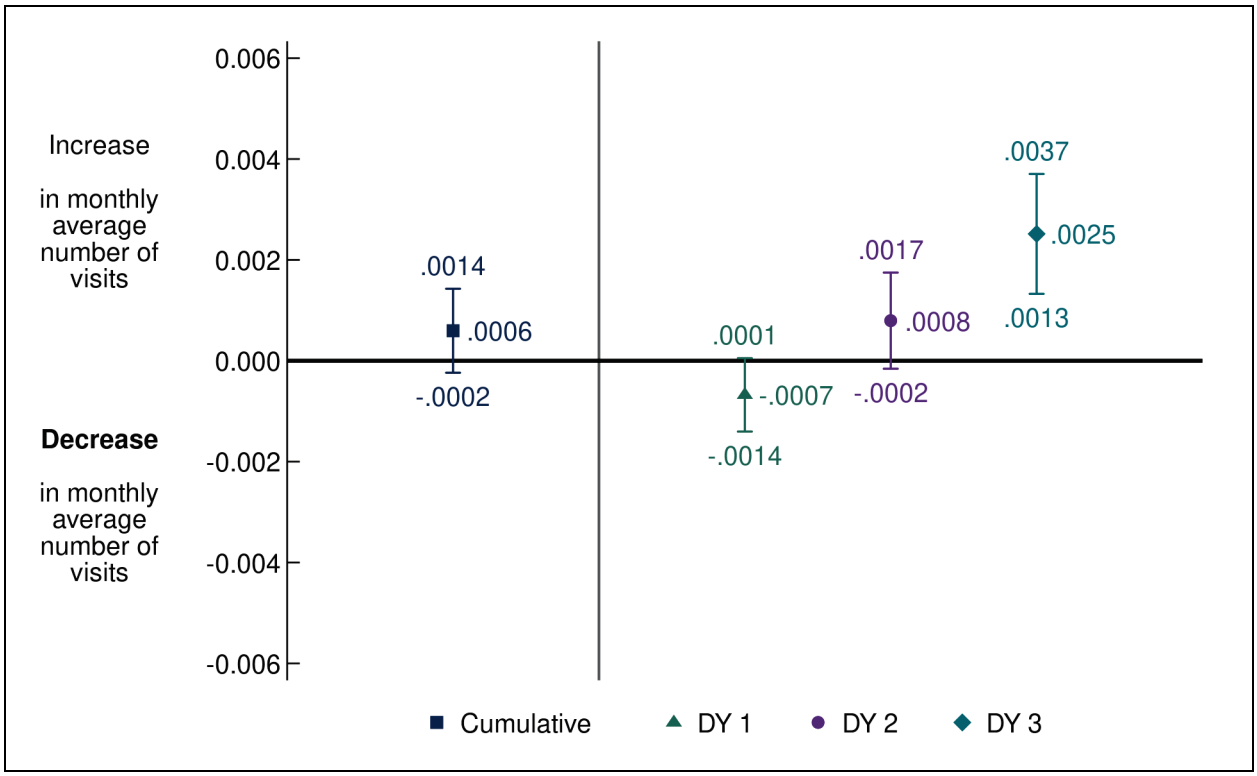
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 17
Cumulative and annual demonstration effects on the monthly probability of ACSC admissions (chronic), March 1, 2014–December 31, 2017



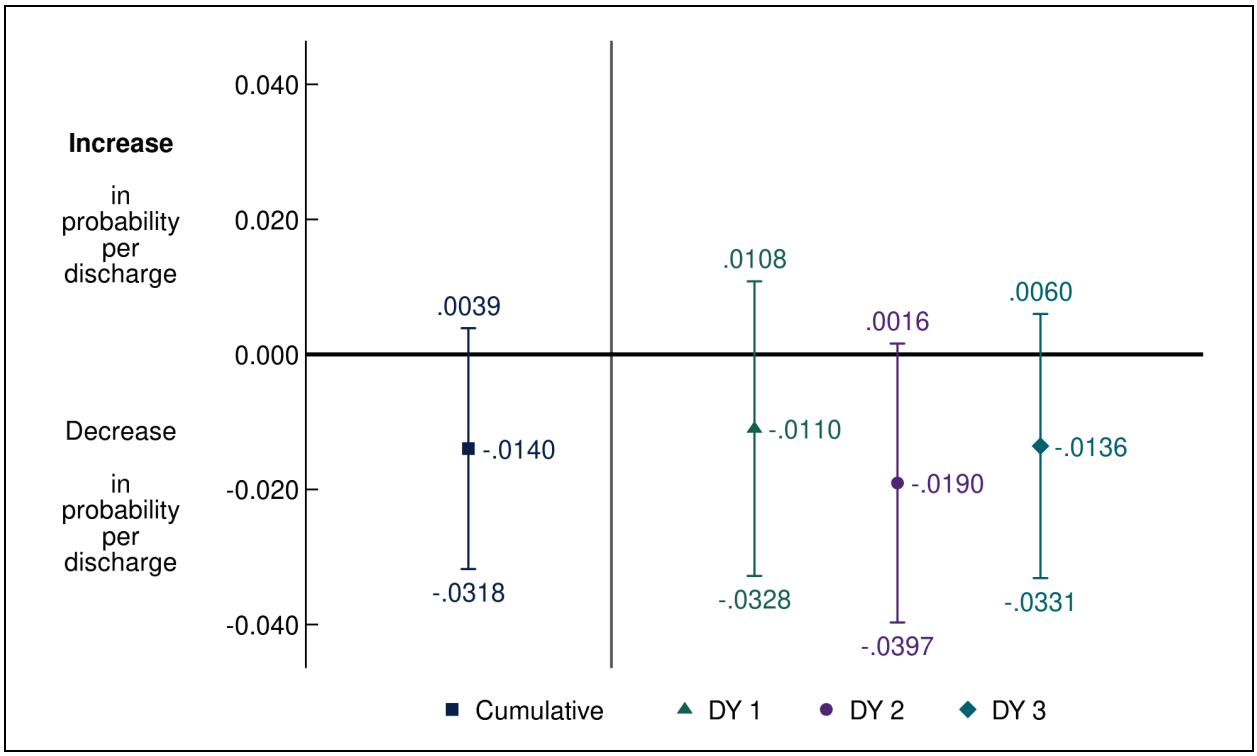
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 18
Cumulative and annual demonstration effects on the number of preventable ED visits, March 1, 2014–December 31, 2017



DY = demonstration year; ED = emergency department.
NOTE: 95% confidence intervals are shown.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 19
Cumulative and annual demonstration effects on the probability of 30-day follow-up post mental health discharge, March 1, 2014–December 31, 2017



DY = demonstration year.
NOTE: 95% confidence intervals are shown.
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 Select Beneficiaries

During demonstration years 1 through 3, the demonstration impacted the LTSS population differently than the non-LTSS population. The demonstration effect for LTSS users was an increase in the probability of inpatient admissions, the probability of ED visits, and the number of physician visits, relative to the demonstration effect for non-LTSS users. The demonstration was also associated with an increase in the monthly number of preventable ED visits, and the probability of ACSC admissions (overall and chronic), relative to demonstration effect among non-LTSS users.

The demonstration effect for beneficiaries with SPMI was an increase in the probability of any ED visit, the monthly number of preventable ED visits, and the probability of any monthly ACSC admission (overall), relative to the demonstration effect for those 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. Specifically, the inclusion of SNFists to provide medical care and help facilitate care coordination and transition planning for those in nursing homes (including those receiving post-acute care and long-stay NF residents) is expected to improve care for those accessing institutional 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 beneficiaries with SPMI, relative to the demonstration impact 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), primary care E&M visits, outpatient therapy (physical therapy, occupational therapy, and speech therapy), and hospice use (see ***Appendix 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 20.6 percent of the demonstration eligible population in demonstration year 3 had any LTSS use. The demonstration impacted service utilization measures for those with LTSS use differently than for those with no LTSS use (see ***Table 11*** below). For example, the difference in the cumulative demonstration effect on the probability of any monthly inpatient admission for beneficiaries with LTSS use was a 0.89 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, and the number of physician visits per month, relative to the demonstration effect for the non-LTSS population.

Table 11
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

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						
Probability of inpatient admission	LTSS users	0.0061	12.1	<0.0001	0.0047, 0.0074	0.0089***
	Non-LTSS users	−0.0028	−10.1	<0.0001	−0.0036, −0.0020	
Probability of ED visit	LTSS users	0.0055	10.6	<0.0001	0.0043, 0.0068	0.0076***
	Non-LTSS users	−0.0021	−3.6	0.0452	−0.0041, −0.0000	
Count of physician E&M visits	LTSS users	0.2472	15.2	<0.0001	0.2191, 0.2752	0.2625***
	Non-LTSS users	−0.0154	NS	0.0744	−0.0323, 0.0015	
Probability of SNF admission	LTSS users	—	—	—	—	—
	Non-LTSS users	—	—	—	—	
Quality of Care Measures						
Count of preventable ED visits	LTSS users	0.0040	14.7	<0.0001	0.0031, 0.0050	0.0052***
	Non-LTSS users	−0.0012	NS	0.1913	−0.0030, 0.0006	
Probability of ACSC admission, overall	LTSS users	0.0017	19.3	<0.0001	0.0011, 0.0023	0.0021***
	Non-LTSS users	−0.0004	−9.5	0.0005	−0.0007, −0.0002	
Probability of ACSC admission, chronic	LTSS users	0.0013	27.5	<0.0001	0.0008, 0.0018	0.0016***
	Non-LTSS users	−0.0003	−7.6	0.042	−0.0005, −0.0000	
Probability of 30-day follow-up after mental health discharge	LTSS users	−0.0047	NS	0.7472	−0.0330, 0.0237	0.0191
	Non-LTSS users	−0.0238	−6.1	0.0199	−0.0438, −0.0038	
Count of all-cause 30-day readmissions	LTSS users	0.0000	NS	0.9994	−0.0106, 0.0106	0.0152
	Non-LTSS users	−0.0152	−6.6	0.0140	−0.0273, −0.0031	

* $p<0.05$; ** $p<0.01$; *** $p<0.001$
— = data not available. 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.
NOTE: SNF admissions where not analyzed as they were deemed incomplete.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data, and Minimum Data Set data.

In addition, the demonstration effect for beneficiaries with LTSS use was a relative increase of 0.0052 monthly preventable ED visits and an increase in the probability of ACSC admissions (overall and chronic), relative to the demonstration effect among beneficiaries with no LTSS use.

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

5.4.2 Beneficiaries with Serious and Persistent Mental Illness

As indicated in ***Table D-1*** in ***Appendix D***, about 40.9 percent of the demonstration eligible population in demonstration year 3 had an SPMI. On some measures, the demonstration impacted those with SPMI differently than those without SPMI (see ***Table 12*** below). The cumulative demonstration effect for those with SPMI on the probability of any ED visit was a 0.19 percentage point increase, relative to the demonstration effect for those without SPMI. The demonstration effect for those with SPMI was an increase on the number of preventable ED visits and the probability of any ACSC admission (overall), relative to the demonstration effect for those without SPMI.

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

Table 12
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, March 1, 2014–December 31, 2017

Measure	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures						
Probability of inpatient admission	SPMI	−0.0023	NS	0.0529	−0.0047, 0.0000	−0.0015
	Non-SPMI	−0.0008	NS	0.1879	−0.0021, 0.0004	
Probability of ED visit	SPMI	0.0020	NS	0.0636	−0.0001, 0.0041	0.0019*
	Non-SPMI	0.0001	NS	0.9189	−0.0013, 0.0014	
Count of physician E&M visits	SPMI	0.0396	NS	0.0759	−0.0041, 0.0833	0.011
	Non-SPMI	0.0286	3.4	0.0007	0.0120, 0.0452	
Probability of SNF admission	SPMI	—	—	—	—	—
	Non-SPMI	—	—	—	—	
Quality of Care Measures						
Count of preventable ED visits	SPMI	0.0024	5.0	0.0069	0.0007, 0.0041	0.0023***
	Non-SPMI	0.0001	NS	0.8191	−0.0008, 0.0010	
Probability of ACSC admission, overall	SPMI	0.0006	7.0	0.0033	0.0002, 0.0011	0.0005*
	Non-SPMI	0.0001	NS	0.5290	−0.0002, 0.0004	
Probability of ACSC admission, chronic	SPMI	0.0005	8.0	0.0115	0.0001, 0.0008	0.0003
	Non-SPMI	0.0001	NS	0.0965	−0.0000, 0.0003	
Count of all-cause 30-day readmissions	SPMI	−0.0060	NS	0.2978	−0.0172, 0.0053	0.0024
	Non-SPMI	−0.0084	NS	0.0568	−0.0171, 0.0002	

* $p<0.05$; ** $p<0.01$; *** $p<0.001$
— = data not available. 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.
NOTE: SNF admissions were not analyzed as they were deemed incomplete. Probability of 30-day follow-up after mental health discharge is estimated on only those with a hospitalization for serious and persistent mental illness; the difference-in-differences estimate is reported in ***Table 10***.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data, and Minimum Data Set data.

SECTION 6

Demonstration Impact on Cost Savings

RTI evaluated the Illinois demonstration's impact on Medicare costs using a difference-in-differences analysis of beneficiaries eligible for the demonstration, relative to the comparison group.

Our results show no overall impact to Medicare expenditures as a result of the demonstration.

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 Medicare-Medicaid enrollees (Illinois three-way contract, 2013). MMPs receive a blended, risk-adjusted prospective capitation payment to provide enrollees with Medicare Parts A, B, and D, and Medicaid services. 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 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, the three-way contract, and the Final Rate Reports (HFS and CMS).

This section presents the Medicare Parts A and B cost savings analysis for demonstration years 1 to 3 (calendar years 2014 to 2017). Additionally, corrections were made to impact estimates from earlier reports that resulted in differences in our current cost savings impact estimates (see ***Appendix F*** for additional details).

We used an ITT analytic framework that includes beneficiaries eligible for the demonstration rather than only those who enrolled. The ITT analytic framework alleviates concerns of selection bias.

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.

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 the same 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 (PS) weighting in the DinD analysis.

RTI gathered predemonstration and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources, as summarized in ***Table 13***. 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 Prescription Drug system (MARx). 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 (March 2020). We also used Medicare FFS claims to calculate expenditures for beneficiaries who were not enrolled in an MMP or MA plan. These FFS claims included all Medicare Parts A and B services.

Table 13
Data sources for monthly Medicare expenditures

Group	Predemonstration period March 1, 2012–February 28, 2014	Demonstration period March 1, 2014–December 31, 2017
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.

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

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 (see ***Appendix F***), 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.

6.2 Demonstration Impact on Medicare Parts A and B Costs

Table 14 shows the magnitude of the DinD estimate of the cumulative demonstration impact on Medicare Parts A and B costs, both in absolute dollar amount and relative to the adjusted mean expenditure level in the predemonstration and demonstration periods. The adjusted mean for monthly expenditure decreased from the predemonstration period to the demonstration period in both the demonstration and comparison groups, though it decreased by a smaller amount in the demonstration group than in the comparison group. The cumulative DinD estimate of $9.99, which amounts to a relative difference of 0.76 percent of the adjusted mean expenditure for the comparison group during the demonstration period, is not statistically significant ($p = 0.3626$). This suggests that overall, the Illinois demonstration was not associated with statistically significant additional nor reduced costs relative to the comparison group.

Table 14
Cumulative demonstration impact on Medicare Parts A and B cost for eligible beneficiaries in Illinois, March 1, 2014–December 31, 2017

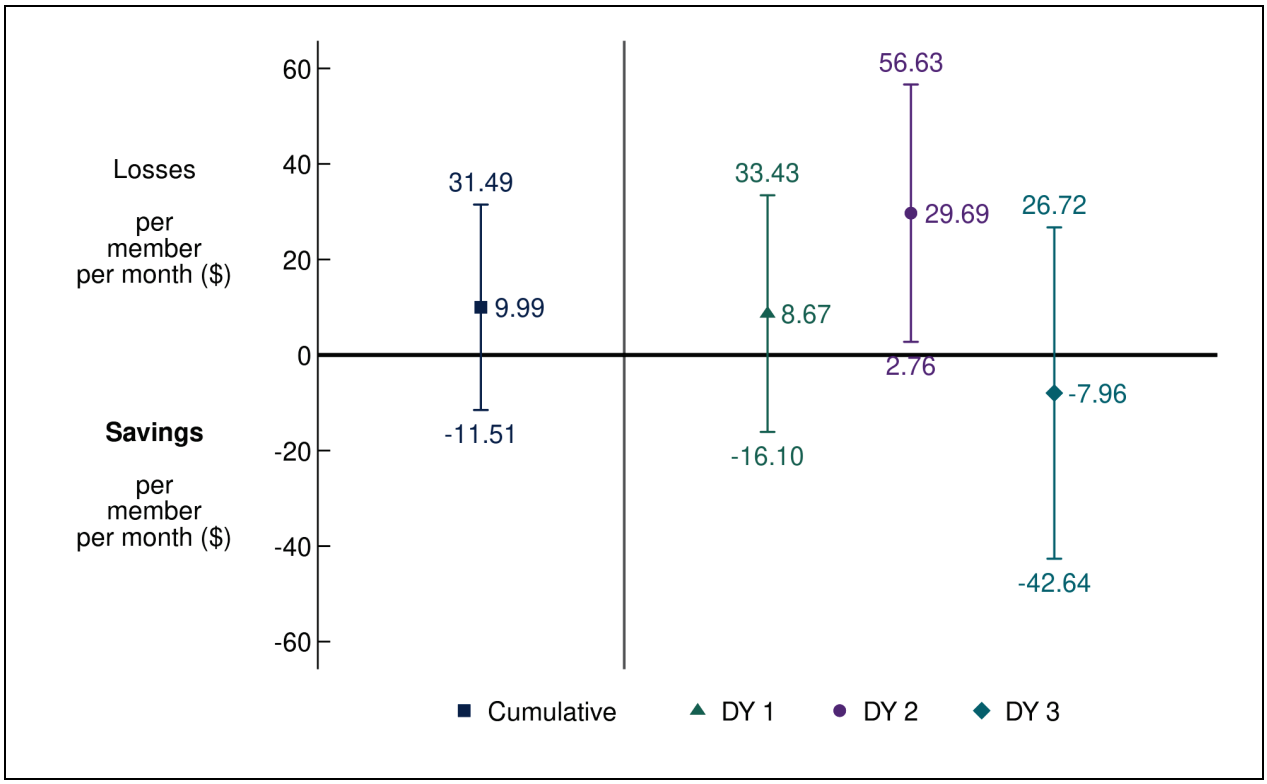
Group	Adjusted mean for predemonstration period ($)	Adjusted mean for demonstration period ($)	Relative difference (%)	Adjusted coefficient DinD ($)	*p*-value
Demonstration	1,390.15	1,362.09	0.76	9.99	0.3626
Comparison	1,343.07	1,306.43			

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1620_pct_tables.log)

In addition, we estimated the effect of the demonstration in each demonstration year. As shown in ***Figure 20***, the demonstration had no statistically significant effect in demonstration years 1 and 3 (as shown by the confidence intervals crossing the $0), so determining an impact on Medicare costs is inconclusive. However, the coefficient for demonstration year 2 was statistically significant, indicating an increased Medicare cost of $29.69 PMPM 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 participating health plans rather than the actual amount the plan paid for services.

Appendix F presents supplemental analysis of the demonstration's cumulative and yearly effects on Medicare Parts A and B costs for MMP enrollees only (see ***Table F-9*** for detailed results).

Figure 20
Cumulative and annual demonstration effects on monthly Medicare Parts A and B cost, March 1, 2014–December 31, 2017 [29]

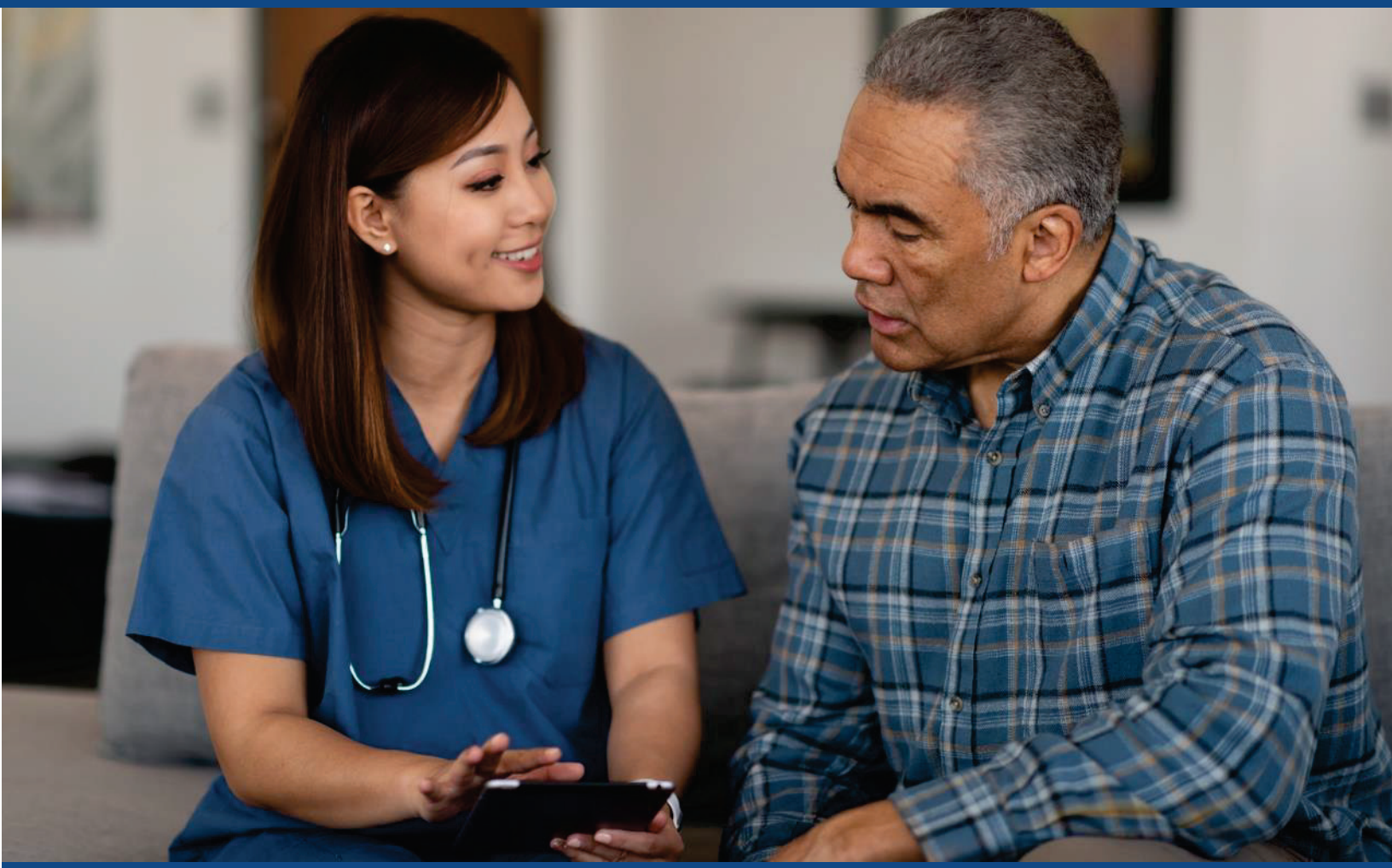


DY = demonstration year.
NOTES: 95% confidence intervals are shown. "Losses"/"**Savings**" indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1610_GLM.log)

[29] The demonstration year 1 effect differs from the results shown in the First Evaluation Report. This difference is due to changes in our methodology. See ***Appendix F*** for more details.

SECTION 7

Conclusions



7.1 Implementation Successes, Challenges, and Lessons Learned

By the end of 2019, many of the challenges that developed during the first years of the demonstration seemed to resolve. Many concerns that providers raised about the disruptive changes with the implementation of managed care had been addressed. A higher percentage of eligible beneficiaries were enrolling in MMAI, increasing from 30 percent in 2016 to 37 percent in 2019, and passive enrollment into Molina—the only MMP in Central Illinois—resumed in March 2019.

Interviews with advocates and beneficiary survey data indicated that most MMAI enrollees have had positive experiences with MMAI. In 2019 CAHPS survey results, over 60 percent of enrollees across Illinois MMPs gave their plans a rating of 9 or 10, and stakeholders reported that beneficiaries like care coordination, flexible benefits, particularly zero copayments for prescription drugs, and integration of Medicare and Medicaid services.

MMPs reported progress on their efforts to improve quality and achieve cost savings. Plans said they were achieving improvements in utilization of institutional services for members with longer tenure in their plans. However, they also expressed frustration with the movement of beneficiaries into and out of enrollment, which interrupts continuity of care. Plans reported wider use of shared savings and risk arrangements, and contracts with some providers were terminated for quality reasons.

Although Medicaid managed care launches and other changes often diverted the attention of State officials and stakeholders away from MMAI, improvements aimed at Medicaid managed care—such as the provider credentialing system, provider forums, and the provider complaint portal—were also beneficial for MMAI.

The State continued its effort to increase alignment of quality management between MMAI and HealthChoice. The MMAI QIP requirements are now aligned with the HealthChoice PIPs—the programs use the same topics, rapid-response process, and reporting forms. The State achieved some alignment of quality measures in 2016 by designating many of the HEDIS measures used for Medicaid MCOs as State-specified measures for MMAI. And the CMT implemented a discharge planning improvement initiative for MMPs that built on a similar effort by the State for HealthChoice plans.

The State's commitment to the MMAI model, including a 3-year extension through 2022 and the State's request to extend MMAI statewide in 2021, reflects the overall progress of the demonstration.

Despite progress with the demonstration, a number of challenges arose during this reporting period. The State's system for Medicaid eligibility redeterminations contributed to a higher rate of disenrollments due to loss of Medicaid eligibility in 2018 and 2019, creating challenges for State officials, MMPs, options counselors, and providers, as well as enrollees. Although stakeholders and beneficiaries overall provided positive feedback on plans' care coordination efforts, quality was uneven and some enrollees had trouble contacting their care coordinators. Several plans experienced a sharp decline in assessment and care plan completion rates, due to shifting resources to the implementation of HealthChoice Illinois in January 2018.

Managing the care provided to members in NFs remained a challenge. The State's Any Willing Provider law made it difficult to improve NF performance, and plans found it challenging to move residents to higher quality facilities.

7.2 Demonstration Impact on Service Utilization and Costs

In its first 3 years, the MMAI has had mixed results on service utilization and no statistically significant impact on Medicare costs for 2 out of 3 demonstration years. Our analysis found that under the demonstration, while the cumulative monthly number of physician visits increased, there were also increases in the probability of ACSC admissions (overall and chronic) and long-stay NF use, relative to the comparison group. There was no cumulative demonstration impact on inpatient admissions, ED visits, preventable ED visits, 30-day follow-up visit after a mental health hospitalization, or all-cause 30-day readmission.

There were some notable trends in the outcomes over the course of the demonstration period, but no clear pattern of overall improvement in the effectiveness of the demonstration. For example, whereas there was no impact of the demonstration on inpatient admissions, ED visits, or preventable ED visits in demonstration years 1 and 2, there was a decrease in the probability of an inpatient admission in demonstration year 3, and increases in probability of an ED visit, and the number of monthly preventable ED visits in year 3. While the demonstration resulted in relative increases in the probability of long-stay NF use in demonstration years 1 and 2, there was no change in demonstration year 3.

The Illinois demonstration impacted people with LTSS use and SPMI differently than those without LTSS use and SPMI. For example, 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, and the number of physician E&M visits, relative to the non-LTSS population. The demonstration impact for those with an SPMI was an increase in the probability of ED visits, the number of preventable ED visits, and the probability of overall ACSC admissions, relative to the demonstration effect for non-SPMI beneficiaries.

The launch of mandatory MLTSS in 2016 in the Greater Chicago area also included expanded access to care coordination and management for the dual-eligible population, confounding causal interpretation of these findings. Stakeholders and enrollees spoke positively about their experience in the MMP and care coordination efforts, and MMPs engaged in activities that supported greater access to primary care. Nonetheless, ongoing implementation challenges, such as disenrollment, care coordinator turnover, and State budget issues may have impacted care coordination, nursing facility transition efforts, and access to behavioral health services. This may have contributed to slower decreases in ACSC admissions (overall and chronic) and long-stay NF use in the demonstration group relative to the comparison group, and poorer outcomes for beneficiaries with SPMI relative to those without SPMI.

In general, these findings indicate that the Illinois demonstration has had mixed results, and caution should be used in making causal interpretation of the demonstration impact on service utilization outcomes.

Overall, the Illinois demonstration did not have any significant cumulative impact on the Medicare Parts A and B cost for an average beneficiary. The cost analyses reflect the costs to the Medicare program when comparing the capitation payments received by the MMPs to the Medicare fee-for-service expenditures and capitation payments to Medicare Advantage plans. The analyses do not address what the plans are spending on the services they provide. A capitation rate is based on characteristics of a beneficiary and is not necessarily linked to actual service utilization. Additionally, this analysis does not consider Medicare Part D or Medicaid expenditures.

7.3 Next Steps

The RTI evaluation team will continue to collect information such as enrollment statistics and updates on key aspects of implementation on a quarterly basis from Illinois officials through the online State Data Reporting System. The team will continue to conduct annual virtual site visit calls with the State and demonstration stakeholders and quarterly calls with the MMAI State and CMS staff. RTI will ask CMS for the results of any evaluation activities conducted by CMS or its contractors, and also ask the State for any written reports or materials summarizing relevant information. RTI will conduct additional qualitative and quantitative analyses over the course of the demonstration.

The next report will include a qualitative update on demonstration implementation and quantitative analyses of the Illinois demonstration's impact on measures of utilization, quality, and cost for demonstration eligible beneficiaries, relative to the comparison group, with additional years of data. As noted previously, the Illinois demonstration has been extended through December 31, 2022, which will provide further opportunities to evaluate the demonstration's performance.

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Appendix A

Data Sources

We used a variety of data sources to prepare this report.

Key informant interviews. The RTI evaluation team conducted virtual site visits in 2018 and 2019. The team interviewed the following types of individuals: State agency staff; CMS and State members of the CMT; Medicare-Medicaid Plan (MMP) officials; Ombudsman program officials; and provider organization representatives. To monitor demonstration progress, the RTI evaluation team engages in periodic phone conversations with the Illinois HFS and CMS. These might include discussions about new policy clarifications designed to improve plan performance, quality improvement work group activities, and CMT actions.

Focus groups. Under another contract, CMS sponsored focus groups in Illinois in 2018, and we have incorporated some findings and quotes from the summary report into this evaluation report. A total of six groups were conducted in the Greater Chicago region: two in Chicago, two in Oak Brook, and two in Skokie. In each location, one group was composed of LTSS participants, and the other group was composed of enrollees who do not use LTSS. A total of 39 MMAI enrollees participated.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Illinois through the State Data Reporting System. 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 MMAI plans and submitted to CMS's implementation contractor, NORC.[30,31] Data reported to NORC include core quality measures that all MMPs are required to report, as well as State-specific measures that 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[32] and other publicly available materials on the Illinois MMAI webpage and the Illinois Department of Healthcare and Family Services (HFS) website.[33] The RTI evaluation team also reviewed information shared through personal communications with Illinois and CMS officials.

Beneficiary satisfaction surveys. Medicare requires all MA plans, including MMAI plans, to conduct an annual assessment of beneficiary experiences using the Medicare Advantage and Prescription Drug Plan CAHPS survey instrument. This report includes survey results for a subset of the 2015, 2016, 2017, and 2018 survey questions. Findings are available at the MMP level. Some CAHPS items are case mix-adjusted. Case mix refers to the respondent's health

[30] Data are reported for Quarter 2 of 2014 through 2019.
[31] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core and Illinois-Specific Reporting Requirements documents, which are available at: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.
[32] https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/FinancialModelstoSupportStates EffortsinCareCoordination.html
[33] https://www.illinois.gov/hfs/MedicalProviders/cc/mmai/Pages/default.aspx

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.

Complaints and appeals data. Complaint (also referred to as grievance) data are from three sources: (1) complaints from beneficiaries reported by MMAI plans to HFS, and separately to CMS's implementation contractor, NORC,[34] through Core Measure 4.2; (2) complaints received by HFS or 1-800-Medicare and entered into the CMS electronic 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 the Medicare IRE. This report also includes critical incidents and abuse data reported by Illinois MMPs to HFS and CMS's implementation contractor, NORC. This report also draws from data compiled and received by the Medicare IRE, Maximus, for 2014–2018.

HEDIS measures. We report on a subset of Medicare HEDIS measures, a standard measurement set used extensively by managed care plans, that are required of all MA plans.

Service utilization data. Our analyses used four sources of utilization data. 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; and fourth, we used 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 their current form for the demonstration period and therefore are not included in this report. However, CMS administrative data identifying eligible beneficiaries who used Medicaid-reimbursed LTSS was available, so that their Medicare service use could be presented in this report. Future reports will include findings on Medicaid service use once data are available.

Cost savings data. Two primary data sources were used to support the savings analyses, capitation payments and Medicare claims. Medicare capitation payments paid to MMAI plans during the demonstration period were obtained for all demonstration enrollees from CMS Medicare Advantage Prescription Drug 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 (March 5, 2020). 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. 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 claims included all Medicare Parts A and B services.

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

Appendix B

Illinois Medicare-Medicaid Alignment Initiative (MMAI) MMP Performance on Select HEDIS Quality Measures, 2015–2018

Tables B-1a and ***B-1b*** provide 2015 through 2018 HEDIS performance data for MMPs. These tables illustrate where MMP performance across demonstration years was steadily improving or worsening, and if these trends were favorable or unfavorable. Using correlation coefficients that were 0.9 and above, or −0.9 and below, we apply 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, where red indicates an unfavorable one. No testing for statistical significance for differences across years is performed because of the limited data available. For measures without green or red shading, year over year MMP performance remained relatively stable between 2015 and 2018.

Table B-1a
Illinois MMAI MMP Performance on Select HEDIS Quality Measures for 2015–2018 by MMP

Measure	National MA Plan Mean	Aetna				BlueCross				Humana			
	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)
Adults' access to preventive/ ambulatory health services	95.0	81.1[G]	83.9[G]	85.9[G]	86.2[G]	88.6	93.3	93.8	94.6	86.6[G]	89.3[G]	90.5[G]	91.0[G]
Adult BMI assessment	96.0	N/A	69.0[G]	89.3[G]	94.7[G]	N/A	68.3[G]	74.9[G]	80.5[G]	96.0	92.2	94.0	94.3
Blood pressure control[1]	69.5	43.3	54.0	61.1	57.4	24.5[G]	30.7[G]	46.5[G]	55.5[G]	63.3	72.5	77.9	76.4
Breast cancer screening	72.7	N/A	51.1	50.2	54.3	N/A	61.6	63.6	63.7	64.4	58.1	65.3	66.0
Colorectal cancer screening	70.5	N/A	29.0[G]	34.8[G]	42.1[G]	N/A	46.8[G]	51.6[G]	58.4[G]	66.4	47.9	61.1	62.0
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	77.8	57.1	58.3	57.5	N/A	75.0	74.3	68.8	73.9	72.7	78.3	73.2	71.4
Follow-up after hospitalization for mental illness (30 days)	47.9	49.8	54.9	42.4	36.6	34.3	33.3	40.6	44.4	34.1	34.6	43.6	39.1
Antidepressant medication management													
Effective acute phase treatment[2]	72.1	100.0	78.1	66.5	67.9	53.3	43.2	61.4	68.2	77.7	71.0	80.8	84.2
Effective continuation phase treatment[3]	56.1	96.7[R]	81.3[R]	44.7[R]	44.3[R]	36.7	54.4	46.9	53.0	78.5	77.4	72.7	77.8
Care for older adults													
Advance care planning	N/A	5.3[G]	11.6[G]	41.9[G]	48.4[G]	—	13.6	12.4	17.8	—	50.1[G]	51.8[G]	58.9[G]
Medication review	N/A	28.9[G]	27.7[G]	65.0[G]	74.5[G]	—	45.8	42.1	47.5	—	80.3[G]	85.9[G]	89.1[G]
Functional status assessment	N/A	13.9	52.8	65.0	63.5	—	17.4[G]	19.5[G]	37.7[G]	—	83.0	80.3	86.1
Pain assessment	N/A	25.9[G]	55.4[G]	69.6[G]	74.9[G]	—	27.9	18.0	30.7	—	90.0	88.1	91.2

(continued)

Table B-1a (continued)
Illinois MMAI MMP Performance on Select HEDIS Quality Measures for 2015–2018 by MMP

Measure	National MA Plan mean	Aetna				BlueCross				Humana			
	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)
Comprehensive diabetes care													
Received Hemoglobin A1c (HbA1c) testing	94.3	84.7	87.0	92.5	89.5	87.6[G]	91.0[G]	91.0[G]	94.2[G]	86.6[G]	86.6[G]	89.3[G]	93.0[G]
Poor control of HbA1c level (>9.0%) (higher is worse)	23.1	56.0[G]	55.3[G]	38.7[G]	38.4[G]	76.2[G]	74.8[G]	57.7[G]	40.6[G]	34.3	36.5	28.7	22.7
Good control of HbA1c level (<8.0%)	65.6	36.3[G]	37.7[G]	50.1[G]	52.6[G]	20.8	20.3	35.5	51.6	56.9	52.8	58.9	63.1
Received eye exam (retinal)	73.7	38.9[G]	50.5[G]	62.3[G]	66.9[G]	49.5[G]	59.8[G]	62.5[G]	67.9[G]	57.9[G]	63.3[G]	71.5[G]	74.3[G]
Received medical attention for nephropathy	95.5	88.2	88.7	91.5	91.2	94.3	93.4	94.9	94.2	92.9	92.0	93.5	96.3
Blood pressure control (<140/90 mm Hg)	69.1	35.0[G]	43.5[G]	55.7[G]	62.0[G]	21.9[G]	27.2[G]	33.3[G]	47.5[G]	59.1	67.2	61.8	67.8
Initiation and engagement of alcohol and other drug (AOD) dependence treatment													
Initiation of AOD treatment[4]	33.6	39.2	49.6	50.2	45.3	43.8	43.7	42.8	44.9	42.3	30.0	45.7	54.4
Engagement of AOD treatment[5]	4.5	7.7	6.7	9.6	9.8	3.6[G]	7.5[G]	8.5[G]	10.1[G]	3.3[G]	4.7[G]	6.9[G]	6.9[G]
Plan all-cause readmissions (observed-to-expected ratio[6])													
Age 18–64	0.75	1.05[G]	0.96[G]	0.83[G]	0.73[G]	0.72	1.02	0.94	0.97	0.99	0.83	0.83	0.82
Age 65+	0.71	1.04	0.77	0.60	0.68	—	0.90	0.90	0.72	0.88	0.84	0.81	0.53
Ambulatory care (per 1,000 members)													
Outpatient visits	9,606.0	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)	600.8	779.9	762.0	785.5	745.5	726.2[R]	777.2[R]	801.8[R]	830.6[R]	6,701.8	722.9	822.1	721.9

(continued)

Table B-1a (continued)
Illinois MMAI MMP Performance on Select HEDIS Quality Measures for 2015–2018 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 the MMP did not provide HEDIS data for this measure, 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] 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.
[2] Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).
[3] Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).
[4] 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.
[5] 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.
[6] Plan all-cause readmissions are reported as an observed-to-expected ratio mean. A value below 1.0 is desirable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.
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 2018 HEDIS measures.

Table B-1b
Illinois MMAI MMP Performance on Select HEDIS Quality Measures for 2015–2018 by MMP

Measure	National MA Plan mean	IlliniCare				Meridian				Molina			
	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)
Adults' access to preventive/ ambulatory health services	95.0	96.0	85.2	85.6	85.0	80.1[G]	80.6[G]	84.0[G]	84.0[G]	89.9	94.3	93.1	91.2
Adult BMI assessment	96.0	N/A	70.0[G]	76.7[G]	84.2[G]	N/A	78.7[R]	76.2[R]	62.0[R]	N/A	71.7[G]	94.2[G]	97.1[G]
Blood pressure control[1]	69.5	50.7	50.8	50.1	51.1	41.6	61.4	61.8	45.5	38.0[G]	47.5[G]	64.2[G]	68.1[G]
Breast cancer screening	72.7	N/A	73.9[R]	71.6[R]	61.7[R]	N/A	51.2	56.9	53.5	N/A	57.2[G]	58.0[G]	62.1[G]
Colorectal cancer screening	70.5	N/A	28.3	37.2	37.0	N/A	30.3	46.2	44.0	N/A	40.5	54.7	51.1
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	77.8	N/A	N/A	51.4	67.4	N/A	60.6[G]	70.2[G]	86.1[G]	N/A	71.7	75.0	N/A
Follow-up after hospitalization for mental illness (30 days)	47.9	36.2	64.4	45.3	45.1	34.2	31.6	33.9	37.0	58.0	73.7	62.6	72.2
Antidepressant medication management													
Effective acute phase treatment[2]	72.1	N/A	N/A	60.9	66.1	68.6	40.2	63.6	60.0	73.8	59.2	64.6	71.4
Effective continuation phase treatment[3]	56.1	N/A	N/A	47.1	46.8	51.0	60.8	49.1	44.3	58.3	73.9	54.4	57.9
Care for older adults													
Advance care planning	N/A	11.6[G]	19.7[G]	33.8[G]	33.8[G]	8.5[G]	19.6[G]	32.6[G]	34.6[G]	49.9[G]	69.2	57.1[G]	63.3[G]
Medication review	N/A	52.5[G]	73.3[G]	81.3[G]	86.4[G]	33.1[G]	41.3[G]	62.5[G]	64.5[G]	72.4[G]	85.7	79.1[G]	85.2[G]
Functional status assessment	N/A	79.4	64.4	60.1	75.2	19.3[G]	28.0[G]	53.5[G]	58.2[G]	53.6	76.6	65.0	63.0
Pain assessment	N/A	84.9	69.7	69.3	76.9	30.7[G]	39.4[G]	61.8[G]	65.2[G]	72.6[G]	86.6	83.1[G]	84.4[G]

(continued)

Table B-1b (continued)
Illinois MMAI MMP Performance on Select HEDIS Quality Measures for 2015–2018 by MMP

Measure	National MA Plan mean	IlliniCare				Meridian				Molina			
	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)	(2015)	(2016)	(2017)	(2018)
Comprehensive diabetes care													
Received Hemoglobin A1c (HbA1c) testing	94.3	91.9	88.4	86.1	88.3	82.2[G]	85.6[G]	85.6[G]	88.3[G]	91.0	92.7	94.9	91.2
Poor control of HbA1c level (>9.0%) (higher is worse)	23.1	57.7	50.5	65.2	53.3	69.6	65.4	61.1	72.5	49.9[G]	44.9[G]	41.9[G]	30.9[G]
Good control of HbA1c level (<8.0%)	65.6	37.5	43.3	29.2	39.4	27.2	28.0	34.6	22.1	40.4[G]	46.2[G]	47.9[G]	58.2[G]
Received eye exam (retinal)	73.7	65.8	67.8	64.7	69.6	51.4[G]	55.0[G]	62.0[G]	63.0[G]	40.4	58.9	69.1	61.1
Received medical attention for nephropathy	95.5	93.8[R]	91.9[R]	91.7[R]	89.3[R]	89.8	89.2	90.5	91.0	93.6	94.0	95.1	92.2
Blood pressure control (<140/90 mm Hg)	69.1	43.4	44.2	37.2	48.7	29.9	36.7	44.0	35.3	61.8	64.4	64.2	70.6
Initiation and engagement of alcohol and other drug (AOD) dependence treatment													
Initiation of AOD treatment[4]	33.6	72.4	50.9	43.7	48.9	47.7	50.6	46.4	41.5	39.9	41.1	39.6	41.5
Engagement of AOD treatment[5]	4.5	17.1	5.4	7.8	10.7	7.1	6.5	8.7	7.8	5.0	4.7	5.8	2.8
Plan all-cause readmissions (observed-to-expected ratio[6])													
Age 18–64	0.75	0.75[R]	0.91[R]	0.94[R]	1.06[R]	1.10[G]	1.23[G]	1.21[G]	1.06[G]	1.10[G]	0.78[G]	0.74[G]	0.66[G]
Age 65+	0.71	0.75	0.87	0.92	0.65	0.89	1.07	0.85	0.93	0.95	0.90	0.70	0.70
Ambulatory care (per 1,000 members)													
Outpatient visits	9,606.0	6,701.8	7,716.0	9,624.5	9,501.9	80,20.0	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)	600.8	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 2015–2018 by MMP

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 the MMP did not provide HEDIS data for this measure, 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] 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.
[2] Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).
[3] Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).
[4] 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.
[5] 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.
[6] Plan all-cause readmissions are reported as an observed-to-expected ratio mean. A value below 1.0 is desirable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix.
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 2018 HEDIS measures.

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Appendix C

Comparison Group Methodology for Illinois Demonstration Years 2 and 3

CMS contracted with RTI International to monitor the implementation of demonstrations under the Financial Alignment Initiative (FAI) and to evaluate their impact on beneficiary experience, quality, utilization, and cost. This appendix presents the comparison group selection and assessment results for the FAI demonstration in the State of Illinois.

Results for comparison group selection and assessment analyses are prepared for each demonstration year. The evaluation report for the first demonstration year and two prior predemonstration years for the Illinois demonstration was publicly released in November 2018. The Technical Appendix at the end of that document describes the comparison group identification methodology in detail.

This report provides the comparison group results for the second and third performance years for the MMAI in Illinois (January 1, 2016–December 31, 2017) and notes any major changes in the results since the previous performance year. The first Illinois demonstration year covered eight quarters (March 1, 2014–December 31, 2015).

C.1 Demonstration and Comparison Group Characteristics

The study population includes all full-benefit Medicare-Medicaid eligible beneficiaries residing in the demonstration and comparison areas. The Illinois MMAI 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. 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. We apply these 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.

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 entire study period, and (4) removing beneficiaries who died before the beginning of each analytic period. After applying these exclusions, the number of demonstration group beneficiaries remained stable over the 2 predemonstration years, ranging between 201,533 and 206,299 beneficiaries per year. Demonstration years 1 through 3, however, saw modest changes in number of demonstration group beneficiaries, from 183,925, to 168,579, to 178,267 beneficiaries per year, respectively. The number of beneficiaries in the comparison group ranged between 636,323 and 753,359 for the predemonstration and demonstration years.

Additionally, cost savings analysis excludes monthly observations where the beneficiary was enrolled in private Medicare cost or employer-based Medicare contracts. The final analytic sample after propensity weight calculation and additional cost savings exclusions are reported in ***Table C-1***.

Medicare Advantage enrollees are eligible and may opt into the Illinois demonstration. This report includes the Medicare Advantage population in the cost savings analysis, described in ***Appendix F***. However, due to concerns on the completeness and accuracy of Medicare Advantage encounter data for this evaluation for years prior to 2016, RTI made a key methodological change from previous reports by excluding the Medicare Advantage population from the service utilization analysis, described in ***Appendix E***. Encounter data submitted by MMPs participating in the MMAI demonstration were considered complete and accurate. The population analyzed for the service utilization outcomes includes only demonstration eligible full-benefit Medicare and Medicaid beneficiaries enrolled in Medicare Fee-for-Service (FFS) or in MMPs participating in the demonstration. ***Table C-1*** displays the number and percentage of beneficiaries who were excluded from the service utilization analysis due to having any month of Medicare Advantage enrollment during the study period. The prevalence of beneficiaries ever enrolled in Medicare Advantage ranges from 7.9 to 14 percent in the demonstration group, and 21.6 to 25.7 percent in the comparison group during the predemonstration and demonstration periods.

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

Group	Predemonstration year 1	Predemonstration year 2	DY 1	DY 2	DY 3
Demonstration					
Final count of beneficiaries	201,508	206,291	183,922	168,563	178,248
Count of beneficiaries with Medicare Advantage	15,855	19,636	25,774	20,397	22,526
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	7.9	9.5	14.0	12.1	12.6
Comparison					
Final count of beneficiaries	636,242	645,897	753,275	716,300	738,456
Count of beneficiaries with Medicare Advantage	137,294	152,729	193,654	175,156	205,201
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	21.6	23.7	25.7	24.5	27.8

DY = demonstration year.

Using the distance score methodology described in the Technical Appendix, the comparison area is drawn from 28 metropolitan statistical areas (MSAs) from 10 States. The pool of States was limited to those with timely submission of Medicaid data to CMS. These geographic areas have not changed since the Illinois First Evaluation Report.

C.2 Propensity Score Estimates

RTI's methodology uses PSs to examine initial differences between the demonstration and comparison groups in each analysis period and then to weight the data to improve the match between them. The comparability of the two groups is examined with respect to both individual beneficiary characteristics as well as the overall distributions of PSs.

A PS is the predicted probability that a beneficiary is a member of the demonstration group conditional on a set of observed variables. Our PS models include a combination of beneficiary- and region-level characteristics measured at the ZIP code (ZIP Code Tabulation Area) level. The Technical Appendix in the First Evaluation Report provides a detailed description of these characteristics and how the PSs were calculated.

Compared to the analysis for the previous evaluation report, two additional control variables have been added to the propensity score model. The first, an indicator for Asian beneficiaries, has been included because Asians now represent more than 10 percent of the beneficiaries in either the demonstration or comparison group. The second is the share of months during the year for which a beneficiary was enrolled in a Medicare Advantage plan to adjust for differences in MA exposure between the demonstration and comparison groups.

The logistic regression coefficients and z-values for the covariates included in the propensity model for Illinois MMAI demonstration year 3 are shown in ***Table C-2***. The largest relative differences were that demonstration participants were more likely to be Black, Female, and residing in an MSA, less likely to be Asian, less likely to be participating in other Medicare shared savings programs (other MDM), have fewer months of non-MMP MA plan enrollment, and have fewer months of eligibility in demonstration year 3 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 limitation, as well as differences associated with distances to the nearest hospital and the nearest nursing facility. The logistic regression findings are very similar in demonstration year 2. The magnitude of the group differences for all variables prior to propensity score weighting is shown in ***Table C-3***.

C.3 Propensity Score Overlap

The distributions of PSs by group for demonstration year 3 are shown in ***Figure C-1*** before and after PS weighting. Estimated scores for the demonstration group topped out at around 0.80, while those for the comparison group topped out at roughly 0.90. The unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0.10 to 0.20. Inverse probability of treatment weighting pulls the distribution of weighted comparison group PSs (dotted line) very close to that of the demonstration group (solid line).

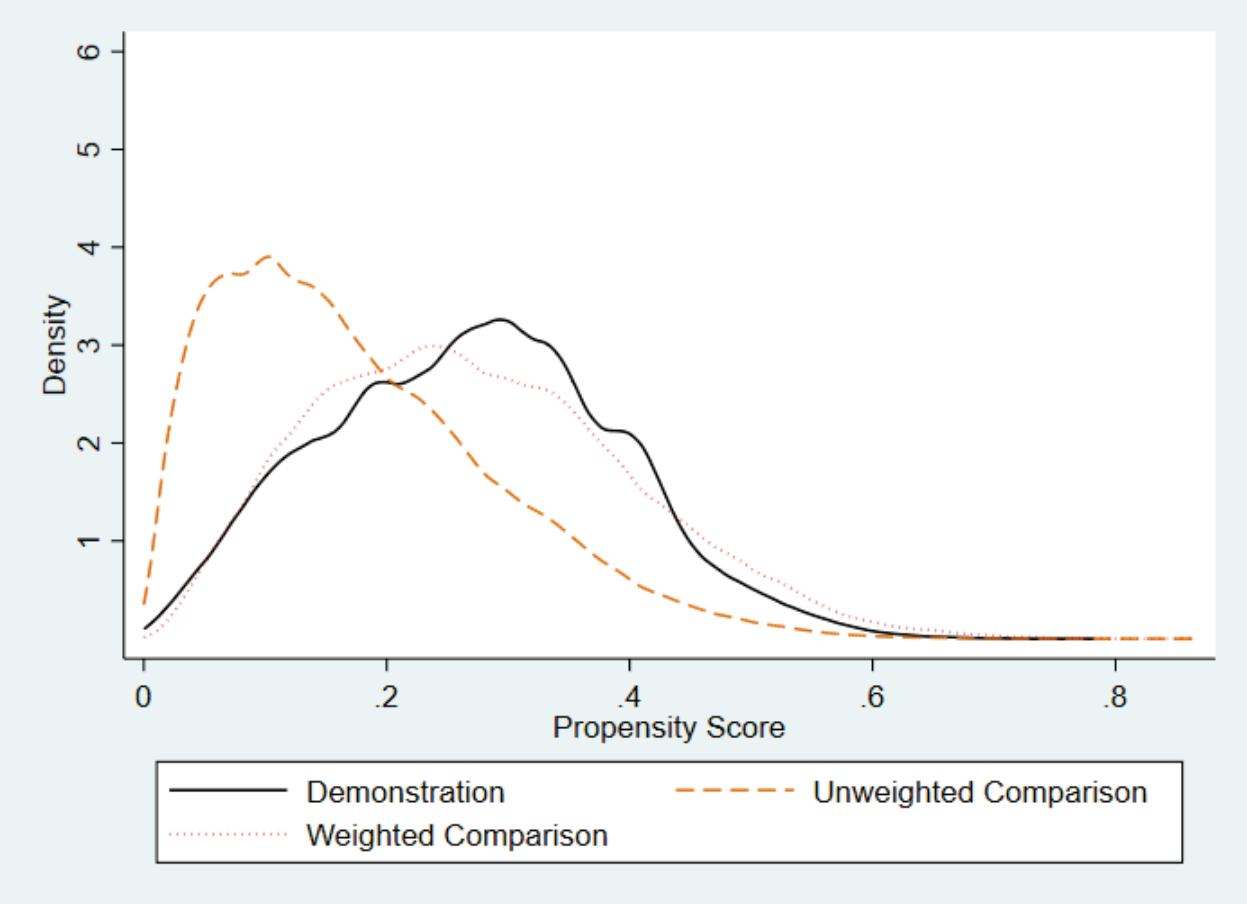
Any beneficiaries who have estimated PSs below the smallest estimated value in the demonstration group are removed from the comparison group. Because of the very broad range of PSs found in the Illinois demonstration data, only 8 and 6 beneficiaries were removed from the comparison group in demonstration years 2 and 3, respectively.

Table C-2
Logistic regression estimates for Illinois propensity score model in demonstration year 3

Characteristic	Demonstration year 3		
	Coef.	Standard error	z-score
Age (years)	0.007	0.000	26.18
Died during year	−0.556	0.013	−42.96
Female (0/1)	0.223	0.006	36.45
Black (0/1)	0.419	0.007	60.26
Asian (0/1)	−0.640	0.012	−53.53
Disability as original reason for entitlement (0/1)	0.007	0.008	0.89
ESRD (0/1)	−0.031	0.017	−1.81
Share mos. elig. during year (prop.)	−0.757	0.010	−77.88
Share mos. MA plan enroll during year (prop.)	−1.490	0.009	−161.41
HCC risk score	0.005	0.003	1.50
Other MDM	−0.603	0.008	−79.62
MSA (0/1)	0.683	0.024	29.00
% of pop. living in married household	−0.007	0.000	−24.23
% of households w/member >= 60 yrs.	−0.006	0.000	−13.90
% of households w/member < 18 yrs.	−0.007	0.000	−16.38
% of adults with college education	−0.011	0.000	−40.24
% of adults with self-care limitation	−0.259	0.002	−106.68
Distance to nearest hospital (mi.)	−0.030	0.001	−26.69
Distance to nearest nursing facility (mi.)	−0.129	0.002	−65.77
Intercept	0.840	0.039	21.29

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, January 1, 2017–December 31, 2017



C.4 Group Comparability

Covariate balance refers to the extent to which the characteristics used in the PS are similar (or "balanced") for 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 developed 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 3: January 1, 2017–December 31, 2017

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age	66.335	66.398	66.335	−0.004	0.000
Died	0.057	0.062	0.058	−0.021	−0.004
Female	0.593	0.604	0.588	−0.023	0.012
Black	0.372	0.256	0.378	0.252	−0.013
Asian	0.054	0.097	0.054	−0.161	0.002
Disability as original reason for entitlement	0.443	0.443	0.441	−0.001	0.002
ESRD	0.030	0.025	0.031	0.029	−0.008
Share mos. elig. during year	0.801	0.851	0.795	−0.172	0.019
Share mos. MA plan enroll during year	0.106	0.242	0.107	−0.382	−0.002
HCC score	1.196	1.184	1.195	0.015	0.002
Other MDM	0.153	0.209	0.152	−0.146	0.002
MSA	0.986	0.938	0.986	0.255	0.004
% of pop. living in married household	62.278	65.554	62.049	−0.190	0.013
% of households w/member >= 60	36.097	37.616	36.116	−0.192	−0.003
% of households w/member < 18	32.251	31.661	32.247	0.068	0.000
% of adults with college education	27.839	28.315	27.581	−0.028	0.015
% of adults with self-care limitation	3.163	3.519	3.153	−0.213	0.007
Distance to nearest hospital	3.682	5.026	3.717	−0.329	−0.010
Distance to nearest nursing facility	2.574	3.557	2.570	−0.381	0.002

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 3 in ***Table C-3***. The column of unweighted standardized differences indicates that several of these variables were not balanced before running the propensity model. 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 PS weighting for Illinois demonstration year 3 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 2.

C.5 Enrollee Results

In addition, we performed PS weighting for demonstration enrollees (approximately 35 percent of the eligible demonstration 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 2-year demonstration period as well as 3 months of eligibility during the 2-year predemonstration period, and (2) the corresponding comparison group beneficiaries are those with at least 3 months of eligibility in both the 2-year demonstration period and the 2-year predemonstration period.

As was the case for all eligible beneficiaries, the unweighted values of several covariates differed substantially between the demonstration and comparison group for enrollees in each baseline and demonstration year. After propensity score weighting, the standardized differences of those 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 with two adaptations to the methodology used to produce weights for all eligible beneficiaries. The first is the explicit exclusion of beneficiaries who were ever enrolled in a Medicare Advantage plan. Due to concerns on the completeness and accuracy of Medicare Advantage encounter data for this evaluation for years prior to 2016, RTI made a key methodological change from previous reports by excluding the Medicare Advantage population from the service utilization analysis. The second difference is the exclusion of beneficiaries ever enrolled in an MMP for which there is not complete or valid encounter data. These exclusions reduced the number of beneficiaries by roughly 55,000 in the demonstration group and by roughly 240,000 in the comparison group. The resulting demonstration group sample ranged between 114,466 and 149,588 beneficiaries each year; the comparison group sample ranged between 421,946 and 483,420 beneficiaries each year.

Despite difference in sample sizes, the results of the propensity score weighting analysis were similar to that for all eligible beneficiaries. While the unweighted values of several covariates differed substantially between the demonstration and comparison group in each baseline and demonstration year, the standardized differences of those covariates were reduced to less than 0.10 in absolute value after propensity 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 19 of the variables we consider for comparability. Further analysis of the enrollee group and the service utilization group yielded similar results to the main analysis on the all-eligible population presented in this appendix.

Appendix D

Service Utilization Methodology

D.1 Methodology

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

D.1.1 Evaluation Design

RTI International is using an intent-to-treat (ITT) approach for the quantitative analyses conducted for the evaluation, comparing the eligible population under each State demonstration with a similar population that is not affected by the demonstration (i.e., a comparison group).

ITT refers to an evaluation design in which all Medicare-Medicaid enrollees eligible for the demonstration constitute the evaluation sample, regardless of whether they actively participated in demonstration models. Thus, under the ITT framework, analyses include all beneficiaries eligible for the demonstration, including those who are eligible but are not contacted by the State or participating providers to enroll in the demonstration or care model; those who enroll but do not engage with the care model; and a group of similar eligible individuals in the comparison group.

Results for special populations within each of the demonstration and comparison groups are also presented in this section (e.g., those with any LTSS use in the demonstration and comparison groups; those with any behavioral health claims in the demonstration and comparison groups). In addition, one group for which results are also reported in this section are *not* compared to the comparison group because this group does not exist within the comparison group: Illinois demonstration enrollees. For this group, we compare them to in-State non-enrollees.

D.1.2 Comparison Group Identification

The comparison group serves to provide an estimate of what would have happened to the demonstration group in the absence of the demonstration. Thus, the comparison group members should be similar to the demonstration group members in terms of their characteristics and health care and LTSS needs, and they should reside in areas that are similar to the demonstration State in terms of the health care system and the larger environment. For this evaluation, identifying the comparison group members entailed two steps: (1) selecting the geographic area from which the comparison group would be drawn, and (2) identifying the individuals who would be included in the comparison group.

To construct Illinois's comparison group, we used both in-State and out-of-State areas. We compared demonstration and potential comparison areas on a range of measures, including spending per Medicare-Medicaid enrollee by each program, the shares of LTSS delivered in facility-based and community settings, and the extent of Medicare and Medicaid managed care penetration. Using statistical analysis, we selected the individual comparison MSAs that most closely match the values found in the demonstration area on the selected measures. We also considered other factors when selecting comparison States, such as timeliness of Medicaid data submission to CMS.

We identified a comparison group from MSAs in Alabama, California, Georgia, Illinois, Massachusetts, New Jersey, New York, Pennsylvania, Texas, and Virginia, that is at least as large as the eligible population in Illinois. For details of the comparison group identification strategy, see ***Appendix C***.

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 encounter data, as well as the Minimum Data Set (MDS).

Although Medicaid service data on use of LTSS, behavioral health, and other Medicaid-reimbursed services were not available for the demonstration period and therefore are not included in this report, CMS administrative data identifying eligible beneficiaries who used *any* Medicaid-reimbursed LTSS or *any* Medicare behavioral health services were available, so that their Medicare service use could be presented in this report. Future reports will include findings on Medicaid service use once data are available.

D.1.4 Populations and Services Analyzed

The population analyzed for the service utilization outcomes includes only demonstration eligible full-benefit Medicare and Medicaid beneficiaries enrolled in Medicare FFS; the demonstration group in the demonstration period also included MMP enrollees. The prevalence of beneficiaries ever enrolled in Medicare Advantage ranges from 7.9 to 14 percent in the demonstration group, and 21.6 to 25.7 percent in the comparison group during the predemonstration and demonstration periods (see ***Appendix D, Table D-1***).

Among the FFS demonstration eligible population, we focused on the following special populations: those receiving any LTSS; those with any behavioral health service use in the last 2 years for a serious and persistent mental illness (SPMI); demonstration enrollees; and three demographic groups (age, gender, and race). For each group and service type analyzed, we provide estimates of three access to care and utilization measures: the percent of demonstration eligible beneficiaries with any use of a service and counts of service use for both all eligible beneficiaries and users of the respective service.

The 11 service settings analyzed include both institutional (inpatient, inpatient psychiatric, inpatient nonpsychiatric, emergency department (ED) visits not leading to admission, ED psychiatric visits, observation stays, and hospice) and community settings (primary care; outpatient as well as independent physical, speech, and occupational therapy; and other hospital outpatient services).

In addition, six quality measures representing specific utilization types of interest are presented: 30-day all-cause risk-standardized readmission rate; preventable ED visits; rate of 30-day follow-up after hospitalization for mental illness; ambulatory care sensitive condition

(ACSC) overall composite rate (Agency for Healthcare Research and Quality [AHRQ] Prevention Quality Indicator [PQI] #90); ACSC chronic composite rate (AHRQ PQI #92); and depression screening rate.

Five measures related to nursing facilities (NFs) are presented from the MDS: two measures of annual NF utilization (admission rate and percentage of long-stay NF users) and three characteristics of new long-stay NF residents at admission (functional status, percent with severe cognitive impairment, percent with a low level of care need).

The analyses were conducted for each year in the 2-year predemonstration period (March 1, 2012, to February 28, 2014) and for the 3 demonstration years (March 1, 2014, to December 31, 2017) for both the demonstration and comparison group in each of the five analytic periods. Additionally, corrections were made to impact estimates from earlier reports that resulted in differences in our current impact estimates for demonstration year 1. Specifically, we made the following corrections: (1) confirmed dual status for State-identified FAI eligible beneficiaries against IDR data, removing erroneous zeros in the dependent variable, and (2) applied IDR-based exclusion criteria for all monthly observations in the comparison group during the predemonstration period and demonstration period, and to the demonstration group during the predemonstration period. These updates, coupled with restricting the sample to only FFS demonstration eligible beneficiaries, results in differences between our current estimates for demonstration year 1 and the estimates reported in the First Evaluation Report.

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

Over age 75 was the most prevalent age group in the LTSS user group with 51.2 percent, and under age 65 (51.4 percent) was the most prevalent age group in the group with SPMI. In the comparison group, 40.9 percent were under age 65, whereas 40.4 percent were under 65 years old in the demonstration group.

Across all groups, most eligible beneficiaries were female (55.8 to 64.1 percent), did not have disability as the primary reason for Medicare entitlement with exception to those with SPMI, did not have end-stage renal disease; and more likely to be White (43.6 to 57.3 percent).

The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. HCC scores did not vary much by group, ranging from 1.1 to 1.8. 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.

The majority of eligible beneficiaries resided in metropolitan areas, compared to nonmetropolitan areas.

Table D-1
Characteristics of eligible beneficiaries in demonstration year 3 by group

Characteristics	Demonstration group (%)	Comparison group (%)	Demonstration group, enrollees (%)	Demonstration group, eligible non-enrollees (%)	Demonstration group, LTSS users (%)	Demonstration group, SPMI diagnosis (%)
Weighted number of eligible beneficiaries	123,832 (20.7)	473,342 (79.3)	42,753 (34.5)	81,079 (65.6)	25,486 (20.6)	50,591 (40.9)
Demographic characteristics						
Age						
0 to 64	40.4	40.9	39.9	40.6	25.0	51.4
65 to 74	31.5	28.9	34.6	29.8	23.9	22.7
75 and older	28.2	30.3	25.5	29.6	51.2	25.9
Female						
No	40.3	40.7	44.2	38.2	35.9	37.3
Yes	59.7	59.3	55.8	61.8	64.1	62.7
Race/ethnicity						
White	46.3	46.2	43.6	47.7	51.2	57.3
African American	33.8	34.5	34.5	33.4	35.0	30.3
Hispanic	9.2	6.4	10.7	8.5	4.3	6.9
Asian	5.9	5.9	5.9	5.9	7.0	2.5
Disability as reason for original Medicare entitlement						
No	55.3	55.5	56.0	54.9	64.0	42.6
Yes	44.7	44.5	44.0	45.1	36.0	57.4
ESRD status						
No	96.8	96.6	97.5	96.4	96.4	96.9
Yes	3.2	3.4	2.5	3.6	3.6	3.1
MSA						
No	1.5	1.5	1.4	1.5	1.4	1.7
Yes	98.5	98.5	98.6	98.5	98.6	98.3
Participating in Shared Savings Program						
No	81.2	81.3	98.2	72.2	82.0	80.6
Yes	18.8	18.7	1.8	27.8	18.0	19.4

(continued)

Table D-1 (continued)
Characteristics of eligible beneficiaries in demonstration year 3 by group

Characteristics	Demonstration group (%)	Comparison group *%)	Demonstration group, enrollees (%)	Demonstration group, eligible, non-enrollees (%)	Demonstration group, LTSS users (%)	Demonstration group, SPMI diagnosis (%)
HCC score	1.2	1.2	1.1	1.3	1.8	1.4
Market characteristics						
Medicare spending per dual, ages 19+ ($)	9,573.8	9,236.8	9,566.4	9,577.6	9,578.0	9,569.1
MA penetration rate	0.2	0.3	0.2	0.2	0.2	0.2
Medicaid-to-Medicare fee index (FFS)	0.6	0.6	0.6	0.6	0.6	0.6
Medicaid spending per dual, ages 19+ ($)	11,876.9	19,479.0	12,070.4	11,774.8	11,858.9	11,942.4
Fraction of dually elig. beneficiaries using NF, ages 65+	0.2	0.2	0.2	0.2	0.2	0.2
Fraction of dually elig. beneficiaries using HCBS, ages 65+	0.3	0.1	0.3	0.3	0.3	0.3
Population per square mile, all ages	2,251.5	1,316.1	2,247.9	2,253.3	2,303.1	2,177.4
Patient care physicians per 1,000 population	0.9	0.9	0.9	0.9	0.9	0.9
Area characteristics						
% of pop. living in married households	63.5	63.2	63.5	63.5	64.3	65.1
% of adults with college education	28.4	28.1	27.5	28.9	32.0	29.8
% of adults with self-care limitations	3.1	3.1	3.1	3.1	3.1	3.1
% of adults unemployed	9.8	8.3	9.9	9.7	9.3	9.2
% of household with individuals younger than 18	32.2	32.1	32.8	31.9	30.3	31.4
% of household with individuals older than 60	36.1	36.1	36.1	36.1	35.8	35.9
Distance to nearest hospital	3.8	3.8	3.9	3.8	3.5	3.9
Distance to nearest nursing facility	2.6	2.6	2.6	2.6	2.5	2.7

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.
NOTES: The percentage of the weighted number of beneficiaries in the demonstration group and comparison group is a percentage of all beneficiaries in demonstration year 3. The remaining groups (enrollees, non-enrollees, LTSS, SPMI) are a percentage of the demonstration group beneficiaries only.

There were limited differences in area- and market-level characteristics. Those who were in the comparison group resided in counties with a similar fraction of dually eligible beneficiaries using HCBS, relative to those in the demonstration group (0.1 and 0.3, respectively). Additionally, those in the demonstration group resided in counties with slightly higher Medicare spending per dually eligible beneficiary ($9,574 versus $9,237), but lower Medicaid spending per dually eligible beneficiary ($11,877 versus $19,479), relative to counties in the comparison group.

D.1.5 Detailed Population Definitions

Demonstration eligible beneficiaries. Beneficiaries are identified in a given month if they were a Medicare-Medicaid enrollee and met any other specific demonstration eligibility criteria (e.g., qualifying PRISM score). Beneficiaries in the demonstration period are identified from quarterly State finder files, whereas beneficiaries in the 2-year predemonstration period preceding the demonstration implementation date are identified by applying the eligibility criteria in each separate predemonstration quarter.

Additional special populations were identified for the analyses as follows:

- *Enrollees*. A beneficiary was defined as being enrolled if they were ever enrolled in the demonstration during the demonstration period.
- *Age*. Age was defined as a categorical variable where beneficiaries were identified as *under 65*, *65 to 74*, and *75 years and older* during the observation year (e.g., predemonstration year 1, predemonstration year 2, and demonstration years 1 and 2).
- *Gende*r. Gender was defined as binary variable where beneficiaries were either male or female.
- *Race*. Race was defined as a categorical variable where beneficiaries were categorized as *White*, *African American*, *Hispanic*, or *Asian*.
- *LTSS*. A beneficiary was defined as using LTSS if there was any use of institutional or HCBS during the observation year.
- *SPMI.* A beneficiary was defined as having an SPMI if there were any inpatient or outpatient mental health visits for schizophrenia or episodic mood disorder during the observation year.

D.1.6 Detailed Utilization and Expenditure Measure Definitions

For any health care service type, the methodology for estimating average monthly utilization and the percentage of users, takes into account differences in the number of eligibility months across beneficiaries. Because full-benefit dual eligibility status for the demonstration can vary by month over time for any individual, the methodology used determines dual eligibility status for the demonstration for each person on a monthly basis during a predemonstration or demonstration period. That is, an individual is capable of meeting the demonstration's eligibility criteria for 1, 2, 3, or up to 12 months during the observation year. The methodology adds the total months of full-benefit dual eligibility for the demonstration across the population of interest and uses it in the denominator in the measures in ***Section 1.3***, creating average monthly

utilization and expenditure information for each service type. The methodology effectively produces average monthly use and expenditure statistics for each year that account for variation in the number of dually eligible beneficiaries in each month of the observation year. Months where dually eligible beneficiaries were enrolled in Medicare Advantage are excluded because of the lack of encounter data to use in developing the utilization and cost measures.

The utilization measures, below, were calculated as the aggregate sum of the unit of measurement (counts, etc.) divided by the aggregated number of eligible member months (and user months) within each group (*g*) where group is defined as (1) Illinois predemonstration year 1; (2) comparison predemonstration year 1; (3) Illinois predemonstration year 2; (4) comparison predemonstration year 2; (5) Illinois demonstration year 1; (6) comparison demonstration year 1; (7) Illinois demonstration year 2; (8) comparison demonstration year 2; (9) Illinois demonstration year 3; and (10) comparison demonstration year 3.

We calculated the average number of services per 1,000 eligible months and per 1,000 user months by beneficiary group (*g*). We defined *user month* as an eligible month where the number of units of utilization used (for a given service) was greater than zero. We weighted each observation using yearly propensity weights. The average yearly utilization outcomes are measured as:

$$Y_g = \frac{\Sigma_{ig} Z_{ig}}{\left(\frac{1}{1{,}000}\right) * \Sigma_{ig} n_{ig}}$$

Where

Yg = average count of the number services used [for a given service] per eligible or user month within group g.

Zig = the total units of utilization [for a given service] for individual i in group g.

nig = the total number of $\frac{1}{1{,}000}$ eligible/user months for individual i in group g.

The denominator above is scaled such that the result is interpreted in terms of average monthly utilization per 1,000 eligible beneficiaries. This presentation is preferable, compared with per eligible, because some of the services are used less frequently and would result in small estimates.

The average percentage of users [of a given service] per eligible month during the predemonstration or demonstration year is measured as follows:

$$U = \frac{\Sigma_{ig} X_{ig}}{\Sigma_{ig} n_{ig}} \quad \text{x } 100$$

Where

U_{ig} = average percentage of users [for a particular service] in a given month among beneficiaries in group *g*.

X_{ig} = the total number of eligible months of service use for an individual *i* in group *g*

n_{ig} = the total number of eligible or user months for an individual *i* in group *g*.

D.1.7 Quality of Care and Care Coordination Measures

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.

1. Average 30-day all-cause risk-standardized readmission was calculated as follows:

$$30 - Risk\ Standardized\ Readmission\ = \frac{\left(\frac{\Sigma_{ig} x_{ig}}{\Sigma_{ig} n_{ig}} X\ C\right)}{Prob_g}$$

Where

C = the national average of 30-day readmission rate, .238.
X_{ig} = the total number of readmissions for individual i in group g.
n_{ig} = the total number of hospital admissions for individual i in group g.
$Prob_g$ = the annual average adjusted probability of readmission for individuals in group g. The average adjusted probability equals:

Average adjusted probability of readmission by demonstration group	
Demonstration group	**Average adjusted probability of readmission**
Predemonstration year 1	
Illinois	0. 2114400662
Comparison	0. 2114400662
Predemonstration year 2	
Illinois	0. 2139178106
Comparison	0. 2090852941
Demonstration year 1	
Illinois	0.214766612
Comparison	0.211605515
Demonstration year 2	
Illinois	0.210660158
Comparison	0.205570874
Demonstration year 3	
Illinois	0.205485284
Comparison	0.201179867

2. Average 30-day follow-up in a physician or outpatient setting after hospitalization for mental illness was calculated as follows:

$$MHFU = \frac{\Sigma_{ig} x_{ig}}{\Sigma_{ig} n_{ig}}$$

Where

$MHFU$ = the average rate of 30-day follow-up care after hospitalization for a mental illness for individuals in group *g*.

X_{ig} = the total number of discharges from a hospital stay for mental health that had a follow-up for mental health within 30 days of discharge for individual *i* in group *g*.

n_{ig} = the total number of months where there was a discharge from a hospital stay for mental health for individual *i* in group *g*.

3. Average ACSC admissions per eligible month, overall and chronic composite (PQI #90 and PQI #92) was calculated as follows:

$$ACSC_{ig} = \frac{\Sigma_{ig} x_{ig}}{\Sigma_{ig} n_{ig}}$$

Where

ASC_g= the average number of ACSC admissions per eligible months for overall/chronic composites for individuals in group *g*.

X_{ig} = the total number of discharges that meet the criteria for AHRQ PQI #90 [or PQI #92] for individual *i* in group *g*.

n_{ig} = the total number of eligible months for individual *i* in group *g*.

4. Preventable ED visits per eligible month was calculated as follows:

$$ER_{ig} = \frac{\Sigma_{ig} x_{ig}}{\Sigma_{ig} n_{ig}}$$

Where

ER_g = the average number of preventable ED visits per eligible months for individuals in group *g*.

X_{ig} = the total number ED visits that are considered preventable based in the diagnosis for individual *i* in group *g*.

n_{ig} = the total number of eligible months for individual *i* in group *g*.

5. Average number of beneficiaries per eligible month who received depression screening during the observation year was calculated as follows:

$$D_g = \frac{\Sigma_{ig} x_{ig}}{\Sigma_{ig} \mathrm{n}_{ig}}$$

Where

D_g = the average number of beneficiaries per eligible month who received depression screening in group *g*.
X_{ig} = the total number eligible beneficiaries who ever received depression screening in group *g*.
n_{ig} = the total number of eligible months among beneficiaries in group *g*.

D.1.8 Minimum Data Set Measures

Two measures of annual NF-related utilization are derived from the MDS. 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.

D.1.9 Regression Outcome Measures

Five utilization measures are used as dependent variables in regression analysis to estimate the DinD effect for the entire demonstration period as well as the effect in each demonstration year. These measures are derived from Medicare inpatient, outpatient, carrier claims, encounter data, and MDS long-stay NF use. All dependent variables are provided on a monthly basis except for the MDS long-stay NF measure and 30-day inpatient readmission measure, which are annual.

The outcome measures include the following:

- *Monthly inpatient admissions:* 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.

- *Monthly ED use:* The monthly probability of having any ED visit that occurred during the month that did not result in an inpatient admission.
- *Monthly physician visits*: The count of any evaluation and management (E&M) visit within the month 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.
- *Long-stay NF use*: The annual probability of residing in a facility for 101 days or more during the year.

In addition to the five measures above, this evaluation estimates the demonstration effects on quality of care. The following quality of care and care coordination measures use claims/encounter-level information and are adopted from standardized HEDIS and National Quality Forum (NQF) measures. The outcomes are reported monthly, with the exception of the 30-day all-cause risk-standardized readmission rate, which is annual.

- *30-day all-cause risk-standardized readmissions (NQF #1768)*: This is calculated both as the rate of risk-standardized readmission, defined above, as well as the count of the number risk-standardized readmissions that occurs during the year.
- *Preventable ED visits*: This is estimated as a continuous variable of weighted ED visits that occur during the month. The lists of diagnoses that are considered as either preventable/avoidable, or treatable in a primary care setting were developed by researchers at the New York University Center for Health and Public Service Research.[35]
- *30-day follow-up after hospitalization for mental illness (NQF #576)*: This is estimated as the monthly probability of any follow-up visits within 30-days posthospitalization for a mental illness.
- *ACSC admissions—overall composite (AHRQ PQI #90)*: The monthly probability of any acute admissions that meet the AHRQ PQI #90 (Prevention Quality Overall Composite) criteria within the month.
- *ACSC admissions—chronic composite (AHRQ PQI #92)*: The monthly probability of any admissions that meet the AHRQ PQI #92 criteria within the month.

D.1.10 Regression Methodology for Determining Demonstration Impact

The regressions across the entire demonstration period compare all demonstration eligible beneficiaries in the FAI State to its comparison group. The regression methodology accounts for both those with and without use of the specific service (e.g., for inpatient services, both those with and without any inpatient use). A restricted DinD equation will be estimated as follows:

[35] https://wagner.nyu.edu/faculty/billings/nyued-background

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

where separate models will be estimated for each dependent variable. *PostYear* is an indicator of whether the observation is from the pre- or postdemonstration period, *Demonstration* is an indicator of whether the beneficiary was in the demonstration group, and *PostYear* * *Demonstration* is an interaction term. *Demographics* and *Market* represent vectors of beneficiary and market characteristics, respectively.

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

In addition to estimating the model described in the prior equation, a less restrictive model was estimated to produce year-by-year effects of the demonstration. The specification of the unrestricted model is as follows:

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

This equation differs from the previous one in that separate DinD coefficients are estimated for each year. Under this specification, the coefficients $\beta_{3\text{-}k}$ would reflect the impact of the demonstration in each respective year, whereas the previous equation reflects the impact of the entire demonstration period. This specification measures whether changes in dependent variables occur in the first year of the demonstration only, continuously over time, or in some other pattern. 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 or Poisson regressions (e.g., for the number of monthly physician visits). We used regression results to calculate the marginal effects of demonstration impact.

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***, we report the cumulative DinD estimates for both the special population 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:

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

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

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

4. *Predict* the weighted mean for each of the four groups using the regression results stored in computer memory.

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-2 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-2
Logistic regression results on monthly inpatient admissions
(n = 34,227,465 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Post period	−0.0625	0.0092	−6.78	<0.001
Demonstration group	0.0314	0.0326	0.96	0.336
Interaction of post period x demonstration group	−0.0124	0.0124	−1.00	0.319
Trend	−0.0003	0.0003	−0.99	0.324
Age (continuous)	0.0045	0.0004	10.09	<0.001

(continued)

Table D-2 (continued)
Logistic regression results on monthly inpatient admissions
(n = 34,227,465 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Female	−0.0354	0.0079	−4.46	<0.001
Black	0.0566	0.0130	4.37	<0.001
Hispanic	−0.5042	0.0190	−26.48	<0.001
Asian	−0.206	0.0229	−9.00	<0.001
Other race/ethnicity	−0.3135	0.0169	−18.55	<0.001
Disability as reason for Medicare entitlement	0.0984	0.0168	5.87	<0.001
End-stage renal disease	1.5004	0.0196	76.61	<0.001
Participation in other Shared Savings Program	0.1233	0.0306	4.03	<0.001
Hierarchical Condition Category score	0.3744	0.0059	62.94	<0.001
Metropolitan statistical area residence	0.0471	0.0383	1.23	0.219
Medicare spending per dual, ages 19+	0.0000	0.0000	0.01	0.993
Percent of population married	−0.0023	0.0005	−4.14	<0.001
Medicare Advantage penetration rate	−0.3614	0.1252	−2.89	0.004
Medicaid-Medicare fee index	0.1273	0.0893	1.43	0.154
Medicaid spending per dual, ages 19+	0.0000	0.0000	1.66	0.097
Fraction of dually elig. beneficiaries using nursing facility, ages 65+	0.5715	0.2607	2.19	0.028
Fraction of dually elig. beneficiaries using HCBS, ages 65+	0.5764	0.1654	3.49	0.001
Fraction of dually elig. beneficiaries with Medicaid managed care, ages 19+	0.0499	0.0253	1.97	0.049
Population per square mile, all ages	0.0000	0.0000	3.56	<0.001
Patient care physicians per 1,000 population	−0.0593	0.0770	−0.77	0.441
Percent of adults with college education	−0.0013	0.0006	−2.06	0.039
Percent of adults who are unemployed	−0.0016	0.0008	−1.90	0.057
Percent of adults with self-care limitation	−0.0024	0.0032	−0.74	0.462
Distance to nearest hospital	0.0002	0.0016	0.13	0.896
Distance to nearest nursing facility	0.0068	0.0028	2.40	0.016
Percent of households with individuals younger than 18	−0.0019	0.0006	−2.92	0.004
Percent of households with individuals older than 60	−0.0023	0.0008	−2.90	0.004
Intercept	−4.1402	0.3978	−10.41	<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 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 effects on service utilization and quality of care measures for eligible beneficiaries in Illinois, March 1, 2014–December 31, 2017

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Probability of inpatient admission					
Cumulative	−0.0005	NS	0.3198	−0.0015, 0.0005	−0.0013, 0.0003
Demonstration year 1	−0.0005	NS	0.2286	−0.0013, 0.0003	−0.0011, 0.0002
Demonstration year 2	0.0003	NS	0.6248	−0.0010, 0.0017	−0.0008, 0.0015
Demonstration year 3	−0.0014	−3.7	0.0396	−0.0027, −0.0001	−0.0025, −0.0003
Count of all-cause 30-day readmissions					
Cumulative	−0.0059	NS	0.1494	−0.0138, 0.0021	−0.0125, 0.0008
Demonstration year 1	−0.0176	−6.0	<0.0001	−0.0262, −0.0090	−0.0248, −0.0104
Demonstration year 2	−0.0007	NS	0.8949	−0.0104, 0.0091	−0.0088, 0.0075
Demonstration year 3	0.0048	NS	0.3106	−0.0045, 0.0140	−0.0030, 0.0125
Probability of ACSC admission, overall					
Cumulative	0.0003	3.7	0.0212	0.0000, 0.0005	0.0001, 0.0004
Demonstration year 1	0.0002	NS	0.0747	−0.0000, 0.0004	0.0000, 0.0004
Demonstration year 2	0.0004	6.1	0.0112	0.0001, 0.0007	0.0001, 0.0007
Demonstration year 3	0.0002	NS	0.3926	−0.0002, 0.0006	−0.0002, 0.0005
Probability of ACSC admission, chronic					
Cumulative	0.0002	5.1	0.0043	0.0001, 0.0004	0.0001, 0.0004
Demonstration year 1	0.0002	NS	0.1232	−0.0000, 0.0003	−0.0000, 0.0003
Demonstration year 2	0.0004	9.7	0.0001	0.0002, 0.0007	0.0003, 0.0006
Demonstration year 3	0.0002	NS	0.4857	−0.0003, 0.0006	−0.0002, 0.0005
Probability of ED visit					
Cumulative	0.0008	NS	0.1515	−0.0003, 0.0019	−0.0001, 0.0018
Demonstration year 1	−0.0009	NS	0.1065	−0.0020, 0.0002	−0.0018, 0.0000
Demonstration year 2	0.0011	NS	0.0625	−0.0001, 0.0023	0.0001, 0.0021
Demonstration year 3	0.0036	6.1	<0.0001	0.0020, 0.0051	0.0023, 0.0049

(continued)

Table E-1 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures for eligible beneficiaries in Illinois, March 1, 2014–December 31, 2017

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Count of preventable ED visits					
Cumulative	0.0006	NS	0.1609	−0.0002, 0.0014	−0.0001, 0.0013
Demonstration year 1	−0.0007	NS	0.0683	−0.0014, 0.0001	−0.0013, −0.0001
Demonstration year 2	0.0008	NS	0.1020	−0.0002, 0.0017	−0.0000, 0.0016
Demonstration year 3	0.0025	7.2	<0.0001	0.0013, 0.0037	0.0015, 0.0035
Probability of SNF admission					
Cumulative	—	—	—	—	—
Demonstration year 1	—	—	—	—	—
Demonstration year 2	—	—	—	—	—
Demonstration year 3	—	—	—	—	—
Probability of any long-stay NF use					
Cumulative	0.0077	5.1	0.0002	0.0036, 0.0118	0.0043, 0.0112
Demonstration year 1	0.0162	9.6	<0.0001	0.0097, 0.0227	0.0107, 0.0216
Demonstration year 2	0.0066	4.4	0.0052	0.0020, 0.0112	0.0027, 0.0104
Demonstration year 3	0.0003	NS	0.9114	−0.0056, 0.0063	−0.0046, 0.0053
Probability of 30-day follow-up after mental health discharge					
Cumulative	−0.0140	NS	0.1253	−0.0318, 0.0039	−0.0289, 0.0010
Demonstration year 1	−0.0110	NS	0.3234	−0.0328, 0.0108	−0.0293, 0.0073
Demonstration year 2	−0.0190	NS	0.0707	−0.0397, 0.0016	−0.0364, −0.0017
Demonstration year 3	−0.0136	NS	0.1740	−0.0331, 0.0060	−0.0300, 0.0028
Number of physician E&M visits					
Cumulative	0.0562	5.1	<0.0001	0.0360, 0.0763	0.0392, 0.0731
Demonstration year 1	0.0398	3.6	<0.0001	0.0254, 0.0542	0.0277, 0.0519
Demonstration year 2	0.0292	2.7	0.0185	0.0049, 0.0536	0.0088, 0.0497
Demonstration year 3	0.1108	10.4	<0.0001	0.0738, 0.1477	0.0797, 0.1418

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
— = data not available. ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; NF = nursing facility; NS = not statistically significant; SNF = skilled nursing facility.
NOTES: SNF admissions where not analyzed due to poor encounter data.
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 effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

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								
Probability of inpatient admission	Cumulative	LTSS users	0.0061	12.1	<0.0001	0.0047, 0.0074	0.0049, 0.0072	0.0089***
		Non-LTSS users	−0.0028	−10.1	<0.0001	−0.0036, −0.0020	−0.0035, −0.0021	
	Demonstration year 1	LTSS users	0.0051	9.9	<0.0001	0.0038, 0.0065	0.0040, 0.0062	0.0082***
		Non-LTSS users	−0.0030	−10.7	<0.0001	−0.0038, −0.0022	−0.0037, −0.0023	
	Demonstration year 2	LTSS users	0.0085	17.7	<0.0001	0.0066, 0.0104	0.0069, 0.0101	0.0111***
		Non-LTSS users	−0.0026	−9.6	<0.0001	−0.0035, −0.0016	−0.0034, −0.0018	
	Demonstration year 3	LTSS users	0.0054	11.1	<0.0001	0.0037, 0.0071	0.0040, 0.0068	0.0081***
		Non-LTSS users	−0.0028	−10.0	<0.0001	−0.0039, −0.0016	−0.0037, −0.0018	
Probability of ED visit	Cumulative	LTSS users	0.0055	10.6	<0.0001	0.0043, 0.0068	0.0045, 0.0066	0.0076***
		Non-LTSS users	−0.0021	−3.6	0.0452	−0.0041, −0.0000	−0.0038, −0.0004	
	Demonstration year 1	LTSS users	0.0035	6.6	<0.0001	0.0019, 0.0051	0.0021, 0.0048	0.0072***
		Non-LTSS users	−0.0038	−6.4	<0.0001	−0.0052, −0.0023	−0.0050, −0.0025	
	Demonstration year 2	LTSS users	0.0065	12.5	<0.0001	0.0048, 0.0082	0.0051, 0.0079	0.0083***
		Non-LTSS users	−0.0018	NS	0.1119	−0.0040, 0.0004	−0.0036, 0.0001	
	Demonstration year 3	LTSS users	0.0100	19.2	<0.0001	0.0079, 0.0121	0.0083, 0.0118	0.0099***
		Non-LTSS users	0.0001	NS	0.9590	−0.0030, 0.0032	−0.0025, 0.0027	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

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)								
Count of physician E&M visits	Cumulative	LTSS users	0.2472	15.2	<0.0001	0.2191, 0.2752	0.2236, 0.2707	0.2625***
		Non-LTSS users	−0.0154	NS	0.0744	−0.0323, 0.0015	−0.0295, −0.0012	
	Demonstration year 1	LTSS users	0.2058	12.6	<0.0001	0.1823, 0.2292	0.1861, 0.2255	0.227***
		Non-LTSS users	−0.0213	−2.7	0.0026	−0.0352, −0.0074	−0.0329, −0.0096	
	Demonstration year 2	LTSS users	0.2459	15.2	<0.0001	0.1958, 0.2961	0.2038, 0.2880	0.2952***
		Non-LTSS users	−0.0492	−6.3	<0.0001	−0.0664, −0.0321	−0.0636, −0.0348	
	Demonstration year 3	LTSS users	0.3585	22.1	<0.0001	0.3096, 0.4074	0.3175, 0.3995	0.3322***
		Non-LTSS users	0.0263	NS	0.0577	−0.0009, 0.0535	0.0035, 0.0491	
Probability of SNF admission	Cumulative	LTSS users	—	—	—	—	—	—
		Non-LTSS users	—	—	—	—	—	
	Demonstration year 1	LTSS users	—	—	—	—	—	—
		Non-LTSS users	—	—	—	—	—	
	Demonstration year 2	LTSS users	—	—	—	—	—	—
		Non-LTSS users	—	—	—	—	—	
	Demonstration year 3	LTSS users	—	—	—	—	—	—
		Non-LTSS users	—	—	—	—	—	
		Non-LTSS users	−0.0001	NS	0.9589	−0.0028, 0.0027	−0.0024, 0.0022	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

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								
Count of preventable ED visits	Cumulative	LTSS users	0.0040	14.7	<0.0001	0.0031, 0.0050	0.0032, 0.0049	0.0052***
		Non-LTSS users	−0.0012	NS	0.1913	−0.0030, 0.0006	−0.0027, 0.0003	
	Demonstration year 1	LTSS users	0.0025	9.1	<0.0001	0.0015, 0.0035	0.0017, 0.0033	0.0048***
		Non-LTSS users	−0.0023	−6.3	0.0004	−0.0036, −0.0010	−0.0034, −0.0012	
	Demonstration year 2	LTSS users	0.0040	14.6	<0.0001	0.0025, 0.0056	0.0028, 0.0053	0.0048***
		Non-LTSS users	−0.0008	NS	0.4349	−0.0027, 0.0012	−0.0024, 0.0008	
	Demonstration year 3	LTSS users	0.0079	28.8	<0.0001	0.0061, 0.0097	0.0064, 0.0094	0.0080***
Probability of ACSC admission, overall	Cumulative	LTSS users	0.0017	19.3	<0.0001	0.0011, 0.0023	0.0012, 0.0022	0.0021***
		Non-LTSS users	−0.0004	−9.5	0.0005	−0.0007, −0.0002	−0.0007, −0.0002	
	Demonstration year 1	LTSS users	0.0013	14.7	<0.0001	0.0008, 0.0018	0.0008, 0.0017	0.0017***
		Non-LTSS users	−0.0004	−9.4	0.0006	−0.0007, −0.0002	−0.0006, −0.0002	
	Demonstration year 2	LTSS users	0.0022	24.7	<0.0001	0.0013, 0.0030	0.0015, 0.0029	0.0026***
		Non-LTSS users	−0.0005	−9.8	0.0051	−0.0008, −0.0001	−0.0007, −0.0002	
	Demonstration year 3	LTSS users	0.0022	24.8	<0.0001	0.0012, 0.0032	0.0014, 0.0030	0.0027***
		Non-LTSS users	−0.0005	−10.4	0.0073	−0.0009, −0.0001	−0.0008, −0.0002	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Probability of ACSC admission, chronic	Cumulative	LTSS users	0.0013	27.5	<0.0001	0.0008, 0.0018	0.0009, 0.0018	0.0016***
		Non-LTSS users	−0.0003	−7.6	0.0420	−0.0005, −0.0000	−0.0005, −0.0001	
	Demonstration year 1	LTSS users	0.0009	18.8	<0.0001	0.0005, 0.0013	0.0005, 0.0013	0.0012***
		Non-LTSS users	−0.0003	−7.9	0.0100	−0.0005, −0.0001	−0.0004, −0.0001	
	Demonstration year 2	LTSS users	0.0018	38.5	<0.0001	0.0011, 0.0025	0.0012, 0.0024	0.0020***
		Non-LTSS users	−0.0002	NS	0.1771	−0.0006, 0.0001	−0.0005, 0.0000	
	Demonstration year 3	LTSS users	0.0019	36.7	<0.0001	0.0012, 0.0026	0.0013, 0.0025	0.0023***
		Non-LTSS users	−0.0004	NS	0.0940	−0.0008, 0.0001	−0.0007, 0.0000	
Probability of 30-day follow-up after mental health discharge	Cumulative	LTSS users	−0.0047	NS	0.7472	−0.0330, 0.0237	−0.0285, 0.0191	0.0191
		Non-LTSS users	−0.0238	−6.1	0.0199	−0.0438, −0.0038	−0.0406, −0.0070	
	Demonstration year 1	LTSS users	−0.0095	NS	0.6056	−0.0457, 0.0266	−0.0399, 0.0208	0.0087
		Non-LTSS users	−0.0182	NS	0.1214	−0.0413, 0.0048	−0.0376, 0.0011	
	Demonstration year 2	LTSS users	−0.0172	NS	0.3291	−0.0516, 0.0173	−0.0461, 0.0118	0.0084
		Non-LTSS users	−0.0255	−6.8	0.0485	−0.0509, −0.0002	−0.0468, −0.0042	
	Demonstration year 3	LTSS users	0.0211	NS	0.2667	−0.0161, 0.0583	−0.0101, 0.0523	0.0509*
		Non-LTSS users	−0.0298	−8.0	0.0166	−0.0542, −0.0054	−0.0503, −0.0093	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Illinois, March 1, 2014–December 31, 2017

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)								
Count of all-cause 30-day readmissions	Cumulative	LTSS users	0.0000	NS	0.9994	−0.0106, 0.0106	−0.0089, 0.0089	0.0152
		Non-LTSS users	−0.0152	−6.6	0.0140	−0.0273, −0.0031	−0.0253, −0.0050	
	Demonstration year 1	LTSS users	−0.0103	NS	0.0880	−0.0220, 0.0015	−0.0201, −0.0004	0.0161*
		Non-LTSS users	−0.0264	−10.2	0.0002	−0.0400, −0.0127	−0.0378, −0.0149	
	Demonstration year 2	LTSS users	0.0024	NS	0.7688	−0.0133, 0.0181	−0.0108, 0.0155	0.0133
		Non-LTSS users	−0.0110	NS	0.0996	−0.0240, 0.0021	−0.0219, −0.0000	
	Demonstration year 3	LTSS users	0.0152	NS	0.0724	−0.0014, 0.0318	0.0013, 0.0291	0.0221*
		Non-LTSS users	−0.0069	NS	0.3335	−0.0209, 0.0071	−0.0186, 0.0048	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
— = data not available. 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.
NOTE: SNF admissions where not analyzed due to poor encounter data.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Table E-3
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, March 1, 2014–December 31, 2017

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								
Probability of inpatient admission	Cumulative	SPMI	−0.0023	NS	0.0529	−0.0047, 0.0000	−0.0043, −0.0004	−0.0015
		Non-SPMI	−0.0008	NS	0.1879	−0.0021, 0.0004	−0.0019, 0.0002	
	Demonstration year 1	SPMI	−0.0019	NS	0.0985	−0.0040, 0.0003	−0.0037, −0.0000	−0.001
		Non-SPMI	−0.0008	NS	0.1273	−0.0019, 0.0002	−0.0017, 0.0001	
	Demonstration year 2	SPMI	−0.0015	NS	0.1847	−0.0037, 0.0007	−0.0033, 0.0004	−0.0012
		Non-SPMI	−0.0003	NS	0.6953	−0.0020, 0.0013	−0.0017, 0.0010	
	Demonstration year 3	SPMI	−0.0038	−6.8	0.0190	−0.0070, −0.0006	−0.0064, −0.0011	−0.0024
		Non-SPMI	−0.0014	NS	0.0723	−0.0028, 0.0001	−0.0026, −0.0001	
Probability of ED visit	Cumulative	SPMI	0.0020	NS	0.0636	−0.0001, 0.0041	0.0002, 0.0038	0.0019*
		Non-SPMI	0.0001	NS	0.9189	−0.0013, 0.0014	−0.0011, 0.0012	
	Demonstration year 1	SPMI	−0.0010	NS	0.2787	−0.0029, 0.0008	−0.0026, 0.0005	0.00002
		Non-SPMI	−0.0011	NS	0.0791	−0.0022, 0.0001	−0.0021, −0.0001	
	Demonstration year 2	SPMI	0.0022	NS	0.1065	−0.0005, 0.0048	−0.0000, 0.0043	0.0017
		Non-SPMI	0.0004	NS	0.5232	−0.0009, 0.0017	−0.0007, 0.0015	
	Demonstration year 3	SPMI	0.0064	8.0	<0.0001	0.0036, 0.0092	0.0041, 0.0087	0.0045***
		Non-SPMI	0.0019	NS	0.0891	−0.0003, 0.0041	0.0001, 0.0037	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, March 1, 2014–December 31, 2017

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)								
Count of physician E&M visits	Cumulative	SPMI	0.0396	NS	0.0759	−0.0041, 0.0833	0.0029, 0.0763	0.0110
		Non-SPMI	0.0286	3.4	0.0007	0.0120, 0.0452	0.0147, 0.0425	
	Demonstration year 1	SPMI	0.0275	NS	0.1672	−0.0115, 0.0666	−0.0053, 0.0603	0.0090
		Non-SPMI	0.0185	2.1	0.0093	0.0046, 0.0325	0.0068, 0.0302	
	Demonstration year 2	SPMI	−0.0063	NS	0.8435	−0.0691, 0.0564	−0.0590, 0.0464	−0.0124
		Non-SPMI	0.0061	NS	0.5533	−0.0141, 0.0262	−0.0108, 0.0230	
	Demonstration year 3	SPMI	0.1000	6.8	<0.0001	0.0524, 0.1477	0.0601, 0.1400	0.0286
		Non-SPMI	0.0714	9.2	<0.0001	0.0465, 0.0963	0.0505, 0.0923	
Probability of SNF admission	Cumulative	SPMI	—	—	—	—	—	—
		Non-SPMI	—	—	—	—	—	
	Demonstration year 1	SPMI	—	—	—	—	—	—
		Non-SPMI	—	—	—	—	—	
	Demonstration year 2	SPMI	—	—	—	—	—	—
		Non-SPMI	—	—	—	—	—	
	Demonstration year 3	SPMI	—	—	—	—	—	—
		Non-SPMI	—	—	—	—	—	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, March 1, 2014–December 31, 2017

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								
Count of preventable ED visits	Cumulative	SPMI	0.0024	5.0	0.0069	0.0007, 0.0041	0.0009, 0.0038	0.0023***
		Non-SPMI	0.0001	NS	0.8191	−0.0008, 0.0010	−0.0006, 0.0008	
	Demonstration year 1	SPMI	−0.0003	NS	0.6219	−0.0017, 0.0010	−0.0015, 0.0008	0.0003
		Non-SPMI	−0.0006	NS	0.1165	−0.0013, 0.0001	−0.0012, 0.0000	
	Demonstration year 2	SPMI	0.0027	5.6	0.0200	0.0004, 0.0049	0.0008, 0.0045	0.0024**
		Non-SPMI	0.0003	NS	0.6074	−0.0007, 0.0012	−0.0006, 0.0011	
	Demonstration year 3	SPMI	0.0058	12.4	<0.0001	0.0035, 0.0081	0.0039, 0.0077	0.0046***
		Non-SPMI	0.0012	NS	0.0738	−0.0001, 0.0026	0.0001, 0.0023	
Probability of ACSC admission, overall	Cumulative	SPMI	0.0006	7.0	0.0033	0.0002, 0.0011	0.0003, 0.0010	0.0005*
		Non-SPMI	0.0001	NS	0.5290	−0.0002, 0.0004	−0.0001, 0.0003	
	Demonstration year 1	SPMI	0.0007	7.9	0.0003	0.0003, 0.0010	0.0004, 0.0010	0.0007**
		Non-SPMI	0.000	NS	0.8602	−0.0003, 0.0003	−0.0003, 0.0002	
	Demonstration year 2	SPMI	0.0008	8.3	0.0025	0.0003, 0.0013	0.0004, 0.0012	0.0005*
		Non-SPMI	0.0003	NS	0.1711	−0.0001, 0.0006	−0.0001, 0.0006	
	Demonstration year 3	SPMI	0.0005	NS	0.2155	−0.0003, 0.0013	−0.0002, 0.0011	0.0004
		Non-SPMI	0.0001	NS	0.5082	−0.0002, 0.0005	−0.0002, 0.0004	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Illinois, March 1, 2014–December 31, 2017

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Probability of ACSC admission, chronic	Cumulative	SPMI	0.0005	8.0	0.0115	0.0001, 0.0008	0.0002, 0.0008	0.0003
		Non-SPMI	0.0001	NS	0.0965	−0.0000, 0.0003	0.0000, 0.0003	
	Demonstration year 1	SPMI	0.0004	7.9	0.0041	0.0001, 0.0007	0.0002, 0.0007	0.0004*
		Non-SPMI	0.0000	NS	0.7354	−0.0002, 0.0003	−0.0002, 0.0002	
	Demonstration year 2	SPMI	0.0007	12.2	<0.0001	0.0004, 0.0011	0.0004, 0.0010	0.0004*
		Non-SPMI	0.0003	8.7	0.0100	0.0001, 0.0006	0.0001, 0.0005	
	Demonstration year 3	SPMI	0.0003	NS	0.4057	−0.0005, 0.0011	−0.0003, 0.0010	0.0002
		Non-SPMI	0.0001	NS	0.3089	−0.0001, 0.0004	−0.0001, 0.0004	
Count of all-cause 30-day readmissions	Cumulative	SPMI	−0.0060	NS	0.2978	−0.0172, 0.0053	−0.0154, 0.0035	0.0024
		Non-SPMI	−0.0084	NS	0.0568	−0.0171, 0.0002	−0.0157, −0.0011	
	Demonstration year 1	SPMI	−0.0213	−6.1	0.0016	−0.0345, −0.0081	−0.0323, −0.0102	−0.0055
		Non-SPMI	−0.0157	−6.4	0.0008	−0.0250, −0.0065	−0.0235, −0.0080	
	Demonstration year 2	SPMI	0.0018	NS	0.7630	−0.0097, 0.0132	−0.0079, 0.0114	0.0091
		Non-SPMI	−0.0073	NS	0.1175	−0.0165, 0.0019	−0.0151, 0.0004	
	Demonstration year 3	SPMI	0.0030	NS	0.6559	−0.0103, 0.0163	−0.0081, 0.0142	−0.0009
		Non-SPMI	0.0040	NS	0.5277	−0.0084, 0.0163	−0.0064, 0.0143	

* p < 0.05; ** p < 0.01; *** p < 0.001
— = data not available. 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.
NOTE: SNF admissions were not analyzed as they were deemed incomplete.
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 and payments 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***). We did not conduct testing between groups or years. The results reflect the underlying experience of the two groups; changes over time are not intended to be interpreted as caused by the demonstration.

The demonstration and comparison groups were similar across many of the service utilization measures in each of the predemonstration (baseline) years and the demonstration years (***Table E-4***). However, there were a few outcomes where some differences were apparent. For example, outpatient therapy use were higher for the comparison group compared to the demonstration group. However, percent with use of inpatient admissions and inpatient nonpsychiatric services was higher in the demonstration group, compared to the comparison group.

As with the service utilization measures, the Illinois demonstration eligible beneficiaries were similar to the comparison group in many, but not all, of the RTI quality of care and care coordination measures (***Table E-5***). In general, the demonstration group had more admissions for overall and chronic ACSC diagnoses and 30-day all-cause readmissions over the predemonstration and demonstration periods. On the other hand, preventable ED visits were more prevalent in the comparison group than in the demonstration group across all years. No clear pattern was evident for the number of 30-day follow-up visits after mental health discharges or screening for clinical depression.

Finally, across all years, the demonstration eligible group had a lower rate of new long-stay NF admissions and a lower percentage of long-stay NF users relative to the comparison group (***Table E-6***). There were differences in some characteristics of long-stay NF residents at admission: relative to the comparison group, demonstration eligible beneficiaries 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 Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Number of demonstration eligible beneficiaries		149,571	149,451	125,076	114,454	123,832
Number of comparison beneficiaries		423,561	421,873	483,347	457,617	473,342
Institutional setting						
Inpatient admissions[1]	Demonstration					
% with use		5.2	4.7	4.4	4.3	4.0
Utilization per 1,000 user months		1,175.1	1,168.4	1,168.5	1,172.7	1,162.7
Utilization per 1,000 eligible months		61.6	55.2	51.3	50.0	47.0
Inpatient admissions[1]	Comparison					
% with use		4.6	4.3	4.0	3.8	3.7
Utilization per 1,000 user months		1,150.4	1,145.3	1,142.8	1,142.4	1,142.4
Utilization per 1,000 eligible months		53.1	48.9	45.4	43.2	42.5
Inpatient psychiatric	Demonstration					
% with use		0.5	0.4	0.4	0.4	0.4
Utilization per 1,000 user months		1,129.9	1,144.8	1,139.2	1,143.3	1,167.0
Utilization per 1,000 eligible months		5.3	4.9	5.0	5.1	5.1
Inpatient psychiatric	Comparison					
% with use		0.4	0.4	0.3	0.3	0.3
Utilization per 1,000 user months		1,105.7	1,095.3	1,097.1	1,096.7	1,094.7
Utilization per 1,000 eligible months		4.2	3.9	3.2	3.2	3.2

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Inpatient nonpsychiatric	Demonstration					
% with use		4.8	4.3	4.0	3.9	3.7
Utilization per 1,000 user months		1,166.9	1,157.7	1,157.6	1,160.3	1,147.9
Utilization per 1,000 eligible months		56.3	50.3	46.3	44.8	41.9
Inpatient nonpsychiatric	Comparison					
% with use		4.3	4.0	3.7	3.5	3.5
Utilization per 1,000 user months		1,142.7	1,137.6	1,135.8	1,135.1	1,134.9
Utilization per 1,000 eligible months		48.9	45.0	42.1	40.0	39.2
Emergency department use (non-admit)	Demonstration					
% with use		5.7	5.6	5.4	5.6	5.7
Utilization per 1,000 user months		1,233.8	1,229.4	1,244.4	1,261.8	1,248.0
Utilization per 1,000 eligible months		69.8	68.9	67.1	70.7	71.0
Emergency department use (non-admit)	Comparison					
% with use		6.0	6.0	5.9	5.9	5.8
Utilization per 1,000 user months		1,282.3	1,282.6	1,274.2	1,272.4	1,266.7
Utilization per 1,000 eligible months		77.5	77.2	74.6	74.9	73.9

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Emergency department use (psychiatric)	Demonstration					
% with use		0.3	0.3	0.3	0.3	0.3
Utilization per 1,000 user months		1,153.8	1,151.8	1,169.6	1,191.3	1,193.6
Utilization per 1,000 eligible months		3.2	3.1	3.2	3.5	3.5
Emergency department use (psychiatric)	Comparison					
% with use		0.4	0.4	0.4	0.3	0.3
Utilization per 1,000 user months		1,256.9	1,257.0	1,249.1	1,228.8	1,221.6
Utilization per 1,000 eligible months		4.8	4.7	4.4	4.1	4.2
Observation stays	Demonstration					
% with use		0.9	1.0	1.0	1.0	1.0
Utilization per 1,000 user months		1,037.8	1,044.5	1,070.1	1,092.6	1,084.3
Utilization per 1,000 eligible months		9.4	10.5	10.5	11.2	11.2
Observation stays	Comparison					
% with use		0.6	0.7	0.7	0.8	0.7
Utilization per 1,000 user months		1,040.7	1,049.7	1,049.0	1,053.5	1,054.0
Utilization per 1,000 eligible months		6.4	6.9	7.3	8.1	7.9

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Skilled nursing facility	Demonstration					
% with use		—	—	—	—	—
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Skilled nursing facility	Comparison	—	—	—	—	—
% with use		—	—	—	—	—
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Hospice	Demonstration					
% with use		1.4	1.4	1.2	1.2	1.1
Utilization per 1,000 user months		1,042.6	1,016.4	1,040.4	1,076.6	1,112.0
Utilization per 1,000 eligible months		15.1	13.7	12.3	12.9	12.3
Hospice	Comparison					
% with use		1.5	1.4	1.3	1.3	1.3
Utilization per 1,000 user months		1,064.4	1,021.6	1,013.3	1,013.3	1,013.7
Utilization per 1,000 eligible months		16.1	14.4	13.6	13.3	13.0

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Non-institutional setting						
Primary care E&M visits	Demonstration					
% with use		53.1	54.3	53.6	53.3	53.1
Utilization per 1,000 user months		1,951.7	2,013.4	2,137.9	2,110.2	2,250.2
Utilization per 1,000 eligible months		1,036.9	1,092.7	1,145.6	1,123.9	1,194.4
Primary care E&M visits	Comparison					
% with use		52.1	53.7	53.6	53.0	51.8
Utilization per 1,000 user months		1,980.6	2,023.2	2,031.8	2,022.7	2,033.4
Utilization per 1,000 eligible months		1,031.7	1,085.8	1,089.5	1,071.3	1,053.5
Outpatient therapy (PT, OT, ST)	Demonstration					
% with use		3.6	3.7	3.9	4.3	4.4
Utilization per 1,000 user months		18,133.0	20,165.4	20,698.6	20,719.8	19,212.7
Utilization per 1,000 eligible months		655.6	745.4	812.2	898.1	838.2
Outpatient therapy (PT, OT, ST)	Comparison					
% with use		4.6	4.5	4.8	5.0	5.1
Utilization per 1,000 user months		19,736.2	20,577.6	22,690.4	23,306.8	22,830.3
Utilization per 1,000 eligible months		898.4	920.4	1,098.2	1,176.3	1,158.5

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Independent therapy (PT, OT, ST)	Demonstration					
% with use		1.4	1.4	1.4	1.4	1.5
Utilization per 1,000 user months		14,706.3	14,176.3	14,255.7	13,291.6	13,047.3
Utilization per 1,000 eligible months		209.6	198.8	193.2	183.2	190.1
Independent therapy (PT, OT, ST)	Comparison					
% with use		1.6	1.6	1.7	1.8	1.8
Utilization per 1,000 user months		15,128.4	15,644.2	17,160.4	17,189.1	16,426.5
Utilization per 1,000 eligible months		238.8	250.0	291.4	307.4	298.0
Other hospital outpatient services	Demonstration					
% with use		26.6	26.7	24.6	25.5	26.0
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Other hospital outpatient services	Comparison					
% with use		24.9	24.7	24.1	24.3	24.5
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 claims and encounter data.

Table E-5
Quality of care and care coordination outcomes for the Illinois demonstration and comparison groups

Quality and care coordination measures	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
30-day all-cause risk-standardized readmission rate (%)	Demonstration	22.0	20.6	19.8	20.4	20.8
	Comparison	20.8	20.0	19.6	19.5	19.4
Preventable emergency department visits per eligible month	Demonstration	0.0341	0.0332	0.0324	0.0331	0.0334
	Comparison	0.0367	0.0360	0.0350	0.0344	0.0341
Rate of 30-day follow-up after hospitalization for mental illness (%)	Demonstration	42.6	44.5	41.7	34.8	35.0
	Comparison	42.6	42.0	41.1	35.4	35.1
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Demonstration	0.0090	0.0082	0.0078	0.0083	0.0082
	Comparison	0.0083	0.0076	0.0070	0.0072	0.0074
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Demonstration	0.0060	0.0055	0.0053	0.0058	0.0061
	Comparison	0.0054	0.0050	0.0046	0.0048	0.0053
Screening for clinical depression per eligible month	Demonstration	0.0003	0.0008	0.0018	0.0019	0.0025
	Comparison	0.0002	0.0007	0.0032	0.0048	0.0043

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 Illinois demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Annual NF utilization						
Number of demonstration beneficiaries	Demonstration	111,007	113,424	80,886	83,673	87,125
New long-stay NF admissions per 1,000 eligible beneficiaries		12.0	11.0	18.8	12.1	11.5
Number of comparison beneficiaries	Comparison	311,732	315,172	315,286	335,600	327,306
New long-stay NF admissions per 1,000 eligible beneficiaries		13.6	12.1	23.4	12.9	13.0
Number of demonstration beneficiaries	Demonstration	130,385	130,979	94,509	96,936	98,673
Long-stay NF users as % of eligible beneficiaries		15.7	14.2	15.7	13.6	12.4
Number of comparison beneficiaries	Comparison	368,951	369,611	364,924	387,227	375,192
Long-stay NF users as % of eligible beneficiaries		16.6	15.6	15.7	14.4	13.7
Characteristics of new long-stay NF residents at admission						
Number of admitted demonstration beneficiaries	Demonstration	1,333	1,252	1,523	1,016	1,006
Number of admitted comparison beneficiaries	Comparison	4,244	3,804	7,363	4,337	4,267
Functional status (RUG-IV ADL scale)	Demonstration	6.7	6.9	7.4	8.0	7.8
Functional status (RUG-IV ADL scale)	Comparison	8.3	8.3	8.6	8.3	8.2
Percent with severe cognitive impairment	Demonstration	34.9	30.8	30.8	31.7	30.4
Percent with severe cognitive impairment	Comparison	41.7	41.3	41.2	39.8	38.5
Percent with low level of care need	Demonstration	5.4	5.3	4.7	2.3	2.3
Percent with low level of care need	Comparison	1.9	1.5	1.5	1.8	1.7

ADL = activities of daily living; MDS = Nursing Home Minimum Data Set; NF = nursing facility; RUG = Resource Utilization Group.
NOTE: A higher score on the RUG-IV ADL scale indicates greater impairment, or worse functional status.
SOURCE: RTI International analysis of 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 not 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 (***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 and screening for clinical depression (***Table E-8***).

Table E-7
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Number of demonstration enrollees		75,232	49,075	54,073
Number of demonstration non-enrollees		92,686	103,786	109,388
Institutional setting				
Inpatient admissions[1]	Enrollees			
% with use		3.2	3.4	3.2
Utilization per 1,000 user months		1,184.3	1,197.8	1,155.9
Utilization per 1,000 eligible months		37.5	40.8	37.3
Inpatient admissions[1]	Non-enrollees			
% with use		4.7	4.5	4.4
Utilization per 1,000 user months		1,162.2	1,163.2	1,164.0
Utilization per 1,000 eligible months		54.4	52.0	51.2
Inpatient psychiatric	Enrollees			
% with use		0.4	0.5	0.5
Utilization per 1,000 user months		1,144.1	1,159.8	1,185.9
Utilization per 1,000 eligible months		5.1	6.0	5.5
Inpatient psychiatric	Non-enrollees			
% with use		0.4	0.4	0.4
Utilization per 1,000 user months		1,142.3	1,160.3	1,180.8
Utilization per 1,000 eligible months		4.4	4.9	5.0
Inpatient nonpsychiatric	Enrollees			
% with use		2.8	2.9	2.8
Utilization per 1,000 user months		1,169.7	1,180.3	1,133.9
Utilization per 1,000 eligible months		32.4	34.8	31.8
Inpatient nonpsychiatric	Non-enrollees			
% with use		4.3	4.1	4.0
Utilization per 1,000 user months		1,152.2	1,149.5	1,147.6
Utilization per 1,000 eligible months		50	47.1	46.2

(continued)

Table E-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Emergency department use (non-admit)	Enrollees			
% with use		5.1	5.0	5.4
Utilization per 1,000 user months		1,300.8	1,325.8	1,287.8
Utilization per 1,000 eligible months		65.9	66.5	69.7
Emergency department use (non-admit)	Non-enrollees			
% with use		5.6	6.1	6.0
Utilization per 1,000 user months		1,253.1	1,269.0	1,256.0
Utilization per 1,000 eligible months		70.8	77	75.6
Emergency department use (psychiatric)	Enrollees			
% with use		0.3	0.3	0.3
Utilization per 1,000 user months		1,240.4	1,376.3	1,297.6
Utilization per 1,000 eligible months		4.1	4.4	4.3
Emergency department use (psychiatric)	Non-enrollees			
% with use		0.3	0.3	0.3
Utilization per 1,000 user months		1,188.2	1,179.3	1,167.6
Utilization per 1,000 eligible months		3.1	3.8	3.5
Observation stays	Enrollees			
% with use		0.6	0.7	0.7
Utilization per 1,000 user months		1,155.4	1,278.8	1,144.4
Utilization per 1,000 eligible months		7.2	8.4	8.0
Observation stays	Non-enrollees			
% with use		1.1	1.2	1.2
Utilization per 1,000 user months		1,080.6	1,077.6	1,087.2
Utilization per 1,000 eligible months		12.2	13.0	13.6
Skilled nursing facility	Enrollees			
% with use		—	—	—
Utilization per 1,000 user months		—	—	—
Utilization per 1,000 eligible months		—	—	—
Skilled nursing facility	Non-enrollees			
% with use		—	—	—
Utilization per 1,000 user months		—	—	—
Utilization per 1,000 eligible months		—	—	—

(continued)

Table E-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Hospice	Enrollees			
% with use		0.8	1.1	1.0
Utilization per 1,000 user months		1,167.1	1,250.6	1,337.8
Utilization per 1,000 eligible months		9.4	13.4	13.7
Hospice	Non-enrollees			
% with use		1.6	1.2	1.2
Utilization per 1,000 user months		1,009.2	1,009.1	1,012.3
Utilization per 1,000 eligible months		15.8	12.5	11.9
Non-institutional setting				
Primary care E&M visits	Enrollees			
% with use		41.0	44.1	44.5
Utilization per 1,000 user months		2,187.8	2,030.3	2,510.7
Utilization per 1,000 eligible months		896.0	895.3	1,117.2
Primary care E&M visits	Non-enrollees			
% with use		60.7	57.6	58.4
Utilization per 1,000 user months		2,129.6	2,119.1	2,153.0
Utilization per 1,000 eligible months		1,293.0	1,221.4	1,257.3
Outpatient therapy (PT, OT, ST)	Enrollees			
% with use		1.9	3.0	2.9
Utilization per 1,000 user months		12,547.2	14,146.1	12,204.4
Utilization per 1,000 eligible months		234.3	418.0	349.6
Outpatient therapy (PT, OT, ST)	Non-enrollees			
% with use		4.8	4.9	5.1
Utilization per 1,000 user months		21,538.7	22,185.9	20,938.4
Utilization per 1,000 eligible months		1,024.2	1,086.4	1,075.5
Independent therapy (PT, OT, ST)	Enrollees			
% with use		0.6	0.6	0.7
Utilization per 1,000 user months		14,529.9	13,479.7	12,376.4
Utilization per 1,000 eligible months		90.4	85.0	84.2
Independent therapy (PT, OT, ST)	Non-enrollees			
% with use		1.9	1.8	1.9
Utilization per 1,000 user months		14,111.3	13,165.8	13,060.3
Utilization per 1,000 eligible months		266.2	230.9	250.6

(continued)

Table E-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Illinois demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Other hospital outpatient services	Enrollees			
% with use		17.8	18.7	19.8
Utilization per 1,000 user months		—	—	—
Utilization per 1,000 eligible months		—	—	—
Other hospital outpatient services	Non–enrollees			
% with use		27.0	27.5	27.7
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 enrollees and non-enrollees for the Illinois demonstration

Quality and care coordination measures	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
30-day all-cause risk-standardized readmission rate (%)	Enrollees	19.7	20.1	20.2
	Non-enrollees	19.3	19.0	19.3
Preventable ED visits per eligible month	Enrollees	0.0303	0.0297	0.0311
	Non-enrollees	0.0326	0.0345	0.0340
Rate of 30-day follow-up after hospitalization for mental illness (%)	Enrollees	37.5	34.0	36.1
	Non-enrollees	46.0	35.3	34.4
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Enrollees	0.0055	0.0062	0.0062
	Non-enrollees	0.0091	0.0091	0.0092
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Enrollees	0.0039	0.0044	0.0048
	Non-enrollees	0.0061	0.0064	0.0068
Screening for clinical depression per eligible month	Enrollees	0.0007	0.0009	0.0014
	Non-enrollees	0.0025	0.0024	0.0031

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

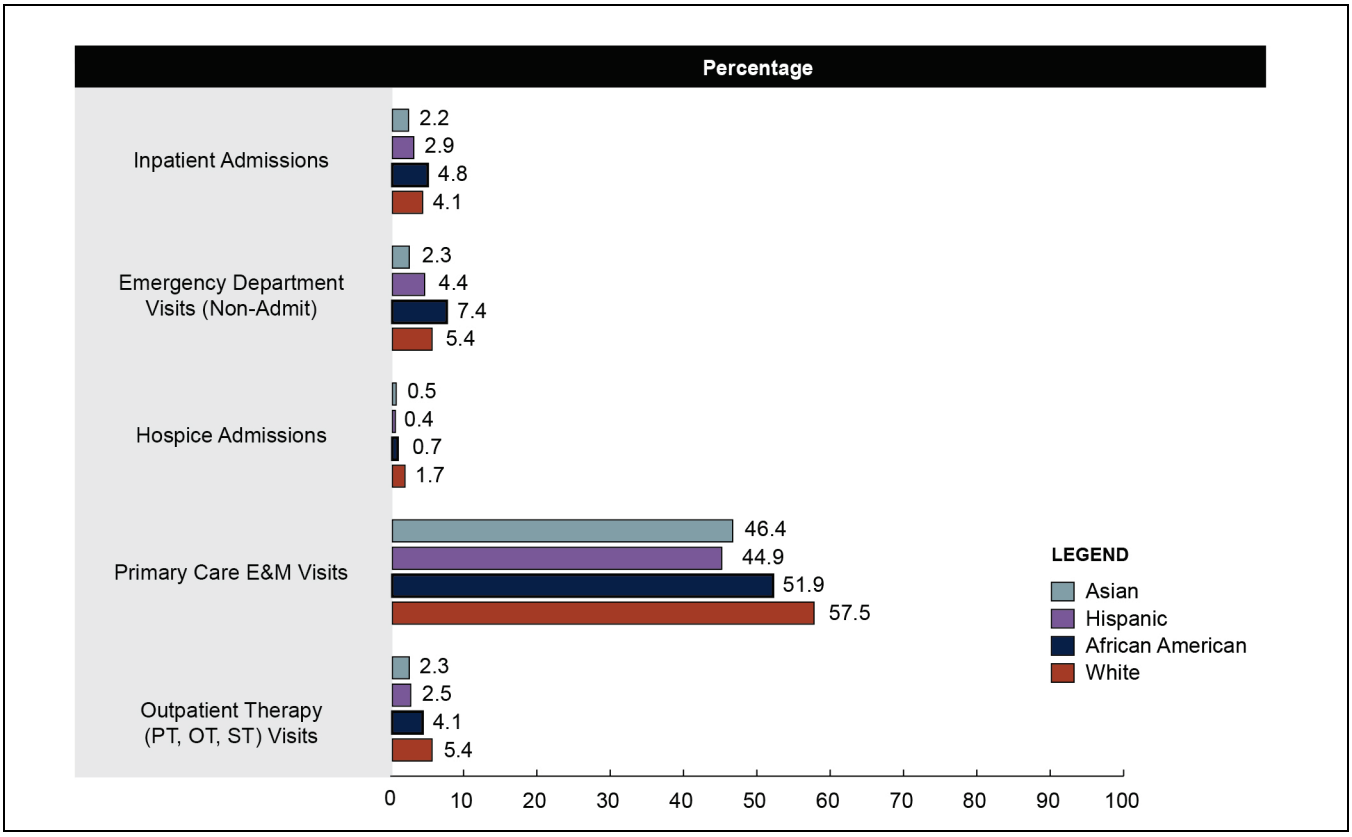
To examine any differences in racial and ethnic groups, ***Figures E-1, E-2***, and ***E-3*** provide month-level results for five settings of interest for Illinois eligible beneficiaries: inpatient admissions, ED visits (non-admit), hospice admissions, primary care E&M visits, and outpatient therapy (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. African American beneficiaries had slightly higher inpatient admissions and ED visits, relative to other racial categories. A slightly higher percentage of White beneficiaries had monthly primary care visits, relative to other races. White beneficiaries also received more outpatient therapy visits and hospice admissions, compared to other races.

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

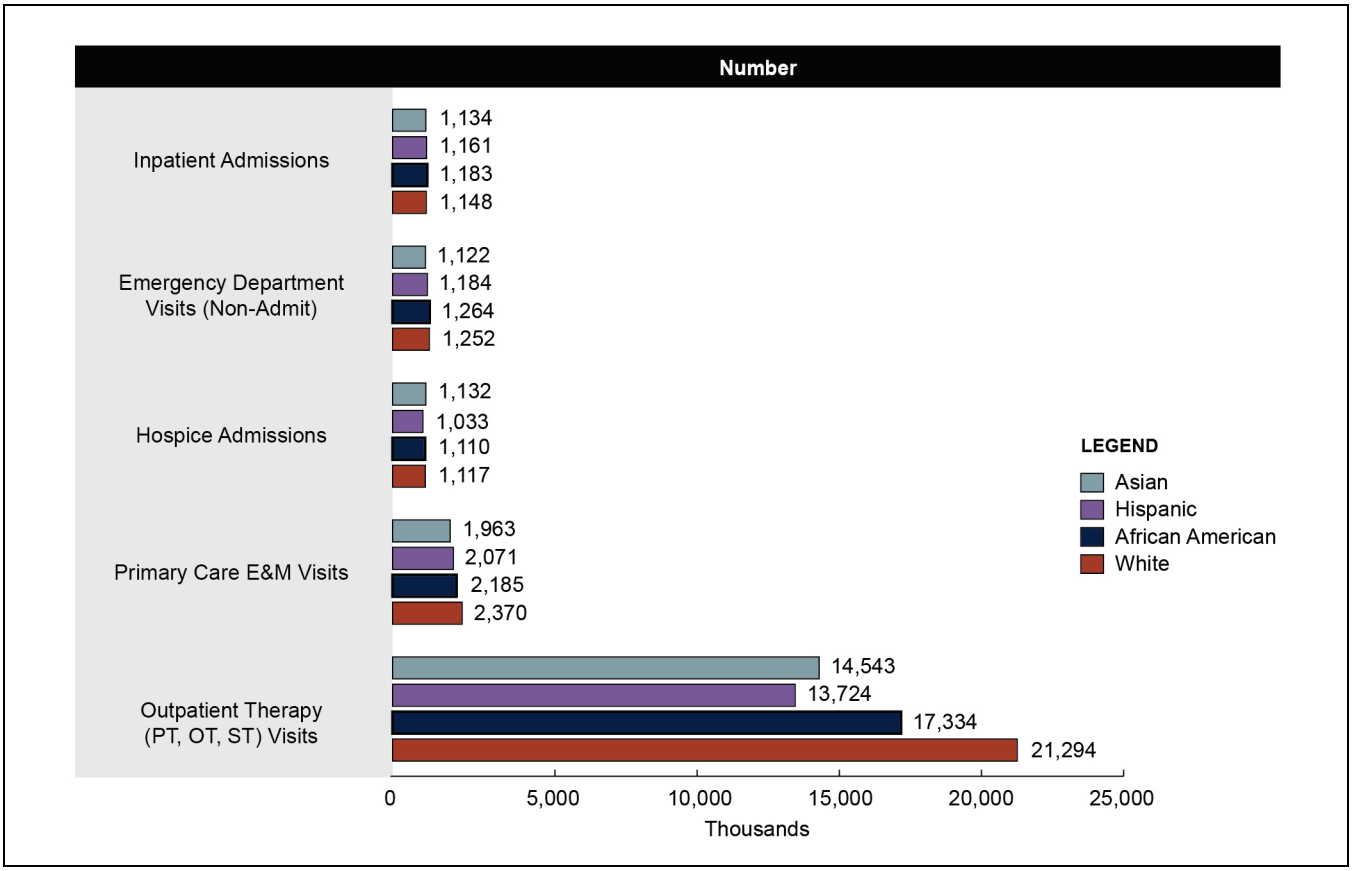
Figure E-3 presents counts of services across all Illinois demonstration eligible beneficiaries regardless of having any use of the respective services. When looking at use for all eligible beneficiaries in all eligible months, the results are quite different from those of users of services in ***Figure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

Figure E-1
Percent with use of selected Medicare services



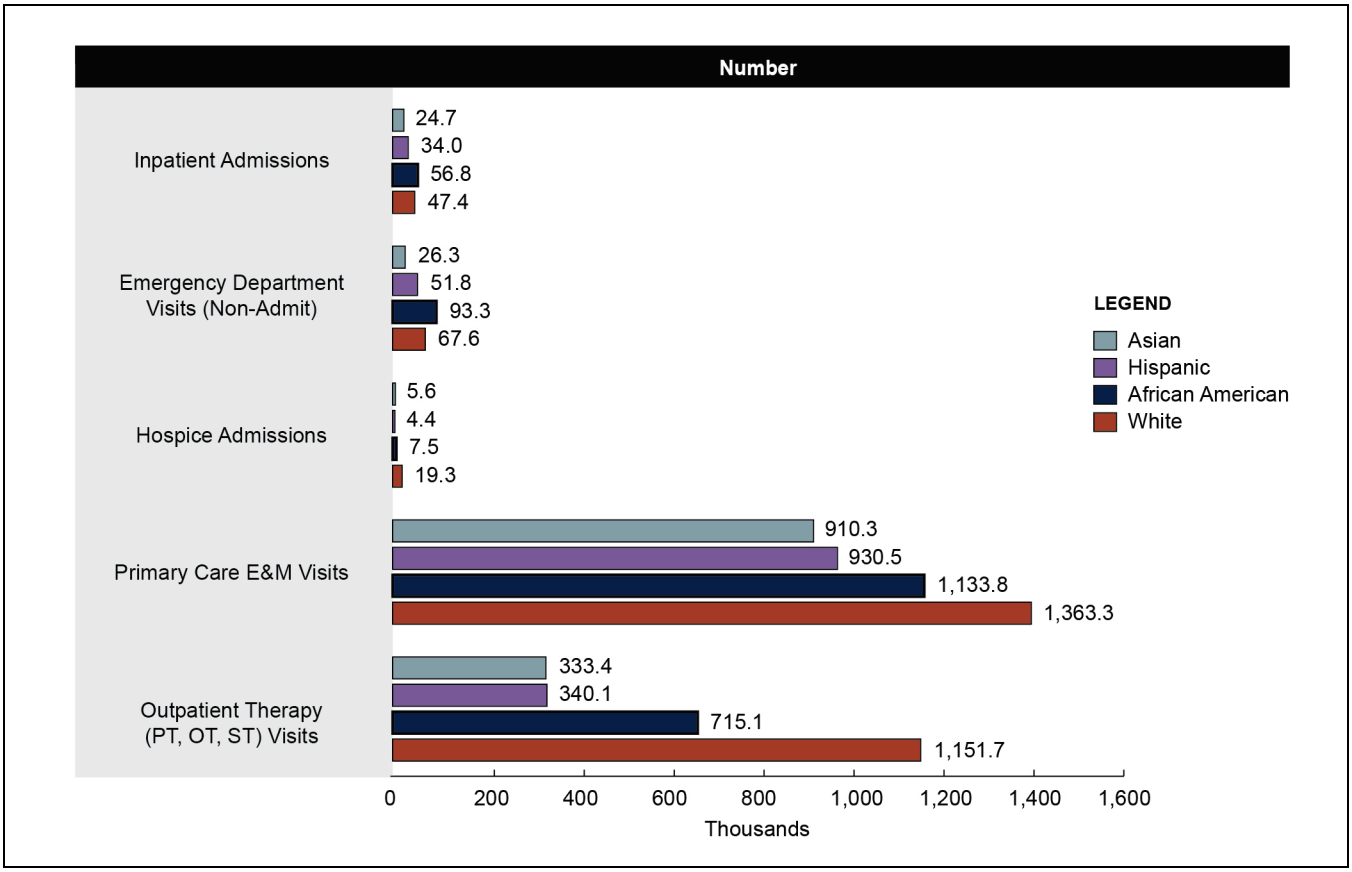
E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

Figure E-2
Service use among all demonstration eligible beneficiaries with use of service per 1,000 user months



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

Figure E-3
Service use among all demonstration eligible beneficiaries per 1,000 eligible months



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

Appendix F

Cost Savings Methodology and Supplemental Tables

F.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-1*** summarizes each adjustment and the application of the adjustments to FFS expenditures or to the capitation rate.

Additionally, corrections were made to impact estimates from earlier reports that resulted in differences in our current impact estimates for demonstration year 1. We attribute the differences in the estimates to changes in the definition of the intervention group and implementing monthly exclusion criteria. Specifically, we made the following corrections: (1) confirmed dual status for State-identified FAI eligible beneficiaries against IDR data, and (2) applied IDR-based exclusion criteria for all monthly observations in the comparison group during the predemonstration period and demonstration period, and to the demonstration group during the predemonstration period.

Table F-1
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%.

(continued)

Table F-1 (continued)
Adjustments to Medicare expenditures variable

Data source	Adjustment description	Reason for adjustment	Adjustment detail
Capitation rate (MA)	Bad debt	The Medicare portion of the capitation rate includes an upward adjustment to account for bad debt. Bad debt is not included in the FFS claim payments and therefore needs to be removed from the capitation rate for the savings analysis. (Note: "bad debt" is reflected in the hospital "pass through" payment.)	Reduced capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.93% for CY 2012, 0.91% for CY 2013, 0.89% for CY 2014, 0.89% for CY 2015, 0.97% for CY 2016, and 0.81% for CY 2017.
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 CY14, 0.89% for CY15, 0.97% for CY16, and 0.81% for CY17. 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, and 1.74% for CY 2017 to account for the disproportional share of bad debt attributable to Medicare-Medicaid 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. Note that the AGA factor applied to the capitated rates for 2014 reflected the 50/50 blend that was applicable to the payment year.

(continued)

Table F-1 (continued)
Adjustments to Medicare expenditures variable

Data source	Adjustment description	Reason for adjustment	Adjustment detail
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 demonstration year, but was not reflected in the capitation rate used in the analysis.	Final quality withhold repayments for CY 2014, CY 2015, CY 2016, and CY 2017 were incorporated into the dependent variable construction.

CY = calendar year; FFS = fee-for-service; MA = Medicare Advantage; MARx = Medicare Advantage Prescription Drug 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, and 5 percent for the third demonstration year), but do not reflect the quality withhold amounts.

F.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.

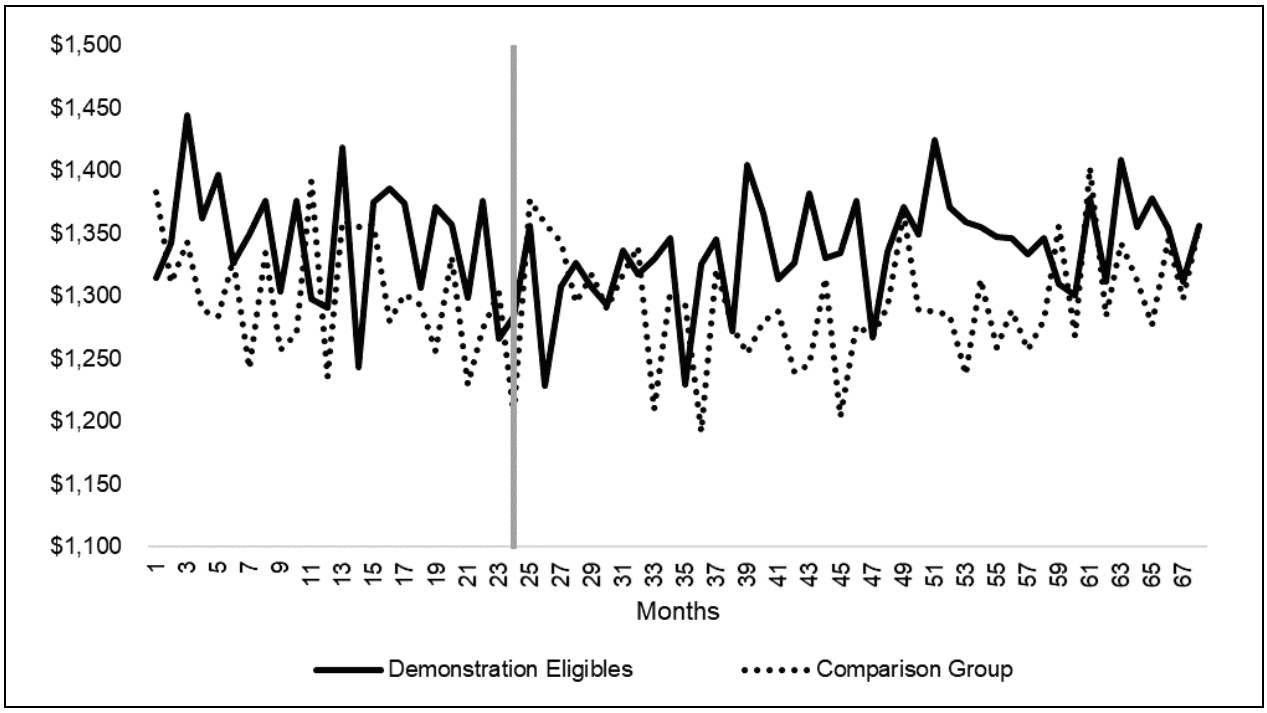
- Demographic variables included in the model were:
  - Age
  - Gender
  - Race/ethnicity
  - Enrolled in another Medicare shared saving program
  - End-stage renal disease status
  - Disability status
  - Medicare Advantage status

- Area-level variables included in the savings model were:
  - Medicare spending per Medicare-Medicaid enrollee age 19 or older
  - MA penetration rate
  - Medicaid-to-Medicare FFS fee index for all services
  - Medicaid spending per Medicare-Medicaid enrollee age 19 or older
  - Proportion of Medicare-Medicaid enrollees using
    - Nursing facilities age 65 or older
    - HCBS age 65 or older
    - Medicaid managed care age 19 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

F.3 Results

Once we finalized the adjustments, 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 period, demonstration and comparison group, March 2012–December 2017



SOURCE: RTI Analysis of Illinois demonstration eligible and comparison group Medicare data (program: IL_DY3_trendfigures.log).

The DinD values in each table 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*** and ***Table F-8*** represent the most accurate adjusted impact on Medicare costs.

Tables F-2, F-3, and ***F-4*** 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 a decrease in mean monthly Medicare expenditures during demonstration year 1 for the demonstration group, but an increase for the demonstration group in demonstration years 2 and 3. Additionally, the unweighted tables show an increase in Medicare expenditures during demonstration years 1–3 for the comparison group. The weighted tables display a different pattern with the comparison group showing a decrease demonstration year 1 and 2 and an increase in demonstration year 3. The weighted demonstration group expenditures decrease in demonstration year 2 and increase in years 2 and 3 (***Tables F-5, F-6,*** and ***F-7***).

Table F-2
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	$1,340.14 ($1,311.77, $1,368.52)	$1,326.11 ($1,306.44, $1,345.78)	−$14.04 (−$26.14, −$1.94)
Comparison	$1,229.53 ($1,181.31, $1,277.74)	$1,230.38 ($1,183.59, $1,277.17)	$0.85 (−$10.66, $12.37)
DinD	N/A	N/A	−$14.89 (−$31.46, $1.67)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

Table F-3
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	$1,340.14 ($1,311.77, $1,368.52)	$1,351.18 ($1,320.39, $1,381.97)	$11.04 ($4.38, $17.69)
Comparison	$1,229.53 ($1,181.31, $1,277.74)	$1,238.19 ($1,183.91, $1,292.47)	$8.67 (−$6.74, $24.07))
DinD	N/A	N/A	$2.37 (−$14.41, $19.15)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

Table F-4
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	$1,340.14 ($1,311.77, $1,368.52)	$1,351.62 ($1,320.16, $1,383.07)	$11.47 ($1.09, $21.86)
Comparison	$1,229.53 ($1,181.31, $1,277.74)	$1,283.05 ($1,228.27, $1,337.84)	$53.53 ($34.30, $72.75)
DinD	N/A	N/A	−$42.05 (−$63.86, −$20.25)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

Table F-5
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	$1,340.14 ($1,311.77, $1,368.52)	$1,326.11 ($1,306.44, $1,345.78)	−$14.04 (−$26.14, −$1.94)
Comparison	$1,300.61 ($1,246.78, $1,354.44)	$1,287.35 ($1,229.56, $1,345.13)	−$13.26 (−$34.19, $7.66)
DinD	N/A	N/A	−$0.77 (−$24.81, $23.26)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

Table F-6
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	$1,340.14 ($1,311.77, $1,368.52)	$1,351.18 ($1,320.39, $1,381.97)	$11.04 ($4.38, $17.69)
Comparison	$1,300.61 ($1,246.78, $1,354.44)	$1,285.25 ($1,224.73, $1,345.76)	−$15.36 (−$43.33, $12.60)
DinD	N/A	N/A	$26.40 (−$2.35, $55.15)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

Table F-7
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	$1,340.14 ($1,311.77, $1,368.52)	$1,351.62 ($1,320.16, $1,383.07)	$11.47 ($1.09, $21.86)
Comparison	$1,300.61 ($1,246.78, $1,354.44)	$1,325.07 ($1,255, $1,395.14)	$24.46 (−$9.36, $58.29)
DinD	N/A	N/A	−$12.99 (−$48.36, $22.38)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_GLM.log)

F.4 Regression

Table F-8 shows the main results from the DinD analysis for demonstration years 1–3 and for the entire demonstration period, controlling for beneficiary demographics and market characteristics.

Table F-8
Demonstration effects on Medicare savings for eligible beneficiaries—Difference-in-difference regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (March 2014–December 2015)	8.67	0.4929	(−16.10, 33.43)	(−12.12, 29.45)
Demonstration Year 2 (January 2016–December 2016)	29.69	0.0307	(2.76, 56.63)	(7.09, 52.30)
Demonstration Year 3 (January 2017–December 2017)	−7.96	0.6527	(−42.64, 26.72)	(−37.06, 21.14)
Cumulative (Demonstration Years 1–3, March 2014–December 2017)	9.99	0.3626	(−11.51, 31.49)	(−8.06, 28.03)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1610_GLM.log)

Table F-9 presents the results from the DinD analysis for the enrollee-subgroup. The enrollee-subgroup analysis focused on beneficiaries identified as enrolled for at least 3 months in the demonstration period and with at least 3 months of baseline eligibility. Note that a subset of the comparison group developed for the ITT analysis was used in the enrollee subgroup analyses. Comparison group beneficiaries used in the enrollee subgroup analyses were required to have at least 3 months of eligibility in the demonstration period (March 1, 2014–December 31, 2017) 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 sub-group 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-9
Demonstration effects on Medicare expenditures for enrolled beneficiaries relative to the comparison group—Difference-in-differences regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (March 2014–December 2015)	110.15	<0.001	(85.81, 134.50)	(89.72, 130.58)
Demonstration Year 2 (January 2016–December 2016)	156.64	<0.001	(120.11, 193.17)	(125.98, 187.30)
Demonstration year 3 (January 2017–December 2017)	121.32	<0.001	(93.04, 149.61)	(97.59, 145.06)
Cumulative (Demonstration Years 1–3, March 2014–December 2017)	123.11	<0.001	(100.23, 145.99)	(103.91, 142.32)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: il_dy3_1630_enrollee.log)