FINANCIAL ALIGNMENT INITIATIVE

Texas Dual Eligible Integrated Care Demonstration Preliminary Second Evaluation Report

Spring 2022

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RTI Project Number
0214448.001.007.000.000.006

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FINANCIAL ALIGNMENT INITIATIVE
TEXAS DUAL ELIGIBLE INTEGRATED CARE DEMONSTRATION
PRELIMINARY SECOND EVALUATION REPORT

By

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CMS Contract No. HHSM-500-2014-00037i TO#7

Spring 2022

This project was funded by the Centers for Medicare & Medicaid Services under contract no. HHSM-500-2014-00037i TO #7. The statements contained in this report are solely those of the authors and do not necessarily reflect the views or policies of the Centers for Medicare & Medicaid Services. RTI assumes responsibility for the accuracy and completeness of the information contained in this report.

Acknowledgments

We would like to thank the State officials who contributed information reflected in this Evaluation Report through interviews during site visits and quarterly telephone calls. We also thank the managed care plan staff, consumer advocates, and other stakeholders who also answered our questions about their experience and perspectives on the demonstrations. We gratefully acknowledge the many contributions of CMS staff, especially our project officers, Nancy Chiles Shaffer and Lanlan Xu. We also thank staff at the National Academy for State Health Policy who helped to gather information for portions of this report. Christopher Klotschkow, Catherine Boykin, Roxanne Snaauw, and Valerie Garner provided excellent editing, document preparation, and graphic design.

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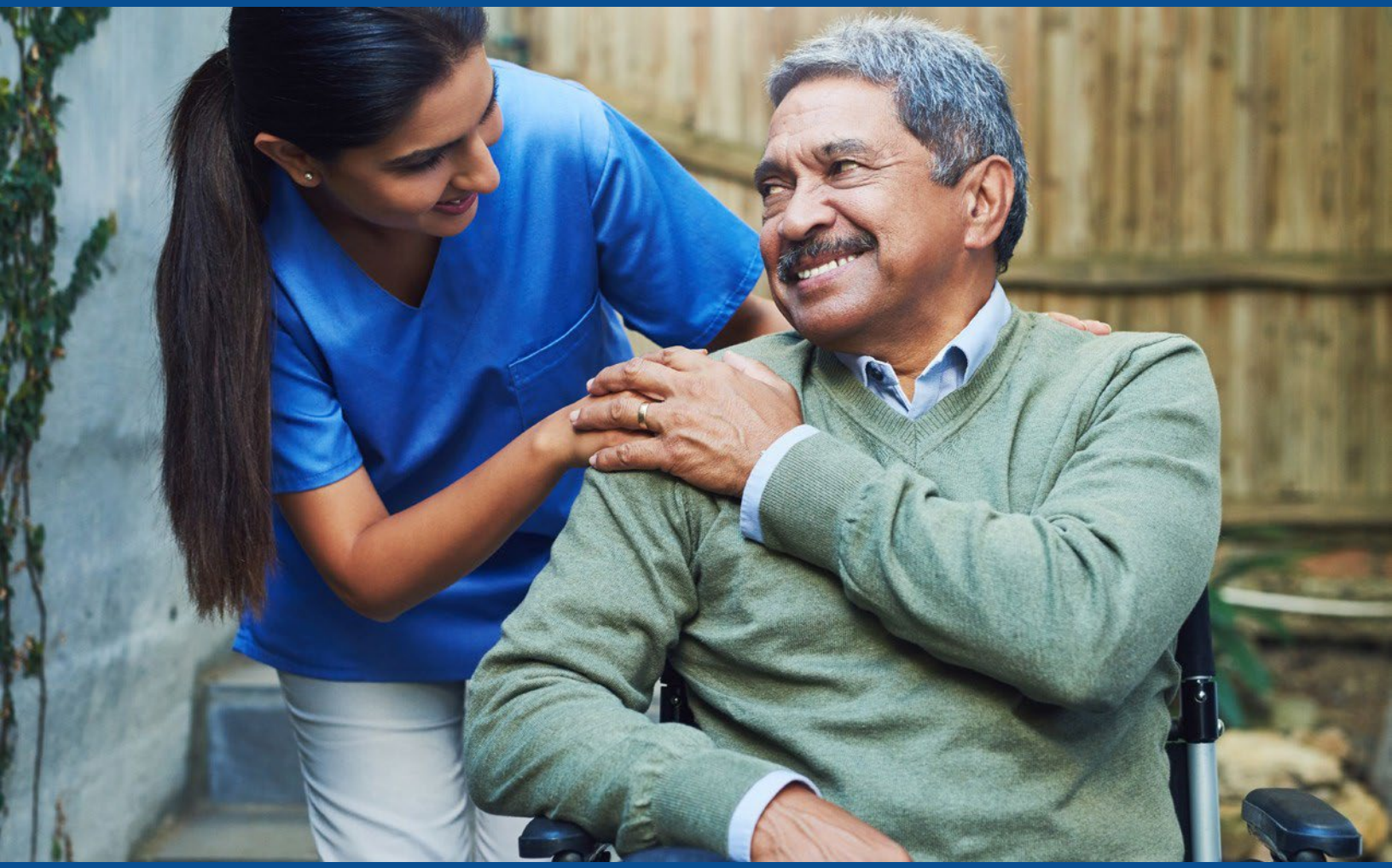
Glossary of Acronyms

ACSC	Ambulatory care sensitive condition
ADL	Activities of daily living
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CMS	Centers for Medicare & Medicaid Services
CMT	Contract Management Team
CTM	Complaint Tracking Module
DinD	Difference-in-differences
DME	Durable medical equipment
D-SNP	Dual Eligible Special Needs Plan
ED	Emergency department
E&M	Evaluation and management
FAI	Financial Alignment Initiative
FFS	Fee-for-service
HCBS	Home and community-based services
HCC	Hierarchical Condition Category
HEDIS	Healthcare Effectiveness Data and Information Set
HHSC	Texas Health and Human Services Commission
HRA	Health risk assessment
IRE	Medicare Independent Review Entity
ITT	Intent-to-treat
LTSS	Long-term services and supports
MA	Medicare Advantage
MARx	Medicare Advantage and Part D Inquiry System
MCO	Managed care organization

MDS	Minimum Data Set
MLTSS	Managed long-term services and supports
MMCO	Medicare-Medicaid Coordination Office
MMP	Medicare-Medicaid Plan
NF	Nursing facility
PHE	Public health emergency
PMPM	Per member per month
PS	Propensity score
SDRS	State Data Reporting System
SPMI	Serious and persistent mental illness

Executive Summary



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

In November 2014, the Texas Health and Human Services Commission (HHSC) and CMS entered into three-way contracts with Medicare-Medicaid Plans (MMPs) to provide integrated Medicare and Medicaid benefits to dually eligible beneficiaries under the Texas Dual Eligible Integrated Care Demonstration. Beneficiaries who are 21 or older and who get their Medicaid benefits through the State's Medicaid managed care program, STAR+PLUS, are eligible unless they are otherwise excluded. MMPs are paid a blended capitated rate to provide a streamlined point of service for authorizing, arranging, and coordinating covered services in six demonstration service areas (Bexar, Dallas, El Paso, Harris, Hidalgo, and Tarrant counties). The first phase of enrollment into the demonstration began March 1, 2015.

CMS contracted with RTI International to monitor demonstration implementation and to evaluate its impact on beneficiary experience, quality, utilization, and cost. The evaluation includes individual State-specific reports like this one. This second evaluation report for the Texas demonstration describes implementation of the Texas Dual Eligible Integrated Care demonstration and early analysis of the demonstration's impacts. The report includes findings from qualitative data for 2018–2020 and quantitative results for March 2015–December 2018.

Highlights

The HHSC transformation that occurred from 2015 through 2017, had a significant impact on the management and oversight of the demonstration. From 2018 through 2020, HHSC continued to reform its oversight of its Medicaid managed care programs and undertook several initiatives to improve quality and access across its Medicaid managed programs. During this time, some of the challenges resulting from the reorganization were addressed, although the demonstration continued to suffer from a lack of demonstration-focused beneficiary and beneficiary advocate involvement in State-led stakeholder engagement activities. Enrollment rates stabilized during this period, although both HHSC and MMPs said enrollment was too low (e.g., as of December 2020, 24 percent of beneficiaries eligible for the demonstration). After an adjustment to payment rates in 2018, HHSC indicated that profitability stabilized for four out of five MMPs. Overall, MMP performance on quality and beneficiary satisfaction improved during the demonstration to date, although not consistently over time for all MMPs.

Integration of Medicare and Medicaid	Although HHSC restructuring and both HHSC and CMS staff turnover initially had a negative impact on the joint CMS-State Contract Management Team (CMT), the CMT responded quickly and collaboratively to the COVID-19 public health emergency.
	HHSC has contractual targets for alternative payment models for its STAR+PLUS plans, including MMPs. It has prioritized increasing the use of alternative payments for certain services, to promote higher quality and better coordinated care across providers.
Eligibility and Enrollment	Successful implementation of monthly passive enrollment beginning in late 2017 helped to stabilize demonstration enrollment rates at about one-quarter of eligible beneficiaries. Enrollment at the end of December 2020 was 38,013, or 24 percent of beneficiaries eligible for the demonstration.
	During site visit interviews, MMPs consistently expressed disappointment with the demonstration's enrollment level.
Service Coordination	The shift to videoconferencing and telephonic assessments during the PHE helped MMPs to conduct timely assessments for community-based enrollees.
	Service coordination for enrollees residing in nursing facilities (NFs) was significantly disrupted during the PHE, although some MMPs were able to continue engaging with beneficiaries to coordinate needed services and supports.
Stakeholder Engagement	HHSC-led efforts to engage stakeholders have focused primarily on MMPs and providers, rather than beneficiaries and their advocates.
	MMPs have used information gathered through enrollee advisory groups to improve messaging and modify flexible benefits offered.

Financing and Payment	In 2020, HHSC reported that after lowering Medicaid capitation rates paid to MMPs in 2018 to reflect favorable selection[1] into the demonstration, MMP profitability had come in line with expectations.
	MMPs expressed concern about continued use of the Medicaid capitation rate methodology, which relies on assumptions about the MMPs' ability to continue to achieve 5.5 percent savings after several years of operation.
Quality of Care	Although HHSC's quality management infrastructure for the STAR+PLUS program does not consistently include a separate focus on the demonstration as its own program, the demonstration benefits from the established infrastructure.
	In general, MMPs have improved their performance on quality measures, although improvement has been uneven across MMPs and over time.
Beneficiary Experience	Overall, beneficiary satisfaction with the demonstration has improved over time, although not consistently across all MMPs.

[1] HHSC's analysis indicated that the beneficiaries choosing to enroll in the demonstration were healthier than those remaining in STAR+PLUS. The 2018 adjustment to MMP Medicaid capitation rates reflected the lower than anticipated cost of enrollees.

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 monthly probability of skilled nursing facility (SNF) admissions and the annual probability of any long-stay NFs use both decreased, relative to the comparison group. However, the demonstration also increased the monthly probability of any emergency department (ED) visits as well as the monthly number of preventable ED visits, relative to the comparison group.
	There was no demonstration impact on the probability of inpatient admissions, the count of physician evaluation and management (E&M) visits, probability of ambulatory care sensitive condition (ACSC) admissions (overall or chronic), 30-day all-cause readmissions, or 30-day follow-up after mental health discharge.
	The demonstration had a more negative effect on beneficiaries with long-term services and supports (LTSS) use, compared to those without LTSS use. The demonstration effect for those with LTSS use was an increase in the monthly probability of any inpatient use, relative to the demonstration effect for those without LTSS use (***Table ES-1***).
	Table ES-1 shows the demonstration also impacted beneficiaries with serious and persistent mental illness (SPMI) more negatively than those without SPMI. The demonstration effect for those with an SPMI was an increase in the monthly probability of ED visits and the monthly number of preventable ED visits, relative to the demonstration effect for those without SPMI.

Demonstration Impact on Cost Savings	Overall, the demonstration had no impact on total Medicare Parts A and B costs. As summarized in ***Table ES-2***, relative to the comparison group, the demonstration was not associated with changes in total Medicare Parts A and B costs during any of demonstration years 1–3 or cumulatively.[2]
	The demonstration was associated with decreases in the Medicaid total cost of care cumulatively and in each of the 3 demonstration years, relative to a Texas-only comparison group.[3]

Table ES-1 summarizes the cumulative impact estimates for the Texas demonstration during demonstration years 1–3 (demonstration start through 2018), relative to the comparison group. It also shows the difference in the demonstration effect for LTSS users relative to non-LTSS users, and for beneficiaries with SPMI relative to those without SPMI.

[2] 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.
[3] The Medicaid costs results should be interpreted with caution. For additional details about the data limitations of this analysis, please see ***Appendix F***.

Table ES-1
Summary of Texas cumulative demonstration impact estimates for demonstration period, March 1, 2015–December 31, 2018

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

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

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

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

Table ES-2 summarizes the demonstration effects on total Medicare Parts A and B expenditures for all eligible beneficiaries, including both the cumulative effect over the three-year demonstration period and the annual effect for each demonstration year, as well as the cumulative and annual effect estimates for Medicaid expenditures for the entire 3-year demonstration period.

Table ES-2
Summary of Texas demonstration effects on total Medicare expenditures and on total Medicaid expenditures among all eligible beneficiaries, March 1, 2015–December 31, 2018

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

DinD = difference-in-differences; MMP = Medicare-Medicaid Plan; 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 20*** in ***Section 6, Demonstration Impact on Cost Savings***. For numeric estimates of the demonstration's effect on total Medicaid expenditures, see ***Figure 21*** in ***Section 6***. Green color-coded shading indicates where the direction of the DinD estimate was favorable. To ensure accessibility for text readers and individuals with visual impairment, cells shaded green receive a superscript "G." 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. The Medicaid cost results are limited to a Texas-only comparison group, due to a significant shift toward managed long-term services and supports in the Texas Medicaid program.
SOURCE: RTI analysis of Medicare and Medicaid claims (programs; tx_dy3_1480_GLM.log; 30_Regression.do)

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SECTION 1

Demonstration and Evaluation Overview

1.1 Demonstration Description and Goals

The Medicare-Medicaid Coordination Office (MMCO) and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) created the Medicare-Medicaid Financial Alignment Initiative (FAI) to test, in partnerships with States, integrated care models for dually eligible enrollees. The Texas Dual Eligible Integrated Care Demonstration Project began on March 1, 2015, and was originally scheduled to continue through December 31, 2018. In 2017, the demonstration was extended through December 31, 2020. In November 2020, the State and CMS re-executed the three-way contract which extended the demonstration through December 31, 2021, with the intent to extend through December 2023.[4]

The Texas HHSC and CMS entered into three-way contracts with Medicare-Medicaid Plans (MMPs) to provide integrated Medicare and Medicaid benefits to eligible Medicare and Medicaid enrollees. Only STAR+PLUS plans operating in a demonstration service area may serve as an MMP in that area. Dually eligible beneficiaries who are 21 or older and who get Medicaid benefits through the STAR+PLUS managed care program are eligible, unless they are otherwise excluded. The STAR+PLUS program, a Texas Medicaid managed care program for adults who have disabilities or are age 65 or older, includes LTSS as part of the service array. MMPs are paid a blended capitated rate to provide a streamlined point of service for authorizing, arranging, and coordinating covered services in six demonstration service areas (Bexar, Dallas, El Paso, Harris, Hidalgo, and Tarrant counties).

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

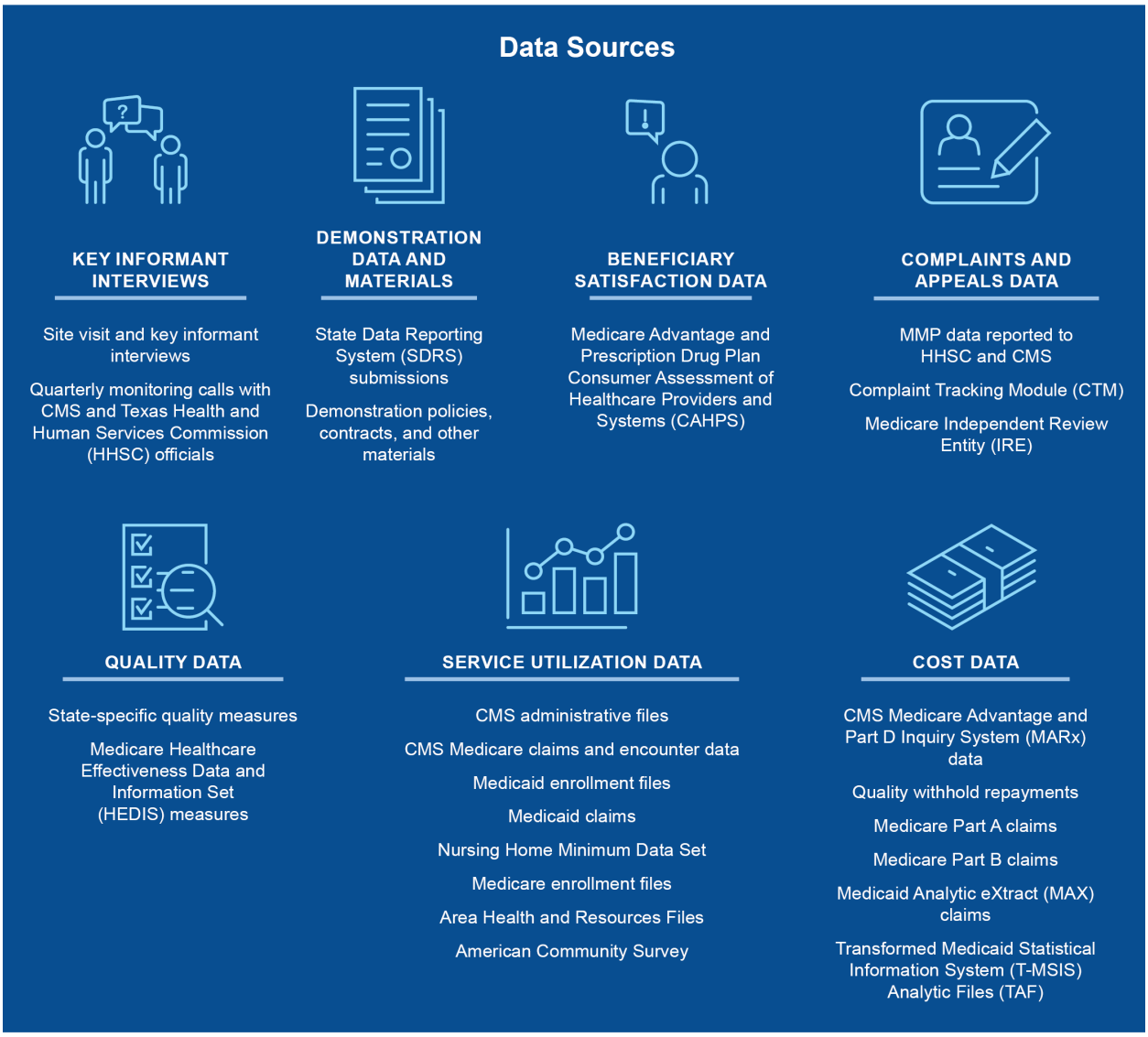
1.2 Purpose of this Report

CMS contracted with RTI International to monitor the implementation of the demonstrations under the FAI and to evaluate their impact on beneficiary experience, quality, utilization, and cost. In this report we include qualitative evaluation information for the calendar years 2018–2020—the third, fourth, and fifth demonstration years, respectively—with relevant updates from early 2021. We refer to this time period as "the reporting period" in the qualitative narrative. We provide updates to previous evaluation reports in key areas, including enrollment, care coordination, beneficiary experience, and stakeholder engagement activities, and discuss the challenges, successes, and emerging issues identified during the reporting period. We present quantitative impact analysis results on service utilization, quality of care, and costs for the period spanning March 1, 2015 through December 31, 2018. The difference in timeframes between qualitative and quantitative analyses is due to the longer lag of secondary data used in quantitative analysis.

[4] Currently, Texas STAR+PLUS plans are operating under a procurement completed in 2011 (MOU, 2014). HHSC cancelled two procurements for this program (Austin American-Statesman, 2018; The Texan Tribune, 2020), causing the STAR+PLUS contracts to exceed the State's limits of 8 operational years. As a result, HHSC could only enter into 1-year contracts to bridge the STAR+PLUS program and, accordingly, the demonstration. As of early 2021, HHSC was working with CMS to request a demonstration extension through 2023, contingent on the successful execution of 1-year bridge contracts.

1.3 Data Sources

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



SECTION 2

Demonstration Design and State Context

2.1 Changes in Demonstration Design

There have been three amendments to the three-way contract over the course of the demonstration. The most recent amendment in November 2020 did not make substantive changes to the demonstration design. See the First Evaluation Report for details on the demonstration design. CMS and HHSC made temporary changes to the demonstration design in response to the COVID-19 public health emergency (PHE). CMS granted Texas several flexibilities under a §1135 waiver, such as permission to delay timeframes for Medicaid fair hearings and the issuance of decisions. CMS also granted Texas several flexibilities under appendix K for HHSCs §1115 waiver, such as permission to extend the timeframe for completing assessments and allow the option to conduct evaluations, assessments, and person-centered service planning meetings virtually/remotely in lieu of face-to-face meetings.

2.2 Overview of State Context

The Texas demonstration builds on the State's STAR+PLUS program, which includes LTSS and has been operating since 1998. In 2011, the State required managed care organizations (MCOs) offering STAR+PLUS to also offer Medicare Advantage Dual Eligible Special Needs Plans (D-SNPs) in some of the most populous counties. Texas chose to participate in the demonstration to increase the number of its dually eligible beneficiaries enrolled in an integrated managed care product (HHSC, 2012).n 2019, HHSC cited the rapid evolution of Medicaid managed care in Texas as an important factor behind a series of major reforms undertaken by HHSC since the launch of the demonstration. As reported in the First Evaluation Report, in 2015 through 2017, HHSC underwent a major reorganization. In late 2020, the State reported that although the reorganization was initially challenging, the overall impact was positive—HHSC runs smoothly, and people know who is responsible for which tasks. In 2018, HHSC launched a multipronged Managed Care Oversight Improvement Initiative.[5] To inform this effort, HHSC arranged for an evaluation of Texas' Medicaid managed care programs. The final report, completed in 2018, identified ways to improve contract oversight and review and other topics.[6]

The Texas Legislature has taken a number of steps impacting the demonstration. First, in 2019 it enacted a new law prohibiting MCOs from denying reimbursement solely because a Medicaid service had been delivered remotely, as telemedicine or telehealth (HHSC, 2020). The legislature also required HHSC to develop strategies for ensuring adequate access to community attendant services. As a result of this work, HHSC submitted a strategic plan to the legislature in November 2020.[7] The legislature also required HHSC to expand the use of consumer-directed services.

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[5] See ***Section 3.6.2, Quality Management Structures and Activities*** for more information about HHSC's managed care oversight improvement initiative.

[6] For more information about the relationship between the report and HHSC's Managed Care Oversight Improvement Initiative, see https://www.hhs.texas.gov/about/process-improvement/improving-services-texans/medicaid-chip-quality-efficiency-improvement. As accessed on July 1, 2021.

[7] HHSC's strategic plan for community attendant workforce development can be found at: https://www.hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2020/rider-157-ca-workforce-dev-strat-plan-nov-2020.pdf. As accessed July 19, 2021.

In 2019, the State said that extending the demonstration would provide more time to determine whether the MMP or the D-SNP model should serve as the primary platform for integrating care for dually eligible beneficiaries, following the end of the demonstration. HHSC reported in late 2020 that it was continuing to evaluate its options. Although the MMPs operate only in the six demonstration counties, HHSC encourages all STAR+PLUS plans to have contracts with D-SNPs in the most populous counties in Texas. And although the State and MMPs reported that the MMP model supports a higher degree of integration, HHSC said that the MMP model also imposes a greater administrative burden on the State and on MMPs. In addition, new D-SNP policy options support a higher level of integration than previously available. As of 2021, the State had moved forward with some of these options.[8] HHSC saw the MMP model as less attractive to MMPs from a cost-benefit perspective because of low enrollment and the savings methodology. On the other hand, under the MMP model, HHSC can benefit from savings resulting from integrated care.

In 2020, Texas experienced the PHE and disruption from hurricanes, including Hurricane Laura which hit eastern Texas in August 2020. As discussed in the previous subsection, HHSC and CMS waived several demonstration requirements to permit safe operation during the PHE. HHSC reported that already having in place all the PHE-related flexibilities made it easier for the State to respond to the hurricanes.

[8] Effective January 2021, Texas D-SNPs that partner with a STAR+PLUS MCO may seek CMS designation as a Highly Integrated Dual Eligible Special Needs Plan (HIDE-SNP). D-SNPs that do not receive this designation are required to share information about a high-risk dually eligible member's hospital or skilled nursing facility admission(s) with the member's STAR+PLUS plan.

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, including 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

Although the HHSC transformation and HHSC and CMS staff turnover had a negative impact on the joint CMS-State Contract Management Team (CMT) in 2018 and 2019, in 2020 the CMT responded quickly and collaboratively to the PHE.

HHSC has contractual targets for alternative payment models for its STAR+PLUS plans and has prioritized increasing the use of alternative payments for certain services, to promote higher quality, better coordinated care across providers.

3.1.1 Joint Management of Demonstration

The demonstration is managed by the State and CMS through a joint CMS–State CMT. The CMT monitors MMPs' compliance with the three-way contract, reviews performance and enrollment data, and takes compliance actions when necessary. The CMT includes representatives from HHSC, the Dallas regional office of CMS, and CMS's MMCO. The CMT meets monthly with MMPs individually and collectively. CMS and HHSC meet every 2 weeks.

In 2018 and 2019, CMT meetings with individual MMPs addressed a standard agenda that reviewed data on enrollment, health risk assessments and care plans, marketing, grievances and appeals, and success stories from the MMPs. The CMT also conducted deeper dives into some topics, including person-centered planning, strategies for serving homeless enrollees, strategies for engaging enrollee advisory committees, grievances, and critical incidents. In 2020, CMT meetings focused on the PHE (as discussed below).

The CMT evolved significantly following HHSC's 2015–2017 reorganization. From 2018–2020 there was turnover among State, CMS regional office, and MMCO CMT members. Before the reorganization, HHSC had a small team that was responsible for monitoring MMP performance. After the reorganization, a larger group of HHSC health plan specialists monitored each MMP and all of the Medicaid managed care products operated by the MMP's parent organization. Because more staff were responsible for monitoring demonstration performance, the number of people on the CMT grew.

CMS reported that some of these changes had impacted the CMT's operations. For example, in 2018, there were seven new HHSC CMT members. CMS indicated there was a transition period while the new HHSC CMT members became familiar with the MMP product and CMS adjusted to the new distribution of roles and responsibilities across CMT members. In 2019, CMS noted that when performance monitoring shifted from an exclusive focus on MMPs to all of the parent organization's lines of business, the health plan specialists had a more general approach to contract management, consistent with HHSC's other Medicaid managed care

products, and were less focused on monitoring specific demonstration requirements. In addition, further staffing changes for both HHSC and CMS occurring in 2019 may have contributed to disrupted communication between CMS and HHSC regarding HHSC's plans to extend the demonstration and the implications of the STAR+PLUS procurement on the demonstration.

By late 2020, the CMT was operating more effectively, particularly in the context of the PHE. The PHE dominated the CMT's agenda though much of 2020, and HHSC, CMS and MMPs reported that the CMT and MMPs responded quickly and collaboratively to the PHE. HHSC and CMS reported that more recent staff changes for HHSC and CMS had not been disruptive.

3.1.2 Integrated Delivery System

In 2018 and 2019, MMPs reported that provider reluctance to participate in the demonstration had declined as provider confidence in reimbursement rates and the demonstration's ongoing sustainability grew. However, MMPs continued to report ongoing challenges contracting with some types of specialists, particularly those for behavioral health, pain management, dermatology, orthopedics, and rheumatology. These challenges are also experienced by plans in other Medicaid managed care programs. In 2020, one MMP reported that provider contracting had slowed because providers were too preoccupied with the challenges of providing care during the PHE. Another MMP said that its provider network had stabilized.

HHSC has contractual targets for alternative payment models for all its Medicaid managed care programs, including STAR+PLUS.[9] During the reporting period, MMPs described a number of different strategies, including a shared savings arrangement with primary care providers and bonuses when certain Healthcare Effectiveness Data and Information Set (HEDIS) targets were met. All MMPs adopted quality incentive programs for nursing facilities (NFs). These strategies included rewarding NF members of an NF group using metrics tied to avoidable hospitalizations, emergency room visits, and successful collaboration with the MMP's service coordinators. One MMP distributed $2.5 million in incentive payments to NFs that met certain measures of quality.

Stakeholders also identified some challenges associated with the alternative payment models. In 2019, a beneficiary advocate expressed concern about the incentives for NFs used by MMPs, citing one MMP that used a volume incentive to reward NFs for admitting more of the MMP's enrollees. This advocate believed this type of incentive could cause NFs to steer enrollees away from other options. HHSC also reported that it was focused on increasing the use of alternative payment models for home care services; as of late 2020, use of alternative payment models was particularly low for home care. In 2020, MMPs cited low Medicaid payment rates as one barrier to building quality incentives into provider contracts.

MMPs developed several strategies aimed at addressing the impact of the PHE on their ability to serve demonstration enrollees. One MMP convened a national panel of providers to

[9] States and MMPs explore alternative payment arrangements or models (APMs) between MMPs and providers with the aim of better integrating care for demonstration enrollees. HHSC collects data on the type of APMs STAR+PLUS plans are using but does not collect data specific to MMPs. See the First Evaluation Report for more in-depth discussion on APMs that targeted demonstration enrollees.

identify workforce and other issues likely to impact service delivery. MMPs used multiple strategies for addressing staffing gaps for LTSS and health care services that may affect demonstration enrollees.

3.2 Eligibility and Enrollment

Successful implementation of monthly passive enrollment in late 2017 helped to stabilize enrollment rates in Texas. Since 2018, enrollment has totaled about one-quarter of all eligible beneficiaries.

MMPs consistently expressed disappointment with the demonstration's enrollment level during this reporting period.

In this section we provide updates in eligibility and enrollment processes, including integration of eligibility systems, enrollment methods, and outreach. We also discuss significant events affecting enrollment patterns during the timeframe covered by this report, including the implementation of monthly passive enrollment beginning in August 2017 (demonstration year 2).

HHSC could not conduct monthly passive enrollment into the demonstration until the State and CMS successfully implemented needed system and data-sharing procedures effective August 2017. Before then, HHSC could not accurately identify which newly eligible beneficiaries were eligible for passive enrollment in a given month.[10,11] Instead, HHSC participated in the annual coordination of passive enrollment into MMPs using CMS' annual reassignment process for individuals who qualify for Extra Help[12] and are enrolled in terminating MA/Prescription Drug Plans.

In late 2019, HHSC reported that it had been incorrectly limiting eligibility for passive enrollment to persons enrolled in Medicare Part D. Eligibility for passive enrollment was based only on eligibility for, not enrollment in, Part D. HHSC corrected this error, which increased the number of people counted as eligible for the demonstration.

Table 1 provides a summary of demonstration enrollment from December 2015 through December 2020.[13] Before monthly passive enrollment began, total enrollment had declined by

[10] See the First Evaluation Report for more information about issues related to identifying individuals eligible for monthly passive enrollment.

[11] In 2019, MMPs said that CMS continued to identify an estimated 1 to 2 percent of the beneficiaries passively enrolled each month as ineligible for passive enrollment. HHSC attributed the data discrepancies to a lag between when HHSC and CMS pull the data and when they are used for determining eligibility.

[12] The U.S. Social Security System offers Extra Help for qualified enrollees in Medicare Prescription Drug plans. See https://secure.ssa.gov/i1020/start for more information.

[13] Enrollment and eligibility data reported in the State Data Reporting System (SDRS) may not match the finder file data used for quantitative analyses, because of the timing for completion and submitting the finder file versus the SDRS. The definition of eligibility used here, and also in ***Section 6, Demonstration Impact on Cost Savings***, includes FFS and Medicare Advantage populations. By contrast, the definition of eligibility in ***Section 5, Demonstration Impact on Service Utilization and Quality of Care*** includes only demonstration eligible FFS beneficiaries.

more than a quarter, from 53,312 in September 2015 to 38,376 in July 2017. Although enrollment has not climbed back to its earliest levels, monthly passive enrollment has helped to stabilize enrollment overall. Since 2018, enrollment has totaled about a quarter of all eligible beneficiaries.

Table 1
Year-end demonstration enrollment, 2015–2020

Enrollment indicator	2015	2016	2017	2018	2019	2020
Eligibility Beneficiaries eligible to participate in the demonstration at the end of the month	149,350	153,779	155,523	153,875	155,733	155,931
Enrollment Beneficiaries enrolled in the demonstration at the end of the month	46,177	34,593	43,660	37,563	37,825	38,013
Percentage enrolled Percentage of eligible beneficiaries enrolled in the demonstration at the end of the month	30.9%	22.5%	28.1%	24.4%	24.3%	24.4%

SOURCE: RTI International: State Data Reporting System (SDRS) 2015–2021.

During this reporting period, HHSC and MMPs continued to cite provider relationships and beneficiaries' dislike of change as the two main reasons that beneficiaries opt out of the demonstration. In 2018, HHSC reported that the demonstration was experiencing fewer opt-outs. One MMP said that, with the start of monthly passive enrollment, new dually eligible beneficiaries were much more open to enrolling in an MMP because they were not already tied to separate plans for their Medicare and Medicaid services. Another MMP said that passive enrollment continued to confuse some beneficiaries who did not understand why their plan changed.

In 2019 and 2020, MMPs expressed an interest in increasing enrollment. MMPs had hoped that HHSC would adopt a new policy option that would limit disenrollment to a quarterly rather than monthly basis.[14] MMPs believed that quarterly disenrollment would give enrollees time to see the benefits of participating in the demonstration, potentially deterring disenrollment. Citing the amount of resources required to make needed system changes and uncertainty about the future of the MMP model, HHSC chose not to implement this option.[15] (See ***Section 2.2,***

[14] As permitted under CMS' enrollment guidance, effective beginning January 1, 2019 (CMS, 2018c).

[15] HHSC also elected not to implement rapid reenrollment, a policy option designed to reduce churn resulting from lost Medicaid eligibility. Under this option, beneficiaries who regain their Medicaid eligibility within 60 days of losing it may be reenrolled. Otherwise, when eligibility is lost and regained, the beneficiary may opt back into the demonstration but cannot be passively reenrolled until January of the next year. Texas MMPs have also declined to adopt deeming, another strategy for reducing churn. Deeming allows MMPs to provide a grace period for reenrollment, while bearing the financial risk for services provided during the lapse in Medicaid coverage.

Overview of State Context for further discussion of HHSC's views on the future of the MMP model in Texas.)

3.3 Service Coordination

The shift to videoconferencing and telephonic assessments during the PHE helped MMPs to stay current with conducting assessments for community-based enrollees.

Service coordination for enrollees residing in NFs was significantly disrupted during the PHE.

In this section we provide a summary of the service coordination model for the demonstration. We highlight the status of and major accomplishments in key care coordination components and processes: assessment, care planning, LTSS coordination, and information exchange.

MMPs must conduct a health risk assessment (HRA) for each new enrollee within 90 days of a beneficiary's enrollment.[16] Using HRA results, a service coordinator works with the enrollee, family members, health care providers, and other team members to develop an integrated plan of care (hereafter called "care plan"). The service coordinator is responsible for coordinating all medical services, behavioral health services, social services, and LTSS. In 2019, MMPs said they continued to encounter challenges in reaching some new enrollees and were using many of the same outreach strategies described in the First Evaluation Report.[17]

Table 2 shows variation in the percentage of enrollees MMPs could not reach within 90 days of enrollment, with a high of 32.8 percent in quarter 3 of 2015 and a low of 11.0 percent in quarter 2 of 2016.

Table 2
Percentage of members that Texas plans were unable to reach following three attempts, within 90 days of enrollment, 2015–2020

Quarter	Calendar year 2015	Calendar year 2016	Calendar year 2017	Calendar year 2018	Calendar year 2019	Calendar year 2020
Q1	N/A	23.4	27.0	22.6	23.9	27.4
Q2	31.6	11.0	11.3	21.2	21.9	31.4
Q3	32.8	16.0	11.7	18.6	20.2	27.4
Q4	20.5	15.0	24.7	20.0	21.6	26.5

MMP= Medicare-Medicaid Plan; N/A= data not applicable; Q = quarter.
NOTE: Because Texas demonstration began in March 2015, data are not applicable for quarter 1 of 2015.
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.

[16] During the PHE, the timeframe for conducting assessments was extended by an additional 90 days.

[17] See the First Evaluation Report for detail on the strategies that MMPs reported for hard-to-reach enrollees.

In late 2020, MMPs shared differing experiences regarding timely HRA completion during the PHE. Prior to the PHE, one MMP said that its overall HRA completion rates were growing "higher and higher each month." This MMP attributed its success to service coordinators driving to enrollees' listed addresses to conduct face-to-face HRAs. Service coordinators could not do this during the PHE, though, due to suspension of face-to-face assessments during the initial phase of the PHE and ongoing infection control concerns. Subsequently, this MMP saw declines in HRA completion rates. Another MMP saw their response rates slightly increase because enrollees' needs increased as they sheltered in place.

During the PHE, MMPs were permitted to conduct assessments by videoconference or telephonically, with the enrollee's consent. MMPs reported that many enrollees did not have a device they could use for videoconferencing or sufficient minutes on their cell phone data plan for an assessment that could take up to 3 hours.[18] In addition, many enrollees were unfamiliar with the technology and needed help. In spite of these challenges, in late 2020, HHSC reported that shifting to videoconferencing and telephonic assessments helped MMPs to stay current with their assessments, and the additional 90 days allowed for completing assessments was no longer needed.

MMPs could not contact many enrollees in NFs during the PHE to conduct assessments. One MMP requested access to electronic charts to complete assessments. One MMP also worked very closely with NFs to schedule meetings with staff and enrollees via plan-provided tablets. By the end of 2020, this MMP shared, they were able to engage and complete assessments for most enrollees living in NFs.

As shown in ***Table 3***, among all enrollees, the percentage of assessments completed within 90 days of enrollment varied from 54 to 86 percent over the course of the demonstration to date (2015–2020). Between 2019 and 2020, there was a decline in the assessment completion rate, possibly reflecting the challenges of conducting assessments for individuals in NFs. Over time MMPs have improved the timely HRA completion rate for enrollees who were willing to participate and who could be reached.

[18] One MMP reported providing enrollees with tablets, in order to facilitate access and address social isolation.

Table 3
Members whose assessments were completed within 90 days of enrollment, 2015–2020

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with assessments completed within 90 days of enrollment[1]	
		All members[2]	All members willing to participate and who could be reached[2]
2015			
Q1	N/A	N/A	N/A
Q2	10,478	54.1	82.2
Q3	25,815	56.4	87.5
Q4	19,001	63.2	81.9
2016			
Q1	6,317	68.3	92.5
Q2	326	84.4	95.5
Q3	412	81.3	99.4
Q4	293	83.3	98.4
2017			
Q1	11,822	67.8	96.2
Q2	574	86.2	98.2
Q3	630	85.7	98.9
Q4	5,525	67.1	92.6
2018			
Q1	5,998	69.6	93.4
Q2	3,252	70.4	94.1
Q3	1,821	75.3	96.2
Q4	2,574	75.7	98.1
2019			
Q1	5,433	72.1	98.0
Q2	2,712	73.3	97.9
Q3	1,940	74.9	98.5
Q4	3,000	73.8	99.3
2020			
Q1	5,746	65.9	95.7
Q2	2,760	62.8	96.4
Q3	1,560	67.7	99.4
Q4	1,296	69.0	99.9

(continued)

Table 3 (continued)
Members whose assessments were completed within 90 days of enrollment, 2015–2020

MMP = Medicare-Medicaid Plan; N/A= data not applicable; Q = quarter.
[1] The "all members" column presents the percentage of assessments completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to participate and who could be reached" column, the percentages exclude members who were documented as unwilling to participate in an assessment, and members who the MMP was unable to reach following three documented outreach attempts.
[2] The number of members with assessments completed within 90 days of enrollment and number of members willing to participate and could be reached cannot be calculated using the percentages in this table. As indicated in table note 1 , RTI used additional data points to calculate these percentages.
NOTE: Because the Texas demonstration began in March 2015, data are not applicable for quarter 1 of 2015.
SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of June 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Although MMPs must complete care plans within 90 days of enrollment,[19] a substantial proportion of enrollees could not be reached or were unwilling to complete a care plan. Among all members, care plan completion rates varied but showed a general increase after the first year (2015). ***Table 4*** shows care plan completion results for 2015–2017. This State-specific measure (TX 1.1) was retired in quarter 1 of 2018. We present care plan data for 2018–2020 in ***Table 5*** using a core measure. From 2015–2017, among all enrollees, the rate ranged from 53 percent to 81 percent. Among enrollees willing to complete a care plan who could be reached, the percentage with a care plan completed within 90 days of enrollment also varied. The highest percentages of care plans completed within 90 days of enrollment for these enrollees occurred in the latter part of this period, suggesting some improvement.

Table 4
Members with care plans completed within 90 days of enrollment, 2015–2017

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members[2]	All members willing to complete a care plan and who could be reached[2]
2015			
Q1	N/A	N/A	N/A
Q2	10,418	54.7	82.5
Q3	27,709	53.5	78.7
Q4	20,920	53.2	70.6
2016			
Q1	6,370	55.1	75.1
Q2	342	76.9	89.8
Q3	436	70.2	88.7
Q4	306	70.6	90.4

(continued)

[19] During the PHE, care plans with an end date between March 31, 2020 and November 30, 2020 were extended an additional 12 months.

Table 4 (continued)
Members with care plans completed within 90 days of enrollment, 2015–2017

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members[2]	All members willing to complete a care plan and who could be reached[2]
2017			
Q1	11,802	58.4	85.5
Q2	596	80.7	94.1
Q3	668	79.5	92.8
Q4	5,974	62.3	83.8

MMP = Medicare-Medicaid Plan; N/A= data not applicable; Q = quarter.
[1] The "all members column" presents the percentage of care plans completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to complete a care plan and who could be reached" column, the percentages exclude members who were documented as unwilling to complete a care plan and members who the MMP was unable to reach following three documented outreach attempts.
[2] The number of members with care plans completed within 90 days of enrollment and number of members willing to complete a care plan and could be reached cannot be calculated using the percentages below. As indicated in table note 1 above, RTI utilized additional data points to calculate these percentages.
NOTE: Because the Texas demonstration began in March 2015, data are not applicable for quarter 1 of 2015.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure TX 1.1 as of March 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Texas-Specific Reporting Requirements document.

Table 5 shows that in 2018–2020, among all enrollees, the percentage of care plans completed within 90 days of enrollment varied within a range of 60 percent to 73 percent. Among enrollees willing to complete a care plan and who could be reached, care plan completion rates increased overall within a small range of 86 percent to 97 percent.

Table 5
Members with care plans within 90 days of enrollment, 2018–2020

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members	All members willing to complete a care plan and who could be reached
2018			
Q1	5,982	64.4	86.0
Q2	3,246	65.1	86.3
Q3	1,821	72.8	93.8
Q4	2,561	71.3	92.4

(continued)

Table 5 (continued)
Members with care plans within 90 days of enrollment, 2018–2020

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of members with care plans completed within 90 days of enrollment[1]	
		All members	All members willing to complete a care plan and who could be reached
2019			
Q1	5,432	68.6	94.0
Q2	2,711	68.4	93.2
Q3	1,940	68.6	91.6
Q4	3,000	68.8	94.2
2020			
Q1	5,746	61.9	90.3
Q2	2,760	59.9	93.6
Q3	1,560	64.8	95.5
Q4	1,296	66.4	97.5

MMP = Medicare-Medicaid Plan; Q = quarter.
[1] The "all members" column presents the percentage of care plans completed for members whose 90th day of enrollment occurred within the reporting period. In the "all members willing to participate and who could be reached" column, the percentages exclude members who were documented as unwilling to complete a care plan and members who the MMP was unable to reach following three documented outreach attempts.
SOURCE: RTI analysis of MMP-reported data for Core Measure 3.2 as of June 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Table 6 shows annual service (care) coordinator data from 2015–2020. After years of declining service coordination staff, in 2020, the number of service coordinators had greatly increased, and case load size decreased. At the same time, the percentage of service coordinators engaged in conducting HRAs and developing care plans decreased, suggesting that the growth in service coordination staff was achieved by employing service coordinators to conduct other tasks.

In 2017, the demonstration experienced the lowest number of service coordinators, highest caseload, and highest turnover rate. The reduction in service coordinators during this time may have been the MMPs' response to the steady decline in demonstration enrollment that was eventually reversed with the start of monthly passive enrollment in August 2017 (see ***Section 3.2, Eligibility and Enrollment***). In 2020 the total number of service coordinators reached its highest point, while enrollee caseloads, the turnover rate, and the percentage assigned to care management and conducting assessments were at their lowest. In 2018 and 2019, beneficiary advocates reported that Texas Medicaid managed care plans experienced difficulty hiring and keeping service coordinators. One beneficiary advocate attributed high turnover rates to low wages and large caseloads.

Table 6
Care coordination staffing, 2015–2020

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 (%)
2015	650	71.7	100.7	15.8
2016	439	82.7	96.3	15.4
2017	392	86.7	122.8	17.1
2018	447	82.3	102.0	10.4
2019	420	80.0	111.9	13.9
2020	917	51.6	80.3	2.9

FTE: full time equivalent; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of MMP-reported data for Core Measure 5.1 as of June 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

MMPs reported that caseloads for service coordinators varied depending on the acuity level of their enrollees. One MMP said that the caseload for coordinators serving individuals with complex needs averaged 40 to 50 enrollees, whereas the caseload for those serving enrollees with lower acuity averaged 80 to 100 enrollees.

Another MMP used community health workers to provide more contact with the enrollee when the service coordinator did not have sufficient bandwidth. A third MMP said community health workers would accompany enrollees for physician services when the enrollee needed assistance.

Following up on earlier efforts,[20] the CMT completed a second round of care plan reviews in 2018 focusing on care plans for enrollees with a dementia diagnosis who are living in the community, enrollees who are long-term residents of NFs, and enrollees who stayed in a skilled nursing facility (SNF) after a hospitalization. To address opportunities for improvement identified through the reviews, the CMT produced and distributed a best practices document. The best practices provided guidance on developing person-centered and comprehensive assessments and care plans, developing personally meaningful goals and action steps, and using accessible and familiar language.

The CMT also worked with MMPs to better identify and support individuals with dementia. In April 2019, the CMT distributed a memo describing strategies for supporting enrollees with Alzheimer's disease or a related dementia. The memo included a set of "trigger" questions to be asked in assessments, recommendations for addressing risk in care plans, and guidance on assessing caregiver capacity in care plan development.

[20] As described in the First Evaluation Report, in 2017 HHSC and CMS collaborated on a service coordination project which involved increasing service coordinator training requirements, a review of care plans, distribution of best practices, and a survey of MMP service coordination practice.

During the reporting period, MMPs consistently said that managing care is hard when beneficiaries can enroll and disenroll on a monthly basis. Discontinuity in care makes it hard to monitor readmission or medication adherence to identify enrollee patterns and needs, for example. It also interrupts the beneficiaries' relationship with their service coordinators, who need to build a relationship with the enrollees to effectively manage their care and motivate behavior changes.

MMPs have seen some improvements in provider participation in care coordination, including care planning with NFs, coordinating with physicians serving enrollees with complex needs, and coordinating discharge planning with hospitals. For example, one MMP deployed a team of its medical staff to work on site with hospitals handling complex cases. Because that strategy was successful, they planned to use a similar approach with behavioral health providers.

In early 2021, one MMP reported that its service coordinators were inquiring or making sure that enrollees knew where to go and how to access the COVID-19 vaccine.

3.4 Stakeholder Engagement

During this reporting period, HHSC-led efforts to engage stakeholders have focused primarily on MMPs and providers, rather than beneficiaries and their advocates.

MMPs have used information gathered through enrollee advisory groups to improve messaging and modify flexible benefits offered.

In this section we describe stakeholder engagement activities during the reporting period and the impact of those efforts on the demonstration.

3.4.1 State-Led Stakeholder Engagement

As discussed in the First Evaluation Report, HHSC's State-led STAR+PLUS work group was merged in HHSC's Medicaid Managed Care Advisory Committee. This committee typically meets quarterly.

During the reporting period, committee agendas did not address the demonstration. HHSC notes that, although agendas for advisory committee meetings are driven by members and HHSC will respond to any request for information or updates about the demonstration, no requests were received. However, a beneficiary advocate noted that because the advisory committee meets quarterly and has a very broad set of programs within its domain, there is little time to focus on the demonstration. In addition, in 2019, HHCS reported that the advisory committee was focused on providing input into HHSC's Managed Care Oversight Improvement

Initiative.[21] Although beneficiaries are represented on the advisory committee, those beneficiaries may not be demonstration enrollees.

In 2019, MMPs and beneficiary advocates reported that when the State dissolved the program-specific advisory groups and consolidated them with the MMP groups, the flow of information about the demonstration and other programs was disrupted. The STAR+PLUS advisory groups had been an important way for advocates to hear from HHSC about the demonstration, and for HHSC to hear from consumers. In addition to participating on State-led advisory groups, MMPs met with HHSC leadership leading up to the decision to extend the demonstration. HHSC indicated that it had not sought input from beneficiary advocates on this decision.

HHSC also continued to work closely with MMPs and NFs to address the operational challenges they encountered with the transition of NFs into managed care.

3.4.2 MMP Advisory Groups

MMPs must establish advisory groups for their enrollees to provide regular feedback on the demonstration. MMPs reported using different strategies for recruiting enrollees to participate on the enrollee advisory groups. One MMP doubled participation in its advisory group by moving the meeting location from the MMP's office to a restaurant, providing a stipend, arranging transportation, and using repeated reminder calls before meetings. Another MMP successfully worked with nursing home staff to recruit enrollee participants and planned to extend these efforts to activities directors at other residential settings.

Based on advisory group input, MMPs have simplified messaging in member materials; modified the role of their community health workers to provide more one-on-one contact with enrollees; and expanded their offerings of flexible benefits. For example, one MMP added comprehensive dental, vision, and hearing services in response to advisory group input.

In 2020, MMPs continued meeting virtually with enrollee advisory group members through the PHE. Because some advisory group members could not access videoconferencing, one MMP moved to one-on-one telephone calls. This MMP found members to be more candid in their feedback and more comfortable asking for help during one-on-one calls than when in a group.

[21] Please see ***Section 3.6.2, Quality Management Structures and Activities*** for more information about HHSC's Managed Care Oversight Improvement initiative.

3.5 Financing and Payment

In 2020, HHSC reported that after lowering Medicaid capitation rates in 2018 to reflect favorable selection[22] into the demonstration, MMP profitability had come in line with expectations.

MMPs expressed concern about the continued use of the Medicaid rate methodology, which relies on assumptions about the MMPs' ability to continue to achieve 5.5 percent savings after several years of operation.

In this section we outline changes in financing and payment since 2017 and discuss relevant findings.

In 2018, HHSC lowered the Medicaid capitation rates through a selection adjustment after its analysis showed that demonstration enrollees were less costly on average than their STAR+PLUS counterparts.[23] With a corresponding rate increase for STAR+PLUS, HHSC assumed these changes would not affect the financial status for the parent MCOs, which operate both a STAR+PLUS plan and an MMP. However, one MMP reported that it was hard to absorb this revenue loss, which was applied retroactively in the second half of 2018.[24]

In late 2020 HHSC indicated that the overall profitability of the demonstration was coming more into line with what was expected. They said four of five MMPs were profitable overall, over the course of the demonstration to date. The fifth, unprofitable MMP said that it prioritized quality and meeting enrollee needs over profitability.

MMPs identified several factors that they believed have impacted their profitability. Under the three-way contract, payment to the MMPs is reduced based on the amount of savings CMS and HHSC expect the MMPs to achieve in a given year. During this reporting period, the capitation rate was reduced by 5.5 percent to reflect the savings CMS and the State expected MMPs to achieve. MMPs indicated this savings percentage was high because they expected to find fewer ways to save money as the program matures. Contingent on subsequent bridge contracts[25] or the STAR+PLUS procurement, the 5.5 percent savings percentage will continue through the remainder of the demonstration (CMS & HHSC, 2020). In late 2020, HHSC indicated that, if the demonstration were extended further into the future, it would be appropriate to consider relying on the actual cost experience of the demonstration to develop rates.

[22] Beneficiaries choosing to enroll in the demonstration were healthier than those remaining in STAR+PLUS, making the provision of services less costly than anticipated.

[23] HHSC determined that the community-based enrollees tended to be of lower acuity than STAR+PLUS beneficiaries not participating in the demonstration. HHSC adjusted the acute care and pharmacy portion of the Medicaid rates and to the community-based LTSS portion.

[24] HHSC also applied a budget-neutral risk adjustment to account for those plans that attracted enrollees with a higher acuity.

[25] See ***Section 1.1, Demonstration Description and Goals*** for details on bridge contracts.

As discussed in the First Evaluation Report, HHSC uses experience rebates to limit MMP profits to a reasonable percent of total revenue. Because the MMPs were very profitable in the early demonstration years, they had to pay large experience rebates.[26] However, as profitability declined, HHSC reported that the total amount paid in experience rebates also declined from $107 million to $47 million between State fiscal year 2016 (September 2015–August 2016) and State fiscal year 2017 (September 2016–August 2017), before declining to $3 million in State fiscal year 2018 (September 2017–August 2018). In State fiscal year 2020, three of the five MMPs preliminarily paid a total of more than $21 million in rebates, whereas the other two did not pay any rebate.

MMPs also have a percentage of their capitation payment withheld, to be paid when an MMP meets specified quality thresholds. As described in the First Evaluation Report, the start of HHSC's quality withhold system was delayed by technical challenges. The first withhold payments for 2015 and 2016 were made in 2018; timely withhold payments for 2017 were made in 2019 (see ***Section 3.6, Quality of Care*** for more about quality withholds). In the first demonstration year (March 1, 2015–December 31, 2016), the withhold was 1 percent of the capitation payment. In year 2, the withhold increased to 2 percent and then increased to 3 percent for demonstration year 3 and beyond.

The PHE impacted enrollees' use of certain services, and thus impacted MMP and provider expenditures. For example, one MMP reported an increase in expenditures for hospital intensive care units and telemedicine because of the PHE, whereas expenditures for specialists and elective services had declined. In 2020, HHSC implemented fee schedule changes for NFs to cover increased costs occurring during the PHE and the State's fiscal year 2020. These emergency payment rate add-ons were effective retroactive to April 1, 2020 and are expected to stop with the end of the federally-declared PHE.

Consistent with the First Evaluation Report, HHSC and MMPs continued to describe challenges with encounter data submission in 2018. However, by making changes in 2019 to the way it edited incoming encounter data from MMPs, HHSC improved the quality of the encounter data submission process and reported no ongoing issues with encounter data submissions.

3.6 Quality of Care

Although HHSC's quality management infrastructure for the STAR+PLUS program does not consistently include a separate focus on the demonstration as its own program, the demonstration benefits from the established infrastructure.

Over the course of the demonstration, MMPs have improved their performance on quality measures, although results have varied between MMPs and over the years.

[26] The experience rebate limits an MMP's profits to a percent of total revenue. If the MMP's net income exceeds 3 percent of total revenue, the plan must rebate a portion of net income to the State and CMS, the portion increasing as net income as a percentage of revenue increases.

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

3.6.1 Quality Measures

As discussed in the First Evaluation Report, the Texas Dual Eligible Integrated Care Demonstration Project requires MMPs to report standardized quality measures.[27] Most of these measures are used by the CMT to monitor MMP performance (see ***Section 3.1, Integration of Medicare and Medicaid***). Some are also used to determine what portion of the capitation rates retained by CMS and the State as a quality withhold will be repaid to the MMPs (see ***Section 3.5, Financing and Payment***).

As discussed in ***Section 3.5., Financing and Payment,*** MMPs must meet certain quality thresholds in order to receive their full capitation payment. Over the course of the demonstration to date, more MMPs have met the quality thresholds required to receive 100 percent of the capitation withheld for this purpose. In 2015 and 2016, only one MMP received 100 percent (CMS, n.d.-a). In 2017, four of the five MMPs received 100 percent of their quality withhold after two MMPs received an adjustment for extreme and uncontrollable circumstances (i.e., when Hurricane Harvey hit Texas in 2017) (CMS n.d.-b). In 2018, three of the five MMPs received 100 percent of their quality withhold, and the remaining two received 75 percent (CMS, n.d.-c). More recently, in 2019, four of the five MMPs received 100 percent of their quality withhold, with the fifth receiving 75 percent (CMS, n.d.-d).

3.6.2 Quality Management Structures and Activities

As detailed in the First Evaluation Report, in addition to the quality measurement and reporting discussed above and Ombudsman activities discussed in ***Section 4, Beneficiary Experience***, the demonstration's quality management framework includes:

- joint compliance monitoring by the State and CMS,
- ongoing State oversight,
- MMPs' internal quality management activities, and
- independent quality management structures and activities by an external quality review organization (EQRO).

We provide updates for each of these aspects in this section, with the exception of EQRO activities, of which there were none during the reporting period.

[27] The measure specifications for 2018 and 2019 are described in detail in national and Texas-specific specifications for core reporting requirements and in the First Evaluation Report. See CMS, 2017 and CMS, 2018d (national core measures); and CMS, 2018a, and CMS, 2019a (Texas-specific measures).

The CMT continued to monitor MMP performance, including outreach to new enrollees, the timeliness of HRAs and care plan development, grievances and appeals, and other key performance measures. In addition, the CMT initiated quality improvement activities around specific focus areas including service coordination and critical incidents.

HHSC oversaw the MMPs' implementation of quality improvement projects (QIPs). In late 2020, HHSC shared that the QIPs had been successful in the majority of MMPs; however, two MMPs reportedly encountered implementation issues resulting from staff turnover. In late 2020, MMPs completed their final QIPs, which addressed potentially avoidable behavioral health–related hospitalizations and readmissions, potentially avoidable COPD-related hospitalizations, service coordination for enrollees with hypertension or diabetes, and care transitions.

The demonstration also benefits from the quality management infrastructure created for the Texas STAR+PLUS program, including an annual home and community-based services (HCBS) record review, and the Managed Care Oversight Improvement Initiative focused on quality improvement for all of its managed care programs. As discussed in the First Evaluation Report, findings from STAR+PLUS program audits led to substantial quality improvement initiatives, including a broad initiative to improve service coordination. The Managed Care Oversight Improvement Initiative focused on five areas— complaints, network adequacy, clinical oversight, performance management, and service and care coordination.[28] As part of this latter effort, Texas has developed network adequacy measures for personal care attendant services. Starting in 2021, the State began collecting data from its Medicaid MCOs on the timeliness of initiating community-based attendant services and service coordination contacts.

3.6.3 HEDIS Quality Measures Reported for Texas Dual Eligible Integrated Care MMPs

MMPs are required to report data from HEDIS 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. 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 ***Table B-1*** in ***Appendix B***. RTI identified these measures in its Aggregate Evaluation Plan based on their completeness, reasonability, and sample size. Calendar year data for 2016–2018 were available for all five Texas Dual Eligible Integrated Care MMPs. In response to the PHE, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Normal reporting requirements for measurement year 2020 resumed in 2021, with those data scheduled to become available later in 2021.

[28] For more information about HHSC's Managed Care Oversight Improvement Initiative, see its website at https://www.hhs.texas.gov/about/process-improvement/improving-services-texans/medicaid-chip-quality-efficiency-improvement. As accessed July 1, 2021.

Detailed descriptions of selected HEDIS measures can be found in the RTI Aggregate Evaluation Plan. Results reported in ***Figures 1–6*** show Texas Dual Eligible Integrated Care MMPs HEDIS performance data for calendar years 2016 through 2018 on measures for blood pressure control, 30-day follow-up after hospitalization for mental illness, good control of Hemoglobin A1c (HbA1c) levels (<8.0 percent), medication review (one of the Care for Older Adults measures) and plan all-cause readmissions (ages 18–64 and ages 65+).

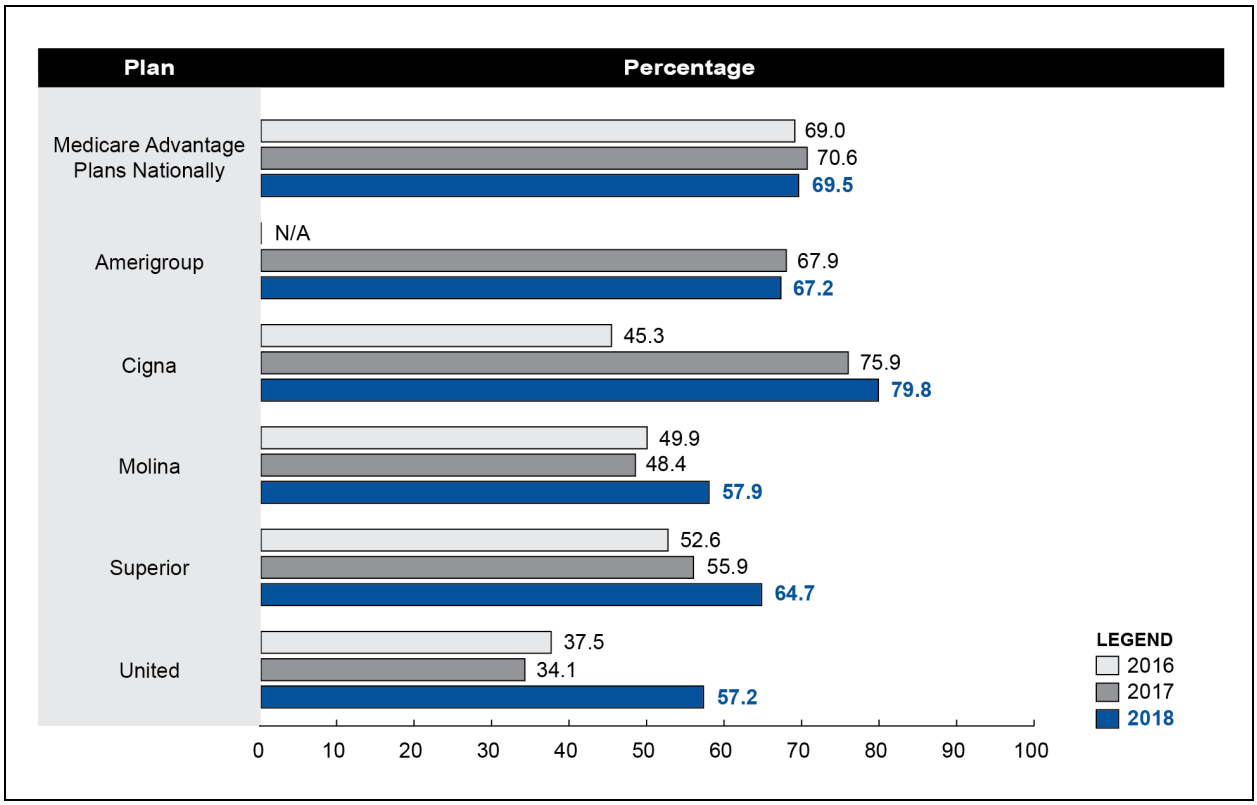
Although the primary focus of HEDIS analysis is to monitor trends over time in MMP performance, the figures and appendix table also compare MMP performance to national MA plan means for reference when available. We provide the national MA plan means with the understanding that MA enrollees and demonstration 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 Medicare plans active in areas with lower income and populations with a higher proportion of minorities (Office of the Assistant Secretary for Planning and Evaluation, 2016). Comparisons to national MA plan means should be considered with these limitations in mind.

According to CMS, although the comparison to national means is imperfect, the majority of Texas MMPs performed below national means on several measures, including access to preventive health services, breast cancer screenings, colorectal screenings, diabetes care, and ED visits. (See ***Table B-1*** in ***Appendix B***.) In late 2020, CMS reported that before the PHE began in early 2020, the CMT had planned to focus on improving MMP performance on those quality measures where the MMPs had compared unfavorably to national means. Once the PHE began, this initiative was postponed.[29]

As shown in ***Figure 1***, nearly all MMPs improved performance on blood pressure control from 2016 to 2018.

[29] The CMT did address this issue with the MMPs in 2021.

Figure 1
Blood pressure control[1], 2016–2018:
Reported performance rates for Texas Dual Eligible Integrated Care MMPs



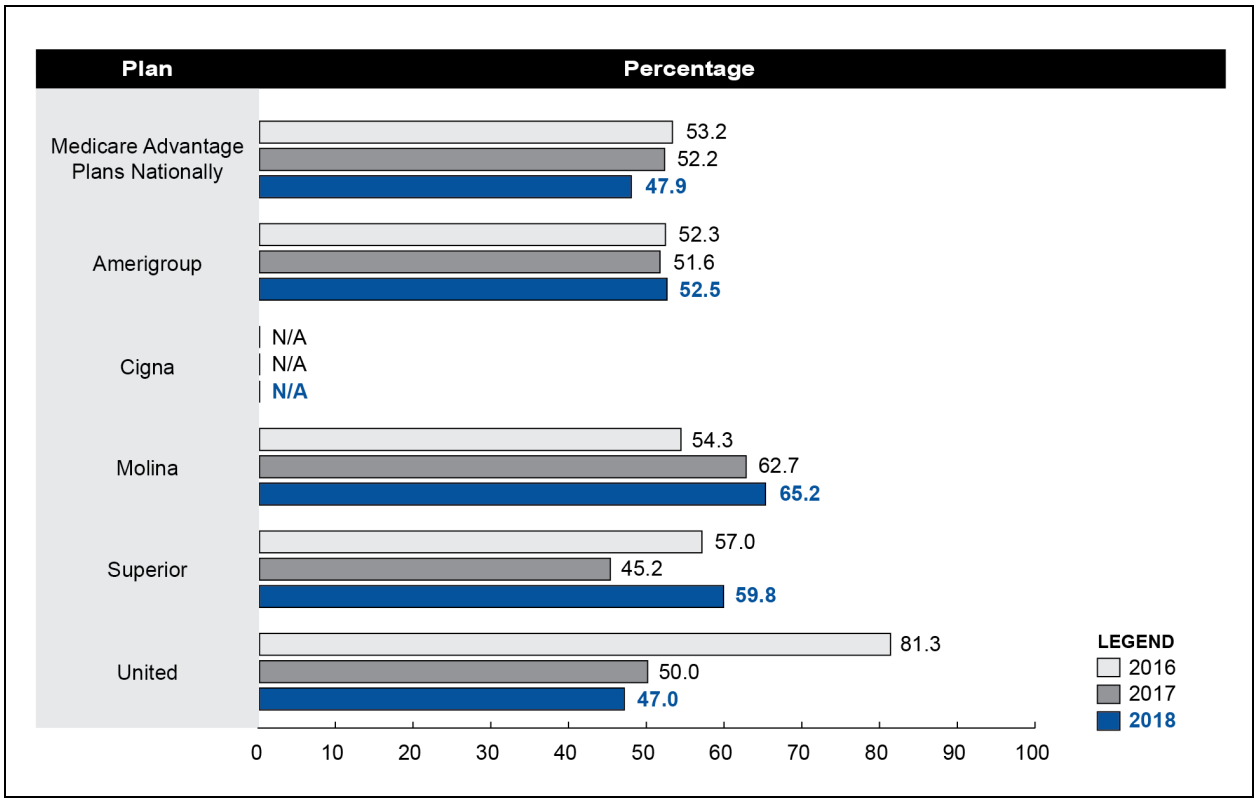
HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan; N/A = not applicable, where Medicare Advantage plans do not report such data, or where the number of enrollees in the MMP's HEDIS data available for inclusion in the measure was less than 30, and therefore not reported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

[1] 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 2016 through 2018 HEDIS measures.

Figure 2 shows that most MMPs meeting sample size criteria for 30-day follow-up after hospitalization for mental illness improved performance over time from 2016 to 2018. Only one MMP worsened performance from 2016 to 2018.

Figure 2
30-day Follow-up after hospitalization for mental illness[1], 2016–2018:
Reported performance rates for Texas Dual Eligible Integrated Care MMPs



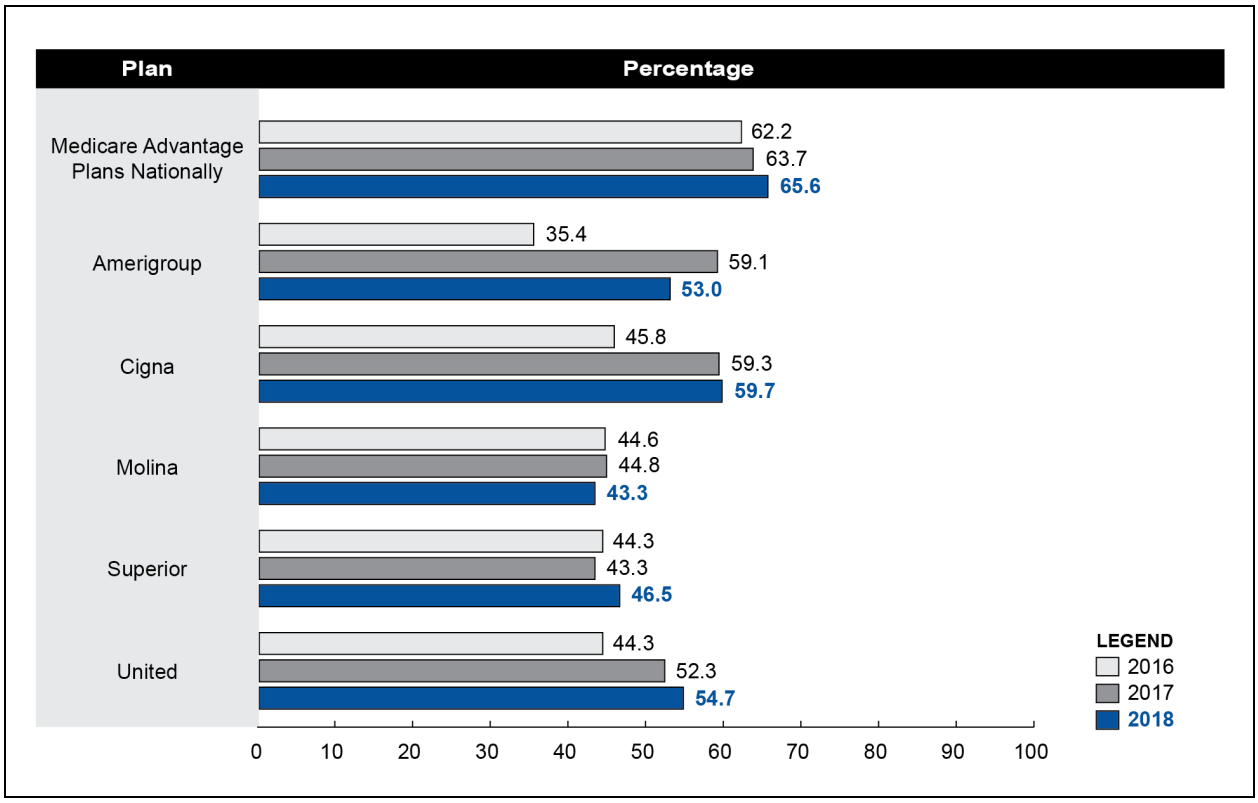
HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan; N/A = not applicable, where Medicare Advantage plans do not report such data, or where the number of enrollees in the MMP's HEDIS data available for inclusion in the measure was less than 30, and therefore not reported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

[1] NCQA implemented a significant specification change with HEDIS 2018 (calendar year 2017), disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2018 to HEDIS 2019 (calendar years 2017 to 2018).

SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

As shown in ***Figure 3***, most MMPs improved performance on controlling HbA1c levels (<8.0%) from 2016 to 2018. Some MMPs reported steady increases year-over-year, whereas others reported more variation.

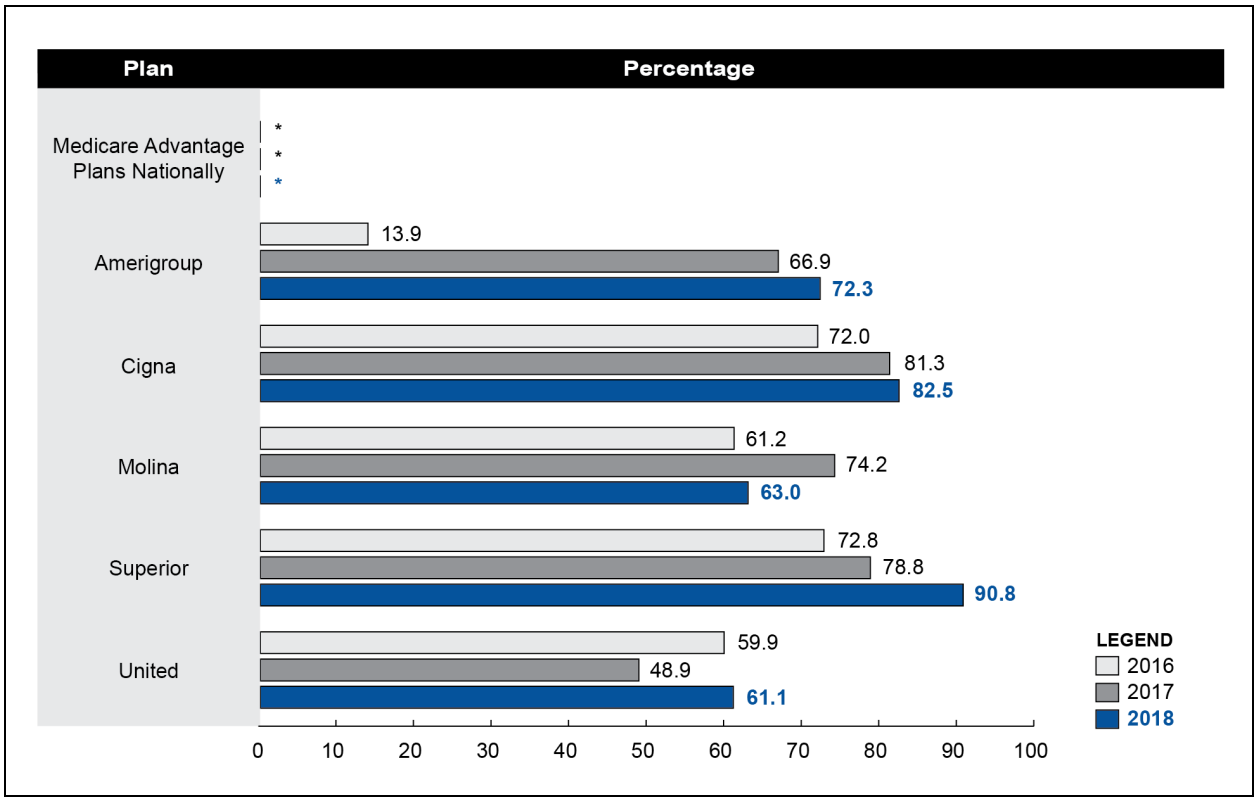
Figure 3
Good control of HbA1c level (<8.0%), 2016–2018:
Reported performance rates for Texas Dual Eligible Integrated Care MMPs



HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

Figure 4 shows that for medication review (one of the Care for Older Adults measures), all MMPs improved performance from 2016 to 2018, though each plan varied over time. National MA plan mean data are not available for the Care for Older Adult measures.

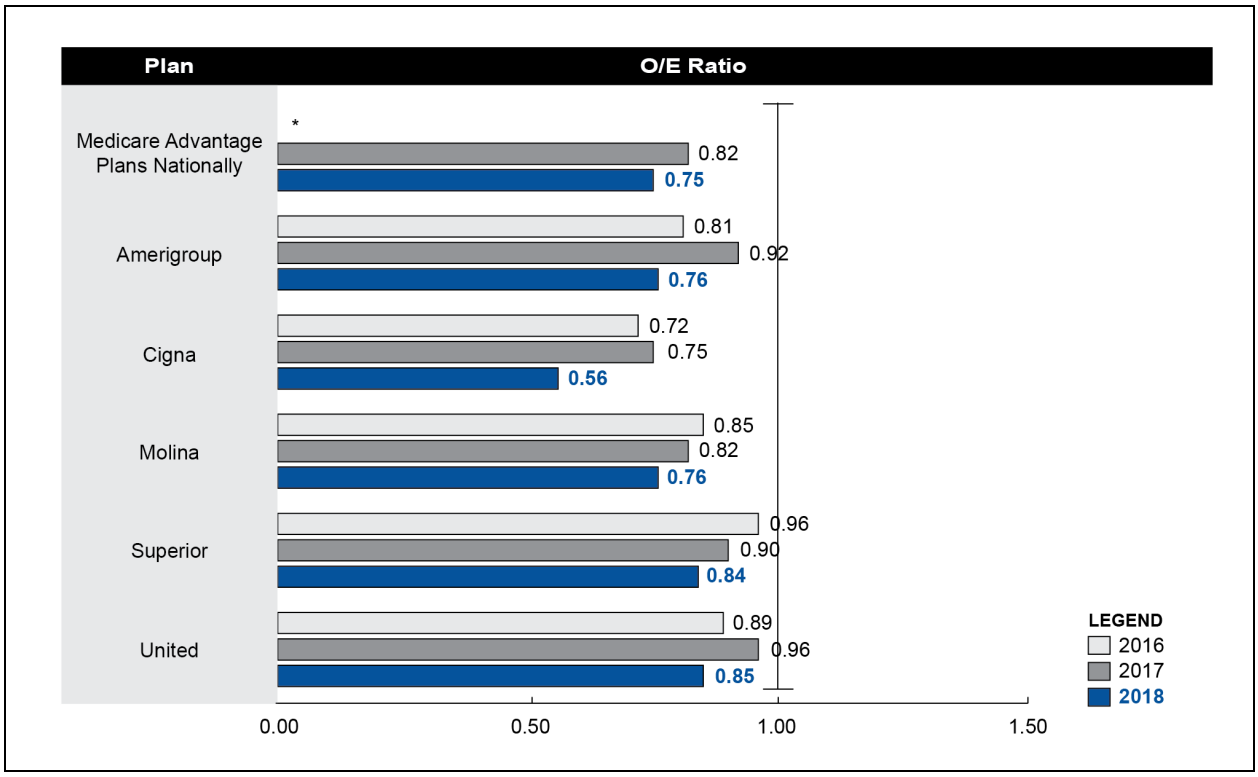
Figure 4
Medication review (one of the Care for Older Adults measures), 2016–2018: Reported performance rates for Texas Dual Eligible Integrated Care MMPs



* = not available, where Medicare Advantage plans nationally did not provide HEDIS data for this measure;
HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

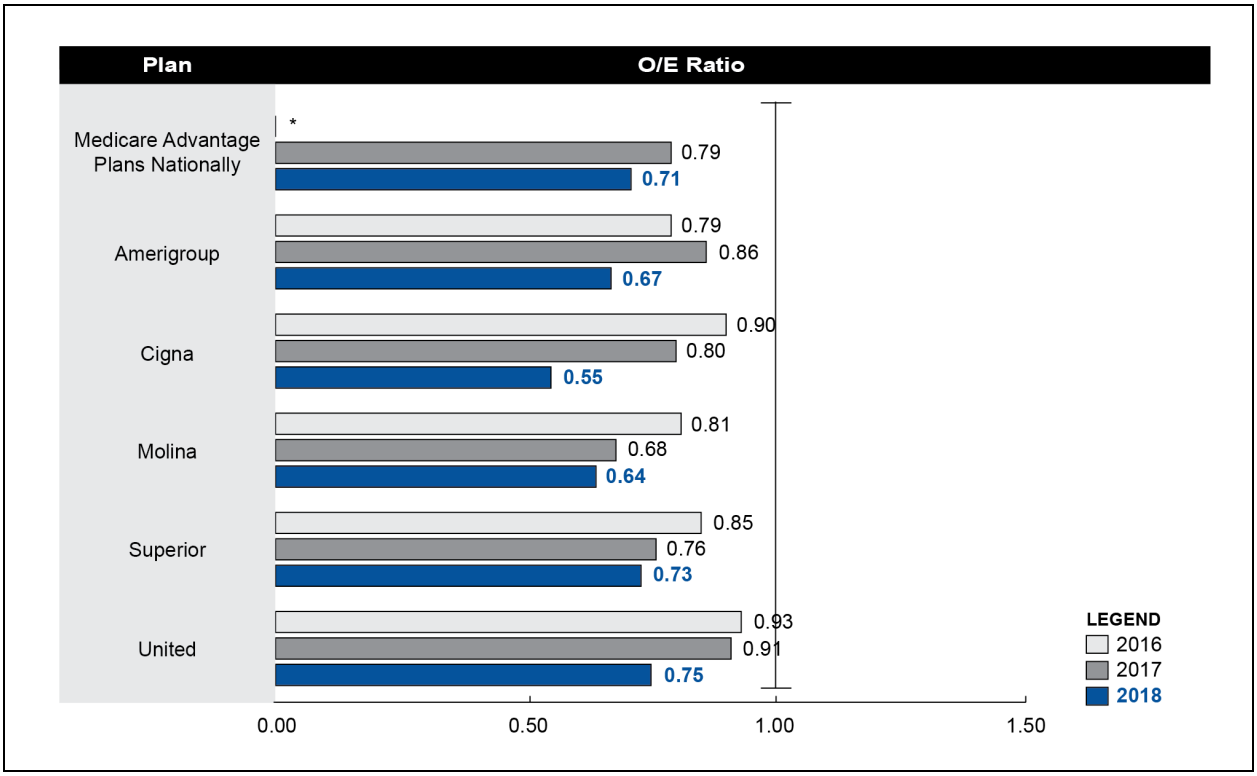
Plan all-cause readmissions for enrollees ages 18–64 and 65+ are reported in ***Figure 5*** and ***Figure 6***, respectively. Results are shown as an observed-to-expected ratio, whereby an MMP's observed readmission rate is compared to its expected readmission rate given its beneficiary case mix; a value below 1.0 (shown by the vertical line at x = 1 in the figure below) is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix. ***Figure 5*** shows that all MMPs reported lower than expected readmissions for enrollees ages 18–64 across all years. ***Figure 6*** shows a similar trend for enrollees ages 65+.

Figure 5
Plan all-cause readmissions, ages 18–64, 2016-2018: Reported observed-to-expected ratios for Texas Dual Eligible Integrated Care MMPs



* = not available, where RTI did not have access to Medicare Advantage plan national HEDIS data for this measure; HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

Figure 6
Plan all-cause readmissions, Ages 65+, 2016–2018: Reported observed-to-expected ratios for Texas Dual Eligible Integrated Care MMPs



* = not available, where RTI did not have access to Medicare Advantage plan national HEDIS data for this measure; HEDIS = Healthcare Effectiveness Data and Information Set; MMP = Medicare-Medicaid Plan.
SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

SECTION 4

Beneficiary Experience

In general, beneficiary satisfaction with the demonstration has improved over time, although not consistently across all MMPs.

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 the Texas demonstration and we provide information on beneficiary protections, data related to complaints and appeals, and critical incident and abuse reports.

4.1 Impact of the Demonstration on Beneficiaries

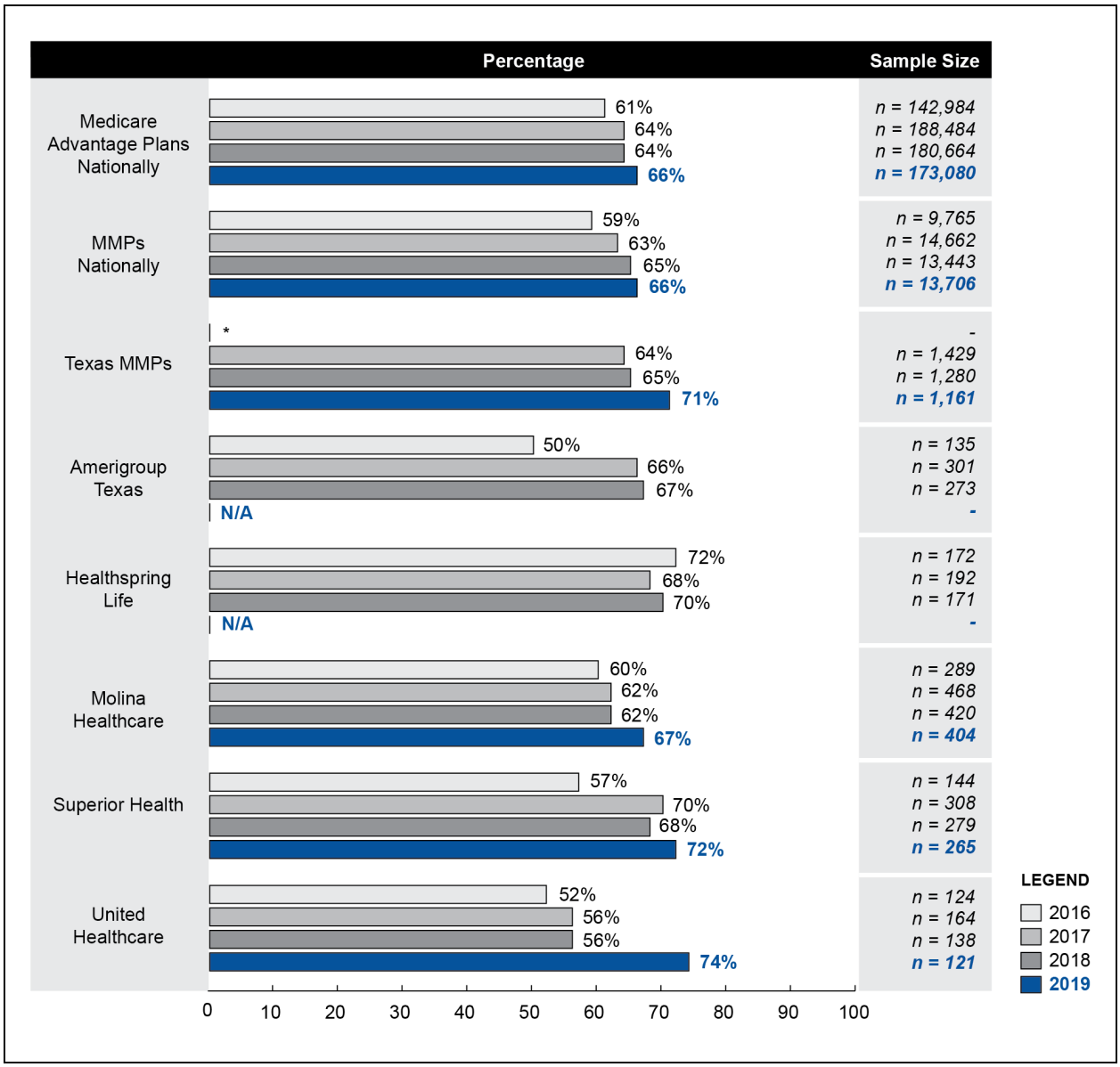
For beneficiary experience, we draw on findings from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey and stakeholder interviews. For this report, there are no primary data sources for assessing beneficiary experience from the perspective of the beneficiary. We expect to include findings from beneficiary experience data collection in a future report. See ***Appendix A*** for a full description of these data sources.

4.1.1 Beneficiary Overall Satisfaction

In general, beneficiaries' overall satisfaction with their health plan has improved over time. As indicated in ***Figure 7***, the percentage of Texas demonstration CAHPS respondents who rated their health plan as a 9 or 10 increased overall for four of the five Texas MMPs from 2016–2018 (for one plan) or 2016–2019 (for the other three plans). [30]

[30] We provide national benchmarks from MA plans, where available, understanding that there are differences in the populations served by the Texas Dual Eligible Integrated Care 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
Beneficiary overall satisfaction, 2016–2019:
Percentage of beneficiaries rating their health plan as a 9 or 10

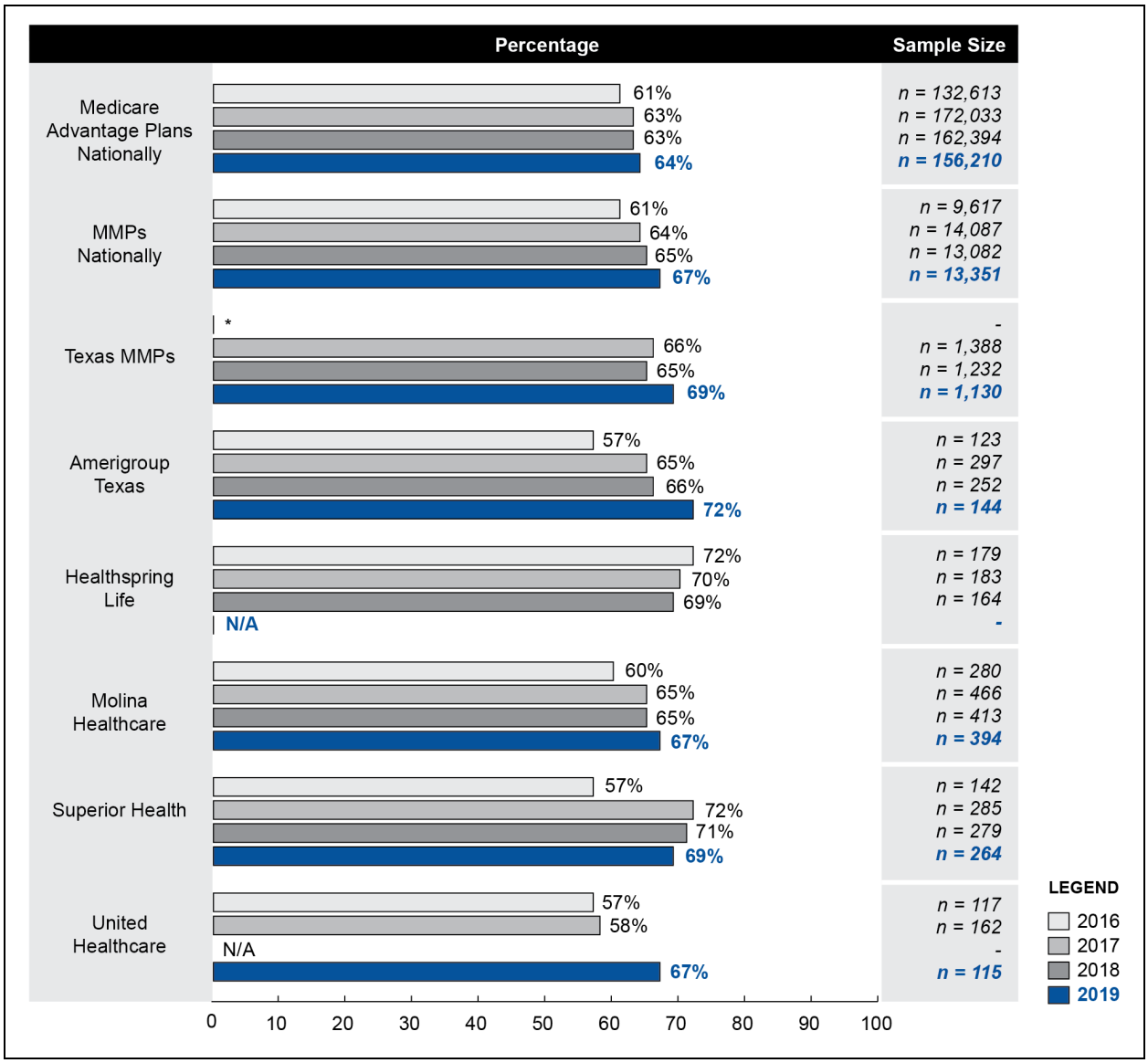


*= data not available; - = sample size data not available; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MMP = Medicare-Medicaid Plan; N/A = either there were too few beneficiaries who responded to the question to allow reporting, or the score had low reliability, or "Suppressed," i.e., when too few members provided responses (new as of 2019), or when the results have very low statistical reliability.
SOURCE: CAHPS data for 2016–2019. 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?"

Similarly, beneficiaries' satisfaction with their drug plan has also improved in general. As shown in ***Figure 8***, the percentage of Texas demonstration CAHPS respondents who rated their drug plan as a 9 or 10 increased for four out of five Texas MMPs—Amerigroup Texas, Molina

Healthcare, Superior Health, and United Healthcare—from 2016 to 2019. The increase was steady each year during that period for three of the four plans whose ratings increased.

Figure 8
Beneficiary overall satisfaction, 2016–2019:
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; MMP = Medicare-Medicaid Plan; N/A = either there were too few beneficiaries who responded to the question to allow reporting, or the score had low reliability, or "Suppressed," i.e., when too few members provided responses (new as of 2019), or when the results have very low statistical reliability.

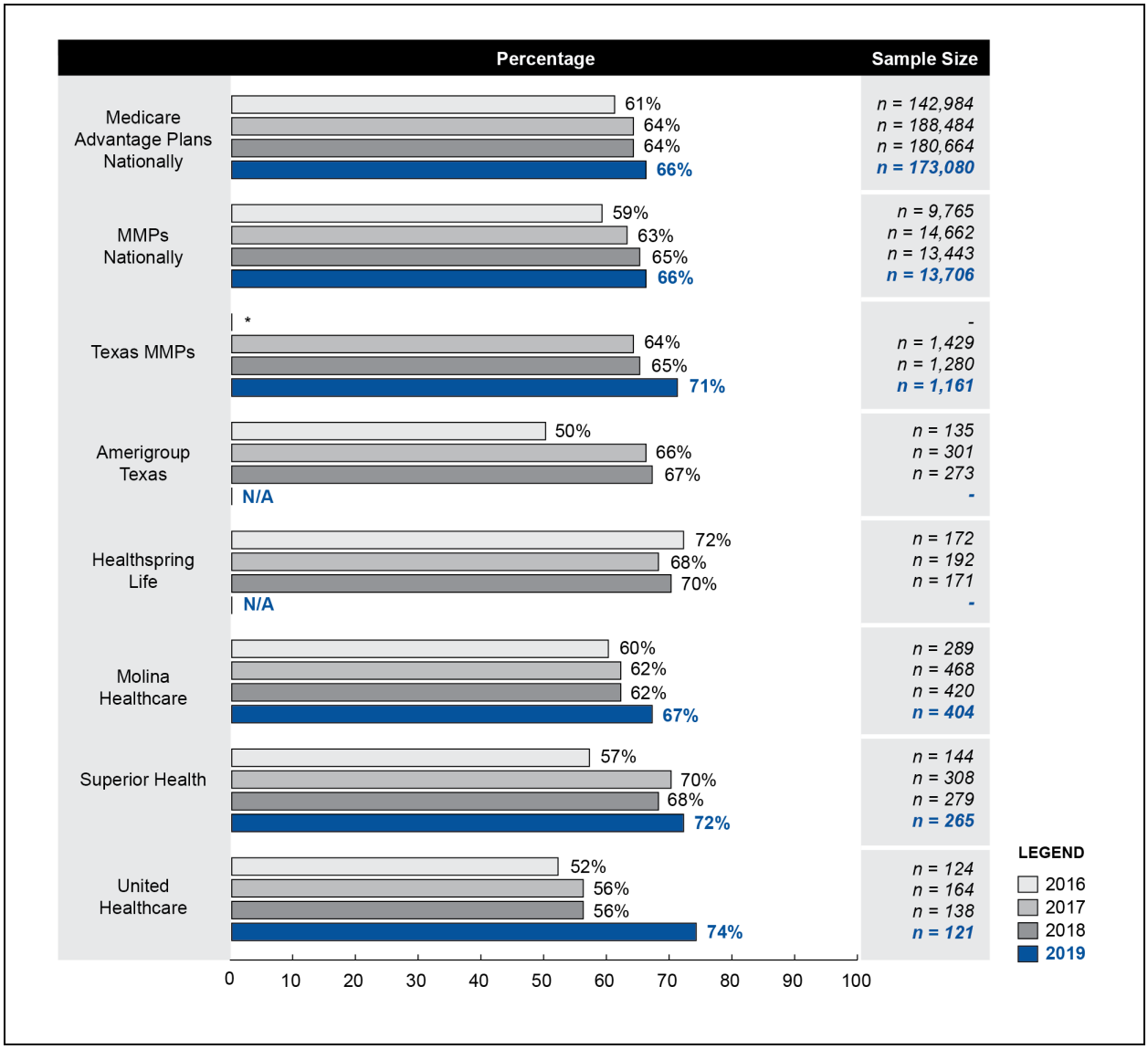
SOURCE: CAHPS data for 2016–2019. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst prescription drug plan possible and 10 is the best prescription drug plan possible, what number would you use to rate your prescription drug plan?"

4.1.2 Beneficiary Experience with Care Coordination

Beneficiary experience with care coordination has varied over the course of the demonstration to date. In late 2020, HHSC reported on a recently completed record review of service (care) coordination records for its STAR+PLUS program (see ***Section 3.6, Quality of Care*** for more information about these record reviews). Among the small subset of MMP enrollee records reviewed, one-quarter related to access or health and safety records, including access to durable medical equipment (DME), dental services, nursing, and attendants.

Figure 9 shows the percentage of beneficiaries who reported that their health plan "usually" or "always" gave them information they needed increased for three of the four MMPs from 2016 to 2019. The remaining MMP showed a decreasing trend for the 3 years for which it reported data.

Figure 9
Beneficiary experience with care coordination, 2016–2019:
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; MMP = Medicare-Medicaid Plan; N/A= either there were too few beneficiaries who responded to the question to allow reporting, or the score had low reliability, or "Suppressed," i.e., when too few members provided responses (new as of 2019), or when the results have very low statistical reliability.
SOURCE: CAHPS data for 2016–2019. 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?"

4.1.3 Access to Care

Medical Services

When an enrollee seeks care from an out-of-network provider or from a provider unwilling to join the MMP's network, the MMP will typically seek HHSC's approval of a single case agreement with the provider. However, HHSC and the MMPs have noted that access to some types of specialists is limited, whether in or out of provider networks, including for psychiatry, dermatology, pain management, rheumatology, cardiology, and cardiovascular surgery.

In late 2020, the Ombudsman reported that early in the PHE, all Texas Medicaid beneficiaries, including demonstration enrollees, experienced a disruption in their access to services, including specialty care, elective hospital services, and DME. In addition, many providers and beneficiaries were not equipped for telehealth. As providers and enrollees adjusted to the PHE, these challenges declined.

Personal Assistance Services

In 2018 and 2019, beneficiary advocates said that shortages of personal attendants was a challenge generally in Texas, with an impact on demonstration enrollees. However, in 2019, one MMP reported that it did not have a problem with attendant shortages in the demonstration service areas. This MMP said the attendant shortages impact rural areas more than urban demonstration services areas. The MMP occasionally had trouble matching home care agencies and attendants with enrollees who have challenging behavioral needs. As directed by the Texas Legislature, in 2020, HHSC developed a strategic plan for improving access to attendant services. And as discussed in ***Section 3.6, Quality of Care***, starting in early 2021, HHSC began requiring MMPs to report on the timeliness of access to community attendants.

Use of the consumer-directed option remained low.[31] In 2019, HHSC reported that only a very small number of MMP enrollees hired their own attendant under the consumer-directed service option in fiscal year 2018. One MMP said that many enrollees were not interested in participating in consumer-direction because they found the administrative requirements too burdensome. A beneficiary advocate agreed that self-direction does not typically appeal to older adults. As directed by the Texas Legislature, in 2019, HHSC developed educational materials for service coordinators to promote the expanded use of the consumer-directed option.

Transition to the Community from NFs

During the PHE, many individuals transitioned out of NFs to avoid high COVID infection rates in congregate settings. Under normal circumstances, enrollees transitioning from an NF would develop a transition plan through Texas' Money Follows the Person demonstration, which provided access to the needed HCBS. Because enrollees were transitioning quickly, many enrollees did not have needed services in place when they transitioned home and would have had to add their name to the interest list for waiver services and wait for a slot to open. To avoid this

[31] For more discussion on the consumer-directed (or self-directed) option, see the First Evaluation Report.

delay in accessing services, HHSC allowed enrollees to access HCBS through the Money Follows the Person demonstration, even though they had already transitioned.

Flexible Benefits

MMPs used capitation payments to offer flexible benefits at no additional cost to CMS, HHSC, or enrollees. Flexible benefits vary among plans and across counties and can include items such as flexible dental benefits; free cell phones with limited monthly minutes; smoking cessation services; transportation assistance; gift items such as a personal grooming kit, blanket, and first aid kit; home fitness kits or fitness club memberships; and a limited monthly benefit for over-the-counter (OTC) health products (Texas HHS, n.d.-a).

Because the markets vary considerably by county, an MMP must tailor the flexible benefits offered to each county. For example, as one MMP described, if one county has a high number of enrollees at risk of diabetes, this MMP would make sure its flexible benefits promote improvement in this area by rewarding enrollees for healthy behaviors. In late 2020, another MMP reported that it had increased the incentive for wellness visits from $10 to $25, and had started offering $25 gift cards to enrollees who had completed their diabetic exams. Another MMP offered $20 to enrollees who had their annual exam or their breast cancer screening.

In late 2020, an MMP reported that transportation and dental care were its most popular supplemental benefits. Other popular services included vision services, extra podiatry services, and home-delivered meals for enrollees following a transition from a hospital or NF. HHSC also reported that, effective June 1, 2021, the State was terminating its transportation services and transitioning responsibility for providing non-emergency medical transportation services to MMPs.

Some MMPs offer an OTC benefit as an alternative to the Medicaid OTC benefit. Because beneficiaries must obtain a physician's signed referral to access Medicaid OTC benefits, using the Medicaid benefit can be confusing for both enrollees and providers. MMPs said that some physicians who are unfamiliar with the Medicaid program have refused to provide their signatures. In 2019, one MMP said the most common purchases under its OTC benefit were oral hygiene supplies, such as toothbrushes or toothpaste. The MMP cited these purchases as important because of the relationship between poor oral health and other health conditions. Another MMP said it would like to see the physician signature requirement for Medicaid OTC benefit removed so that it can offer a combined Medicare-Medicaid OTC benefit. This MMP learned from HHSC that doing so would require a regulatory change.

In 2019, MMPs noted that maintaining a rich package of flexible benefits was difficult after capitation rates had been reduced by the 5.5 percent savings percentage (see ***Section 3.5, Financing and Payment***). In 2020, one MMP reported that it had to scale back on the flexible benefits offered because they were too costly. Instead, this MMP leverages community resources to address the social determinants of health that flexible benefits are sometimes used to address. The MMP also noted that it was easier to offer flexible benefits through a D-SNP because of differences in the funding model.

4.2 Beneficiary Protections

4.2.1 Grievances, Appeals and Critical Incidents

Enrollees have certain protections under the demonstration. There are several options for them to report grievances or complaints, appeals, and critical incidents and abuse. Beneficiaries also are able to use ombudsman services provided under the demonstration to file and resolve complaints.

Enrollees have the right to file a grievance with their MMP at any time. A grievance is a complaint or a dispute expressing dissatisfaction with the MMP or a provider, regardless of whether the enrollee is requesting a remedial action. Grievances are resolved at the MMP level. ***Table 7*** reports the number of grievances or complaints lodged with the MMPs according to two data sources: MMP-reported grievances, and those reported to the Complaint Tracking Module (CTM) by the State or through 1-800-Medicare. The average number of MMP-reported grievances has remained low throughout the demonstration to date. The majority of CTM complaints focused on enrollment and disenrollment.[32] In 2017 the highest number of complaints were in the provider specific category.[33] In 2020, most complaints were related to benefits, access, and quality of care.[34]

Table 7
Grievances or complaints measures and results, 2015–2020

Measure	Reporting period	Results
Average number of MMP-reported grievances per 1,000 enrollees per quarter	2015	2
	2016	4
	2017	4
Average number of MMP-reported grievances or complaints per 10,000 enrollee months per quarter[1]	2018	26
	2019	37
	2020	53
Number of complaints per year received by HHSC or 1-800-Medicare and recorded in the CMS Complaint Tracking Module (CTM)[2]	2015	81
	2016	53
	2017	109
	2018	57
	2019	67
	2020	45

CMS = Centers for Medicare & Medicaid Services; MMP = Medicare-Medicaid Plan; HHSC = Texas Health and Human Services Commission.
[1] The way that plan-reported grievance data were analyzed changed in 2018. In 2015 through 2017, data were analyzed per 1,000 enrollees per quarter. Beginning in 2018, data were analyzed per 10,000 enrollee months per quarter.
[2] Data obtained from the Complaints Tracking Module (CTM) within CMS's health plan management system by RTI.

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

Enrollees also have the right to appeal an MMP's decision to deny, terminate, suspend, or reduce services. This process is not fully integrated for demonstration enrollees. Appeals must be filed with the MMP first. If the MMP denies an appeal involving Medicare-only services, the MMP automatically forwards the appeal to the Medicare Independent Review Entity (IRE). If the MMP denies an appeal involving Medicaid-only services, the enrollee may request a State fair hearing from the HHS Hearings Department. If the appeal involves overlapping Medicare- and Medicaid-related claims, the appeal is automatically forwarded to the IRE, and the enrollee may also request a State fair hearing from the HHS Hearings Department.

As shown in ***Table 8***, the average number of MMP-reported appeals remained low from 2015 through 2017. In 2018 through 2020 the average number of appeals ranged more widely. Of the appeals reported to the IRE, 62.9 percent of the MMP decisions were upheld, 12.6 percent were overturned or partially overturned, 23.3 percent were dismissed, and the remainder (1.2 percent) were withdrawn. The most common category of appeals referred to the IRE was for issues related to acute inpatient hospital stays.

Table 8
Appeals measures and results, 2015–2020

Measure	Reporting period	Results
Average number of MMP-reported appeals per 1,000 enrollees per quarter	2015	1
	2016	4
	2017	4
Average number of MMP-reported appeals per 10,000 enrollee months per quarter[1]	2018	217
	2019	164
	2020	38
Total number of MMP-reported appeals to the Independent Review Entity (IRE), a second-level review of Medicare appeals[2]	2015–2020	1,384

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

MMPs are required to report to CMS the number of critical incidents and abuse reports for members receiving LTSS.[35] From 2015 through 2020, the number of critical incidents and

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

abuse reports remained negligible, at 0-1 MMP-reported critical incidents and abuse reports per 1,000 enrollees per quarter.

In 2019, the CMT began taking a close look at critical incident reporting to determine whether MMPs were underreporting. CMS said that HHSC and the MMPs seemed to agree that critical incidents were underreported, noting the problem was likely not limited to the demonstration.

4.2.2 The Ombudsman for Managed Care Assistance

HHSC's Office of the Ombudsman houses the Managed Care Assistance Team (hereafter, "Ombudsman"), which serves as the Ombudsman for the demonstration. The Ombudsman is responsible for responding to consumer inquiries and complaints.[36] The Ombudsman refers the beneficiary back to the MMP if the consumer has not already pursued that route. The Ombudsman will record a complaint as unsubstantiated when it is able to determine that the MMP did everything correctly, and substantiated when it is able to determine that the MMP made an error. The majority of complaints received are categorized as "unable to substantiate;" typically the beneficiary does not return to the Ombudsman for further action, so the outcome is unknown to the Ombudsman. The Ombudsman received 141 complaints between December 1, 2019, and November 30, 2020, with access to home health services, access to DME, Medicaid eligibility, and balance billing as the most common complaint categories. The Ombudsman substantiated 17 percent of those complaints, determined 11 percent to be unsubstantiated, and categorized the remaining 72 percent as unable to substantiate.[37]

It can be challenging trying to work through services where a component is covered by Medicare and a component covered by Medicaid. [The demonstration] makes our job much easier, and for the client too. They only have one phone number to call for any medical service they need.

— Ombudsman for Managed Care Assistance, 2020

In 2018 and 2019, beneficiary advocates were concerned that the low complaint count was due to underreporting (for both the demonstration and other Medicaid managed care programs) and identified a number of possible explanations. In particular, advocates believed that the low number of complaints could be related to a lack of awareness of the complaint process, a lack of confidence in the utility of seeking help from the Ombudsman, a fear of retaliation, or inaccurate record keeping by the Ombudsman. One advocate suggested beneficiaries may not believe that contacting the Ombudsman is effective, noting that the Ombudsman does not have the independence and authority needed to be an effective advocate for beneficiaries, because of its reporting relationship to the HHSC Commissioner and the

[36] The Ombudsman defines *complaint* as "any expression of dissatisfaction by a consumer of a Texas Health and Human Services (HHS) program or service about HHS benefits or services." An *inquiry* is "a request by a consumer for information about HHS programs or services."
[37] RTI analysis of complaint data provided by the Ombudsman.

limited protections for the Office of Ombudsman in its authorizing statute.[38] Another advocate cited consumers who reported making a complaint, but the Ombudsman had no record of the complaint when the consumer called again later.

The Ombudsman acknowledged not being able to know whether fear of retaliation suppressed the number of complaints it received. However, the Ombudsman believed that its staff had done nothing that would cause fear of retaliation from the State. When a beneficiary expresses fear of retaliation, Ombudsman staff lets the beneficiary know that retaliation is not permitted.

[38] The Office of the Ombudsman reports to the Chief Deputy Executive Commissioner, who in turn reports to the Executive Commissioner. As the advocate pointed out, the authorizing statute for the Office of the Ombudsman (found at Texas Government Code §531.0171 and §531.0213) does not include the same protections as those granted the Office of the Long Term Care Ombudsman under its authorizing statute (found at Texas Human Resources Code, Subchapter F), which authorizes the Long-Term Care Ombudsman to act independently of HHSC and prohibits HHSC from implementing a policy that prohibits its ability to perform its duties.

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SECTION 5

Demonstration Impact on Service Utilization and Quality of Care

5.1 Methods Overview

The demonstrations under the FAI are intended to shift utilization from inpatient to ambulatory care, from NF care to HCBS, and to improve quality of care through care coordination activities and the demonstrations' financial incentives. The analyses in this section evaluate the effects of the Texas demonstration in demonstration years 1–3 (March 1, 2015–December 31, 2018) on service utilization and quality of care outcomes among Texas demonstration eligible beneficiaries.

For this analysis, we used an intent-to-treat (ITT) approach that included all fee-for-service (FFS) dually eligible beneficiaries eligible for the demonstration, not just those who actually enrolled in the MMPs. The ITT framework alleviates concerns of selection bias, supports generalizability of the results across the demonstration eligible population and mimics the real-world implementation of the demonstration. In the analyses presented in this section, enrolled beneficiaries account for approximately 35.8 percent of all eligible beneficiaries (including FFS beneficiaries and MMP enrollees) in demonstration year 3.

We used a quasi-experimental difference-in-differences (DinD) regression analysis with inverse propensity weighting to estimate the impact of the demonstration on the change in the probability or frequency of service utilization outcomes, relative to the comparison group. Our analyses were conducted using Medicare enrollment and FFS claims data, MMP encounter data, Area Health and Resource Files, and the American Community Survey. Molina MMP encounters were not included or analyzed because the RTI evaluation team deemed them incomplete. See ***Appendix D*** for more detail on our analytic methodology.

To help interpret the DinD estimate, we present it as both the absolute change in the probability (for a dichotomous outcome) or frequency (for a count outcome) of the outcome, relative to the comparison group, and a relative percent change of the average outcome value in the comparison group during the demonstration period. Thus, a positive DinD value may correspond to a greater increase or a smaller decrease in the outcome in the demonstration group relative to the comparison group, depending on the estimated trend in the outcome. For example, if the DinD estimate is positive and the trend is a decline in both the demonstration and comparison groups, then the interpretation of the DinD estimate is that the demonstration had a slower decline in the outcome, relative to the comparison group. Similarly, a negative value on the DinD estimate can result from either a greater decrease or a smaller increase in the outcome depending on the estimated trend in the demonstration group relative to the comparison group.

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

In addition, we discuss the effects of the demonstration on two special populations of interest: beneficiaries who use LTSS and beneficiaries with serious and persistent mental illness (SPMI). The interest is in understanding whether the demonstration might have had specific impacts upon these two special populations. We present the demonstration effects separately for

the LTSS users and for non-LTSS users, as well as for those with and without SPMI. We also discuss any interaction effect (the difference between the two effects). This chapter only describes demonstration DinD impact estimates that are statistically significant with 95 percent confidence intervals. Estimates that are not statistically significant are not discussed. For a complete list of DinD estimates with 95 and 90 percent confidence intervals, see ***Appendix E***.

5.2 Demonstration Impact on Service Utilization Among Eligible Beneficiaries

During demonstration years 1–3, the demonstration decreased the monthly probability of SNF admissions by 11.5 percent, and the annual probability of any long-stay NF use by 5.7 percent, relative to the comparison group. However, the demonstration also increased the monthly probability of any emergency department (ED) visits by 5.2 percent, relative to the comparison group. There were no demonstration impacts on the probability of any inpatient admission or count of physician evaluation and management (E&M) visits.

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. The monthly probability of any SNF admission and the annual probability of any long-stay NF use both decreased 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 monthly probability of ED visits, relative to the comparison group. There was no demonstration effect on the probability of inpatient admissions or the monthly count of physician E&M visits.

- The demonstration resulted in a 0.16 percentage point greater decrease in the monthly probability of any SNF admission among demonstration eligible beneficiaries in Texas, relative to the comparison group. This absolute difference equates to a relative difference of 11.5 percent of the average predicated probability of SNF use in the comparison group during the demonstration period.
- The decrease in SNF admissions is consistent with the goals of the demonstration and perhaps may reflect care coordination efforts as part of the Texas demonstration. Another potential explanation is, as described in the First Evaluation Report, provider representatives reported challenges in the NF payment processes that led to ongoing delays in authorization of SNF services early in the demonstration (see ***Section 2.2 Overview of Integrated Delivery System*** in the First Evaluation Report).
- Despite multiple challenges that nursing home organizations faced with integrated services and payments from multiple MMPs, discussed in the First Evaluation Report, these most recent results indicate that the demonstration resulted in a 1.02 percentage

point greater decrease in the probability of any long-stay NF use among demonstration eligible beneficiaries, relative to the comparison group. The relative difference is a 5.7 percent decrease (***Table 9***). The decrease in long-stay NF use in both the demonstration and comparison groups is consistent with broader national trends of moving toward community-based LTSS (Degenholtz et al., 2016; Toth et al 2021). As shown in ***Table E-6*** in ***Appendix E***, there were unadjusted declines in the percent with any long-stay use from predemonstration period 2 to demonstration year 1, but the decrease in the demonstration group was approximately 4 percentage points, compared to a roughly 1 percentage point decline in the comparison group. This sharper increase observed in this year may, in part, explain the cumulative DinD estimate.

- The demonstration resulted in a 0.28 percentage point greater increase in the monthly probability of any ED visit, relative to the comparison group. This increase is 5.2 percent of the average predicted monthly probability of any ED visit in the comparison group during the demonstration period.
- As described in the First Evaluation Report, there was wide variation by MMP in the percentage of enrollees with a care plan completed within 90 days of enrollment throughout the demonstration period. To the extent that establishing a care plan is central to care coordination across providers, these challenges may have forestalled any reductions in ED visits among demonstration eligible beneficiaries. More broadly, there were ongoing challenges with staff turnover in addition to a limited supply of qualified care coordinators. These broader challenges may have limited any demonstration effect on decreasing ED use.

Table 9
Cumulative demonstration impact on select service utilization measures for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

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	0.0479	0.0417	NS	–0.0005	0.6834
	Comparison	0.0509	0.0449		(–0.0030, 0.0020)	
Probability of ED visit	Demonstration	0.0498	0.0536	5.2	0.0028**	0.0033
	Comparison	0.0537	0.0547		(0.0009, 0.0047)	
Count of physician E&M visits	Demonstration	1.2812	1.2826	NS	–0.0067	0.7976
	Comparison	1.2048	1.2125		(–0.0575, 0.0442)	
Probability of SNF admission	Demonstration	0.0143	0.0104	–11.5	–0.0016*	0.0102
	Comparison	0.0167	0.0140		(–0.0028, –0.0004)	
Probability of any long-stay NF use	Demonstration	0.1929	0.1522	–5.7	–0.0102*	0.0259
	Comparison	0.2130	0.1798		(–0.0192, –0.0012)	

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

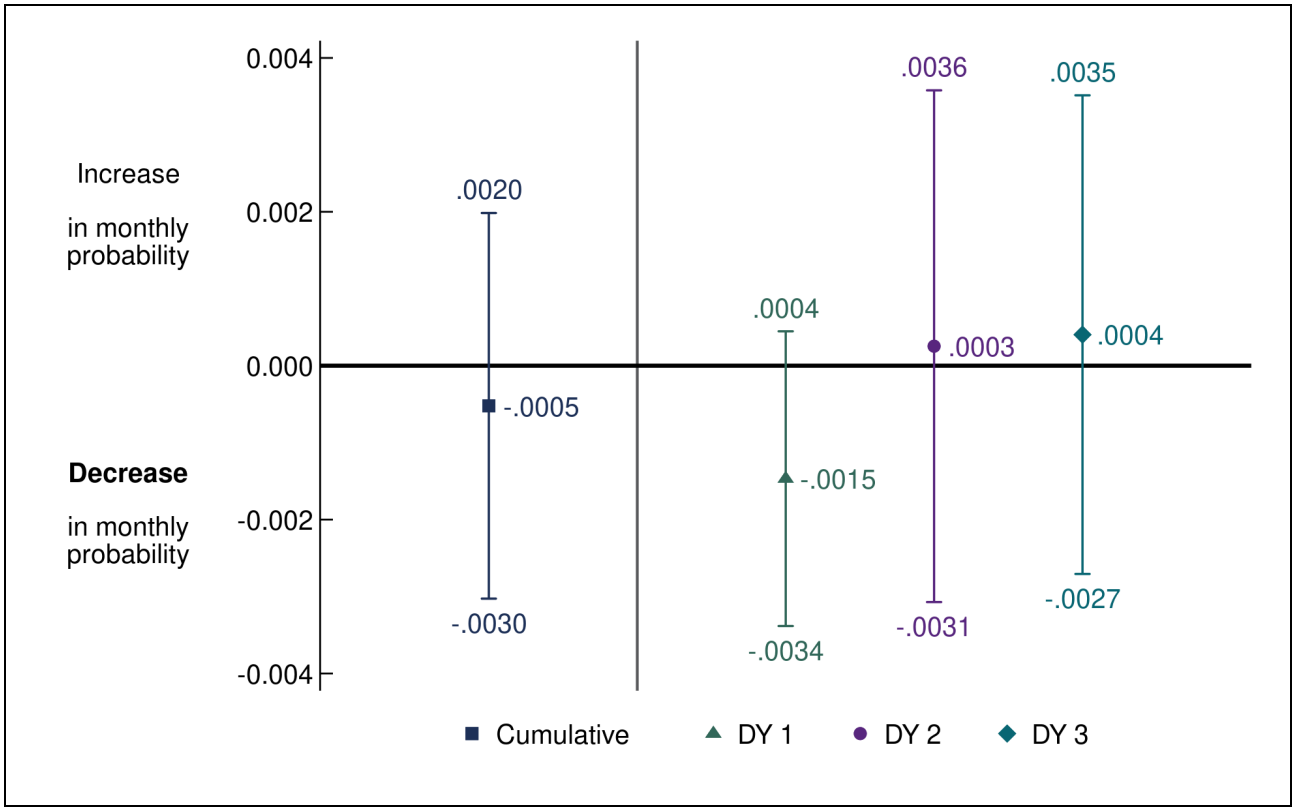
5.2.2 Demonstration Impact in Each Demonstration Year

Figures 10–14 show annual effects of the demonstration on all-cause inpatient admissions, ED visits, physician visits, SNF admissions, and long-stay NF use, respectively, with the cumulative effects also included as points of comparison. These annual impact estimates indicate that the Texas demonstration decreased the probability of SNF admissions in demonstration years 1–3 and decreased the probability of any long-stay NF use in demonstration years 2 and 3. However, the probability of ED visits increased in demonstration years 2 and 3, relative to the comparison group.

- The Texas demonstration decreased the probability of SNF admissions by 0.16 percentage points in each of the 3 demonstration years, relative to the comparison group (***Figure 13***).
- Similar to the overall findings described in ***Section 5.2.1***, the demonstration was successful in reducing post-acute SNF use, and may reflect efforts by MMPs to designate specified service coordination teams, incorporate a transition coach, and collaborate with hospital staff on needs assessment, discharge planning, care management, and post-discharge follow-up (see Section 4.2, Information Exchange, in the First Evaluation Report).

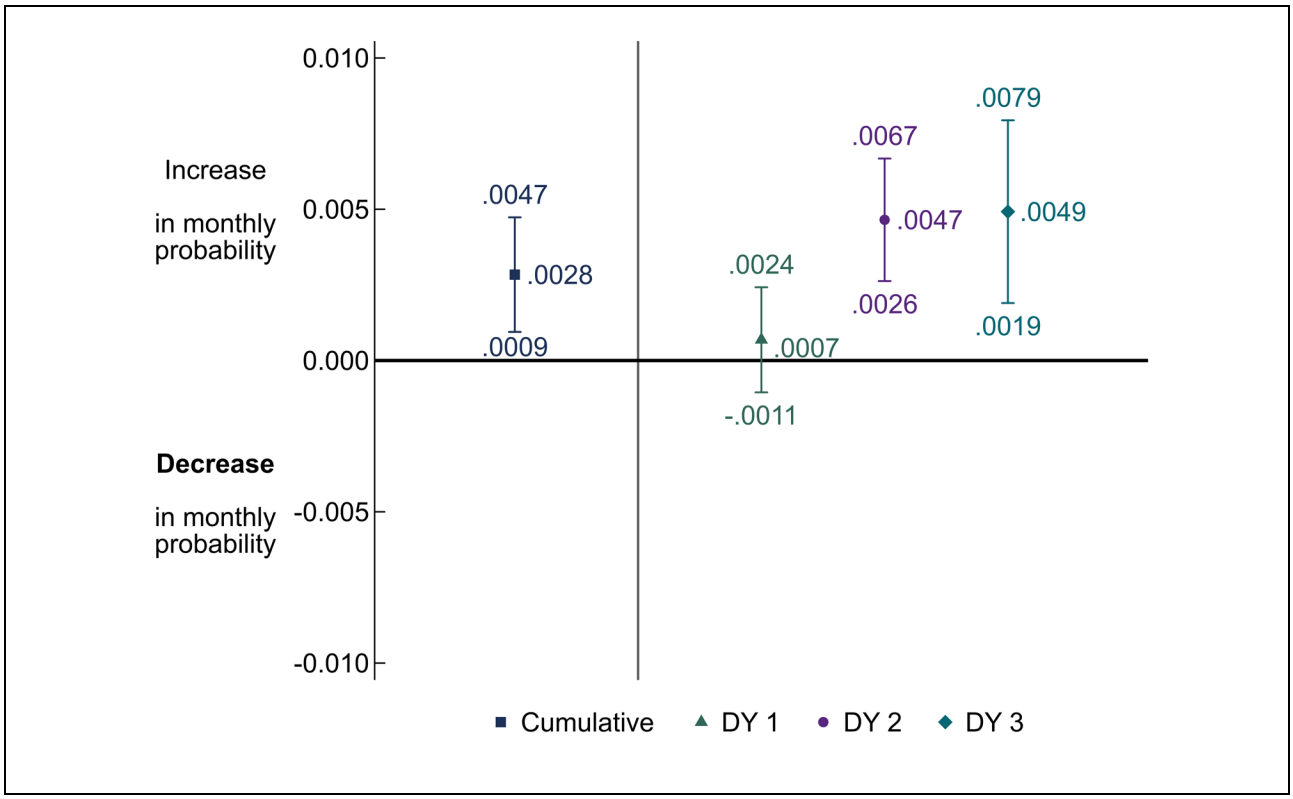
- The probability of any ED visits increased by 0.47 percentage points per month per beneficiary in demonstration year 2 and 0.49 percentage points per month per beneficiary in demonstration year 3, relative to the comparison group (***Figure 11***).
- Despite service coordination efforts to promote access to primary care and forestall ED use, the demonstration was not successful in decreasing the probability of ED visits. As described in ***Section 5.2.1,*** inconsistent performance on completing care plans within 90 days of enrollment may have contributed to this finding.
- The demonstration decreased the annual probability of any long-stay NF use in demonstration years 2 and 3, relative to the comparison group, by 1.36 and 1.32 percentage points, respectively (***Figure 14***). There was no demonstration impact on this measure in demonstration year 1 (as that confidence interval crosses zero).

Figure 10
Cumulative and annual demonstration effects on inpatient admissions, demonstration years 1–3, March 1, 2015–December 31, 2018



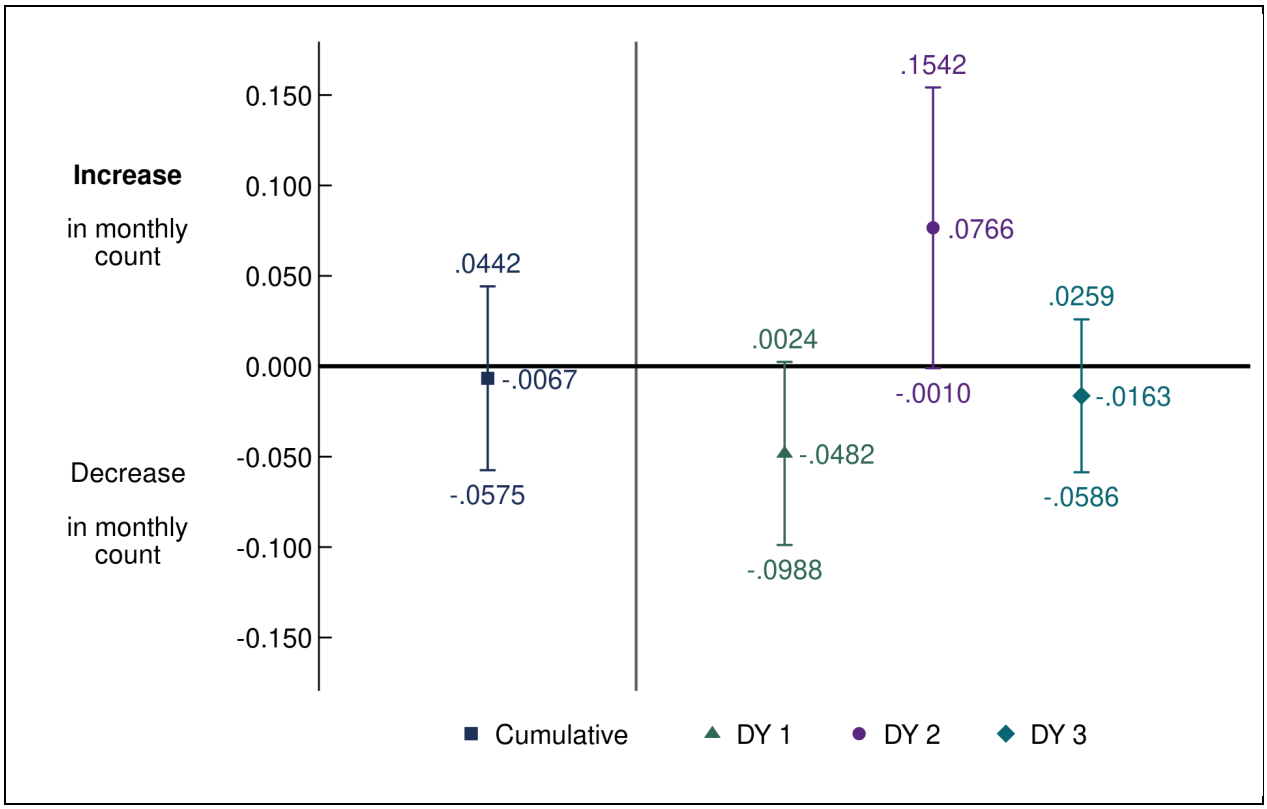
DY = demonstration year.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 11
Cumulative and annual demonstration effects on ED visits, demonstration years 1–3, March 1, 2015–December 31, 2018



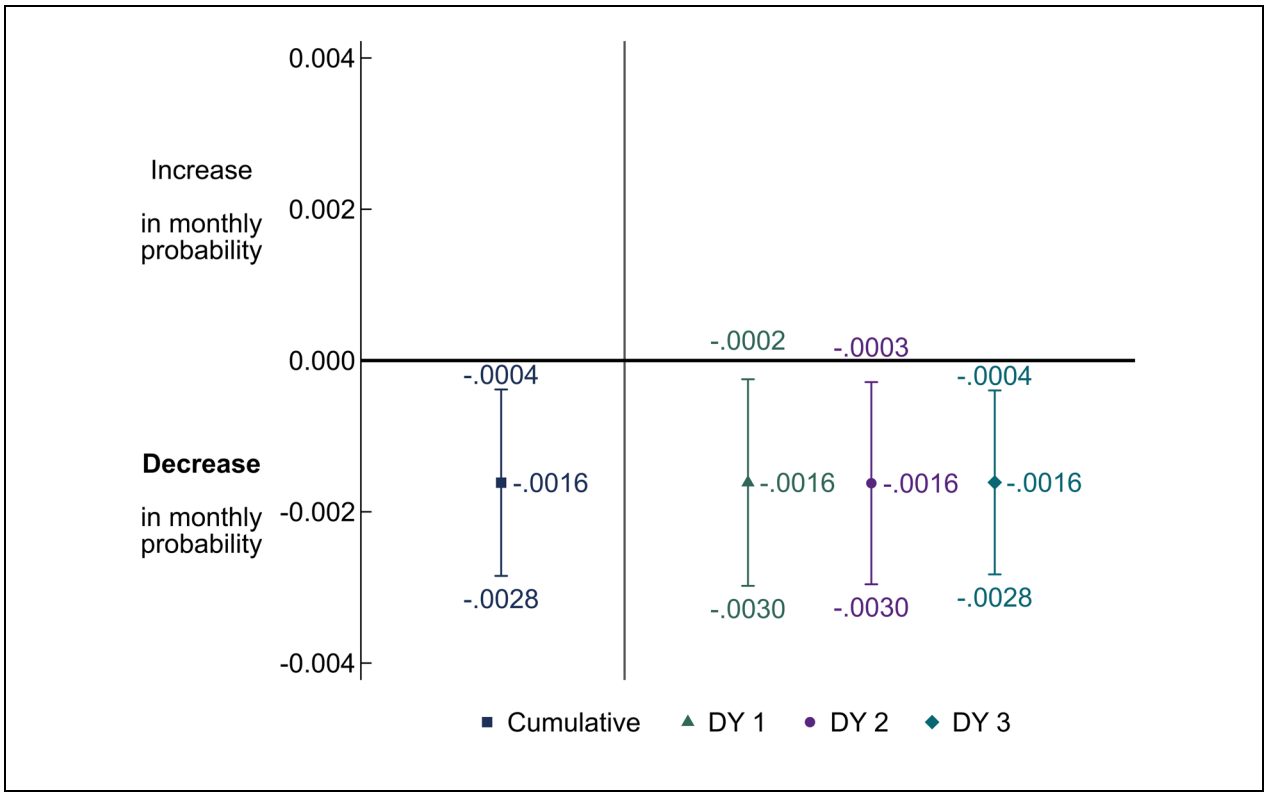
DY = demonstration year; ED = emergency department.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 12
Cumulative and annual demonstration effects on physician E&M visits, demonstration years 1–3, March 1, 2015–December 31, 2018



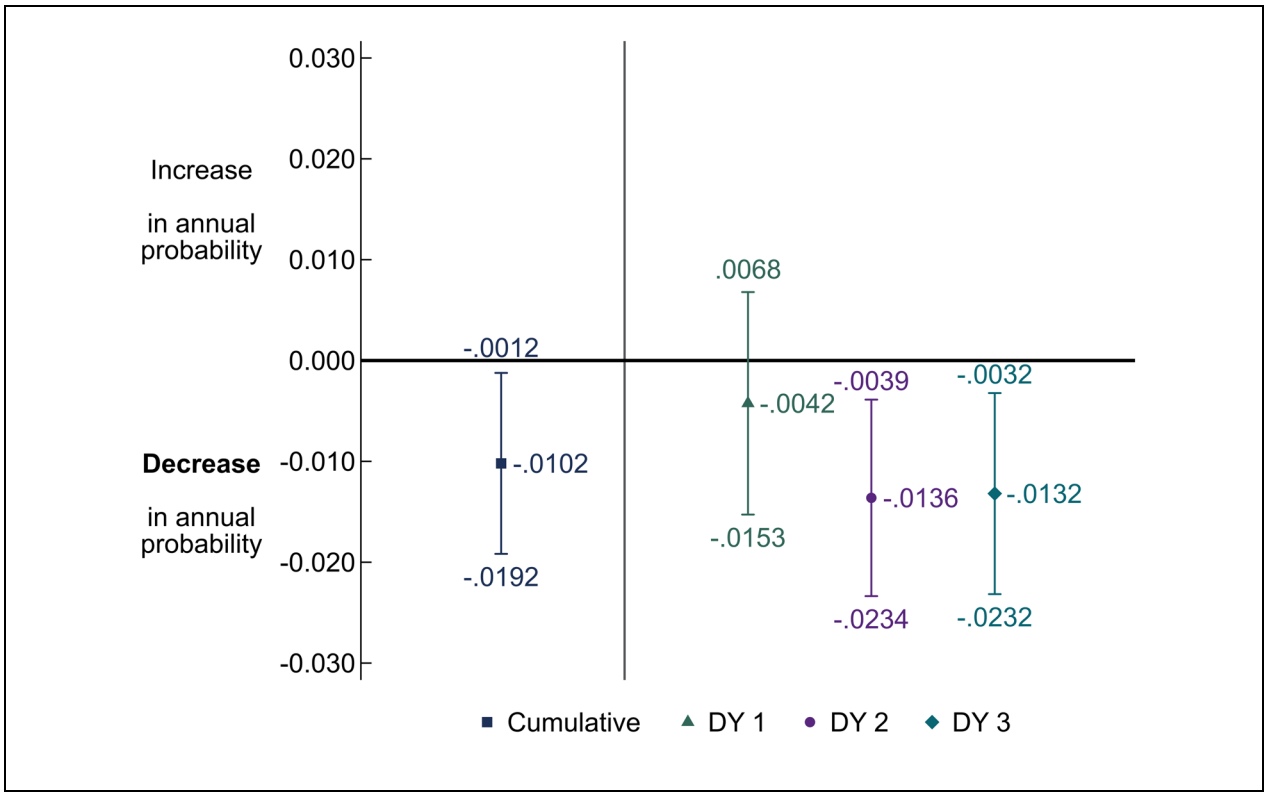
DY = demonstration year; E&M = evaluation and management.
NOTES: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 13
Cumulative and annual demonstration effects on SNF use, demonstration years 1–3, March 1, 2015–December 31, 2018



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

Figure 14
Cumulative and annual demonstration effects on long-stay NF use, demonstration years 1–3, March 1, 2015–December 31, 2018



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

5.3 Demonstration Impact on Quality of Care Among Eligible Beneficiaries

The demonstration resulted in an unfavorable 7.2 percent increase in the monthly number of preventable ER visits, relative to the comparison group. There was no demonstration impact on any other quality of care measures.

5.3.1 Cumulative Impact Over Demonstration Years 1–3

The Texas demonstration is expected to increase quality of care, as a result of care coordination and increased access to physician services. However, the demonstration was not successful in improving observed measures of quality of care as measured by this evaluation, relative to the comparison group. ***Table 10*** shows the cumulative impact and adjusted means for these measures.

- The demonstration was associated with a 0.0022 greater increase in the monthly number of preventable ED visits per beneficiary, relative to the comparison group. This monthly increase represents a relative difference of 7.2 percent of the average predicted monthly number of preventable ED visits in the comparison group during the demonstration period.
- The increase in the monthly average number of preventable ED visits in the demonstration group appears to have been driven, in part, by the eligible but not enrolled population. For example, the unadjusted monthly average number of preventable ED visits was lower among the enrolled population than in the non-enrolled population during each demonstration year (see ***Appendix Table E–7***), but the enrolled population only accounted for roughly 33 to 39 percent of the total eligible population in each demonstrate year.

Table 10
Cumulative demonstration impact on select quality of care measures for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted DinD estimate (95% confidence interval)	*p*-value
Number of preventable ED visits	Demonstration	0.0275	0.0312	7.2	0.0022**	0.0013
	Comparison	0.0299	0.0313		(0.0009, 0.0036)	
Probability of ACSC admission, overall	Demonstration	0.0088	0.0082	NS	–0.0001	0.8141
	Comparison	0.0096	0.0090		(–0.0008, 0.0007)	
Probability of ACSC admission, chronic	Demonstration	0.0056	0.0057	NS	0.0001	0.7946
	Comparison	0.0061	0.0061		(–0.0004, 0.0005)	
Probability of 30-day follow-up after mental health discharge	Demonstration	0.3361	0.2963	NS	0.0137	0.4588
	Comparison	0.3768	0.3219		(–0.0226, 0.0500)	
Count of all-cause 30-day readmissions	Demonstration	0.2789	0.2641	NS	0.0040	0.4018
	Comparison	0.2956	0.2756		(–0.0053, 0.0132)	

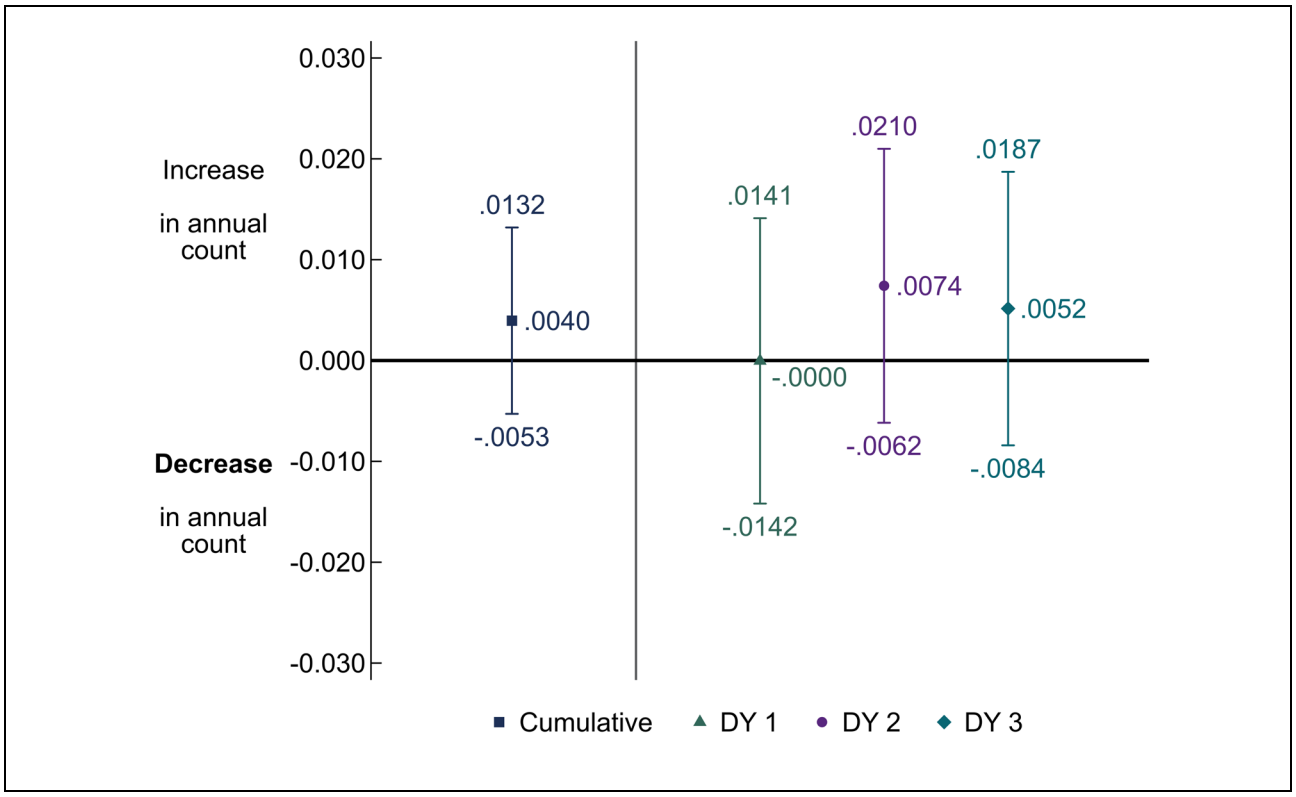
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
ACSC = ambulatory care sensitive condition; DinD = difference-in-differences; ED = emergency department; NS = not statistically significant.
NOTES: The adjusted mean is the regression-adjusted predicted probability or number of events for the predemonstration and demonstration periods for the demonstration and comparison groups. The *relative difference* is calculated by dividing the DinD estimate (column heading *Regression-adjusted DinD estimate*) by the predicted average for the comparison group in the demonstration period (column heading *Adjusted mean for demonstration period*). The magnitude of a relative difference could be large when the underlying denominator is small. In such cases, the relative difference should be interpreted with caution.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

5.3.2 Demonstration Impact in Each Demonstration Year

Figures 15–19 show the demonstration's annual effects on 30-day readmission, preventable ED visits, ACSC admissions (overall), ACSC admissions (chronic), and 30-day follow-up post mental health discharge, respectively, with the cumulative impact estimates also shown as points of comparison. These annual impact estimates indicate that the Texas demonstration was associated with an unfavorable increase in the number of preventable ED visits in demonstration years 2 and 3.

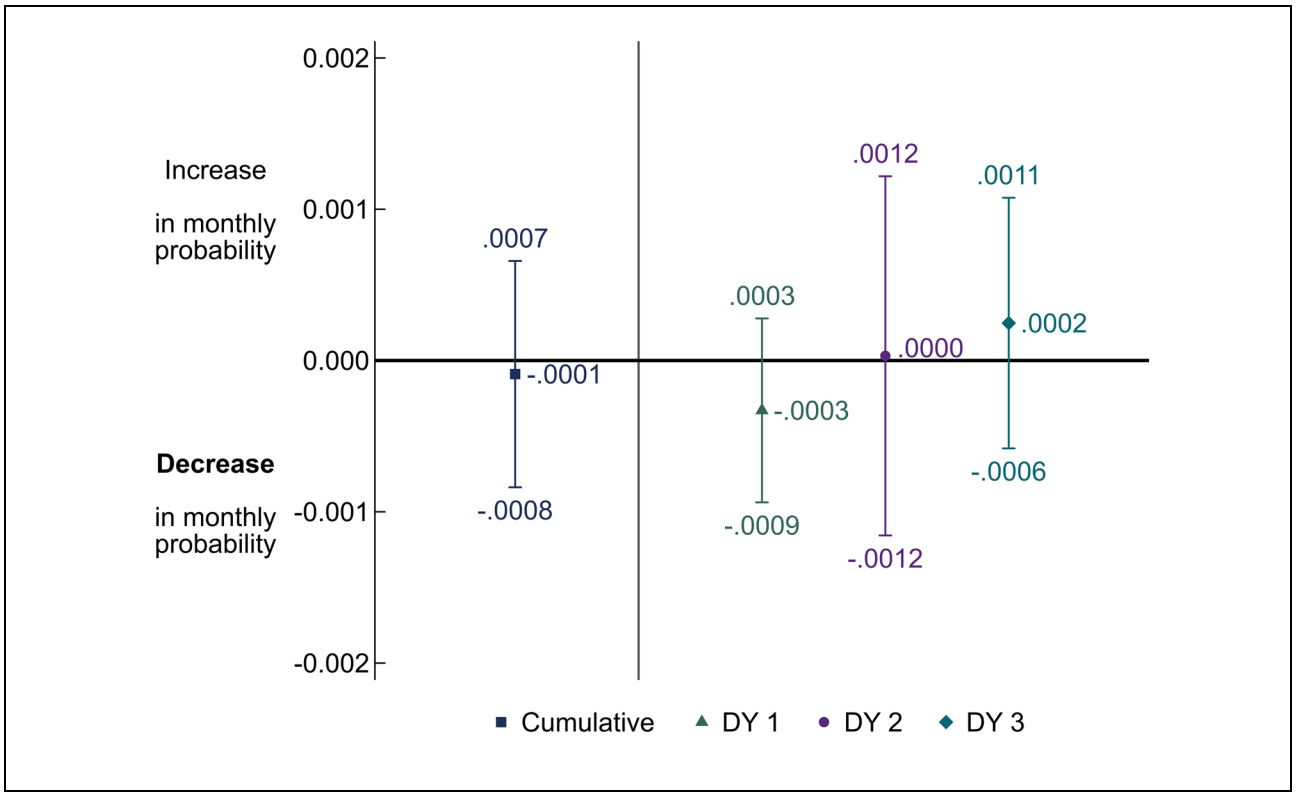
- There was no effect on the count of 30-day readmissions or the probability of overall or chronic ACSC admissions in any demonstration year (***Figures 15–17***).
- The demonstration was associated with an increase in the monthly number of preventable ED visits by 0.0028 and 0.0039 visits per beneficiary in demonstration years 2 and 3, respectively, relative to the comparison group (***Figure 18***).
- Increases in the number of preventable ED visits in demonstration years 2 and 3 may in part be explained by implementation challenges such as service coordinator recruitment and challenges in reaching new enrollees within 90 days of enrollment (***see Section 3.3, Care Coordination, Table 2***). These challenges may have limited the demonstrations capacity to manage and coordination care in a way that forestalls ED visits.
- There was no effect on the probability of a 30-day follow-up after mental health discharge in any demonstration year (***Figure 19***), despite demonstration efforts to increase engagement with behavioral health hospitals and providers to coordinate care.

Figure 15
Cumulative and annual demonstration effects on 30-day readmissions, demonstration years 1–3, March 1, 2015–December 31, 2018



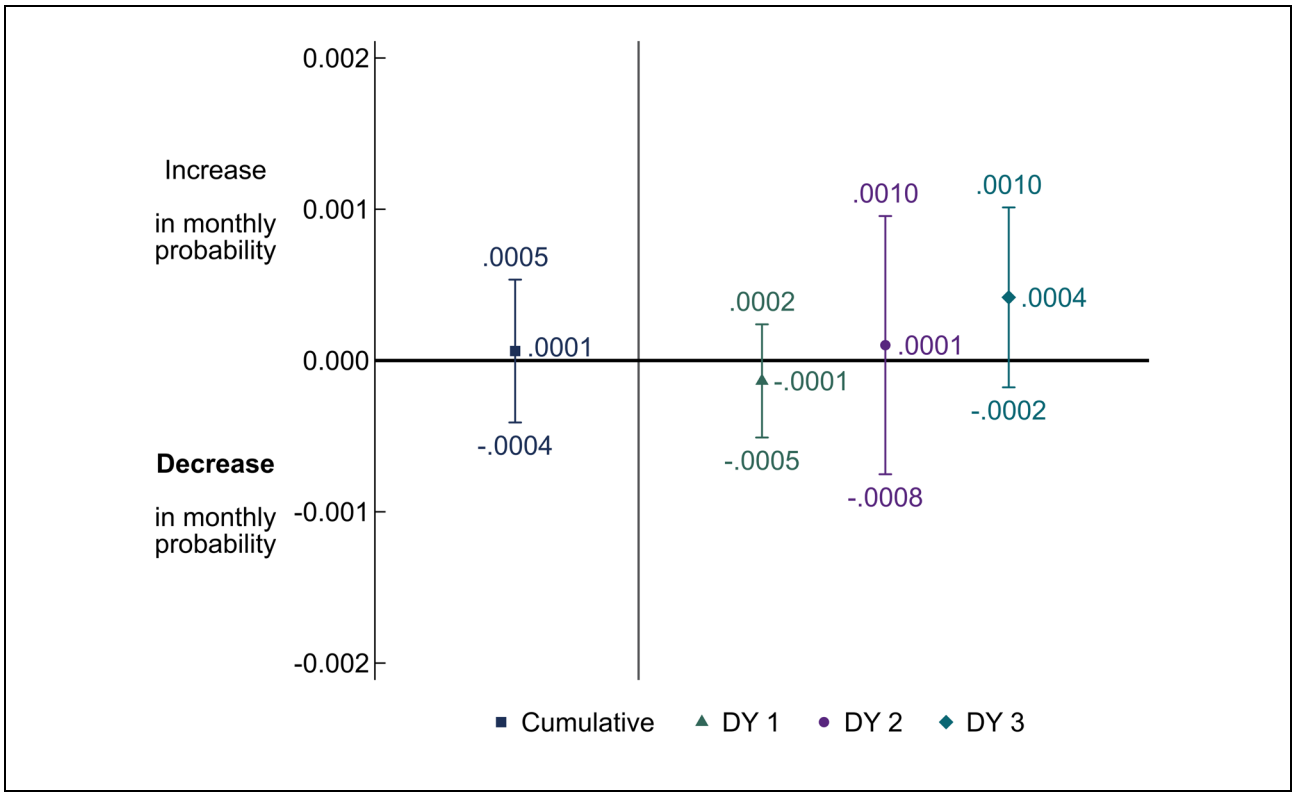
DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data

Figure 16
Cumulative and annual demonstration effects on ACSC admissions (overall), demonstration years 1–3, March 1, 2015–December 31, 2018



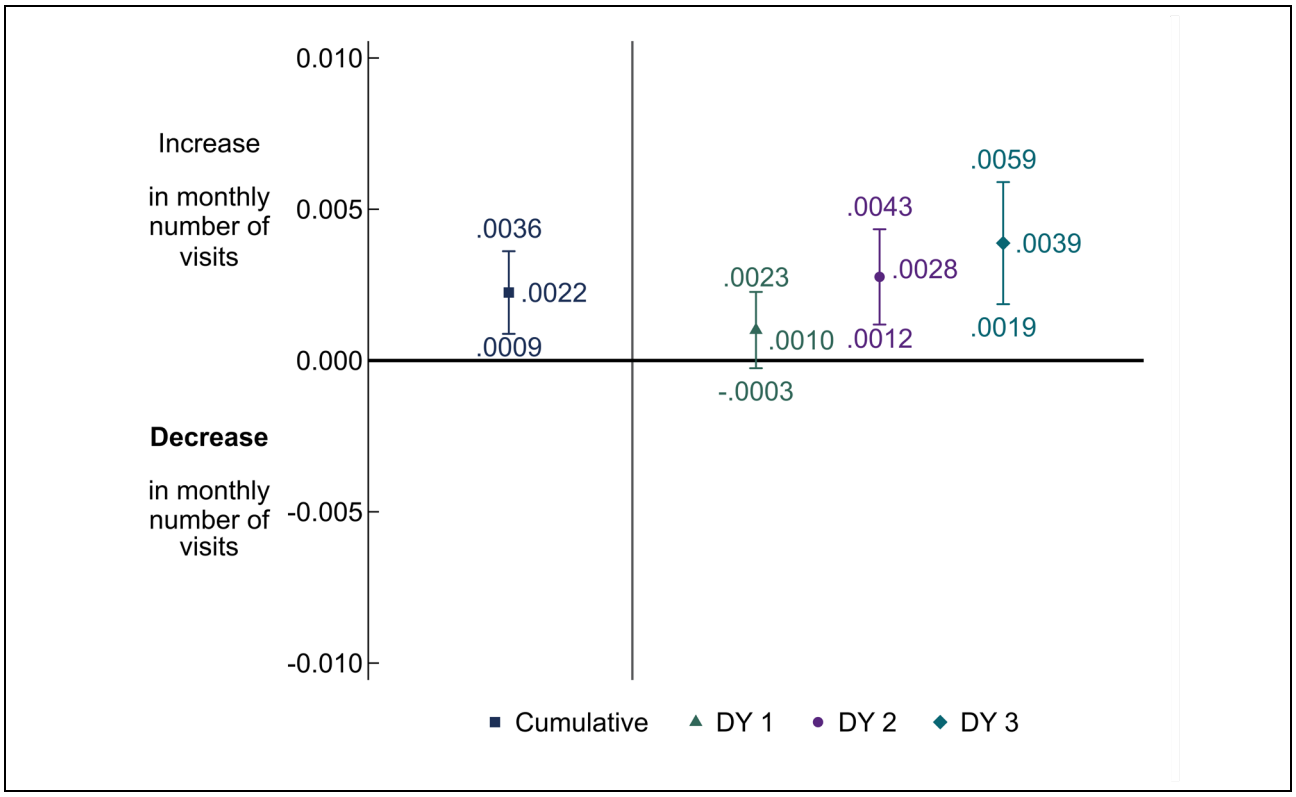
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 17
Cumulative and annual demonstration effects on ACSC admissions (chronic), demonstration years 1–3, March 1, 2015–December 31, 2018



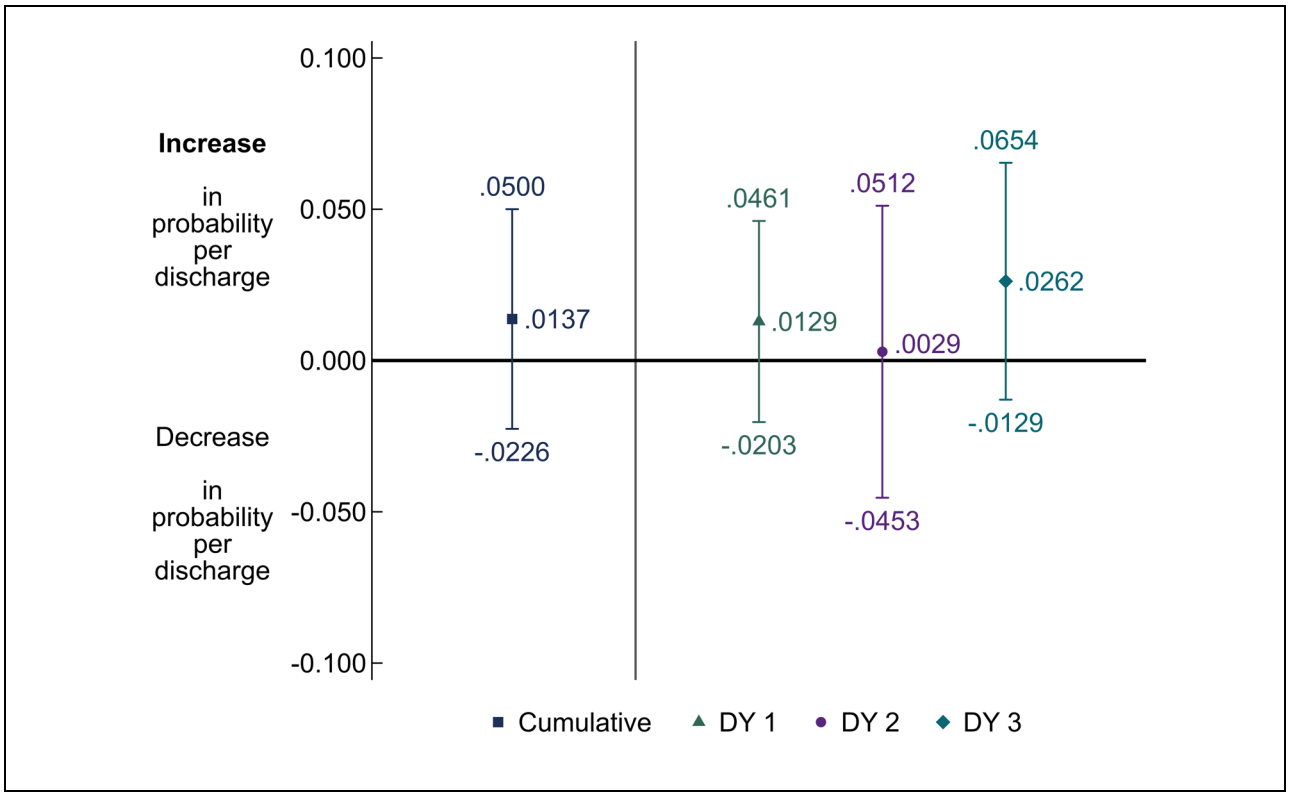
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected direction of effect (increase or decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 18
Cumulative and annual demonstration effects on preventable ED visits, demonstration years 1–3, March 1, 2015–December 31, 2018



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

Figure 19
Cumulative and annual demonstration effects on 30-day follow-up post mental health discharge, demonstration years 1–3, March 1, 2015–December 31, 2018



DY = demonstration year.
NOTE: 95 percent 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 Special Populations

During demonstration years 1 through 3, the demonstration had a differential effect on beneficiaries with and without LTSS use. The demonstration effect for those with LTSS use was an increase in the monthly probability of any inpatient use, relative to the demonstration effect for those without LTSS use.

The demonstration effect for beneficiaries with SPMI was an increase in the monthly probability of any ED visit and in the monthly number of preventable ED visits, 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. 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 versus non-LTSS users and for beneficiaries with SPMI versus those without SPMI (see ***Tables E-2*** and ***E-3*** in ***Appendix E***).

See ***Tables E-7*** and ***E-8*** in ***Appendix E*** for unadjusted descriptive statistics for demonstration enrollees and non-enrollees.

Additionally, further analyses were conducted to examine unadjusted service utilization results by racial and ethnic groups among the eligible population for select utilization measures: inpatient admissions, ED (non-admit), physician evaluation and management (E&M) visits, outpatient therapy (physical therapy, occupational therapy, and speech therapy), and hospice use (see ***Figures E-1, E-2,*** and ***E-3*** in ***Appendix E***).

5.4.1 Beneficiaries Receiving Long-Term Services and Supports

As indicated in ***Table D-1*** in ***Appendix D***, about 14.4 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 on one measure (see ***Table 11*** below). Specifically, the difference in the cumulative demonstration effect on the monthly probability of any inpatient admission for beneficiaries with LTSS use was a 0.40 percentage point increase, relative to the demonstration effect for beneficiaries without LTSS use.

These results likely reflect the challenges of integrating LTSS into the demonstration. A contributing factor to these findings may be that the 2018 State budget did not fund additional HCBS waiver slots or increase LTSS provider payment rates to reflect growth in service costs (see ***Section 5.2.5, Beneficiary Access to Care and Quality of Services***, in the First Evaluation Report). This may have contributed to challenges in accessing care and forestalling any additional improvements on reducing inpatient admissions among the LTSS population.

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

Table 11
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures						
Probability of inpatient admission	LTSS	0.0035	NS	0.0542	–0.0001, 0.0071	0.0040***
	Non-LTSS	–0.0005	NS	0.5700	–0.0022, 0.0012	
Probability of ED visit	LTSS	0.0048	9.1	0.0189	0.0008, 0.0089	0.0032
	Non-LTSS	0.0017	NS	0.2155	–0.0010, 0.0043	
Count of physician E&M visits	LTSS	0.0966	NS	0.2378	–0.0638, 0.2571	0.0464
	Non-LTSS	0.0503	6.1	0.0138	0.0102, 0.0903	
Probability of SNF admission	LTSS	0.0007	NS	0.6840	–0.0027, 0.0042	0.0007
	Non-LTSS	0.0000	NS	0.4258	–0.0001, 0.0002	
Quality of Care Measures						
Number of preventable ED visits	LTSS	0.0030	NS	0.1321	–0.0009, 0.0070	0.0017
	Non-LTSS	0.0014	NS	0.1587	–0.0005, 0.0032	
Probability of ACSC admission, overall	LTSS	0.0007	NS	0.3453	–0.0008, 0.0021	0.0007
	Non-LTSS	0.0000	NS	0.9726	–0.0005, 0.0005	
Probability of ACSC admission, chronic	LTSS	0.0004	NS	0.2375	–0.0003, 0.0010	0.0004
	Non-LTSS	–0.0000	NS	0.9639	–0.0004, 0.0004	
Probability of 30-day follow-up after mental health discharge	LTSS	0.0227	NS	0.5677	–0.0551, 0.1005	–0.0019
	Non-LTSS	0.0246	NS	0.2305	–0.0156, 0.0648	
Count of all-cause 30-day readmissions	LTSS	0.0015	NS	0.8524	–0.0142, 0.0172	0.0033
	Non-LTSS	–0.0018	NS	0.7549	–0.0129, 0.0094	

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

5.4.2 Beneficiaries with Serious and Persistent Mental Illness

As indicated in ***Table D-1*** in ***Appendix D***, about 42.7 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***). For example, the demonstration effect for those with SPMI on the monthly probability of any ED visit was a 0.54

percentage point increase, relative to the demonstration effect for those without SPMI. Similarly, the demonstration effect for beneficiaries with SPMI was a relative increase of 0.0045 preventable ED visits per month, relative to the demonstration effect for those without SPMI.

Beneficiaries with SPMI represented a substantial proportion of the eligible population. Thus, operational and administrative challenges impacting the demonstration more broadly may have uniquely impacted beneficiaries with complex medical and behavioral health needs. Additionally, as reported in the First Evaluation Report and in ***Section 3.1.2, Integrated Delivery System*** of this report, MMPs reported challenges with contracting with some types of specialist providers including behavioral health providers.

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

Table 12
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Special population	Demonstration effect relative to comparison group	Relative difference (%)	*p*-value	95% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures						
Probability of inpatient admission	SPMI	–0.0012	NS	0.5010	–0.0046, 0.0023	0.0005
	Non-SPMI	–0.0017	–5.0	0.0472	–0.0033, –0.0000	
Probability of ED visit	SPMI	0.0061	8.1	<0.0001	0.0033, 0.0088	0.0054***
	Non-SPMI	0.0007	NS	0.3985	–0.0009, 0.0023	
Count of physician E&M visits	SPMI	–0.0652	NS	0.0885	–0.1403, 0.0098	–0.0478
	Non-SPMI	–0.0174	NS	0.5777	–0.0788, 0.0440	
Probability of SNF admission	SPMI	–0.0030	–12.5	0.0030	–0.0050, –0.0010	–0.0015
	Non-SPMI	–0.0015	–19.2	0.0002	–0.0024, –0.0007	
Quality of Care Measures						
Number of preventable ED visits	SPMI	0.0052	12.6	<0.0001	0.0028, 0.0077	0.0045***
	Non-SPMI	0.0007	NS	0.1099	–0.0002, 0.0016	
Probability of ACSC admission, overall	SPMI	–0.0005	NS	0.5395	–0.0020, 0.0011	–0.0001
	Non-SPMI	–0.0003	NS	0.1750	–0.0008, 0.0002	
Probability of ACSC admission, chronic	SPMI	–0.0003	NS	0.5835	–0.0013, 0.0007	–0.0002
	Non-SPMI	–0.0001	NS	0.7611	–0.0006, 0.0004	
Count of all-cause 30-day readmissions	SPMI	0.0071	NS	0.3595	–0.0081, 0.0223	0.0125
	Non-SPMI	–0.0054	NS	0.2550	–0.0147, 0.0039	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
ACSC = ambulatory care sensitive condition; ED = emergency department; E&M = evaluation and management; NS = not statistically significant; SNF = skilled nursing facility; SPMI = serious and persistent mental illness.
NOTES: Probability of 30-day follow-up after mental health discharge is estimated on only those with a hospitalization for SPMI; the difference-in-differences estimate is reported in ***Table 10***.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

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SECTION 6

Demonstration Impact on Cost Savings

Our results show no cumulative impact to Medicare expenditures using a DinD analysis of beneficiaries eligible for the demonstration, relative to the comparison group.

Additionally, RTI evaluated the Texas demonstration's impact on Medicaid costs using a DinD analysis of beneficiaries eligible for the demonstration, relative to a Texas-only comparison group. Our results show decreased Medicaid expenditures as a result of the demonstration.

6.1 Methods Overview

As part of the capitated financial alignment model, Texas, CMS, and MMPs entered into a three-way contract to provide services to dually eligible enrollees (Texas three-way contract, 2014). MMPs receive three separate, blended, risk-adjusted prospective capitated payments for Medicare Parts A and B, Medicare Part D, and Medicaid services. The first two payments are from CMS, the third comes from the State. CMS and Texas 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 and the three-way contract on the FAI website.[39]

This section presents the Medicare Parts A and B cost savings analysis for demonstration years 1 to 3 (March 2015 to December 2018). Additionally, corrections were made to impact estimates from earlier reports that resulted in differences in our current demonstration year 1 cost savings impact estimates (see ***Appendix F*** for additional details). This section also presents the Medicaid cost savings analysis for demonstration years 1 to 3.

We used an ITT analytic framework that includes beneficiaries eligible for the demonstration rather than only those who enrolled. The ITT framework alleviates concerns of selection bias, supports generalizability of the results among the demonstration eligible population, and mimics the real-world implementation of the demonstration. For this analysis, enrolled beneficiaries account for approximately 30 percent of all eligible beneficiaries (including FFS beneficiaries, MMP enrollees, and MA enrollees) in demonstration year 3. Results from a separate analysis using a more restricted definition of MMP enrollees and their comparison group counterparts are included in ***Appendix F*** (see ***Table F-9***).

To evaluate the cost implications of the demonstration, RTI performed 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

[39] For the MOU, see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXMOU.pdf
For the three-way contract (original), see https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXContract08012017.pdf

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 Texas. Comparison group beneficiaries were identified through a two-step process. First, we identified comparison areas based on market characteristics. Second, we applied all available eligibility criteria to beneficiaries in the identified comparison areas. This process is further described in ***Appendix C***. Once the two groups were finalized, we applied propensity score (PS) weighting in the DinD analysis to balance key characteristics between the two groups.

RTI gathered predemonstration and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources, as summarized in ***Table 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 and Part D Inquiry System (MARx). Part D payments and Experience Rebate recoupments were not included in this analysis. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (May 2021). We also used Medicare FFS claims to calculate expenditures for eligible beneficiaries who were not enrolled in an MMP or MA plan. These FFS claims included all Medicare Parts A and B services.

Table 13
Data sources for monthly Medicare expenditures

Group	Predemonstration period March 1, 2013–February 28, 2015	Demonstration period March 1, 2015–December 31, 2018
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, which estimates the demonstrations effect on Medicare expenditures.

To evaluate the Medicaid cost implications of the demonstration, RTI performed a DinD analysis of Medicaid expenditures using the same demonstration group that was defined for the Medicare cost savings analysis and the same regression methodology.[40] The comparison group was drawn only from the State of Texas, and separate weights were calculated for the Texas-only comparison group. The outcome of interest was the sum of all Medicaid costs (excluding costs for prescription drugs), both FFS and capitated payments, for the demonstration and comparison groups. Both the Federal and State contributions are included in the measure of the Medicaid total cost of care. Unless otherwise specified in ***Appendix F***, the analysis of Medicaid expenditures followed the methodology of the Medicare cost savings analysis. The main difference between the Medicare cost savings analysis and the Medicaid cost savings analysis is that, due to significant changes in the Texas Medicaid program during this period, only a subset of the multistate Medicare comparison group was used and separate weights were calculated to account for the smaller comparison group (see ***Appendix F*** for more details). The Medicaid comparison group was drawn only from the State of Texas.

RTI gathered predemonstration and demonstration monthly Medicaid expenditure data for both the demonstration and comparison groups from two types of claims, as summarized in ***Table 14***. We obtained capitation payments paid to participating plans during the demonstration period and capitated payments to Medicaid managed care plans in the predemonstration and demonstration periods from the Research Identifiable Files (RIFs) in the T-MSIS. We also used Medicaid FFS claims from the T-MSIS RIFs to calculate expenditures for beneficiaries who were not enrolled in an MMP or a Medicaid managed care plan. These FFS claims included all Medicaid services, with the exception of Medicaid claims for prescription drugs (which only marginally impact the Medicaid capitation payment received by MMPs).

Table 14
Data sources for monthly Medicaid expenditures

Group	Predemonstration period (March 1, 2013–February 28, 2015)	Demonstration period (March 1, 2015–December 31, 2018)
Demonstration	Medicaid FFS Medicaid capitation	Medicaid FFS Medicaid capitation
Comparison	Medicaid FFS Medicaid capitation	Medicaid FFS Medicaid capitation

FFS = fee-for-service

6.2 Demonstration Impact on Medicare Parts A and B Costs

Table 15 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

[40] The Medicaid analysis uses all covariates used in the Medicare analysis; some additional Medicaid-specific covariates are included in the Medicaid regression analysis, as detailed in ***Appendix F***.

adjusted mean expenditure level in the comparison group during the demonstration period. The adjusted mean for monthly expenditure increased from the predemonstration period to the demonstration period in both the demonstration and comparison groups. Because the increase was a larger amount in the demonstration group than in the comparison group, the cumulative DinD is a positive $4.88 per member per month (PMPM), which corresponds to a relative difference of 0.33 percent of the adjusted mean expenditure for the comparison group during the demonstration period. The cumulative DinD is not statistically significant (p = 0. 9173) suggesting that overall, the Texas demonstration was not associated with increases or decreases in Medicare costs relative to the comparison group.

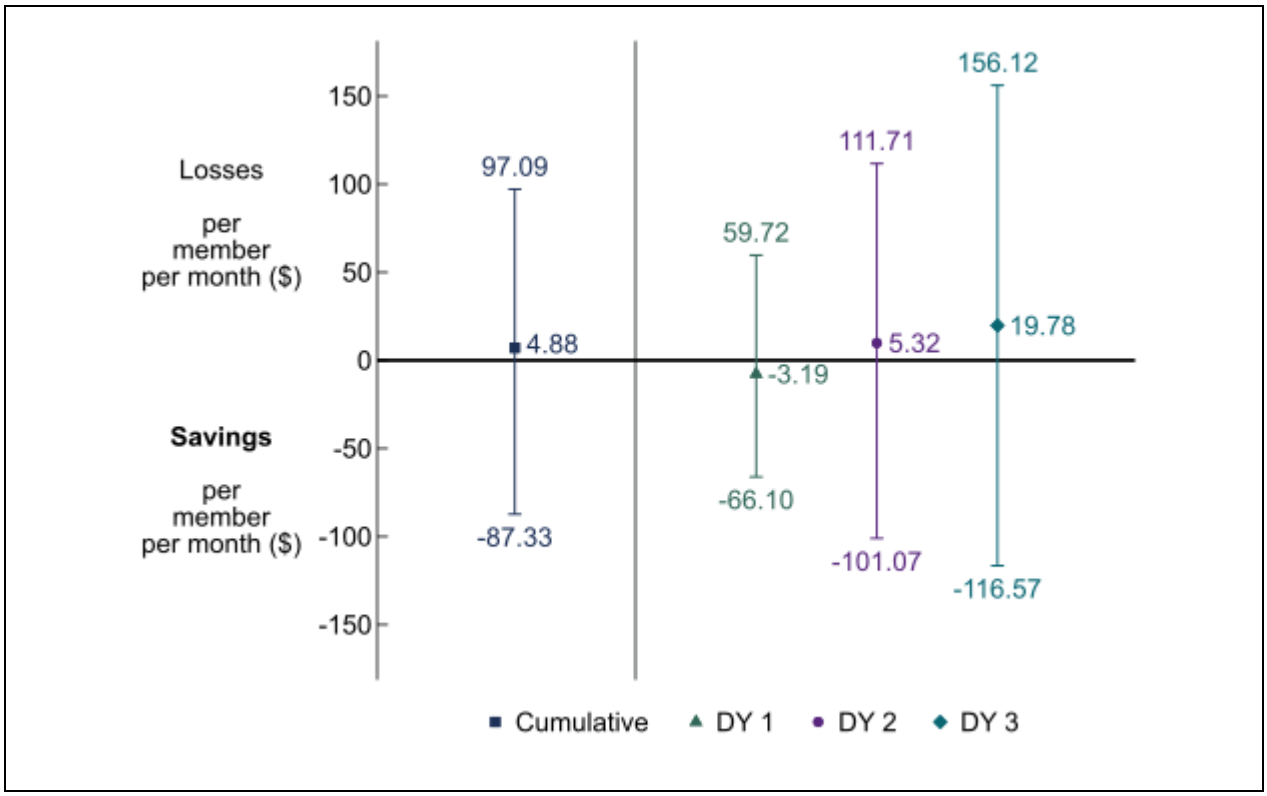
Table 15
Cumulative demonstration impact on Medicare Parts A and B costs for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Group	Adjusted mean for predemonstration period ($)	Adjusted mean for demonstration period ($)	Relative difference (%)	Adjusted coefficient DinD ($)	*p*-value
Demonstration	$1,422.00	$1,491.82	0.33	4.88	0.9173
Comparison	$1,411.38	$1,475.99			

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1490_Percents.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 any demonstration year (as shown by the confidence intervals crossing $0), so determining an impact on Medicare costs is inconclusive. 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 plans paid for services.

Figure 20
Cumulative and annual demonstration effects on monthly Medicare Parts A and B costs, demonstration years 1–3, March 1, 2015–December 31, 2018



DY = demonstration year.
NOTES: 95 percent confidence intervals are shown. "Losses"/"**Savings**" indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group. The expected direction ("Losses"/"**Savings"**) of the effect is in **bold**. 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).
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1480_GLM.log)

6.3 Demonstration Impact on Medicaid Costs

Table 16 shows the magnitude of the DinD estimate of the cumulative demonstration impact on Medicaid costs, both in absolute dollar amount and relative to the adjusted mean expenditure level in the Texas-only comparison group during the demonstration period. Note that the comparison group for the Medicaid cost analysis is a subset of the comparison group used in the Medicare cost analysis, drawing dually eligible enrollees from Texas only. Medicaid-specific propensity weights balance the characteristics of the demonstration group and the Texas-only comparison group (see ***Section C.7*** in ***Appendix C***). The adjusted mean monthly expenditure increased slightly from the predemonstration period to the demonstration period for the demonstration group but increased more for the comparison group. The cumulative DinD estimate of –$88.82 PMPM, which amounts to a relative difference of –6.66 percent of the adjusted mean expenditure for the comparison group during the demonstration period, is statistically significant ($p < 0.003$). This suggests that overall, the Texas demonstration was

associated with statistically significant decreases in Medicaid costs relative to the Texas-only comparison group.

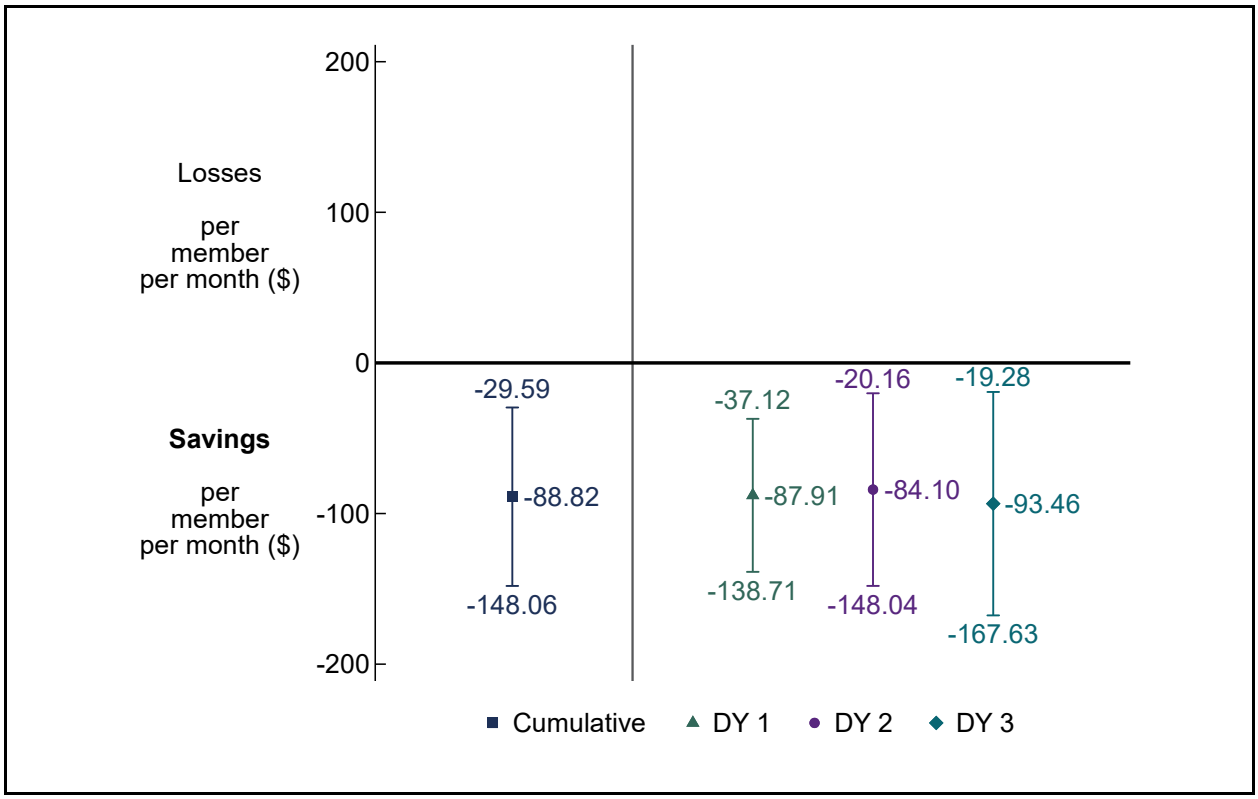
Table 16
Cumulative demonstration effect on Medicaid costs for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Group	Adjusted mean for predemonstration period ($)	Adjusted mean for demonstration period ($)	Relative difference (%)	Adjusted coefficient DinD ($)	*p*-value
Demonstration	1,139.57	1,141.46	−6.66	−88.82	<0.003
Comparison	1,233.10	1,334.57			

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicaid claims (program:30_Regression.do)
NOTE: Comparison group drawn only from Texas dually eligible enrollees.

In addition, we estimated the effect of the demonstration in each of the 3 demonstration years included. As shown in ***Figure 21***, the demonstration had a statistically significant effect in all 3 demonstration years (as shown by the confidence intervals below $0) indicating decreases in Medicaid costs as a result of the demonstration relative to the Texas-only comparison group in each of those years. The coefficients in each of the 3 demonstration years were close in magnitude to the overall coefficient. Note that these estimates rely on the ITT analytic framework, exclude Medicaid prescription drug costs, and are reliant upon the completeness and the correctness of the Medicaid cost data included in the T-MSIS.

Figure 21
Cumulative and annual demonstration effects on monthly Medicaid costs, demonstration years 1–3, March 1, 2015–December 31, 2018



DY = demonstration year.
NOTES: 95 percent confidence intervals are shown. Comparison group drawn only from Texas dually eligible beneficiaries. "Losses"/"**Savings**" indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group. The expected direction of the effect (Losses or Savings) is in **bold.**
SOURCE: RTI analysis of Medicaid claims (program: 30_Regression.do)

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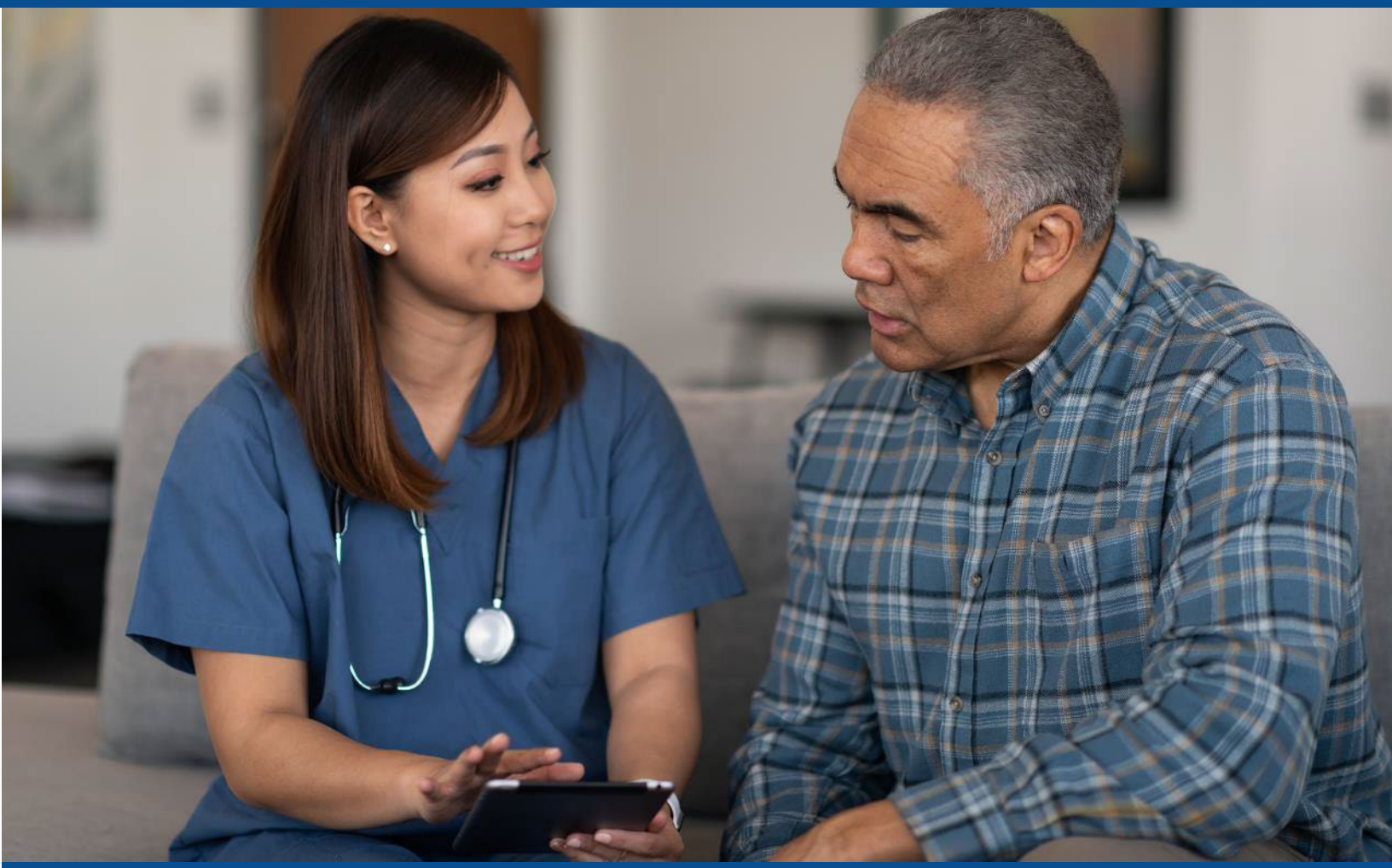
SECTION 7

Conclusions



7.1 Implementation Successes, Challenges, and Lessons Learned

The demonstration has achieved a number of successes during this reporting period. As a result of the successful implementation of monthly passive enrollment in August 2017, enrollment rates stabilized. After HHSC adjusted MMP Medicaid capitation rates in 2018 to reflect that enrollees were healthier, and lower cost, than anticipated, HHSC successfully brought MMP profitability into line with expectations for four out of five MMPs. In addition, the CMT has weathered significant disruption from HHSC organizational restructuring that occurred during 2015–2017, and the numerous staff changes for both HHSC and CMS members of the CMT that occurred in 2018–2020. Although these challenges had a negative impact initially, in 2020, HHSC, CMS, and MMPs reported that the CMT was collaborative and effective when responding to the PHE.

From 2018 through 2020, HHSC also continued to reform its oversight of its Medicaid managed care programs and undertook several initiatives to improve quality and access across its Medicaid managed programs, including the demonstration. HHSC implemented new reporting requirements for service coordination and the timeliness of attendant care. Although not all of these reform efforts had a specific focus on the demonstration, demonstration enrollees benefitted where the STAR+PLUS program was positively impacted.

In addition to these successes, the demonstration has had some challenges. Findings from this reporting period raise some unanswered questions about the degree to which beneficiaries and beneficiary advocates are able to provide input on opportunities for improving the demonstration. HHSC reduced the opportunities for beneficiaries and beneficiary advocates to provide input on the demonstration. In addition, although the Ombudsman and others may be correct that the low volume of complaints about the demonstration reflects its success, beneficiary advocates suggested that enrollees do not complain because they are not aware of the Ombudsman, are afraid of retaliation, or do not see complaining to the Ombudsman as useful, or the Ombudsman may be undercounting complaints.

Finally, although MMP performance on quality measures has improved in general, improvement has been uneven across MMPs and inconsistent over time. Before the PHE, the CMT had planned to work with the MMPs on addressing performance gaps because the majority of Texas MMPs performed below national benchmarks on several measures, including access to preventive health services, breast cancer screenings, colorectal screenings, diabetes care, and ED visits.

7.2 Demonstration Impact on Service Utilization and Costs

Aspects of the STAR+PLUS Texas demonstration such as care management activities, attention to population health management, and care transitions appear to have had some favorable impacts on some measures of service utilization. However, the demonstration also appears to have had some unfavorable results on these measures, including quality of care measures. The demonstration resulted in favorable decreases in monthly SNF use and the annual probability of any long-stay NF use. However, there was also an unfavorable increase in the

monthly probability of ED visit, as well as the number of any preventable ED visits, relative to the comparison group.

The decreases in SNF admissions and long-stay NF use are consistent with the goals of the demonstration, and may reflect efforts to improve coordination of care and access to HCBS services. These decreases come despite NF organizations having faced multiple challenges with integrated services, access to HCBS waiver services, and payments from multiple MMPs, discussed in the First Evaluation Report. Even so, there were numerous challenges such as care plan completion that may have limited any improvement in outpatient management of chronic conditions, which may have contributed to an increase in overall and preventable ED visits, relative to the comparison group.

The demonstration had some unfavorable impacts among beneficiaries with LTSS use, who represent a moderate portion (approximately 14 percent) of all eligible beneficiaries. These included an increase in inpatient admissions, relative to the demonstration effect for those without LTSS use. As described in the First Evaluation Report, access to HCBS services was an ongoing problem for beneficiaries during demonstration years 1 through 3. In addition, the demonstration effect among those with SPMI was also unfavorable in terms of increases in overall and preventable ED visits, relative to the demonstration effect for beneficiaries without SPMI. Beneficiaries with an SPMI represented a substantial proportion of the overall eligible population (42.7 percent), thus the broader operational and administrative challenges in providing integrated medical and behavioral health services may have uniquely impacted beneficiaries with complex medical and behavioral health needs.

Overall, the demonstration did not have any significant cumulative impact on total Medicare Parts A and B costs. The analysis of individual demonstration years also did not find statistically significant results in any of the 3 demonstration years. The cost analyses are based on Medicare Parts A and B costs through FFS expenditures and capitation rates paid to MMP plans and MA plans. Capitation rates are based on the characteristics of the beneficiary and are not necessarily linked to actual service utilization. The analyses do not address what the plans actually spent on the services they provide. Further, the cost analyses do not consider Part D costs or Experience Rebate recoupments.

Our findings indicate significant Medicaid cost savings as a result of the Texas demonstration. The results of the Medicaid cost savings analyses using a DinD regression approach and a Texas-only comparison group indicate a statistically significant decrease of $88.82, PMPM, across the entire demonstration period.

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 Texas officials through the online State Data Reporting System. We will continue to conduct annual virtual site visit calls with the State and demonstration stakeholders, and quarterly calls with State and CMS staff. RTI will review the results of any evaluation activities conducted by CMS or its contractors. We will also review any written reports or materials from the State summarizing State-sponsored evaluations, if applicable. RTI will conduct interviews with beneficiaries to understand their

experiences with the demonstration, and will conduct additional qualitative and quantitative analyses over the course of the demonstration.

As noted previously, the demonstration is expected to be extended through 2023, which will provide further opportunities to evaluate the demonstration's performance. The next report will include a qualitative update on demonstration implementation, and further quantitative analysis of the demonstration's impact on service utilization, quality, and costs.

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References

Austin American-Statesman: Texas Health Agency Cancels Contract Procurements After Problems Identified. https://www.statesman.com/news/20181001/texas-health-agency-cancels-contract-procurements-after-problems-identified. October 2, 2018. As obtained on July 9, 2021.

Bayer, E. J., Holladay, S., Justice, D., et al.: Financial Alignment Initiative Texas Dual Eligible Integrated Care Demonstration Project: First Evaluation Report. Contract No. CMS Contract No. HHSM-500-2014-00037i TO#7. Waltham, MA. RTI International, https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXEvalReportDY1042019.pdf. April 2019. As obtained on July 20, 2021.

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/CoreReportingRequirements_CY2018_10252017.pdf. Effective January 1, 2018; Issued October 25, 2017. As obtained on July 20, 2021. 2017

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements: Texas-Specific Reporting Requirements. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/TXReportingRequirements02282018.pdf. Effective October 1, 2017; issued February 28, 2018. As obtained on July 20, 2021. 2018a

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Plan Enrollment and Disenrollment Guidance. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/MMPEnrollmentGuidanceManual_CY2019_08022018.pdf. Effective January 1, 2019; revised August 2, 2018). As obtained on July 20, 2021. 2018c

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/CoreReportingRequirements_CY2019_11012018.pdf. Effective January 1, 2018; issued November 1, 2018. As obtained on July 20, 2021. 2018d

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements: Texas-Specific Reporting Requirements. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/TXReportingRequirements2019.pdf. Effective October 1, 2018; issued February 28, 2019. As obtained on July 20, 2021). 2019a

Centers for Medicare & Medicaid Services (CMS): Texas Medicare-Medicaid Plan Quality Withhold Analysis Results, Demonstration Year 1 (Calendar Years 2015-2016). https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/QualityWithholdResultsReport_TX_DY1_06192018.pdf. n.d. As obtained on July 15, 2021. n.d.-a

Centers for Medicare & Medicaid Services (CMS): Texas Medicare-Medicaid Plan Quality Withhold Analysis Results, Demonstration Year 2 (Calendar Year 2017). https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/QualityWithholdResultsReportTXDY2.pdf. n.d. As obtained on July 15, 2021. n.d.-b

Centers for Medicare & Medicaid Services (CMS): Texas Medicare-Medicaid Plan Quality Withhold Analysis Results, Demonstration Year 3 (Calendar Year 2018). https://www.cms.gov/files/document/qualitywithholdresultsreporttxdy3.pdf. n.d. As obtained on July 15, 2021. n.d.-c

Centers for Medicare & Medicaid Services (CMS): Texas Medicare-Medicaid Plan Quality Withhold Analysis Results, Demonstration Year 4 (Calendar Year 2019). https://www.cms.gov/files/document/qualitywithholdresultsreporttxdy4.pdf. n.d. As obtained on November 11, 2021. n.d.-d.

Centers for Medicare & Medicaid Services (CMS) and the State of Texas: Memorandum of Understanding (MOU) between the Centers for Medicare & Medicaid Services (CMS) and the State of Texas Regarding a Federal-State Partnership to Test a Capitated Financial Alignment Model for Medicare-Medicaid Enrollees: Texas Dual Eligibles Integrated Care Demonstration Project. Baltimore and Austin: CMS and the State of Texas. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXMOU.pdf. May 23, 2014. As obtained on July 15, 2021. 2014

Centers for Medicare & Medicaid Services and the State of Texas (CMS & HHSC): Contract Between United States Department of Health and Human Services, Centers for Medicare and Medicaid Services, in Partnership with Texas Health and Human Services Commission, and <Entity>. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXContract08012017.pdf. August 1, 2017. As obtained on July 15, 2021.

Centers for Medicare & Medicaid Services and the State of Texas (CMS & HHSC): Contract Between United States Department of Health and Human Services, Centers for Medicare and Medicaid Services, in Partnership with Texas Health and Human Services Commission, and <Entity>. https://www.cms.gov/files/document/txcontractamendment2020.pdf. November 1, 2020. As obtained July 15, 2021.

Degenholtz, H.B., Park, M., Kang, Y., & Nadash, P.: Variations among Medicare Beneficiaries Living in Different Settings: Demographics, Health Status, and Service Use. Research on Aging, 38(5):602–616, 2016.

RTI International: State Data Reporting System (SDRS). 2015-2020.

Texas Health and Human Services Commission (HHSC): Financial Models to Support State Efforts to Coordinate Care for Medicare-Medicaid Enrollees: Demonstration Proposal. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/TXProposal.pdf. 2012. As obtained on July 20. 2021.

Texas Health and Human Services Commission (HHSC): Quarterly Report from the HHS Office of the Ombudsman Managed Care Assistance Team, 1st Quarter FY 2019. July 2019. 2019a

Texas Health and Human Services Commission (HHSC): Medicaid STAR+PLUS Reprocurement Announcement. Website. https://hhs.texas.gov/about-hhs/communications-events/news/2019/10/medicaid-starplus-procurement-announcement. October 29, 2019. As obtained on July 9, 2021. 2019b

Texas Health and Human Services Commission (HHSC): Telemedicine, Telehealth, and Home Telemonitoring Services in Texas Medicaid. https://www.hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2020/sb-789-telemedicine-telehealth-hts-medicaid-dec-2020.pdf. December 2020. As obtained on August 29, 2021.

The Texas Tribune: Texas cancels controversial Medicaid contracts after complaints of subjective scoring. https://www.texastribune.org/2020/03/25/texas-cancels-problem-plagued-medicaid-contracts/. March 25, 2020. As obtained on July 9, 2021.

Toth, M., Palmer, L., Bercaw, L., Voltmer, H., & Karon, S. L. (2021). Trends in the Use of Residential Settings among Older Adults. The Journals of Gerontology: Series B.

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Appendix A

Data Sources

We used the following data sources to prepare this report.

Key informant interviews. The RTI evaluation team conducted telephonic site visits in 2018, 2019, and 2020. The team interviewed the following individuals: State and CMS officials, persons representing the Medicare-Medicaid Plans (MMPs), the Ombudsman for Medicaid managed care programs in Texas, and representatives for beneficiary advocacy organizations.

Surveys. Medicare requires all Medicare Advantage (MA) plans, including Texas MMPs, to conduct an annual assessment of beneficiary experiences using the Medicare Advantage and Prescription Drug Plan Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey instrument. This report includes survey results for a subset of the 2016–2019 survey questions. Findings are available at the MMP level. Some CAHPS items are case mix-adjusted. Case mix refers to the respondent's health status and sociodemographic characteristics, such as age or educational level, that may affect the ratings that the respondent provides. Without an adjustment, differences between entities could be due to case mix differences rather than true differences in quality. The frequency count for some survey questions is suppressed because too few enrollees responded to the question. Comparisons with findings from all Medicare Advantage plans are available for core CAHPS survey questions. We did not include data for the CAHPS measure *"Percentage of beneficiaries reporting that in past 6 months their personal doctors were usually or always informed about care received from specialists"* because of the lack of data. MMPs either had too few beneficiaries who responded to the question to allow reporting, or the score had low statistical reliability.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Texas through the State Data Reporting System (SDRS). These reports include eligibility, enrollment, opt-out, and disenrollment data, and information reported by Texas 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 Texas MMPs and submitted to CMS' implementation contractor, NORC.[41,42] Data reported to NORC include core quality measures that all MMPs are required to report, as well as State-specific measures that Texas MMPs 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 Centers for Medicare & Medicaid Services (CMS) website;[43] and other publicly available materials on the Texas Health and Human Services Commission (HHSC)

[41] Data are reported for 2015–2020.
[42] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements.
[43] https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/FinancialModelstoSupportStatesEffortsinCareCoordination.html

website[44] and the Texas Managed Care Oversight Improvement Initiative website,[45] and the Texas HHS Office of the Ombudsman website.[46]

Conversations with CMS and Texas HHSC officials. To monitor demonstration progress, the RTI evaluation team engages in periodic phone conversations with the Texas HHSC and CMS. These might include discussions about new policy clarifications designed to improve plan performance, quality improvement work group activities, and contract management team actions.

Complaints and appeals data. Complaint (also referred to as grievance) data are from two sources: (1) complaints from beneficiaries reported by Texas MMPs to HHSC, and reported separately to CMS' implementation contractor, NORC[47], through Core Measure 4.2; and (2) complaints received by HHSC or 1-800-Medicare and entered into the CMS electronic Complaint Tracking Module (CTM). The RTI evaluation team also obtains qualitative data on complaints during site visits. Appeals data are generated by MMPs and reported to HHSC and NORC, for Core Measure 4.2, and to the Medicare Independent Review Entity (IRE). This report also includes critical incidents and abuse data reported by Texas MMPs to HHSC and CMS' implementation contractor, NORC.

HEDIS measures. We report on a subset of Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures, a standard measurement set used extensively by managed care plans, that are required of all Medicare Advantage (MA) plans.

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

Medicaid encounter data for beneficiaries enrolled in MMPs are also used to assess select service use, such as personal care and non-emergency medical transportation. The quality and completeness of encounter data varied and one Texas plan was excluded from the analysis.

Cost savings data. Two primary data sources were used to support the savings analyses, capitation payments and fee-for-service (FFS) Medicare claims. Medicare capitation payments to Texas Dual Eligible Integrated Care Demonstration plans during the demonstration period were obtained for all MMP enrollees and for eligible beneficiaries in Medicare Advantage from the

[44] HHSC's website about the Texas Dual Eligible Integrated Care demonstration may be found at https://hhs.texas.gov/services/health/medicaid-chip/programs/dual-eligible-project-mmp. As accessed April 13, 2021.
[45] HHSC's website about its Managed Care Oversight Improvement Initiatives may be found at https://www.hhs.texas.gov/about/process-improvement/improving-services-texans/medicaid-chip-quality-efficiency-improvement. As accessed April 13, 2021.
[46] HHSC's website for the Office of the Ombudsman may be found at https://hhs.texas.gov/about-hhs/your-rights/hhs-office-ombudsman. As accessed April 13, 2021.
[47] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

CMS Medicare Advantage and Part D Inquiry System (MARx) data. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (May 14, 2021). Quality withholds were applied to the capitation payments (quality withholds are not reflected in the MARx data), as well as quality withhold repayments based on data provided by CMS. Capitation payments and FFS Medicare claims were used to calculate expenditures for all comparison group beneficiaries, demonstration group 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.

Medicaid research identifiable files were used to calculate total Medicaid FFS and Medicaid Managed Care payments among demonstration and comparison group eligible beneficiaries. Early years of the predemonstration and demonstration periods used the Medicaid Statistical Information Statistics (MSIS) Medicaid Analytic eXtract (MAX) while later years used the Transformed-Medicaid Statistical Information Statistics (T-MSIS) Analytic Files (TAF). The transition year varied by state with all Medicaid programs fully transitioning to TAF by January 1, 2016.

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Appendix B

Texas Demonstration MMP Performance on Select HEDIS Quality Measures, 2016–2018

Table B-1 provides 2016 through 2018 HEDIS performance data for Texas Dual Eligible Integrated Care MMPs. Using correlation coefficients that were 0.9 and above, or −0.9 and below, we have applied green and red shading to indicate where MMP performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, and red indicates an unfavorable one. We did not perform any testing for statistical significance for differences across years because of the limited data available. For measures without green or red shading, year-over-year MMP performance remained relatively stable between 2016 and 2018.

Amerigroup improved over time on measures for adults' access to preventive/ambulatory health services, adult body mass index (BMI) assessment, colorectal cancer screening, medication review and functional status assessment (both within Care for Older Adults submeasures), and outpatient visits per 1,000 members, but worsened performance over time on measures for disease modifying anti-rheumatic drug therapy in rheumatoid arthritis and initiation of alcohol and other drug (AOD) dependence treatment (within initiation and engagement of AOD dependence treatment).

Cigna improved over time on measures for adult BMI assessment, blood pressure control (standalone measure), colorectal cancer screening, advance care planning, medication review, functional status assessment, and pain assessment (all within Care for Older Adults submeasures), controlling poor HbA1c level (>9.0 percent), receiving eye exams, and blood pressure control (within Comprehensive Diabetes Care submeasures), and plan all-cause readmissions (ages 65+), but worsened performance over time on the measure for receiving HbA1c testing (within Comprehensive Diabetes Care submeasures).

Molina improved over time on measures for follow-up after hospitalization for mental illness (30 days), effective acute phase treatment (within antidepressant medication management), receiving HbA1c testing (within Comprehensive Diabetes Care submeasures), plan all-cause readmissions (ages 18–64 and 65+), and outpatient visits per 1,000 members, but worsened performance over time on measures for adult BMI assessment and initiation of AOD dependence treatment (within initiation and engagement of AOD dependence treatment).

Superior improved over time on measures for adults' access to preventive/ambulatory health services, blood pressure control (standalone measure), effective acute phase treatment (within antidepressant medication management), advanced care planning and medication review (both within Care for Older Adults submeasures), receiving eye exams and blood pressure control (both within Comprehensive Diabetes Care submeasures), and outpatient visits per 1,000 members, but worsened performance over time on measures for functional status assessment and pain assessment (both within Care for Older Adults submeasures).

United improved over time on measures for adult BMI assessment, controlling poor HbA1c level (>9.0 percent), maintaining good HbA1c level (<8.0 percent), and blood pressure control (all within Comprehensive Diabetes Care submeasures), plan all-cause readmissions (ages 65+), and outpatient and emergency department (ED) visits per 1,000 members, but worsened performance over time on measures for follow-up after hospitalization for mental illness (30 days), receiving eye exams (within Comprehensive Diabetes Care submeasures), and initiation of AOD dependence treatment (within initiation and engagement of AOD dependence treatment).

Table B-1
Texas Dual Eligible Integrated Care MMP performance on select HEDIS quality measures for 2016–2018 by MMP

Measure	National MA Plan Mean	Amerigroup			Cigna			Molina			Superior			United		
	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)
Adults' access to preventive/ambulatory health services	95.0	83.3 G	84.9 G	85.5 G	89.7	89.6	91.1	86.0	88.5	87.9	87.8 G	89.5 G	90.7 G	82.9	82.9	84.0
Adult BMI assessment	96.0	69.4 G	82.2 G	93.7 G	88.3 G	95.1 G	96.4 G	94.9 R	93.4 R	92.0 R	93.4	89.2	94.8	75.9 G	80.8 G	92.2 G
Blood pressure control[1]	69.5	N/A	67.9	67.2	45.3 G	75.9 G	79.8 G	49.9	48.4	57.9	52.6 G	55.9 G	64.7 G	37.5	34.1	57.2
Breast cancer screening	72.7	49.0	47.5	49.4	66.2	75.4	74.5	66.7	59.1	59.2	58.8	60.4	59.2	49.2	46.1	46.2
Colorectal cancer screening	70.5	37.0 G	44.3 G	49.2 G	65.5 G	69.6 G	73.5 G	63.4	51.3	54.5	53.9	47.4	57.9	49.2	38.4	47.7
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	77.8	73.6 R	67.1 R	64.7 R	71.4	82.9	N/A	54.1	62.2	60.0	73.6	72.3	74.2	61.9	69.2	N/A
Follow-up after hospitalization for mental illness (30 days)[2]	47.9	52.3	51.6	52.5	N/A	N/A	N/A	54.3 G	62.7 G	65.2 G	57.0	45.2	59.8	81.3 R	50.0 R	47.0 R
Antidepressant medication management																
Effective acute phase treatment[3]	72.1	71.1	72.1	70.0	67.2	61.1	74.0	60.8 G	68.5 G	71.2 G	61.8 G	64.2 G	65.7 G	79.6	65.7	67.5
Effective continuation phase treatment[4]	56.1	52.7	54.0	50.7	45.7	38.9	49.0	42.4	49.1	49.1	46.8	48.3	47.5	70.9	50.0	56.9
Care for older adults																
Advance care planning	N/A	20.8	45.3	47.0	46.7 G	60.6 G	63.8 G	42.2	61.6	48.9	33.3 G	38.2 G	46.5 G	28.2	25.6	39.2
Medication review	N/A	13.9 G	66.9 G	72.3 G	72.0 G	81.3 G	82.5 G	61.2	74.2	63.0	72.8 G	78.8 G	90.8 G	59.9	48.9	61.1
Functional status assessment	N/A	27.7 G	64.2 G	69.3 G	57.4	76.2	79.8	54.3	67.9	61.1	87.6 R	87.4 R	87.4 R	45.5	32.9	44.3
Pain assessment	N/A	29.5	77.1	78.1	68.1	81.5	82.7	66.9	76.4	66.9	89.5 R	88.8 R	88.3 R	61.3	53.3	69.6
Comprehensive diabetes care																
Received Hemoglobin A1c (HbA1c) testing	94.3	85.0	90.5	88.6	95.7 R	95.6 R	95.1 R	88.9 G	90.3 G	91.0 G	89.5	93.2	90.0	88.1	85.9	90.0
Poor control of HbA1c level (>9.0%) (higher is worse)	23.1	56.0	29.0	37.2	41.0 G	24.1 G	22.5 G	47.2	46.5	47.2	43.3	47.9	43.3	45.7 G	39.9 G	33.3 G
Good control of HbA1c level (<8.0%)	65.6	35.4	59.1	53.0	45.8	59.3	59.7	44.6	44.8	43.3	44.3	43.3	46.5	44.3 G	52.3 G	54.7 G

(continued)

Table B-1 (continued)
Texas Dual Eligible Integrated Care MMP performance on select HEDIS quality measures for 2016–2018 by MMP

Measure	National MA Plan Mean	Amerigroup			Cigna			Molina			Superior			United		
	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)	(2016)	(2017)	(2018)
Received eye exam (retinal)	73.7	50.5	58.4	55.7	78.7 G	80.6 G	83.8 G	63.6	64.0	69.6	63.5 G	67.6 G	72.5 G	55.7 R	48.9 R	42.8 R
Received medical attention for nephropathy	95.5	93.3	93.7	90.5	98.9	98.2	98.4	95.6	97.3	93.9	95.4	97.3	96.1	93.9	93.9	94.7
Blood pressure control (<140/90 mm Hg)	69.1	28.9	64.5	56.9	64.2 G	71.0 G	80.0 G	58.5	56.7	57.4	55.7 G	62.5 G	64.0 G	34.6 G	36.3 G	55.5 G
Initiation and engagement of alcohol and other drug (AOD) dependence treatment																
Initiation of AOD treatment[5]	33.6	41.3 R	35.5 R	34.5 R	N/A	14.3	19.3	54.1 R	47.0 R	42.9 R	42.0	38.9	39.5	54.4 R	47.9 R	40.5 R
Engagement of AOD treatment[6]	4.5	6.0	7.4	4.6	N/A	2.9	1.8	6.2	4.8	6.6	4.6	4.1	4.2	10.4	2.9	6.0
Plan all-cause readmissions (Observed-to-expected ratio[7])																
Age 18-64	0.75	0.81	0.92	0.76	0.72	0.75	0.56	0.85 G	0.82 G	0.76 G	0.96	0.90	0.84	0.89	0.96	0.85
Age 65+	0.71	0.79	0.86	0.67	0.90 G	0.80 G	0.55 G	0.81 G	0.68 G	0.64 G	0.85	0.76	0.73	0.93 G	0.91 G	0.75 G
Ambulatory care (per 1,000 members)																
Outpatient visits	9,606.0	7,940.4G	9,079G	9,426.0G	10,501.4	10,185.0	10,732.2	11,443.8G	12,426.5G	12,591.4G	8,863.3G	10,312.7G	11,148.7G	6,487.3G	7,279.9G	7,853.7 G
Emergency department visits (higher is worse)	600.8	696.8	760.9	732.3	444.1	440.5	534.4	652.7	695.1	681.7	766.6	781.6	762.9	772.5 G	734.3 G	661.1 G

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

[1] 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] NCQA implemented a significant specification change with HEDIS 2018 (calendar year 2017), disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2018 to HEDIS 2019 (calendar year 2017 to 2018).

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

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

[5] 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.

[6] 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.

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

(continued)

Table B-1 (continued)
Texas Dual Eligible Integrated Care MMP performance on select HEDIS quality measures for 2016–2018 by MMP

NOTES: Green and red color-coded shading indicates where performance over time for a given measure was steadily improving or worsening; green indicates a favorable trend, where red indicates an unfavorable one. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green or red receive, respectively, a superscript "G" or "R." Values of N/A appearing for plan all-cause readmissions (18–64 and 65+) in TX ER1 have been updated in the current report to provide the actual result. Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.
SOURCE: RTI analysis of 2016 through 2018 HEDIS measures.

Appendix C

Comparison Group Methodology for Texas Demonstration Year 3

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

Results for comparison group selection and assessment analyses are prepared for each demonstration year. The evaluation report for the first demonstration year and 2 prior predemonstration years for the Texas demonstration was publicly released in May 2019. This appendix provides the comparison group results for the third demonstration year (January 1, 2018–December 31, 2018) of the Texas Dual Eligible Integrated Care Demonstration Project and notes any major changes in the results since the previous evaluation report. Results for the second demonstration year are nearly identical to those for the third demonstration year and are omitted to conserve space.

C.1 Demonstration and Comparison Group Characteristics

The Texas demonstration area consists of six counties in five Metropolitan Statistical Areas (MSAs): El Paso; San Antonio-New Braunfels; McAllen-Edinburg-Mission; Dallas-Fort Worth-Arlington; and Houston-The Woodlands-Sugar Land. The comparison area consists of 92 counties in 25 MSAs across six states, plus a single "rest of state" area including rural parts of Georgia. The demonstration includes dually eligible beneficiaries aged 21 and over.

Beneficiaries who are ineligible for the demonstration include those younger than 21, enrolled in the Program of All Inclusive Care for the Elderly (PACE) or CMS Independence at Home, with Medicare as a secondary payor, not enrolled in Medicare Parts A and B, or residing in an intermediate care facility. We assess these exclusion criteria on a quarterly basis for the demonstration and comparison group in the predemonstration period and for the comparison group in the demonstration period. We use finder files provided by the State to identify the eligible population for the demonstration group during the demonstration period, applying the exclusion criteria to the state finder file in the demonstration period to ensure comparability with the comparison group and the demonstration group during the predemonstration period. Additionally, the State excluded beneficiaries receiving services under some 1915(c) waivers. However, we are unable to replicate this same exclusion in the comparison population or during the predemonstration period due to limitations of the Medicaid data and differences across states in 1915(c) waivers. Finally, the Texas demonstration had a demonstration inclusion criterion where if the beneficiary had physical or mental disability and qualified for Supplemental Security Income benefits they were eligible for the demonstration. RTI is exploring the possibility of conducting additional analyses with recently available Medicaid enrollment data to better understand any implications of this inclusion criterion on the composition of the study sample.

MA enrollees are eligible and may opt-in to the Texas demonstration. This report includes the MA population in the cost savings analysis, described in ***Appendix F***. However, due to concerns of the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded the MA population from the service utilization analysis, described in ***Appendix E***. The population analyzed for the service utilization outcomes includes only demonstration eligible full-benefit Medicare and Medicaid beneficiaries enrolled in Medicare FFS or in MMPs. ***Table C-1*** displays the number and percentage of beneficiaries who were in MA during the study period and included in the cost savings analysis but excluded from the service use analysis. The

prevalence of beneficiaries enrolled in MA ranges from 35 to 52 percent in the demonstration group, and 21 to 34 percent in the comparison group across the study period.

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

Group	Predemonstration year 1	Predemonstration year 2	DY 1	DY 2	DY 3
Demonstration					
Initial count of beneficiaries	187,008	189,208	189,456	174,602	173,551
Count of beneficiaries with Medicare Advantage	65,935	75,770	98,984	75,668	82,660
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	35%	40%	52%	43%	48%
Comparison					
Initial count of beneficiaries	400,604	406,796	459,320	421,619	421,161
Count of beneficiaries with Medicare Advantage	84,546	90,919	120,389	124,431	142,333
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	21%	22%	26%	30%	34%

DY = demonstration year.

Further analytic exclusions were performed such as: (1) removing beneficiaries with missing geographic information, (2) removing beneficiaries with zero months of eligibility during each analytic period, (3) removing beneficiaries who moved between the demonstration area and the comparison area any time during the entire study period, (4) removing beneficiaries with missing Hierarchical Condition Category (HCC) risk scores, and (5) removing beneficiaries who died before the beginning of each analytic period. After applying these exclusions, the number of demonstration group beneficiaries remained consistent over the predemonstration period, with 181,550 and 184,207 beneficiaries in predemonstration year 1 and predemonstration year 2, respectively. The first demonstration year has substantially more beneficiaries, with 185,605, than demonstration years 2 or 3 (170,792 and 169,825, respectively). This is largely because the first demonstration year was 10 months longer than the second and third demonstration years and more beneficiaries gain eligibility each month. In the comparison group, the number of beneficiaries is consistent in the 2 predemonstration years, with 331,491 in predemonstration year 1 and 338,422 in predemonstration year 2. In demonstration year 1, the number of beneficiaries increases to 382,625, again largely due to the longer timeframe, before falling to 348,353 in demonstration year 2 and 348,379 in demonstration year 3.

C.2 Propensity Score Estimates

RTI's methodology uses propensity scores to examine initial differences between the demonstration and comparison groups in each analysis period. Weights are calculated based on these scores and applied to the data to improve comparability between the two groups, which is evaluated in terms of individual beneficiary characteristics and the overall distributions of propensity scores.

A propensity score (PS) is the predicted probability that a beneficiary is a member of the demonstration group conditional on a set of observed variables. Our PS models include a combination of beneficiary-level and region-level characteristics measured at the ZIP code (ZIP Code Tabulation Area) level. Compared to the analysis for the previous evaluation report, an additional explanatory variable was added to the PS model that measures the share of months during the year for which a beneficiary was enrolled in an MA plan.

The logistic regression coefficients and z-values for the covariates included in the propensity model for Texas demonstration year 3 are shown in ***Table C-2***. Demonstration eligible beneficiaries tended to be older, were more likely to be Hispanic, were less likely to have disability as their original reason for entitlement, had a larger share of months of MA enrollment, and were less likely to be participating in other Medicare shared savings programs than beneficiaries in the comparison group. In addition, there were ZIP code-level differences associated with rates of marriage, households with members older than 60 years, households with children, adults with a college education, as well as differences associated with distances to the nearest hospital and the nearest nursing facility. The logistic regression findings are very similar to those of prior demonstration years, and the magnitude of the group differences for all variables prior to PS weighting may also be seen 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 propensity weighting. Estimated scores covered the entire probability range in both groups. The unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0.05 to 0.20. Inverse Probability of Treatment Weighting pulls the distribution of weighted comparison group propensity scores (dotted line) very close to that of the demonstration group (solid line).

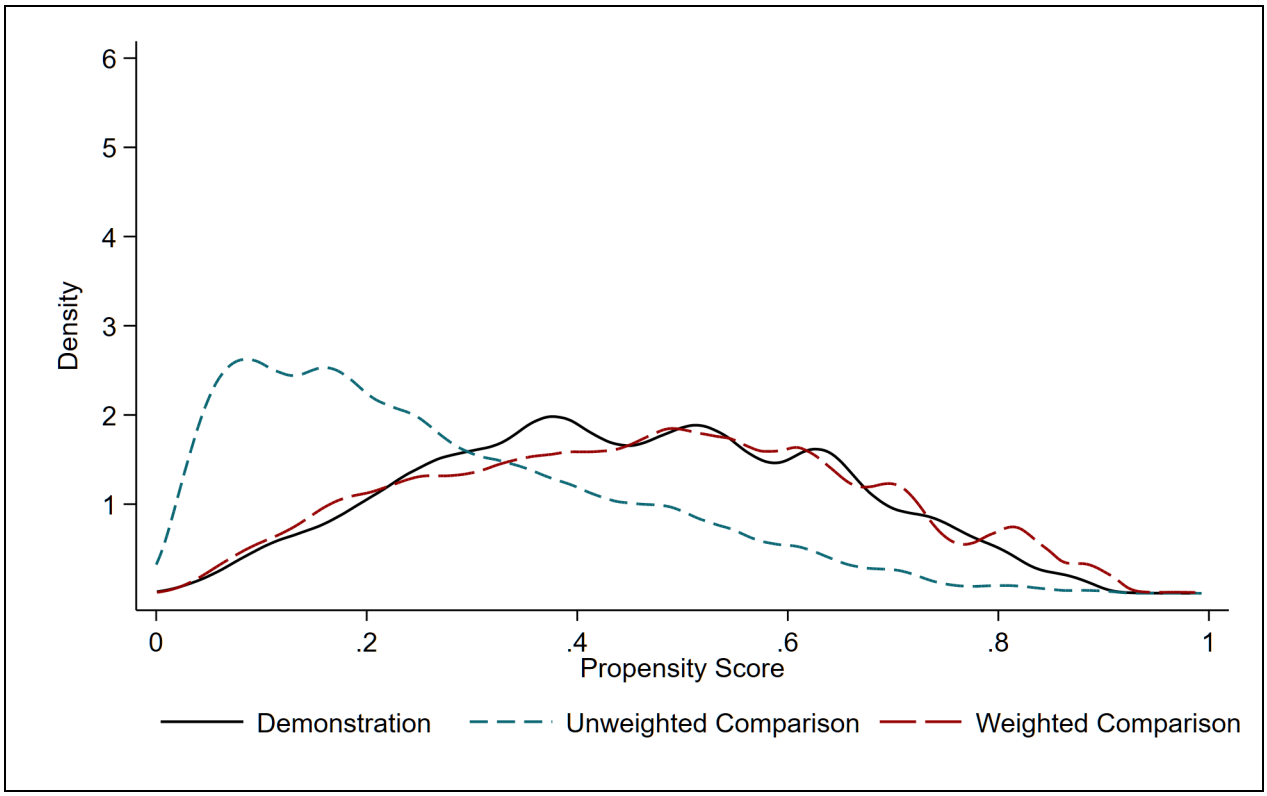
Any beneficiaries who have estimated propensity scores below the smallest estimated value in the demonstration group are removed from the comparison group. We removed three beneficiaries from the comparison group for this reason in demonstration year 3.

Table C-2
Logistic regression estimates for Texas propensity score models in demonstration year 3, January 1, 2018–December 31, 2018

Characteristic	Demonstration Year 3		
	Coef.	Standard error	z-score
Age (years)	0.003	0.000	9.46
Died during year (0/1)	−0.175	0.015	−11.92
Female (0/1)	0.061	0.007	8.78
Black (0/1)	0.185	0.009	20.46
Hispanic (0/1)	0.509	0.009	57.31
Disability as original reason for entitlement (0/1)	−0.401	0.010	−40.39
ESRD (0/1)	0.313	0.019	16.95
Share mos. eligible during year	−0.021	0.013	−1.59
Share mos. Medicare Advantage plan enrollment during year	0.086	0.008	11.33
HCC risk score	0.079	0.003	22.93
Other MDM participation (0/1)	−0.967	0.010	−95.87
% of pop. living in married household	0.003	0.000	6.23
% of households w/member >= 60 yrs.	−0.044	0.001	−88.51
% of households w/member < 18 yrs.	0.047	0.001	101.81
% of adults with college education	−0.031	0.000	−82.51
Distance to nearest hospital (mi.)	−0.021	0.001	−15.52
Distance to nearest nursing facility (mi.)	−0.095	0.002	−48.93
Intercept	−0.085	0.039	−2.17

ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MA = Medicare Advantage; MDM = Master Data Management.

Figure C-1
Distribution of beneficiary-level propensity scores in the Texas demonstration and comparison groups, weighted and unweighted, January 1, 2018–December 31, 2018



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 been developed such that groups are considered comparable if the standardized covariate difference is less than 0.10 standard deviations.

Table C-3
Texas dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 3: January 1, 2018–December 31, 2018

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age (years)	69.476	66.908	69.604	0.155	−0.008
Died during year (0/1)	0.063	0.073	0.060	−0.040	0.011
Female (0/1)	0.629	0.621	0.629	0.018	0.002
Black (0/1)	0.218	0.182	0.225	0.090	−0.017
Hispanic (0/1)	0.239	0.121	0.261	0.310	−0.051
Disability as original reason for entitlement (0/1)	0.318	0.431	0.310	−0.234	0.018
ESRD (0/1)	0.038	0.028	0.040	0.058	−0.010
Share mos. eligible during year	0.858	0.849	0.863	0.035	−0.016
Share mos. Medicare Advantage plan enrolled during year	0.406	0.300	0.422	0.233	−0.036
HCC score	1.363	1.298	1.359	0.066	0.004
Other MDM participation (0/1)	0.105	0.246	0.106	−0.379	−0.005
% of pop. living in married household	62.532	67.952	61.018	−0.434	0.122
% of households w/member >= 60	33.771	37.619	33.437	−0.472	0.045
% of households w/member < 18	40.073	34.629	40.243	0.607	−0.018
% of adults w/ college education	19.164	26.317	18.996	−0.488	0.013
Distance to nearest hospital (mi.)	4.605	5.637	4.270	−0.256	0.103
Distance to nearest nursing facility (mi.)	3.300	4.081	3.215	−0.270	0.036

ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MA = Medicare Advantage; MDM = Master Data Management; 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—age, share of Hispanic beneficiaries, share of disabled beneficiaries, share of months of MA enrollment, share of beneficiaries in other demonstrations, percent of population living in married households, percent of households with member over age 60, percent of households with member under 18, percent of people with a college degree, and distances to the nearest hospital and nursing facility—had unweighted standardized differences with magnitudes larger than 0.10.

The results of PS weighting for Texas demonstration year 3 are shown in the far-right column (weighted standardized differences) in ***Table C-2***. PS weighting reduced the magnitude

of standardized differences of all covariates in our model except for two (percent of population living in married households and distance to the nearest hospital) to below the threshold value of 0.10. These weights are used in the impact analyses on cost savings among all eligible beneficiaries.

C.5 Enrollee Results

We also applied our weighting methodology to the demonstration enrollee population (approximately 31 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 3-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 3-year demonstration period and the 2-year predemonstration period.

These weights are used in the impact analyses on Medicare cost savings among the demonstration enrollee population, and 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 predemonstration and demonstration year. After weighting, the standardized differences of all covariates were reduced to less than 0.10 in absolute value for demonstration year 3.

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 an MA plan. Due to concerns of the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded the MA population from the service utilization analysis. The second difference is the exclusion of beneficiaries ever enrolled in an MMP for which complete or valid encounter data is not available.

These exclusions reduced the number of beneficiaries by roughly 150,000 in the demonstration group and by roughly 200,000 in the comparison group. The resulting demonstration group sample ranged between 50,013 and 71,386 beneficiaries each year; the comparison group sample ranged between 195,253 and 221,158 beneficiaries each year.

Despite difference in sample sizes, the results of the weighting analysis were similar to those for demonstration eligible beneficiaries and for demonstration enrollees. While the unweighted values of several covariates differed substantially between the demonstration and comparison group in each predemonstration and demonstration year, the standardized differences of all covariates in demonstration year 3 were reduced to less than 0.10 in absolute value after score weighting.

C.7 Weights for Medicaid Cost Analyses

A fourth set of weights was produced specifically for the analyses of Medicaid costs, with one main change to the methodology used to produce weights for all eligible beneficiaries.

Because predemonstration trends in the total cost of care between the Texas demonstration group and the Medicare cost savings comparison group were not parallel, due primarily to large shifts in the Texas Medicaid program during the study period, RTI excluded the beneficiaries in all States except Texas from the comparison group. All covariates used in the calculation of weights in the Medicare cost analysis were used in the calculation of weights for the Medicaid cost analysis.

Although the unweighted values of several covariates differed substantially between the demonstration and comparison group in each predemonstration and demonstration year, the standardized differences of all covariates were reduced to less than 0.10 in absolute value after weighting, with the single exception of distance to the nearest nursing home in demonstration year 3.

C.8 Summary

The Texas demonstration and comparison groups were initially distinguished by differences in five person-level covariates as well as six zip code-level variables. PS weighting successfully reduced all but two covariate discrepancies—percent of the population in married households and distance to the nearest hospital—below the generally-accepted threshold for standardized differences. As a result, the weighted Texas groups are adequately balanced with respect to 15 of the 17 variables we considered 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 uses an intent-to-treat (ITT) approach for the quantitative analyses conducted for the evaluation, comparing the eligible population under each State demonstration with a similar population that is not affected by the demonstration (i.e., a comparison group). We use a quasi-experimental difference-in-differences (DinD) regression analysis with inverse propensity weighting to estimate the impact of the demonstration on the change in the probability or frequency of service utilization outcomes, relative to the comparison group.

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

D.1.2 Sample Selection

The study population includes all full-benefit dually eligible beneficiaries residing in the demonstration and comparison areas who meet the demonstration eligibility criteria. For details on applying the demonstration eligibility criteria and the comparison group identification strategy, see ***Appendix C***.

MA enrollees are eligible and may opt-in to the Texas demonstration. This report includes the MA population in the cost savings analysis, described in ***Appendix F***. However, due to concerns on the completeness and accuracy of MA encounter data for years prior to 2016, RTI excluded demonstration eligible beneficiaries with any MA enrollment from the service utilization analysis. Therefore, the service utilization analysis includes only beneficiaries enrolled in Medicare FFS or in an MMP throughout the study period. The prevalence of beneficiaries with any month of MA during a year, prior to exclusion, ranges from 35 to 48 percent in the demonstration group, and 21 to 34 percent in the comparison group during the predemonstration and demonstration periods (see ***Appendix C, Table C-1***).

D.1.3 Data

Evaluation report analyses used data from several sources. First, the State provided quarterly finder files containing identifying information on all demonstration eligible

beneficiaries in the demonstration period. Second, RTI obtained administrative data on beneficiary demographic, enrollment, and service use characteristics from CMS data systems for both demonstration and comparison group members. Third, these administrative data were merged with Medicare claims data on utilization and costs of Medicare services, MMP Medicare and Medicaid encounter data, as well as the Minimum Data Set (MDS).

D.1.4 Populations and Services Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as the following special populations: those receiving any LTSS; those with any behavioral health service use in the last 2 years for an SPMI; demonstration enrollees; and race/ethnicity.

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

The analyses were conducted for each year in the 2-year predemonstration period (March 1, 2013, to February 28, 2015) and for the 3 demonstration years (March 1, 2015, to December 31, 2018) for both the demonstration and comparison groups in each of the five analytic periods.

Table D-1 presents descriptive statistics on the independent variables used in multivariate DinD regressions for impact analyses. Independent variables include demographic and health characteristics and market- and area-level characteristics. This section includes descriptive results presented for six groups: all demonstration eligible beneficiaries in the FAI State, its comparison group, all MMP enrollees, all non–MMP enrollees, demonstration eligible beneficiaries with any LTSS use, and demonstration eligible beneficiaries with an SPMI.

The most prevalent age group among the enrollees in the demonstration was age 65 to 74, with 35.8 percent; otherwise 75 and older was the most prevalent age group, ranging from 39.5 to 55.4 percent. Within each group, most beneficiaries were White (41.7 to 53.2 percent). African American (19.5 to 22.1 percent) and Hispanic (18.1 to 23.6 percent) beneficiaries were equally represented across all groups.

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

Characteristics	Demonstration group	Comparison group	Demonstration group, enrollees	Demonstration group, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Weighted number of eligible beneficiaries	50,683	195,594	18,143	32,540	7,298	21,627
Demographic characteristics						
Age						
21 to 64	27.8	27.8	31.6	25.6	23.4	34.5
65 to 74	32.8	31.9	35.8	31.1	21.2	28.9
75 and older	39.5	40.2	32.5	43.3	55.4	36.6
Female						
No	37.6	37.3	41.8	35.2	32.9	33.7
Yes	62.4	62.7	58.2	64.8	67.1	66.3
Race/ethnicity						
White	42.0	44.5	41.7	42.2	53.2	49.3
African American	20.1	20.4	19.5	20.4	21.3	22.1
Hispanic	21.2	23.6	23.6	19.9	18.1	18.7
Asian	8.4	5.1	5.1	10.2	5.1	3.8
Other	5.5	3.8	6.8	4.7	1.9	4.4
Disability as reason for original Medicare entitlement						
No	71.1	72.0	67.1	73.3	66.4	62.3
Yes	28.9	28.0	32.9	26.7	33.6	37.7
ESRD status						
No	93.0	92.6	95.4	91.7	92.9	92.3
Yes	7.0	7.4	4.6	8.3	7.1	7.7

(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, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Participating in Shared Savings Program						
No	77.1	76.4	97.9	65.4	74.6	76.8
Yes	22.9	23.6	2.1	34.6	25.4	23.2
HCC score	1.4	1.4	1.2	1.5	2.2	1.6
Market characteristics						
Medicare spending per dual, ages 19+ ($)	21,696.4	19,132.6	21,581.2	21,760.6	21,697.2	21,653.3
MA penetration rate	0.3	0.2	0.3	0.3	0.3	0.3
Medicaid-to-Medicare fee index (FFS)	0.6	0.6	0.6	0.6	0.6	0.6
Medicaid spending per dual, ages 19+ ($)	11,941.6	16,847.5	11,841.3	11,997.6	12,162.0	12,086.6
Fraction of dually elig. beneficiaries using NF, ages 65+	0.9	0.8	0.9	0.9	0.9	0.9
Fraction of dually elig. beneficiaries using HCBS, ages 65+	0.0	0.1	0.0	0.0	0.0	0.0
Fraction of dual elig. beneficiaries using personal care, ages 65+	0.0	0.0	0.0	0.0	0.0	0.0
Fraction of dual elig, beneficiaries with Medicaid managed care, ages 19+	0.5	0.4	0.5	0.5	0.5	0.5
Population per square mile, all ages	1,852.0	769.0	1,812.9	1,873.8	1,835.0	1,848.7
Patient care physicians per 1,000 population	0.6	0.7	0.6	0.6	0.6	0.6

(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, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Area characteristics						
% of pop. living in married households	63.8	62.7	63.6	63.9	64.0	63.6
% of adults with college education	20.5	20.0	20.0	20.7	21.1	20.5
% of adults with self-care limitations	3.9	3.5	3.8	3.9	4.0	3.9
% of adults unemployed	6.6	7.2	6.7	6.6	6.5	6.6
% of household with individuals younger than 18	40.6	41.5	40.5	40.6	40.2	40.2
% of household with individuals older than 60	33.3	32.7	33.4	33.2	33.4	33.4
Distance to nearest hospital	4.6	4.5	4.7	4.6	4.7	4.6
Distance to nearest nursing facility	3.4	3.5	3.4	3.4	3.5	3.4

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

Across all groups, most beneficiaries were female (58.2 to 67.1 percent), did not have disability as the primary reason for Medicare entitlement (62.3 to 73.3 percent), did not have end-stage renal disease (91.7 to 95.4 percent), and all resided in a metropolitan area.

The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas beneficiaries with scores of 2 are predicted to have twice the average annual cost. HCC scores ranged between 1.2 and 1.6 among all groups except LTSS users in the demonstration group, for which the average HCC score was 2.2.

There were limited differences in area- and market-level characteristics. Those who were in the comparison group resided in counties with higher Medicaid spending per dually eligible beneficiary ($16,848 versus $11,942 in the demonstration group) and lower population density (769 people per sq. mi. vs 1,852 people per sq. mi. in the demonstration group). Other area- and market-level characteristics were comparable.

D.1.5 Descriptive and Regression Outcomes

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

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

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

D.1.6 Nursing Facility-Related Measures

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

- Nursing facility admission rate
- Percentage of long-stay NF users
- Functional status of new long-stay NF residents
- Percent of new long-stay NF residents with severe cognitive impairment

- Percent of new long-stay NF residents with a low level of care need.

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

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

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

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

Outcome measure	Definition	Detailed specifications
Monthly 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.	• The following were identified using the last four digits of provider number: – inpatient rehabilitation facilities = 3025–3099 OR the 3rd position of provider number equals 'R' or 'T' – long-term care hospitalizations = 2000–2299 – inpatient hospitalizations = 0001–0979 OR 1300–1399; observational stays are excluded (revenue center code = 0760, 0762 AND HCPCS = G0378, G0379) • Created a 0–1 indicator for the presence of at least one admission in the month.
Monthly ED use	The monthly probability of having any ED visit that occurred during the month that did not result in an inpatient admission.	• Identified any claim with a revenue center code = 0450, 0451, 0452, 0456, 0459, or 0981 AND not followed by an inpatient admission. • Created a 0–1 indicator for the presence of at least one ED claim in the month.

(continued)

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

Outcome measure	Definition	Detailed specifications
Monthly physician visits	The count of any 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.	• Identified physician office visits on either any physician claim line, federally qualified health center claim line, or rural health center claim line: – Office or Other Outpatient = 99201–99205 or 99211–99215 – Nursing Facility Services = 99304–99310, 99315, 99316, or 99318 – Domiciliary, Rest Home, or Custodial Care Services = 99324–99328, 99334–99337 or 99339-99340 – Home Services = 99341-99345 or 99347–99350 – Initial Medicare Visit = G0402 – Annual Wellness Visit = G0438, G0439 • Calculated the total number of physician office visits that occurred in the month.
Monthly SNF admissions	The monthly probability of having any SNF admission within the month.	• Identified any SNF claims with a clam type code = 4018, 4021, or 4028. • Created a 0-1 indicator for the presence of at least one *admission* in the month using CLM_ACTV_CARE_FROM_DT.
Any long-stay NF use	The annual probability of residing in an NF for 101 days or more during the year.	• Long-stay use is defined as a stay in an NF for 101 days or more as of a beneficiary's last quarter of demonstration eligibility and is derived from the Minimum Data Set (MDS).

(continued)

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

Outcome measure	Definition	Detailed specifications
30-day all-cause risk-standardized readmission	The rate of risk-standardized readmission, defined as the percentage of enrollees who were readmitted within 30 days following a hospital discharge, and the number of risk-standardized readmissions that occur during the year.	For both the numerator and denominator, identified all acute inpatient stays with a discharge date during the measurement period. Beneficiaries are included only if eligible during the month(s) of admission and discharge and during the 30-day follow-up period. $\frac{\left(\frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}} * C\right)}{Prob_g} * 100$ Numerator: • C = the national average of 30-day readmission rate, 0.238. • x_{ig} = the total number of readmissions for individual *i* in group *g*. • n_{ig} = the total number of hospital admissions for individual i in group g. Denominator: $Prob_g$ = the annual average adjusted probability of readmission for individuals in group *g*. Multiply by 100 to get the final measure score.
Annual count of 30-day all-cause readmissions	The annual count of the number of readmissions per beneficiary period.	Among beneficiaries with any index inpatient admission, defined above, a readmission is defined as the having any inpatient admission within 30-days of the index discharge date
Monthly preventable ED visits	A continuous variable of weighted ED visits that occur during the month.	Numerator: Sum of the relative percentage of ED visits per diagnosis (see 1–4 below) for conditions that are either preventable/avoidable or treatable in a primary care setting.[1] The algorithm uses four categories for ED utilization, 1–3 are included in the numerator for this measure, and 4 is excluded: (1) Non-emergent (2) Emergent/primary care treatable (3) Emergent/ED care needed – preventable/avoidable (4) – *Excluded* – Emergent/ED care needed – not preventable/avoidable Denominator: All demonstration eligible dually eligible beneficiaries.

(continued)

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

Outcome measure	Definition	Detailed specifications
30-day follow-up after hospitalization for mental illness (NQF #576)	The monthly probability of any follow-up visits within 30-days post-hospitalization for a mental illness.	Numerator: Outpatient or carrier visit with a mental health provider within 30 days from the inpatient discharge. One of the following must be met to be included: • Visit with a mental health practitioner AND SPMI diagnosis • Visit to a behavioral health care facility • Visit to a non-behavioral health care facility with a diagnosis of mental illness Denominator: Discharges for an acute inpatient setting (including acute-care psychiatric facilities) for treatment of SPMI AND no readmission within 30 days. Beneficiaries are included only if eligible during both the month of the discharge and the 30-day follow-up period.
ACSC admissions—overall composite (AHRQ PQI #90)	The monthly probability of any acute discharge that meet the AHRQ PQI #90 (Prevention Quality Overall Composite) criteria within the month.	Numerator: Total number of discharges that meet the inclusion and exclusion criteria for 12 PQIs for ambulatory care sensitive conditions, including diabetes—short-term complications (PQI #1); diabetes—long-term complications (PQI #3); COPD or asthma (PQI #5); hypertension (PQI #7); heart failure (PQI #8); dehydration (PQI #10); bacterial pneumonia (PQI #11); UTI (PQI #12); angina without procedure (PQI #13); uncontrolled diabetes (PQI #14); asthma in younger adults (PQI #15); lower-extremity amputations among diabetics (PQI #16) Denominator: All demonstration eligible beneficiaries.

(continued)

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

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

ACSC = ambulatory care sensitive condition; AHRQ = Agency for Healthcare Research and Quality; ED = emergency department; E&M = evaluation and management; NF = nursing facility; PQI = Prevention Quality Indicator; SNF = skilled nursing facility; SPMI = serious and persistent mental illness.
NOTE: Definitions derived from the Wagner School of Public Service, available at https://wagner.nyu.edu/faculty/billings/nyued-background.

D.1.7 Descriptive Statistics and Regression Methodology for Determining Demonstration Impact

Descriptive statistics. For any health care service type, we calculate average monthly utilization per 1,000 eligible months, the average monthly utilization per 1,000 user months (i.e., a user month is month in which there was any use of the service), and the average monthly percentage with any use of the service. Because full-benefit dual eligibility status for the demonstration can vary by month over time for any individual, the analytic observations are at the monthly level. We calculate monthly averages by predemonstration and demonstration year, which account for the variation in demonstration eligibility that any one beneficiary may have.

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

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

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

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

Demonstration group	Average adjusted probability of readmission
Predemonstration year 1	
Texas	0.2306
Comparison	0.2137
Predemonstration year 2	
Texas	0.2298
Comparison	0.2134
Demonstration year 1	
Texas	0.2247
Comparison	0.2131
Demonstration year 2	
Texas	0.2134
Comparison	0.2045
Demonstration year 3	
Texas	0.2136
Comparison	0.2028

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

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

where *PostYear* is an indicator of whether the observation is from the pre- or demonstration 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, we also produce an annual effects model to estimate the demonstration impact per year:

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

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

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

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

Impact estimates across the entire demonstration period are determined using the DinD methodology and presented in figures for all demonstration eligible beneficiaries. We present a table displaying the cumulative estimate along with the adjusted means for each group and time period for the eligible population. We also display figures showing the annual effects of the

demonstration among the overall eligible population. In each figure, the point estimate is displayed for each measure, as well as the 95 percent confidence interval. If the confidence interval includes the value of zero, it is not statistically significant at that confidence level.

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

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

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

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

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

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

Table D-4
Logistic regression results on monthly inpatient admissions
(n = 15,043,232 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Post period	−0.1373	0.0129	−10.62	<0.001
Demonstration group	−0.0668	0.0241	−2.77	0.006
Interaction of post period x demonstration group	−0.0132	0.0321	−0.41	0.682
Age (continuous)	0.0059	0.0009	6.94	<0.001
Female	−0.0119	0.0107	−1.11	0.267
Black	0.0742	0.0178	4.16	<0.001
Hispanic	−0.1286	0.0249	−5.17	<0.001
Asian	−0.4181	0.0205	−20.45	<0.001
Other race/ethnicity	−0.2169	0.0371	−5.85	<0.001
Disability as reason for Medicare entitlement	0.0972	0.0234	4.15	<0.001
End-stage renal disease	1.6117	0.0193	83.31	<0.001
Participation in other Shared Savings Program	0.0820	0.0311	2.63	0.009
Hierarchical Condition Category score	0.3333	0.0056	59.99	<0.001
Medicare spending per dually eligible beneficiary, ages 19+	0.0000	0.0000	5.51	<0.001
Medicaid spending per dually eligible beneficiary, ages 19+	0.0000	0.0000	−1.00	0.318
Percent of population married	−0.0011	0.0006	−1.81	0.070
Medicare Advantage penetration rate	−0.4041	0.1403	−2.88	0.004
Medicaid-Medicare fee index (FFS)	0.5327	0.1267	4.20	<0.001
Fraction of dually eligible beneficiaries using nursing facility, ages 65+	−0.0585	0.0908	−0.64	0.519
Fraction of dually eligible beneficiaries using HCBS, ages 65+	0.7034	0.1320	5.33	<0.001
Fraction of dually eligible beneficiaries using personal care, ages 65+	−2.8347	1.0140	−2.80	0.005
Fraction of dually eligible beneficiaries with Medicaid Managed care, ages 19+	0.2408	0.0421	5.72	<0.001
Population per square mile, all ages	0.0000	0.0000	−1.61	0.108
Percent of adults with college education	−0.0027	0.0006	−4.80	<0.001
Percent of adults who are unemployed	−0.0014	0.0016	−0.88	0.379
Percent of adults with self-care limitation	−0.0001	0.0028	−0.04	0.967
Distance to nearest hospital	0.0001	0.0021	0.06	0.955
Distance to nearest nursing facility	−0.0013	0.0035	−0.38	0.704
Percent of households with individuals younger than 18	−0.0025	0.0007	−3.75	0.000
Percent of households with individuals older than 60	−0.0017	0.0007	−2.30	0.022
Intercept	−4.7416	0.1966	−24.11	<0.001

HCBS = home and community-based services.

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Appendix E

Descriptive and Special Population Supplemental Analysis

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

Table E-1
Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Probability of inpatient admission					
Cumulative	–0.0005	NS	0.6834	–0.0030, 0.0020	–0.0026, 0.0016
Demonstration year 1	–0.0015	NS	0.1330	–0.0034, 0.0004	–0.0031, 0.0001
Demonstration year 2	0.0003	NS	0.8811	–0.0031, 0.0036	–0.0025, 0.0030
Demonstration year 3	0.0004	NS	0.7992	–0.0027, 0.0035	–0.0022, 0.0030
Count of all-cause 30-day readmissions					
Cumulative	0.0040	NS	0.4018	–0.0053, 0.0132	–0.0038, 0.0117
Demonstration year 1	–0.0000	NS	0.9962	–0.0142, 0.0141	–0.0119, 0.0118
Demonstration year 2	0.0074	NS	0.2848	–0.0062, 0.0210	–0.0040, 0.0188
Demonstration year 3	0.0052	NS	0.4565	–0.0084, 0.0187	–0.0062, 0.0165
Probability of ACSC admission, overall					
Cumulative	–0.0001	NS	0.8141	–0.0008, 0.0007	–0.0007, 0.0005
Demonstration year 1	–0.0003	NS	0.2877	–0.0009, 0.0003	–0.0008, 0.0002
Demonstration year 2	0.0000	NS	0.9591	–0.0012, 0.0012	–0.0010, 0.0010
Demonstration year 3	0.0002	NS	0.5579	–0.0006, 0.0011	–0.0004, 0.0009
Probability of ACSC admission, chronic					
Cumulative	0.0001	NS	0.7946	–0.0004, 0.0005	–0.0003, 0.0005
Demonstration year 1	–0.0001	NS	0.4801	–0.0005, 0.0002	–0.0004, 0.0002
Demonstration year 2	0.0001	NS	0.8153	–0.0008, 0.0010	–0.0006, 0.0008
Demonstration year 3	0.0004	NS	0.1688	–0.0002, 0.0010	–0.0001, 0.0009
Probability of ED visit					
Cumulative	0.0028	5.2	0.0033	0.0009, 0.0047	0.0012, 0.0044
Demonstration year 1	0.0007	NS	0.4388	–0.0011, 0.0024	–0.0008, 0.0021
Demonstration year 2	0.0047	8.5	<0.0001	0.0026, 0.0067	0.0030, 0.0064
Demonstration year 3	0.0049	9.1	0.0014	0.0019, 0.0079	0.0024, 0.0075

(continued)

Table E-1 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures for eligible beneficiaries in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Number of preventable ED visits					
Cumulative	0.0022	7.2	0.0013	0.0009, 0.0036	0.0011, 0.0034
Demonstration year 1	0.0010	NS	0.1177	–0.0003, 0.0023	–0.0001, 0.0021
Demonstration year 2	0.0028	8.9	0.0006	0.0012, 0.0043	0.0014, 0.0041
Demonstration year 3	0.0039	12.4	0.0002	0.0019, 0.0059	0.0022, 0.0056
Probability of SNF admission					
Cumulative	–0.0016	–11.5	0.0102	–0.0028, –0.0004	–0.0026, –0.0006
Demonstration year 1	–0.0016	–10.9	0.0206	–0.0030, –0.0002	–0.0028, –0.0005
Demonstration year 2	–0.0016	–11.6	0.0174	–0.0030, –0.0003	–0.0027, –0.0005
Demonstration year 3	–0.0016	–12.7	0.0094	–0.0028, –0.0004	–0.0026, –0.0006
Probability of any long-stay NF use					
Cumulative	–0.0102	–5.7	0.0259	–0.0192, –0.0012	–0.0177, –0.0027
Demonstration year 1	–0.0042	NS	0.4508	–0.0153, 0.0068	–0.0135, 0.0050
Demonstration year 2	–0.0136	–7.7	0.0062	–0.0234, –0.0039	–0.0218, –0.0054
Demonstration year 3	–0.0132	–8.0	0.0095	–0.0232, –0.0032	–0.0216, –0.0048
Probability of 30-day follow-up after mental health discharge					
Cumulative	0.0137	NS	0.4588	–0.0226, 0.0500	–0.0167, 0.0442
Demonstration year 1	0.0129	NS	0.4471	–0.0203, 0.0461	–0.0150, 0.0408
Demonstration year 2	0.0029	NS	0.9060	–0.0453, 0.0512	–0.0376, 0.0434
Demonstration year 3	0.0262	NS	0.1895	–0.0129, 0.0654	–0.0066, 0.0591
Count of physician E&M visits					
Cumulative	–0.0067	NS	0.7976	–0.0575, 0.0442	–0.0493, 0.0360
Demonstration year 1	–0.0482	NS	0.0619	–0.0988, 0.0024	–0.0907, –0.0057
Demonstration year 2	0.0766	NS	0.0532	–0.0010, 0.1542	0.0114, 0.1417
Demonstration year 3	–0.0163	NS	0.4488	–0.0586, 0.0259	–0.0518, 0.0191

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

Table E-2
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures								
Probability of inpatient admission	Cumulative	LTSS users	0.0035	NS	0.0542	–0.0001, 0.0071	0.0005, 0.0065	0.0040***
		Non-LTSS users	–0.0005	NS	0.5700	–0.0022, 0.0012	–0.0019, 0.0009	
	Demonstration year 1	LTSS users	0.0017	NS	0.2987	–0.0015, 0.0048	–0.0010, 0.0043	0.0030**
		Non-LTSS users	–0.0013	NS	0.0568	–0.0027, 0.0000	–0.0025, –0.0002	
	Demonstration year 2	LTSS users	0.0055	NS	0.0625	–0.0003, 0.0113	0.0006, 0.0104	0.0057*
		Non-LTSS users	–0.0002	NS	0.8837	–0.0023, 0.0020	–0.0020, 0.0016	
	Demonstration year 3	LTSS users	0.0068	13.1	0.0013	0.0026, 0.0109	0.0033, 0.0103	0.0063***
		Non-LTSS users	0.0005	NS	0.6578	–0.0018, 0.0028	–0.0014, 0.0024	
Probability of ED visit	Cumulative	LTSS users	0.0048	9.1	0.0189	0.0008, 0.0089	0.0015, 0.0082	0.0032
		Non-LTSS users	0.0017	NS	0.2155	–0.0010, 0.0043	–0.0005, 0.0039	
	Demonstration year 1	LTSS users	0.0035	NS	0.0694	–0.0003, 0.0072	0.0003, 0.0066	0.0043**
		Non-LTSS users	–0.0009	NS	0.4706	–0.0032, 0.0015	–0.0028, 0.0011	
	Demonstration year 2	LTSS users	0.0072	13.7	0.0003	0.0033, 0.0110	0.0039, 0.0104	0.0040*
		Non-LTSS users	0.0032	6.3	0.0252	0.0004, 0.0060	0.0009, 0.0056	
	Demonstration year 3	LTSS users	0.0062	NS	0.0694	–0.0005, 0.0129	0.0006, 0.0118	0.0020
		Non-LTSS users	0.0042	8.1	0.0251	0.0005, 0.0079	0.0011, 0.0073	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Service Utilization Measures (continued)								
Count of physician E&M visits	Cumulative	LTSS users	0.0966	NS	0.2378	–0.0638, 0.2571	–0.0380, 0.2313	0.0464
		Non-LTSS users	0.0503	6.1	0.0138	0.0102, 0.0903	0.0167, 0.0838	
	Demonstration year 1	LTSS users	0.0743	NS	0.3329	–0.0761, 0.2247	–0.0519, 0.2005	0.0696
		Non-LTSS users	0.0047	NS	0.7619	–0.0255, 0.0348	–0.0206, 0.0300	
	Demonstration year 2	LTSS users	0.1594	NS	0.0929	–0.0266, 0.3454	0.0033, 0.3155	0.0303
		Non-LTSS users	0.1291	15.9	0.0017	0.0486, 0.2096	0.0616, 0.1967	
	Demonstration year 3	LTSS users	0.1014	NS	0.3849	–0.1273, 0.3300	–0.0905, 0.2932	0.0530
		Non-LTSS users	0.0484	6.0	0.0028	0.0166, 0.0801	0.0217, 0.0750	
Probability of SNF admission	Cumulative	LTSS users	0.0007	NS	0.6840	–0.0027, 0.0042	–0.0022, 0.0036	0.0007
		Non-LTSS users	0.0000	NS	0.4258	–0.0001, 0.0002	–0.0000, 0.0001	
	Demonstration year 1	LTSS users	0.0012	NS	0.5550	–0.0028, 0.0051	–0.0021, 0.0045	0.0012
		Non-LTSS users	–0.0000	NS	0.8232	–0.0002, 0.0002	–0.0002, 0.0001	
	Demonstration year 2	LTSS users	0.0002	NS	0.9272	–0.0042, 0.0046	–0.0035, 0.0039	0.0002
		Non-LTSS users	–0.0000	NS	0.9977	–0.0002, 0.0002	–0.0001, 0.0001	
	Demonstration year 3	LTSS users	–0.0001	NS	0.8927	–0.0020, 0.0018	–0.0017, 0.0015	–0.0003
		Non-LTSS users	0.0002	5.8	0.0236	0.0000, 0.0004	0.0001, 0.0003	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures								
Number of preventable ED visits	Cumulative	LTSS users	0.0030	NS	0.1321	–0.0009, 0.0070	–0.0003, 0.0063	0.0017
		Non-LTSS users	0.0014	NS	0.1587	–0.0005, 0.0032	–0.0002, 0.0029	
	Demonstration year 1	LTSS users	0.0029	NS	0.1327	–0.0009, 0.0066	–0.0003, 0.0060	0.0028
		Non-LTSS users	0.0000	NS	0.9785	–0.0015, 0.0015	–0.0012, 0.0013	
	Demonstration year 2	LTSS users	0.0034	NS	0.0885	–0.0005, 0.0074	0.0001, 0.0067	0.0021
		Non-LTSS users	0.0014	NS	0.2643	–0.0010, 0.0038	–0.0007, 0.0034	
	Demonstration year 3	LTSS users	0.0030	NS	0.2559	–0.0022, 0.0082	–0.0013, 0.0074	–0.0004
		Non-LTSS users	0.0034	10.7	0.0133	0.0007, 0.0061	0.0012, 0.0057	
Probability of ACSC admission, overall	Cumulative	LTSS users	0.0007	NS	0.3453	–0.0008, 0.0021	–0.0005, 0.0019	0.0007
		Non-LTSS users	0.0000	NS	0.9726	–0.0005, 0.0005	–0.0004, 0.0005	
	Demonstration year 1	LTSS users	0.0001	NS	0.9386	–0.0015, 0.0016	–0.0012, 0.0014	0.0002
		Non-LTSS users	–0.0002	NS	0.3450	–0.0006, 0.0002	–0.0005, 0.0001	
	Demonstration year 2	LTSS users	0.0015	NS	0.1866	–0.0007, 0.0037	–0.0004, 0.0033	0.0015
		Non-LTSS users	–0.0000	NS	0.9543	–0.0008, 0.0008	–0.0007, 0.0007	
	Demonstration year 3	LTSS users	0.0017	17.2	0.0081	0.0004, 0.0030	0.0006, 0.0028	0.0014*
		Non-LTSS users	0.0004	NS	0.3510	–0.0004, 0.0011	–0.0003, 0.0010	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Probability of ACSC admission, chronic	Cumulative	LTSS users	0.0004	NS	0.2375	–0.0003, 0.0010	–0.0002, 0.0009	0.0004
		Non-LTSS users	–0.0000	NS	0.9639	–0.0004, 0.0004	–0.0004, 0.0004	
	Demonstration year 1	LTSS users	0.0001	NS	0.8795	–0.0007, 0.0008	–0.0006, 0.0007	0.0003
		Non-LTSS users	–0.0002	NS	0.2120	–0.0005, 0.0001	–0.0005, 0.0001	
	Demonstration year 2	LTSS users	0.0008	NS	0.1877	–0.0004, 0.0019	–0.0002, 0.0017	0.0008
		Non-LTSS users	–0.0000	NS	0.9893	–0.0007, 0.0007	–0.0006, 0.0006	
	Demonstration year 3	LTSS users	0.0010	18.2	0.0147	0.0002, 0.0018	0.0003, 0.0017	0.0007
		Non-LTSS users	0.0003	NS	0.2884	–0.0003, 0.0009	–0.0002, 0.0008	
Probability of 30-day follow-up after mental health discharge	Cumulative	LTSS users	0.0227	NS	0.5677	–0.0551, 0.1005	–0.0426, 0.0880	–0.0019
		Non-LTSS users	0.0246	NS	0.2305	–0.0156, 0.0648	–0.0091, 0.0584	
	Demonstration year 1	LTSS users	–0.0042	NS	0.9259	–0.0920, 0.0836	–0.0778, 0.0695	–0.0336
		Non-LTSS users	0.0295	NS	0.1273	–0.0084, 0.0673	–0.0023, 0.0613	
	Demonstration year 2	LTSS users	0.0744	NS	0.1507	–0.0271, 0.1760	–0.0108, 0.1596	0.0745
		Non-LTSS users	–0.0001	NS	0.9974	–0.0556, 0.0554	–0.0466, 0.0465	
	Demonstration year 3	LTSS users	0.0240	NS	0.5604	–0.0567, 0.1046	–0.0437, 0.0916	–0.0185
		Non-LTSS users	0.0424	NS	0.1048	–0.0088, 0.0937	–0.0006, 0.0855	

(continued)

Table E-2 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with LTSS use versus those without LTSS use in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (LTSS versus non-LTSS)
Quality of Care Measures (continued)								
Count of all-cause 30-day readmissions	Cumulative	LTSS users	0.0015	NS	0.8524	–0.0142, 0.0172	–0.0117, 0.0147	0.0033
		Non-LTSS users	–0.0018	NS	0.7549	–0.0129, 0.0094	–0.0111, 0.0076	
	Demonstration year 1	LTSS users	–0.0026	NS	0.8224	–0.0257, 0.0204	–0.0220, 0.0167	0.0017
		Non-LTSS users	–0.0043	NS	0.5016	–0.0170, 0.0083	–0.0149, 0.0063	
	Demonstration year 2	LTSS users	0.0018	NS	0.8531	–0.0177, 0.0213	–0.0145, 0.0182	–0.0026
		Non-LTSS users	0.0045	NS	0.6555	–0.0151, 0.0240	–0.0120, 0.0209	
	Demonstration year 3	LTSS users	0.0104	NS	0.4059	–0.0141, 0.0348	–0.0101, 0.0308	0.0163
		Non-LTSS users	–0.0059	NS	0.4577	–0.0216, 0.0097	–0.0191, 0.0072	

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

Table E-3
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures								
Probability of inpatient admission	Cumulative	SPMI	–0.0012	NS	0.5010	–0.0046, 0.0023	–0.0041, 0.0017	0.0005
		Non-SPMI	–0.0017	–5.0	0.0472	–0.0033, –0.0000	–0.0030, –0.0003	
	Demonstration year 1	SPMI	–0.0031	–4.6	0.0300	–0.0060, –0.0003	–0.0055, –0.0008	–0.0013
		Non-SPMI	–0.0019	–5.2	0.0127	–0.0033, –0.0004	–0.0031, –0.0006	
	Demonstration year 2	SPMI	0.0009	NS	0.6995	–0.0036, 0.0054	–0.0029, 0.0047	0.0028
		Non-SPMI	–0.0019	NS	0.0814	–0.0040, 0.0002	–0.0036, –0.0001	
	Demonstration year 3	SPMI	0.0000	NS	0.9919	–0.0042, 0.0043	–0.0035, 0.0036	0.0011
		Non-SPMI	–0.0011	NS	0.2590	–0.0029, 0.0008	–0.0026, 0.0005	
Probability of ED visit	Cumulative	SPMI	0.0061	8.1	<0.0001	0.0033, 0.0088	0.0038, 0.0084	0.0054***
		Non-SPMI	0.0007	NS	0.3985	–0.0009, 0.0023	–0.0007, 0.0020	
	Demonstration year 1	SPMI	0.0028	NS	0.0746	–0.0003, 0.0059	0.0002, 0.0054	0.0035*
		Non-SPMI	–0.0007	NS	0.3439	–0.0021, 0.0007	–0.0019, 0.0005	
	Demonstration year 2	SPMI	0.0093	12.8	<0.0001	0.0062, 0.0125	0.0067, 0.0120	0.0078***
		Non-SPMI	0.0015	NS	0.1316	–0.0004, 0.0034	–0.0001, 0.0031	
	Demonstration year 3	SPMI	0.0082	11.2	<0.0001	0.0046, 0.0118	0.0052, 0.0113	0.0057**
		Non-SPMI	0.0025	6.1	0.0367	0.0002, 0.0049	0.0005, 0.0045	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Service Utilization Measures (continued)								
Count of physician E&M visits	Cumulative	SPMI	–0.0652	NS	0.0885	–0.1403, 0.0098	–0.1282, –0.0022	–0.0478
		Non-SPMI	–0.0174	NS	0.5777	–0.0788, 0.0440	–0.0690, 0.0341	
	Demonstration year 1	SPMI	–0.1105	–6.3	0.0021	–0.1808, –0.0403	–0.1695, –0.0516	–0.0590
		Non-SPMI	–0.0515	NS	0.0502	–0.1031, 0.0000	–0.0948, –0.0082	
	Demonstration year 2	SPMI	0.0321	NS	0.4473	–0.0507, 0.1149	–0.0374, 0.1016	–0.0200
		Non-SPMI	0.0521	NS	0.2733	–0.0411, 0.1452	–0.0261, 0.1302	
	Demonstration year 3	SPMI	–0.0869	NS	0.1228	–0.1973, 0.0235	–0.1795, 0.0057	–0.0627
		Non-SPMI	–0.0242	NS	0.3956	–0.0802, 0.0317	–0.0712, 0.0227	
Probability of SNF admission	Cumulative	SPMI	–0.0030	–12.5	0.0030	–0.0050, –0.0010	–0.0047, –0.0013	–0.0015
		Non-SPMI	–0.0015	–19.2	0.0002	–0.0024, –0.0007	–0.0022, –0.0009	
	Demonstration year 1	SPMI	–0.0029	–11.6	0.0180	–0.0054, –0.0005	–0.0050, –0.0009	–0.0013
		Non-SPMI	–0.0016	–18.3	0.0005	–0.0026, –0.0007	–0.0024, –0.0009	
	Demonstration year 2	SPMI	–0.0031	–12.8	0.0165	–0.0057, –0.0006	–0.0053, –0.0010	–0.0016
		Non-SPMI	–0.0015	–20.4	<0.0001	–0.0022, –0.0008	–0.0021, –0.0009	
	Demonstration year 3	SPMI	–0.0030	–13.7	<0.0001	–0.0042, –0.0017	–0.0040, –0.0019	–0.0016*
		Non-SPMI	–0.0014	–20.2	0.0046	–0.0023, –0.0004	–0.0022, –0.0006	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures								
Number of preventable ED visits	Cumulative	SPMI	0.0052	12.6	<0.0001	0.0028, 0.0077	0.0032, 0.0073	0.0045***
		Non-SPMI	0.0007	NS	0.1099	–0.0002, 0.0016	–0.0000, 0.0014	
	Demonstration year 1	SPMI	0.0027	6.4	0.0220	0.0004, 0.0051	0.0008, 0.0047	0.0025*
		Non-SPMI	0.0002	NS	0.6446	–0.0007, 0.0011	–0.0006, 0.0010	
	Demonstration year 2	SPMI	0.0067	16.6	<0.0001	0.0037, 0.0096	0.0042, 0.0091	0.0060***
		Non-SPMI	0.0007	NS	0.2921	–0.0006, 0.0019	–0.0004, 0.0017	
	Demonstration year 3	SPMI	0.0076	18.5	<0.0001	0.0047, 0.0105	0.0051, 0.0100	0.0059***
		Non-SPMI	0.0017	7.0	0.0286	0.0002, 0.0033	0.0004, 0.0030	
Probability of ACSC admission, overall	Cumulative	SPMI	–0.0005	NS	0.5395	–0.0020, 0.0011	–0.0018, 0.0008	–0.0001
		Non-SPMI	–0.0003	NS	0.1750	–0.0008, 0.0002	–0.0008, 0.0001	
	Demonstration year 1	SPMI	–0.0011	NS	0.1082	–0.0025, 0.0002	–0.0023, 0.0000	–0.0008
		Non-SPMI	–0.0003	NS	0.1325	–0.0007, 0.0001	–0.0006, 0.0000	
	Demonstration year 2	SPMI	–0.0000	NS	0.9947	–0.0020, 0.0020	–0.0017, 0.0017	0.0005
		Non-SPMI	–0.0005	NS	0.2423	–0.0014, 0.0004	–0.0013, 0.0002	
	Demonstration year 3	SPMI	0.0002	NS	0.8485	–0.0016, 0.0019	–0.0013, 0.0016	0.0004
		Non-SPMI	–0.0002	NS	0.4022	–0.0007, 0.0003	–0.0007, 0.0002	

(continued)

Table E-3 (continued)
Cumulative and annual demonstration impacts on service utilization and quality of care measures on beneficiaries with SPMI versus those without SPMI in Texas, demonstration years 1–3, March 1, 2015–December 31, 2018

Measure	Demonstration year	Special population	Demonstration effect relative to the comparison group	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval	Difference in demonstration effect (SPMI versus non-SPMI)
Quality of Care Measures (continued)								
Probability of ACSC admission, chronic	Cumulative	SPMI	–0.0003	NS	0.5835	–0.0013, 0.0007	–0.0011, 0.0006	–0.0002
		Non-SPMI	–0.0001	NS	0.7611	–0.0006, 0.0004	–0.0005, 0.0003	
	Demonstration year 1	SPMI	–0.0008	NS	0.0745	–0.0016, 0.0001	–0.0015, –0.0001	–0.0007
		Non-SPMI	–0.0000	NS	0.8501	–0.0005, 0.0004	–0.0004, 0.0003	
	Demonstration year 2	SPMI	–0.0000	NS	0.9483	–0.0016, 0.0015	–0.0013, 0.0012	0.0002
		Non-SPMI	–0.0002	NS	0.4986	–0.0010, 0.0005	–0.0009, 0.0004	
	Demonstration year 3	SPMI	0.0004	NS	0.5874	–0.0009, 0.0017	–0.0007, 0.0014	0.0003
		Non-SPMI	0.0001	NS	0.8100	–0.0005, 0.0006	–0.0004, 0.0005	
Count of all-cause 30-day readmissions	Cumulative	SPMI	0.0071	NS	0.3595	–0.0081, 0.0223	–0.0056, 0.0198	0.0125
		Non-SPMI	–0.0054	NS	0.2550	–0.0147, 0.0039	–0.0132, 0.0024	
	Demonstration year 1	SPMI	–0.0017	NS	0.8877	–0.0247, 0.0214	–0.0210, 0.0177	0.0013
		Non-SPMI	–0.0030	NS	0.5795	–0.0135, 0.0075	–0.0118, 0.0058	
	Demonstration year 2	SPMI	0.0167	NS	0.0662	–0.0011, 0.0345	0.0017, 0.0317	0.0272*
		Non-SPMI	–0.0105	NS	0.3035	–0.0304, 0.0095	–0.0272, 0.0063	
	Demonstration year 3	SPMI	0.0068	NS	0.5596	–0.0159, 0.0294	–0.0123, 0.0258	0.0110
		Non-SPMI	–0.0042	NS	0.5177	–0.0169, 0.0085	–0.0149, 0.0065	

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

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

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

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

As with the service utilization measures, the Texas 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 a higher number of 30-day follow-up visits after hospitalization for mental illness and screenings for clinical depression. On the other hand, 30-day all-cause readmissions and admissions for overall and chronic ACSC diagnoses were more prevalent in the comparison group than in the demonstration group through the pre demonstration period and demonstration years 1–2. No clear pattern was evident for the number of preventable ED visits.

Finally, across all years, the demonstration eligible group had a lower rate of new long-stay NF admissions relative to the comparison group (***Table E-6***). For all demonstration years, but not in the predemonstration period, the demonstration group had a lower percentage of long-stay NF users relative to the comparison group. There were differences in some characteristics of long-stay NF residents at admission: relative to the comparison group, demonstration eligible beneficiaries generally had worse functional status and a higher proportion of beneficiaries with severe cognitive impairment. There was not a consistent pattern for low level of care need.

Table E-4
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Number of demonstration eligible beneficiaries		71,382	66,972	57,200	50,007	50,683
Number of comparison beneficiaries		204,608	201,609	221,014	195,052	195,594
Institutional setting						
Inpatient admissions[1]	Demonstration					
% with use		5.3	5.2	4.4	4.2	4
Utilization per 1,000 user months		1,193.7	1,187.3	1,185.4	1,182.4	1,169.6
Utilization per 1,000 eligible months		62.9	61.4	52.1	50	47.3
Inpatient admissions[1]	Comparison					
% with use		5.3	5.3	4.7	4.4	4.2
Utilization per 1,000 user months		1,165.9	1,166.1	1,168.5	1,167.6	1,162.3
Utilization per 1,000 eligible months		62.2	61.6	55.3	51.2	48.5
Inpatient psychiatric	Demonstration					
% with use		0.3	0.3	0.3	0.2	0.2
Utilization per 1,000 user months		1,101.7	1,108.6	1,126.5	1,118.4	1,105.6
Utilization per 1,000 eligible months		3	3.4	2.8	2.7	2.7
Inpatient psychiatric	Comparison					
% with use		0.2	0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,113.8	1,108.2	1,108.7	1,100.7	1,087.8
Utilization per 1,000 eligible months		2.3	2.4	2	1.8	1.9

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Inpatient nonpsychiatric	Demonstration					
% with use		5.0	4.9	4.2	4	3.8
Utilization per 1,000 user months		1,192.2	1,185.7	1,182.4	1,178.8	1,166.5
Utilization per 1,000 eligible months		59.9	58	49.2	47.2	44.6
Inpatient nonpsychiatric	Comparison					
% with use		5.1	5.1	4.6	4.2	4
Utilization per 1,000 user months		1,161.7	1,162.2	1,165.4	1,164.7	1,159.6
Utilization per 1,000 eligible months		59.8	59.2	53.3	49.3	46.5
Emergency department use (non-admit)	Demonstration					
% with use		5.0	5.1	5.1	5.4	5.4
Utilization per 1,000 user months		1,208.5	1,216.5	1,243.2	1,251.0	1,249.8
Utilization per 1,000 eligible months		60.6	62.1	63.2	67.6	67.5
Emergency department use (non-admit)	Comparison					
% with use		5.4	5.6	5.5	5.4	5.4
Utilization per 1,000 user months		1,228.6	1,234.3	1,223.2	1,216.9	1,206.4
Utilization per 1,000 eligible months		66.2	69	67.6	66.2	65.3

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

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		0.2	0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,135.5	1,135.9	1,155.6	1,152.4	1,150.1
Utilization per 1,000 eligible months		2	2.2	2	2.1	2.1
Emergency department use (psychiatric)	Comparison					
% with use		0.2	0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,174.1	1,185.3	1,168.8	1,132.1	1,132.8
Utilization per 1,000 eligible months		2.6	2.9	2.6	2.4	2.4
Observation stays	Demonstration					
% with use		0.8	0.8	0.8	0.9	0.9
Utilization per 1,000 user months		1,077.5	1,046.4	1,091.0	1,086.9	1,092.8
Utilization per 1,000 eligible months		8.6	8.4	9.2	9.3	9.3
Observation stays	Comparison					
% with use		0.7	0.7	0.8	0.8	0.8
Utilization per 1,000 user months		1,057.0	1,054.6	1,051.4	1,056.4	1,049.1
Utilization per 1,000 eligible months		7.6	7.9	8.3	8.4	8.5

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

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		1.6	1.6	1.1	1.0	0.9
Utilization per 1,000 user months		1,092.5	1,087.5	1,106.4	1,088.6	1,081.3
Utilization per 1,000 eligible months		17.5	17	12.3	11.2	10
Skilled nursing facility	Comparison					
% with use		1.8	1.8	1.5	1.4	1.3
Utilization per 1,000 user months		1,095.5	1,091.9	1,094.8	1,083.8	1,090.6
Utilization per 1,000 eligible months		19.3	19.2	16.2	15.1	13.8
Hospice	Demonstration					
% with use		3.3	3.1	2.3	2.0	2.0
Utilization per 1,000 user months		1,038.9	1,021.4	1,020.2	1,020.5	1,018.5
Utilization per 1,000 eligible months		34.4	32	23	20.5	20
Hospice	Comparison					
% with use		2.4	2.4	2.1	2.0	1.9
Utilization per 1,000 user months		1,026.1	1,013.9	1,014.2	1,015.8	1,012.2
Utilization per 1,000 eligible months		25.1	24.5	21.7	20.5	19.7

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Non-institutional setting						
Physician E&M visits	Demonstration					
% with use		58.9	58.0	55.6	55.7	55.0
Utilization per 1,000 user months		2,220.8	2,230.3	2,200.4	2,370.0	2,206.4
Utilization per 1,000 eligible months		1,308.3	1,294.3	1,222.8	1,321.0	1,214.0
Physician E&M visits	Comparison					
% with use		57.1	56.3	56.1	54.9	53.9
Utilization per 1,000 user months		2,164.2	2,163.6	2,152.9	2,176.2	2,192.6
Utilization per 1,000 eligible months		1,236.2	1,218.3	1,208.4	1,193.9	1,181.7
Outpatient therapy (PT, OT, ST)	Demonstration					
% with use		5.7	6	4.9	5.2	5.4
Utilization per 1,000 user months		3,0344	32,214.3	31,737.3	31,516.7	30,322.5
Utilization per 1,000 eligible months		1,732.8	1,944.7	1,560.2	1,635.5	1,650.5
Outpatient therapy (PT, OT, ST)	Comparison					
% with use		5.1	5.3	5.6	6.1	6.4
Utilization per 1,000 user months		25,292.3	27,282.6	28,579.6	28,766.2	28,224.8
Utilization per 1,000 eligible months		1,285.9	1,442.0	1,596.6	1,757.5	1,800.0

(continued)

Table E-4 (continued)
Proportion and utilization for institutional and non-institutional services for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

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		0.7	0.7	0.8	1.0	1.0
Utilization per 1,000 user months		11,055.5	11,918.7	11,676.8	10,849.8	11,027.8
Utilization per 1,000 eligible months		75.5	80.2	94.4	103.3	113.9
Independent therapy (PT, OT, ST)	Comparison					
% with use		1.3	1.4	1.5	1.6	1.7
Utilization per 1,000 user months		17,226.7	18,964.8	19,476.6	19,431.5	18,765.4
Utilization per 1,000 eligible months		228.9	259.6	295.3	319	324
Other hospital outpatient services	Demonstration					
% with use		17.4	18.0	18.9	20.0	20.2
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Other hospital outpatient services	Comparison					
% with use		23.5	23.6	24.1	24.3	23.9
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—

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

Table E-5
Quality of care and care coordination outcomes for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

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	18.5	18.5	18.5	19.4	19.1
	Comparison	20.8	21.1	20.4	20.5	20.6
Preventable emergency department visits per eligible month	Demonstration	0.0278	0.0285	0.0294	0.0303	0.0313
	Comparison	0.0305	0.0323	0.031	0.0303	0.0297
Rate of 30-day follow-up after hospitalization for mental illness (%)	Demonstration	48.5	46.4	39.2	36.1	38.6
	Comparison	41.8	43.7	33.4	31.1	31.5
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Demonstration	0.0098	0.0092	0.0082	0.0086	0.0091
	Comparison	0.0105	0.0102	0.0095	0.0096	0.0091
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Demonstration	0.0059	0.0055	0.0051	0.006	0.0066
	Comparison	0.0065	0.0065	0.0062	0.0069	0.0064
Screening for clinical depression per eligible month	Demonstration	0.0034	0.0081	0.015	0.0143	0.0146
	Comparison	0.0023	0.0062	0.0091	0.0092	0.0088

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

Table E-6
MDS long-stay NF utilization and characteristics at admission for the demonstration and comparison groups in Texas, March 1, 2015–December 31, 2018

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	48,906	46,275	35,985	37,169	37,639
New long-stay NF admissions per 1,000 eligible beneficiaries	Demonstration	15.7	15.6	14.4	7.1	6.5
Number of comparison beneficiaries	Comparison	141,611	140,016	137,274	140,262	139,999
New long-stay NF admissions per 1,000 eligible beneficiaries	Comparison	16.5	15.9	26.0	15.2	13.3
Number of demonstration beneficiaries	Demonstration	60,426	56,336	41,792	42,783	42,693
Long-stay NF users as % of eligible beneficiaries	Demonstration	20.0	18.8	14.7	13.4	12.1
Number of comparison beneficiaries	Comparison	173,684	170,000	162,355	167,179	165,234
Long-stay NF users as % of eligible beneficiaries	Comparison	19.6	18.8	17.8	17.1	16.1
Characteristics of new long-stay NF residents at admission						
Number of admitted demonstration beneficiaries	Demonstration	769	721	517	265	246
Number of admitted comparison beneficiaries	Comparison	2,337	2,222	3,571	2,135	1,857
Functional status (RUG-IV ADL scale)	Demonstration	8.7	8.5	9.2	8.9	8.8
Functional status (RUG-IV ADL scale)	Comparison	8.3	8.7	8.4	8.5	8.0
Percent with severe cognitive impairment	Demonstration	49.8	48.5	49.1	46.8	49.6
Percent with severe cognitive impairment	Comparison	45.6	44.8	42.1	42.2	40.9
Percent with low level of care need	Demonstration	1.9	1.7	1.9	1.4	1.3
Percent with low level of care need	Comparison	1.3	2.3	1.0	2.1	2.5

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

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

Non-enrollees generally had higher utilization than the demonstration enrollees across most service settings. However, enrollees had a higher percent with use of inpatient psychiatric services compared to non-enrollees (***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, screening for clinical depression, and preventable ED visits (***Table E-8***).

Table E-7
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Number of demonstration enrollees		22,323	16,832	18,143
Number of demonstration non-enrollees		34,877	33,175	32,540
Institutional setting				
Inpatient admissions[1]	Enrollees			
% with use		2.8	2.9	2.8
Utilization per 1,000 user months		1,135.2	1,141.4	1134.8
Utilization per 1,000 eligible months		31.7	33.1	32.3
Inpatient admissions[1]	Non-enrollees			
% with use		5.1	4.7	4.7
Utilization per 1,000 user months		1,193.1	1,191.7	1182.7
Utilization per 1,000 eligible months		60.5	56.5	55.1
Inpatient psychiatric	Enrollees			
% with use		0.3	0.3	0.3
Utilization per 1,000 user months		1,166.7	1,119.5	1106.4
Utilization per 1,000 eligible months		3.2	2.8	3
Inpatient psychiatric	Non-enrollees			
% with use		0.2	0.2	0.2
Utilization per 1,000 user months		1,116.8	1,109.7	1104
Utilization per 1,000 eligible months		2.5	2.4	2.4
Inpatient nonpsychiatric	Enrollees			
% with use		2.5	2.7	2.6
Utilization per 1,000 user months		1,122.7	1,131.4	1124.9
Utilization per 1,000 eligible months		28.5	30.2	29.2
Inpatient nonpsychiatric	Non-enrollees			
% with use		4.9	4.5	4.5
Utilization per 1,000 user months		1,190.2	1,190.1	1181.1
Utilization per 1,000 eligible months		58	54.1	52.6

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Emergency department use (non-admit)	Enrollees			
% with use		4	4.3	4.6
Utilization per 1,000 user months		1,299.2	1,290.7	1,291.6
Utilization per 1,000 eligible months		52.4	55.6	60.1
Emergency department use (non-admit)	Non-enrollees			
% with use		5.5	5.8	5.8
Utilization per 1,000 user months		1,225.5	1,235.3	1,232.4
Utilization per 1,000 eligible months		67.5	72	71.3
Emergency department use (psychiatric)	Enrollees			
% with use		0.2	0.2	0.2
Utilization per 1,000 user months		1,262.9	1,202.3	1,264.5
Utilization per 1,000 eligible months		2.1	2	2.3
Emergency department use (psychiatric)	Non-enrollees			
% with use		0.2	0.2	0.2
Utilization per 1,000 user months		1,094.3	1,090.6	1,087.4
Utilization per 1,000 eligible months		1.8	1.9	1.9
Observation stays	Enrollees			
% with use		0.6	0.7	0.8
Utilization per 1,000 user months		1,238.5	1,190.8	1,201.1
Utilization per 1,000 eligible months		7.7	8.3	9.2
Observation stays	Non-enrollees			
% with use		0.9	0.9	0.9
Utilization per 1,000 user months		1,053.2	1,056.8	1,046.4
Utilization per 1,000 eligible months		9.7	9.6	9.4
Skilled nursing facility	Enrollees			
% with use		0.9	0.7	0.7
Utilization per 1,000 user months		1,193.1	1,101.3	1,061.6
Utilization per 1,000 eligible months		11.2	8.1	7.1
Skilled nursing facility	Non-enrollees			
% with use		1.2	1.1	1
Utilization per 1,000 user months		1,084.3	1,083.3	1,086.9
Utilization per 1,000 eligible months		13.5	12.1	11.1

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Hospice	Enrollees			
% with use		2.1	1.9	1.7
Utilization per 1,000 user months		1,017.7	1,016.8	1,012.1
Utilization per 1,000 eligible months		21.3	19.5	17.4
Hospice	Non-enrollees			
% with use		2.5	2	2.1
Utilization per 1,000 user months		1,021.7	1,021.2	1,021.6
Utilization per 1,000 eligible months		25.9	20.7	21
Non-institutional setting				
Physician E&M visits	Enrollees			
% with use		38.1	43.6	44
Utilization per 1,000 user months		2,192.3	2,859.0	2,148.4
Utilization per 1,000 eligible months		834.9	1,246.8	944.2
Physician E&M visits	Non-enrollees			
% with use		63	61.1	60.9
Utilization per 1,000 user months		2,224.0	2,204.1	2214
Utilization per 1,000 eligible months		1,402.1	1,346.7	1,347.9
Outpatient therapy (PT, OT, ST)	Enrollees			
% with use		2.8	3.9	4.1
Utilization per 1,000 user months		27,087.3	23,890.7	20,816.2
Utilization per 1,000 eligible months		758.9	926.6	846.3
Outpatient therapy (PT, OT, ST)	Non-enrollees			
% with use		5.9	5.3	5.8
Utilization per 1,000 user months		32,421.1	32,889.7	32,884.2
Utilization per 1,000 eligible months		1,901.4	1,758.5	1,921.9
Independent therapy (PT, OT, ST)	Enrollees			
% with use		0.4	0.5	0.7
Utilization per 1,000 user months		9,821.1	8,051.6	8,026.0
Utilization per 1,000 eligible months		43.3	42.1	55.6
Independent therapy (PT, OT, ST)	Non-enrollees			
% with use		1	1.1	1.2
Utilization per 1,000 user months		12,254.9	11,355.4	11,989.1
Utilization per 1,000 eligible months		117.8	129.1	148.2

(continued)

Table E-7 (continued)
Proportion and utilization of institutional and non-institutional services for demonstration enrollees and non-enrollees in Texas, March 1, 2015–December 31, 2018

Measures by setting	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
Other hospital outpatient services	Enrollees			
% with use		13.5	15.4	16.8
Utilization per 1,000 user months		—	—	—
Utilization per 1,000 eligible months		—	—	—
Other hospital outpatient services	Non-enrollees			
% with use		21.3	22	22
Utilization per 1,000 user months		—	—	—
Utilization per 1,000 eligible months		—	—	—

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

Table E-8
Quality of care and care coordination outcomes for demonstration enrollees and non-enrollees in Texas, March 1, 2015–December 31, 2018

Quality and care coordination measures	Group	Demonstration year 1	Demonstration year 2	Demonstration year 3
30-day all-cause risk-standardized readmission rate (%)	Enrollees	18.7	19.2	18.3
	Non-enrollees	18.9	19.5	19.4
Preventable ED visits per eligible month	Enrollees	0.0236	0.0222	0.0275
	Non-enrollees	0.0315	0.0336	0.0333
Rate of 30-day follow-up after hospitalization for mental illness (%)	Enrollees	38.4	38.8	42.1
	Non-enrollees	38.1	35.7	37.4
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Enrollees	0.0047	0.0054	0.0091
	Non-enrollees	0.0095	0.0099	0.0092
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Enrollees	0.0028	0.0038	0.0072
	Non-enrollees	0.006	0.0069	0.0063
Screening for clinical depression per eligible month	Enrollees	0.0057	0.0028	0.006
	Non-enrollees	0.0201	0.0196	0.0194

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.

Table E-9 presents unadjusted descriptive statistics for the demonstration enrollees for services traditionally paid by Medicaid, to help understand the Medicaid utilization experience over time. Nursing home and dental services are excluded from analysis due to encounter data deemed incomplete. LTSS nursing facility service use derived from MMP-submitted Medicaid

encounters is excluded from analysis in all FAI States because CMS and RTI decided it was not possible to reliably create this measure because we could not correctly identify all LTSS NF stays. Instead, each evaluation report includes an analysis of LTSS NF use using MDS data. Second, CMS and RTI also decided that dental services in Texas were either incomplete or had unexplained variation, precluding the use of those encounter data for analysis. Finally, one Texas MMP plan, Molina, was excluded from the analyses as its encounter data was deemed incomplete.

Table E-9
Medicaid use for demonstration enrollees in Texas, March 1, 2015–December 31, 2018

Measure	Demonstration year 1	Demonstration year 2	Demonstration year 3
Personal care			
Users as percentage of enrollees per enrollee month (%)	25.4%	27.2%	28.5%
Service days per enrollee month	6.98	7.25	7.60
Service days per user month	27.44	26.64	26.67
Other HCBS services			
Users as percentage of enrollees per enrollee month (%)	9.2%	10.1%	11.1%
Service days per enrollee month	1.71	1.83	1.99
Service days per user month	18.50	18.09	17.90
Behavioral health services			
Users as percentage of enrollees per enrollee month (%)	3.8%	5.1%	5.3%
Service days per enrollee month	0.14	0.19	0.19
Service days per user month	3.66	3.72	3.60
Non-emergency medical transport			
Users as percentage of enrollees per enrollee month (%)	3.3%	3.6%	3.7%
Service days per enrollee month	0.06	0.04	0.04
Service days per user month	1.71	1.00	1.00

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 Texas eligible beneficiaries: inpatient admissions, ED visits (non-admit), hospice admissions, physician 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

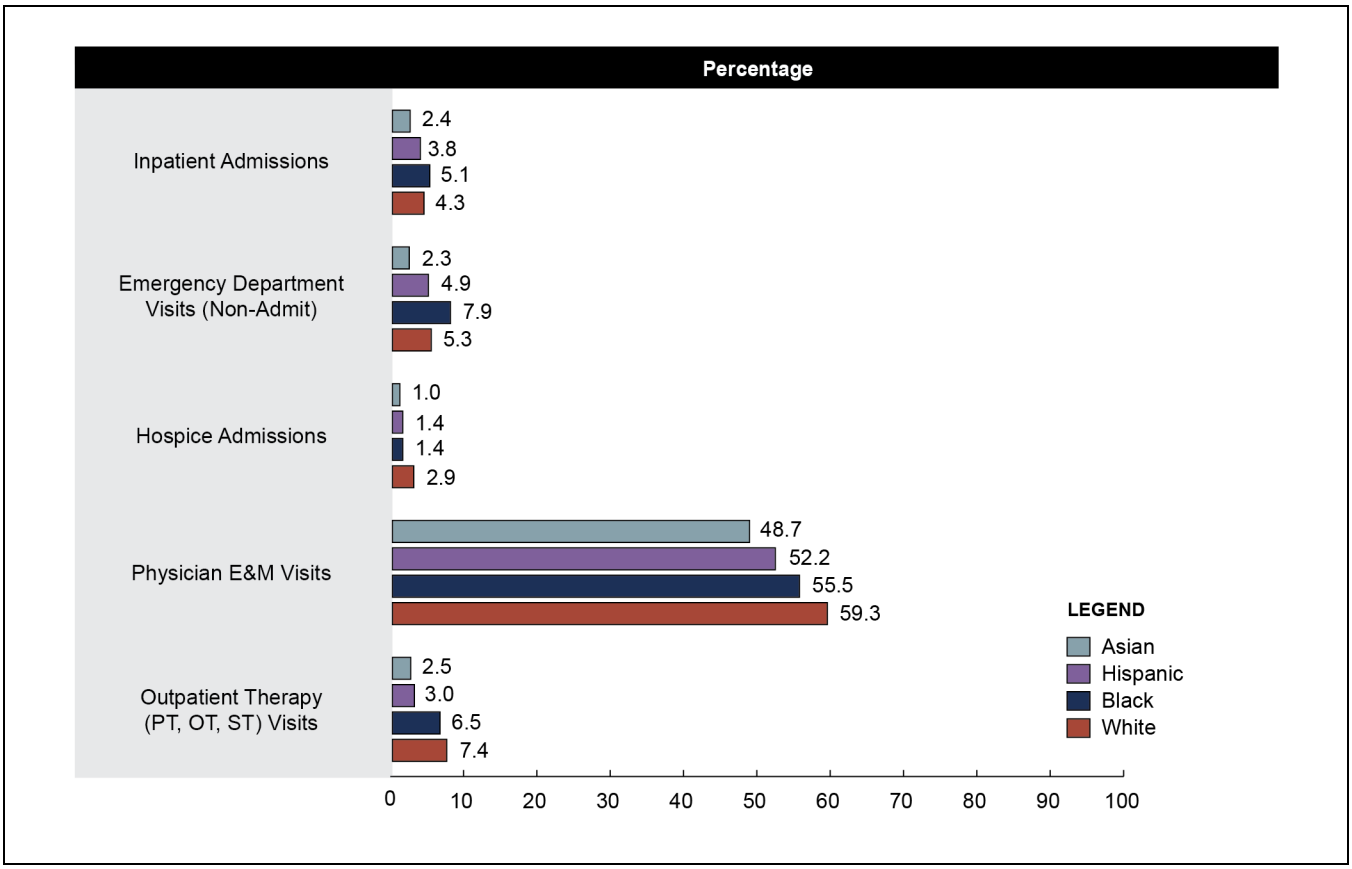
service, counts per 1,000 eligible beneficiaries with any use of the respective service, and counts per 1,000 demonstration eligible beneficiaries.

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 and hospice admissions, relative to other races. White and African American beneficiaries received more outpatient therapy visits, compared to other racial and ethnic groups

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

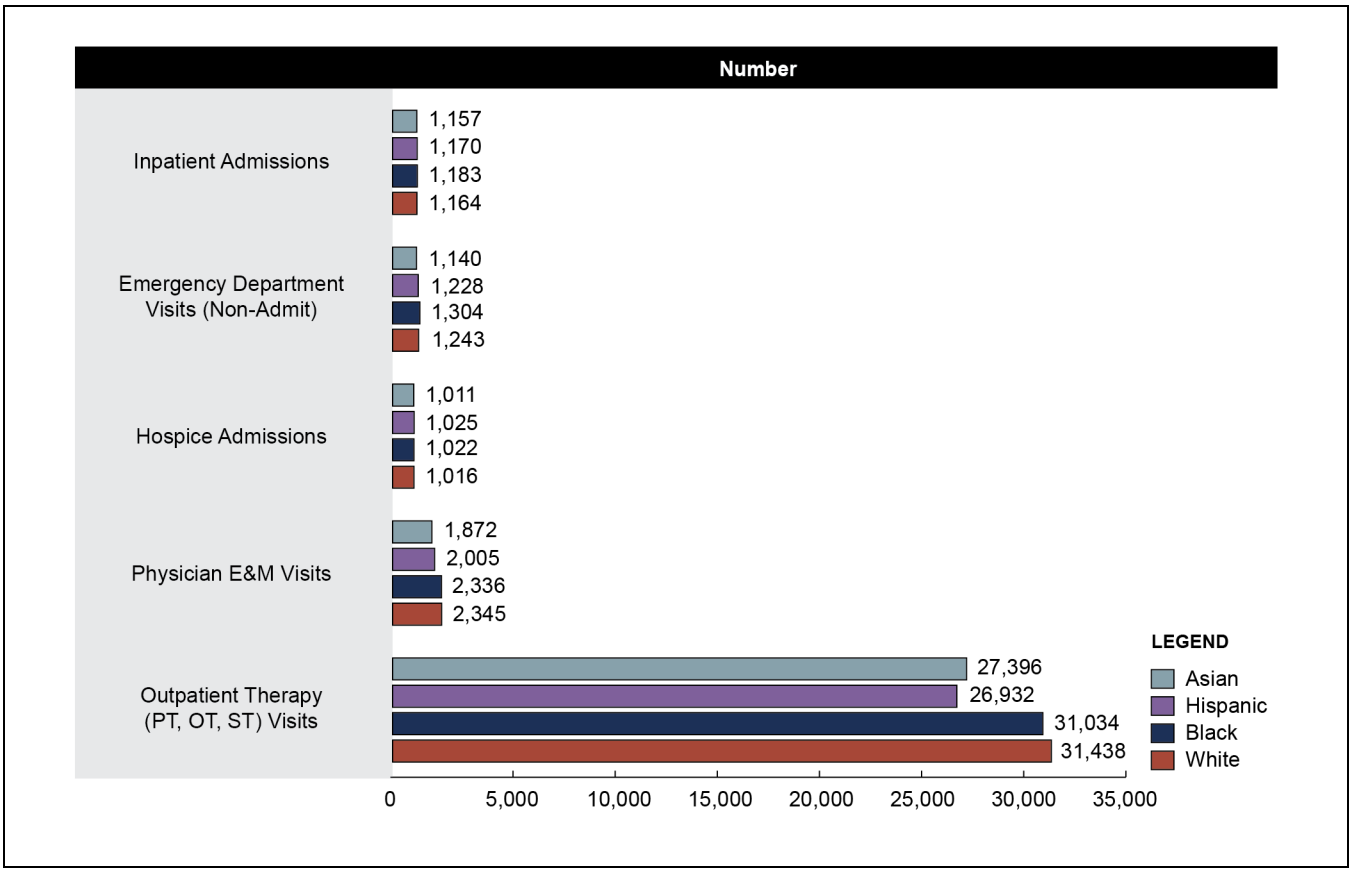
Figure E-3 presents counts of services across all Texas demonstration eligible beneficiaries regardless of having any use of the respective services. When looking at use for all eligible beneficiaries in all eligible months, the results are quite different from those of users of services in ***Figure 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
Percentage with use of selected Medicare services among Texas demonstration eligible beneficiaries, January 1, 2018–December 31, 2018



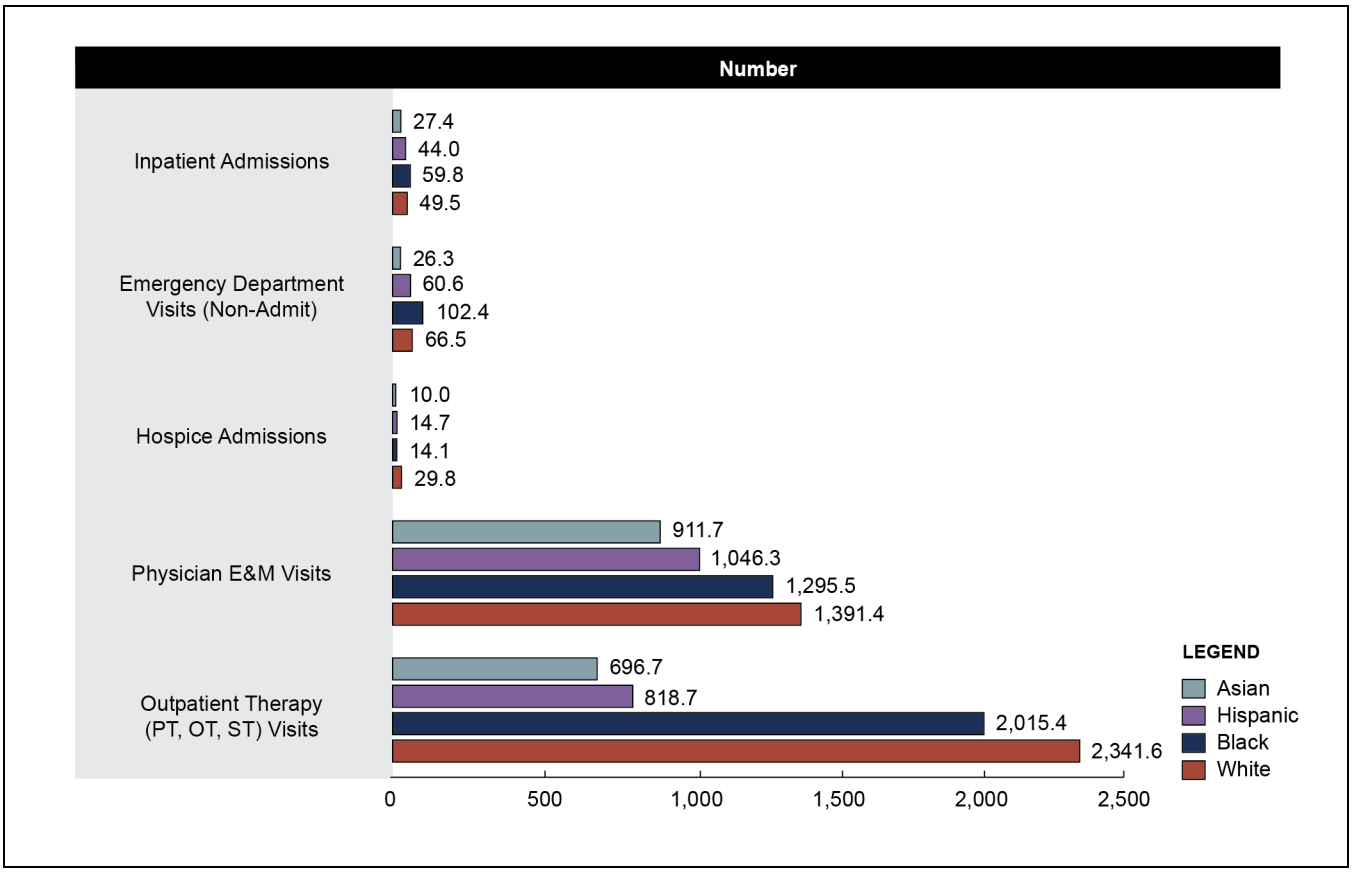
E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

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



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

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



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

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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 the First Evaluation Report 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 and demonstration groups during the predemonstration period and demonstration period. An additional change in methodology is that the current Medicare cost savings analysis includes the MA population, which the First Evaluation Report did not.

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 0.91% for calendar year 2013, 0.89% for calendar year 2014, 0.89% for calendar year 2015, 0.97% for calendar year 2016, 0.81% for calendar year 2017, and 0.82% for calendar year 2018.
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 calendar year 2015, 0.97% for calendar year 2016, 0.81% for calendar year 2017, and 0.82% for calendar year 2018. Reduced the FFS portion of the capitation rate by an additional,1.71% for calendar year 2015, 1.73% for calendar year 2016, 1.64% for calendar year 2017, and 1.67% for calendar year 2018 to account for the disproportional share of bad debt attributable to dually eligible 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 calendar years 2015–2018 were incorporated into the dependent variable construction.

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

The capitation payments in MARx reflect the savings assumptions applied to the Medicare components of the rate (1.25 percent and 2.75 percent for demonstration year 1, 3.75 percent for demonstration year 2, and 5.5 percent for demonstration year 3), but do not reflect the quality withhold amounts.

For the Medicaid analysis, no adjustments were made to the claims and capitation payment amounts from the MAX and T-MSIS files, beyond winsorizing the monthly total cost of care amounts at the 99th percentile separately for the demonstration group and the comparison group, and within those groups separately for each year.

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.

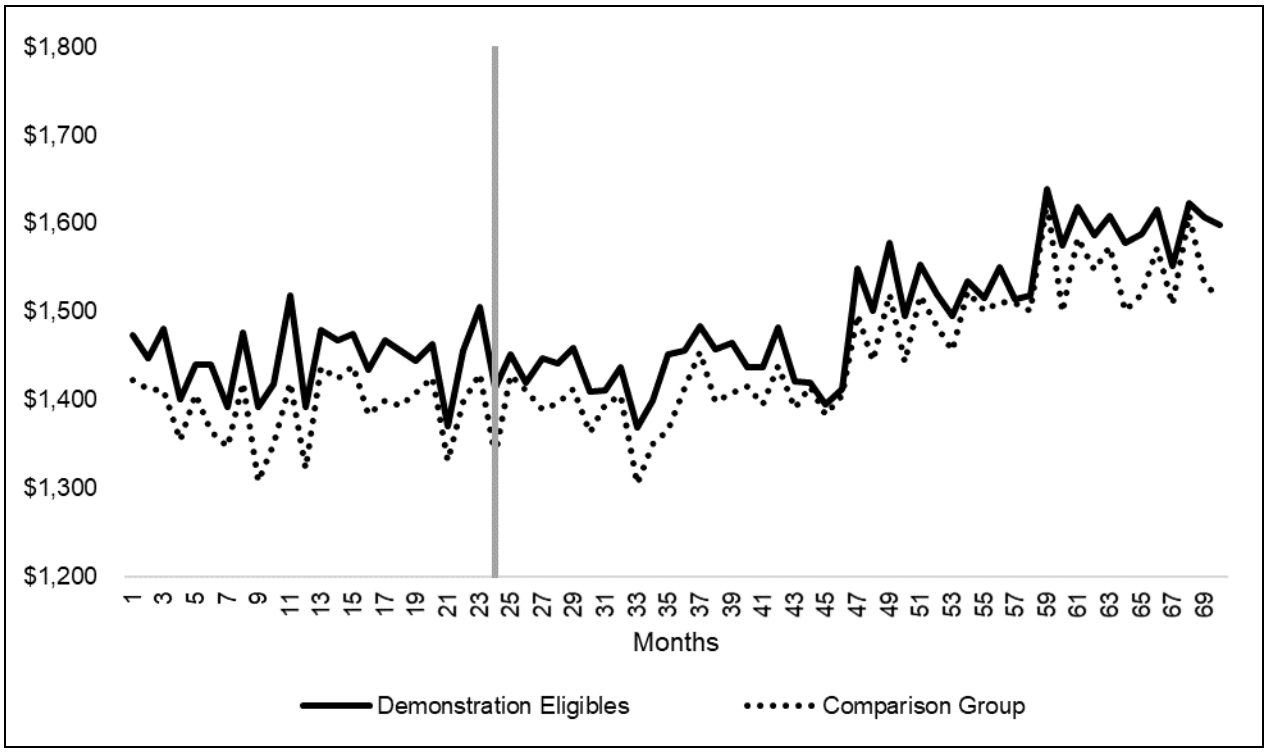
- Demographic variables included in both Medicare and Medicaid models were as follows:
  - Age
  - Sex
  - Race/ethnicity

  - Enrolled in another Medicare shared saving program
  - End-stage renal disease status
  - Disability status as reason for Medicare entitlement
  - MA status
- Area-level variables included in both Medicare and Medicaid savings models were as follows:
  - Medicare spending per dually eligible enrollee age 19 or older
  - Medicaid spending per dually eligible enrollee age 19 or older
  - MA penetration rate
  - Medicaid-to-Medicare FFS fee index for all services
  - Proportion of dually eligible enrollees using
    - Nursing facilities age 65 or older
    - HCBS age 65 or older
    - Medicaid managed care age 19 or older
    - Primary care age 65 or older
  - 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
  - Distance to the nearest hospital
  - Distance to the nearest nursing facility
- Demographic variables included only in the Medicaid model were:
  - Medicaid eligibility (medically needy, aged, disabled, and missing)

F.3 Descriptive Statistics for Medicare Data

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

Figure F-1
Mean monthly Medicare expenditures (weighted), predemonstration and demonstration period, demonstration and comparison group, March 2013–December 2018



SOURCE: RTI Analysis of Texas demonstration eligible and comparison group Medicare data (program: tx_dy3_cs1470.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; the results presented in the ***Section 6, Demonstration Impact on Cost Savings,*** 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 similar pattern with the comparison group showing an increase in

demonstration years 1–3. The weighted demonstration group expenditures decrease in demonstration year 1 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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 1 (Mar 2015–Dec 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1521.04)	$1,435.13 ($1,365.31, $1,504.94)	−$11.14 (−$66.05, $43.77)
Comparison	$1,328.22 ($1,283.82, $1,372.61)	$1,333.91 ($1,285.36, $1,382.46)	$5.69 (−$9.33, $20.71)
DinD	N/A	N/A	$16.83 (−$73.45, $39.78)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 2 (Jan 2017–Dec 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1521.04)	$1,527.29 ($1,428.33, $1,626.24)	$81.02 ($-5.85, $167.88)
Comparison	$1,328.22 ($1,283.82, $1,372.61)	$1,402.51 ($1,348.99, $1,456.04)	$74.30 ($54.28, $94.31)
DinD	N/A	N/A	$6.72 (−$81.19, $94.63)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 3 (Jan 2018–Dec 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1521.04)	$1,599.24 ($1,477.22, $1,721.25)	$152.97 ($37.75, $268.19)
Comparison	$1,328.22 ($1,283.82, $1,372.61)	$1,459.83 ($1,404.74, $1,514.92)	$131.62 ($107.88, $155.35)
DinD	N/A	N/A	$21.35 (−$95.14, $137.84)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 1 (Mar 2015–Dec 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1,521.04)	$1,435.13 ($1,365.31 $1,504.94)	−$11.14 (−$66.05, $43.77)
Comparison	$1,389.55 ($1,328.69, $1,450.40)	$1,397.66 ($1,324.08, $1,471.24)	$8.11 (−$11.67, $27.89)
DinD	N/A	N/A	−$19.25 (−$77.73, $39.22)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 2 (Jan 2017–Dec 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1,521.04)	$1,527.29 ($1,428.33, $1,626.24)	$81.02 (−$5.85, $167.88)
Comparison	$1,389.55 ($1,328.69, $1,450.40)	$1,492.68 ($1,412.61, $1,572.76)	$103.14 ($70.55, $135.72)
DinD	N/A	N/A	$−22.12 (−$113.73, $69.50)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.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 2013–Feb 2015) (95% confidence intervals)	Demonstration year 3 (Jan 2018–Dec 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,446.27 ($1,371.49, $1,521.04)	$1,599.24 ($1,477.22, $1,721.25)	$152.97 ($37.75, $268.19)
Comparison	$1,389.55 ($1,328.69, $1,450.40)	$1,549.29 ($1,471.06, $1,627.52)	$159.75 ($127.94, $191.55)
DinD	N/A	N/A	$−6.78 ($−126.18, $112.63)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1500.log)

F.4 Regression Results for Medicare Data

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—DinD regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (March 2015–December 2016)	−3.19	0.9209	(−66.10, 59.72)	(−55.98, 49.61)
Demonstration Year 2 (January 2017–December 2017)	5.32	0.9219	(−101.07, 111.71)	(−83.97, 94.61)
Demonstration Year 3 (January 2018–December 2018)	19.78	0.7762	(−116.57,156.12)	(−94.65,134.20)
Cumulative (Demonstration Years 1–3, March 2015–December 2018)	4.88	0.9173	(−87.33, 97.09)	(−72.50, 82.27)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1480GLM.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, 2015–December 31, 2018) and at least 3 months of eligibility in the predemonstration period (March 1, 2013–February 28, 2015), analogous to the criteria for identifying enrollees. The results indicate statistically significant additional costs associated with enrollees. This enrollee subgroup analysis is limited by the absence of person-level data on characteristics that potentially would lead an individual in a comparison area to enroll in a similar demonstration, and thus the results should only be considered in the context of this limitation.

Table F-9
Demonstration effects on Medicare expenditures for enrolled beneficiaries relative to the comparison group—DinD regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (March 2015–December 2016)	128.44	0.0013	(50.13, 206.75)	(62.72,194.16)
Demonstration Year 2 (January 2017–December 2017)	138.20	0.0215	(20.36, 256.05)	(39.30, 237.10)
Demonstration year 3 (January 2018–December 2018)	141.83	0.0564	(−3.84, 287.49)	(19.58, 264.08)
Cumulative (Demonstration Years 1–3, March 2015–December 2018)	136.56	0.0082	(35.37, 237.74)	(51.64, 221.47)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: tx_dy3_cs1510_enrollee.log)

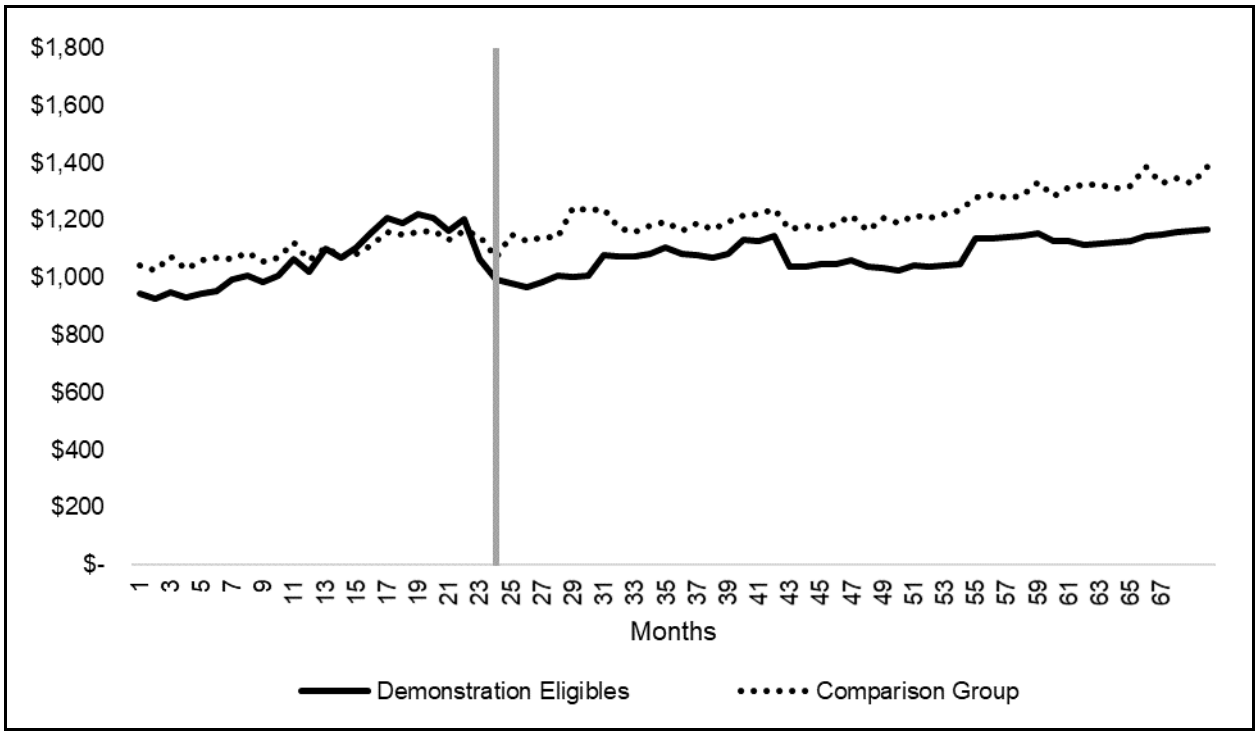
F.5 Medicaid Results

The Medicaid regression analysis on the total cost of care followed the methodology of the Medicare cost savings analysis as closely as possible, unless otherwise specified. Any deviations from the Medicare cost savings analysis are described in this appendix.

Using the Medicaid data, we tested for parallel trends in the predemonstration period. We plotted the mean monthly Medicaid expenditures for both the demonstration group and the multistate comparison group used in the Medicare cost savings analysis. Monthly Medicaid total cost of care amounts were winsorized at the 99th percentile within each year, within each state, and separately for the demonstration and comparison groups in Texas. ***Figure F-2*** shows the weighted monthly costs, where we see clearly that the assumption of parallel trends is violated—in fact, the predemonstration trend in the Medicaid total cost of care using the multistate comparison group crosses the predemonstration trend for the demonstration group in two places. Further exploration reveals that another significant change in the Texas Medicaid program occurred at the end of the predemonstration period: a transition to managed care for LTSS.[48] This shift is readily apparent in both the demonstration group and the Texas portion of the comparison group in ***Figure F-3***, but it did not affect any other comparison group states.

[48] STAR+PLUS is a managed care model within the Texas Medicaid program designed to meet the health care needs of individuals age 65 or older and individuals with disabilities. In 2015, STAR+PLUS expanded to cover nursing facility residents who were participating in Medicaid. For additional details, see https://www.hhs.texas.gov/services/health/medicaid-chip/medicaid-chip-members/starplus

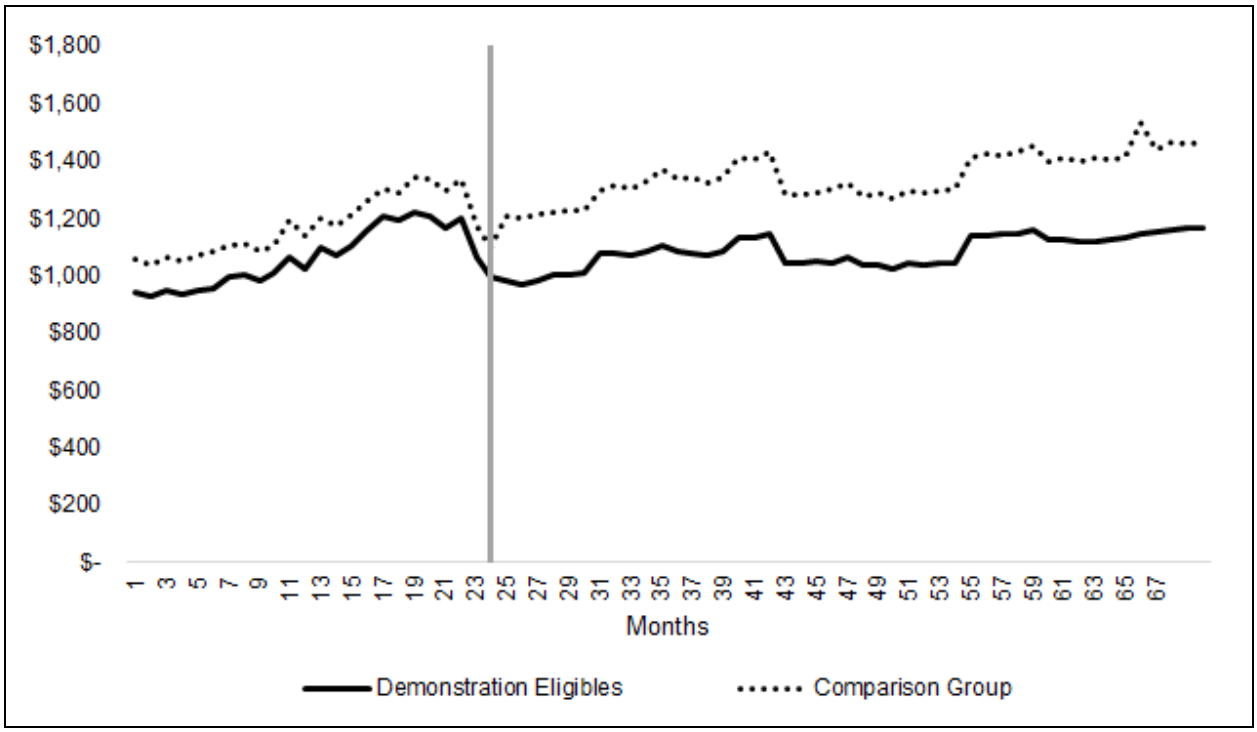
Figure F-2
Mean monthly Medicaid expenditures (weighted), predemonstration and demonstration period, demonstration and multistate comparison group, March 2013–December 2018



SOURCE: RTI Analysis of Texas demonstration eligible and comparison group Medicaid data (program: 60_Trends.do).
NOTES: Multistate comparison group drawn from dually eligible enrollees. The decrease in the mean expenditures at month 24 for the demonstration group reflects a policy shift in the Texas Medicaid program toward managed care long-term services and supports.

Since we discovered that the trends in the total cost of care in the Texas demonstration group reflected State-wide changes in Medicaid payments, we tested a Texas-only comparison group, to see if the assumption of parallel predemonstration trends would hold. Using only the Medicaid data from Texas, we tested for parallel trends in the predemonstration period. We plotted the mean monthly Medicaid expenditures for the demonstration group and the Texas-only comparison group, with PS weights that were calculated using just the Texas comparison group enrollees (see ***Appendix C***, ***Section C.7***). Monthly Medicaid total cost of care amounts were winsorized at the 99th percentile within each year and separately for the demonstration and comparison groups in Texas. ***Figure F-3*** shows the weighted monthly costs, suggesting parallel trends in the predemonstration period. The policy shift in the Texas Medicaid program, a transition to managed care for LTSS, is apparent in both the demonstration group and the Texas-only comparison group.

Figure F-3
Mean monthly Medicaid expenditures (weighted), predemonstration and demonstration period, demonstration and Texas-only comparison group, March 2013–December 2018



SOURCE: RTI Analysis of Texas demonstration eligible and comparison group Medicaid data (program: 60_Trends.do).
NOTES: Comparison group drawn only from Texas dually eligible enrollees. The decrease in the mean expenditures at month 24 for both the demonstration group and the comparison group reflect a policy shift in the Texas Medicaid program toward managed care long-term services and supports.

Table F-10 shows the Medicaid results from the DinD analysis for demonstration years 1–3 and for the entire demonstration period, controlling for beneficiary demographics and market characteristics listed earlier in this appendix. The impact of the demonstration on Medicaid total cost of care was stable across all 3 demonstration years.

Note that, because both the demonstration and comparison group were participating in the Medicaid program in Texas, there are fewer concerns about differences between the demonstration and comparison groups in Medicaid payments, eligibility, or services covered.

Table F-10
Demonstration effects on Medicaid expenditures for eligible beneficiaries relative to the comparison group—DinD regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (March 2015–December 2016)	−87.91	0.0007	(−138.54, −45.29)	(−130.54, −45.29)
Demonstration Year 2 (January 2017–December 2017)	−84.10	0.0099	(−148.04, −20.16)	(−137.76, −30.44)
Demonstration year 3 (January 2018–December 2018)	−93.46	0.0135	(−167.63, −19.28)	(−155.71, −31.21)
Cumulative (Demonstration Years 1–3, March 2015–December 2018)	−88.82	0.0033	(−148.06, −29.59)	(−138.53, −39.12)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicaid claims (program: 30_Regression.do)
NOTE: Comparison group drawn only from Texas dually eligible enrollees.

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