FINANCIAL ALIGNMENT INITIATIVE

Rhode Island Integrated Care Initiative: Combined First and Second Evaluation Report

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FINANCIAL ALIGNMENT INITIATIVE
RHODE ISLAND INTEGRATED CARE INITIATIVE:
COMBINED FIRST AND SECOND EVALUATION REPORT

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Glossary of Acronyms

ACSC	Ambulatory care sensitive condition
ADL	Activities of daily living
AE	Accountable Entity
BHDDH	Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CFNA	Comprehensive Functional Needs Assessment
CMS	Centers for Medicare & Medicaid Services
CMT	Contract Management Team
CTM	Complaint Tracking Module
DinD	Difference-in-differences
DME	Durable medical equipment
E&M	Evaluation and management
ED	Emergency Department
EOHHS	Executive Office of Health and Human Services
EQRO	External Quality Review Organization
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
HIE	Health information exchange
HPE	Hewlett Packard Enterprise
ICI	Integrated Care Initiative

ICP	Interdisciplinary care plan
ICT	Interdisciplinary Care Team
IDD	Intellectual or developmental disabilities
IHS	Initial Health Screen
IRE	Medicare Independent Review Entity
ITT	Intent-to-treat
LCM	Lead Care Manager
LTC	Long-term care
LTSS	Long-term services and supports
MA	Medicare Advantage
MAC	Member Advisory Committee
MARx	Medicare Advantage and Part D Inquiry System
MDS	Minimum Data Set
MFP	Money Follows the Person
MLTSS	Managed long-term services and support
MMCO	Medicare-Medicaid Coordination Office
MMP	Medicare-Medicaid Plan
MOU	Memorandum of Understanding
NF	Nursing facility
NHPRI	Neighborhood Health Plan of Rhode Island
PACE	Program of All-Inclusive Care for the Elderly
PCP	Primary care physician or provider
PCMP	Primary care medical provider
PMPM	Per member per-month
PS	Propensity Score

RHO	Rhody Health Options
RIPIN	Rhode Island Parent Information Network
SDRS	State Data Reporting System
SHIP	State Health Insurance Assistance Program
SNF	Skilled nursing facility
SPMI	Serious and persistent mental illness

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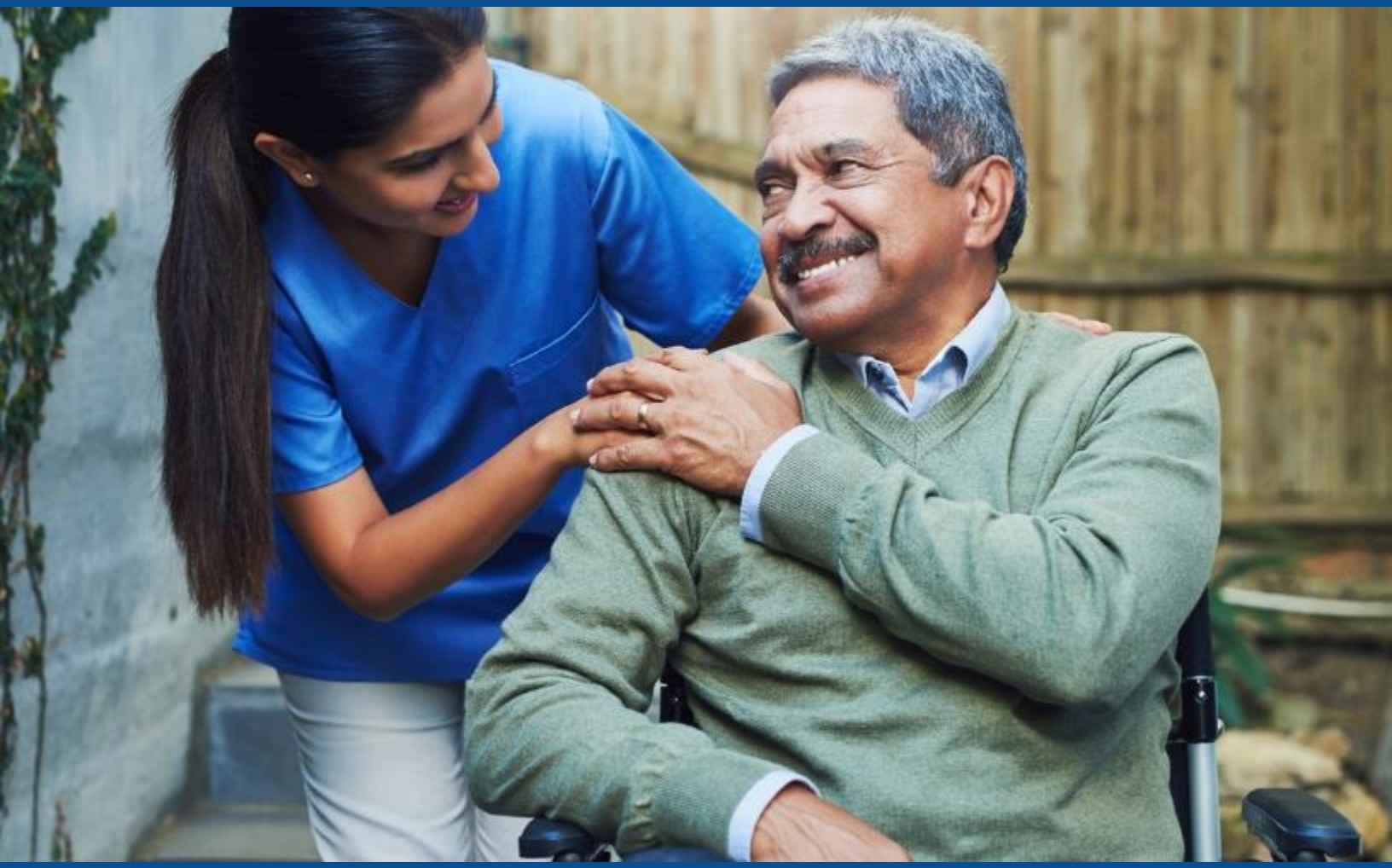
Executive Summary



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

The Rhode Island demonstration launched in July 2016 as a capitated model demonstration with one participating Medicare-Medicaid Plan (MMP), Neighborhood Health Plan of Rhode Island (NHPRI). For purposes of this report, the demonstration is referred to as the Integrated Care Initiative (ICI) demonstration; the MMP is referred to as the ICI plan.[1] The ICI demonstration is governed by a three-way contract among CMS, the Rhode Island Executive Office of Health and Human Services (EOHHS), and the ICI plan.

The ICI demonstration operates statewide and serves individuals who are eligible for both Medicare and Medicaid and are age 21 and older (see ***Section 1, Demonstration and Evaluation Overview*** for specific eligibility criteria). As of December 31, 2019, approximately 14,200 beneficiaries were enrolled in the demonstration, representing 40 percent of the eligible population. The ICI demonstration had an original end date of December 31, 2020. In 2020, the State received approval to extend the demonstration through December 31, 2023.

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. In this Evaluation Report we describe implementation of the Rhode Island ICI demonstration and early analysis of the demonstration's impacts. We include qualitative findings for July 2016 through December 2019, with brief updates through March 2020. Quantitative results include baseline and demonstration data for January 2013 through December 2018.

For purposes of this report, demonstration year 1 is defined as July 1, 2016 through December 31, 2017. Beginning January 1, 2018, subsequent demonstration years correspond to calendar years. For example, demonstration year 2 is defined as January 1, 2018 through December 31, 2018.

Highlights

The ICI demonstration integrates the broad array of functions typically performed by Medicare and Medicaid. This includes processes to determine demonstration eligibility and complete enrollment; coordinated delivery of all medical, acute, behavioral health, pharmacy, and long-term services and supports (LTSS); joint oversight of the ICI plan by CMS and EOHHS; coordinated quality management processes and systems; and a coordinated grievance and appeals process. Enrollees receive a single insurance card that covers all of the Medicare and Medicaid services included as part of the demonstration. The ICI plan receives monthly capitated payments from Medicaid and Medicare to manage the care and services of enrollees.

The State, CMS, and ICI plan, as well as other stakeholders reported that the overall beneficiary experience under the demonstration has been positive. This finding was a key factor

[1] The ICI demonstration is often referred to by the ICI plan and other stakeholders as INTEGRITY, NHPRI's branding name for the ICI demonstration. We do not use that name in this report.

in the State's decision to pursue an extension of the demonstration for an additional 3 years. For the State and the ICI plan, implementation of the ICI demonstration required up-front investments in systems upgrades and additional Medicare expertise. The State and CMS also experienced operational challenges in the first 2 years, some of which improved or resolved over time.

Integration of Medicare and Medicaid	Early in the demonstration, the State and the ICI plan reported a steep learning curve associated with Medicare policies and compliance requirements. The ICI plan had experience with Medicaid managed care but had not previously operated as a Medicare Advantage (MA) plan and needed to invest in new systems and Medicare expertise.
	The ICI demonstration has experienced several changes in State leadership and turnover of demonstration staff at the State, CMS, and the ICI plan. Although this turnover has affected some of the implementation strategies and priorities, it has not impacted the overall goals of the demonstration or its design.
Eligibility and Enrollment	Integrating Medicare and Medicaid eligibility and enrollment systems and processes has been a significant challenge for the State. Additionally, implementation of the ICI demonstration coincided with the rollout of a new State Medicaid eligibility system in September 2016 that absorbed State staff time and resources and led to increased errors in eligibility across Medicaid programs.
	The opt-out rate for beneficiaries who were passively enrolled was lower than the State anticipated. Over 40 percent of eligible beneficiaries were enrolled as of December 2017. Although the ICI plan welcomed this enrollment, in hindsight, plan representatives described operational challenges with managing this enrollment surge. Enrollment as of December 2019 remained at 40 percent of eligible beneficiaries.

Care Coordination	The ICI demonstration requires different assessment tools and processes for enrollees based on an assigned risk category and care setting. ICI plan and State officials described some of the assessment processes and timeframes as resource-intensive and burdensome to enrollees.
	Some enrollees had multiple agencies involved in coordinating different aspects of their care. The ICI plan reported that it initially took some time to work out relationships across agencies and clarify roles and responsibilities.
Stakeholder Engagement	The State implemented a consumer-led stakeholder committee for the ICI demonstration, informed by stakeholder input and the structure developed for the FAI demonstration in Massachusetts.
	In 2019, the State initiated an extensive stakeholder process to solicit input on options for different service delivery systems for Medicare-Medicaid beneficiaries. Following this work and based on positive feedback about the demonstration, the State requested a three-year extension of the ICI demonstration.
Financing and Payment	For the first 2 years of the demonstration, the ICI plan reported significant financial losses. Over time the financial experience of the ICI plan improved. By the end of demonstration year 3 (2019), the plan was anticipating net profits.

Quality of Care	The ICI demonstration includes required quality measures. Some of these are subject to quality withholds, which the plan can earn back provided that it meets certain quality benchmarks. The ICI plan significantly improved its performance from 2017 to 2018, meeting these benchmarks for 78 percent of the 18 core and State-specific measures.[2]
	Medicare Healthcare Effectiveness Data and Information Set (HEDIS) performance data for the ICI plan shows improvement in several measures from 2017 to 2018, including 30-day follow-up after hospitalization for mental illness, medication review (one of the Care for Older Adults measures), and all-cause readmissions (ages 18–64 and ages 65+).
Beneficiary Experience	Findings from focus groups, surveys, and stakeholder interviews reflect a high level of beneficiary satisfaction with the ICI demonstration, attributed in part to the elimination of pharmacy copays, the convenience of having only one insurance card, and the provision of care coordination services.
	Over two-thirds of respondents to the Consumer Assessment of Healthcare Providers and Systems (CAHPS) who were participating in the ICI demonstration rated their health plan as a 9 or 10 (73 percent in 2018 and 68 percent in 2019), with 10 being the highest rating.

[2] In response to the COVID-19 public health emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Medicare plans (including MMPs) resumed normal reporting for measurement year 2020, with those data becoming available later in 2021.

Demonstration Impact on Service Utilization and Quality of Care	As shown in ***Table ES-1***, over demonstration years 1 and 2, the count of monthly physician evaluation and management (E&M) visits increased, and both the probability of an emergency department (ED) visit and the count of preventable ED visits decreased in the demonstration group, relative to the comparison group. There were no demonstration effects on inpatient admissions, skilled nursing facility (SNF) admissions, long-stay nursing facility (NF) use, or any of the other quality of care measures.
	The demonstration impacted the population who receive LTSS differently than the non-LTSS population. Specifically, the demonstration effect for those with LTSS use was a decrease in the monthly probability of an ED visit, relative to the demonstration effect for the non-LTSS population.
Demonstration Impact on Cost Savings	As summarized in ***Table ES-2***, relative to the comparison group, the demonstration was associated with statistically significant increases in Medicare Parts A and B costs, cumulatively over demonstration years 1 and 2 and during demonstration year 1.
	The savings calculations are based on Medicare Parts A and B spending either through fee-for-service or Medicare Advantage and MMP capitated rates. These estimates do not include Medicaid or Medicare Part D expenditures, nor do they consider the actual payments for services paid by the MMP plan.

Table ES-1 summarizes the cumulative impact estimates for the Rhode Island demonstration during demonstration years 1 and 2 (demonstration start through 2018), relative to the comparison group. It also compares the demonstration effects for LTSS users versus non-LTSS users, and for beneficiaries with serious and persistent mental illness (SPMI) versus those without SPMI.

Table ES-1
Summary of Rhode Island cumulative demonstration impact estimates, demonstration years 1–2 (July 1, 2016–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	NS	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	Decrease [G]	Decrease [G]	NS
Count of preventable ED visits	Decrease [G]	NS	NS
Probability of 30-day follow-up after mental health discharge	NS	NS	N/A
Probability of skilled nursing facility admission	NS	NS	NS
Probability of any long-stay nursing facility use	NS	N/A	N/A
Count of physician evaluation and management visits	Increase [G]	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. Green color-coded shading indicates where the direction of the difference-in-differences (DinD) estimate was favorable. To ensure accessibility for text readers and individuals with sight disabilities, cells shaded green receive a superscript "G." 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 compared to the rest of the eligible population. For a given outcome, the result shown for the entire eligible population and separately for the LTSS or SPMI special population can be different from each other.

SOURCE: RTI analysis of Medicare and Nursing Home 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 2-year demonstration period and the annual effect for each demonstration year.

Table ES-2
Summary of Rhode Island demonstration effects on total Medicare expenditures among all eligible beneficiaries (July 1, 2016–December 31, 2018)

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

NS = not statistically significant.
NOTES: Statistical significance is defined at the α = 0.05 level. For numeric estimates of the demonstration's effect on total Medicare expenditures, see ***Figure 17*** in ***Section 11***. Red color-coded shading indicates where the direction of the DinD estimate was unfavorable. To ensure accessibility for text readers and individuals with visual impairments, cells shaded red receive a superscript "R." In the column for "Demonstration effect," an *Increase* or *Decrease* refers to the *relative* change in an outcome for the demonstration group compared to the comparison group, based on the DinD regression estimate of the demonstration effect during the specified measurement period.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1481_GLM.log).

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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 Medicare-Medicaid enrollees. The goal of these demonstrations is to develop person-centered care delivery models integrating the full range of medical care, behavioral health services, and long-term services and supports (LTSS) for Medicare-Medicaid enrollees. The expectation is that integrated delivery models would address the current challenges associated with the lack of coordination of Medicare and Medicaid benefits, financing, and incentives.

The key goals of the Rhode Island ICI demonstration include the delivery of person-centered care to improve enrollee quality of life and development of an integrated system of care. Other goals include increasing the proportion of individuals successfully residing in community settings; decreasing avoidable hospitalizations and emergency room utilization; and promoting alternative payment arrangements as a means to transform the delivery of high quality and cost-effective care (MOU, 2015, pp. 2–3).

Rhode Island established the ICI demonstration as part of a broader set of integrated care initiatives that the State implemented in two phases. The first phase began in 2013 with the introduction of an enhanced primary care case management model and a Medicaid managed LTSS (MLTSS) program for Medicare-Medicaid beneficiaries and Medicaid-only beneficiaries receiving LTSS.[3] In the second phase of the broader initiative, the State implemented the ICI demonstration under the FAI for Medicare-Medicaid beneficiaries. The ICI demonstration launched statewide July 1, 2016, with an original end date of December 31, 2020. The State and CMS have since extended the demonstration through December 31, 2023.

The following are the key demonstration features. Additional details follow in the topic-specific report sections. Also see ***Appendix B*** for a summary of predemonstration and demonstration design features for Medicare-Medicaid beneficiaries in Rhode Island.

Integration of Medicare and Medicaid functions. The ICI demonstration integrates the broad array of functions typically performed by Medicare and Medicaid. This includes the processes to determine demonstration eligibility and complete enrollment; the coordinated delivery of all medical, acute, behavioral health, pharmacy, and LTSS; joint oversight of the ICI plan; coordinated quality management processes and systems; and a coordinated grievance and appeals process. Enrollees receive a single insurance card that covers all of the Medicare and Medicaid services included as part of the demonstration.

Financial model. The ICI demonstration is a capitated model demonstration in which CMS, Rhode Island Executive Office of Health and Human Services (EOHHS), and the ICI plan entered into a three-way contract to provide comprehensive, coordinated care for eligible beneficiaries. The ICI plan receives monthly capitated payments from Medicaid and Medicare to manage the care and services of enrollees. CMS and the State make separate, risk-adjusted, per

[3] After implementing the ICI demonstration, the State phased out both of these programs. Additional detail is provided in ***Section 2.2, Overview of State Context***.

member per month (PMPM) payments to the ICI plan. CMS makes a monthly payment reflecting coverage of Medicare Parts A and B and a separate amount reflecting Part D services. As part of computing the capitation payment rates, aggregate savings percentages are applied to the baseline spending amounts for the Medicare Parts A and B and the Medicaid rate components. Risk corridors and quality withhold provisions also apply. For more detail, see ***Section 8, Financing and Payment.***

Eligible population. To be eligible for the ICI demonstration, an individual must live in Rhode Island; be age 21 or older at time of enrollment; have Medicare Parts A and B and be eligible for Medicare Part D; and have full Medicaid benefits. Medicare-Medicaid enrollees who are receiving hospice at the time of enrollment, are residing in Tavares[4] or Eleanor Slater Hospital[5] or an out-of-State hospital, or are enrolled in the Sherlock Plan (health coverage for adults with disabilities who are working) are not eligible for the demonstration.

Rhode Island ICI plan. A single ICI plan, Neighborhood Health Plan of Rhode Island (NHPRI), participates in the demonstration.

Geographic coverage. The ICI demonstration operates statewide.

Care coordination. The demonstration requires access to care management and care coordination services for each enrollee. These services include the development of a comprehensive care plan to support the health and wellness of the enrollee and the coordination of health services and supports, including medications, LTSS and behavioral health services. Enrollees are risk-stratified according to service level need, and the risk stratification drives the subsequent assessment process. An interdisciplinary care team (ICT) convenes to develop a care plan with the enrollee, and a lead case manager or care coordinator is responsible for ensuring coordination of services (Rhode Island three-way contract, 2018, pp. 62–3). The assessment and care coordination model are described in ***Section 5, Care Coordination***.

Benefits. The ICI demonstration covers Medicaid State Plan and §1115(a) waiver services and Medicare Parts A, B, and D services (MOU, 2015, p. 92). The following services are not covered benefits under the ICI demonstration and are available to enrollees through the fee-for-service system, although the Medicare-Medicaid Plan (MMP) is responsible for coordinating appropriate referrals: nonemergency transportation, dental services, residential services for individuals with intellectual disabilities and home stabilization services (Rhode Island three-way contract 2018, p. 294). ***Appendix B*** summarizes services delivered under the ICI demonstration and how those services were provided prior to the demonstration. Beginning in 2018, the State allowed certain services to be provided "in lieu of services or setting." This meant that certain services not previously covered by the ICI demonstration (for example, acupuncture or massage therapy) could be offered to beneficiaries if approved by the State as medically appropriate and as cost-effective substitutes for other covered benefits (Rhode Island three-way contract 2018, pp. 290-3).

Flexible benefits. The ICI plan has discretion to use its capitated payments to offer flexible benefits as appropriate to address an enrollee's needs and as specified in the

[4] Taveras is an intermediate care facility serving people with intellectual disabilities.
[5] Eleanor Slater Hospital is a State psychiatric hospital.

Interdisciplinary Care Plan (ICP). The ICI plan is authorized to offer alternative services and "value add services," which are services and equipment not otherwise covered that are cost-effective, improve health and are clinically appropriate, including interventions intended to address the social determinants of health (Rhode Island three-way contract, 2018, p. 293). The provision of value add services is not included in determining the capitation rate. Examples of such services could include items such as gym memberships or tablets to support a beneficiary's communication abilities. The ICI plan may also provide certain limited LTSS to enrollees who do not meet State LTSS eligibility guidelines in order to prevent admission, readmission or reduce length of stay in an institution (Rhode Island three-way contract, 2018, p. 53).

New service delivery models. The three-way contract requires the ICI plan to advance delivery system innovation using alternative payment arrangements. Although the State intended to withhold a portion of the Medicaid capitation payment to the ICI plan through value-based purchasing capitation offsets, State officials reported in 2018 and in 2019 that this requirement had been postponed. In part, the State wanted to ensure the creation of a consistent approach across all Medicaid initiatives, including Accountable Entities (AEs), Rhode Island's version of Accountable Care Organizations.

The ICI plan has instituted pay-for-performance incentive programs with nursing facilities focused on performance on several of the ICI demonstration's performance measures. ICI plan officials also provided examples of initiatives undertaken to improve delivery of care to enrollees. This included providing enhanced support to caregivers, and implementing a nurse rounding program that provided clinical support to enrollees residing in nursing facilities to reduce preventable hospitalizations and emergency department (ED) use. The ICI plan has also focused on helping enrollees address a range of health and social issues, including housing and nutritional needs.

Stakeholder engagement. Stakeholder input began well before implementation of the ICI demonstration as part of Rhode Island's broader integrated care initiatives. After implementation in 2016, the stakeholder structure for the demonstration transitioned into a consumer-led stakeholder group known as the ICI Implementation Council. The ICI plan is also required to establish a Member Advisory Committee (MAC) (Rhode Island three-way contract, 2018, p. 172). We describe the structure and activities of these groups in ***Section 7, Stakeholder Engagement***.

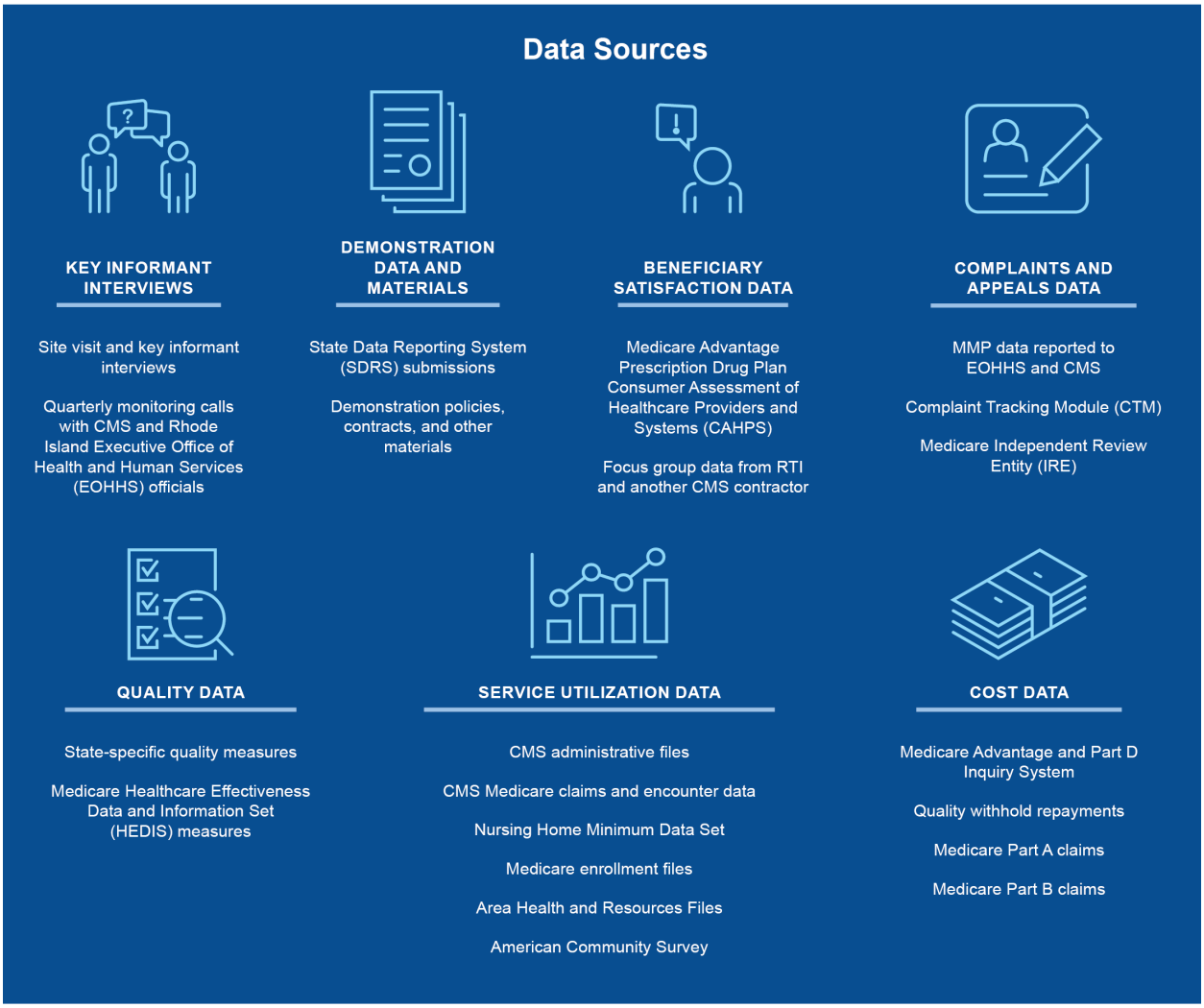
1.2 Purpose of this Report

In this report, we analyze implementation of the Rhode Island ICI demonstration from its start on July 1, 2016. The report includes qualitative data through December 31, 2019, with key updates through March 2020. We refer to this time period as "the reporting period" in the qualitative narrative. We describe the ICI demonstration's key design features; examine the extent to which the demonstration was implemented as planned; identify any modifications to the design; and discuss challenges, successes, and unintended consequences encountered during the period covered by this report. We also include findings on the beneficiaries eligible and enrolled, geographic areas covered, care coordination, the beneficiary experience, stakeholder engagement activities.

We present quantitative analysis results on service utilization, quality of care, and costs for the demonstration period spanning July 1, 2016, through December 31, 2018. The difference in timeframes between qualitative and quantitative analyses is due to the lag of secondary data used in quantitative analysis.

1.3 Data Sources

We used a wide variety of data sources to inform this Evaluation Report (see below). See ***Appendix A*** for additional details.



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SECTION 2

Demonstration Design and State Context

2.1 Changes in Demonstration Design

The three-way contract was first amended effective January 1, 2018, and incorporated several changes to the initial design of the ICI demonstration. Those changes included expanding the groups eligible for passive enrollment; allowing for greater flexibility in providing cost-effective alternative services not otherwise covered by the demonstration (referred to as "in lieu of" services); and expanding the permitted qualifications for individuals completing required assessments of enrollees. We describe changes to the design of passive enrollment more fully in ***Section 4, Eligibility and Enrollment.***

Additional changes to the three-way contract were finalized in March 2020, clarifying and revising certain administrative processes. These changes included further clarifications to passive enrollment requirements; required annual outreach to enrollees who initially did not participate in care coordination or care planning; and clarified the requirement to update care plans annually for enrollees receiving LTSS. We will discuss these changes in more detail in the next Evaluation Report.

2.2 Overview of State Context

Historically, Rhode Island has used managed care as one of its primary strategies to deliver and coordinate care for its Medicaid population. The State's initial managed care program, RIte Care, began in 1994 to serve low-income children and families. Program eligibility has been expanded several times since its implementation. Rhode Island subsequently instituted several reforms aimed at individuals with complex care needs, including implementation of its Program of All-Inclusive Care for the Elderly (PACE) program in December 2005.[6] In January 2009, CMS approved the Rhode Island Comprehensive §1115(a) demonstration. The State currently operates its entire Medicaid program under the §1115(a) demonstration, including services previously provided under home and community-based services (HCBS) 1915(c) waiver authority (CMS, 2013, p. 2).

In January 2013, Rhode Island sought CMS authority to undertake an Integrated Care Initiative in two phases. This request was approved as part of its overall §1115(a) demonstration extension in December 2013. As part of the first phase, Rhode Island created Rhody Health Options (RHO), a managed Medicaid health plan option that included LTSS within the capitation benefit package (Phase 2 solicitation, 2014, p. 18).[7] RHO enrollment began with a single managed care plan, NHPRI, in September 2013.[8] RHO served Medicaid-only enrollees with LTSS needs as well as Medicare-Medicaid beneficiaries. RHO was phased out in October 2018 pursuant to a State budget initiative. State officials reported in 2019 that RHO was implemented as a "bridge" to the ICI demonstration and was not intended to operate long-term. The ICI demonstration launched July 1, 2016, later than initially anticipated by the State. Initially, the

[6] As of January 2020, Rhode Island's PACE program operated statewide with the exception of Block Island and Prudence Island, with a total enrollment of just over 300 participants. See https://www.integratedcareresourcecenter.com/sites/default/files/PACE_Enroll_by_State_March_2021.pdf As obtained on March 30, 2020.

[7] As part of Phase I, the State also enhanced its Primary Care Case Management (PCCM) model to address the need for higher levels of care coordination and service integration. The State phased out this initiative, known as Connect Care Choice Community Partners, in early 2016.

[8] RHO was also referred to as UNITY, the branding name developed by NHPRI.

State intended to have the demonstration start within 12 to 18 months after implementation of RHO. The State attributed this delay to changes in EOHHS leadership, lack of dedicated implementation funding, limited staff, and the time needed to finalize Medicaid rates and financial design of the demonstration with CMS.

CMS has provided funding opportunities for States participating in the FAI to support the development of ombudsman services to assist beneficiaries participating in the demonstration; technical support is provided by the Administration for Community Living. Rhode Island received $937,938 over 4 years (December 2015–December 2019) for ombudsman services. CMS has also provided funding opportunities to support outreach and counseling activities for beneficiaries eligible for the demonstrations. Rhode Island received $866,504 for the same 4 -year period for these activities.

The ICI demonstration was implemented at the same time as Rhode Island's broader "Reinventing Medicaid" initiative, which was signed into law as of February 2015.[9] As part of this initiative, in 2016 the State began developing Accountable Entities (AEs), a version of Accountable Care Organizations.[10] It piloted AEs for Medicaid beneficiaries from July 2016 through June 2018, at which point AEs continued under the State's Health System Transformation Project. Medicare-Medicaid beneficiaries could not participate in both an AE and the demonstration. These co-occurring State-led Medicaid reforms required State agencies and departments to balance their workloads across multiple initiatives, especially during the early years of the demonstration.

Beginning in the summer of 2019, the State began a process to solicit broad stakeholder feedback regarding the delivery of care and services to Medicare-Medicaid beneficiaries. This included Medicare-Medicaid beneficiaries served by Medicare Advantage (MA) Special Needs Plans (SNPs).[11] From July through September 2019, the State's EOHHS convened meetings with 35 stakeholder entities, including State agencies, health insurers, provider organizations, and advocacy organizations. The effort included the State issuing a Request for Information in early 2020 to seek input from managed care plans and other interested parties (including member advocates) to solicit input on service delivery models and related preferences for serving Medicaid-Medicare beneficiaries. Based in part on this feedback, the State requested a 3-year extension of the ICI demonstration, which was finalized in August 2020.

[9] See http://webserver.rilin.state.ri.us/BillText15/HouseText15/Article-005-Sub-A-as-amended.pdf
As obtained on April 8, 2021.
[10] For additional information on Rhode Island's Accountable Entities, see:
https://www.eohhs.ri.gov/Initiatives/AccountableEntities/ResourceDocuments.aspx
As obtained on April 8, 2021.
[11] As of January 2020, there was one MA Special Needs Plans for Medicare-Medicaid beneficiaries operating in Rhode Island with an enrollment of approximately 4200 beneficiaries. See https://www.cms.gov/research-statistics-data-and-systemsstatistics-trends-and-reportsmcradvpartdenroldataspecial-needs/snp-comprehensive-report-2020-01
As obtained on April 8, 2021.

SECTION 3

Integration of Medicare and Medicaid

Throughout the ICI demonstration, there has been significant turnover of individuals involved in the demonstration at EOHHS, CMS, and the ICI plan. Although this has led to changes in strategies and priorities in some aspects of the demonstration, it has not affected the demonstration goals.

Before the demonstration, NHPRI, the sole ICI plan, had not operated as an MA plan. The ICI plan and State staff faced a steep learning curve to understand Medicare policies and compliance requirements for the ICI demonstration.

In this section, we provide an overview of the demonstration's management structure and describe the integrated delivery system, including the role and structure of the ICI plan, provider arrangements, and the relationships with entities that compose the LTSS and behavioral health delivery systems. We also provide a general description of the other functions that the State, CMS, and the ICI plan coordinate or integrate as part of the implementation of the demonstration.

3.1 Joint Management of Demonstration

3.1.1 Contract Management Team

The ICI demonstration is jointly managed by a contract management team (CMT) made up of staff from CMS and the Rhode Island EOHHS. The CMT is responsible for ensuring access, quality, program integrity, legal compliance, and oversight of the ICI plan.

EOHHS and CMS began meeting regularly prior to the start of enrollment; they met formally as the CMT once the demonstration was implemented. CMT members meet together routinely and also have regularly scheduled meetings with the ICI plan. The frequency and focus of the CMT meetings has changed over time, as have many of the individuals participating in the meetings due to staffing changes at both the State and CMS. Initially, the State and CMS met weekly, with a separate weekly meeting with the ICI plan. Over time these meetings transitioned from weekly to bi-weekly. Additional meetings were added as needed to address specific issues, such as specific compliance or operational concerns.

CMS reported that although there were numerous staff transitions at EOHHS, CMS, and the ICI plan during the period covered by this report, the CMT maintained an extremely collaborative and cooperative relationship. EOHHS staff reported that CMS representatives on the CMT have given EOHHS staff technical support on a range of issues, particularly because most EOHHS staff did not have prior experience with Medicare regulations. The ICI plan officials also noted the lack of Medicare experience among EOHHS staff and highlighted the importance of having Medicare experience built into the State infrastructure to manage a demonstration similar to that in Rhode Island.

In a few areas, EOHHS reported that the State had not always been able to make the types of changes it wanted in the ICI demonstration—for example, adjusting some of the assessment protocols required by the ICI demonstration or simplifying beneficiary notices.

Although EOHHS CMT members noted areas where their opinions and perspectives differed from those of CMS, EOHHS staff noted the State and CMS were generally aligned and described these disagreements as "healthy debate."

One of the general challenges identified by EOHHS officials in jointly managing the demonstration with CMS was the ability to be responsive and act quickly to address issues or implement change. Although the State described CMS as willing to move innovative ideas forward, State officials felt that CMS was constrained at times because of its own administrative structures and the complexity of the issues involved.

We have a really great group [from CMS] we're working with. There is some healthy debate but often we are in line on many things. Our challenge is to be nimble and quickly make efficiency changes [needed to support] the demonstration because it is such a time-limited period and we are really trying to create a new mini-ecosystem in four short years. In order to be successful, you have to embrace innovation and you have to be able to think more like a startup and quickly make decisions.

— EOHHS Official (2019)

3.2 Overview of Integrated Delivery System

3.2.1 ICI Plan

NHPRI is the sole plan participating in the ICI demonstration. Rhode Island issued solicitations for its MLTSS program and the ICI demonstration in February 2013 and May 2014, respectively (EOHHS, 2013, hereafter, RHO solicitation; ICI demonstration, 2014). NHPRI was the only organization to respond to both solicitations. Although some State staff expressed surprise that other health plans operating in Rhode Island did not respond to the solicitations, other staff were less surprised. They indicated that the decision of some plans not to participate was likely due to financial considerations and the limited size of Rhode Island's eligible population.

While NHPRI had a long history serving Medicaid managed care enrollees, it had not previously offered an MA product. ICI plan officials described the transition to the ICI demonstration as a "culture shift" in learning and complying with Medicare rules and regulations. EOHHS, CMS and the ICI plan all reported that the lack of Medicare background and expertise initially adversely impacted the ICI plan from an operational and resource perspective. For example, the ICI plan needed to invest in expertise and systems to comply with Medicare requirements around grievances and appeals, claims processing and in other areas. Even with these investments, the ICI plan self-reported a number of compliance issues to EOHHS and CMS beginning in 2017. CMS provided on-site technical assistance to the ICI plan in 2017 to help correct outstanding issues. ICI plan and CMS officials attributed these early challenges to the plan's lack of experience with Medicare.

We were not an organization that had Medicare business before this demonstration. The growing pains that go along with becoming a Medicare organization consumed a lot of time in the first year or 2. It feels as if we are starting to turn that corner a little bit…Operating a Medicare business is not getting easier, but we are acclimating [to] it…and we are far more effective today than last year with an expectation that we'll continue to get better.

— ICI plan official (2019)

3.2.2 Provider Arrangements and Services

The three-way contract required NHPRI to comply with the provider network adequacy provisions of Medicare and Medicaid (Rhode Island three-way contract, 2018, pp. 101–2) and participate in a joint readiness review process conducted by EOHHS and CMS (Rhode Island three-way contract, 2018, p. 32). Before the start of enrollment on July 1, 2016, EOHHS and CMS conducted on-site readiness review activities that included reviewing provider contracts, reviewing policies and procedures, interviewing care management staff, listening in at the NHPRI call center, and holding in-depth discussions with plan staff using case scenarios.

Prior to the demonstration, NHPRI had offered a Medicaid managed care plan for many years and in November 2013 began participating in the State's Medicaid managed LTSS program (RHO). NHPRI staff reported that because its existing provider contracts for its Medicaid lines of business allowed for contract amendments with notice, NHPRI sent contract amendment notices, along with a fee schedule, to all its providers when the demonstration launched. NHPRI officials worked with actuarial staff to create provider rates under the ICI demonstration that covered both the Medicare and Medicaid portion of the payment.

For some categories of providers, the ICI plan has limited authority to negotiate rates. State law requires that the ICI plan must demonstrate that nursing facility reimbursement is "equivalent to the FFS [fee-for-service] rate within a certain amount." Similarly, many of the requirements governing certain community health providers, including rate requirements, are set by the State. These community health services are overseen by the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH). The ICI plan contracts with a vendor to manage its network of behavioral health providers, changing its behavior health vendor in 2018.

3.2.3 Training and Support for the ICI Plan and Providers

The ICI plan conducted provider outreach and training to support the transition to the demonstration's new payment model and integrated service delivery model. The plan developed a set of customized trainings for LTSS providers, including behavioral health trainings for home care providers, to better serve individuals with complex needs. The ICI plan conducts ongoing trainings for several audiences, including training for new ICI plan staff and, as reported by the State in 2017, ongoing training for care management staff.

3.3 Major Areas of Integration

The ICI demonstration integrates Medicare Parts A and B, Medicaid, and Medicare Part D services. From the beneficiary's perspective, the ICI demonstration is designed to integrate access to and delivery of services covered under all three programs. From the perspective of EOHHS, CMS, and the ICI plan, the integration of these three programs depends on the alignment of policy, procedures, and systems at many levels.

3.3.1 Integrated Benefits and Enrollment

Medicare-Medicaid beneficiaries have a single, unified process for enrollment into the ICI plan. The plan provides the full range of medical, acute, LTSS, behavioral health, and pharmacy benefits. Member materials, including the member handbook, mailings, and member identification cards, have been unified for Medicare and Medicaid services. From the beneficiary's perspective, all the separate Medicare and Medicaid eligibility and enrollment functions have been coordinated into a single process. We discuss enrollment and eligibility processes for the ICI demonstration in ***Section 4, Eligibility and Enrollment***.

3.3.2 Integrated Care Coordination and Care Planning

Under the ICI demonstration, the ICI plan coordinates all medical, acute, behavioral health, LTSS, and pharmacy benefits. The demonstration provides a single point of contact and accountability for coordination of care for the enrollee's full range of Medicare and Medicaid services. Furthermore, the ICI plan is required to conduct a comprehensive assessment of the full range of members' needs and preferences; work with an integrated care team to meet those needs; and develop an interdisciplinary care plan for each member. See ***Section 5, Care Coordination***, for more detail.

3.3.3 Integrated Quality Management

CMS and EOHHS developed a joint structure for managing the demonstration and monitoring the performance of the participating ICI plan. The CMT, discussed earlier in this section, includes representatives from EOHHS and CMS and provides the forum for discussion and resolution of issues relating to quality monitoring processes and outcomes.

EOHHS and CMS developed a set of demonstration-specific quality measures that the ICI plan reports on in addition to the core measures required for all MMPs participating in capitated model demonstrations under the FAI. The ICI plan is required to engage in quality improvement activities and collect additional measures in accordance with Medicaid and MA plan requirements. In ***Section 9, Quality of Care***, we describe the quality management structures and measures for the ICI demonstration.

3.3.4 Integrated Financing

The ICI plan is paid a blended, risk-adjusted capitated rate covering all Medicare and Medicaid services. CMS makes monthly payments reflecting coverage of Medicare Parts A and B services and a separate amount reflecting Part D services. EOHHS makes a monthly payment reflecting coverage of Medicaid services. Medicare Parts A and B, and Medicaid payments

reflect the application of savings percentages and quality withholds (see ***Section 8, Financing and Payment***). Although the ICI plan receives separate payments for services, the design of the demonstration permits the ICI plan to blend these payments internally to cover the array of Medicare and Medicaid services provided.

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SECTION 4

Eligibility and Enrollment

Throughout the demonstration to date, the State continued to report system challenges implementing and managing the required eligibility and enrollment processes for the ICI demonstration.

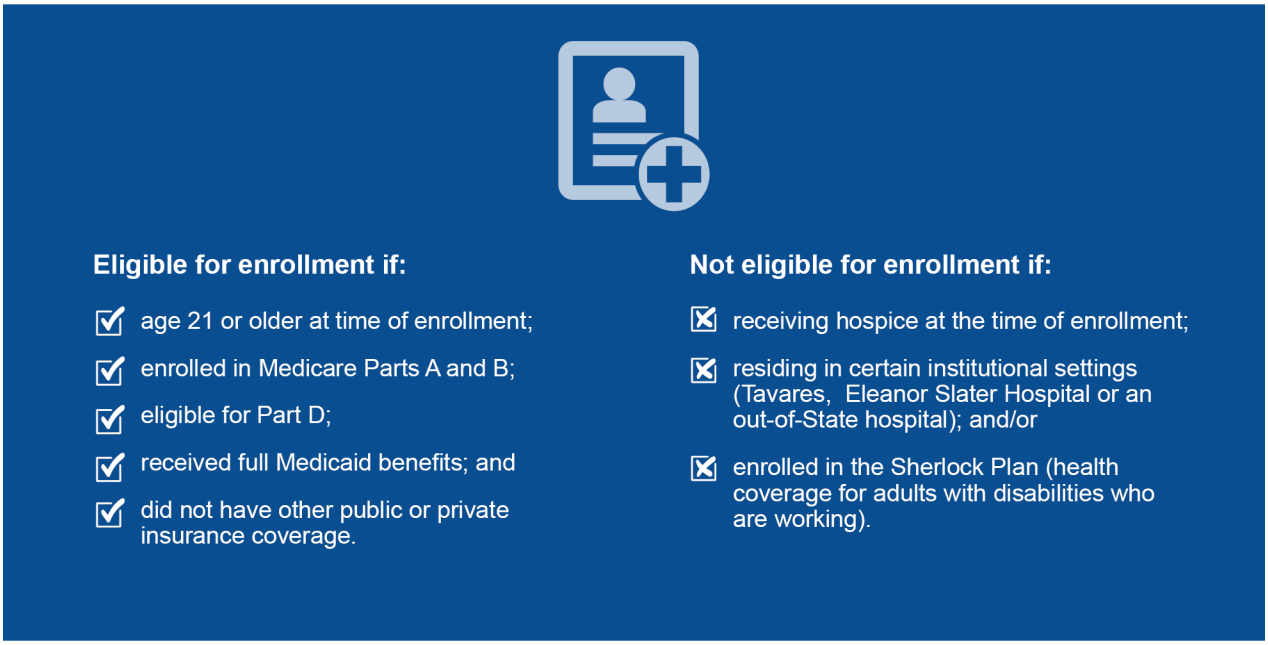
The opt-out rate for beneficiaries who were passively enrolled was lower than the State anticipated. Approximately 40 percent of eligible beneficiaries were enrolled as of December 2017. Although the ICI plan welcomed this enrollment, in hindsight plan representatives also recognized the operational challenges caused by managing a surge in enrollment.

In this section we provide an overview of enrollment issues associated with the ICI demonstration and describe eligibility, phases of enrollment, and the passive enrollment experience. We include eligibility and enrollment data, and discuss the ICI plan's experiences with reaching enrollees, as well as factors affecting enrollment decisions.

4.1 Eligibility

Figure 1 shows eligibility criteria for enrollment of Medicare-Medicaid beneficiaries in the ICI demonstration.

Figure 1
Eligibility criteria for enrollment in the Rhode Island ICI Demonstration



Source: MOU, pp. 8–9.

4.2 Enrollment

The demonstration design included an initial 90-day period of opt-in enrollment only, beginning July 1, 2016, followed by a phased approach to passive enrollment as shown in ***Table 1***. Beneficiaries can choose to enroll in the demonstration any time (Rhode Island three-way contract, 2018, p. 38).

The criteria for passive enrollment eligibility into the ICI plan have changed over time. The initial design allowed eligible beneficiaries enrolled for at least 6 months in NHPRI's Medicaid MLTSS program to be passively enrolled into the ICI demonstration, provided that the beneficiary was not currently enrolled in a MA plan and had not been passively enrolled in a Part D Prescription Drug plan within the last calendar year. Effective January 2018, the three-way contract was amended to allow eligible Medicaid FFS beneficiaries to be passively enrolled into the ICI plan (Rhode Island three-way contract, 2018, p. 40). CMS and EOHHS make decisions about the timing and volume of passive enrollment in consultation with the ICI plan.

Table 1
Initial ICI demonstration enrollment phases

Criteria	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
Start date	07/01/2016	10/01/2016	11/01/2016	12/01/2016	1/01/2017	02/01/2017	03/01/2017
Target population	All	Nursing facilities	Community LTSS/ community no LTSS	Community no LTSS	Community no LTSS	SPMI	IDD
Geographic area	Statewide	Statewide	Statewide	Statewide	Statewide	Statewide	Statewide
Enrollment method	Opt-in (ongoing)	Passive/ opt-out	Passive/ opt-out	Passive/ opt-out	Passive/ opt-out	Passive/ opt-out	Passive/ opt-out

IDD = intellectual and developmental disabilities, LTSS = long-term services and supports, SPMI = severe and persistent mental illness.
SOURCE: RTI International: State Data Reporting System (SDRS), 2017.

The State conducted additional rounds of passive enrollment in April, May, and June of 2017, targeted to newly eligible Medicare-Medicaid beneficiaries and those beneficiaries not included in earlier passive enrollment phases because of enrollment system errors. While the State initiated quarterly passive enrollment phases in the latter half of 2017, they suspended them at the end of 2017, in part to allow the ICI plan to focus on operational needs. The next round of passive enrollment occurred in October 2018. Approximately 2,000 beneficiaries were passively enrolled into the ICI demonstration when the State phased out RHO, its Medicaid MLTSS program. We provide ICI demonstration enrollment counts in ***Section 4.4, Eligibility and Enrollment Data***.

4.2.1 Passive Enrollment Experience

During early implementation, the State and other stakeholders, including the ombudsman program for the demonstration, did not report significant concerns with the use of passive enrollment for the ICI demonstration, even though NHPRI was the sole ICI plan. In part,

individuals passively enrolled into NHPRI already had a relationship with NHPRI as participants in its Medicaid MLTSS program, RHO.[12] The ICI plan noted that in some cases, beneficiaries did not need to change care coordinators as they transitioned from RHO to the ICI demonstration. The State and other stakeholders noted that overall beneficiary experience in the demonstration appeared favorable, as reflected in part by low opt-out rates in the first demonstration year and anecdotal reports.

[The opt-out rate] is lower than we projected, but I don't think we're surprised. We projected a higher opt-out rate for budgetary and planning purposes because that was the experience in other [FAI demonstration] States. Since most of those enrolling passively are in our existing [RHO] product and are just moving over into an integrated benefit, not a lot changes for them. It changes significantly on the provider side, but not so much from the member experience.

— ICI plan official (2017)

The initial phases of passive enrollment in 2016–2017 resulted in high enrollment and low opt-out rates. EOHHS, the ICI plan, and other stakeholders highlighted these initial enrollment numbers as an early success of the demonstration, but in retrospect, in 2019 the ICI plan described initial enrollment success as a "hard lesson" of the demonstration. It said that the volume of enrollees "felt like tidal waves" and it took time for the plan to recover operationally.

In December 2017, the State and CMS halted passive enrollment for the ICI demonstration, in part so the plan could focus on outstanding compliance and operational issues. ICI plan officials were also reluctant to accept additional passive enrollment in light of their concerns over the Medicaid capitation rate (see ***Section 8, Financing and Payment***). As a result, passive enrollment activities were limited to a one-time enrollment of beneficiaries driven by the phasing out of RHO in October 2018.

In early 2020, the ICI plan described an improved financial outlook (see ***Section 8, Financing and Payment***), and was actively seeking additional passive enrollment to compensate for several years of attrition. In early 2020 EOHHS reported that the State did not want to initiate additional passive enrollment with the demonstration schedule to end in December 2020.Until the State finalized its decision to extend the demonstration, and decided whether to solicit participation of additional ICI plans, EOHHS officials hesitated to add a significant number of beneficiaries to NHPRI through passive enrollment.[13]

4.2.2 Integration of Medicare and Medicaid Enrollment Systems

When the demonstration began, ICI enrollments were processed through Rhode Island's Medicaid Management Information System vendor, Hewlett Packard Enterprise (HPE). While beneficiaries can opt-in to the demonstration at any time, the State also targeted notices to

[12] NHPRI was the sole health plan participating in RHO, the State's Medicaid MLTSS program. Enrollment into RHO was voluntary.
[13] The State and CMS have since extended the demonstration through December 31, 2023.

beneficiaries who were not eligible for passive enrollment. HPE identified the relevant enrollment population and transmitted that information to CMS. If eligibility was verified, HPE mailed an enrollment packet to the beneficiary.

The process was similar for passive enrollment. HPE identified the passive enrollment population and verified eligibility with CMS through InfoCrossing. HPE then generated 60-day enrollment notices for eligible individuals. Beneficiaries were able to opt out of passive enrollment by contacting the ICI plan's enrollment line. Opt-out requests were forwarded to HPE; HPE in turn initiated a cancellation transaction with CMS through InfoCrossing.

EOHHS officials reported that implementing integrated enrollment processes and systems for the demonstration presented a significant—if not the primary—implementation challenge, and required significant resources to design, build, and implement.

This is probably the most complicated project that we have undertaken; we had to build an entirely new platform to do it. We do not do this [type of enrollment] for any other Medicaid eligible group in the State. We did not have a call center so we had to build one. We also built an interface with the call center.

— EOHHS Official (2017)

The State also faced systems challenges in allowing enrollees to request disenrollment through the last day of the month, which was a requirement of the ICI demonstration. Because of this requirement, which was legally required of all Medicare managed care plans enrolling dually eligible beneficiaries at the time the ICI demonstration was implemented,[14] the State had to construct an entirely new platform to allow for daily enrollment transactions. The logic underlying this system differed from all other State Medicaid processing, including that of RHO. EOHHS estimated in 2017 that the build alone represented over 30,000 hours of staff time. Although implementation of this system did not contribute to delays in the demonstration start date, staff noted that the system would not have been operational had the demonstration been implemented as originally scheduled.

Following the launch of the demonstration, EOHHS officials reported a variety of enrollment issues that absorbed State time and resources. These included transactions that were rejected because of different spellings of enrollee names or other mismatches. EOHHS also needed to develop interim business practices to accommodate design issues with the State's system. For example, automated business processes did not accommodate enrollment of beneficiaries who chose to opt into the ICI demonstration before the State identified them as part of an enrollment group; EOHHS staff had to develop interim manual processes to enroll beneficiaries who had not yet received an opt-in or passive enrollment letter.

Although systems issues have improved over time, eligibility and enrollment processes have continued to be an area of significant challenge. EOHHS officials in 2019 and 2020 noted

[14] CMS has since revised its enrollment and disenrollment guidance, to allow states to restrict disenrollment to a quarterly, rather than monthly basis. This policy change became effective in January 2019.

that the State continued to make ongoing system modifications in response to CMS changes and requirements.

> *One thing that surprised us was the State's administrative burden, particularly in terms of enrollment into the ICI demonstration, and the convoluted way in which we have to do that, particularly by CMS requirements...Those are operational burdens on the State but also a burden on the [demonstration] overall…It is unbelievably complicated. You need deep, on the ground process and product management analysis to make it work, and then you have to find a way to pay for the enhancements in the system."*
>
> — EOHHS Official (2020)

Implementation of a new State Medicaid eligibility system that coincided with demonstration implementation in 2016 led to eligibility errors across Medicaid programs, as well as delays in processing applications. Although these issues have improved over time, stakeholders in 2019 and 2020 continue to report ongoing challenges.

In the first few years of the demonstration, ICI plan officials reported that attrition in the demonstration was primarily due to beneficiary death or voluntary disenrollment. Over time, the ICI plan reported that involuntary disenrollments increased due to often temporary loss of Medicaid eligibility. These involuntary disenrollments presented a significant challenge for the plan because beneficiaries were not automatically re-enrolled in the demonstration once Medicaid eligibility was re-established.

4.3 Contacting and Enrolling Beneficiaries

Enrollment-related outreach for the ICI demonstration is provided by State Health Insurance Assistance Program (SHIP) counselors as well as Medicare-Medicaid Enrollment (MME) counselors who help conduct enrollment-related outreach activities for the ICI demonstration[15]. As part of early implementation activities, EOHHS staff presented on the demonstration at the annual training for SHIP counselors hosted by Medicare and at trainings held by the Rhode Island Office of Healthy Aging.[16] EOHHS staff did not undertake comprehensive educational or outreach activities for beneficiaries who are eligible but not yet enrolled; they noted in 2019 that Rhode Island is a "small State, and it's pretty easy to get the word out."

In 2019, the ICI plan noted that about one-third of the phone numbers and addresses provided to the plan as part of the State's enrollment process were incorrect. The plan also reported in 2020 that it was leveraging utilization and pharmacy data to help reach enrollees without current contact information, a time- and resource-intensive process. In some cases, the ICI plan experienced recurring issues because the State's eligibility file did not update with new

[15] SHIP counselors are part of Rhode Island's Aging and Disability Resource Center network. MME counselors provide dedicated one-on-one options counseling and assistance and work within the United Way of Rhode Island.
[16] Formerly known as the Division of Elderly Affairs.

information. EOHHS reported that "what we send the plan is only as good as our eligibility system, and we often don't find out when somebody's moved or changed phone numbers."

In early 2020, the ICI plan and EOHHS highlighted in-person outreach initiated by the plan in the prior year. The plan held sessions in English and Spanish in variety of settings, including adult day centers and assisted living settings. This outreach enabled the ICI plan to connect and engage with potential enrollees. For beneficiaries interested in enrolling, the ICI plan was able to conduct an in-person Initial Health Screen Assessment (see ***Section 5, Care Coordination***) and obtain current contact information.

4.4 Eligibility and Enrollment Data

As shown in ***Table 2***, the ICI demonstration enrollment rate increased between December 2017 and December 2018, due in part to the passive enrollment of approximately 2,000 beneficiaries previously enrolled in RHO, the State's Medicaid MLTSS program that was phased out in 2018. While the percent of eligible enrollees has remained stable since 2017, the actual number of beneficiaries enrolled in the ICI demonstration decreased in calendar year 2019.[17]

Table 2
ICI plan enrollment

Enrollment indicator	Number of beneficiaries			
	December 2016	December 2017	December 2018	December 2019
Eligibility Beneficiaries eligible to participate in the demonstration as of the end of the month	31,103	34,113	35,876	34,532
Enrollment Beneficiaries currently enrolled in the demonstration at the end of the month	7,887	14,093	15,555	13,876
Percentage enrolled Percentage of eligible beneficiaries enrolled in the demonstration at the end of the month	25%	41%	40%	40%

SOURCE: RTI International: State Data Reporting System (SDRS) 2016, 2017, 2018, and 2019.

[17] 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 11, Demonstration Impact on Cost Savings***, includes FFS and Medicare Advantage populations. By contrast, the definition of eligibility in ***Section 10, Demonstration Impact on Service Utilization and Quality of Care*** includes only demonstration eligible FFS beneficiaries.

SECTION 5

Care Coordination

Assessment tools and care management intensity differ depending on enrollee risk classification and whether the enrollee resides in a nursing facility. ICI plan and State officials described some of the assessment processes as duplicative and resource-intensive.

Some enrollees had multiple agencies involved in coordinating different aspects of their care. The ICI plan reported that it took time to work out these relationships and clarify the role of the ICI plan as the lead organization responsible for managing an enrollee's care.

Over the course of the demonstration, the ICI plan has modified its staffing structures and approach to completing assessments and providing care management to better meet enrollee needs.

The ICI demonstration requires access to care management services for each enrollee. Care management includes coordination of services across the health and social supports spectrum, both within and outside of ICI plan-provided benefits. Care management services also include supports and follow-up when transitioning from a higher level of care. In this section, we provide an overview of the ICI demonstration's assessment and care management model. We also discuss data exchange.

5.1 Assessment and Care Coordination Model

5.1.1 Required Assessment Process

The ICI plan performs an initial risk stratification for each enrollee to determine the appropriate assessment and assignment of care coordination staff. Low- to moderate-risk enrollees receive an Initial Health Screen assessment (IHS). This health screen either confirms an enrollee's status as low to moderate risk or indicates a high level of risk, in which case the individual receives an in-person Comprehensive Functional Needs Assessment (CFNA). Enrollees who are receiving or will receive community LTSS are by definition classified as high-risk, requiring the completion of a CFNA (Rhode Island three-way contract, 2018, pp. 72–7).

The assessment process for facility-based LTSS enrollees includes a Discharge Opportunity Assessment for enrollees who may have the desire or opportunity to return to the community, and a Wellness Assessment for enrollees who do not want to return to the community. The ICI plan must conduct a review of nursing facility residents interested in returning to the community every 6 months. The plan collaborates with the Rhode Island Money Follows the Person program (MFP), Rhode to Home, for those individuals enrolled in the demonstration who qualify for MFP.[18]

[18] MFP is a Federal demonstration that supports States' efforts in rebalancing their LTSS system by assisting individuals transitioning from nursing facilities back to the community.

During the first 6 months of the demonstration, the ICI plan was required to complete the IHS and CFNA within 180 calendar days of an effective enrollment. The State and CMS then shortened the time allowed for completion of the initial IHS to 45 days and the initial CNFA to 15 days (Rhode Island three-way contract, 2018, pp. 72–9). For enrollees transitioning into the ICI demonstration from RHO, the RHO reassessment date served as the deadline for administering the applicable IHS or CFNA assessment, provided that the RHO assessment had been completed within the last 180 days.

Reassessments are required for high-risk enrollees every 90 days or when the enrollee's needs change, such as when a hospitalization, significant change in circumstances, or loss of caregiver occurs (Rhode Island three-way contract, 2018, p. 78). Enrollees classified as low risk are reassessed annually (Rhode Island three-way contract, 2018, p. 77).

5.1.2 Implementation Experience with Assessments

Although the ICI plan was able to achieve high assessment completion rates for individuals they could locate and who were willing to participate, the plan reported several challenges over the first few years of the demonstration. Without up-to-date contact information, the plan had difficulty reaching many enrollees. The ICI plan found that some individuals did not feel comfortable providing information by telephone. The State and CMS did not approve use of an automated calling system for all initial screenings that the plan had piloted. EOHHS reported that the ICI plan discontinued use of the automated system and focused on creating new outreach strategies, including community education sessions where the IHS could be completed in person.

As shown in ***Table 3***, the percentage of enrollees the plan was unable to reach within 90 days of enrollment was substantial, with variation over the course of the demonstration to date (2016–2019). In 2019, the percent of enrollees the plan was unable to reach was between 40 and approximately 50 percent in every quarter. Although only 10 percent of enrollees were unreachable after three attempts in the first 4 months of the demonstration, that percentage increased as enrollment numbers grew.

Table 3
Percentage of members that the MMP was unable to reach following three attempts, within 90 days of enrollment, 2016–2019

Quarter	Calendar year 2016	Calendar year 2017	Calendar year 2018	Calendar year 2019
Q1	N/A	34.7	30.4	39.8
Q2	N/A	48.1	22.3	47.9
Q3	0.0	55.3	28.3	52.6
Q4	10.2	37.5	44.3	42.7

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
NOTE: Because the Rhode Island demonstration began in July 2016, data are not applicable for quarter 1 and quarter 2 of 2016.
SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of January 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

Over the course of the ICI demonstration, EOHHS and the ICI plan have raised questions about the frequency and number of required assessments. They reported that, while the goal of person-centered care requires a "high-touch" approach, the number of individuals trying to contact enrollees and the purpose of different assessments caused confusion and frustration. In some cases, enrollees who received LTSS or behavioral health services had other assessment requirements in addition to those required by the demonstration. EOHHS officials identified this as an area they continue to monitor for improvement.

[I]n a very short period of time [members] can feel very quickly overwhelmed with the assessments…they don't really understand what the value is of the assessment and why they have to constantly answer the same questions over and over again.

— EOHHS official (2017)

The ICI plan and the State reported in 2018 that they supported changes to some of the required assessment protocols, particularly around the frequency of completing the CFNA. However, the State noted that CMS had not agreed to move forward with all of the State's recommended changes. In 2020, EOHHS saw the potential extension of the demonstration as an opportunity to revisit the demonstration's assessment requirements. They noted the frequency of assessments was one of the areas identified by health plans and other stakeholders as an area that could be improved moving forward.

The ICI plan made changes to its staffing structure and the State and CMS modified staff qualification requirements. In the first half of 2018 the plan created a dedicated assessment team focused on completing CFNAs on enrollees receiving LTSS and those classified as high-risk following the completion of the IHS. Effective January 1, 2018, the three-way contract was amended to remove the licensure requirements for individuals who administer CFNAs, instead requiring that CFNAs be completed by a "qualified individual" (Rhode Island three-way contract, 2018, p. 81). The plan also streamlined and shortened the IHS in 2018, following input from its MAC. See ***Section 7, Stakeholder Engagement***, for a description of the MAC. In 2019, the ICI plan reported that it continued to streamline the assessment process through operational and staffing structures.

Even though the State and ICI plan noted initial challenges with the required timeframes for assessment completion, ***Table 4*** shows that the percentage of assessments completed within 90 days for enrollees willing to participate and who could be reached was consistently high, above 90 percent, from 2016 through 2019, in all but one quarter. The change in the assessment schedule for enrollees who were transitioning from RHO, may have helped achieve these rates.

Table 4
Members whose assessments were completed within 90 days of enrollment, 2016–2019

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 assessments completed within 90 days of enrollment	
		All members	All members willing to participate and who could be reached
2016			
Q1	N/A	N/A	N/A
Q2	N/A	N/A	N/A
Q3	18	94.4	94.4
Q4	1,122	85.6	96.8
2017			
Q1	8,502	44.4	72.4
Q2	2,913	44.8	95.9
Q3	1,775	39.9	96.1
Q4	1,087	53.5	92.1
2018			
Q1	342	58.8	91.0
Q2	130	71.5	96.9
Q3	180	67.2	98.4
Q4	2,350	52.1	99.1
2019			
Q1	1,004	54.0	95.9
Q2	305	46.9	96.0
Q3	388	41.0	97.5
Q4	349	48.7	97.7

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
NOTE: Because the Rhode Island demonstration began in July 2016, data are not applicable for quarter 1 and quarter 2 of 2016.
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.

5.1.3 Care Planning Process

The design of the ICI demonstration includes access to care management services for each enrollee. The type and intensity of care management services depends on an enrollee's risk classification. Community-based enrollees receiving LTSS and other enrollees in the community determined to be high risk receive intensive case management services. Other enrollees receive care coordination services. Enrollees in nursing facilities who are transitioning to the community receive transition coordination (Rhode Island three-way contract, 2018, p. 60).

An ICT develops an ICP for each enrollee.[19] The ICT is led by a lead care manager (LCM) for individuals receiving intensive care management. For those in the community classified as lower risk, the ICP is developed by the care coordinator and then shared with the member.[20] Unlike LCMs, care coordinators are not required to have clinical backgrounds (Rhode Island three-way contract, 2018, pp. 70–1).

The ICT includes the enrollee, the LCM or care coordinator (as applicable), and the PCP (Rhode Island three-way contract, 2018, p. 62). Others may be included based on the enrollee's needs and preferences. For example, the ICT may also include specialists, social workers, or LTSS providers. The ICT serves as the "communication hub" for the coordination of services for each enrollee, across the continuum of care (Rhode Island three-way contract, 2018, p. 62).

For enrollees residing in nursing facilities who do not want or are not able to transition to the community, a care coordinator develops a wellness plan that complements clinical plans of care at the nursing facility, and supplements those plans where necessary (Rhode Island three-way contract, 2018, p. 24). For enrollees with an opportunity to transition to the community, the ICI plan assigns a staff person to provide transition coordination consistent with Rhode Island's Money Follows the Person demonstration.

5.1.4 Implementation Experience with Care Planning

During the first year of the demonstration, the State and ICI plan reported that while the overall care management structure was in place for the demonstration, the delivery of care management services tended to be fragmented because enrollees had different assessments and care managers for different components of service. The ICI plan and the State said some beneficiaries were confused about the number of individuals involved in managing their care.

[I]t's confusing; there are some members with six case managers: homecare, primary practice, us, [behavioral health], and there's no lead. It happens all the time. Who is the lead case manager? Who coordinates all the services? Many of our care managers at [the ICI plan] try to aggressively take the lead, but there is nothing that dictates who the lead is.

— ICI plan official (2017)

As the demonstration matured, the ICI plan reported that initial confusion regarding the care management structure lessened, with the ICI plan taking the lead to coordinate all of an enrollee's care. In cases where others, such as a behavioral health case manager, are involved in managing an aspect of the enrollee's care, the ICI plan assigns the enrollee an LCM at the plan

[19] For individuals receiving LTSS, the ICP must also include an LTSS Care Plan which addresses the LTSS needs of individuals who meet Medicaid LTSS eligibility criteria. The LTSS Care Plan includes, but is not limited to, the individual's LTSS goals and recommendations, LTSS services and care to be provided, LTSS clinical and non-clinical supports and services, a risk mitigation plan, and a 24/7 emergency back-up plan (Rhode Island three-way contract, 2018, p. 14).

[20] According to EOHHS, this requirement has been interpreted to allow the MMP to mail an abbreviated care plan to lower risk enrollees with limited discussion of the care plan between the enrollee and their care coordinator.

who works with the external person or entity to ensure all needs are being met and provides additional support.

> *[The ICI plan] always has someone assigned as the lead. The lead doesn't always mean it is a member-facing individual but it is the person who coordinates everything among the care team to assure there is efficiency, lack of duplication, and one clear message being provided to the member, provider and care team.*
>
> — ICI plan official (2019)

The ICI plan realigned its case management structure in 2018, creating teams with specialized focus areas. These included teams focused on individuals transitioning across care settings, especially enrollees being discharged from hospitals and nursing facility residents with opportunities for returning to the community. Another team provided oversight activities and support to contracted community action agencies that provided case management activities for the ICI plan.[21] The ICI plan also added a housing specialist as a resource to its care coordination teams; officials noted limited housing resources for nursing facility residents choosing to return to the community as a barrier to transitions.

ICI plan officials reported hearing favorable feedback from enrollees and providers, particularly LTSS providers, about the value of care coordination services offered by the demonstration. In some cases, the ICI plan has been able to supplement providers' resources, for example, by providing non-licensed community-based health workers to assist with social supports. A number of enrollees who participated in 2017 and 2018 focus groups reported the enhanced care coordination services as an important benefit of the demonstration (see ***Section 6, Beneficiary Experience***).

The ICI demonstration included a State-specific reporting requirement to track the number of enrollees who had ICPs or wellness plans within 15 days of a completed assessment. ***Table 5*** shows that in 2016 and 2017, almost all of the enrollees had a completed care plans within 15 days of the completed assessment, and almost all enrollees who could be reached were documented as willing to complete a care plan.

[21] MMP officials reported that these agencies primarily served individuals with LTSS and had served in this role prior to the demonstration.

Table 5
Members with Interdisciplinary Care Plans or Wellness Plans within 15 days of a completed assessment, 2016–2017

Quarter	Total number of members with an assessment completed within the reporting period	Percentage of care plans completed within 15 days of a completed assessment	
		All members	All members willing to complete a care plan and who could be reached
2016			
Q1	N/A	N/A	N/A
Q2	N/A	N/A	N/A
Q3	79	91.1	91.1
Q4	918	92.9	92.9
2017			
Q1	1,332	92.7	92.9
Q2	1,204	90.9	91.7
Q3	918	89.6	91.2
Q4	1,737	91.3	93.2

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
NOTES: Because the Rhode Island demonstration began in July 2016, data are not applicable for quarter 1 and quarter 2 of 2016. Care plan data for 2018 and 2019 are presented in ***Table 6*** using Core Measure 3.2.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure RI 1.1 as of June 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Rhode Island-Specific Reporting Requirements document.

As of 2018, the ICI demonstration included a CMS and State core quality measure that required reporting on care plan completion rates. ***Table 6*** shows the percentage of all enrollees, as well as all enrollees documented as willing to complete a care plan and who could be reached, with a care plan completed within 90 days of enrollment. The percent for both noticeably decreased from 2018 to 2019. For example, for the latter group of enrollees, the percentage of care plans completed within the required timeframe dropped from a range of 84–96 percent in 2018, to a range of 17–21 percent in 2019. The decline in 2019 is related to a late 2019 CMT discovery that the ICI plan had been incorrectly counting certain care plans in their care plan completion rate. Those care plans were mailed to lower risk beneficiaries but developed without their involvement. The CMT required the ICI plan to stop counting them because CMS and State reporting requirements only allow MMPs to report completed care plans when a member or the member's authorized representative was involved in the development of the care plan. (Only the 2019 rates were impacted because the CMT did not require the ICI plan to resubmit prior care plan data retroactively).

Though the MMP's practice of mailing care plans to lower risk enrollees does not meet the reporting standard, it is still considered to be in compliance with the three-way contract. EOHHS reported that the MMP develops care plans for lower risk members without their involvement in order to focus ICI plan resources and time on care planning discussions on higher risk enrollees.

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

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period and who were currently enrolled at the end of the reporting period	Percentage of care plans completed within 90 days of enrollment	
		All members	All members willing to complete a care plan and who could be reached
2018			
Q1	342	63.2	84.4
Q2	130	74.6	91.5
Q3	180	68.3	96.1
Q4	2,350	51.4	94.2
2019			
Q1	999	20.1	20.7
Q2	306	19.3	20.7
Q3	387	17.1	18.4
Q4	349	15.8	17.5

MMP = Medicare-Medicaid Plan; Q = quarter.
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.

The ICI demonstration also required the ICI plan to report on the percent of enrollees who had at least one documented discussion of care goals. Among enrollees with a care plan, the percentage of members with at least one documented discussion of care goals varied greatly over the first 3 demonstration years, with a low of 5.3 percent in quarter 4 of 2017 and a high of 93.8 percent in quarter 4 of 2019, and generally high percentages in 2019, as indicated in ***Table 7***. The total number of beneficiaries with an initial care plan completed was significantly lower in 2019 than in the 2 previous years (and was impacted by the previously-described correction to NHPRI's care plan data reporting).

Table 7
Members with documented discussion of care goals, 2016–2019

Quarter	Total number of members with an initial care plan completed	Percentage of members with at least one documented discussion of care goals in the initial care plans
2016		
Q1	N/A	N/A
Q2	N/A	N/A
Q3	40	50.0
Q4	405	32.6
2017		
Q1	429	38.7
Q2	202	65.8
Q3	527	25.2
Q4	1,348	5.3
2018		
Q1	178	68.5
Q2	331	25.7
Q3	602	28.9
Q4	1,176	16.8
2019		
Q1	125	55.2
Q2	117	70.1
Q3	105	82.9
Q4	32	93.8

MMP = Medicare-Medicaid Plan; N/A = not applicable; Q = quarter.
NOTE: Because the Rhode Island demonstration began in July 2016, data are not applicable for quarter 1 and quarter 2 of 2016.
SOURCE: RTI analysis of MMP-reported data for State-specific Measure RI 1.3 as of June 2021. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Rhode Island-Specific Reporting Requirement document.

As shown in ***Table 8***, the number of care coordinators increased over the course of the demonstration to date (2016–2019). Overall, the average caseloads (member loads) noticeably decreased, from 464.6 in 2016 to 145.3 in 2019. After the first 6 months of the demonstration, the percentage of care coordinators assigned to care management remained very high, at 92–93 percent, and the care coordinator turnover rate was between 11 and 14 percent.

Table 8
Care coordination staffing, 2016–2019

Calendar year	Total number of care coordinators (FTE)	Percentage of care coordinators assigned to care management and conducting assessments	Member load per care coordinator assigned to care management and conducting assessments	Turnover rate (%)
2016	31	54.8	464.6	3.1
2017	65	92.3	236.4	14.5
2018	85	92.9	198.7	11.5
2019	103	93.2	145.3	14.2

FTE: full time equivalent; MMP = Medicare-Medicaid Plan.
NOTE: Calendar year 2016 covers data for the period of July 2016 to December 2016.
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.

5.2 Information Exchange

The three-way contract sets forth categories of information needed for effective and efficient care management, such as enrollee clinical history, diagnoses, urgent and ongoing care needs, and risk-scoring data. Other than the general requirement for "integrated electronic systems that maximize interoperability," the contract does not specifically detail system requirements for facilitating information exchange for care coordination purposes (Rhode Island three-way contract, 2018, p. 72).

Rhode Island utilizes a statewide health information exchange, known as CurrentCare, which provides a secure platform for the storage of patient health information. The three-way contract requires that the ICI plan provides information and education to enrollees on the benefits of enrollment in CurrentCare. It also requires the ICI plan to incorporate language in its downstream provider contracts to encourage them to enroll as users of CurrentCare, and to receive hospital alerts (Rhode Island three-way contract, 2018, p. 66). While EOHHS reported that the CurrentCare contractual requirements are straightforward, they acknowledged there are structural barriers to CurrentCare's ability to play a central role in patient information exchange among the ICI plan and service providers.

In 2020, ICI plan officials reported that as of late 2019, the ICI plan had enhanced access to admission, discharge, and transfer communications, which indicate when a patient is admitted to a hospital, transferred to another facility or discharged from a hospital. The ICI plan received daily feeds updated every 2 hours, which allowed it to better manage enrollees' care and support individuals transitioning to or from a hospital setting.

SECTION 6

Beneficiary Experience

Findings from focus groups, surveys, and stakeholder interviews indicate a high level of beneficiary satisfaction with the ICI demonstration. This is attributed in part to the elimination of pharmacy copays, the convenience of having only one insurance card, and the provision of care coordination services.

Over two-thirds of respondents to the Consumer Assessment of Healthcare Providers and Systems (CAHPS) who were participating in the ICI demonstration rated their health plan as a 9 or 10 (73 percent in 2018 and 68 percent in to 2019), with 10 being the highest rating.

EOHHS, the ICI ombudsman, and the ICI plan all reported a minimal number of grievances and appeals filed by beneficiaries. The ICI plan reported receiving a number of complaints about transportation services; these services are provided by a contractor with the State Medicaid program, not provided by the ICI plan.

Improving the experience of beneficiaries who access Medicare- and Medicaid-covered services is a major goal of the demonstrations under the FAI. Many aspects of the ICI demonstration were designed expressly with this goal in mind, including emphases on developing person-centered care plans, delivering all Medicare and Medicaid services through a single entity, and aligning Medicare and Medicaid processes.

In this section, we draw on findings from the CAHPS survey; RTI focus groups ("2017 focus groups") and focus groups conducted by Allen Newman Research, another CMS contractor ("2018 focus groups");[22] stakeholder interviews; data related to complaints and appeals; and critical incident and abuse reports. (See ***Appendix A, Data Sources*** for details about each data source.)

We highlight findings on:

- beneficiary satisfaction with the ICI demonstration;
- beneficiary experience with access to care, person-centered care, and patient engagement;
- personal health outcomes and quality of life;
- the experience of special populations (where information is available); and
- beneficiary protections.

[22] See ***Appendix A*** for details on these focus groups. RTI conducted one set in 2017 and another contractor conducted the other set in 2018. The two sets of focus groups covered similar topics. Differences in the findings between the two sets of focus groups might reflect the maturation of the demonstration over time or simply variation in who participated and their particular experiences.

6.1 Impact of the Demonstration on Beneficiaries

In this section, we summarize findings from focus groups, beneficiary surveys, and stakeholder interviews reflecting beneficiary experiences with service delivery and quality of life.

6.1.1 Overall Satisfaction with and Awareness of the ICI Demonstration

EOHHS, the ICI plan, and the ombudsman program have consistently reported that beneficiary satisfaction with the demonstration was generally high. They attributed positive beneficiary experience to unique components of the demonstration, including the lack of medical and pharmaceutical copays, the convenience of having only one insurance card, and increased care coordination services. Most recently, the State reported receiving "overwhelmingly positive" feedback about the demonstration as part of stakeholder outreach conducted in the second half of 2019 and early 2020.

Overall, most 2017–2018 focus group beneficiaries reported high satisfaction with the ICI demonstration. Almost all focus group participants were more satisfied with the coverage under the ICI demonstration than with their previous coverage. Most participants in focus groups rated their experience with the ICI demonstration and the ICI plan highly. For example, on a scale of 1 to 5, where a rating of 1 was *very unsatisfied* and a rating of 5 was *very satisfied*, 42 out of 44 2018 focus group participants rated their experience in the ICI demonstration as a 4 or a 5. Many 2017 focus group participants reported feeling like the ICI plan cares about their members and appropriately serves their needs.

I love the [ICI plan's] service because they have always been there for me for all of my health problems.

— Focus Group Participant (2017)

Many participants from both the 2017 and 2018 focus groups liked having their Medicare and Medicaid services combined and appreciated the efficiency and ease of using one insurance card.

Plus, having them all blended into one you don't have to always argue over which one is your primary card, your secondary card, and all that. Because I had a lot of those arguments before I got into [the ICI demonstration].

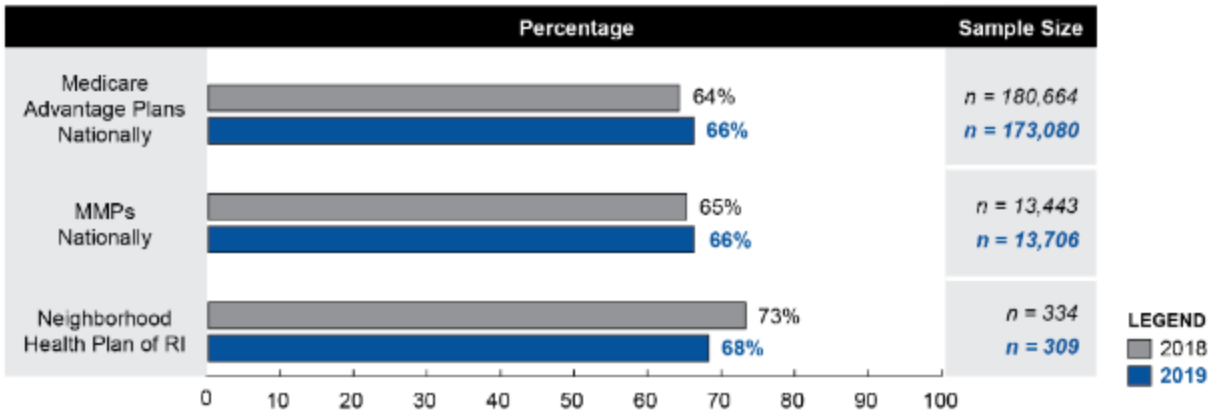
— Focus Group Participant (2018)

There were some complaints from focus group participants about the enrollment process. Several 2017 focus group participants did not know whether they had a choice about enrolling in the demonstration. A few participants reported that they did not receive any notifications before being passively enrolled in the demonstration, and only found out when their provider notified

them. Other participants, however, actively researched health care coverage options and chose to enroll in the ICI demonstration based on the benefits provided. Some 2018 focus group participants felt that their healthcare coverage under the demonstration was more respected than their previous coverage by some of their providers who thought of the ICI plan as private health care coverage, and not publicly-subsidized insurance with limited services and reimbursement.

As indicated by ***Figure 2***, the percentage of CAHPS respondents participating in the ICI demonstration who rated their health plan as a 9 or 10 decreased slightly from 2018 (73 percent) to 2019 (68 percent).

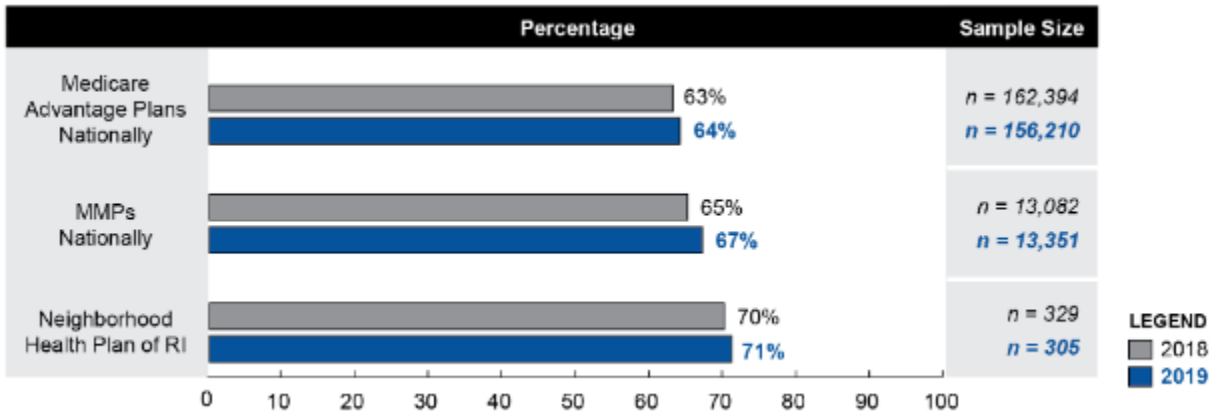
Figure 2
Beneficiary overall satisfaction, 2018–2019:
Percentage of beneficiaries rating their health plan as a 9 or 10



CAHPS = Consumer Assessment of Healthcare Providers and Systems; ICI = Integrated Care Initiative; MMP = Medicare-Medicaid Plan; RI = Rhode Island.
NOTES: There are no Rhode Island MMP data for comparison because there is only one MMP – Neighborhood Health Plan of RI—in the ICI demonstration. The ICI demonstration began in 2016 and the first year that the CAHPS was administered to enrollees was 2018.
SOURCE: CAHPS data for 2018–2019. This item was adjusted for case mix. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?"

As shown in ***Figure* 3**, the percentage of CAHPS respondents participating in the ICI demonstration who rated their drug plan as a 9 or 10 was similar in 2018 (70 percent) and 2019 (71 percent). In both years, those percentages exceeded national benchmarks for MA plans and MMPs.

Figure 3
Beneficiary overall satisfaction, 2018–2019:
Percentage of beneficiaries rating their prescription drug plan as a 9 or 10



CAHPS = Consumer Assessment of Healthcare Providers and Systems; ICI = Integrated Care Initiative; MMP = Medicare-Medicaid Plan; RI = Rhode Island.
NOTES: There are no Rhode Island MMP data for comparison because there is only one MMP—Neighborhood Health Plan of RI—in the ICI demonstration. The ICI demonstration began in 2016 and the first year that the CAHPS was administered to enrollees was 2018.
SOURCE: CAHPS data for 2018–2019. This item was adjusted for case mix. 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?"

6.1.2 Beneficiary Experience with Medical and Specialty Services

Most 2017 and 2018 focus group participants felt that they were able to receive the benefits and services that they needed under the ICI demonstration. Overall, most participants felt that their benefits coverage under the demonstration was an improvement upon their previous coverage. 2018 focus group participants who reported being satisfied with the ICI demonstration noted that the quality and level of coverage for medical care and prescription medications were important factors in their high rating of the demonstration.

In addition to providing demonstration-covered services, the ICI plan also covers enrollee copays for Medicare Part D prescription medications. The ICI plan, State, and enrollees all described the lack of pharmacy copays as a key benefit of the demonstration. Most participants in 2018 focus groups reported that not having copayments for both prescription medications and provider visits was the deciding factor for enrolling in the ICI demonstration.

2017 and 2018 focus group participants reported using home care services, including home-delivered meals and personal care assistance services. Participants also described receiving other services and benefits accessed through the demonstration, such as medical supplies and equipment at no cost. Examples included sleep apnea machines, furniture, walkers, and wheelchairs. There was mixed awareness among focus group participants of some of the services

available under the demonstration, particularly emergency response services, home and bathroom modifications, and meal preparation.

> *I needed a caregiver. I needed somebody to come in, more of a homemaker as well. I needed someone to come in and help me with cleaning, help me do errands and stuff, because I can't drive. I can go through [the ICI plan] to get that…No other insurance lets you do that…That is one of the best things I know about them.*
>
> — Focus Group Participant (2018)

Satisfaction with the timeliness of receiving services was mixed between participants of 2017 and 2018 focus groups. There were complaints from some 2017 focus group participants about the length of time between requesting and receiving services; however, the majority of 2018 focus group participants reported receiving services and medical equipment quickly. Some 2017 focus group participants reported lengthy wait times for scheduling appointments with specialists. Most 2017 and 2018 focus group participants receiving LTSS services reported that they did not have any continuity of care issues with their LTSS services after enrolling in the demonstration.

A few 2018 focus group participants reported some difficulty with administrative processes, such as completing prior authorizations for medication, correcting billing errors, or responding to denials of coverage for certain medications or durable medical equipment (DME). One participant noted it was helpful to have a care coordinator to call in these cases. A few participants who had billing issues found it relatively easy to resolve administrative errors directly with the ICI plan.

6.1.3 Beneficiary Experience with Care Coordination Services

In general, most 2017 and 2018 focus group participants were satisfied with the care coordination they received under the ICI demonstration, and most participants reported positive interactions with their care coordinator. 2017 focus group participants reported varying levels of awareness regarding care coordination services: a number of individuals reported that they did not know they had a care coordinator. However, those who were aware of their care coordinator reported having a positive relationship with them. Many 2018 focus group participants viewed care coordination services as a primary benefit of enrolling in the ICI demonstration. However, there was confusion among some participants about the role and value of their care coordinator.

Across 2017 and 2018 focus groups, participants with self-described higher needs were more likely to utilize a care coordinator and to have more frequent contact with their care coordinator. Most focus group participants reported receiving regular phone calls from the ICI plan, though the person calling was sometimes different, and it was unclear if participants were being contacted by their care coordinator or someone else.

Most 2017 and 2018 focus group participants who used care coordination services described their care coordinator as attentive, proactive, and effective in addressing their needs.

Participants who had positive relationships with their care coordinator described trust as a key component.

2017 and 2018 focus group participants viewed their care coordinator as a resource for information, support system, and liaison to needed services. Participants appreciated having a single person as a contact point to provide patient navigation services. Participants felt that their care coordinator connected them with demonstration benefits and services they had not known were available, including in-home assistance such as housekeeping and meal preparation. A number of participants reported being unaware of transportation services available to Medicaid beneficiaries until they were paired with an ICI care coordinator.

I like [the ICI demonstration] because I have a great case manager. Any time I need anything, she's there to answer my questions. She helps me with things I need for my diabetes. She gives me a lot of resources.

— Focus Group Participant (2017)

My care coordinator [is] my guardian angel. She's there every second and every minute. I have a hard time getting to the things that I need for prescriptions and stuff…so she gets right on it. She's just there. She's my best friend.

— Focus Group Participant (2018)

A few participants from both sets of focus groups reported difficulty contacting and communicating with their care coordinators. A few 2017 focus group participants reported they had yet to receive a call from their care coordinator at the time of the 2017 focus group. Regarding follow-up conversations, some participants in both 2017 and 2018 focus groups reported that their care coordinator was less responsive than they preferred, and they found it difficult to get through to their care coordinator or get services in a timely manner.

I just got switched from one lady to another lady. She didn't call and introduce herself or nothing. I had to call my old worker in [the ICI plan] to find out who my new worker was and didn't even know I was changed.

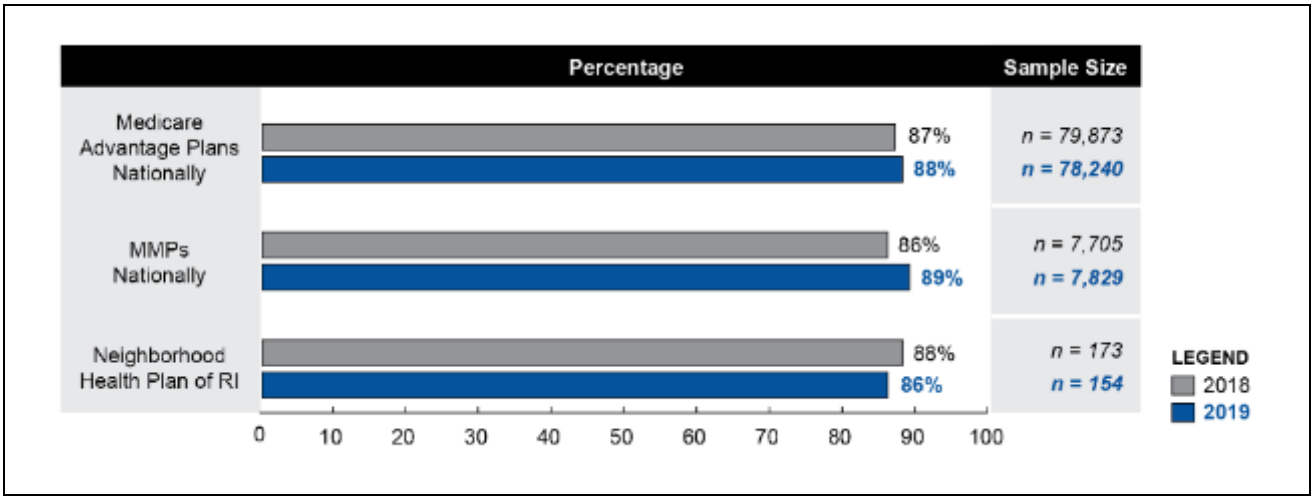
— Focus Group Participant (2017)

I could never get a hold of [the care coordinator], and they kept telling me when I called the number, "Go on the website." When I went on the website, I couldn't access it, and I'd call the number, and they'd tell me to go to the website.

— Focus Group Participant (2018)

As shown in ***Figure 4***, the percentage of CAHPS respondents participating in the ICI demonstration who reported that their health plan "usually" or "always" gave them information they needed was 88 percent in 2018 and 86 percent in 2019. This indicates a high degree of satisfaction with this aspect of care coordination.

Figure 4
Beneficiary experience with care coordination, 2018–2019:
Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



CAHPS = Consumer Assessment of Healthcare Providers and Systems; ICI = Integrated Care Initiative; MMP = Medicare-Medicaid Plan; RI = Rhode Island.
NOTES: There are no Rhode Island MMP data for comparison because there is only one MMP—Neighborhood Health Plan of RI—in the ICI demonstration. The ICI demonstration began in 2016 and the first year that the CAHPS was administered to enrollees was 2018.
SOURCE: CAHPS data for 2018–2019. 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?"

6.1.4 Beneficiary Access to Care and Quality of Services

Almost all 2017 focus group participants reported being able to keep their current providers after enrolling in the ICI demonstration. A number of participants had previously been enrolled with the same plan in its Medicaid MLTSS program. A few 2017 and 2018 focus group participants reported having to switch primary providers or specialists after enrolling in the ICI demonstration because their preferred provider was out-of-network.

At first, I was a little uneasy about it, because things were changing, and I wasn't able to see this doctor; and then things got better, and I just had to get used to it, and I'm much happier now.

— Focus Group Participant (2017)

Some participants in the 2018 focus groups believed that the integration of Medicare and Medicaid under the ICI demonstration streamlined their access to care. Almost all of these participants reported having greater access to needed medical equipment and services, particularly home care services, as well as improved service efficiency. Participants reported having less confusion about their coverage and less administrative burden for their health care providers, partly due to having one insurance card under the demonstration.

Some 2017 and 2018 focus group participants did feel that there were some limitations to coverage under the ICI demonstration, most commonly related to dental coverage. Additionally, several participants in both focus groups reported issues with obtaining and paying for prescription medications. Participants reported having their medication switched to a generic brand or losing coverage for a medication without notification from the ICI plan. Others reported losing access to over the counter medications.

It's difficult. When you have medication, you're able to fill it, and you have to fill it, and then all of a sudden, it's not on the list. Some of my medications, it was fine to fill it […] and all of a sudden, it's not on the list.

— Focus Group Participant (2018)

6.1.5 Person-centered Care and Beneficiary Engagement

A number of 2017 and 2018 focus group participants felt that their providers and care coordinators listened to them. For the most part, 2018 focus group participants described their care coordinators as attentive and proactive.

It just makes me feel like they care when they come. What we do is we sit down, and we have coffee or something, and we just talk first before we even get into the medical thing, you get a rapport with them…Our thing is like 2 hours, because we'll be sitting there talking about other things, so I appreciate them coming when they come.

— Focus Group Participant (2018)

They [the ICI plan] pay more attention. They are more attentive. They call you, and they visit you if you need them to.

— Focus Group Participant (2017)

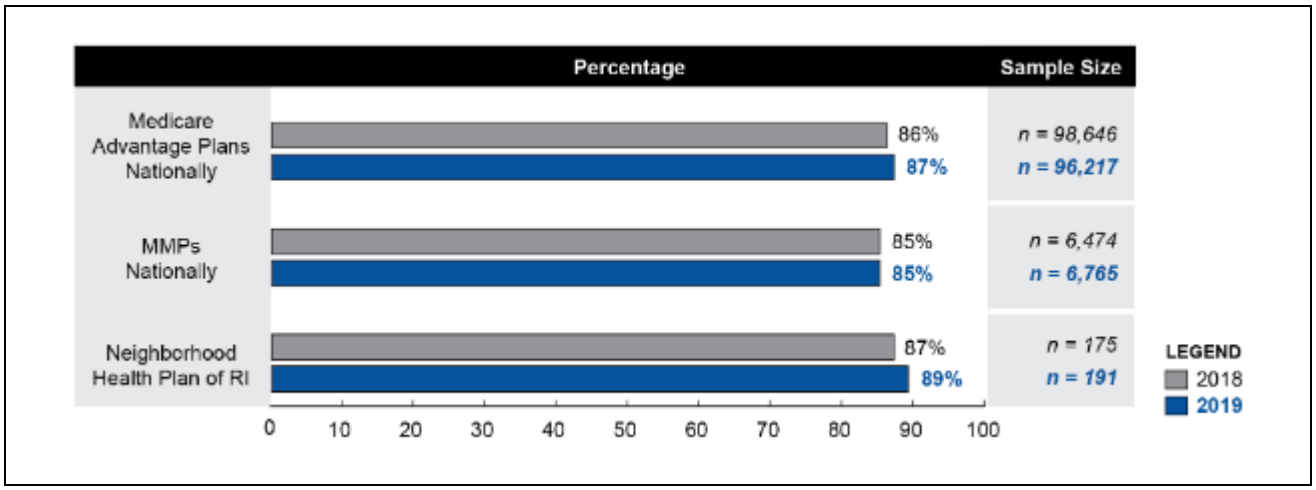
Some participants with behavioral health needs or those receiving LTSS described communication between their care coordinators and providers (see later in this section for more detail). Overall, however, few 2017 and 2018 participants felt like they were part of a care team. Although many participants did not think that their doctors communicated with each other, most felt that their physicians listened to them.

I would feel more comfortable if I thought [my providers] were acting like more of a team. I would feel more secure and comfortable.

— Focus Group Participant (2017)

As shown in ***Figure 5***, the percentage of enrollees in the ICI demonstration who participated in the CAHPS survey and reported that their personal doctors were usually or always informed about care from specialists was high in 2018 (87 percent) and 2019 (89 percent).

Figure 5
Beneficiary experience with care coordination, 2018–2019: Percentage of beneficiaries reporting that in the past 6 months their personal doctors were usually or always informed about care from specialists



CAHPS = Consumer Assessment of Healthcare Providers and Systems; ICI = Integrated Care Initiative; MMP = Medicare-Medicaid Plan; RI = Rhode Island.
NOTES: There are no Rhode Island MMP data for comparison because there is only one MMP—Neighborhood Health Plan of RI—in the ICI demonstration. The ICI demonstration began in 2016 and the first year that the CAHPS was administered to enrollees was 2018.
SOURCE: CAHPS data for 2018–2019. The CAHPS question used for this item was: "In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from specialists?"

Overall, the awareness among 2017 and 2018 focus group participants of their care plans varied based on the beneficiary's needs. Almost all 2018 participants with behavioral health or LTSS needs reported being involved in the process of creating a care plan, whereas less than one-half of participants from the general focus group population reported awareness of having a care plan. Awareness of the care plan among 2017 focus group participants was limited. 2018 focus group participants who were aware of their care plans viewed the care plan as a positive tool, particularly when they felt that the process of developing one was collaborative. Many focus group participants across focus groups reported discussing their goals with their care coordinator. Most 2017 focus group participants also reported discussing their health goals with their primary care doctor.

6.1.6 Personal Health Outcomes and Quality of Life

Almost all 2018 focus group participants believed that enrolling in the demonstration had improved their quality of life. Most 2017 participants reported an improvement in quality of life and health. Although many 2017 participants reported no change in health or quality of life, only a few participants reported worsening experiences. 2017 and 2018 focus group participants attributed improvements to increased support from care coordinators, increased access to medical services, and improved overall health.

Focus group participants frequently cited engagement with care coordinators as a key factor in learning how to manage health issues. Care coordinators provided participants with

education and access to resources to help manage chronic conditions. Examples provided by participants included smoking cessation and weight management programs, and education to promote healthy eating habits and diabetes education. Some participants described how enrollment in the ICI demonstration had reduced health care-related stress.

> *[My quality of life is better because] I know I can call and get the help that I need when I need it, and that I don't have to worry about paying doctors copayments and medicine copayments. It takes the worry away, which makes you feel better because you actually feel a little healthier, to be honest with you, because you don't have that stress.*
>
> — Focus Group Participant (2017)

6.1.7 Experience of Special Populations

In this section we summarize the beneficiary experience for the ICI demonstration special populations, including individuals with LTSS or behavioral health needs, and racial/ethnic or linguistic minorities including Spanish-speakers.

Most focus group participants with behavioral health needs were aware of behavioral health services covered by the ICI plan, and did not believe that access to these services had changed significantly under the ICI demonstration from their former coverage. Most focus group participants receiving LTSS services reported that they did not have any continuity of care issues with their LTSS services after enrolling in the demonstration.

Some focus group participants with behavioral health or LTSS needs reported relying on support outside of the ICI plan for care coordination activities. As described in ***Section 5, Care Coordination***, individuals with behavioral health needs continued to have their behavioral health needs coordinated by a case manager through community-based organizations, in addition to having a case manager at the ICI plan. Most focus group participants with behavioral health needs reported that a care coordinator from the ICI plan was assigned upon enrollment into the demonstration, but their existing care coordinator remained their primary point of contact. A number of participants with behavioral health needs felt that there was adequate communication and collaboration between their ICI plan and others involved in coordinating their care. Participants receiving home care described relying on the home care provider for needed supports and information, in addition to their ICI plan coordinator.

Many participants with behavioral health or LTSS needs reported issues obtaining prescription medications, particularly pain medication. About one-half of 2017 focus group participants with behavioral health needs reported missing medications for several months during their transition to the ICI demonstration as they tried to find new providers that were in-network. Some participants also described difficulty navigating the authorization process for medications, resulting in prolonged delays. Many participants receiving LTSS and behavioral health services described the lack of copays on prescription medications as especially important, because this benefit was unavailable prior to the demonstration; however, some focus group participants with

LTSS or behavioral health needs reported having to pay for medications while enrolled in the demonstration because certain medications were no longer covered.

Focus group participants who spoke Spanish generally agreed that they had adequate access to written materials from the ICI plan in Spanish, and that they were understandable. Participants also reported having access to individuals who speak Spanish, both at the ICI plan and within the provider setting. Although participants reported limited access to primary care providers who speak Spanish, most participants described using interpreter services provided by the ICI plan during provider visits.

It was easy for me. My current doctor is not Hispanic, but they send an interpreter over every time I have a medical appointment because my English isn't perfect either. I've found it easy.

— Focus Group Participant (2017)

For a few participants, the lack of Spanish-speaking providers was upsetting, because they preferred to speak directly to their providers instead of through an interpreter. Only one participant who used interpreter services had a complaint about the quality of the services, namely that on a few occasions, an interpreter did not accompany the participant to a medical appointment.

6.2 Beneficiary Protections

In this section we describe the beneficiary protections available to demonstration enrollees and enrollees' awareness and use of those protections. We also include a summary of grievance (complaint) and appeals data received from the sources outlined in ***Table 9*** and qualitative information collected by the RTI evaluation team.

Table 9
Beneficiary protection measures

Measure	Explanation	Data source(s)	Reporting period
Grievance or complaint	Enrollees have the right to file a grievance with their Medicare-Medicaid Plan (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.	Data reported by MMPs to CMS' Financial Alignment Initiative (FAI) implementation contractor, NORC	2016–2019
		Complaint Tracking Module (CTM) for complaints received by SC DHHS and 1-800-Medicare[1]	2016–2019
Appeal	Enrollees have the right to appeal an MMP's decision to deny, terminate, suspend, or reduce services. Appeals are resolved at the MMP or IRE level.	Data reported by MMPs to CMS' FAI implementation contractor, NORC	2016–2019
		Independent Review Entity (IRE), a second-level review of Medicare appeals[2]	2016–2019
Critical incidents and abuse reports	Critical incidents refer to any actual or alleged event or situation that creates a significant risk of substantial 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.[3]	Data reported by MMPs to CMS' FAI implementation contractor, NORC	2016–2019

[1] Data obtained from the Complaints Tracking Module (CTM) within CMS's Health Plan Management System (HPMS) by RTI.
[2] Data provided to RTI by CMS.
[3] For a full definition, please see https://www.cms.gov/files/document/rireportingrequirements02282020.pdf

6.2.1 Complaints Process

The ICI plan is required to have formal internal procedures for the timely acknowledgement, receipt, response, and documentation of enrollee grievances. The ICI plan reports all enrollee grievances and appeals to EOHHS and CMS on a monthly basis. To address grievances and appeals filed directly with the plan, the ICI plan in 2017 reported establishing a Member Advocate position at the plan. ICI plan representatives described the Member Advocate as an internal ombudsman who helped address enrollee barriers to receiving benefits and services. ICI plan staff reported that they were able to resolve most complaints in favor of the beneficiary through their Member Advocate.

Over the course of the demonstration, the analysis method for plan-reported grievances has changed.[23] Between 2016 and 2017, the number of grievances per 1,000 enrollees remained low, ranging from 0.0 to 3.0. During 2018 and 2019, the number of grievances per 10,000 enrollee months increased overall, with a low of 8.4 in quarter 1 of 2018 and a high of 36.6 in quarter 2 of 2019.

There were no complaints submitted to the CTM in 2016 and 2018. In 2017, all 19 complaints were in the premiums and costs category.[24] There were seven complaints in 2019. Most complaints were in the enrollment and disenrollment category (four complaints).[25]

Beneficiaries also are able to utilize ombudsman services provided under the ICI demonstration to file and resolve complaints. The Rhode Island Parent Information Network (RIPIN), described more fully in ***Section 9, Quality of Care***, provided these services.

Overall, representatives from the demonstration's ombudsman program and EOHHS reported receiving a few complaints overall from beneficiaries. Examples of complaints included eligibility and pharmacy issues. In 2018, RIPIN worked with the ICI plan and the State to transition RHO enrollees into the ICI demonstration or to FFS alternatives after the phasing out of RHO. Calls to RIPIN increased just before and after the RHO program ended on October 1, 2018. RIPIN staff reported fielding a high number of inquiries about the ICI demonstration during this time. RIPIN also reported an increase in complaints around the time of the RHO phase out, and attributed the increase in complaints to increased beneficiary awareness of ombudsman services.

Members of the implementation council, as well as focus group participants, raised concerns about the timeliness and quality of transportation services provided by the State's Medicaid transportation vendor. The ICI plan reported in 2018 that transportation-related complaints had been the highest category of complaints to date from demonstration enrollees. However, because non-medical emergency transportation services are provided directly by the State Medicaid agency rather than the ICI plan, EOHHS requested that the ICI plan stop tracking complaints related to nonemergency medical transportation as part of the ICI demonstration, and forward those directly to EOHHS for resolution.

6.2.2 Appeals and Critical Incidents

As with grievance data, effective January 2018 the analysis method for plan-reported appeals changed from appeals per 1,000 enrollees to appeals per 10,000 enrollee months.[26] In 2016 and 2017, the number of appeals per 1,000 enrollees remained low, ranging from 0.0 in quarter 3 of 2016 to 3.1 in quarter 3 of 2017. In 2018 and 2019, the number of appeals per 10,000 enrollee months showed a decreasing trend with a high of 13.1 in quarter 2 of 2018 and a

[23] From 2016 through 2017, grievances data were analyzed per 1,000 enrollees. Effective January 2018, the method changed to analyze total grievances per 10,000 enrollee months.
[24] This category is defined as "Beneficiary needs assistance with acquiring Medicaid Eligibility information."
[25] This category is defined as "Beneficiary is experiencing an enrollment issue that may require reinstatement or enrollment change, beneficiary has not received enrollment card or other membership materials."
[26] From 2016 through 2017, appeals data were analyzed per 1,000 enrollees. Effective January 2018, the method changed to analyze total appeals per 10,000 enrollee months.

low of 6.9 in quarter 1 of 2019, before rising—but remaining below the high of 13.1—in the last three quarters of 2019.

No appeals were reported to the IRE in 2016–2018. Thirty-three appeals were reported to the IRE in 2019, of which 21 (63.6 percent) ICI plan decisions were upheld, 8 (24.2 percent) were overturned, 2 (6.1 percent) were partially overturned, and 2 (6.1 percent) were dismissed. The most common category of appeals referred to the IRE was for denied Clinic/Lab/X-Ray services.

MMPs are required to report to CMS' implementation contractor, NORC, the number of critical incidents and abuse reports for members receiving LTSS. For the ICI demonstration, from 2016 through 2019, the number of critical incidents and abuse reports per 1,000 members receiving LTSS was 0.0 in quarter 3 of 2016, rose to its highest to date (30.1) in quarter 1 of 2018, and then decreased to 5.3 in quarter 4 of 2019.

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SECTION 7

Stakeholder Engagement

EOHHS designed a consumer-led stakeholder committee for the ICI demonstration based on stakeholder input and the structure developed for the FAI demonstration in Massachusetts.

The ICI plan's MAC, required by the demonstration, has allowed the ICI plan to hear directly from enrollees about their experiences and has led to system improvements.

In 2019, the State initiated an extensive stakeholder process to solicit feedback on the service delivery system for Medicare-Medicaid beneficiaries, including through the ICI demonstration. As a result of stakeholder input, the State requested a 3-year extension of the demonstration.

In this section we describe the approach taken by the State for engaging stakeholders, the mechanisms for soliciting stakeholder feedback, and the impact of those efforts on the demonstration.

7.1 State Role and Approach

Stakeholder work on the ICI demonstration began well before implementation of the demonstration as part of Rhode Island's broader integrated care initiatives, and originated from the State's Long Term Care (LTC) Coordinating Council.[27] As a way of embedding continuing stakeholder involvement in the ICI demonstration, the State established an implementation council and, with CMS, required the ICI plan to convene a member advisory group, both of which are described more fully below.

With the original end date of the demonstration approaching, in 2019 the State initiated a process to solicit stakeholder feedback regarding the broader delivery of care and services to Medicare-Medicaid beneficiaries. From July through September, EOHHS convened meetings with 35 stakeholder entities, including State agencies, health insurers, provider organizations, advocacy organizations and the Implementation Council. The effort continued with the State issuing a Request for Information in early 2020 and culminated in the extension of the ICI demonstration for an additional 3 years, through December 31, 2023.

7.2 Implementation Council

Based on stakeholder input on the design of the ICI demonstration, EOHHS developed a formal structure for stakeholder input that provided flexibility for its members to develop their own priorities and work plans. The initial meeting of the ICI Implementation Council (the

[27] The LTC Coordinating Council was established by State law under the direction of the Lieutenant Governor Information on the LTC Coordinating Council, including its enabling legislation, can be found at: https://www.ltgov.ri.gov/councils/#:~:text=Long%20Term%20Care%20Coordinating%20Council,-The%20Long%20Term&text=LTCCC%20develops%20and%20coordinates%20state,organizations%20from%20across%20the%20state. As obtained on March 15, 2021.

council) was held in October 2015. The initial composition of the council consisted of providers, advocates, and consumers selected through a procurement process administered by EOHHS.

In the fall of 2016, the council transitioned into a consumer-led model based on the demonstration in Massachusetts. At least 51 percent of council members are required to be consumers, and the chairperson and one of the two council vice-chairs must also be consumer representatives (Rhode Island ICI Implementation Council Charter, April 15, 2016). As one council member remarked in 2018, "It's very important that the Implementation Council be member driven because we put our hearts into it." The council's charter and by-laws were finalized in October 2017.[28]

EOHHS staff coordinate monthly council meetings. Other representatives of EOHHS, the ICI plan and the ombudsman program regularly attend and provide standing monthly presentations or updates.[29] Representatives from CMS, as well as other organizations and providers, typically attend as well. In 2020, EOHHS noted a growing expertise among council members about the health care delivery system.

[The council] is an incredibly valuable group. Not only are they really engaged, but also they have the pulse on the buildings and people within their communities so they really do come with that voice.

— EOHHS Official (2019)

Members of the council spoke positively about their experiences. In 2018 and 2019 members said they appreciated receiving information about the demonstration's services and beneficiary protections, and shared this information with other enrollees from their communities. Generally, the council did not establish a set agenda or work plan but responded to ad hoc issues brought before them by members. Members of the council described this process as collaborative, and felt the council was a successful model due to the dedication of its members.

We have not really had a challenge because everyone gives their input. There's just not one particular person who will say let's do this or let's do that. Everyone puts something in. When you put all of them together, it works. Because as everybody knows, it's a team, and if a team focuses together it works.

— Implementation Council Member (2019)

Early on, the council focused on enrollment and eligibility issues resulting from the State's implementation of a new eligibility system. In 2018, the council also monitored the

[28] These documents can be accessed from the EOHHS website: https://www.eohhs.ri.gov/Initiatives/IntegratedCareInitiative/ICIImplementationCouncil.aspx. As obtained on April 8, 2021.
[29] Available agendas and minutes of the Implementation Council are posted on the Rhode Island Secretary of State website: https://opengov.sos.ri.gov/openmeetings?page=view_entity&id=5414. As obtained on April 8, 2021.

phasing out of the State's Medicaid MLTSS program (RHO) and its impact on the demonstration. This stakeholder structure has allowed council members to stay informed about larger issues and initiatives in the State affecting beneficiaries, including the change in the State's statewide Medicaid transportation vendor for nonemergency medical transportation, and needed improvements in access to and quality of dental services.[30]

7.3 Member Advisory Committee

Under the terms of the three-way contract, the ICI plan was required to establish a Member Advisory Committee (MAC) to provide regular feedback to the plan on issues around demonstration management and enrollee care (Rhode Island three-way contract, 2018, p. 172). The committee must include enrollees, family members of enrollees, and other caregivers, and the composition must reflect the diversity of the individuals served by the demonstration. The ICI plan's MAC meets quarterly.

ICI plan officials described the MAC as an important vehicle for hearing the enrollees' voice and for better understanding how enrollees experience care.

Member interactions [through the MAC] have been helpful to us with refocusing and guiding the activity for the plan because …we are here to serve members. They have been very helpful.

— ICI Plan Official (2019)

The ICI plan noted that working with the MAC gave the plan an opportunity to communicate information about the demonstration and its services, including beneficiary protections, in a more direct and empowering fashion than through written member materials. Through the MAC, members are able to advocate for themselves and bring information back to their communities, and the ICI plan is able to solicit greater information about experiences on the ground.

ICI plan officials provided examples of actionable feedback provided by the MAC. For example, the MAC helped to refine and streamline the Initial Health Screen (IHS), described more fully in ***Section 5, Care Coordination.*** The ICI plan reported that these changes led to higher completion rates and improved the effectiveness of the IHS. The MAC also made recommendations to the State on improvements to non-medical transportation services. Although non-medical transportation benefits are excluded from the ICI demonstration, the ICI plan is responsible for helping members to access this Medicaid service (Rhode Island three-way contract, 2018, p. 67).

[30] The change in transportation vendors became effective January 1, 2019. While non-emergency transportation and dental services are excluded from the ICI demonstration, the MMP is responsible for coordinating those services as necessary (Rhode Island three-way contract, 2018, p. 294).

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SECTION 8

Financing and Payment

Through the end of the second demonstration year (2018), the ICI plan reported significant financial losses. While the State described the ICI demonstration's Medicaid rate methodology as sound, the plan attributed Medicaid rates as a key, though not sole, driver of losses. Over time the ICI plan experienced a financial turnaround and by the end of the third demonstration year (2019) was anticipating net profits.

EOHHS noted that overall the ICI demonstration was in line with the State's budget expectations because of the savings percentages and risk corridors, but they questioned the extent to which the demonstration design fully corrected financial misalignments between Medicare and Medicaid.

In this section we describe the ICI demonstration's capitated payment methodology and its financial design, as well as the implementation experience of CMS, the State, and the ICI plan regarding financing and payment.

8.1 Rate Methodology

All Medicare services and Medicaid-covered services are financed by capitated payments to the ICI plan. The Medicare and Medicaid contributions represent baseline spending, or the estimated costs if the demonstration had not been implemented. Capitation payments are risk-adjusted, using separate methodologies for Medicare Parts A and B, Medicare Part D, and the Medicaid components of the rate. The demonstration savings rate is applied to baseline spending.

8.1.1 Rating Categories and Risk Adjustments

The calculation of the Rhode Island Medicare capitation payments uses an approach developed by CMS for all capitated model demonstrations under the FAI. The Medicare spending baselines are calculated using a blend of standardized county Medicare FFS rates and projected MA payment rates based on the proportion of the population projected to participate in MA and FFS Medicare, had the demonstration not been implemented. Separate baseline rates apply for beneficiaries with end-stage renal disease (ESRD) (Rhode Island three-way contract, 2018, p. 224). The Medicare Parts A and B rates are risk-adjusted at the beneficiary level using the CMS Hierarchical Condition Category (CMS-HCC) and CMS-HCC ESRD models. As in MA, the ICI plan does not receive the Medicare Parts A and B components of the capitated rate for beneficiaries receiving the Medicare hospice benefit (Rhode Island three-way contract, 2018, p. 57).

The Medicare Part D component of the monthly capitation payment is calculated by multiplying the Part D national average monthly bid amount by a beneficiary's prescription drug Hierarchical Condition Category (RxHCC) risk score (Rhode Island three-way contract, 2018, p. 225). Average monthly low-income cost sharing subsidies and Federal reinsurance amounts are estimated by CMS, and the total is added to the risk-adjusted rates. The cost sharing subsidy and reinsurance payments are subject to the same annual reconciliation as other Medicare Part D sponsors. This approach is common across all States testing capitated model demonstrations under the FAI.

The baseline spending data used for calculating the Medicaid component initially consisted of the Medicaid capitation rates for RHO, the State's Medicaid MLTSS program. These rates were based on the three most recently available State fiscal years of Medicaid FFS Claims data and Medicaid managed care encounter data for Medicare-Medicaid beneficiaries who met RHO eligibility criteria during the historical baseline period. As reflected in the three-way contract as amended in March 2020, the baseline spending consisted of the estimated Medicaid costs incurred absent the demonstration, using experience under the previously operational RHO.

The Medicaid capitation rate for the ICI is based on five rate cell categories that reflect the enrollees' expected level of care. ***Table 10*** presents the risk-adjusted Medicaid rate cell structure. Under the demonstration, the community LTSS and facility LTSS rating categories are blended and reimbursed as a single capitation rate cell based on the ICI plan's assignment mix of enrollees in the community LTSS and facility LTSS population cohorts, adjusted for targeted enrollment mix (Rhode Island three-way contract, 2018, pp. 223–4).

Table 10
Medicaid rate cell categories

Rating category	Description
Community non-LTSS[1]	Individuals living in the community and not receiving LTSS
Community LTSS	Individuals living in the community and receiving LTSS
Facility LTSS	Individuals residing in a nursing facility for more than 90 consecutive days
I/DD	Individuals identified as having intellectual and developmental disabilities
SPMI	Individuals identified as having severe and persistent mental illness

I/DD = intellectual and developmental disability; LTSS = long-term services and supports; SPMI = serious and persistent mental illness.
[1] Sometimes referred to as "community well."
SOURCE: Three-way contract, 2018, p. 223.

The blended Medicaid rate for the nursing facility cohort and the community LTSS cohort was unique to the demonstration and differed from nursing facility capitation rates received by RHO plans as part of the State's Medicaid MLTSS program. According to State and ICI plan officials, the blended rate is essentially a weighted rate derived from the capitated rate for nursing facilities and the capitated rate for community LTSS. It is based proportionally on the projected membership in each rate cell. EOHHS then takes a transition savings assumption out of that rate, i.e., decreases the LTSS capitation rate paid to the ICI plan reflecting the demonstration's goal to move facility residents back to the community.

8.1.2 Savings Percentage

In computing the capitation payment rates, aggregate savings percentages are applied to the baseline spending amounts for Medicare Parts A and B and the Medicaid component as shown in ***Table 11***. Savings percentages are not applied to the Part D component. CMS monitors

Part D costs on an ongoing basis, and material changes may be factored into future year savings percentages (Rhode Island three-way contract, 2018, p. 226).

Table 11
Savings assumptions built into the capitation payments

Year	Savings percentage
Demonstration year 1 (July 1, 2016–Dec. 31, 2017)	1.00
Demonstration year 2 (Jan. 1–Dec. 31, 2018)	1.25
Demonstration year 3 (Jan. 1–Dec. 31, 2019)	3.00
Demonstration year 4 (Jan. 1-Dec. 31, 2020)	3.00

SOURCE: Three-way contract, 2018, p. 226.

The three-way contract allowed for a downward adjustment in the savings percentages for the third demonstration year should losses by the ICI plan in demonstration year 1 exceeded 3 percent of the total adjusted capitation rate revenue (Rhode Island three-way contract, 2018, p. 242). Because these conditions were not met, the savings percentages were not adjusted downward in demonstration year 3.

8.1.3 Quality Withholds

CMS and EOHHS withhold a certain percentage of their respective components of the capitation rates, with the exception of Part D capitation rate. The withheld amounts are paid subject to the ICI plan's performance, consistent with established quality measure criteria (see ***Table 12***).

Table 12
Quality withhold percentages

Year	Withhold percentage
Demonstration year 1 (July 1, 2016–Dec. 31, 2017)	1.0
Demonstration year 2 (Jan. 1–Dec. 31, 2018)	2.0
Demonstration year 3 (Jan. 1–Dec. 31, 2019)	3.0
Demonstration year 4 (Jan. 1-Dec. 31, 2020)	3.0

SOURCE: Three-way contract, 2018, p. 244.

For calendar year 2016, the ICI plan met the benchmarks for the two applicable core quality measures and for five of the six State-specific quality measures. Overall, the ICI plan met 88 percent of the required measures, which qualified the ICI plan to receive 100 percent of the withhold amount. Some of these measures included establishing a MAC (discussed in ***Section 7, Stakeholder Engagement***) and measures related to assessment and care planning completion. For calendar year 2017, the ICI plan had 50 percent of withhold payments returned, meeting 67

percent of the core measures and 50 percent of the State-specific ones.[31] For calendar year 2018 (demonstration year 2), the ICI plan had 75 percent of withhold payments returned, meeting 100 percent of the core measures and 64 percent of the State-specific ones. We also discuss quality withholds in ***Section 9, Quality of Care***.

8.1.4 Risk Corridors

CMS and EOHHS established risk corridors to account for possible enrollment bias and to protect against uncertainty in rate setting that could result in either overpayment or underpayment until actual demonstration experience was available (MOU, 2015, p. 52). The three-way contract set forth the method for calculating the percentage of the gain or loss to be shared by the ICI plan, CMS, and EOHHS. These percentages varied by demonstration year.[32] The risk corridors are reconciled after application of any risk adjustment methodology. The calculations also assume receipt of 100 percent of all quality withhold payments (Rhode Island three-way contract, 2018, p. 228).

Medicare and Medicaid contributions to risk corridor payments or recoupments are in proportion to their contributions to the total adjusted capitation rate revenue,[33] with some additional conditions (Rhode Island three-way contract, 2018, pp. 228–30). Prior to risk corridor calculations, CMS analyzes FFS Medicare expenditures relative to the risk-adjusted county FFS rates for the population enrolled in the demonstration to calculate a ratio of the risk-adjusted Medicare FFS county rates to Medicare FFS costs (rate-to-FFS ratio). The degree of accuracy as measured by the rate-to-FFS ratio, and whether the ICI plan reported losses or gains, impacts the Medicare contribution to the risk corridors. Early in the demonstration, State officials reported negotiating this provision with CMS because of their initial concerns about the adequacy of the risk adjustment for Medicare rates and potential impact on the ICI plan.

The design of the risk corridor for the ICI demonstration caps Medicare and Medicaid risk and recoupment. The maximum payment/recoupment equals two percent of the respective contributions to the total adjusted capitation rate revenue for year 1, with the percent being adjusted downward in subsequent years (Rhode Island three-way contract, 2018, pp. 228–30). EOHHS and ICI plan officials viewed the design of the risk corridors for the ICI demonstration as significantly different from that used in other Medicaid programming. While the risk corridor with EOHHS caps the amount of gains that need to be shared by the ICI plan, EOHHS also

[31] The Rhode Island Medicare-Medicaid Plan Withhold Analysis Results can be accessed at: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/QualityWithholdResultsReportRIDY1.pdf

[32] If gains or losses were greater than 5 percent in demonstration year 1 (greater than 6 percent in demonstration year 2 and 7 percent in demonstration year 3), the ICI plan would bear 10 percent of the risk or reward; CMS and EOHHS would share in the other 90 percent. If gains or losses were between 1.5 and 5 percent in demonstration year 1 (between 2 and 6 percent in demonstration year 2 and between 2.5 and 7 in demonstration year 3), the ICI plan would bear 30 percent of the risk or reward; EOHHS and CMS would share in the other 70 percent. If gains or losses were between 0 and 1.5 percent in demonstration year 1 (between 0 and 2 percent in demonstration year 2 and between 0 and 2.5 in demonstration year 3), the ICI plan would bear 100 percent of the risk or reward (Rhode Island three-way contract, 2018, pp. 231–2).

[33] Total adjusted capitated rate revenue is defined as the sum of the monthly capitation payments for the applicable demonstration year (reflecting coverage of Medicare Parts A/B services and Medicaid services). This includes the application of risk-adjustment methodologies and is calculated as if the MMP had received the full quality withhold payment (Rhode Island three-way contract, 2018, p. 231).

included a cap on the MMP's ability to recoup losses. Consequently, the ICI plan was not insulated from loss in the same way as it was in its other Medicaid product lines.

> *In one way, you have the risk corridor program that is great … but then there's a cap, so it negates the purpose of a risk corridor program. Early on, we thought the State would not impose the cap as well and it was just on the Medicare side, but at the end of the day with the three-way contract the State chose to incorporate the cap as well.*
>
> — ICI plan official (2017)

Final settlement of the risk corridor payments for calendar year 2017 resulted in a Medicaid payment to the MMP of $1,478,122 and a Medicare payment of $2,162,214. For calendar year 2018, the MMP received a Medicaid payment of $1,779,359 and a Medicare payment of $1,725,108.

8.1.5 Medical Loss Ratio

Under the terms of the three-way contract, NHPRI had a minimum target medical loss ratio (MLR) of 85 percent and was required to refund a percentage of dollars to CMS and the State if the MLR fell below the minimum target for any demonstration year (Rhode Island three-way contract, 2018, pp. 237-239).[34] The MLR results for NHPRI were greater than 100 percent for demonstration years 1 and 2. This satisfied the MLR requirements of the three-way contract.

8.2 Implementation Experience

When the ICI demonstration was first implemented, EOHHS and ICI plan officials often linked the financial performance of the ICI demonstration and RHO together because NHPRI was the sole plan participating in both. Additionally, the ICI demonstration derived most of its enrollment from RHO through passive enrollment. One ICI plan official noted in 2017, "We tend to look at [RHO and the demonstration] together, since one wouldn't exist without the other in our minds." As the ICI demonstration matured, that perspective evolved and, as of October 2018, the State had phased out RHO.

8.2.1 ICI Plan-Level Experience

The financial experience of the ICI plan significantly changed over the course of the first 3 years of the demonstration. For the first 2 demonstration years, the ICI plan reported significant losses. By the third demonstration year, the ICI plan had experienced a turnaround and was anticipating net gains.

[34] This percentage is the minimum revenue that must be used on expenses directly from medical claims or care coordination. The numerator of the MLR includes all covered services required by the demonstration, any services consistent with the objectives of the demonstration, and care coordination personnel costs. The denominator includes the capitated payment amount for services delivered during the coverage year.

During the first 2 years, ICI plan and EOHHS officials provided differing perspectives on the key factors driving early losses. EOHHS identified issues with the Medicare rate, particularly the lack of an administrative component. Although the ICI plan also considered this an issue, they attributed greater responsibility for their losses to the demonstration's Medicaid rates.

ICI plan officials initially expressed concerns about the Medicaid rate that applied to the LTSS capitation cell (see ***Table 10***), but by 2019, that concern had shifted to encompass all capitation cells.

All the capitation cells are negative. So even when [membership] changes among them, it is just the degree of negative. So [the ICI plan] may lose less money with a particular shift in membership but it is still losing money…all the capitation cells are problematic.

— ICI Plan Official (2019)

In addition to capitation rates, the ICI plan provided other examples of financial challenges:

- **Enrollees assigned the wrong rating category because of enrollment errors**. For example, the ICI plan identified enrollees in nursing facilities who had been incorrectly assigned to a "community well" rating category. While the ICI plan needed to pay the cost of nursing facility services for that enrollee, it received reimbursement at a much lower "community well" Medicaid capitation rate.[35] In 2020, ICI plan officials continued to report these issues as significant and costly challenges, describing the identification and remediation process as "very, very slow and labor intensive."
- **Continued challenges in locating and engaging enrollees**. This resulted in the need to invest significant resources into enhanced outreach and onboarding processes and delayed the ability of the ICI plan to begin managing the care of those new enrollees.
- **Significant investments in time and resources to comply with new reporting and administrative requirements**. The ICI plan also incurred additional costs, primarily in staffing, due to the delay in the launch of the demonstration.
- **Lack of prior experience as an MA plan**. The ICI plan needed to make significant investments in upgrading and enhancing its claims system to accommodate Medicare requirements. The ICI plan also needed to hire new staff and retain consultants with Medicare experience to assist in the transition.

EOHHS defended the Medicaid rates as actuarially sound and noted that the rates were higher than what the State pays for a similar population under the FFS system. Initially, the

[35] For the first 2 years of the demonstration, the State did not provide retroactive reimbursement in these cases. In early 2020, ICI plan officials reported that the State had agreed to retroactive capitation changes for errors that involved enrollees in nursing facilities over 90 days, although the policy had not yet been implemented.

Medicaid rate was a blended rate based on 3 years of historical FFS and managed care experience. By 2019, the State was setting the Medicaid rate based on managed care experience through RHO. EOHHS officials acknowledged instances where enrollees were not assigned the correct rating category, but believe that the Medicaid rate setting structure already compensated for these issues. From the perspective of EOHHS, the "community well" capitation rate would have been lower but for the fact that a portion of LTSS costs were already accounted for in that rate.

The actual impact [of incorrect assignments] is overstated because [the State] uses historical data to set the rate and the issue of people being in the incorrect pay level is not a new thing…and it's improving now. The "messiness" of the data is reflected in the rates…The rates reflect the experience of members who were assigned to it and if a nursing home [member] was in the community well pay level, their cost experience is reflected in the community level pay level.

— EOHHS Official (2019)

ICI plan officials reported a significant turnaround in financial performance for 2019. While they continued to report that the Medicaid rates did not adequately cover the true costs of the demonstration, they reported investing heavily to develop a risk adjustment program that better helped them identify high needs enrollees through data analytics and extensive claims review for targeted case management. Because of other operational priorities for the first few years of the demonstration, the ICI plan had contracted this work out. In hindsight, the ICI plan described the need to invest in and develop a comprehensive risk adjustment strategy on the front end of the demonstration as a lesson learned. ICI plan officials also expressed higher satisfaction with the State's rate setting process in 2020 than in previous years, and described the 2019 rates as being fair and reasonable for the first time in the demonstration.

While EOHHS also described a favorable upward financial performance, they noted that the ICI plan received a significant payment from CMS in 2019 related to the risk corridor agreement for the prior year. The State was also analyzing the nursing facility and community components of the blended rate to determine what, if any, impact the differences between projected and actual nursing facility use might have had on the blended rate paid to the ICI plan in 2019.

8.2.2 State-level Experience

EOHHS noted in 2019 that the ICI demonstration was generally in line with the State's budget expectations. This was largely due to the structural design of the demonstration, which allowed the State to take savings percentages off the top of the capitated rates, and the design of the demonstration's risk corridors. While EOHHS believed that the demonstration represented movement in the right direction towards correcting financial misalignment issues between Medicare and Medicaid, EOHHS reported their perception that a disproportionate amount of the financial benefit accrued to CMS and not the State. For example, EOHHS noted that the administrative costs of the demonstration fell disproportionally on Medicaid, not Medicare.

EOHHS also noted that savings achieved by the demonstration were premised in part on reducing acute care and preventable hospitalizations by providing additional LTSS but that over time, the rate settings processes for Medicaid might not adequately reflect Medicaid's contribution in achieving these savings.

A lot of the ways you would reduce your acute care services is probably to provide additional LTSS, which is a Medicaid-funded benefit. There has to be a more thoughtful alignment of how those savings are shared and how to incentivize the States to participate from a Medicaid perspective, because on a Medicare side it's very clear CMS is paying less than they would otherwise in fee-for-service. But on the Medicaid side if we're using historical experience to set the rates, any additional reliance on LTSS, which may be having the added benefit of reducing acute care and which is not showing up in the Medicaid experience, which would then be inflating the baseline cost.

— EOHHS Official (2019)

In 2020, EOHHS officials reported that they continued to weigh the financial impacts of the demonstration on the State, and viewed this as an area for continued discussion with CMS.

SECTION 9

Quality of Care

The ICI demonstration includes required quality measures. Some of these are subject to quality withholds, which the plan can earn back provided that it meets certain quality benchmarks. The ICI plan significantly improved its performance from 2017 to 2018, meeting these benchmarks for 78 percent of the 18 core and State-specific measures.

During early implementation, EOHHS needed to focus almost entirely on operational and systems issues related to the launch of the demonstration. This led to delays in establishing some of the reporting specifications for State-specific quality measures. EOHHS subsequently integrated the ICI demonstration into its broader managed care oversight structure to better leverage additional staff and expertise.

Selected Healthcare Effectiveness Data and Information Set (HEDIS) performance data for the ICI plan shows improvement in several measures from 2017 to 2018, including 30-day follow-up after hospitalization for mental illness; medication review (one of the Care for Older Adults measures) and plan all-cause readmissions (ages 18–64 and ages 65+).

In this section we provide information on the quality measures, and the quality management structure and activities for the ICI demonstration.

9.1 Quality Measures

The ICI demonstration requires that the ICI plan report standardized quality measures from multiple measure sets. In addition to monitoring the impact of the demonstration on various aspects of quality, CMS and the State use reporting and performance data on several of the core and State-specific measures to determine what portion of the capitation rates retained by CMS and the State as a "quality withhold" will be paid to the ICI plan.

These measure sets include core measures required by CMS for all capitated FAI demonstrations, State-specific measures, and CMS-required measures for all MA plans nationally.

- **Measures specific to all capitated model demonstrations under the FAI** that address domains of access, assessment, care coordination, enrollee protection, organization structure and staffing, performance and quality improvement, provider network, and systems and service utilization. (See MMP Reporting Requirements.)
- **State-specific measures that were selected by Rhode Island EOHHS staff in consultation with CMS**. These include a variety of structure, process and outcome measures spanning a range of service areas including LTSS, NF diversion and transition, and behavioral health.
- The demonstration also utilizes **quality measures required of MA plans**, including applicable measures from the Part C and Part D Reporting Requirements such as appeals and grievances, pharmacy access, payment structures, and medication therapy management.

- **Modified version of the Medicare Advantage and Prescription Drug Plan (MA-PD) CAHPS survey** that, in addition to the core survey used by MA plans, includes 10 supplemental questions proposed by the RTI Evaluation Team to capture beneficiary experience specific to integration, behavioral health and LTSS (see ***Section 6, Beneficiary Experience,*** for CAHPS findings).
- The **subset of Medicare HEDIS** measures, a standard measurement set used extensively by managed care plans, that are required of all MA plans (see ***Section 9.3, Results for Selected Quality Measures***).
- **Selected Health Outcomes Survey measures** based on a recurring survey of a random sample of Medicare beneficiaries to assess physical and mental health outcomes.

In addition, the RTI Aggregate Evaluation Plan identified a set of quality measures that are calculated by the RTI Team using Medicare FFS claims and MMP encounter data. Many of these measures are part of the HEDIS measurement set and are largely clinical in nature (e.g., preventive screens, follow-up care) or related to service use (e.g., avoidable hospitalizations, ED use) (Walsh et al., 2013, pp. 77–85). We discuss results of the demonstration's impact on these quality measures in ***Section 10, Demonstration Impact on Service Utilization and Quality of Care***.

9.2 Quality Management Structures and Activities

In this section we describe the components of the ICI demonstration quality management system, including its interface with CMS, the ICI plan, and other independent entities, and we summarize some of the key findings to date.

9.2.1 State and CMS Quality Management Structures and Activities

At the State level, quality oversight of the demonstration rests with the contract manager for the ICI demonstration, with input from a quality manager. The quality manager is also responsible for other managed care contracts. After the launch of the demonstration, EOHHS incorporated quality oversight responsibility of the ICI demonstration into the broader EOHHS managed care team to better leverage expertise and staffing resources. EOHHS officials also reported that this approach was consistent with the State's broader approach to integrate quality efforts across all programming, including AEs.[36]

Early in implementation, EOHHS staff had limited access to quality measure data. Although core and State-specific reporting measures were established in the three-way contract, EOHHS did not finalize the reporting guidelines with CMS for State-specific quality reporting measures until 2017, over 6 months into the demonstration. Additionally, although quality withhold measures and amounts are set forth in the three-way contract, EOHHS and CMS did not set the performance benchmarks for the State-specific measures until demonstration year 2.

EOHHS officials attributed some of the delay around the State-specific reporting measures to lack of staffing at the State level and the pressing need to focus on operational

[36] See ***Section 2, Demonstration Design and State Context***, for a description of AEs in Rhode Island.

details of the demonstration. By the time the State-specific reporting measures were finalized, some of the EOHHS staff who had developed the State-specific measures were no longer working on the demonstration. One EOHHS official involved in the finalization process reported that not all the original measures seemed necessary, but because they were based in the Memorandum of Understanding (MOU) for the demonstration, CMS did not agree to additional changes.

Ideally, you would get a [quality] structure in place before the program even gets implemented. We all know if you want to be able to effectively evaluate something, you have to figure it out in advance. …I don't think we've really had an opportunity to step back and get the right processes in places and line everything up because we've been so focused on initial implementation. So I think we're a little bit behind from where we'd like to be, but not necessarily from where we would expect to be.

— EOHHS Official (2017)

As the demonstration has matured, additional quality data has become available, including results from CAHPS and HEDIS. EOHHS officials noted in 2019 that results from both data sources indicated that despite operational hurdles, there were no notable quality issues with the ICI demonstration in terms of beneficiary experience.

9.2.2 ICI Plan Quality Management Structure and Activities

At the ICI plan level, the three-way contract outlines requirements for the quality improvement structure, including a description of quality management activities. The ICI plan must submit to CMS and EOHHS an annual quality plan, as well as a work plan and an annual evaluation of the work plan (Rhode Island three-way contract, 2018, p. 173).

The ICI plan reported that LTSS was a key area of focus for its quality improvement activities. To support improvements activities, the ICI plan established an LTSS Oversight Manager to assist with monitoring LTSS providers.

LTSS is the area that we are spending most of our time working on to get good sources of quality data in place. This is fairly new to us; until a couple of years ago we were not big players in the LTSS area because we did not have duals. That's been a learning process and we're spending a lot of time on it.

— ICI Plan Official (2018)

Although the ICI plan has a quality improvement program that covers all its product lines, it established a separate internal quality improvement committee dedicated to the ICI demonstration (and to RHO when it was in operation) to focus specifically on the population served by the demonstration. This committee routinely reviewed feedback and information from the MAC.

In addition to a dedicated quality committee, the ICI plan established a separate committee focused on the required measures and quality withholds. Although these measures are reviewed as part of the quality committee, this new committee took that work a step further, with a goal of receiving full payment on all quality withhold measures. For example, the ICI plan's work to meet nursing facility quality measures led to the development of an incentive program for NF performance tied to the required benchmarks that began January 2019.

9.2.3 Independent Quality Management Structures and Activities

An External Quality Review Organization (EQRO) annually validates Medicaid's performance and quality improvement measures for the demonstration. Quality improvement projects (QIPs) for the demonstration focused on increasing transitions from nursing facilities back to the community and on reducing hospitalizations for NF residents in facilities participating in the ICI plan's nurse practitioner rounding program.[37] In 2019, the ICI plan reported that it was restructuring the related QIP to better address HEDIS measures related to care for older adults.

The ombudsman for the ICI demonstration also provided quality oversight activities. The RIPIN provides ombudsman services for all Medicare-Medicaid beneficiaries in Rhode Island and is not limited to demonstration enrollees. RIPIN did not have a history of serving older adults and adults with disabilities. However, it had the infrastructure in place to provide ombudsman services for the demonstration from its previous operation as an advocacy agency for families of children with special needs, where it offered a call center and human resources trained in assisting with health care system navigation.

RIPIN spent a significant amount of time and effort in the beginning of the demonstration developing tracking systems and metrics to capture quantitative and qualitative data on the volume and content of calls and call resolution. Initially, RIPIN did not distinguish between calls from ICI demonstration beneficiaries and calls from other Medicare-Medicaid enrollees. As the demonstration has progressed, RIPIN has established a flag for ICI demonstration beneficiaries within their call-tracking database. RIPIN representatives participate in the MAC meetings and attend the Implementation Council meetings on an ongoing basis.

Over the first 2 years of the demonstration, RIPIN engaged in a number of activities to increase beneficiaries' awareness of their ombudsman services, such as sending direct mailings to beneficiaries, including RIPIN contact information on ICI plan materials and notices from EOHHS, attending outreach events, and building and maintaining relationships with resident service coordinators. By early 2019, RIPIN staff reported that these outreach activities had resulted in improved awareness of RIPIN among beneficiaries. In 2020, RIPIN hired a bilingual outreach specialist dedicated to the ICI demonstration to strengthen outreach efforts.

[37] This program provided additional clinical support to demonstration enrollees residing in nursing facilities.

9.3 Results for Selected Quality Measures

9.3.1 Quality Withholds

For calendar year 2016, the ICI plan met benchmarks for seven of the eight quality withhold measures. The ICI plan met benchmarks for both core measures (establishing a consumer governance board and assessment completion rates); and it met benchmarks for five of the six State-specific measures.

For calendar year 2017, the ICI plan met benchmarks for 56 percent of the measures. (two of the three core measures and three of the six State-specific ones). Although the plan met the benchmark for the core measure on assessment completion in 2016, it did not in 2017. The ICI plan improved its performance in calendar year 2018, meeting benchmarks for 100 percent of the seven core measures and 64 percent of the 11 State-specific ones. We discuss repayment of quality withholds in ***Section 8, Financing and Payment***.

9.3.2 CAHPS

We include selected results from the 2018 CAHPS survey in ***Section 6, Beneficiary Experience***.

9.3.3 HEDIS Quality Measures Reported for the ICI Plan

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

Five of the 13 Medicare HEDIS measures for MMP enrollees that RTI analyzes are reported in ***Figures 6–11***, with results on all 13 measures appearing in ***Table C-1*** in ***Appendix C***. RTI identified these measures in its Aggregate Evaluation Plan based on their completeness, reasonability, and sample size. Calendar year data for 2017–2018 were available for NHPRI. In response to the COVID-19 public health emergency, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Medicare plans (including MMPs) resumed normal reporting for measurement year 2020, with those data becoming available later in 2021.

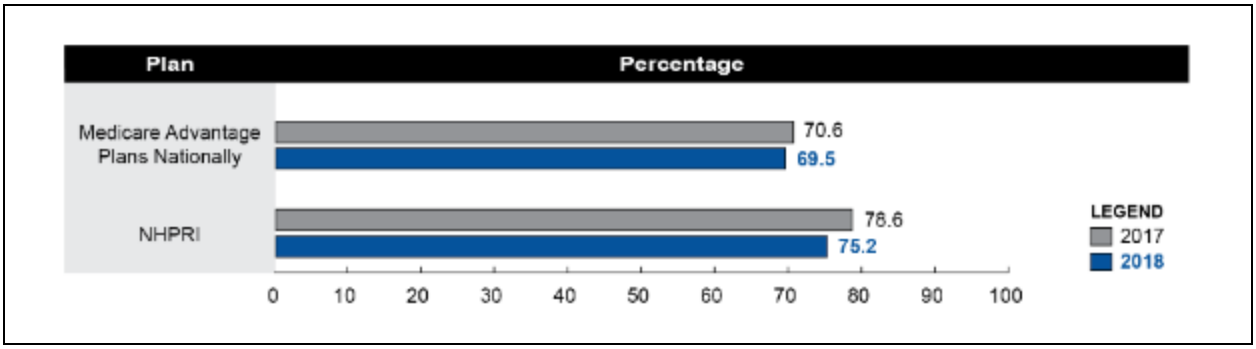
Detailed descriptions of selected HEDIS measures can be found in the RTI Aggregate Evaluation Plan. Results reported in ***Figures 6–11*** show Rhode Island's HEDIS performance data for calendar years 2017 through 2018 on measures for blood pressure control, 30-day follow-up after hospitalization for 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 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 dual eligible beneficiaries and beneficiaries with disabilities. Additionally, HEDIS measure performance, in particular, is slightly worse among plans active in areas with lower income and populations with a higher proportion of minorities (ASPE, 2016). Comparisons to national MA plan means should be considered with these limitations in mind.

As shown in ***Figure 6***, NHPRI's performance on blood pressure control slightly decreased between 2017 and 2018.

Figure 6
Blood pressure control,[1] 2017–2018:
Reported performance rates for NHPRI



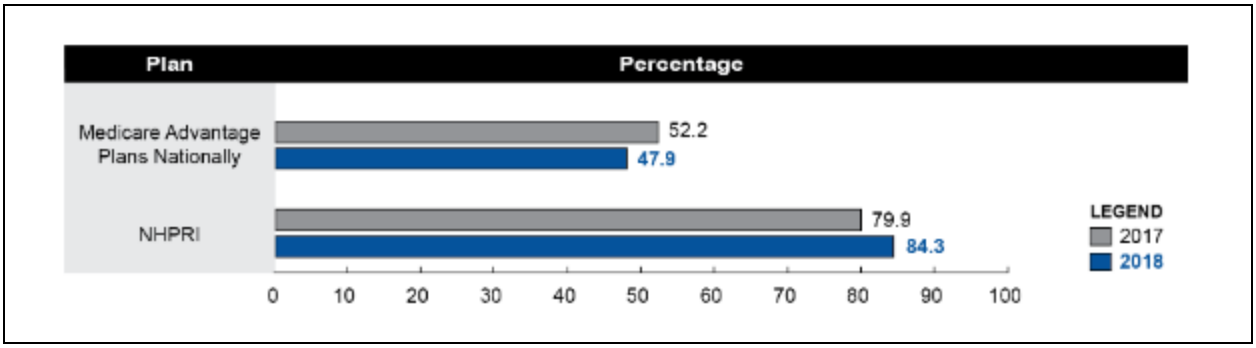
HEDIS = Healthcare Effectiveness Data and Information Set; NHPRI = Neighborhood Health Plan of Rhode Island.

[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 2017 through 2018 HEDIS measures.

Figure 7 shows that for 30-day follow-up after hospitalization for mental illness, NHPRI improved performance between 2017 and 2018.

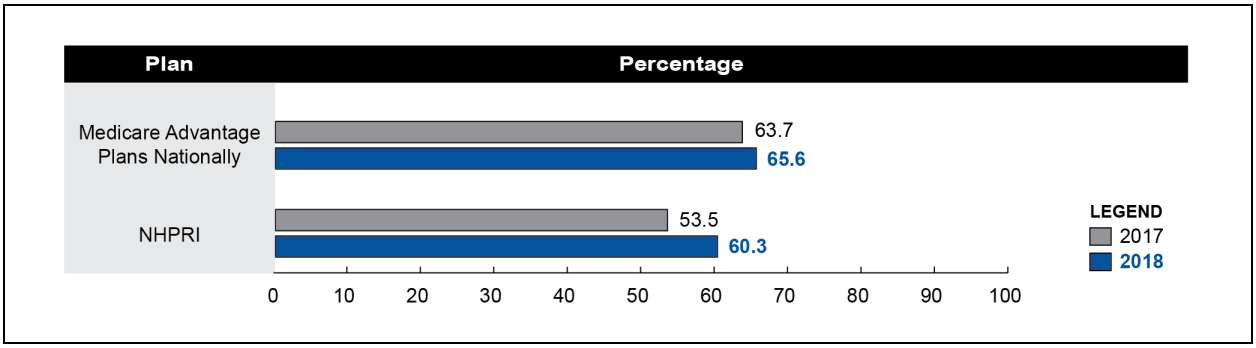
Figure 7
30-day Follow-up after hospitalization for mental illness,[1] 2017–2018:
Reported performance rates for NHPRI



HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; NHPRI = Neighborhood Health Plan of Rhode Island.
[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 2017 through 2018 HEDIS measures.

As shown in ***Figure 8***, NHPRI's performance on controlling HbA1c levels (<8.0 percent) increased between 2017 and 2018.

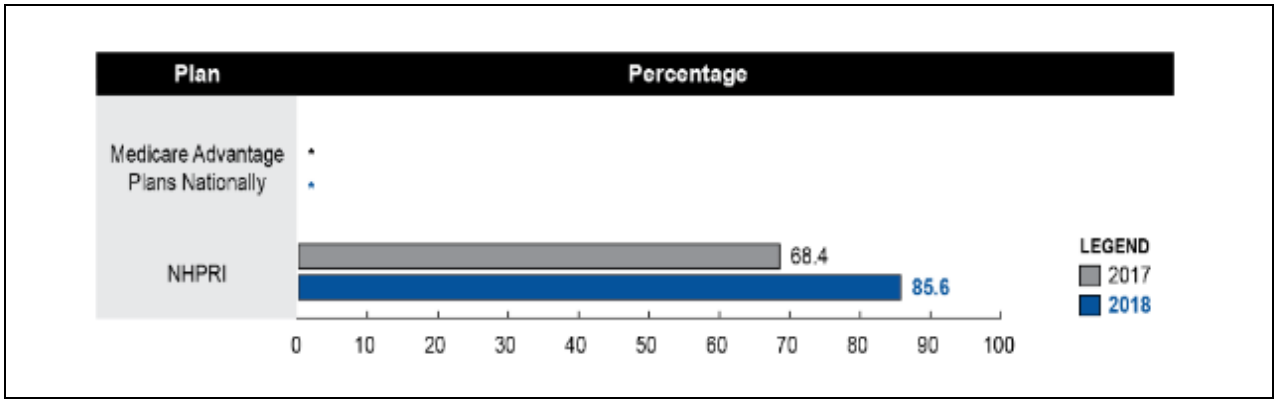
Figure 8
Good control of HbA1c level (<8.0%), 2017–2018:
Reported performance rates for NHPRI



HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; NHPRI = Neighborhood Health Plan of Rhode Island.
SOURCE: RTI analysis of 2017 through 2018 HEDIS measures.

Figure 9 shows that for medication review (one of the Care for Older Adults measures), NHPRI greatly improved performance between 2017 and 2018. National MA plan mean values are not available for the Care for Older Adult measures.

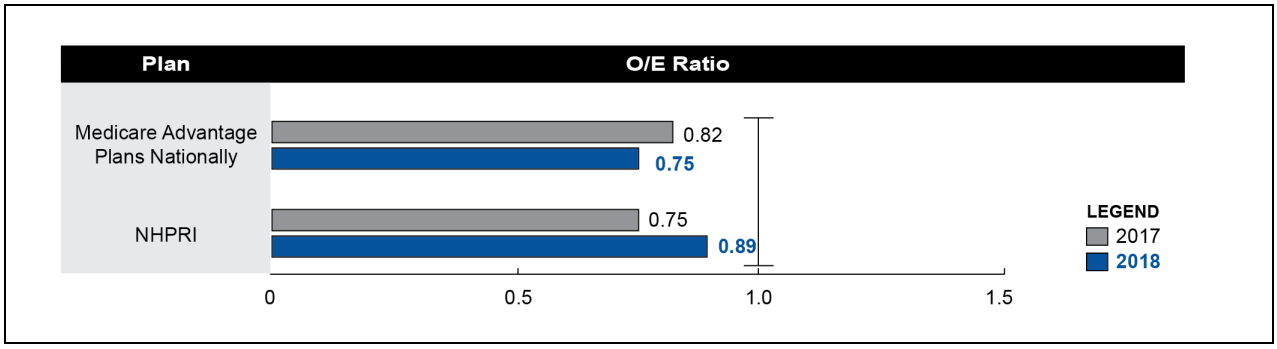
Figure 9
Medication review (one of the Care for Older Adults measures), 2017–2018: Reported performance rates for NHPRI



* = not available, where RTI did not have access to MA plan national HEDIS data for this measure; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; NHPRI = Neighborhood Health Plan of Rhode Island.
SOURCE: RTI analysis of 2017 through 2018 HEDIS measures.

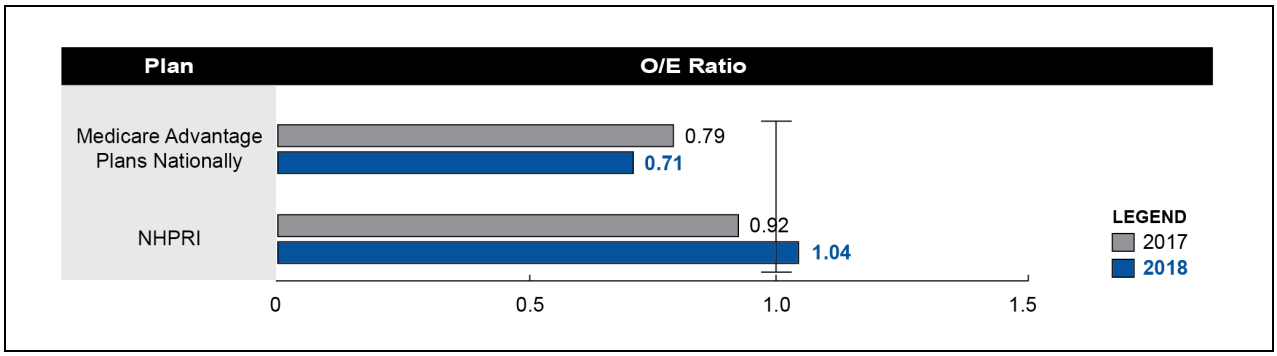
Plan all-cause readmissions for enrollees ages 18–64 and 65+ are reported in ***Figure 10*** and ***Figure 11***, respectively, as an observed-to-expected ratio, whereby an MMP's observed readmission rate is compared to its expected readmission rate given its beneficiary case mix; a value below 1.0 (shown by the vertical line at $x = 1$ in the figure below) is favorable and indicates that MMPs had fewer readmissions than expected for their populations based on case mix. ***Figure 10*** shows that NHPRI reported lower than expected readmissions for enrollees ages 18–64 across both years, but performance slightly worsened between 2017 and 2018. ***Figure 11*** shows that NHPRI reported lower than expected readmissions for enrollees ages 65+ in 2017, but slightly higher than expected readmissions in 2018.

Figure 10
Plan all-cause readmissions: Ages 18–64, 2017–2018:
Reported observed-to-expected ratios for NHPRI



HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; NHPRI = Neighborhood Health Plan of Rhode Island.
SOURCE: RTI analysis of 2017 through 2018 HEDIS measures.

Figure 11
Plan all-cause readmissions: Ages 65+, 2017–2018:
Reported observed-to-expected ratios for NHPRI



HEDIS = Healthcare Effectiveness Data and Information Set; NHPRI = Neighborhood Health Plan of Rhode Island.
SOURCE: RTI analysis of 2017 through 2018 HEDIS measures.

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SECTION 10

Demonstration Impact on Service Utilization and Quality of Care

10.1 Methods Overview

The FAI demonstrations are intended to shift utilization from inpatient to ambulatory care, from NF care to HCBS, and to improve quality of care through care coordination activities and the demonstrations' financial incentives. The analyses in this section evaluate the effects of the Rhode Island ICI demonstration in demonstration years 1–2 (July 1, 2016–December 31, 2018) on service utilization and quality of care outcomes among Rhode Island demonstration eligible beneficiaries. The service utilization analyses in this section include MMP and FFS Medicare-Medicaid demonstration eligible beneficiaries only, whereas the analysis conducted in ***Section 11, Demonstration Impact on Cost Savings*** also includes MA enrollees.

For this analysis, we used an intent-to-treat (ITT) approach that included all beneficiaries eligible for the demonstration, not just those who actually enrolled in the MMPs, to alleviate concerns of selection bias and to support generalizability of the results among the demonstration eligible population. Enrolled beneficiaries account for approximately 62 percent of all eligible beneficiaries (including FFS beneficiaries and MMP enrollees) in demonstration year 3. An ITT analysis mimics the real-world implementation of the demonstration.

We used a quasi-experimental DinD regression analysis with inverse propensity weighting to estimate the impact of the demonstration on the change in the service utilization and quality of care outcomes, relative to the comparison group. We used Medicare enrollment and claims and MMP encounter data to conduct this analysis. See ***Appendix E*** for more detail on our analytic methodology.

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

The forest plots present a point estimate of the demonstration effect by demonstration year for each outcome, along with 95 percent confidence intervals of each point estimate. A point estimate indicates a statistically significant demonstration effect if neither 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 impacted LTSS users differently than non-LTSS users. We present the demonstration effects separately for LTSS

users and for non-LTSS users, and also discuss any interaction effect (the difference between the two effects). After that, we present the same type of results for beneficiaries with and without SPMI. For a complete list of DinD estimates with 95 and 90 percent confidence intervals, please see ***Appendix F***.

10.2 Demonstration Impact on Service Utilization Among Eligible Beneficiaries

Overall, the demonstration decreased the monthly probability of an ED visit by 5.1 percent and increased the monthly count of physician evaluation and management (E&M) visits by 4.6 percent, relative to the comparison group, both favorable results. Demonstration effects on inpatient admissions, SNF admissions, or long-stay nursing facility use were not statistically significant.

10.2.1 Cumulative Impact Over Demonstration Years 1–2

As described above, the key goals of the Rhode Island ICI demonstration include the delivery of person-centered care to improve enrollee quality of life and the development of an integrated system of care coordination. Through better care coordination, outpatient management of chronic conditions, and the integration of medical care, LTSS and behavioral health services, the demonstration is intended to improve quality of care, increase use of outpatient care and HCBS, while decreasing inpatient care, ED visits, and long-stay NF use.

Table 13 shows the cumulative impacts of the demonstration on service utilization. The demonstration had a favorable impact on some utilization measures through demonstration years 1 and 2. There was both a greater decline in the monthly probability of an ED visit, and a greater increase in the monthly count of physician visits, relative to the comparison group. While there may be desirable trends observed in the demonstration group data, the impact of the demonstration is determined relative to the comparison group trends.

- The cumulative demonstration effect on the count of physician E&M visits was a monthly increase of 0.0415 visits, relative to the comparison group. This monthly increase represents a relative difference of 4.6 percent of the predicted count of physician visits in the comparison group during the demonstration period. The annualized increase in the count of physician visits was 0.50 visits per year (derived by 0.0415*12) relative to the comparison group.
  - These results are driven by absolute increases in monthly physician visits (0.83 to 0.86 from the predemonstration to demonstration periods) in the demonstration group, while the trend in the comparison group was a slight decrease (from 0.92 to 0.91).
- The demonstration group had a 0.30 percentage point greater decline in the monthly probability of any ED visit, relative to the comparison group. This difference represents a 5.1 percent change from the predicted probability of any ED visit in the comparison group during the demonstration period.

  - While ED use decreased in both the demonstration and comparison groups, there was a larger decline in the demonstration group. The probability of an ED visit declined from 5.1 percent to 4.7 percent in the demonstration group, while the comparison group had a less pronounced decrease from 6.1 percent to 6.0 percent.

- Care coordination activities, as described in ***Section 5, Care Coordination***, may help explain improvements in physician visits and declines in ED visits. While there was some confusion among enrollees and providers around the care management structure early on, this improved over time.
- Some caution should be used when interpreting these results. As described in ***Section 1.1, Demonstration Description and Goals***, the ICI demonstration built on and complemented an already existing MLTSS program for the dually eligible population in Rhode Island. This may have accelerated a decline in ED visits in the demonstration group over the baseline. As such, our results may be an overestimate of the demonstration impact on monthly ED use.[38]

[38] A formal test of the baseline parallel trends assumption did not find a statistically significant difference in the linear trend of the monthly probability of any ED use between the comparison and intervention groups.

Table 13
Cumulative demonstration effect on select service utilization measures for eligible beneficiaries in Rhode Island, demonstration years 1–2 (July 1, 2016–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	0.0331	0.0311	NS	–0.0006 (–0.0026, 0.0014)	0.5546
	Comparison	0.0315	0.0302			
Probability of ED visit	Demonstration	0.0509	0.0472	–5.1	–0.0030*** (–0.0045, –0.0016)	<0.0001
	Comparison	0.0611	0.0596			
Count of physician E&M visits	Demonstration	0.8273	0.8564	4.6	0.0415** (0.0130, 0.0701)	0.0044
	Comparison	0.9175	0.9069			
Probability of SNF admission	Demonstration	0.0089	0.0093	NS	0.0005 (–0.0001, 0.0011)	0.1028
	Comparison	0.0066	0.0064			
Probability of any long-stay NF use	Demonstration	0.0818	0.0797	NS	0.0040 (–0.0059, 0.0139)	0.4250
	Comparison	0.1251	0.1175			

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

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 count 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.

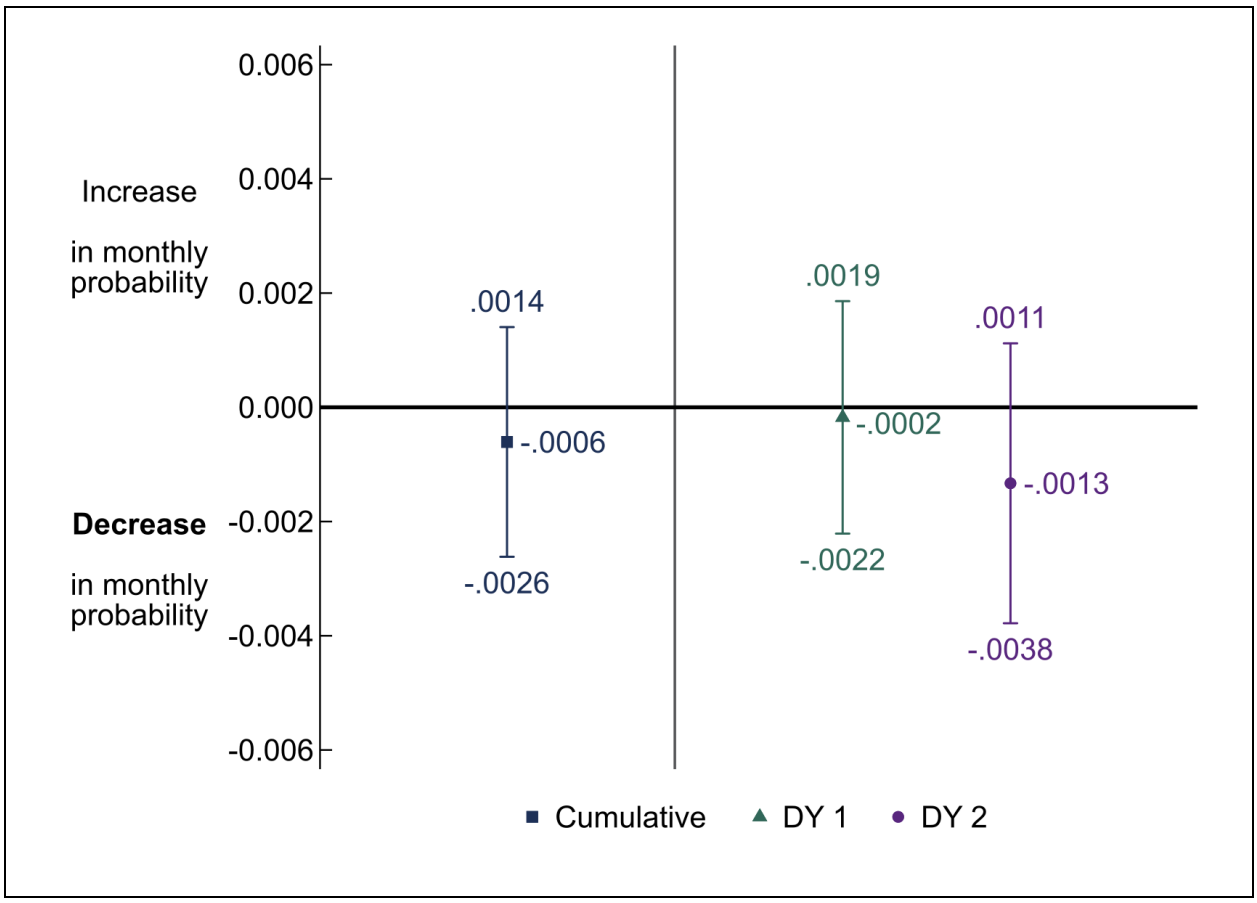
10.2.2 Demonstration Impact in Each Demonstration Year

Figures 12–16 show annual effects of the demonstration on all-cause inpatient admissions, ED visits, physician visits, SNF, and long-stay NF use, respectively, with the cumulative effects also included as points of comparison. These annual impact estimates indicate that the Rhode Island demonstration decreased the monthly probability of any ED visit, and increased the monthly count of physician E&M visits, in both demonstration years 1 and 2, relative to the comparison group.

- The monthly probability of any ED visit decreased by 0.18 percentage points in demonstration year 1, and 0.49 percentage points in demonstration year 2, relative to the comparison group (***Figure 13***).
- The Rhode Island demonstration increased the monthly count of physician E&M visits in demonstration years 1 and 2 by 0.0493 and 0.0286 visits, respectively, relative to the comparison group (***Figure 14***). These changes represent a 5.5 and 3.1 percent increase relative to adjusted monthly average number of visits in the comparison group in demonstration years 1 and 2, respectively. These favorable annual findings are consistent with the cumulative findings.

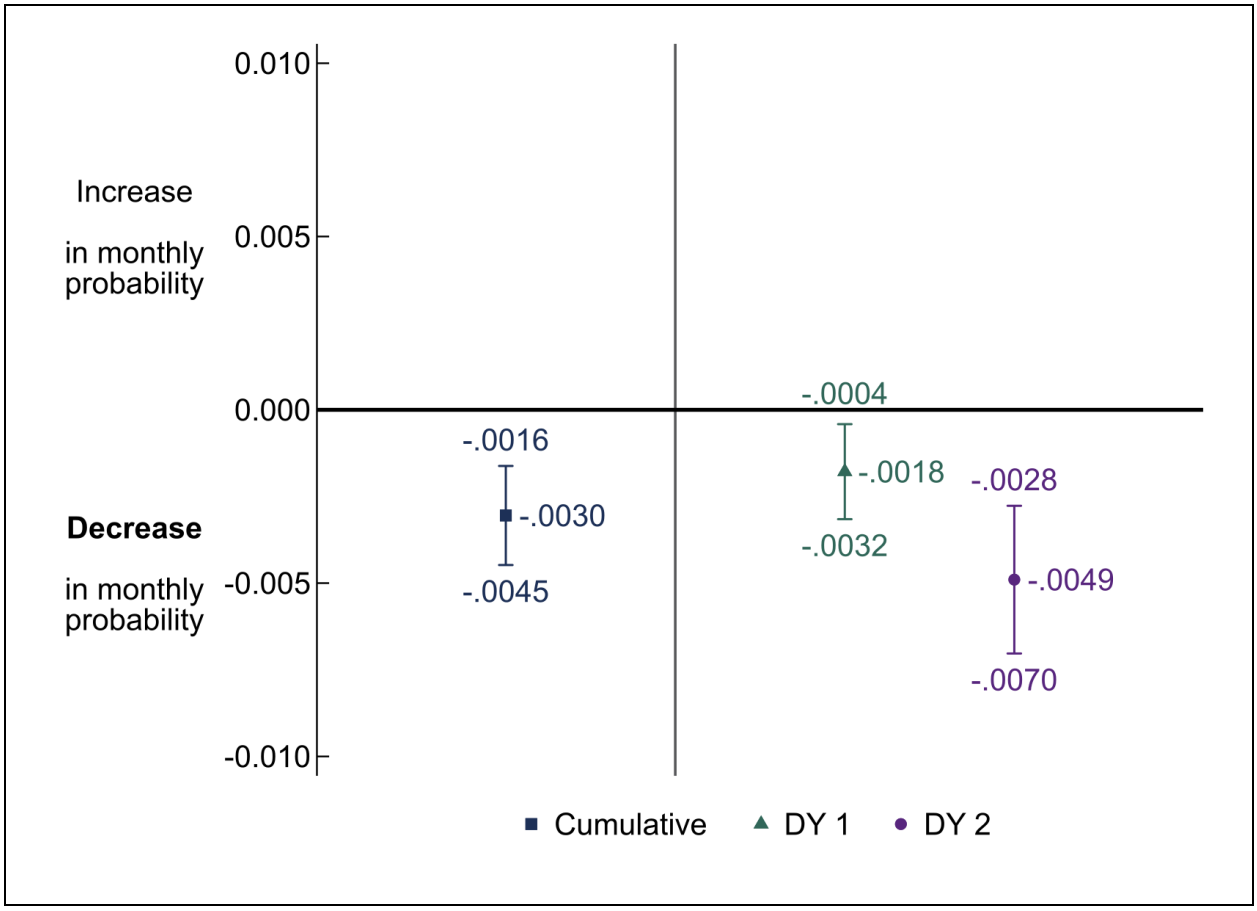
- There was a 0.08 percentage point increase in the monthly probability of any SNF admission among those in the demonstration group in demonstration year 1, relative to the comparison group (***Figure 15***). However, there was no impact of the demonstration on SNF use in demonstration year 2.
  - This finding appeared be driven in part by a small decline in the weighted monthly average probability of any SNF use in the comparison group from 0.7 in baseline year 2 to 0.6 in demonstration year 1 (see ***Appendix F, Table F-4***). The weighted monthly probability of any SNF use in the demonstration group was relatively unchanged between those 2 years.

Figure 12
Cumulative and annual demonstration effects on inpatient admissions, demonstration years 1–2 (July 1, 2016–December 31, 2018)



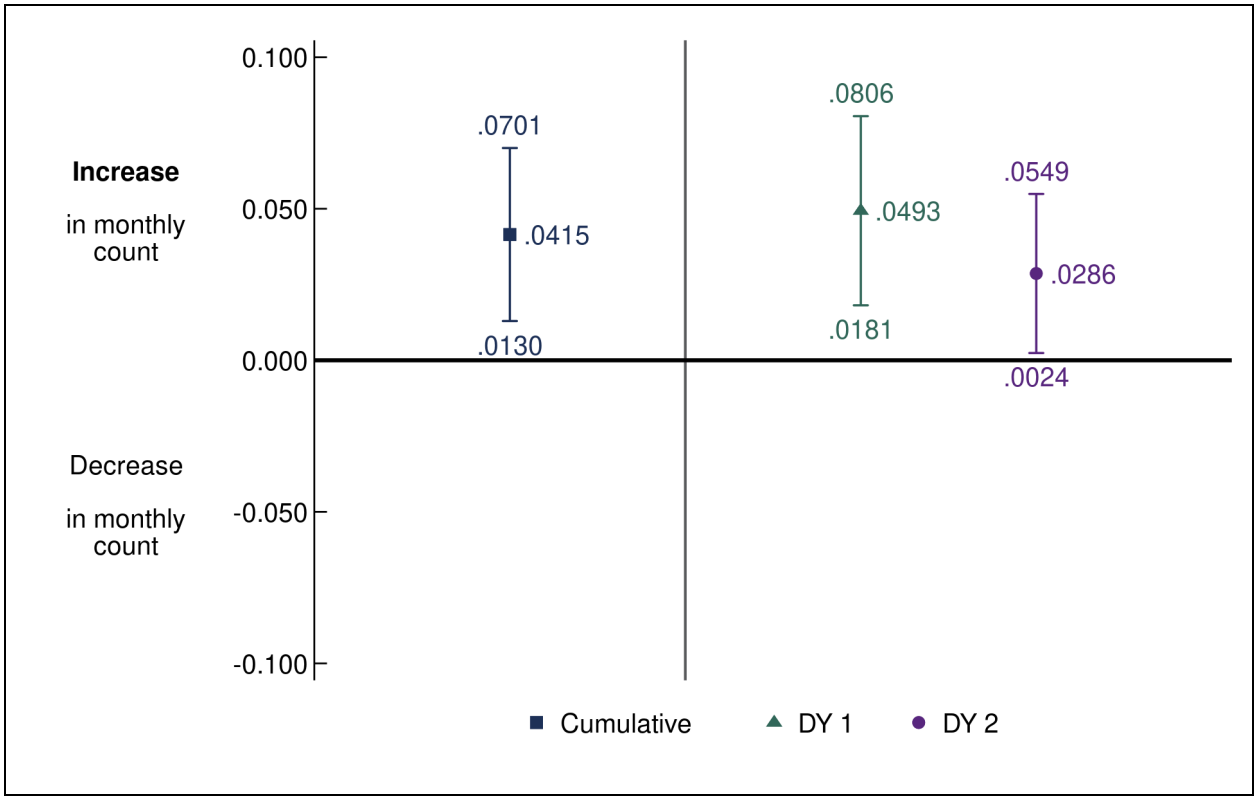
DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 13
Cumulative and annual demonstration effects on ED visits, demonstration years 1–2 (July 1, 2016–December 31, 2018)



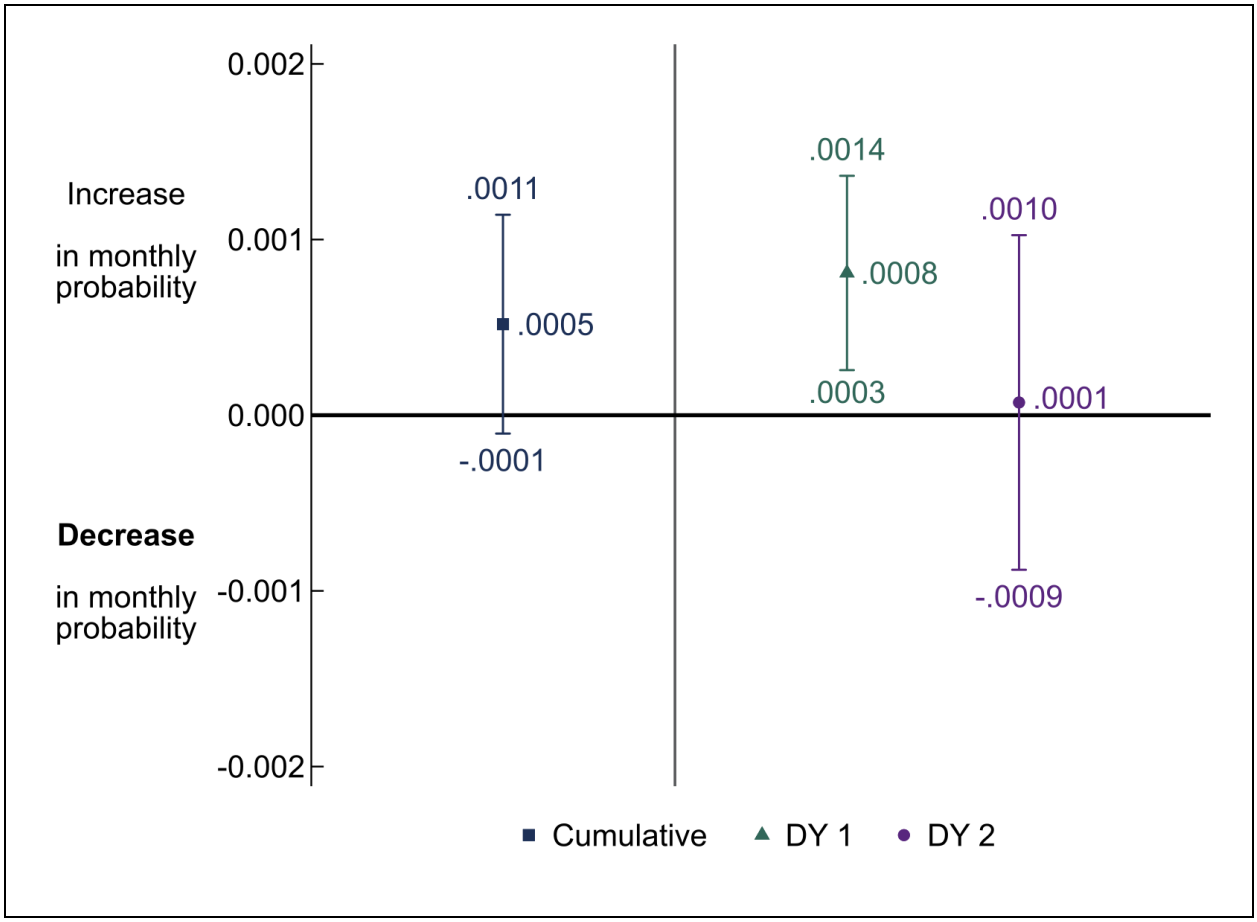
DY = demonstration year; ED = emergency department.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 14
Cumulative and annual demonstration effects on physician E&M visits, demonstration years 1–2 (July 1, 2016–December 31, 2018)



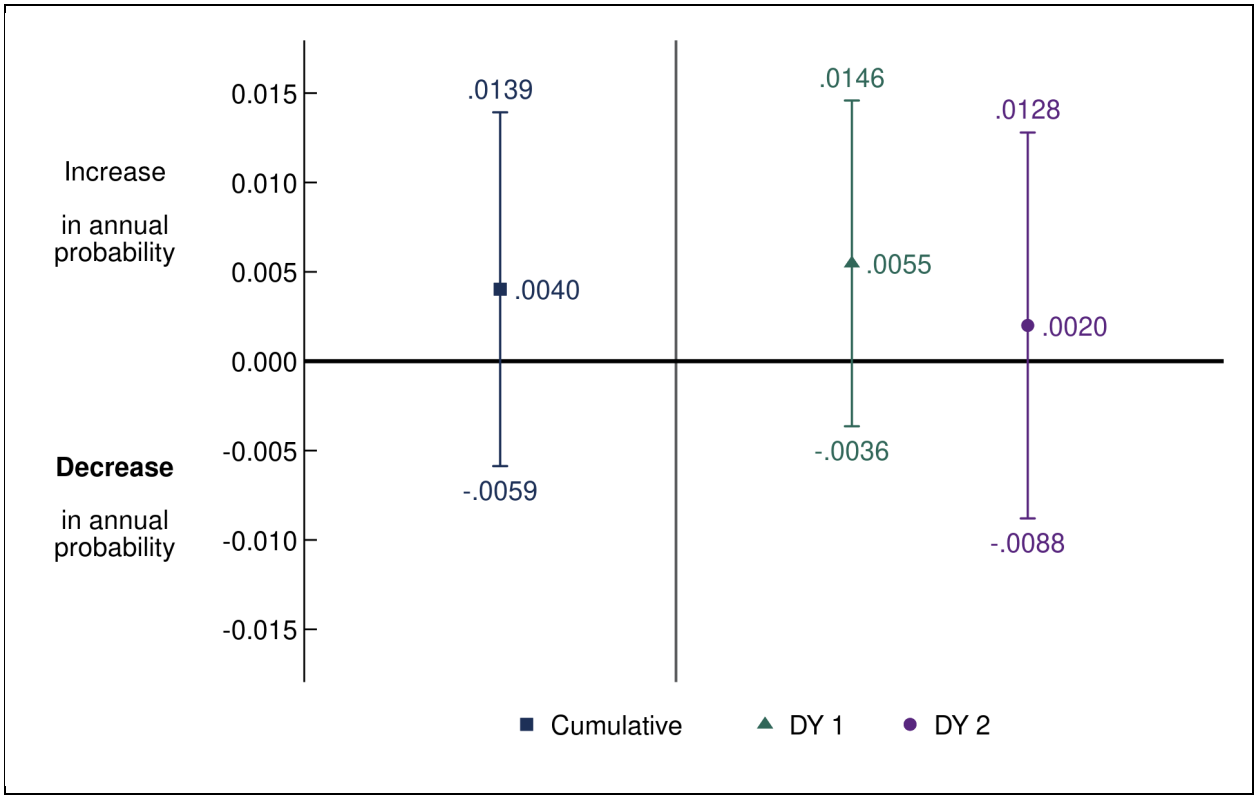
DY = demonstration year; E&M = evaluation and management.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 15
Cumulative and annual demonstration effects on SNF admissions, demonstration years 1–2 (July 1, 2016–December 31, 2018)



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

Figure 16
Cumulative and annual demonstration effects on long-stay NF use, demonstration years 1–2 (July 1, 2016–December 31, 2018)



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

10.3 Demonstration Impact on Quality of Care Among Eligible Beneficiaries

The demonstration had a limited effect on quality of care measures analyzed. The demonstration resulted in a 6.5 percent reduction in the monthly count of preventable ED visits, relative to the comparison group. The demonstration did not have any cumulative impact on other quality of care measures.

10.3.1 Cumulative Impact Over Demonstration Years 1–2

Table 14 illustrates the cumulative impact and adjusted means for the quality of care measures. The demonstration resulted in a decrease in preventable ED visits, relative to the comparison group. There were no other statistically significant cumulative effects on any other quality of care measure.

- The Rhode Island demonstration resulted in a 0.0023 decrease in the monthly count of preventable ED visits per beneficiary, relative to the comparison group. The predicted monthly count of preventable ED visits among beneficiaries in the demonstration group decreased from 0.0269 visits in the predemonstration period to 0.0254 during the demonstration period. Conversely, there was little change in the predicted monthly count of preventable ED visits in the comparison group from the predemonstration to the demonstration period.
- The demonstration did not have an impact on other quality of care measures.
- These findings are somewhat consistent with the service utilization findings on improvements in physician E&M visits and declines in ED visits. Greater access to outpatient services may contribute to better management of chronic conditions, and may also help reduce preventable ED visits. However, these improvements did not correspond with broad reductions in inpatient admissions, use of SNF, or long-stay NF services (see ***Table 13***), or improvements on most quality of care measures, relative to the comparison group.
- Similar to what was described in ***Section 10.2.1***, caution should be used when interpreting these results. The introduction of MLTSS in 2013 seemed to correspond with reductions in preventable ED visits during the baseline period and may be associated with accelerated declines in the demonstration group. Therefore, our results may overestimate the demonstration impact on preventable ED visits.[39]

[39] A formal test of the baseline parallel trends assumption did not find a statistically significant difference in the linear trend of the monthly number of preventable ED visits between the comparison and intervention groups.

Table 14
Cumulative demonstration effect on select quality of care measures for eligible beneficiaries in Rhode Island, demonstration years 1–2 (July 1, 2016–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	0.0269	0.0254	–6.5	–0.0023** (–0.0040, –0.0006)	0.0086
	Comparison	0.0348	0.0349			
Probability of ACSC admission, overall	Demonstration	0.0047	0.0048	NS	–0.0001 (–0.0007, 0.0006)	0.8654
	Comparison	0.0052	0.0053			
Probability of ACSC admission, chronic	Demonstration	0.0035	0.0037	NS	–0.0003 (–0.0007, 0.0002)	0.1939
	Comparison	0.0031	0.0035			
Probability of 30-day follow-up after mental health discharge	Demonstration	0.3479	0.3517	NS	–0.0029 (–0.0520, 0.0463)	0.9082
	Comparison	0.4793	0.4864			
Count of all-cause 30-day readmissions	Demonstration	0.2704	0.2696	NS	–0.0052 (–0.0235, 0.0131)	0.5745
	Comparison	0.2329	0.2367			

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

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 count 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.

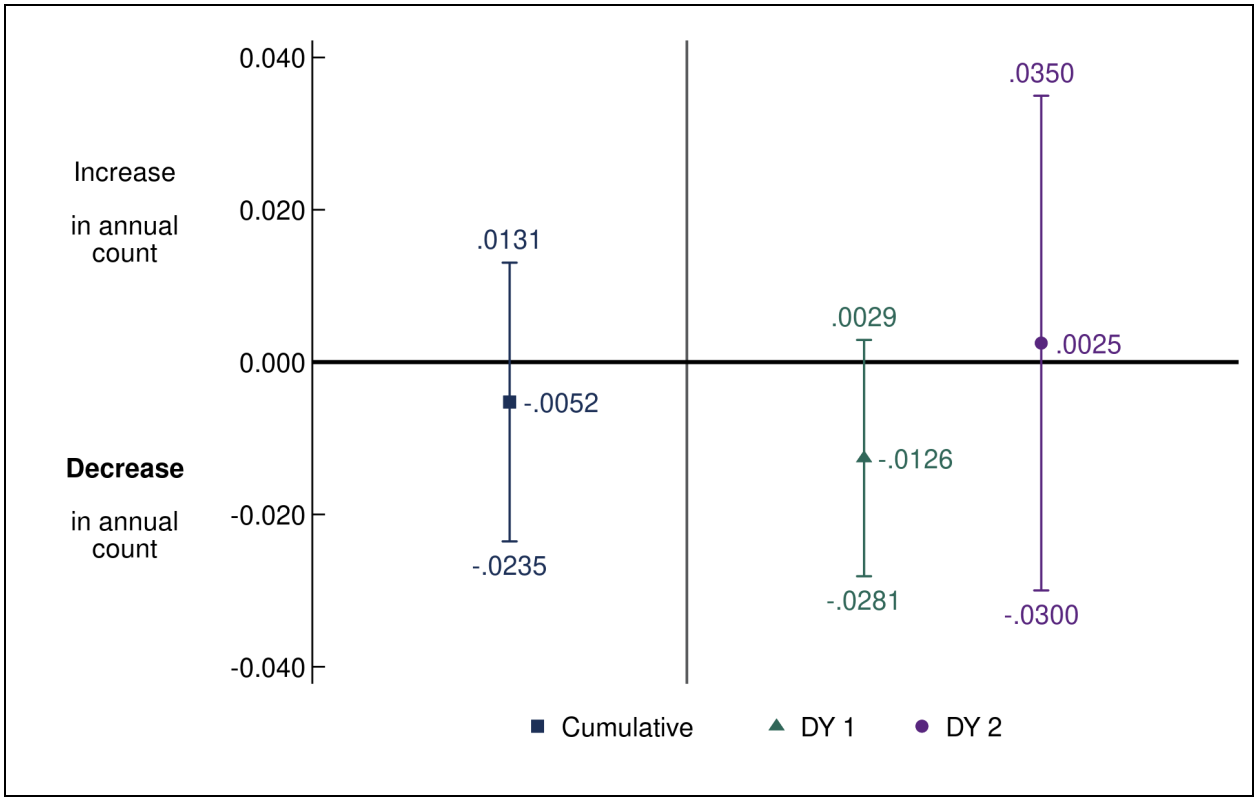
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

10.3.2 Demonstration Impact in Each Demonstration Year

Figures 17–21 show the demonstration's annual effects on 30-day readmission, preventable ED visits, ACSC admissions (overall), ACSC admissions (chronic), and 30-day follow-up post mental health discharge, with the cumulative impact also shown as points of comparison. These annual impact estimates indicate that the Rhode Island demonstration decreased the count of preventable ED visits in demonstration years 1 and 2.

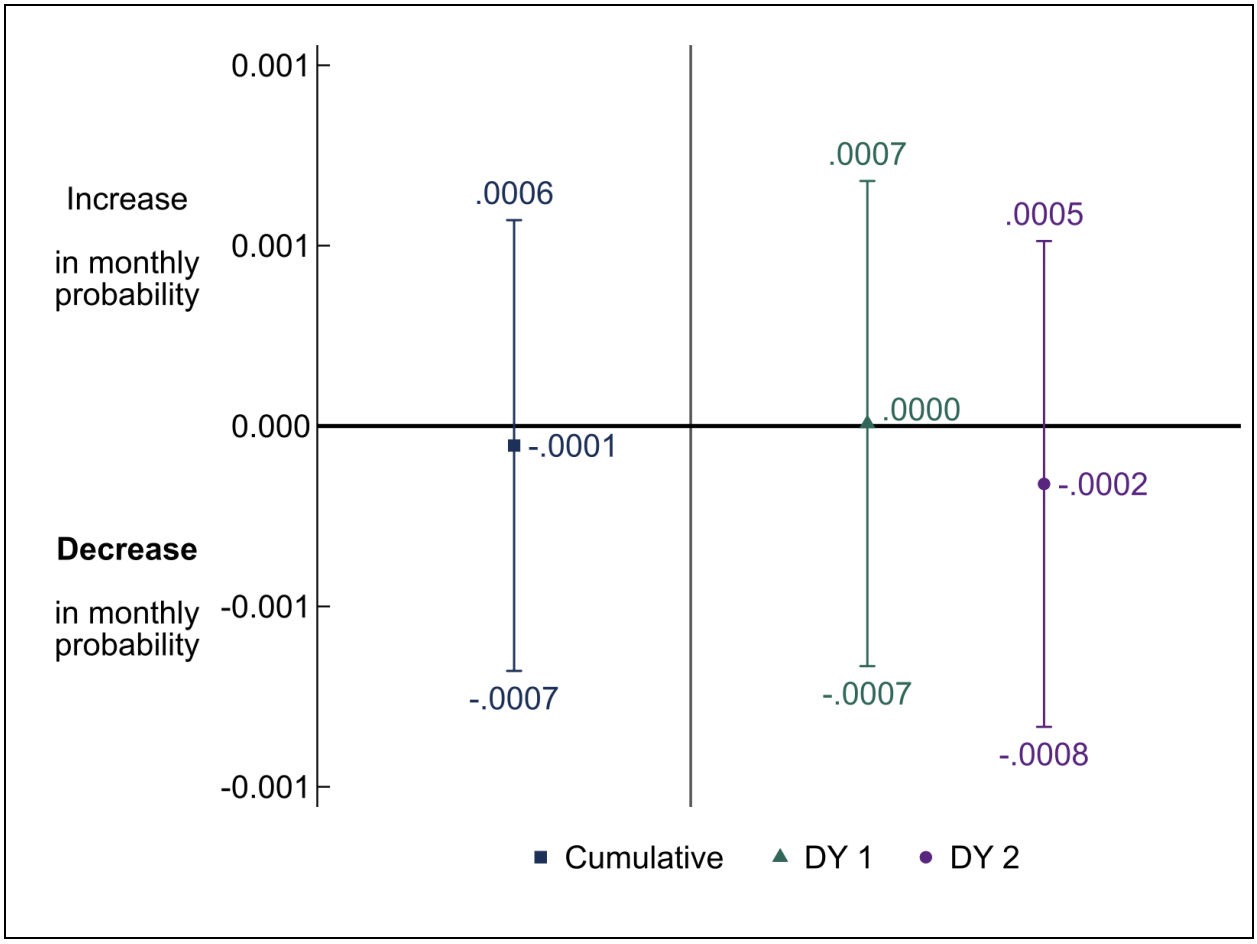
- Similar to the cumulative estimates, the demonstration decreased monthly preventable ED visits in demonstration year 1 by 0.0016 visits, and 0.0033 visits in demonstration year 2, relative to the comparison group (***Figure 20***).
- There were no statistically significant annual effects of the demonstration on other quality of care measures.

Figure 17
Cumulative and annual demonstration effects on 30-day readmissions, demonstration years 1–2 (July 1, 2016–December 31, 2018)



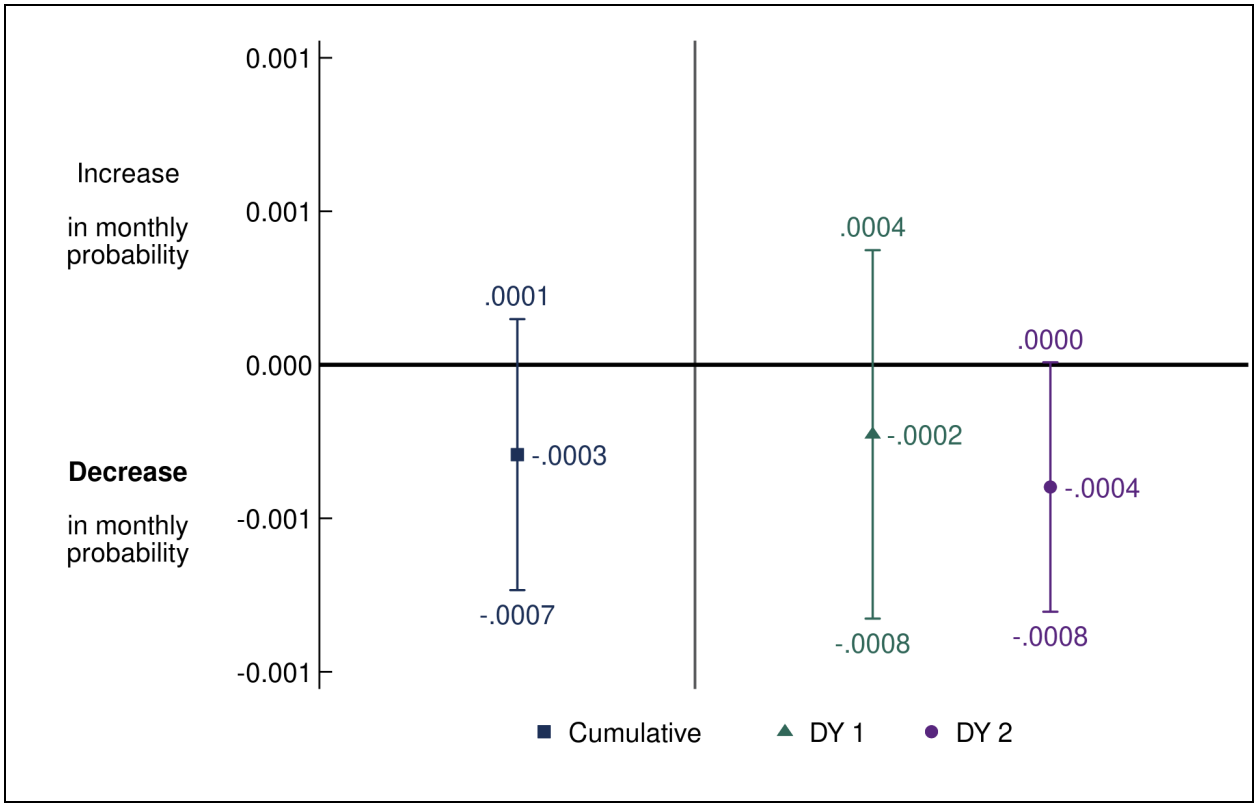
DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 18
Cumulative and annual demonstration effects on ACSC admissions (overall), demonstration years 1–2 (July 1, 2016–December 31, 2018)



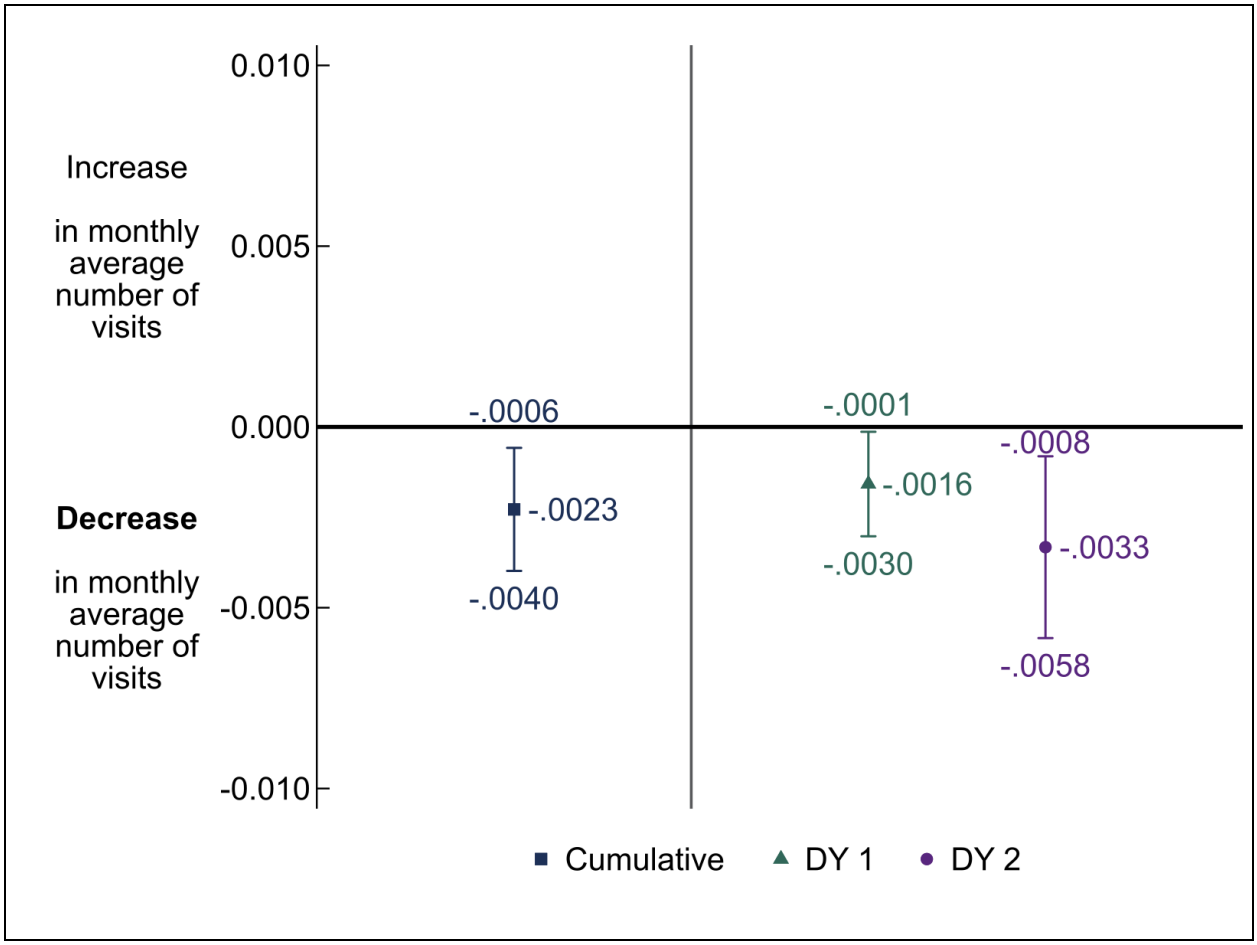
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 19
Cumulative and annual demonstration effects on ACSC admissions (chronic), demonstration years 1–2 (July 1, 2016–December 31, 2018)



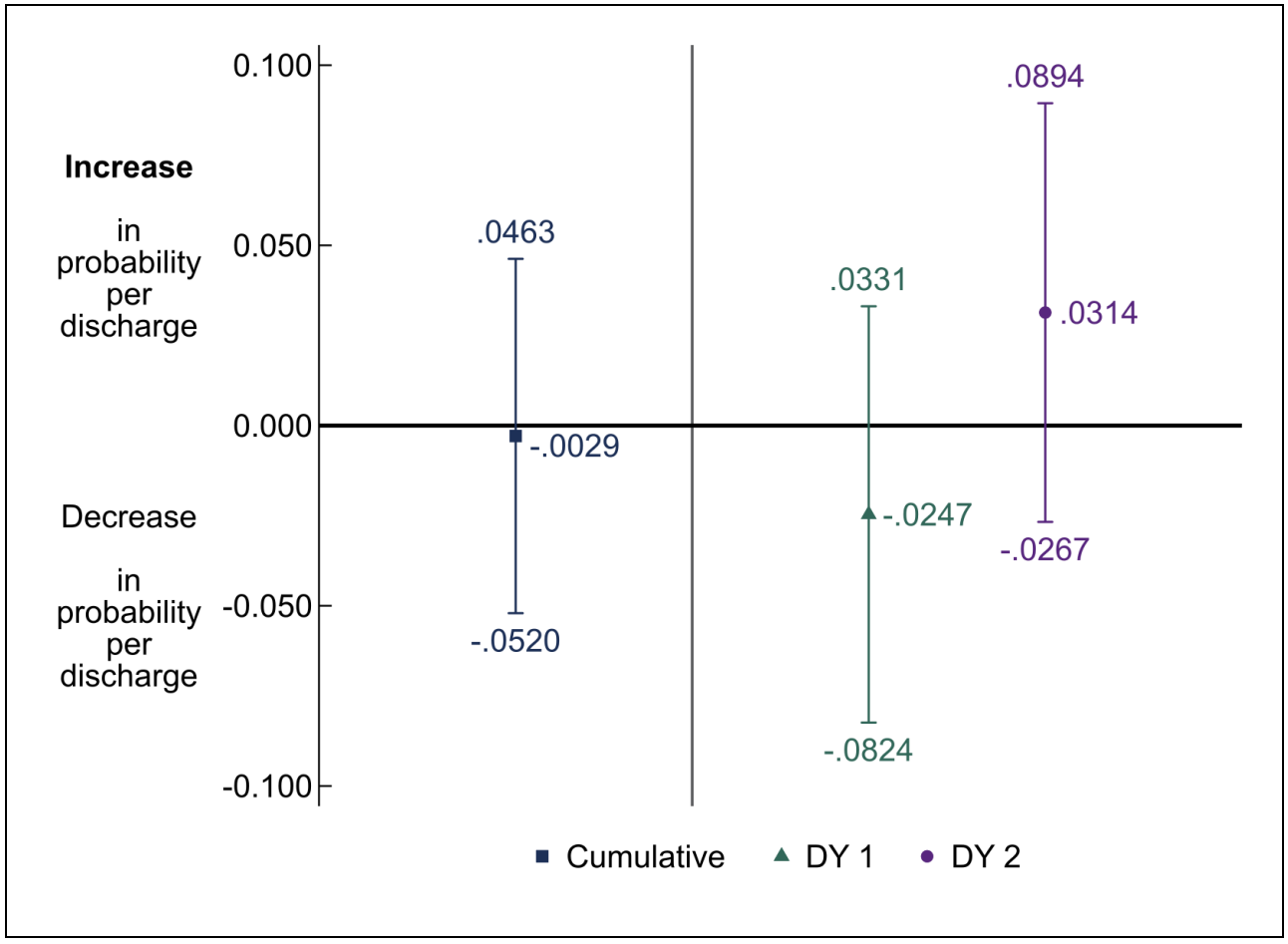
ACSC = ambulatory care sensitive condition; DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. The expected effect of the demonstration (Increase or Decrease) is in **bold**.
SOURCE: RTI International analysis of Medicare fee-for-service claims and encounter data.

Figure 20
Cumulative and annual demonstration effects on preventable ED visits, demonstration years 1–2 (July 1, 2016–December 31, 2018)



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

Figure 21
Cumulative and annual demonstration effects on 30-day follow-up post mental health discharge, demonstration years 1–2 (July 1, 2016–December 31, 2018)



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

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

10.4 Demonstration Impact on Special Populations

During demonstration years 1 and 2, the demonstration impacted the LTSS population differently than the non-LTSS population on the monthly probability of an ED visit. The demonstration effect for LTSS users was a decrease in the monthly probability of any ED visit, relative to the demonstration effect among non-LTSS users. There were no other statistically significant differences in the demonstration effects for LTSS users and non-LTSS users.

During demonstration years 1 through 2, there were no statistically significant differences in the demonstration effects between those with SPMI and those without SPMI.

Improved coordination and integration of LTSS and behavioral health services is a key feature of this demonstration. It is expected that the demonstration may uniquely impact service utilization and quality of care among eligible beneficiaries with LTSS use or who have SPMI, relative to non-LTSS users and those without SPMI (see ***Appendix E*** for group definitions). The special population analyses indicate that the demonstration effects were slightly more favorable for LTSS users, relative to the demonstration effects among non-LTSS users; the demonstration had no differential impact on the SPMI population (see ***Tables F-2*** and ***F-3*** in ***Appendix F).***

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

Additionally, further analyses were conducted to examine unadjusted service utilization results by racial and ethnic groups among the eligible population for select utilization measures: inpatient admissions, ED visits without admission, primary care E&M visits, outpatient therapy (physical therapy, occupational therapy, and speech therapy), and hospice use (see ***Appendix Figures F-1, F-2,*** and ***F-3*** in ***Appendix F***).

10.4.1 Beneficiaries Receiving Long-Term Services and Supports

The demonstration impacted service utilization measures for those with LTSS use differently than for those with no LTSS use (see ***Table 15*** below). The demonstration effect for those with LTSS use was a 0.68 percentage point greater decrease in the monthly probability of having any ED use, relative to the demonstration effect among those without LTSS use. As indicated in ***Table E-1*** in ***Appendix E***, about 15.8 percent of the demonstration eligible population in demonstration year 2 had any LTSS use.

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

Table 15
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Rhode Island, demonstration years 1–2 (July 1, 2016–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 users	0.0001	NS	0.9611	–0.0035, 0.0037	–0.0014
	Non-LTSS users	0.0015	NS	0.1102	–0.0003, 0.0033	
Probability of ED visit	LTSS users	–0.0083	–14.9	<0.0001	–0.0104, –0.0061	–0.0068***
	Non-LTSS users	–0.0015	NS	0.1383	–0.0035, 0.0005	
Count of physician E&M visits	LTSS users	0.0466	NS	0.3941	–0.0605, 0.1537	0.0066
	Non-LTSS users	0.0399	5.5	<0.0001	0.0202, 0.0597	
Probability of SNF admission	LTSS users	0.0021	21.5	0.0085	0.0005, 0.0036	0.0005
	Non-LTSS users	0.0016	84.6	<0.0001	0.0010, 0.0022	
Quality of Care Measures						
Number of preventable ED visits	LTSS users	–0.0051	–16.9	0.0005	–0.0080, –0.0023	–0.0035
	Non-LTSS users	–0.0017	NS	0.2122	–0.0043, 0.0010	
Probability of ACSC admission, overall	LTSS users	–0.0001	NS	0.8553	–0.0010, 0.0008	–0.0001
	Non-LTSS users	0.0000	NS	0.9706	–0.0006, 0.0007	
Probability of ACSC admission, chronic	LTSS users	0.0000	NS	0.9185	–0.0006, 0.0006	0.0002
	Non-LTSS users	–0.0002	NS	0.3844	–0.0007, 0.0003	
Probability of 30-day follow-up after mental health discharge	LTSS users	–0.0581	NS	0.3350	–0.1763, 0.0600	–0.0598
	Non-LTSS users	0.0017	NS	0.9497	–0.0502, 0.0536	
Count of all-cause 30-day readmissions	LTSS users	–0.0043	NS	0.7702	–0.0331, 0.0245	–0.0007
	Non-LTSS users	–0.0036	NS	0.7885	–0.0302, 0.0229	

*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.
NOTES: The magnitude of a *relative difference* could be large when the underlying denominator (predicted average outcome value for the comparison group in the demonstration period) 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.

10.4.2 Beneficiaries with Serious and Persistent Mental Illness

The demonstration did not have a differential effect on any service utilization or quality of care measures among those with an SPMI, relative to those without an SPMI (see ***Table 16*** below). As indicated in ***Table E-1*** in ***Appendix E***, about 53.2 percent of the demonstration eligible population in demonstration year 2 had an SPMI.

Table 16
Cumulative demonstration effect on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Rhode Island, demonstration years 1–2 (July 1, 2016–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	–0.0029	NS	0.1110	–0.0064, 0.0007	–0.0028
	Non-SPMI	–0.0001	NS	0.940186	–0.0023, 0.0021	
Probability of ED visit	SPMI	–0.0035	–4.5	0.0104	–0.0063, –0.0008	–0.0003
	Non-SPMI	–0.0033	–7.9	<0.0001	–0.0048, –0.0018	
Count of physician E&M visits	SPMI	0.0287	NS	0.1946	–0.0147, 0.0722	–0.0125
	Non-SPMI	0.0413	6.2	0.0004	0.0184, 0.0642	
Probability of SNF admission	SPMI	0.0004	NS	0.575945	–0.0011, 0.0020	0.0000
	Non-SPMI	0.0004	NS	0.1031	–0.0001, 0.0010	
Quality of Care Measures						
Number of preventable ED visits	SPMI	–0.0035	–7.7	0.024026	–0.0065, –0.0005	–0.0020
	Non-SPMI	–0.0015	–6.3	0.013185	–0.0027, –0.0003	
Probability of ACSC admission, overall	SPMI	0.0001	NS	0.88211	–0.0007, 0.0009	0.0003
	Non-SPMI	–0.0003	NS	0.329377	–0.0009, 0.0003	
Probability of ACSC admission, chronic	SPMI	–0.0001	NS	0.750938	–0.0008, 0.0006	0.0005
	Non-SPMI	–0.0006	–22.3	0.016785	–0.0011, –0.0001	
Count of all-cause 30-day readmissions	SPMI	–0.0185	NS	0.13475	–0.0427, 0.0057	–0.0263
	Non-SPMI	0.0078	NS	0.631718	–0.0241, 0.0397	

*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 serious and persistent mental illness; the DinD estimate is reported in ***Table 13***. The magnitude of a *relative difference* could be large when the underlying denominator (predicted average outcome value for the comparison group in the demonstration period) 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.

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SECTION 11

Demonstration Impact on Cost Savings

RTI evaluated the Rhode Island demonstration's impact on Medicare Parts A and B costs using a difference-in-differences (DinD) analysis of beneficiaries eligible for the demonstration, relative to the comparison group. Our results show a statistically significant increase in Medicare Parts A and B costs during the overall demonstration period ($49.56, PMPM).

11.1 Methods Overview

As part of the capitated financial alignment model, Rhode Island, CMS, and the single MMP entered into a three-way contract to provide services to Medicare-Medicaid enrollees (Rhode Island three-way contract, 2016). The MMP received a blended, risk-adjusted prospective capitation payment to provide enrollees with Medicare Parts A, B, and D, and Medicaid services. CMS and Rhode Island 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.[40]

This section presents the Medicare Parts A and B cost savings analysis for demonstration years 1 to 2 (July 1, 2016 to December 31, 2018).

We used an ITT analytic framework that includes beneficiaries eligible for the demonstration rather than only those who enrolled. For this analysis, enrolled beneficiaries account for approximately 48 percent of all eligible beneficiaries (including FFS beneficiaries, MMP enrollees, and MA enrollees) in demonstration year 2. An ITT analysis—which includes the entire eligible population in the demonstration group and its comparison group counterpart—is most appropriate in that it yields impact estimates that would best mimic the real-world implementation of the demonstration accounting for the variability in voluntary enrollment across different States. Results from a separate analysis, restricted to MMP enrollees only and their comparison group counterparts, are included in ***Appendix E*** (see ***Table E-9***).

To evaluate the cost implications of the demonstration, RTI performed a difference-in-difference (DinD) analysis of Medicare Parts A and B expenditures that compares demonstration eligible beneficiaries who live in an area where a participating health plan operates—the demonstration group—to those who meet the same eligibility criteria but live outside those operating areas—the comparison group.

To identify the demonstration group, RTI used quarterly files on demonstration eligible beneficiaries submitted by the State of Rhode Island. Comparison group beneficiaries were identified through a two-step process. First, we identified comparison areas based on market characteristics. Second, we applied the same eligibility criteria to beneficiaries in the identified comparison areas. This process is further described in ***Appendix D***. Once the two groups were

[40] Available at: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/RhodeIsland.

finalized, we applied propensity score (PS) weighting in DinD analysis to balance key characteristics between the two groups.

RTI gathered predemonstration and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources, as summarized in ***Table 17***. 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). The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (March 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 17
Data sources for monthly Medicare expenditures

Group	Predemonstration period January 1, 2014–June 30, 2016	Demonstration period July 1, 2016–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 G***). ***Table G-1*** in ***Appendix G*** 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 G***), 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 group during the demonstration period, which estimates the demonstration's effect on Medicare expenditures.

11.2 Demonstration Impact on Medicare Parts A and B Costs

Table 18 shows the magnitude of the DinD estimate of the cumulative demonstration effect on Medicare Parts A and B cost, both in absolute dollar amount and relative to the adjusted mean expenditure level in the comparison group during the demonstration period. The adjusted mean for monthly expenditures increased from the predemonstration period to the demonstration

period in both the demonstration and comparison groups, though it increased by a larger amount in the demonstration group than in the comparison group. The cumulative DinD estimate of $49.56 PMPM, which amounts to a relative difference of 4.14 percent of the adjusted mean expenditure for the comparison group during the demonstration period, is statistically significant ($p = 0.0443$). This suggests that overall, the Rhode Island demonstration was associated with statistically significant increased costs relative to the comparison group.

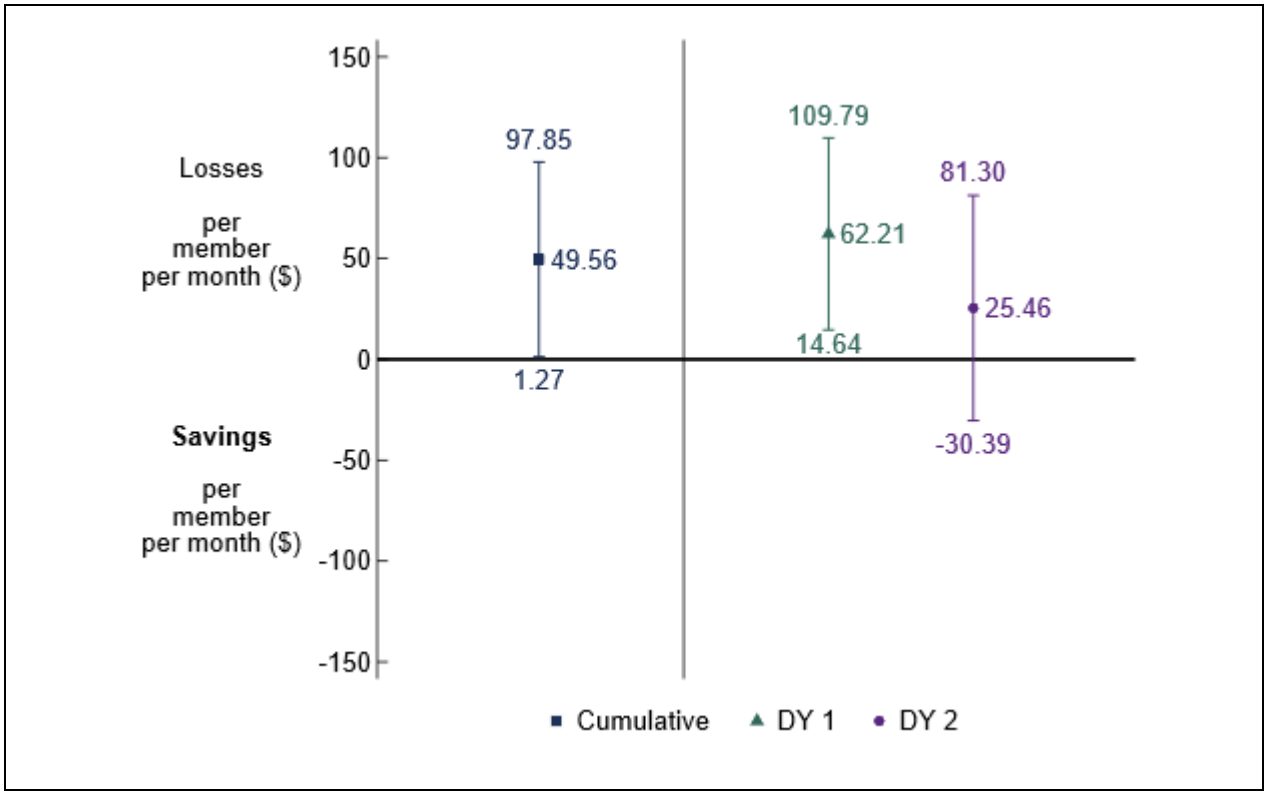
Table 18
Cumulative demonstration effect on Medicare Parts A and B costs for eligible beneficiaries in Rhode Island, demonstration years 1–2 (July 1, 2016–December 31, 2018)

Group	Adjusted mean for predemonstration period ($)	Adjusted mean for demonstration period ($)	Relative difference (%)	Adjusted coefficient DinD ($)	*p*-value
Demonstration	1,160.52	1,211.20	4.14	49.56	0.0443
Comparison	1,195.11	1,197.30			

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1491_percents.log)

In addition, we estimated the effect of the demonstration in each demonstration year. As shown in ***Figure 22***, the demonstration had a statistically significant effect in demonstration year 1, indicating an increased Medicare cost of $62.21 PMPM as a result of the demonstration, relative to the comparison group. However, the effect estimate for demonstration year 2 was not statistically significant (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 cost, and use the capitation rate for the MMP rather than the actual amount the plan paid for services.

Figure 22
Cumulative and annual demonstration effects on monthly Medicare Parts A and B cost, demonstration years 1-2 (July 1, 2016–December 31, 2018)



DY = demonstration year.
NOTE: 95 percent confidence intervals are shown. “Losses”/”Savings” indicate increased/decreased costs for eligible beneficiaries in the demonstration group, relative to the comparison group. The expected effect of the demonstration (Losses or Savings) is in bold.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1481_GLM.log)

SECTION 12

Conclusions

12.1 Implementation Successes, Challenges, and Lessons Learned

Over 40 percent of all eligible beneficiaries in Rhode Island were enrolled in the ICI demonstration as of December 2017 (the end of the first demonstration year), exceeding the State's initial enrollment targets—a notable success. Although slight variations in enrollment have occurred over time, the percent of beneficiaries enrolled in the demonstration remained relatively unchanged as of December 2019.

A single ICI plan participates in the ICI demonstration; the demonstration's enrollment drew heavily from passive enrollment from the ICI plan's Medicaid MLTSS program. Although the ICI plan described the level of initial enrollment in the demonstration as a success, it also faced significant operational challenges. It took time for the ICI plan to recover from the volume of work it took on right away.

The State, CMS, ICI plan, and other stakeholders reported that the beneficiary experience under the demonstration has generally been positive. This finding is supported by low opt-out rates as well as anecdotal and preliminary data, including data from the 2018 CAHPS survey. Many participants in the 2017 and 2018 RTI and CMS focus groups indicated high satisfaction with the ICI demonstration overall, for the most part reporting positively on care coordination services and the delivery of care.

However, implementing the ICI demonstration was a heavy lift for the State and ICI plan. Key challenges at the State level included a lack of dedicated implementation funding; the need for new eligibility and enrollment systems and processes; and the learning curve associated with gaining knowledge about Medicare. The ICI plan did not have Medicare experience either; it had not previously operated as an MA plan. Although CMS officials noted that the operational challenges faced by the ICI plan were generally typical to a new MA plan, the ICI plan reported that these transition challenges were complicated by the resource-intensive nature and additional reporting requirements associated with complying with all of the ICI demonstration's requirements. Implementation experience in Rhode Island highlights the need to ensure an infrastructure at the State and ICI plan levels that includes Medicare expertise and resources.

From the State perspective, operationalizing enrollment and eligibility has been the primary implementation challenge, both initially and ongoing. To meet demonstration requirements, the State needed to invest in new systems and structures that were applicable only to the demonstration. Misalignment between Medicare and Medicaid systems, including different spellings of names or mismatches of demographic data, resulted in enrollment errors that were resource- and time-intensive to correct. These issues were exacerbated by the rollout of a new Medicaid eligibility system in Rhode Island in September 2016 that led to eligibility errors across State Medicaid programs and absorbed time and resources of EOHHS staff. Although these issues have improved, the ICI plan continued to report eligibility issues. EOHHS leadership continued to report the integration of enrollment across systems as a significant challenge of the ICI demonstration.

Although the ICI plan experienced significant losses in the first 2 demonstration years, that changed in the third demonstration year, with the plan anticipating net profits for calendar

year 2019. EOHHS officials described the financing structure of the demonstration as a step in the right direction, but questioned whether the financial design of the demonstration went far enough to correct the financial misalignment between Medicare and Medicaid and believed Medicaid bore a greater proportion of costs in the demonstration without commensurate savings.

In 2019, EOHHS engaged in a statewide initiative to solicit feedback from a wide array of stakeholders about the future direction of the State's delivery system serving Medicare-Medicaid beneficiaries. EOHHS officials reported receiving "overwhelmingly positive" feedback about the demonstration as part of stakeholder outreach conducted in the second half of 2019. Within the timeframe of this report, the State had not yet decided on its course of action but has since decided to extend the demonstration for an additional 3 years.

12.2 Demonstration Impact on Service Utilization, Quality of Care, and Costs

Cumulative demonstration impact analyses on service utilization and quality of care measures over demonstration years 1 and 2 reveal some favorable results, such as expected declines in the monthly probability of any ED and preventable ED visits, and increases in physician visits, relative to the comparison group. However, there was no statistically significant impact on other measures of service utilization and quality of care.

As described in greater detail in ***Section 10.2.1, Cumulative Impact over Demonstration Years 1 and 2,*** the favorable impacts on ED use and physician visits may in part be driven by improvements in outreach to enrollees and outpatient management of chronic conditions. That said, the introduction of MLTSS in 2013 in Rhode Island may contribute to an overestimation of our findings on ED use and preventable ED use if the introduction of MLTSS led to accelerated annual declines in the use of these services during the baseline and demonstration periods. Additionally, implementation challenges may explain why, regardless of improvements in physician E&M visits and reductions in ED use, the demonstration did not have a broad impact on reducing the use of acute services or improving most quality of care measures, relative to the comparison group.

The demonstration had a differential effect for those with LTSS use, but generally no differential impact on beneficiaries with an SPMI. Individuals with LTSS represent approximately 16 percent of the demonstration eligible population in demonstration year 2. Most enrollee focus group members with LTSS use or SPMI reported that there was little change in access to services under the ICI demonstration from their former coverage (see ***Section 6.1.7, Experience of Special Populations***). Despite this perception, LTSS users had a favorable decrease in the cumulative probability of any ED use, and a monthly decrease in preventable ED visits during demonstration year 1, compared to non-LTSS users. Finally, there were no differential effects of the demonstration on service utilization for people with SPMI (who make up 53 percent of the demonstration eligible population in demonstration year 2).

The cumulative cost analysis found a statistically significant cost increase to the Medicare program over the 2 demonstration years. The analysis of individual demonstration years also found increased costs (statistically significant) to the Medicare program for demonstration year 1. The cost analyses consider the costs of Medicare Parts A and B through

FFS expenditures, and capitation rates paid to MMP plans and MA plans. Capitation rates do not provide information on how much the plan paid for services and are based on characteristics of the beneficiary. Thus, capitation rates are not necessarily linked to actual service utilization. Further, the cost analyses do not consider Part D or Medicaid costs.

12.3 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 Rhode Island 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 overseeing the ICI demonstration. 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 additional qualitative and quantitative analyses over the course of the demonstration.

As noted previously, Rhode Island and CMS have extended the demonstration through December 31, 2023, which will provide further opportunities to evaluate the demonstration's performance. The next report will include a qualitative update on demonstration implementation, and quantitative analyses of the demonstration impact on utilization, quality and cost measures using additional years of data.

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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 site visits in Rhode Island in late January–early February 2017; February 2018; and virtual site visit in late February–early March in 2019 and 2020. The team interviewed the following types of individuals: State policy makers and agency staff, CMS and State contract management team (CMT) members, ombudsman program officials, ICI plan officials, ICI plan care coordinators, advocates and other stakeholders. Some interviews with EOHHS and other stakeholders did not occur or were postponed in 2020 due to the PHE.

Focus groups. The RTI evaluation team conducted a total of eight focus groups in Providence, Rhode Island over the course of 3 days in 2017. A total of 49 enrollees and 6 proxies participated in the RTI focus groups. Participants were assigned to groups based on their LTSS and behavioral health services use, and based on whether English or Spanish was their primary language.

Another CMS contractor conducted a total of six focus groups in Rhode Island in 2018, three in East Providence and three in Warwick. A total of 44 enrollees participated, including one proxy. For four of the six focus groups, participants were assigned based on their LTSS and behavioral health services use; the remaining two did not specify criteria other than enrollment in the demonstration for 12 months or more.

Surveys. Medicare requires all Medicare Advantage (MA) plans, including the ICI plan, 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. The 2018 and 2019 surveys for Neighborhood Health Plan of Rhode Island (NHPRI), the sole plan participating in the Rhode Island ICI demonstration included the core Medicare CAHPS questions, and 10 supplemental questions added by the RTI evaluation team. Survey results for a subset of the 2018 and 2019 survey questions are incorporated into this report. The frequency count for some survey questions is suppressed because too few enrollees responded to the question. Comparisons with findings from all MA plans are available for core CAHPS survey questions.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Rhode Island through the State Data Reporting System (SDRS). These reports include eligibility, enrollment, opt-out, and disenrollment data, and information reported by Rhode Island 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 the ICI plan and submitted to CMS' implementation contractor, NORC.[41,42] Data reported to NORC include core quality measures that all Medicare-Medicaid Plans (MMPs) are required to report, as well as State-specific measures that the ICI plan is required to report. Due to reporting inconsistencies, plans

[41] Data are reported for 2016-2019.
[42] The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements.

occasionally resubmit data for prior demonstration years; therefore, the data included in this report are considered preliminary.

Demonstration policies, contracts, and other materials. The RTI evaluation team reviewed a wide range of demonstration documents, including demonstration and State-specific information on the CMS website[43]; and other publicly available materials on the State's website for its Integrated Care Initiative (https://eohhs.ri.gov/initiatives/integrated-care-initiative). The RTI evaluation team reviewed, including meeting presentations, minutes, guidance and reports publicly available on the EOHHS website (https://www.eohhs.ri.gov), Rhode Island's Secretary of State's website (https://sos.ri.gov); and the ICI plan's website (https://www.nhpri.org/medicare-medicaid/).

Conversations with CMS and Rhode Island's Executive Office of Health and Human Services (EOHHS) officials. To monitor demonstration progress, the RTI evaluation team engages in periodic phone conversations with the Rhode Island's EOHHS and CMS. These might include discussions about new policy clarifications designed to improve plan performance, quality improvement work group activities, and contract management team actions.

Complaints and appeals data. Complaint (also referred to as grievance) data are from three separate sources: (1) complaints from beneficiaries reported by the ICI plan to EOHHS, and reported separately to CMS' implementation contractor, NORC,[44] through Core Measure 4.2; (2) complaints received by EOHHS or 1-800-Medicare and entered into the CMS electronic Complaint Tracking Module (CTM); and (3) qualitative data obtained by RTI on complaints. Appeals data are generated by the ICI plan and reported to EOHHS 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 the ICI plan to EOHHS and CMS' implementation contractor, NORC.

HEDIS measures. We report on a subset of Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures, a standard measurement set used extensively by managed care plans, that are required of all MA plans. In response to the PHE, CMS did not require Medicare plans (including MMPs) to submit HEDIS 2020 data covering the 2019 measurement year. Medicare plans (including MMPs) resumed normal reporting for measurement year 2020, with that data becoming available later in 2021.

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 MMP encounter data, as well as the Minimum Data Set.

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

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

Cost savings data. Two primary data sources were used to support the savings analyses, capitation payments and Medicare claims. Medicare capitation payments paid to ICI plans during the demonstration period were obtained for all demonstration enrollees from CMS Medicare Advantage and Part D Inquiry System (MARx) data. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (March 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. Fee-for-service (FFS) Medicare claims were used to calculate expenditures for all comparison group beneficiaries, demonstration beneficiaries in the baseline period, and demonstration eligible beneficiaries who were not enrolled during the demonstration period. FFS claims included all Medicare Parts A and B services.

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Appendix B

Demonstration Design Features

Table B-1
Demonstration design features

Key features	Predemonstration	Demonstration[1]
Summary of covered benefits		
Medicare	Medicare Parts A, B, and D	Medicare Parts A, B, and D
Medicaid	Medicaid State Plan and §1115(a) demonstration items and services, including LTSS	Medicaid State Plan and §1115(a) demonstration items and services, including LTSS, and flexible benefits
Payment method (capitated/FFS/MFFS)		
Medicare	FFS or capitated (MA or PACE)	Capitated
Medicaid (capitated or FFS) Primary/medical	FFS, with the exception of capitated payments for PACE or for RHO enrollees	Capitated, with the exception of FFS for nonemergency medical transportation, dental services, residential services for IDD, and home stabilization services
Behavioral health	Capitated for individuals enrolled in RHO, IDD services managed through BHDDH continue to be FFS. Capitated for PACE enrollees; FFS for other individuals	Capitated
LTSS	Capitated for individuals enrolled in RHO. Capitated for PACE enrollees. FFS and self-direction for other individuals	Capitated
HCBS waiver services[1]	N/A. See "LTSS."	N/A. See "LTSS."
Care coordination/case management		
Care coordination for medical, behavioral health, or LTSS and by whom	Individuals in FFS receiving LTSS may be provided care management through the State OCP or through a State-contracted case management agency. Case management may be provided to individuals receiving certain behavioral health and developmental disabilities services funded and managed through BHDDH. Individuals enrolled in a health home receive care coordination from the health home for their qualifying condition(s). For individuals in RHO, the plan provides care coordination of medical, behavioral health, and LTSS. For individuals in PACE, the PACE provider furnishes care coordination of medical, behavioral health, and LTSS.	For high-risk individuals requiring intensive care management, a lead care manager provides care management and coordination for covered and out-of-plan services. For other enrollees, a care coordinator is responsible. Individuals enrolled in a health home will continue to receive care coordination from the health home for their qualifying condition(s) and from the MMP lead care manager for other services.

(continued)

Table B-1 (continued)
Demonstration design features

Key features	Predemonstration	Demonstration[1]
Care coordination/case management for HCBS waivers and by whom	N/A	N/A
Enrollment/assignment		
Enrollment method	Voluntary enrollment into RHO for Medicaid services, began on November 1, 2013, and continued over a 6-month period. Passive enrollment was used, with an opt-out opportunity. Opt-outs return to (or enroll in) FFS for their Medicaid benefits; FFS Medicare, or MA, or PACE if they qualify.	Beneficiaries may choose to join the participating MMP. Individuals who are enrolled in a plan for Medicaid benefits that is operated by the same parent organization as the MMP may be passively enrolled in the same plan. Before the enrollment effective date and throughout the demonstration, on a monthly basis, beneficiaries may opt out. Enrollees who opt out may return to (or enroll in) RHO or FFS for their Medicaid benefits; FFS Medicare, or MA, or PACE if they qualify.
Attribution/assignment method	Eligible individuals were passively enrolled in RHO.	Beneficiaries who are enrolled in a plan for Medicaid benefits that is operated by the same parent organization as the MMP may be passively enrolled into the same plan under the demonstration with an opportunity to opt out.
Implementation		
Geographic area	Statewide, other than PACE	Statewide
Phase-in plan	N/A	Enrollment began with an opt-in period (i.e., when the State began accepting enrollment transactions) starting on June 1, 2016, for an effective date no sooner than July 1, 2016. This was followed by six initial waves of passive enrollment, with the first effective date on October 1, 2016. Three additional passive enrollment waves (April 1, 2017 to June 1, 2017) were added to accommodate beneficiaries who were initially inadvertently excluded due to the eligibility system or enrollment errors and newly eligible beneficiaries.
Implementation date	The first effective date for RHO was November 1, 2013.	The MMP began providing coverage for enrollees on July 1, 2016, starting with an opt-in-only enrollment period.

BHDDH = Behavioral Healthcare, Developmental Disabilities, and Hospitals; FFS = fee-for-service; HCBS = home and community-based services; IDD = intellectual and developmental disabilities; LTSS = long-term services and supports; MA = Medicare Advantage; MFFS = managed fee-for-service; MMP = Medicare-Medicaid Plan; N/A = not applicable; OCP = Office of Community Programs; PACE = Program of All-Inclusive Care for the Elderly; RHO = Rhody Health Options; SPMI = severe and persistent mental illness.

[1] Rhode Island does not offer any Medicaid services through 1915(c) HCBS waivers; all covered services, including HCBS, are provided under the State's §1115(a) demonstration authority (CMS, 2013, p. 2).

Appendix C

Rhode Island Integrated Care Initiative MMP Performance on Select HEDIS Quality Measures, 2017–2018

Table C-1 provides 2017 through 2018 HEDIS performance data for Neighborhood Health Plan of Rhode Island (NHPRI).

Table C-1
Rhode Island Integrated Care Initiative MMP performance on select HEDIS quality measures for 2017–2018

Measure	National MA Plan Mean	Neighborhood Health Plan of Rhode Island (NHPRI)	
	(2018)	(2017)	(2018)
Adults' access to preventive/ambulatory health services	95.0	94.5	94.4
Adult BMI assessment	96.0	N/A	95.4
Blood pressure control[1]	69.5	78.6	75.2
Breast cancer screening	72.7	N/A	69.1
Colorectal cancer screening	70.5	N/A	66.4
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	77.8	83.1	85.9
Follow-up after hospitalization for mental illness (30 days)[2]	47.9	79.9	84.3
Antidepressant medication management			
Effective acute phase treatment[3]	72.1	77.9	72.3
Effective continuation phase treatment[4]	56.1	72.5	60.6
Care for older adults			
Advance care planning	N/A	39.7	62.5
Medication review	N/A	68.4	85.6
Functional status assessment	N/A	50.4	71.8
Pain assessment	N/A	65.2	89.1
Comprehensive diabetes care			
Received Hemoglobin A1c (HbA1c) testing	94.3	93.2	91.2
Poor control of HbA1c level (>9.0%) (higher is worse)	23.1	33.6	28.0
Good control of HbA1c level (<8.0%)	65.6	53.5	60.3
Received eye exam (retinal)	73.7	75.2	75.9
Received medical attention for nephropathy	95.5	94.9	90.8
Blood pressure control (<140/90 mm Hg)	69.1	71.3	80.3

(continued)

Table C-1 (continued)
Rhode Island Integrated Care Initiative MMP performance on select HEDIS quality measures for 2017–2018

Measure	National MA Plan Mean	Neighborhood Health Plan of Rhode Island (NHPRI)	
	(2018)	(2017)	(2018)
Initiation and engagement of alcohol and other drug (AOD) dependence treatment			
Initiation of AOD treatment[5]	33.6	42.0	38.2
Engagement of AOD treatment[6]	4.5	13.3	11.6
Plan all-cause readmissions (Observed-to-expected ratio[7])			
Age 18–64	0.75	0.75	0.89
Age 65+	0.71	0.92	1.04
Ambulatory care (per 1,000 members)			
Outpatient visits	9,606.0	7,990.3	8,364.2
Emergency department visits (higher is worse)	600.8	913.3	793.2

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 (CY 2017), disallowing same-day follow-up visits. National benchmarks fell from HEDIS 2018 to HEDIS 2019 (CY 2017 to CY 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.

NOTES: Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan. Since there are only two measurement years (CY 2017–2018) of data available, RTI was not able to assess trends in performance using correlation analysis. RTI will perform trend analysis in the next Evaluation Report when three measurement years of HEDIS data are available.

SOURCE: RTI analysis of 2017 through 2018 HEDIS measures.

Appendix D

Comparison Group Methodology for Rhode Island

This appendix presents the comparison group selection and assessment results for the FAI demonstration in the State of Rhode Island.

Results for comparison group selection and assessment analyses are prepared for each demonstration year. This Appendix describes the comparison group identification methodology in detail and provides the comparison group results for the first and second demonstration years and two prior predemonstration years for the MMP in Rhode Island (July 1, 2016–December 31, 2018).

D.1 Demonstration and Comparison Group Characteristics

The RI ICI demonstration area consists of five counties that are part of one metropolitan statistical area (MSA) (Providence-Warwick). The comparison area consists of 17 counties in 8 MSAs from 2 States. New York contributed the largest share of comparison beneficiaries (89 percent), with the remainder coming from one Pennsylvania MSA. Our protocol attempts to limit the contribution of any single comparison State to 50 percent or less, but this was not feasible for the Rhode Island evaluation. All comparison MSAs are listed in ***Table D-1***.

Table D-1
Comparison areas in two comparison States for Rhode Island ICI evaluation

New York comparison areas	Pennsylvania comparison areas
Albany-Schenectady-Troy	Lancaster
Binghamton	
Elmira	
Glens Falls	
Ithaca	
Syracuse	
Utica-Rome	

Beneficiaries who are ineligible for the demonstration include those who are under age 21, are not enrolled in Medicare Part A and Part B, in long-term care hospitals, are enrolled in PACE or hospice, or who spend down to Medicaid eligibility. 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 their State finder file in the demonstration period to ensure comparability with the comparison group and the demonstration group during the predemonstration period. Beneficiaries qualified for the demonstration group if they participated for at least 1 month during the demonstration period. During the two baseline years, all beneficiaries meeting the State's eligibility criteria and MSA residency requirements were selected for the demonstration and comparison groups.

MA enrollees are eligible and may opt-in to the Rhode Island 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, 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 D-2*** 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 utilization analysis. The prevalence of beneficiaries enrolled in MA per year ranges from 20 to 32 percent in the demonstration group, and from 19 to 30 percent in the comparison group across the study period.

Further analytic exclusions were performed such as: (1) removing beneficiaries with missing geographic information, (2) removing beneficiaries with zero months of eligibility during each analytic period, (3) removing beneficiaries who moved between the demonstration area and the comparison area any time during the entire study period, (4) removing beneficiaries with missing Hierarchical Condition Code (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 largely remained stable over the two predemonstration years and two demonstration years, ranging between 33,344 and 37,015 beneficiaries per year. The comparison group contained roughly three-times as many beneficiaries as the demonstration group, with counts of beneficiaries per year between 84,228 and 96,975.

Table D-2
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
Demonstration				
Initial count of beneficiaries	37,128	40,167	33,961	36,283
Count of beneficiaries with Medicare Advantage	7,423	8,945	10,286	11,593
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	20%	22%	30%	32%
Comparison				
Initial count of beneficiaries	131,543	149,044	151,203	140,382
Count of beneficiaries with Medicare Advantage	24,959	35,334	41,510	42,448
Percent of beneficiaries with Medicare Advantage (denominator is final count of beneficiaries per period)	19%	24%	27%	30%

DY = demonstration year.

D.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. If propensity weights do not adequately balance the comparison group with the demonstration group, entropy balancing weights are applied instead.

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 propensity score models include a combination of beneficiary-level and region-level characteristics measured at the ZIP code (ZIP Code Tabulation Area) level, as shown in ***Table D-3***.

The logistic regression coefficients and z-values for the covariates included in the propensity model for Rhode Island for all predemonstration and demonstration years are shown in ***Table D-3***. For the most recent demonstration year (demonstration year 2) the largest relative differences were that demonstration participants were more likely to be Hispanic and had a smaller share of months of non-MMP MA plan enrollment than the beneficiaries in the comparison group. In addition, ZIP code-level group differences associated with percentage of married households, households with residents older than 60, households with residents under 18, percent of adults with self-care limitations, and distances to the nearest hospital and the nearest nursing facility were observed between the demonstration and comparison groups. The magnitude of the group differences for all variables in each period prior to propensity score weighting can be found in ***Tables D-4*** through ***D-7***.

D.3 Propensity Score Overlap

The distributions of propensity scores by group for each predemonstration and demonstration period are shown in ***Figures D-1*** through ***D-4***. For demonstration year 2, estimated scores for both the demonstration group and comparison group topped out at around 0.99. The unweighted comparison group (dashed line) is concentrated in the range of weights from 0.0 to 0.2. Inverse probability of treatment weighting pulls the distribution of weighted comparison group weights (dotted line) very close to that of the demonstration group (solid line).

Any beneficiaries who have estimated weights below the smallest estimated value in the demonstration group are removed from the comparison group. This resulted in the removal of 615, 2,754, 1,971, and 1,542 beneficiaries from the comparison group in each year, respectively.

Table D-3
Logistic regression estimates for Rhode Island propensity score models in predemonstration and demonstration periods, January 1, 2014–December 31, 2018

Characteristic	Predemonstration Year 1			Predemonstration Year 2			Demonstration Year 1			Demonstration Year 2		
	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score
Age (years)	0.0087	0.0006	14.24	0.0089	0.0006	15.32	0.0083	0.0006	13.30	0.0087	0.0006	13.82
Died in year	−0.2252	0.0239	−9.40	−0.2127	0.0262	−8.11	−0.1557	0.0287	−5.43	−0.4263	0.0327	−13.05
Female (0/1)	0.2290	0.0158	14.52	0.0804	0.0150	5.38	−0.0492	0.0155	−3.18	−0.1317	0.0155	−8.48
Black (0/1)	−0.5356	0.0251	−21.34	−0.4535	0.0238	−19.03	−0.4243	0.0246	−17.25	−0.4046	0.0246	−16.48
Hispanic (0/1)	0.7218	0.0324	22.25	0.7887	0.0311	25.40	0.7863	0.0312	25.17	0.8006	0.0312	25.68
Disability as original reason for entitlement (0/1)	0.1155	0.0214	5.39	0.0845	0.0204	4.14	0.0501	0.0213	2.35	0.0825	0.0212	3.89
ESRD (0/1)	−0.2090	0.0603	−3.46	−0.2965	0.0570	−5.20	−0.3641	0.0590	−6.17	−0.3807	0.0591	−6.44
Share mos. eligible for demonstration during year (prop.)	0.1557	0.0274	5.69	0.2355	0.0235	10.02	0.6329	0.0259	24.42	−0.0046	0.0271	−0.17
Share mos. Medicare Advantage plan enrolled during year (prop.)	−0.3818	0.0190	−20.10	−0.5729	0.0190	−30.21	−0.5466	0.0195	−28.00	−0.6434	0.0180	−35.75
HCC risk score	0.0503	0.0069	7.30	0.0714	0.0063	11.40	0.0636	0.0067	9.49	0.0525	0.0074	7.12
Other MDM	−0.4134	0.0244	−16.93	−0.2454	0.0170	−14.45	0.0664	0.0168	3.95	−0.1373	0.0182	−7.52
% of pop. living in married household	−0.0190	0.0009	−20.51	−0.0032	0.0009	−3.61	0.0132	0.0011	12.51	0.0328	0.0010	32.09
% of households w/ member >= 60 yrs.	0.0681	0.0017	41.24	0.0435	0.0015	28.35	0.0100	0.0017	5.93	0.0071	0.0017	4.26
% of households w/member < 18 yrs.	0.0801	0.0014	57.37	0.0803	0.0013	61.49	0.0810	0.0014	59.51	0.0805	0.0013	59.76
% of adults with college education	0.0187	0.0009	20.02	0.0220	0.0009	24.00	0.0245	0.0010	24.84	0.0203	0.0010	21.15

(continued)

Table D-3 (continued)
Logistic regression estimates for Rhode Island propensity score models in predemonstration and demonstration periods, January 1, 2014–December 31, 2018

Characteristic	Predemonstration Year 1			Predemonstration Year 2			Demonstration Year 1			Demonstration Year 2		
	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score	Coef.	Std. Error	z-score
% of adults with self-care limitation	−0.2085	0.0070	−29.70	0.0195	0.0060	3.24	0.2516	0.0066	38.14	0.3673	0.0062	58.91
Distance to nearest hospital (mi.)	0.1074	0.0025	42.50	0.1057	0.0024	44.00	0.0967	0.0025	38.68	0.0985	0.0025	39.90
Distance to nearest nursing facility (mi.)	−0.6256	0.0067	−93.82	−0.6307	0.0063	−99.58	−0.6306	0.0066	−95.76	−0.6476	0.0066	−98.83
Intercept	−3.6641	0.0919	−39.88	−4.5778	0.0875	−52.33	−5.6069	0.0938	−59.75	−6.2923	0.0988	−63.68

ESRD = end-stage renal disease; HCC = Hierarchical Conditions Category; MDM = Master Data Management.

Figure D-1
Distribution of beneficiary-level propensity scores in the Rhode Island demonstration and comparison groups, weighted and unweighted, predemonstration year 1, January 1, 2014–December 31, 2014

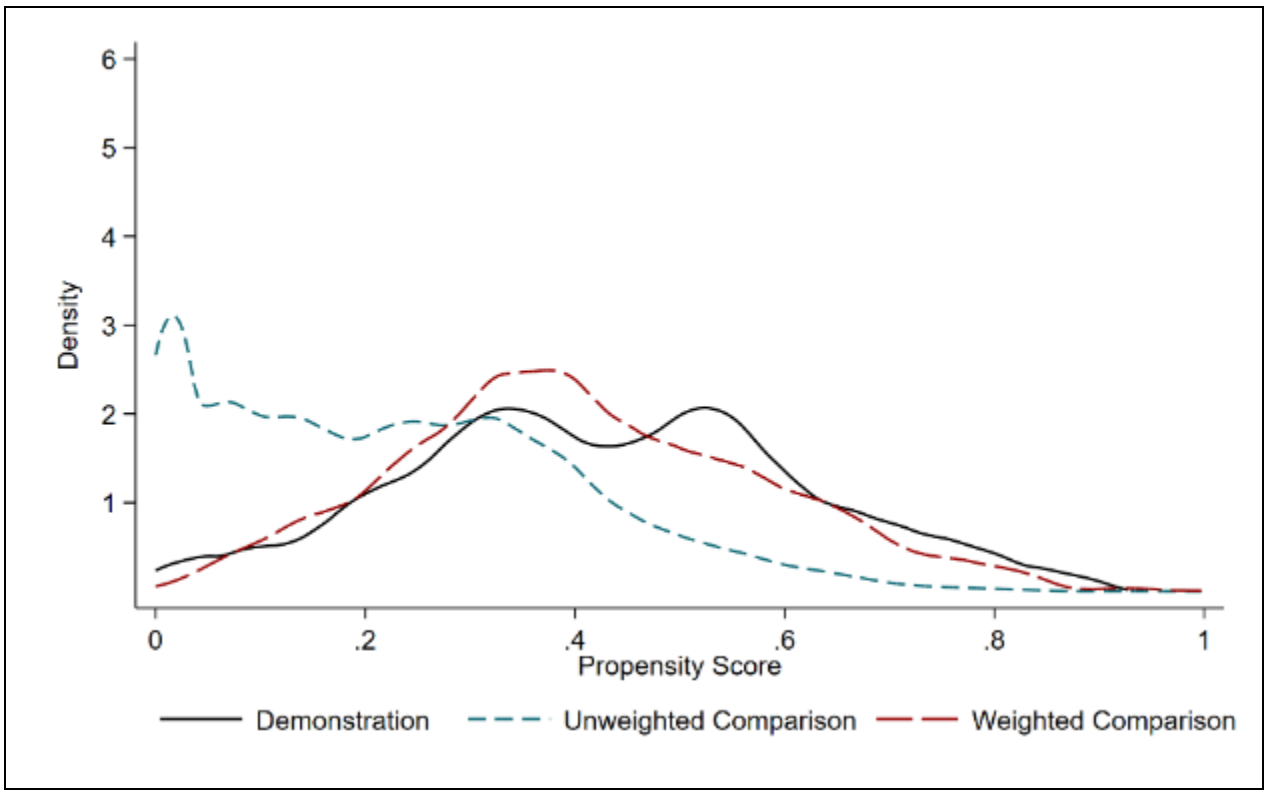


Figure D-2
Distribution of beneficiary-level propensity scores in the Rhode Island demonstration and comparison groups, weighted and unweighted, predemonstration year 2, January 1, 2015–June 30, 2016

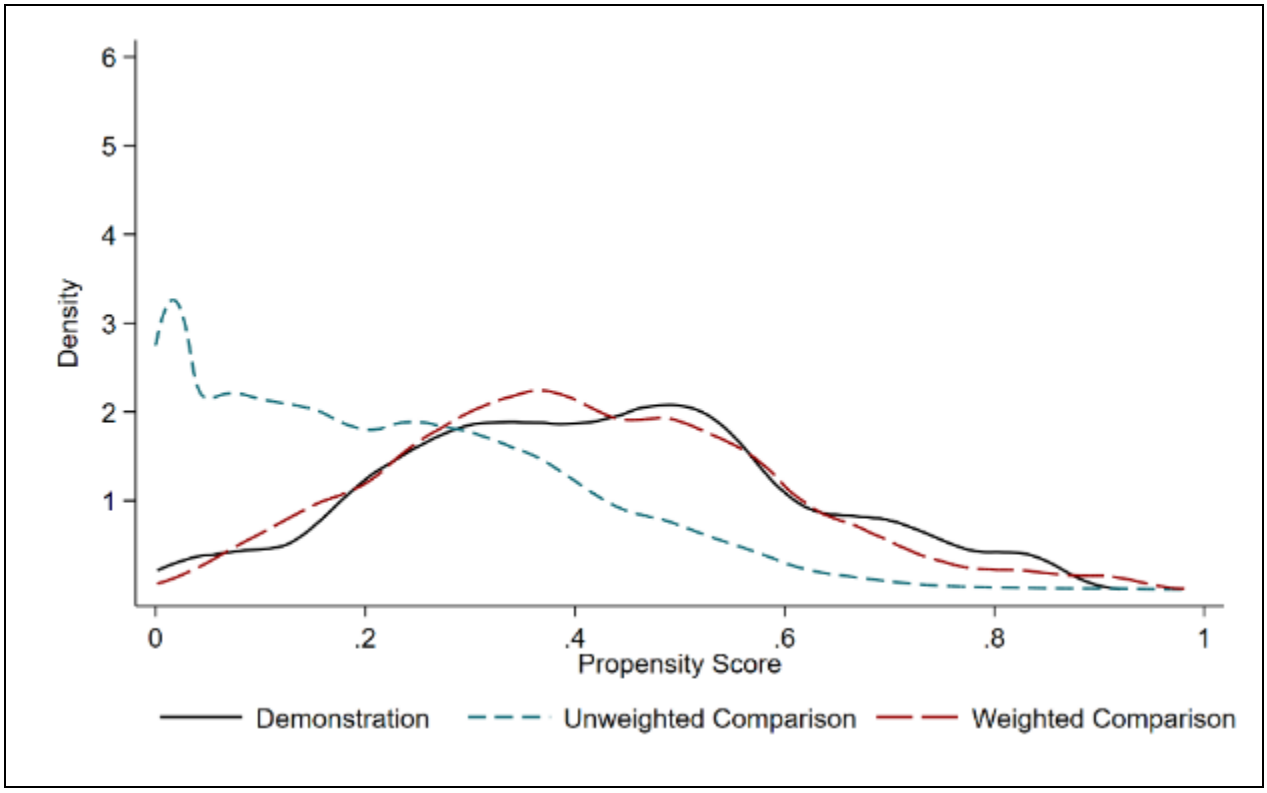


Figure D-3
Distribution of beneficiary-level propensity scores in the Rhode Island demonstration and comparison groups, weighted and unweighted, demonstration year 1, July 1, 2016–December 31, 2017

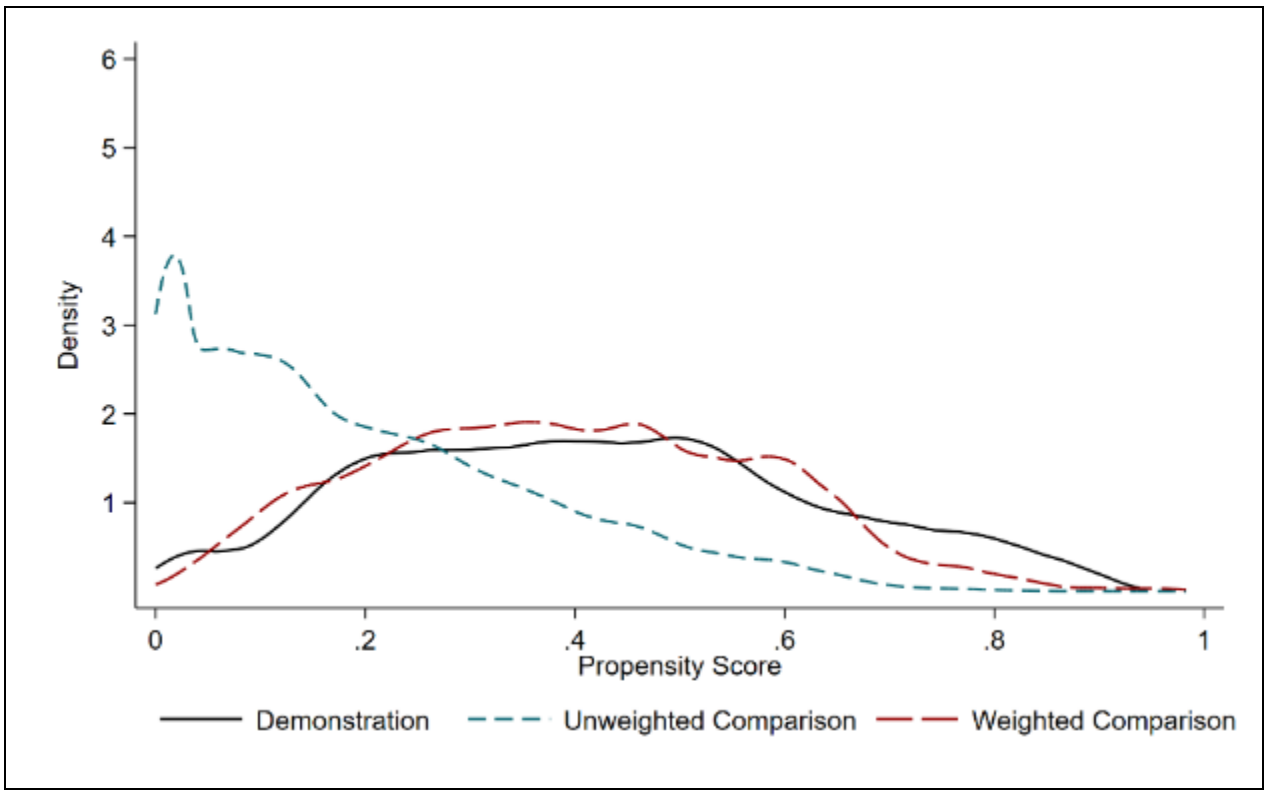
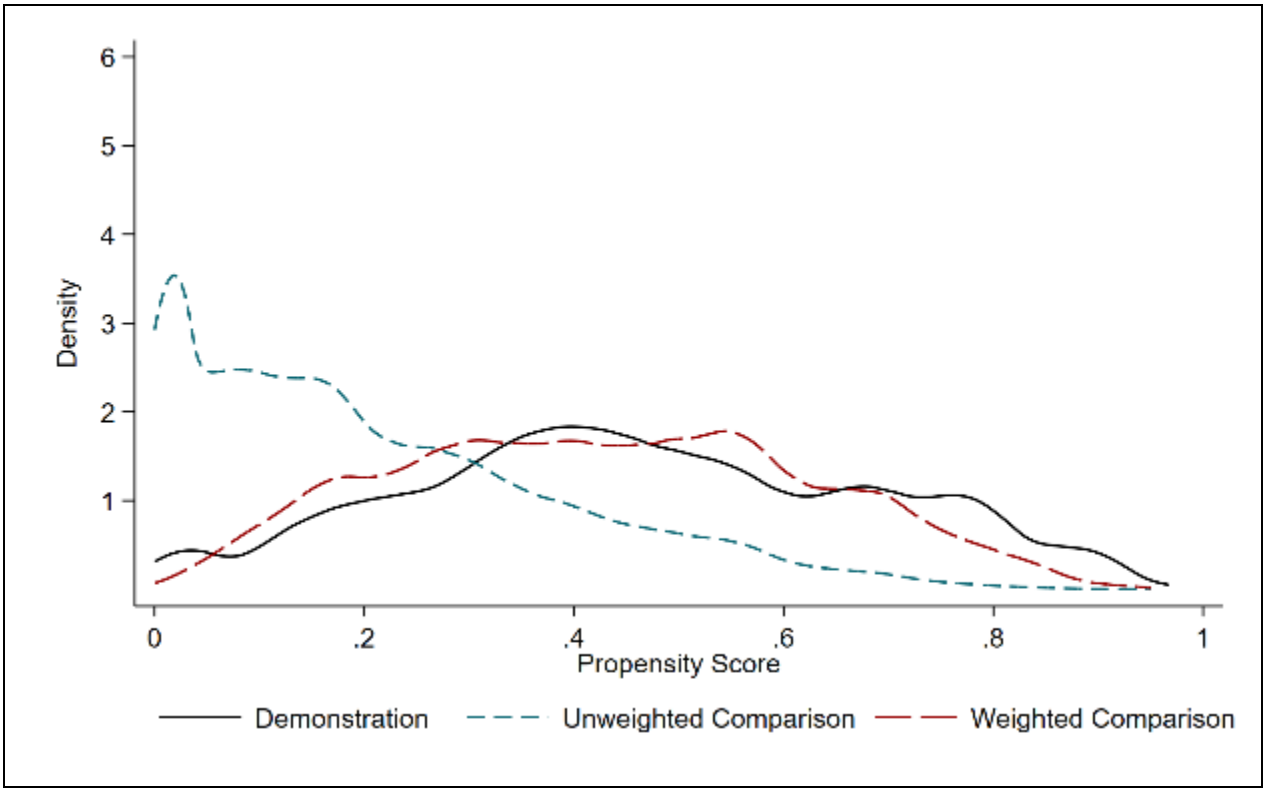


Figure D-4
Distribution of beneficiary-level propensity scores in the Rhode Island demonstration and comparison groups, weighted and unweighted, demonstration year 2, January 1, 2018–December 31, 2018



D.4 Group Comparability

Covariate balance refers to the extent to which the characteristics used in the propensity score 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.

The group means and standardized differences for all beneficiary characteristics are shown for each predemonstration and demonstration period in ***Tables D-4*** through ***D-7***. The column of unweighted standardized differences indicates that several of these variables were not balanced prior to weighting. Eight variables (whether a beneficiary was Hispanic, share of months enrolled in a non-MMP MA plan during the year, percent of population living in a married household, percent of households with members above the age of 60, percent of households with members below the age of 18, percent of adults with self-care limitations, and

the distances (in miles) to the nearest hospital and nursing facility) had unweighted standardized differences exceeding 0.10 in absolute value.

Propensity weighting (shown in the column labeled propensity-weighted standardized difference of ***Tables D-4*** through ***D-7***) reduced the standardized differences below the threshold level of 0.10 in absolute value for many but not all covariates. The results for demonstration year 2, for example, show that eight covariates remained imbalanced (whether a beneficiary was Hispanic, percent of population living in a married household, percent of households with members above the age of 60, percent of households with members below the age of 18, percent of adults with a college education, percent of adults with self-care limitations, and the distances to the nearest hospital and nursing facility). When more than two covariates remain imbalanced after propensity weighting, we consider entropy balancing weights as an alternative. Standardized differences after applying entropy balancing weights (shown in the column labeled E-balance-weighted standardized differences) are reduced to below the threshold level of 0.10 in absolute value for all covariates in demonstration year 2. This indicates that the demonstration and comparison groups are adequately comparable after applying entropy balancing weights.

Table D-4
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—predemonstration year 1: January 1, 2014–December 31, 2014

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
Age	65.150	63.413	65.692	64.878	0.092	−0.029	0.014
Died	0.124	0.140	0.136	0.120	−0.048	−0.034	0.013
Female	0.623	0.599	0.629	0.618	0.051	−0.011	0.011
Black	0.087	0.110	0.078	0.090	−0.079	0.032	−0.011
Hispanic	0.092	0.027	0.065	0.092	0.275	0.099	−0.002
Disability as original reason for entitlement	0.532	0.558	0.524	0.533	−0.053	0.015	−0.003
ESRD	0.013	0.017	0.013	0.014	−0.033	0.004	−0.004
Share mos. eligible for demonstration during year	0.862	0.844	0.858	0.864	0.070	0.017	−0.005
Share mos. Medicare Advantage plan enrolled during year	0.192	0.224	0.200	0.190	−0.081	−0.021	0.004
HCC score	1.367	1.326	1.402	1.357	0.037	−0.030	0.009
Other MDM	0.098	0.111	0.100	0.095	−0.044	−0.008	0.007
% of pop. living in married household	64.731	68.655	68.132	64.540	−0.292	−0.244	0.015

(continued)

Table D-4 (continued)
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—predemonstration year 1: January 1, 2014–December 31, 2014

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
% of households w/member >= 60	35.764	36.601	37.161	35.746	−0.124	−0.191	0.003
% of households w/member < 18	30.472	28.370	29.202	29.632	0.321	0.198	0.133
% of adults w/ college education	24.197	24.110	26.326	23.736	0.008	−0.190	0.044
% of adults w/ self-care limitation	2.990	3.085	2.859	3.070	−0.073	0.107	−0.077
Distance to nearest hospital	4.086	6.494	4.470	3.861	−0.497	−0.100	0.068
Distance to nearest nursing facility	2.344	4.581	2.500	2.257	−0.780	−0.105	0.063

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

Table D-5
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—predemonstration year 2: January 1, 2015–June 30, 2016

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
Age	65.192	63.150	65.875	64.952	0.109	−0.036	0.013
Died	0.098	0.106	0.110	0.098	−0.025	−0.038	0.002
Female	0.622	0.594	0.625	0.615	0.057	−0.006	0.013
Black	0.087	0.110	0.080	0.089	−0.077	0.026	−0.008
Hispanic	0.092	0.026	0.066	0.092	0.282	0.096	−0.002
Disability as original reason for entitlement	0.521	0.555	0.510	0.523	−0.069	0.020	−0.005
ESRD	0.013	0.018	0.013	0.014	−0.037	0.003	−0.004
Share mos. eligible for demonstration during year	0.802	0.769	0.795	0.805	0.106	0.023	−0.008
Share mos. Medicare Advantage plan enrolled during year	0.195	0.248	0.202	0.198	−0.136	−0.019	−0.009
HCC score	1.475	1.402	1.519	1.461	0.063	−0.036	0.012
Other MDM	0.239	0.244	0.240	0.245	−0.011	−0.001	−0.013
% of pop. living in married household	64.442	67.901	67.720	64.257	−0.257	−0.243	0.014

(continued)

Table D-5 (continued)
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—predemonstration year 2: January 1, 2015–June 30, 2016

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
% of households w/member >= 60	36.334	37.341	37.450	36.622	−0.148	−0.159	−0.044
% of households w/member < 18	30.469	28.095	29.570	29.590	0.353	0.132	0.130
% of adults w/ college education	24.707	24.517	26.745	24.569	0.018	−0.182	0.013
% of adults w/ self-care limitation	3.213	3.061	3.093	3.294	0.112	0.087	−0.066
Distance to nearest hospital	4.095	6.549	4.423	3.926	−0.505	−0.085	0.050
Distance to nearest nursing facility	2.341	4.621	2.452	2.322	−0.792	−0.075	0.014

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

Table D-6
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 1: July 1, 2016–December 31, 2017

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
Age	64.863	63.319	65.278	64.619	0.085	−0.023	0.014
Died	0.080	0.099	0.087	0.078	−0.065	−0.025	0.008
Female	0.619	0.590	0.624	0.620	0.060	−0.009	−0.002
Black	0.092	0.112	0.084	0.093	−0.068	0.026	−0.005
Hispanic	0.102	0.027	0.072	0.102	0.312	0.107	0.002
Disability as original reason for entitlement	0.530	0.556	0.524	0.534	−0.052	0.013	−0.008
ESRD	0.014	0.018	0.014	0.014	−0.038	0.000	0.001
Share mos. eligible for demonstration during year	0.841	0.772	0.834	0.842	0.225	0.025	−0.004
Share mos. Medicare Advantage plan enrolled during year	0.224	0.292	0.231	0.227	−0.168	−0.018	−0.008
HCC score	1.402	1.359	1.438	1.396	0.038	−0.031	0.005
Other MDM	0.330	0.275	0.335	0.328	0.120	−0.011	0.005
% of pop. living in married household	64.322	68.102	67.117	64.161	−0.296	−0.219	0.013

(continued)

Table D-6 (continued)
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 1: July 1, 2016–December 31, 2017

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
% of households w/member >= 60	36.475	38.224	37.756	36.989	−0.249	−0.195	−0.075
% of households w/member < 18	30.457	27.801	29.193	29.618	0.390	0.189	0.128
% of adults w/ college education	25.034	25.184	26.864	24.973	−0.014	−0.165	0.006
% of adults w/ self-care limitation	3.510	3.071	3.433	3.600	0.339	0.056	−0.078
Distance to nearest hospital	4.002	6.696	4.443	3.886	−0.552	−0.114	0.034
Distance to nearest nursing facility	2.296	4.693	2.456	2.327	−0.832	−0.109	−0.022

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

Table D-7
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 2: January 1, 2018–December 31, 2018

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
Age	64.530	63.056	64.795	64.530	0.083	−0.015	0.000
Died	0.058	0.073	0.063	0.058	−0.060	−0.022	0.000
Female	0.618	0.587	0.603	0.624	0.063	0.031	−0.012
Black	0.091	0.115	0.083	0.094	−0.080	0.028	−0.010
Hispanic	0.106	0.028	0.070	0.098	0.317	0.127	0.026
Disability as original reason for entitlement	0.537	0.564	0.534	0.535	−0.053	0.007	0.004
ESRD	0.013	0.018	0.013	0.014	−0.041	−0.001	−0.004
Share mos. eligible for demonstration during year	0.848	0.834	0.841	0.849	0.050	0.027	−0.001
Share mos. Medicare Advantage plan enrolled during year	0.260	0.344	0.268	0.266	−0.195	−0.021	−0.016
HCC score	1.296	1.271	1.324	1.295	0.024	−0.027	0.001
Other MDM	0.231	0.222	0.244	0.228	0.020	−0.032	0.006
% of pop. living in married household	65.051	67.827	68.448	65.122	−0.214	−0.265	−0.006

(continued)

Table D-7 (continued)
Rhode Island dually eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 2: January 1, 2018–December 31, 2018

Characteristic	Demonstration group mean	Comparison group mean	Propensity-weighted comparison group mean	E-balance-weighted comparison group mean	Unweighted standardized difference	Propensity-weighted standardized difference	E-balance-weighted standardized difference
% of households w/member >= 60	37.520	38.920	38.942	37.931	−0.199	−0.229	−0.063
% of households w/member < 18	30.453	27.768	29.157	29.832	0.394	0.192	0.093
% of adults w/ college education	25.476	25.678	27.868	25.193	−0.019	−0.207	0.025
% of adults w/ self-care limitation	3.781	3.102	3.480	3.835	0.459	0.190	−0.036
Distance to nearest hospital	3.983	6.646	4.686	3.859	−0.548	−0.178	0.036
Distance to nearest nursing facility	2.297	4.670	2.508	2.290	−0.825	−0.141	0.004

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

D.5 Enrollee Results

We also applied our weighting methodology to the demonstration enrollee population (approximately 43 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.

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 demonstration year 2. After weighting, the standardized differences of all covariates but one (percent of households with residents under 18 years of age) were reduced to less than 0.10 in absolute value.

D.6 Weights for Service Utilization Analyses

A third set of weights was produced specifically for the analyses of service utilization with one adaptation to the methodology used to produce weights for all eligible beneficiaries., namely the explicit exclusion of beneficiaries who were ever enrolled in an MA plan. Due to concerns on the completeness and accuracy of MA encounter data for years prior to 2016, and at the request and approval of CMS, RTI excluded the MA population from the service utilization analysis.

These exclusions reduced the number of beneficiaries by roughly 13,000 in the demonstration group and by roughly 40,000 in the comparison group. The resulting demonstration group sample ranged between 20,973 and 23,656 beneficiaries each year; the comparison group sample ranged between 49,439 and 53,394 beneficiaries each year.

Despite difference in sample sizes, the results of the weighting analysis were similar to those for all eligible beneficiaries and for demonstration enrollees only. While the unweighted values of several covariates differed substantially between the demonstration and comparison group in each baseline and demonstration year, the standardized differences of all covariates but one (percent of households with residents under 18 years of age) were reduced to less than 0.10 in absolute value after weighting.

D.7 Summary

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

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Appendix E

Service Utilization Methodology

E.1 Methodology

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

E.1.1 Evaluation Design

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

For this analysis, we used an intent-to-treat (ITT) approach that included all beneficiaries eligible for the demonstration, not just those who actually enrolled in the MMPs, to alleviate concerns of selection bias and to support generalizability of the results among the demonstration eligible population. An ITT analysis mimics the real-world implementation of the demonstration.

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

E.1.2 Sample Selection

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

MA enrollees are eligible and may opt-in to the Rhode Island demonstration. This report includes the MA population in the cost savings analysis, described in ***Appendix G***. 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 fee-for-service throughout the study period. The prevalence of beneficiaries with any month of MA during a year, prior to exclusion, ranges from 35.3 to 37.1 percent in the demonstration group, and 41.3 to 44.3 percent in the comparison group during the predemonstration and demonstration periods (see ***Appendix D, Table D-2***).

E.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).

E.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 three demographic groups (age, sex, and race).

- ***Demonstration eligible beneficiaries.*** A full-benefit Medicare-Medicaid eligible beneficiary in a quarter who met any other specific demonstration eligibility criteria.

  Beneficiaries in the demonstration period are identified from quarterly State finder files.

  Beneficiaries in the 2-year predemonstration period are identified by applying the eligibility criteria in each separate predemonstration quarter.

- ***Long-term services and supports (LTSS).*** A demonstration eligible beneficiary with any use of institutional or home and community-based services (HCBS) during the observation year.

- ***Serious and persistent mental illness (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 (January 1, 2014, to June 30, 2016) and for the 2 demonstration years (July 1, 2016, to December 31, 2018) for both the demonstration and comparison groups in each of the four analytic periods.

Table E-1 presents descriptive statistics on the independent variables used in multivariate difference-in-differences (DinD) regressions for impact analyses. Independent variables include demographic and health characteristics and market- and area-level characteristics. 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 demographic across all groups was those under 65, ranging from 50.9 (of those with any LTSS use) to 61.7 percent (of those with an SPMI). White beneficiaries were a large majority in the demonstration and comparison groups. Among the LTSS user demonstration population, and among those with an SPMI, White beneficiaries accounted for greater shares, making up 85.4 and 74.7 percent of each group, respectively.

Across all groups, most beneficiaries were female (58.3 to 63.4 percent), had disability as the primary reason for Medicare entitlement, did not have end-stage renal disease, and participated in a Medicare shared savings program.

The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas beneficiaries with scores of 2 are predicted to have twice the average annual cost. HCC scores ranged between 1.1 and 1.3 among all groups except LTSS users in the demonstration group, for whom the average HCC score was 1.5.

Table E-1
Characteristics of eligible beneficiaries in demonstration year 2 by group

Characteristics	Demonstration group	Comparison group	Demonstration group enrollees	Demonstration group eligible, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Weighted number of eligible beneficiaries	22,575	49,376	14,081	8,494	3,557	12,017
Demographic characteristics						
Age						
65 to 74	55.8	56.3	56.5	54.6	50.9	64.6
75 to 84	23.7	22.4	24.5	22.5	16.2	19.0
85 and older	20.5	21.3	19.0	22.9	32.9	16.4
Female						
No	41.5	40.8	41.6	41.4	41.7	36.6
Yes	58.5	59.2	58.4	58.6	58.3	63.4
Race/ethnicity						
White	69.2	70.3	66.2	74.2	85.4	74.7
African American	9.7	12.2	10.5	8.5	5.2	8.6
Hispanic	11.0	9.1	12.8	8.1	3.1	9.6
Asian	2.4	2.9	2.4	2.5	2.1	1.3
Other	4.3	2.3	5.0	3.2	2.8	3.4
Disability as reason for original Medicare entitlement						
No	38.1	38.5	36.2	41.2	38.9	28.8
Yes	61.9	61.5	63.8	58.8	61.1	71.2
ESRD status						
No	98.4	98.3	98.6	98.2	98.7	98.4
Yes	1.6	1.7	1.4	1.8	1.3	1.6
MSA						
No	0.0	0.0	0.0	0.0	0.0	0.0
Yes	100.0	100.0	100.0	100.0	100.0	100.0

(continued)

Table E-1 (continued)
Characteristics of eligible beneficiaries in demonstration year 2 by group

Characteristics	Demonstration group	Comparison group	Demonstration group enrollees	Demonstration group eligible, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Participating in Shared Savings Program						
No	69.8	69.7	77.6	56.9	59.6	68.9
Yes	30.2	30.3	22.4	43.1	40.4	31.1
HCC score	1.2	1.2	1.1	1.2	1.5	1.3
Market characteristics						
Medicare spending per dual, ages 19+ ($)	15,065.2	14,429.5	15,065.2	15,065.2	15,065.2	15,065.2
MA penetration rate	0.4	0.3	0.4	0.4	0.4	0.4
Medicaid-to-Medicare fee index (FFS)	0.4	0.6	0.4	0.4	0.4	0.4
Medicaid spending per dual, ages 19+ ($)	22,271.7	23,452.1	22,271.7	22,271.7	22,271.7	22,271.7
Fraction of dually elig. beneficiaries using NF, ages 65+	0.3	0.4	0.3	0.3	0.3	0.3
Fraction of dually elig. beneficiaries using HCBS, ages 65+	0.1	0.0	0.1	0.1	0.1	0.1
Fraction of dual elig. beneficiaries using personal care, ages 19+	0.1	0.1	0.1	0.1	0.1	0.1
Fraction of dual elig, beneficiaries with Medicaid managed care, ages 19+	0.0	0.0	0.0	0.0	0.0	0.0
Population per square mile, all ages	1,018.4	280.6	1,018.4	1,018.4	1,018.4	1,018.4
Patient care physicians per 1,000 population	1.0	0.7	1.0	1.0	1.0	1.0

(continued)

Table E-1 (continued)
Characteristics of eligible beneficiaries in demonstration year 2 by group

Characteristics	Demonstration group	Comparison group	Demonstration group enrollees	Demonstration group eligible, non-enrollees	Demonstration group, LTSS users	Demonstration group, SPMI diagnosis
Area characteristics						
% of pop. living in married households	64.7	64.7	63.8	66.3	69.6	65.1
% of adults with college education	25.4	25.0	24.7	26.6	29.7	25.5
% of adults with self-care limitations	3.8	3.8	3.8	3.7	3.5	3.8
% of adults unemployed	7.9	7.7	8.2	7.5	6.8	7.8
% of household with individuals younger than 18	30.5	29.8	30.8	30.1	29.4	30.3
% of household with individuals older than 60	37.3	37.8	36.8	38.2	40.0	37.5
Distance to nearest hospital	3.9	3.8	3.8	4.2	4.5	4.0
Distance to nearest nursing facility	2.3	2.3	2.2	2.4	2.7	2.3

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.

There were limited differences in area- and market-level characteristics. Those who were in the demonstration group resided in counties with higher population density (1,018.4 people per sq. mi. vs 280.6 people per sq. mi. in the comparison group). Other area- and market-level characteristics were comparable.

E.1.5 Descriptive and Regression Outcomes

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

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

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

E.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 nursing facility users
- Functional status of new long-stay nursing facility residents
- Percent of new long-stay nursing facility residents with severe cognitive impairment
- Percent of new long-stay nursing facility residents with a low level of care need.

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

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

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

Table E-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').
Monthly emergency department (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.
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'.

(continued)

Table E-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 skilled nursing facility (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'; where CLM_ACTV_CARE_FROM_DT is the date of the observation month.
Any long-stay nursing facility (NF) use	The annual probability of residing in a nursing facility for 101 days or more during the year.	• Long-stay use is defined as a stay in an NF for 101 days or more as of a beneficiary's last quarter of demonstration eligibility and is derived from the Minimum Data Set (MDS).
30-day all-cause risk-standardized readmission	This is calculated descriptively as the rate of risk-standardized readmission, defined as the percent of enrollees who were readmitted within 30 days following a hospital discharge, as well as the count of the number risk-standardized readmissions that occurs during the year.	For both the numerator and denominator, identify 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 as well as 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, .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 following any inpatient admission within 30-days of the index discharge date

(continued)

Table E-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 preventable ED visits	This is estimated as a continuous variable of weighted ED visits that occur during the month.	Numerator: Sum of the relative percent of ED visits per diagnosis (see 1–4 below) for conditions that are either preventable/avoidable or treatable in a primary care setting.[45] The algorithm uses four categories for ED utilization, 1-3 are included in the numerator for this measure and 4 is excluded: (1) Non-emergent; (2) Emergent / primary care treatable; (3) Emergent / ED care needed – preventable/avoidable; (4) *Excluded* – Emergent / ED care needed – not preventable/avoidable. Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.
30-day follow-up after hospitalization for mental illness (NQF #576)	This is estimated as the monthly probability of any follow-up visits within 30-days 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 healthcare facility; OR • Visit to a non-behavioral healthcare 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.

(continued)

[45] The lists of diagnoses preventable/avoidable or treatable were developed by researchers at the New York University Center for Health and Public Service Research. https://wagner.nyu.edu/faculty/billings/nyued-background

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

Outcome measure	Definition	Detailed specifications
Ambulatory care sensitive condition (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 Prevention Quality Indicators (PQI) 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 Medicare-Medicaid beneficiaries.
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 Prevention Quality Indicators (PQI) for ambulatory care sensitive chronic conditions including diabetes—short-term complications (PQI #1); diabetes—long-term complications (PQI #3); COPD or asthma (PQI #5); hypertension (PQI #7); heart failure (PQI #8); uncontrolled diabetes (PQI #14); asthma in younger adults (PQI #15); lower-extremity amputations among diabetics (PQI #16) Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.

(continued)

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

Outcome measure	Definition	Detailed specifications
Depression screening and follow-up	Number of depression screenings per eligible beneficiary per month.	Numerator: Demonstration eligible Medicare-Medicaid enrollees whose screening for clinical depression using an age-appropriate standardized tool: • Received a depression screening, tested positive and had a follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8431'. • Received a depression screening, tested positive and follow-up plan not required is identified by CLM_LINE_HCPCS_CD = 'G8510'. • Received a depression screening, tested positive and not eligible for follow-up plan is identified by CLM_LINE_HCPCS_CD = 'G8940'. • Received a depression screening, tested positive, no follow-up plan and reason not documented is identified by CLM_LINE_HCPCS_CD = 'G8511'. Denominator: All demonstration eligible Medicare-Medicaid beneficiaries.

E.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 propensity score weighting, described in ***Appendix D***. ***Appendix F*** 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.

Table E-2 describes the risk-standardized readmission rate calculation for descriptive analysis. The average adjusted probabilities for the overall eligible population are listed in the table below.

Average adjusted probability of readmission by demonstration group	
Demonstration group	**Average adjusted probability of readmission**
Predemonstration year 1	
Rhode Island	0.2082
Comparison	0.2066
Predemonstration year 2	
Rhode Island	0.2086
Comparison	0.2099
Demonstration year 1	
Rhode Island	0.2000
Comparison	0.2051
Demonstration year 2	
Rhode Island	0.1959
Comparison	0.2006

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

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

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, post-regression predictions of demonstration impact are performed to obtain the marginal effects of demonstration impact.

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

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

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

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

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

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

To determine whether the demonstration had an effect on the SPMI and LTSS populations, a triple interaction term is used to estimate the interaction effect of each special population (i.e., Demonstration * Post * LTSS). In ***Section 5,*** 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 F, Tables F-2*** and ***F-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 E-3 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 E-3
Logistic regression results on monthly inpatient admissions
(n = 2,545,309 person-months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Post period	−0.0458	0.0291	−1.57	0.115
Demonstration group	0.0537	0.0504	1.07	0.552
Interaction of post period x demonstration group	−0.0193	0.0323	−0.60	0.552
Age (continuous)	0.0019	0.0010	1.92	0.055
Female	−0.0092	0.0191	−0.48	0.631
Black	0.0135	0.0254	0.53	0.596
Hispanic	−0.1696	0.0768	−2.21	0.027
Asian	−0.4029	0.0492	−8.19	<0.001
Other race/ethnicity	−0.2738	0.0410	−6.68	<0.001
Disability as reason for Medicare entitlement	0.0502	0.0185	2.71	0.007
End-stage renal disease	1.6652	0.0515	32.34	<0.001
Participation in other Shared Savings Program	0.0548	0.0418	1.31	0.190
Hierarchical Condition Category score	0.4261	0.0094	45.46	<0.001
Medicare spending per dual, ages 19+	0.0000	0.0000	1.24	0.215
Percent of population married	−0.0039	0.0014	−2.83	0.005
Medicare Advantage penetration rate	0.1577	0.6301	0.25	0.802
Medicaid spending per dual, ages 19+	−0.0000	0.0000	−1.55	0.122
Fraction of duals using personal care, ages 65+	1.5462	0.7419	2.08	0.037
Percent of adults with college education	−0.0002	0.0011	−0.22	0.825
Percent of adults who are unemployed	0.0012	0.0041	0.31	0.760
Percent of adults with self-care limitation	0.0037	0.0097	0.38	0.705
Distance to nearest hospital	−0.0001	0.0033	−0.04	0.968
Distance to nearest nursing facility	−0.0117	0.0072	−1.62	0.105
Percent of households with individuals younger than 18	−0.0064	0.0015	−4.30	<0.001
Percent of households with individuals older than 60	−0.0050	0.0026	−1.92	0.055
Intercept	−3.7269	0.3128	−11.91	<0.001

Appendix F

Descriptive and Special Population Supplemental Analysis

Tables F-1, ***F-2***, and ***F-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 F-1
Cumulative and annual demonstration effects on service utilization and quality of care measures for eligible beneficiaries in Rhode Island, July 1, 2016–December 31, 2018

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Probability of inpatient admission					
Cumulative	–0.0006	NS	0.5546	–0.0026, 0.0014	–0.0023, 0.0011
Demonstration year 1	–0.0002	NS	0.8651	–0.0022, 0.0019	–0.0019, 0.0015
Demonstration year 2	–0.0013	NS	0.2874	–0.0038, 0.0011	–0.0034, 0.0007
Count of all-cause 30-day readmissions					
Cumulative	–0.0052	NS	0.5745	–0.0235, 0.0131	–0.0206, 0.0101
Demonstration year 1	–0.0126	NS	0.1114	–0.0281, 0.0029	–0.0256, 0.0004
Demonstration year 2	0.0025	NS	0.8802	–0.0300, 0.0350	–0.0248, 0.0298
Probability of ACSC admission, overall					
Cumulative	–0.0001	NS	0.8654	–0.0007, 0.0006	–0.0006, 0.0005
Demonstration year 1	0.0000	NS	0.9839	–0.0007, 0.0007	–0.0006, 0.0006
Demonstration year 2	–0.0002	NS	0.6403	–0.0008, 0.0005	–0.0007, 0.0004
Probability of ACSC admission, chronic					
Cumulative	–0.0003	NS	0.1939	–0.0007, 0.0001	–0.0007, 0.0001
Demonstration year 1	–0.0002	NS	0.4591	–0.0008, 0.0004	–0.0007, 0.0003
Demonstration year 2	–0.0004	NS	0.0547	–0.0008, 0.0000	–0.0007, –0.0001
Probability of ED visit					
Cumulative	–0.0030	–5.1	<0.0001	–0.0045, –0.0016	–0.0042, –0.0018
Demonstration year 1	–0.0018	–3.0	0.0107	–0.0032, –0.0004	–0.0029, –0.0006
Demonstration year 2	–0.0049	–8.4	<0.0001	–0.0070, –0.0028	–0.0067, –0.0031
Number of preventable ED visits					
Cumulative	–0.0023	–6.5	0.0086	–0.0040, –0.0006	–0.0037, –0.0009
Demonstration year 1	–0.0016	–4.5	0.0322	–0.0030, –0.0001	–0.0028, –0.0004
Demonstration year 2	–0.0033	–9.7	0.0095	–0.0058, –0.0008	–0.0054, –0.0012
Probability of SNF admission					
Cumulative	0.0005	NS	0.1028	–0.0001, 0.0011	–0.0000, 0.0010
Demonstration year 1	0.0008	13.0	0.0041	0.0003, 0.0014	0.0003, 0.0013
Demonstration year 2	0.0001	NS	0.8811	–0.0009, 0.0010	–0.0007, 0.0009

(continued)

Table F-1 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures for eligible beneficiaries in Rhode Island, July 1, 2016–December 31, 2018

Measure	Adjusted DinD estimate	Relative difference (%)	*p*-value	95% confidence interval	90% confidence interval
Probability of any long-stay NF use					
Cumulative	0.0040	NS	0.4250	–0.0059, 0.0139	–0.0043, 0.0123
Demonstration year 1	0.0055	NS	0.2392	–0.0036, 0.0146	–0.0022, 0.0131
Demonstration year 2	0.0020	NS	0.7165	–0.0088, 0.0128	–0.0071, 0.0111
Probability of 30-day follow-up after mental health discharge					
Cumulative	–0.0029	NS	0.9082	–0.0520, 0.0463	–0.0441, 0.0384
Demonstration year 1	–0.0247	NS	0.4028	–0.0824, 0.0331	–0.0731, 0.0238
Demonstration year 2	0.0314	NS	0.2899	–0.0267, 0.0894	–0.0174, 0.0801
Count of physician E&M visits					
Cumulative	0.0415	4.6	0.0044	0.0130, 0.0701	0.0175, 0.0655
Demonstration year 1	0.0493	5.5	0.0019	0.0181, 0.0806	0.0232, 0.0755
Demonstration year 2	0.0286	3.1	0.0324	0.0024, 0.0549	0.0066, 0.0507

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

Table F-2
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Rhode Island, July 1, 2016–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	0.0001	NS	0.9611	–0.0035, 0.0037	–0.0030, 0.0031	–0.0014
		Non-LTSS users	0.0015	NS	0.1102	–0.0003, 0.0033	–0.0000, 0.0030	
	Demonstration year 1	LTSS users	0.0008	NS	0.6145	–0.0023, 0.0039	–0.0018, 0.0034	–0.0008
		Non-LTSS users	0.0016	NS	0.1303	–0.0005, 0.0036	–0.0001, 0.0033	
	Demonstration year 2	LTSS users	–0.0012	NS	0.6702	–0.0066, 0.0042	–0.0057, 0.0033	–0.0024
		Non-LTSS users	0.0012	NS	0.3007	–0.0011, 0.0035	–0.0007, 0.0032	
Probability of ED visit	Cumulative	LTSS users	–0.0083	–14.9	<0.0001	–0.0104, –0.0061	–0.0101, –0.0065	–0.0068***
		Non-LTSS users	–0.0015	NS	0.1383	–0.0035, 0.0005	–0.0032, 0.0002	
	Demonstration year 1	LTSS users	–0.0075	–13.6	<0.0001	–0.0095, –0.0055	–0.0092, –0.0058	–0.0077***
		Non-LTSS users	0.0002	NS	0.8364	–0.0016, 0.0020	–0.0013, 0.0017	
	Demonstration year 2	LTSS users	–0.0098	–17.3	<0.0001	–0.0145, –0.0050	–0.0137, –0.0058	–0.0059
		Non-LTSS users	–0.0039	–6.5	0.0159	–0.0070, –0.0007	–0.0065, –0.0012	
Count of physician E&M visits	Cumulative	LTSS users	0.0466	NS	0.3941	–0.0605, 0.1537	–0.0433, 0.1364	0.0066
		Non-LTSS users	0.0399	5.5	<0.0001	0.0202, 0.0597	0.0233, 0.0565	
	Demonstration year 1	LTSS users	0.0476	NS	0.3682	–0.0560, 0.1511	–0.0394, 0.1345	–0.0001
		Non-LTSS users	0.0477	6.6	<0.0001	0.0261, 0.0693	0.0296, 0.0658	
	Demonstration year 2	LTSS users	0.0434	NS	0.4719	–0.0748, 0.1615	–0.0558, 0.1425	0.0149
		Non-LTSS users	0.0285	3.9	0.0036	0.0093, 0.0477	0.0124, 0.0446	

(continued)

Table F-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Rhode Island, July 1, 2016–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)								
Probability of SNF admission	Cumulative	LTSS users	0.0021	21.5	0.0085	0.0005, 0.0036	0.0008, 0.0034	0.0005
		Non-LTSS users	0.0016	84.6	<0.0001	0.0010, 0.0022	0.0011, 0.0021	
	Demonstration year 1	LTSS users	0.0031	30.7	0.0002	0.0015, 0.0047	0.0017, 0.0044	0.0014
		Non-LTSS users	0.0017	95.3	<0.0001	0.0009, 0.0024	0.0010, 0.0023	
	Demonstration year 2	LTSS users	0.0003	NS	0.7097	–0.0015, 0.0022	–0.0012, 0.0019	–0.0012
		Non-LTSS users	0.0015	69.5	0.0022	0.0005, 0.0025	0.0007, 0.0023	
Quality of Care Measures								
Count of preventable ED visits	Cumulative	LTSS users	–0.0051	–16.9	0.0005	–0.0080, –0.0023	–0.0075, –0.0027	–0.0035
		Non-LTSS users	–0.0017	NS	0.2122	–0.0043, 0.0010	–0.0039, 0.0005	
	Demonstration year 1	LTSS users	–0.0053	–17.7	<0.0001	–0.0076, –0.0029	–0.0072, –0.0033	–0.0047*
		Non-LTSS users	–0.0005	NS	0.6602	–0.0028, 0.0018	–0.0025, 0.0014	
	Demonstration year 2	LTSS users	–0.0050	NS	0.0892	–0.0108, 0.0008	–0.0099, –0.0002	–0.0017
		Non-LTSS users	–0.0033	NS	0.0611	–0.0067, 0.0002	–0.0061, –0.0004	
Probability of ACSC admission, overall	Cumulative	LTSS users	–0.0001	NS	0.8553	–0.0010, 0.0008	–0.0008, 0.0007	–0.0001
		Non-LTSS users	0.0000	NS	0.9706	–0.0006, 0.0007	–0.0005, 0.0006	
	Demonstration year 1	LTSS users	0.0001	NS	0.8277	–0.0011, 0.0014	–0.0009, 0.0012	0.0001
		Non-LTSS users	0.0000	NS	0.9978	–0.0008, 0.0008	–0.0007, 0.0007	
	Demonstration year 2	LTSS users	–0.0005	NS	0.2515	–0.0013, 0.0003	–0.0012, 0.0002	–0.0005
		Non-LTSS users	0.0000	NS	0.9972	–0.0006, 0.0006	–0.0005, 0.0005	

(continued)

Table F-2 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with LTSS use versus those without LTSS use in Rhode Island, July 1, 2016–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	0.0000	NS	0.9185	–0.0006, 0.0006	–0.0005, 0.0005	0.0002
		Non-LTSS users	–0.0002	NS	0.3844	–0.0007, 0.0003	–0.0006, 0.0002	
	Demonstration year 1	LTSS users	0.0004	NS	0.2910	–0.0004, 0.0012	–0.0002, 0.0011	0.0006
		Non-LTSS users	–0.0001	NS	0.6718	–0.0008, 0.0005	–0.0007, 0.0004	
	Demonstration year 2	LTSS users	–0.0007	–23.6	0.0353	–0.0013, –0.0000	–0.0012, –0.0001	–0.0003
		Non-LTSS users	–0.0003	NS	0.2522	–0.0009, 0.0002	–0.0008, 0.0001	
Probability of 30-day follow-up after mental health discharge	Cumulative	LTSS users	–0.0581	NS	0.3350	–0.1763, 0.0600	–0.1573, 0.0410	–0.0598
		Non-LTSS users	0.0017	NS	0.9497	–0.0502, 0.0536	–0.0419, 0.0452	
	Demonstration year 1	LTSS users	–0.0644	NS	0.2839	–0.1822, 0.0534	–0.1632, 0.0344	–0.0506
		Non-LTSS users	–0.0138	NS	0.6612	–0.0757, 0.0481	–0.0658, 0.0381	
	Demonstration year 2	LTSS users	–0.0456	NS	0.6060	–0.2186, 0.1275	–0.1908, 0.0997	–0.0709
		Non-LTSS users	0.0254	NS	0.4023	–0.0340, 0.0848	–0.0245, 0.0753	
Count of all-cause 30-day readmissions	Cumulative	LTSS users	–0.0043	NS	0.7702	–0.0331, 0.0245	–0.0284, 0.0199	–0.0007
		Non-LTSS users	–0.0036	NS	0.7885	–0.0302, 0.0229	–0.0259, 0.0187	
	Demonstration year 1	LTSS users	–0.0159	NS	0.2265	–0.0416, 0.0099	–0.0375, 0.0057	–0.0028
		Non-LTSS users	–0.0131	NS	0.2009	–0.0332, 0.0070	–0.0300, 0.0038	
	Demonstration year 2	LTSS users	0.0142	NS	0.5627	–0.0338, 0.0621	–0.0261, 0.0544	0.0081
		Non-LTSS users	0.0060	NS	0.8090	–0.0430, 0.0551	–0.0351, 0.0472	

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

Table F-3
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Rhode Island, July 1, 2016–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	–0.0029	NS	0.1110	–0.0064, 0.0007	–0.0058, 0.0001	−0.0028
		Non-SPMI	–0.0001	NS	0.9402	–0.0023, 0.0021	–0.0019, 0.0018	
	Demonstration year 1	SPMI	–0.0016	NS	0.3595	–0.0051, 0.0018	–0.0045, 0.0013	−0.0014
		Non-SPMI	–0.0002	NS	0.8495	–0.0025, 0.0021	–0.0021, 0.0017	
	Demonstration year 2	SPMI	–0.0049	–11.8	0.0262	–0.0092, –0.0006	–0.0085, –0.0013	−0.0050*
		Non-SPMI	0.0001	NS	0.9373	–0.0023, 0.0024	–0.0019, 0.0021	
Probability of ED visit	Cumulative	SPMI	–0.0035	–4.5	0.0104	–0.0063, –0.0008	–0.0058, –0.0013	−0.0003
		Non-SPMI	–0.0033	–7.9	<0.0001	–0.0048, –0.0018	–0.0045, –0.0020	
	Demonstration year 1	SPMI	–0.0014	NS	0.3128	–0.0042, 0.0014	–0.0038, 0.0009	0.0012
		Non-SPMI	–0.0026	–6.2	0.0005	–0.0041, –0.0011	–0.0038, –0.0014	
	Demonstration year 2	SPMI	–0.0067	–8.6	<0.0001	–0.0099, –0.0035	–0.0094, –0.0040	−0.0025
		Non-SPMI	–0.0042	–10.4	0.0001	–0.0064, –0.0020	–0.0060, –0.0024	
Count of physician E&M visits	Cumulative	SPMI	0.0287	NS	0.1946	–0.0147, 0.0722	–0.0077, 0.0652	–0.0125
		Non-SPMI	0.0413	6.2	0.0004	0.0184, 0.0642	0.0221, 0.0605	
	Demonstration year 1	SPMI	0.0457	4.0	0.0452	0.0010, 0.0905	0.0082, 0.0833	0.0033
		Non-SPMI	0.0424	6.4	0.0014	0.0165, 0.0684	0.0206, 0.0642	
	Demonstration year 2	SPMI	0.0008	NS	0.9713	–0.0451, 0.0468	–0.0377, 0.0394	−0.0388
		Non-SPMI	0.0396	6.0	0.0004	0.0178, 0.0615	0.0213, 0.0580	

(continued)

Table F-3 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Rhode Island, July 1, 2016–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)								
Probability of SNF admission	Cumulative	SPMI	0.0004	NS	0.5759	–0.0011, 0.0020	–0.0008, 0.0017	−0.0000
		Non-SPMI	0.0004	NS	0.1031	–0.0001, 0.0010	0.0000, 0.0009	
	Demonstration year 1	SPMI	0.0010	NS	0.1404	–0.0003, 0.0024	–0.0001, 0.0022	0.0006
		Non-SPMI	0.0005	NS	0.1156	–0.0001, 0.0011	0.0000, 0.0010	
	Demonstration year 2	SPMI	–0.0005	NS	0.6101	–0.0025, 0.0015	–0.0022, 0.0011	−0.0009
		Non-SPMI	0.0004	NS	0.2581	–0.0003, 0.0010	–0.0002, 0.0009	
Quality of Care Measures								
Count of preventable ED visits	Cumulative	SPMI	–0.0035	–7.7	0.0240	–0.0065, –0.0005	–0.0060, –0.0009	–0.0020
		Non-SPMI	–0.0015	–6.3	0.0132	–0.0027, –0.0003	–0.0025, –0.0005	
	Demonstration year 1	SPMI	–0.0030	–6.6	0.0358	–0.0059, –0.0002	–0.0054, –0.0007	–0.0025
		Non-SPMI	–0.0006	NS	0.3816	–0.0018, 0.0007	–0.0016, 0.0005	
	Demonstration year 2	SPMI	–0.0042	–9.6	0.0447	–0.0083, –0.0001	–0.0077, –0.0008	–0.0014
		Non-SPMI	–0.0028	–11.8	0.0001	–0.0042, –0.0014	–0.0040, –0.0016	
Probability of ACSC admission, overall	Cumulative	SPMI	0.0001	NS	0.8821	–0.0007, 0.0009	–0.0006, 0.0007	0.0003
		Non-SPMI	–0.0003	NS	0.3294	–0.0009, 0.0003	–0.0008, 0.0002	
	Demonstration year 1	SPMI	0.0002	NS	0.7346	–0.0007, 0.0011	–0.0006, 0.0009	0.0004
		Non-SPMI	–0.0002	NS	0.4996	–0.0008, 0.0004	–0.0007, 0.0003	
	Demonstration year 2	SPMI	–0.0001	NS	0.8095	–0.0012, 0.0009	–0.0010, 0.0008	0.0003
		Non-SPMI	–0.0004	NS	0.3152	–0.0012, 0.0004	–0.0011, 0.0003	

(continued)

Table F-3 (continued)
Cumulative and annual demonstration effects on service utilization and quality of care measures, beneficiaries with SPMI versus those without SPMI in Rhode Island, July 1, 2016–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	–0.0001	NS	0.7509	–0.0008, 0.0006	–0.0007, 0.0005	0.0005
		Non-SPMI	–0.0006	–22.3	0.0168	–0.0011, –0.0001	–0.0010, –0.0002	
	Demonstration year 1	SPMI	0.0000	NS	0.9651	–0.0009, 0.0009	–0.0007, 0.0008	0.0006
		Non-SPMI	–0.0005	NS	0.0750	–0.0011, 0.0001	–0.0010, –0.0000	
	Demonstration year 2	SPMI	–0.0003	NS	0.5113	–0.0014, 0.0007	–0.0012, 0.0005	0.0003
		Non-SPMI	–0.0006	–25.5	0.0415	–0.0013, –0.0000	–0.0012, –0.0001	
Count of all-cause 30-day readmissions	Cumulative	SPMI	–0.0185	NS	0.1347	–0.0427, 0.0057	–0.0388, 0.0018	−0.0263
		Non-SPMI	0.0078	NS	0.6317	–0.0241, 0.0397	–0.0190, 0.0346	
	Demonstration year 1	SPMI	–0.0270	–9.5	0.0246	–0.0505, –0.0035	–0.0467, –0.0072	−0.0283
		Non-SPMI	0.0014	NS	0.9365	–0.0321, 0.0349	–0.0268, 0.0295	
	Demonstration year 2	SPMI	–0.0101	NS	0.6489	–0.0534, 0.0333	–0.0465, 0.0263	−0.0260
		Non-SPMI	0.0159	NS	0.4047	–0.0215, 0.0532	–0.0155, 0.0472	

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

Table F-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 Rhode Island 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 F-5***) and NF-related measures derived from the MDS (***Table F-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***). Hospice use was notably higher in the demonstration group across years (0.6 percent to 1.2 percent with use) than the comparison group (0.2 percent to 0.4 percent with use-). However, the comparison group had a higher rate of outpatient therapy use (4.5 percent to 5.1 percent with use) than the demonstration group (2.4 percent to 3.6 percent with use).

As with the service utilization measures, the Rhode Island 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 F-5***). One standout measure is the rate of 30-day follow-up visits after hospitalization for a mental illness. In the comparison group, rates were between 46.1 percent and 51.8 percent through the two baseline and first two demonstration years. The rates for the demonstration group were between 39.6 percent and 41.6 percent.

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

Table F-4
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Number of demonstration eligible beneficiaries		21,940	23,655	20,973	22,575
Number of comparison beneficiaries		49,219	51,794	51,842	49,376
Institutional setting					
Inpatient admissions[1]	Demonstration				
% with use		3.6	3.7	3.4	3.3
Utilization per 1,000 user months		1,147.4	1,153	1,158.6	1,140.9
Utilization per 1,000 eligible months		41.6	42.6	39.5	37.3
Inpatient admissions[1]	Comparison				
% with use		3.2	3.2	3.0	3.0
Utilization per 1,000 user months		1,127.7	1,128	1,132.9	1,118.1
Utilization per 1,000 eligible months		36.2	36.4	34.1	33.8
Inpatient psychiatric	Demonstration				
% with use		0.6	0.6	0.5	0.5
Utilization per 1,000 user months		1,104.5	1,123.8	1,129.2	1,100.5
Utilization per 1,000 eligible months		6.4	6.7	5.9	5.2
Inpatient psychiatric	Comparison				
% with use		0.4	0.3	0.3	0.3
Utilization per 1,000 user months		1,066.5	1,090	1,082.7	1,052.9
Utilization per 1,000 eligible months		3.8	3.7	3.7	3.1

(continued)

Table F-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Inpatient nonpsychiatric	Demonstration				
% with use		3.1	3.2	2.9	2.8
Utilization per 1,000 user months		1,135.3	1,133.2	1,139.7	1,125.9
Utilization per 1,000 eligible months		35.2	35.8	33.5	31.9
Inpatient nonpsychiatric	Comparison				
% with use		2.9	2.9	2.7	2.7
Utilization per 1,000 user months		1,121.7	1,119.2	1,122.8	1,118.7
Utilization per 1,000 eligible months		32.4	32.7	30.4	30.6
Emergency department use (non-admit)	Demonstration				
% with use		6.7	6.6	6.3	5.9
Utilization per 1,000 user months		1,281.8	1,260.9	1,266.7	1,263.8
Utilization per 1,000 eligible months		85.5	82.7	79.6	73.9
Emergency department use (non-admit)	Comparison				
% with use		6.1	6.2	6.0	5.9
Utilization per 1,000 user months		1,271.6	1,286.9	1,268.9	1,252.8
Utilization per 1,000 eligible months		77.2	79.9	76.4	73.4

(continued)

Table F-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Emergency department use (psychiatric)	Demonstration				
% with use		0.6	0.6	0.5	0.5
Utilization per 1,000 user months		1,366.1	1,262.3	1,268.0	1,327.4
Utilization per 1,000 eligible months		7.9	7.4	6.7	6.6
Emergency department use (psychiatric)	Comparison				
% with use		0.5	0.5	0.4	0.4
Utilization per 1,000 user months		1,292.7	1,272.6	1,225.0	1,227.6
Utilization per 1,000 eligible months		6.4	6.1	5.0	5.4
Observation stays	Demonstration				
% with use		0.8	0.7	0.4	0.4
Utilization per 1,000 user months		1,041.5	1,033.3	1,044.3	1,051.3
Utilization per 1,000 eligible months		8.5	7.0	4.6	3.7
Observation stays	Comparison				
% with use		0.6	0.7	0.6	0.5
Utilization per 1,000 user months		1,049.0	1,053.0	1,045.0	1,029.1
Utilization per 1,000 eligible months		6.5	7.0	6.3	5.5

(continued)

Table F-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Skilled nursing facility	Demonstration				
% with use		0.8	0.8	0.8	0.8
Utilization per 1,000 user months		1,098.7	1,087.9	1,082.1	1,099.9
Utilization per 1,000 eligible months		9.1	9.2	8.8	8.3
Skilled nursing facility	Comparison				
% with use		0.7	0.7	0.6	0.7
Utilization per 1,000 user months		1,085.5	1,084.2	1,079.1	1,066.2
Utilization per 1,000 eligible months		7.6	7.9	6.7	7.1
Hospice	Demonstration				
% with use		0.6	1.2	0.6	0.9
Utilization per 1,000 user months		1,012.2	1,013.0	1,213.3	1,015.2
Utilization per 1,000 eligible months		6.1	12.1	7.4	9.3
Hospice	Comparison				
% with use		0.2	0.4	0.3	0.4
Utilization per 1,000 user months		1,006.1	1,002.7	1,002.6	1,001.3
Utilization per 1,000 eligible months		2.4	4.4	2.7	4.2

(continued)

Table F-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Non-institutional setting					
Primary care E&M visits	Demonstration				
% with use		49.6	50.0	48.6	48.3
Utilization per 1,000 user months		1,750.1	1,768.7	1,853	1,846.7
Utilization per 1,000 eligible months		867.7	884.6	901.5	892.1
Primary care E&M visits	Comparison				
% with use		49.9	50.9	50.1	50.2
Utilization per 1,000 user months		1,825.9	1,810.5	1,785.2	1,800.5
Utilization per 1,000 eligible months		911.5	920.7	894.3	904.4
Outpatient therapy (PT, OT, ST)	Demonstration				
% with use		3.5	3.6	2.4	2.5
Utilization per 1,000 user months		25,735.5	24,621.1	21,250.7	22,469.4
Utilization per 1,000 eligible months		910.5	891.3	513.2	572.6
Outpatient therapy (PT, OT, ST)	Comparison				
% with use		4.6	4.9	4.5	5.1
Utilization per 1,000 user months		18,058.6	18,016.7	17,839.6	19,820.8
Utilization per 1,000 eligible months		824.3	886.2	799.1	1013.3

(continued)

Table F-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Independent therapy (PT, OT, ST)	Demonstration				
% with use		1.5	1.7	1.2	0.9
Utilization per 1,000 user months		12,006.5	11,987.7	9,864.1	10,894.2
Utilization per 1,000 eligible months		183.1	203.7	115.9	98.7
Independent therapy (PT, OT, ST)	Comparison				
% with use		1.5	1.6	2.2	2.5
Utilization per 1,000 user months		1,0501.5	9,964.9	9,474.1	9,652.9
Utilization per 1,000 eligible months		159.2	163.8	206.2	236.8
Other hospital outpatient services	Demonstration				
% with use		28.2	28.8	27.1	26.2
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Other hospital outpatient services	Comparison				
% with use		36.0	35.5	35.7	35.3
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 F-5
Quality of care and care coordination outcomes for the Rhode Island demonstration and comparison groups

Quality and care coordination measures	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Demonstration	20.9	20.9	20.3	21.0
	Comparison	19.0	17.9	18.1	17.9
Preventable emergency department visits per eligible month	Demonstration	0.0385	0.0362	0.035	0.0325
	Comparison	0.0353	0.0361	0.0339	0.0329
Rate of 30-day follow-up after hospitalization for mental illness (%)	Demonstration	41.6	40.9	39.6	41.3
	Comparison	51.8	46.1	50.2	46.1
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Demonstration	0.0058	0.0059	0.0061	0.0055
	Comparison	0.0054	0.0055	0.0055	0.0054
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Demonstration	0.0041	0.0044	0.0048	0.0041
	Comparison	0.0032	0.0032	0.0037	0.0035
Screening for clinical depression per eligible month	Demonstration	0.0047	0.0064	0.0089	0.0095
	Comparison	0.0022	0.0031	0.0033	0.0031

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

Table F-6
MDS long-stay NF utilization and characteristics at admission for the Rhode Island demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Annual NF utilization					
Number of demonstration beneficiaries	Demonstration	17,473	17,847	17,175	18,451
New long-stay NF admissions per 1,000 eligible beneficiaries		10.7	13.2	11.5	8.8
Number of comparison beneficiaries	Comparison	38,095	37,738	41,459	38,930
New long-stay NF admissions per 1,000 eligible beneficiaries		12.5	16.2	15.1	11.4
Number of demonstration beneficiaries	Demonstration	19,397	19,642	18,479	19,812
Long-stay NF users as % of eligible beneficiaries		10.7	10.3	8.0	7.5
Number of comparison beneficiaries	Comparison	43,598	43,074	45,749	43,311
Long-stay NF users as % of eligible beneficiaries		13.5	13.7	10.7	11.0
Characteristics of new long-stay NF residents at admission					
Number of admitted demonstration beneficiaries	Demonstration	187	235	198	162
Number of admitted comparison beneficiaries	Comparison	478	612	628	444
Functional status (RUG-IV ADL scale)	Demonstration	7.4	7.3	6.8	7.0
Functional status (RUG-IV ADL scale)	Comparison	8.1	8.6	8.1	8.0
Percent with severe cognitive impairment	Demonstration	29.8	31.5	29.6	30.7
Percent with severe cognitive impairment	Comparison	48.6	44.7	34.3	35.1
Percent with low level of care need	Demonstration	1.6	2.5	1.1	0.0
Percent with low level of care need	Comparison	0.7	1.0	0.7	0.2

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

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

Non-enrollees generally had higher utilization than the demonstration enrollees across most service settings (***Table F-7***). For the quality of care and care coordination measures, enrollees had a higher rate of 30-day all-cause readmissions while non-enrollees had a higher rate of 30-day follow up after hospitalization for mental illness and screening for clinical depression (***Table F-8***).

Table F-7
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Number of demonstration enrollees		13,115	14,081
Number of demonstration non-enrollees		7,858	8,469
Institutional setting			
Inpatient admissions[1]	Enrollees		
% with use		3.1	3
Utilization per 1,000 user months		1,145.0	1,132.9
Utilization per 1,000 eligible months		35	33.7
Inpatient admissions[1]	Non-enrollees		
% with use		4.2	3.8
Utilization per 1,000 user months		1,167.4	1,148.5
Utilization per 1,000 eligible months		49.1	43.4
Inpatient psychiatric	Enrollees		
% with use		0.4	0.4
Utilization per 1,000 user months		1,112.0	1,101.8
Utilization per 1,000 eligible months		4.8	4.4
Inpatient psychiatric	Non-enrollees		
% with use		0.6	0.5
Utilization per 1,000 user months		1,141.1	1,093.7
Utilization per 1,000 eligible months		7.1	5.9
Inpatient nonpsychiatric	Enrollees		
% with use		2.7	2.6
Utilization per 1,000 user months		1,133.3	1,120.9
Utilization per 1,000 eligible months		30.1	29.2
Inpatient nonpsychiatric	Non-enrollees		
% with use		3.6	3.3
Utilization per 1,000 user months		1,145.6	1,133.2
Utilization per 1,000 eligible months		41.8	37.2

(continued)

Table F-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Emergency department use (non-admit)	Enrollees		
% with use		6.3	5.8
Utilization per 1,000 user months		1,237.4	1,270.0
Utilization per 1,000 eligible months		77.8	73.3
Emergency department use (non-admit)	Non-enrollees		
% with use		5.9	5.9
Utilization per 1,000 user months		1,309.8	1,263.4
Utilization per 1,000 eligible months		77.9	74.2
Emergency department use (psychiatric)	Enrollees		
% with use		0.5	0.4
Utilization per 1,000 user months		1,216.1	1,327.5
Utilization per 1,000 eligible months		6.0	5.9
Emergency department use (psychiatric)	Non-enrollees		
% with use		0.5	0.6
Utilization per 1,000 user months		1,263.3	1,312.0
Utilization per 1,000 eligible months		6.8	7.3
Observation stays	Enrollees		
% with use		0.2	0.2
Utilization per 1,000 user months		1,076.0	1,110.7
Utilization per 1,000 eligible months		2.7	2.2
Observation stays	Non-enrollees		
% with use		0.6	0.5
Utilization per 1,000 user months		1,034.6	1,022.7
Utilization per 1,000 eligible months		6.1	5.5
Skilled nursing facility	Enrollees		
% with use		0.8	0.6
Utilization per 1,000 user months		1,076.5	1,095.1
Utilization per 1,000 eligible months		8.2	7.1
Skilled nursing facility	Non-enrollees		
% with use		1.1	1.0
Utilization per 1,000 user months		1,077.3	1,104.5
Utilization per 1,000 eligible months		12.0	11.4

(continued)

Table F-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Hospice	Enrollees		
% with use		0.7	0.6
Utilization per 1,000 user months		1,453.2	1,023.6
Utilization per 1,000 eligible months		9.6	6.5
Hospice	Non-enrollees		
% with use		0.7	1.2
Utilization per 1,000 user months		1,015.7	1,010.6
Utilization per 1,000 eligible months		7.6	11.7
Non-institutional setting			
Primary care E&M visits	Enrollees		
% with use		46.2	46.8
Utilization per 1,000 user months		1,974.5	1,842.5
Utilization per 1,000 eligible months		911.6	862.9
Primary care E&M visits	Non-enrollees		
% with use		51.9	50.3
Utilization per 1,000 user months		1,826.2	1,871.9
Utilization per 1,000 eligible months		947	941.9
Outpatient therapy (PT, OT, ST)	Enrollees		
% with use		1.0	1.1
Utilization per 1,000 user months		23,033.8	26,481.2
Utilization per 1,000 eligible months		231.6	294.6
Outpatient therapy (PT, OT, ST)	Non-enrollees		
% with use		4.6	5.3
Utilization per 1,000 user months		22,513.9	21,680.3
Utilization per 1,000 eligible months		1,036.7	1,147.4
Independent therapy (PT, OT, ST)	Enrollees		
% with use		0.3	0.1
Utilization per 1,000 user months		7,714.6	6,717.9
Utilization per 1,000 eligible months		26	9.3
Independent therapy (PT, OT, ST)	Non-enrollees		
% with use		1.6	1.8
Utilization per 1,000 user months		10,207.4	10,904.3
Utilization per 1,000 eligible months		161.3	200.6

(continued)

Table F-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Rhode Island demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Other hospital outpatient services	Enrollees		
% with use		24.1	24.9
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Other hospital outpatient services	Non-enrollees		
% with use		27.8	26.7
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—

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

Table F-8
Quality of care and care coordination outcomes for enrollees and non-enrollees for the Rhode Island demonstration

Quality and care coordination measures	Group	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Enrollees	20.4	20.5
	Non-enrollees	19.6	19.2
Preventable ED visits per eligible month	Enrollees	0.0354	0.0335
	Non-enrollees	0.0325	0.0303
Rate of 30-day follow-up after hospitalization for mental illness (%)	Enrollees	32.6	37.7
	Non-enrollees	43.9	44.9
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Enrollees	0.0058	0.0055
	Non-enrollees	0.0074	0.0054
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Enrollees	0.0047	0.0043
	Non-enrollees	0.0059	0.0039
Screening for clinical depression per eligible month	Enrollees	0.0071	0.0083
	Non-enrollees	0.0103	0.0108

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 F-9 presents descriptive statistics for the demonstration enrollees for services traditionally paid by Medicaid, to help understand the Medicaid utilization experience over time. Nursing home and dental services are excluded from analysis due to issues with the encounter data. LTSS 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 separate Medicare SNF periods from NF stays that became LTSS NF stays. Instead, each evaluation report includes an analysis of LTSS NF use using MDS data. Second, CMS and RTI also decided that dental services in Rhode Island were either incomplete or had unexplained variation, precluding the use of those encounter data for analysis.

Table F-9
Medicaid use for demonstration enrollees in Rhode Island, July 1, 2016–December 31, 2018

Measure	Demonstration year 1	Demonstration year 2
Personal care		
Users as % of enrollees per enrollee month (%)	7.5	7.3
Service days per enrollee month	1.25	1.24
Service days per user month	16.69	16.99
Other HCBS services		
Users as % of enrollees per enrollee month (%)	11.3	13.6
Service days per enrollee month	1.67	1.94
Service days per user month	14.76	14.25
Behavioral health services		
Users as % of enrollees per enrollee month (%)	20.4	22.2
Service days per enrollee month	0.60	0.86
Service days per user month	2.96	3.89
Non-emergency transportation		
Users as % of enrollees per enrollee month (%)	4.9	4.8
Service days per enrollee month	0.08	0.05
Service days per user month	1.73	1.00

F.1 Service Use by Demographic Characteristics of Eligible Beneficiaries

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

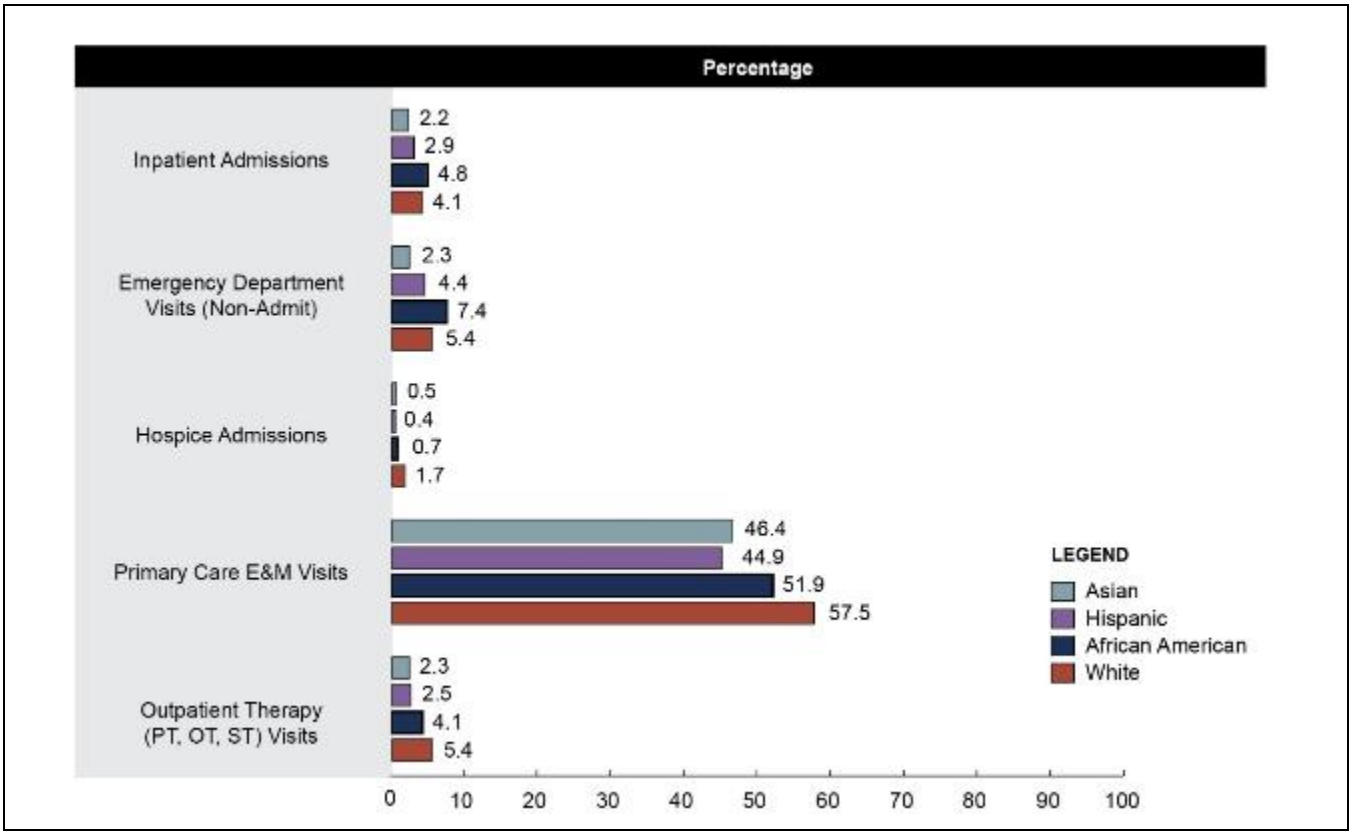
Figure F-1 presents the percentage of use of selected Medicare services. African American beneficiaries had slightly higher inpatient admissions and ED visits, relative to other racial categories. A slightly higher percentage of White beneficiaries had monthly primary care

evaluation and management visits, relative to other races. White beneficiaries also received more outpatient therapy visits and hospice admissions, compared to other races.

Regarding counts of services used among users of each respective service, as presented in ***Figure F-2***, there were limited differences across racial groups for inpatient admissions, ED visits, hospice admissions, and physician E&M visits. However, African American and Asian beneficiaries had somewhat higher outpatient therapy use per 1,000 user months relative to Hispanic beneficiaries.

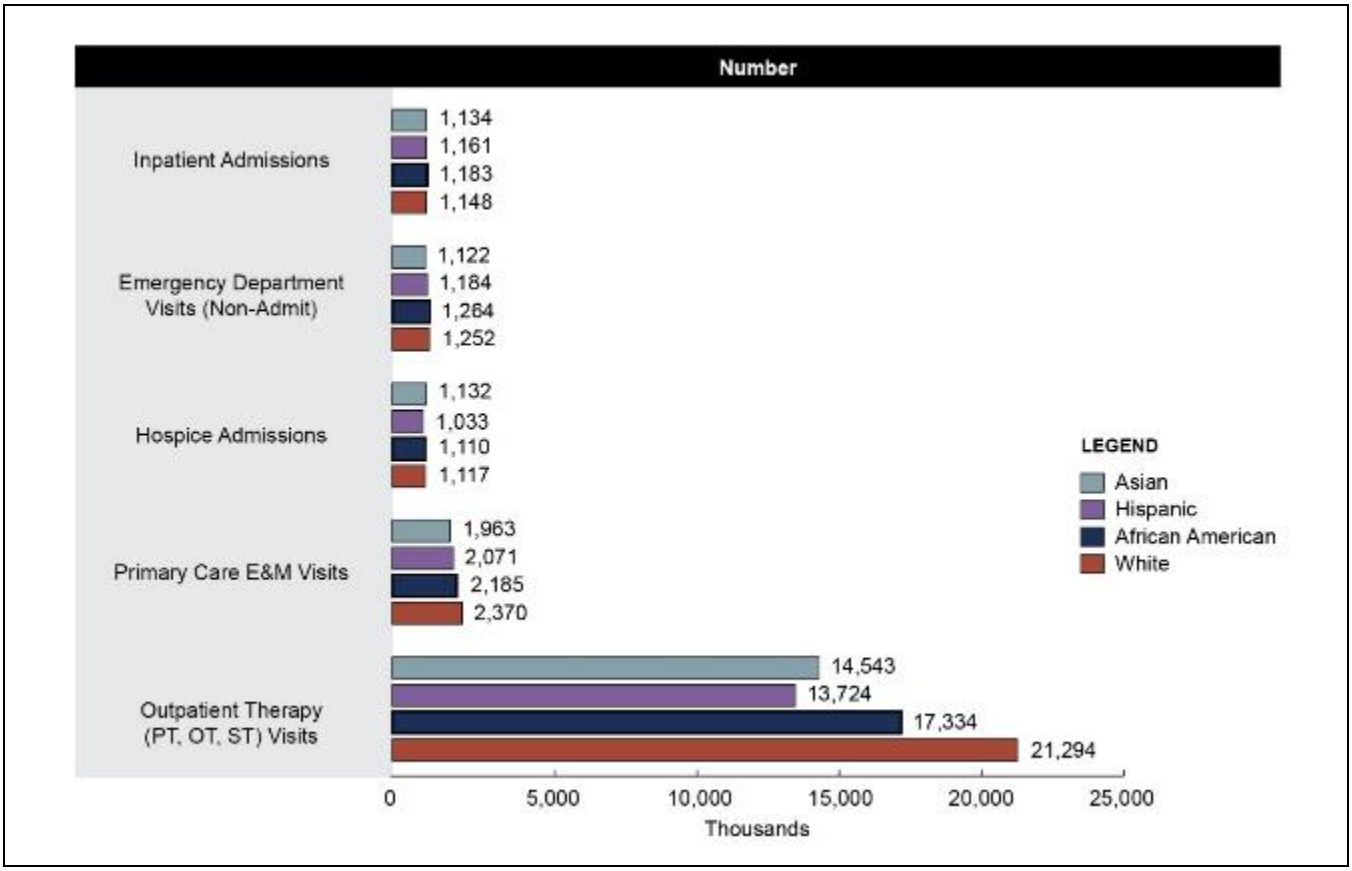
Figure F-3 presents counts of services across all Rhode Island demonstration eligible beneficiaries regardless of having any use of the respective services. When looking at use for all eligible beneficiaries in all eligible months, the results are quite different from those of users of services in ***Figure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



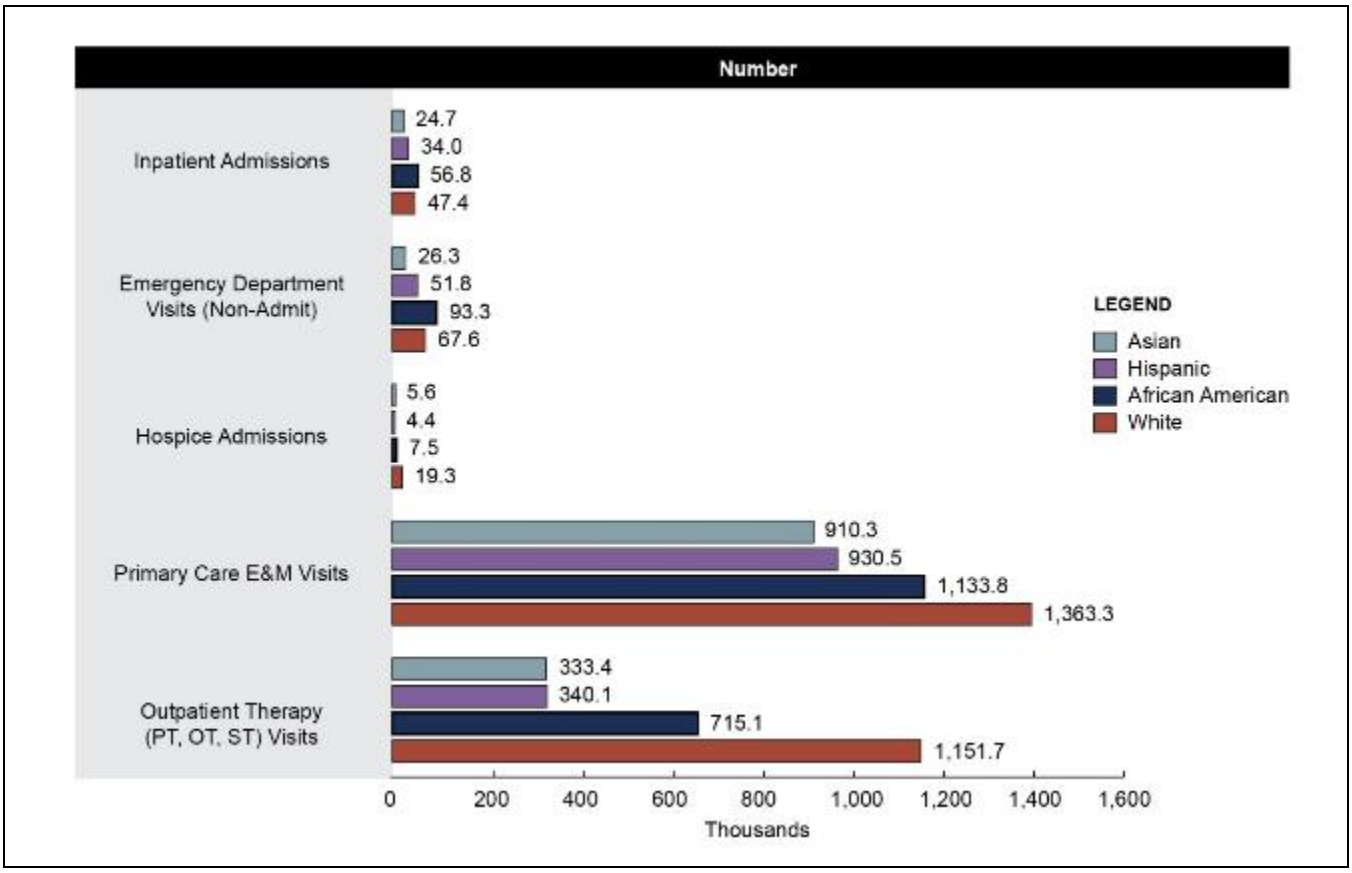
E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

Figure F-2
Service use among all demonstration eligible beneficiaries with use of service per 1,000 user months among Rhode Island eligible beneficiaries, January 1, 2018–December 31, 2018



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

Figure F-3
Service use among all demonstration eligible beneficiaries per 1,000 eligible months among Rhode Island 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 G

Cost Savings Methodology and Supplemental Tables

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

Table G-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 was applied to the payments made to plans but was not reflected in the capitation rate used in the analysis.	Reduced capitation rate by 2%.

(continued)

Table G-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 0.89% for CY14, 0.89% for CY15, 0.97% for CY16, 0.81% for CY17, and 0.82% for CY18.
Capitation rate (MMP)	Bad debt	The Medicare portion of the capitation rate includes an upward adjustment to account for bad debt. Bad debt is not included in the FFS claim payments and therefore needs to be removed from the capitation rate for the savings analysis. (Note, "bad debt" is reflected in the hospital "pass through" payment.)	Reduced blended capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.89% for CY14, 0.89% for CY15, 0.97% for CY16, 0.81% for CY17, and 0.82% for CY18. Reduced the FFS portion of the capitation rate by an additional 0.38% for CY16 and 0.37% for CY17 and CY18 to account for the disproportional share of bad debt attributable to Medicare-Medicaid enrollees in Medicare FFS.
FFS and capitation rate (MA and MMP)	Average Geographic Adjustments (AGA)	The Medicare portion of the capitation rate reflects the most current hospital wage index and physician geographic practice cost index by county. FFS claims also reflect geographic payment adjustments. To ensure that change over time is not related to differential change in geographic payment adjustments, both the FFS and the capitation rates were "unadjusted" using the appropriate county-specific AGA factor.	Medicare FFS expenditures were divided by the appropriate county-specific 1-year AGA factor for each year. Capitation rates were divided by the appropriate county-specific 5-year AGA factor for each year. Note that the AGA factor applied to the capitated rates for 2014 reflected the 50/50 blend that was applicable to the payment year.

(continued)

Table G-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 and 2% was applied in the second demonstration year but was not reflected in the capitation rate used in the analysis.	Final quality withhold repayments for CY 2016, CY 2017, and CY 2018 were incorporated into the dependent variable construction.

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

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

G.2 Model Covariates

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

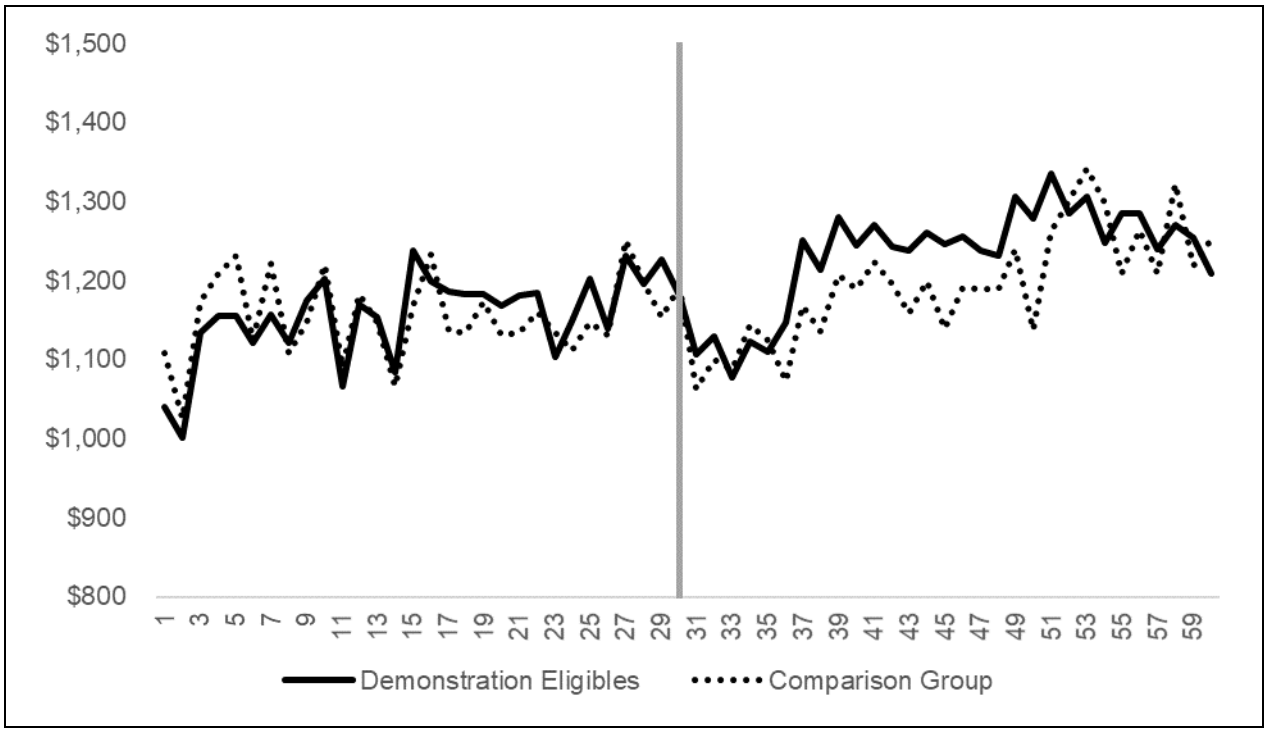
- Demographic variables included in the model were:
  - Age
  - Sex
  - Race/ethnicity
  - Enrolled in another Medicare shared saving program
  - End-stage renal disease status
  - Disability as reason for Medicare entitlement
  - Medicare Advantage status

- Area-level variables included in the savings model were:
  - Medicare spending per Medicare-Medicaid enrollee age 19 or older
  - MA penetration rate
  - Proportion of Medicare-Medicaid enrollees using personal 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

G.3 Results

Once we finalized the adjustments, we tested a key assumption of a DinD model: parallel trends: 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 G-1*** shows the resulting plot and suggests that there were parallel trends in the predemonstration period.

Figure G-1
Mean monthly Medicare expenditures (weighted), predemonstration and demonstration period, demonstration and comparison group, January 2014–December 2018



SOURCE: RTI Analysis of Medicare claims (program: 1471_RIDY2_trend.log).

The DinD values in each table represent the overall impact on savings using descriptive statistics. These effects are descriptive in that they are arithmetic combinations of simple means, without controlling for covariates. The change in the demonstration group minus the change in the comparison group is the DinD value. This value would be equal to zero if the differences between predemonstration and the demonstration year were the same for both the demonstration group and the comparison group. A negative value would indicate savings for the demonstration group, and a positive value would indicate losses for the demonstration group. However, if the DinD confidence interval includes zero, then the value is not statistically significant. These results are only meant to provide a descriptive exploration of the results; the results presented in the ***Section 11*** and ***Table G-6*** represent the most accurate adjusted impact on Medicare costs.

Tables G-2 and ***G-3*** show the mean monthly Medicare expenditures for the demonstration group and comparison group in the predemonstration and each demonstration period, unweighted. The unweighted tables show an increase in mean monthly Medicare expenditures during demonstration years 1 and 2 for the demonstration and comparison groups The weighted tables display a different pattern with the comparison group showing a decrease during demonstration year 1 and an increase in demonstration year 2. The weighted demonstration group expenditures increase in demonstration years 1 and 2 (***Tables G-4*** and ***G-5***).

Table G-2
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 1, unweighted

Group	Predemonstration period (Jan 2014–Jun 2016) (95% confidence intervals)	Demonstration year 1 (Jul 2016–Dec 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,156.59 ($1,080.65, $1,232.53)	$1,204.68 ($1,175.74, $1,233.61)	$48.09 (−$22.30, $118.47)
Comparison	$1,186.69 ($1,142.71, $1,230.67)	$1,242.05 ($1,193.03, $1,291.07)	$55.36 ($28.78, $81.93)
DinD	N/A	N/A	−$7.27 (−$62.04, $47.50)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1501_Tables.log)

Table G-3
Mean monthly Medicare expenditures for demonstration group and comparison group, predemonstration period and demonstration year 2, unweighted

Group	Predemonstration period (Jan 2014–Jun 2016) (95% confidence intervals)	Demonstration year 2 (Jan 2018–Dec 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,156.59 ($1,080.65, $1,232.53)	$1,274.60 ($1,245.81, $1,303.38)	$118.01 ($49.14, $186.88)
Comparison	$1,186.69 ($1,142.71, $1,230.67)	$1,333.56 ($1,282.28, $1,384.84)	$146.87 ($119.24, $174.50)
DinD	N/A	N/A	−$28.86 (−$83.21, $25.50)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1501_Tables.log)

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

Group	Predemonstration period (Jan 2014–Jun 2016) (95% confidence intervals)	Demonstration year 1 (Jul 2016–Dec 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,156.59 ($1,080.65, $1,232.53)	$1,204.68 ($1,175.74, $1,233.61)	$48.09 (−$22.30, $118.47)
Comparison	$1,154.99 ($1,089.27, $1,220.71)	$1,154.67 ($1,095.19, $1,214.14)	−$0.32 (−$25.27, $24.62)
DinD	N/A	N/A	$48.41 (−$5.63, $102.45)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1501_Tables.log)

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

Group	Predemonstration period (Jan 2014–Jun 2016) (95% confidence intervals)	Demonstration year 2 (Jan 2018–Dec 2018) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration	$1,156.59 ($1,080.65, $1,232.53)	$1,274.60 ($1,245.81, $1,303.38)	$118.01 ($49.14, $186.88)
Comparison	$1,154.99 ($1089.27, $1220.71)	$1,254.94 ($1180.73, $1329.14)	$99.95 ($66.63, $133.26)
DinD	N/A	N/A	$18.06 (−$39.24, $75.36)

DinD = difference-in-differences; N/A = not applicable.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1501_Tables.log)

G.4 Regression

Table G-6 shows the main results from the DinD analysis for demonstration years 1 and 2 and for the entire demonstration period, controlling for beneficiary demographics and market characteristics.

Table G-6
Demonstration effects on Medicare savings for eligible beneficiaries—Difference-in-difference regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (July 2016–December 2017)	62.21	0.010	(14.64, 109.79)	(22.29, 102.14)
Demonstration Year 2 (January 2018–December 2018)	25.46	0.372	(−30.39, 81.30)	(−21.41, 72.32)
Cumulative (Demonstration Years 1–2, July 2016–December 2018)	49.56	0.044	(1.27, 97.85)	(9.03, 90.08)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1481_GLM.log)

Table G-7 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 (July 1, 2016–December 31, 2017) and at least 3 months of eligibility in the predemonstration period (January 1, 2014–June 30, 2016), 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 G-7
Demonstration effects on Medicare expenditures for enrolled beneficiaries relative to the comparison group—Difference-in-differences regression results

Period	Adjusted coefficient DinD ($)	*p*-value	95% confidence interval ($)	90% confidence interval ($)
Demonstration Year 1 (July 2016–December 2017)	119.46	<0.001	(75.49, 163.43)	(82.56, 156.37)
Demonstration Year 2 (January 2018–December 2018)	111.93	<0.001	(56.17, 167.68)	(65.14, 158.72)
Cumulative (Demonstration Years 1–2, July 2016–December 2018)	118.81	<0.001	(73.86, 163.76)	(81.08, 156.53)

DinD = difference-in-differences.
SOURCE: RTI analysis of Medicare claims (program: ri_dy2_1511_Enrollee.log)

G.5 Medicaid Data Quality

Significant data quality issues for the Medicaid data in Rhode Island prevented us from providing a descriptive analysis of the Medicaid total cost of care for those eligible for the demonstration in Rhode Island. In the DQAtlas, the inpatient FFS expenditures in the T-MSIS Analytic Files (TAF) for Rhode Island is classified as being of high concern (2014–2017) or unusable (2018); high concern means that there is greater than 20 percent discrepancy between the expenditures in the TAF and the expenditures in the CMS-64, and unusable means there is greater than 50 percent discrepancy between the two data source. The FFS long-term care expenditures for the TAF in Rhode Island is classified as being unusable in 2017 and of high concern in 2018; total monthly beneficiary payments in the Other Services file are classified as unusable in 3 years (2014–2016) and of high concern in 2 years (2017–2018). Further, our analysis of the total cost of care for those eligible for the Rhode Island demonstration confirmed that there are significant discontinuities in the RI Medicaid data between 2015 and 2016. . For these reasons, we were not able to provide a descriptive analysis of the Medicaid total cost of care in Rhode Island.