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Financial Alignment Initiative Massachusetts One Care: Second Evaluation Report

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FINANCIAL ALIGNMENT INITIATIVE
MASSACHUSETTS ONE CARE:
SECOND EVALUATION REPORT

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Executive Summary

This Second Evaluation Report on the Massachusetts capitated model demonstration under the Medicare-Medicaid Financial Alignment Initiative, called One Care, is one of several reports that will be prepared over the coming years to evaluate the demonstration. The Centers for Medicare & Medicaid Services (CMS) contracted with RTI International to monitor the implementation of the demonstrations under the Financial Alignment Initiative, and to evaluate their impact on beneficiary experience, quality, utilization, and cost.

This report uses a variety of data sources to analyze One Care's impact. It provides qualitative updates on the implementation of the demonstration for the second and third demonstration years (calendar years [CYs] 2015 and 2016), with relevant updates through early 2017. The report describes the demonstration's key features; the policies, administrative processes, and strategies the State adopted as it implemented the demonstration; and successes achieved and challenges encountered. Specifically, this report addresses the demonstration's approach to integrating the Medicare and Medicaid programs; providing care coordination to enrollees; enrolling beneficiaries into the demonstration; and engaging stakeholders in the oversight of the demonstration. We also provide impact analyses using enrollment and encounter/claims data, analyses of service utilization patterns and quality metrics using both pre-demonstration and demonstration periods from October 1, 2011 to December 31, 2015. We also provide a summary of preliminary findings related to Medicare savings results through the second demonstration year, January 1, 2015 through December 31, 2015 (therein, demonstration year 2). Demonstration year 3 refers to the January 2016 through December 2016 timeframe.

Demonstration Overview

The One Care demonstration is a capitated model of service delivery in which CMS, the Commonwealth of Massachusetts (the Commonwealth), and Medicare-Medicaid Plans (MMPs) enter into three-way contracts to provide comprehensive, coordinated care for eligible beneficiaries. One Care is the only demonstration under the Financial Alignment Initiative that limits enrollment to Medicare-Medicaid beneficiaries age 21 to 64 at the time of enrollment. Approximately 105,000 Medicare-Medicaid beneficiaries in Massachusetts were eligible for and over 14,000 enrolled in the demonstration as of December 2016. The demonstration operates in nine of the Commonwealth's 14 counties.¹ Initially, the demonstration was served by three MMPs, but one withdrew from participation as of September 30, 2015. The demonstration was initially authorized through December 31, 2016; CMS, MassHealth, and the remaining two MMPs executed a contract amendment on July 5, 2016, that extended the demonstration by 2 years. On January 19, 2017, CMS sent a letter to MassHealth offering an extension through December 31, 2020, and in response, Massachusetts submitted a non-binding letter of interest to CMS. Updates on the anticipated extension will be included in the next report.

Since initial implementation, eligibility for and the overall design of One Care has not changed significantly. One Care continues its aim to deliver member-centered, coordinated, and culturally competent care. Of the changes that were made to One Care since the last evaluation

¹ In Plymouth County, One Care is not available in the towns of East Wareham, Lakeville, Marion, Mattapoisett, Wareham, and West Wareham.

report, most have affected financing and other operational aspects. For example, in the fall of 2016, CMS and the Commonwealth agreed to allow passive (automatic) enrollment in counties where only one MMP operates and in counties only partially served by the demonstration; this had not been permitted previously.

Integration of Medicare and Medicaid

Joint management. The One Care demonstration integrates Medicare and Medicaid into a unified set of benefits. The Contract Management Team (CMT) is the primary vehicle for joint management by CMS and MassHealth and includes staff from both organizations. Operational CMT staff are involved in day-to-day oversight, and policy CMT staff focus on the policy issues impacting the demonstration. Officials from both CMS and MassHealth reported close collaboration at all levels of the CMT and described it as an effective vehicle for co-management.

Integrated delivery systems. The demonstration was initially served by three MMPs. One of the three, Fallon Total Care (Fallon), withdrew its participation effective as of September 30, 2015. The remaining two MMPs, Commonwealth Care Alliance (CCA) and Tufts Health Unify (Tufts), have signed a contract amendment extending the demonstration through December 31, 2018. Starting on February 1, 2017, Tufts expanded its coverage area to include portions of Middlesex County.

MassHealth and other stakeholders report that the One Care model provided the opportunity and incentive for One Care plans to institute new or expanded services. Additionally, MassHealth has continued to invest in the development of webinars, educational sessions, and other trainings to support MMPs and other providers, in recognition that the underlying principles of One Care are consistent with larger reforms to enhance integrated and person-centered care.

The integration of Commonwealth-level Medicaid policies, procedures, and systems with Federal-level Medicare policies, procedures, and systems introduced a significant amount of complexity and effort into operational implementation and service delivery at both the Commonwealth and MMP level. Some stakeholders and MMP representatives noted that certain aspects of the demonstration were not fully integrated as designed. Regardless of its complexity, CMS, MassHealth, MMPs, and other stakeholders continue to show strong support for the demonstration and its key goal of integration. MassHealth officials emphasized that despite the challenges, Massachusetts did not regret its decision to go forward with the One Care demonstration. One MassHealth official noted that integrating Medicare with Medicaid was “critical” to the success of the care model for One Care, which primarily serves Medicare-Medicaid beneficiaries under the age of 65.

Eligibility and Enrollment

Generally, beneficiaries can opt into the demonstration or be passively (automatically) enrolled. However, enrollment limits were in place for part of the period covered in this report. Although passive enrollment had been anticipated for the second half of demonstration year 2 (CY 2015), the process was delayed after Fallon reported that it would be withdrawing from One

Care effective September 30, 2015. Although officials from Fallon expressed support for the demonstration's integrated care model, they also reported on-going financial concerns that led to a decision to withdraw from the demonstration. The next phase of passive enrollment into One Care did not occur until demonstration year 3 (CY 2016). Beneficiaries could continue to opt into the demonstration during CY 2015, but the opt-in process was severely restricted by enrollment caps during the second half of that year. All enrollment caps were lifted in CY 2016.

Following Fallon's announcement in June 2015, MassHealth, CMS, and Fallon developed a plan to transition Fallon enrollees to other Medicaid and Medicare service options. Although some beneficiaries transitioned to another One Care MMP, most returned to the FFS system, thereby decreasing overall enrollment in the demonstration. MassHealth, CMS, and stakeholders described the transition process as highly collaborative, with all parties trying to ensure adequate communication and minimum disruption to enrollees.

A total of three passive enrollment phases occurred in 2016. MassHealth and CMS initiated quarterly passive enrollment phases beginning in January 2017. These quarterly phases target newly eligible Medicare-Medicaid beneficiaries as well as other eligible beneficiaries. Additionally, CMS and MassHealth amended enrollment guidance in late 2016 to allow for passive enrollment in counties where only one MMP participates and in counties only partially covered by the demonstration. As of December 1, 2016, enrollment in the demonstration totaled approximately 14,300 beneficiaries. Total enrollment in One Care increased to slightly over 16,000 beneficiaries as of January 1, 2017 due to additional passive enrollment.

Care Coordination

Care coordination is a hallmark of the One Care delivery model and is integral to helping beneficiaries access the full spectrum of needed services and to improving quality and ultimately, reducing costs. Both MMPs reported improved assessment processes due to lessons learned from early implementation experiences and, in part, due to lack of passive enrollment in 2015. Both MMPs reported better results reaching and engaging new enrollees by using staff to research the whereabouts of new enrollees or community outreach workers to reach and engage them. MassHealth officials, many stakeholders, and MMP representatives reported that as the demonstration matured, the focus on care coordination and care planning increased. MassHealth, MMPs, and other stakeholders cited examples in which the assessment and integrated care planning between behavioral health and medical care had improved beneficiaries' health.

Stakeholder Engagement

Stakeholder engagement has been a critical component of the One Care demonstration from its inception, and a robust level of engagement has continued from earlier years. Since One Care's inception, MassHealth has held meetings open to the public to present and discuss issues relevant to the demonstration. MMPs are required to establish Member Advisory Boards (MABs) at the plan level. The MMPs have reported that the feedback and input they receive from enrollees participating on their MABs has been valuable not only in identifying issues and concerns but also in helping to improve services and their delivery.

The design of One Care includes an Implementation Council that consists of up to 21 members.² Implementation Council members highlighted two key successes in demonstration year 2: (1) the level of collaboration with MassHealth and others to achieve a smooth transition for members affected by the withdrawal of Fallon from the demonstration, and (2) effective advocacy that achieved greater financial stabilization for the MMPs remaining in the demonstration.

Financing and Payment

All covered Medicare and Medicaid services are paid on a capitated basis. In addition to the capitation rates, the demonstration incorporates other reimbursement methodologies, including savings percentages and risk corridors. From the outset, MassHealth officials, MMPs, and stakeholders reported concerns about the adequacy of the demonstration's financing. In the first 18 months of operation, all three MMPs reported losses. This loss was a key factor in Fallon's decision to withdraw from the demonstration as of September 30, 2015.

The financial status of the remaining MMPs improved after changes for rate years 2015 (retrospectively) and 2016 were made following a contract amendment executed in December 2015. Changes included updating the Medicare Parts A & B and MassHealth components of the rate, eliminating savings percentages, and reducing the quality withhold percentages. Another contract addendum, executed July 5, 2016, extended the demonstration through December 31, 2018, and specified quality withhold amounts, savings percentages and risk corridors for the additional 2-year period. Stakeholders and officials from MassHealth and CMS reported that these changes helped improve One Care's financial stability.

Based on financial data provided by the MMPs to MassHealth, the average per member per month (PMPM) spend for demonstration year 2 was \$2,560 for CCA and \$1,952 for Tufts, increases from demonstration year 1 of 16 and 30 percent, respectively. In part, MassHealth and officials from the MMPs attributed this change to increased complexity of beneficiaries enrolled in the demonstration. MassHealth officials and others reported preliminary indications of some returns on the early investments in the care model. In demonstration year 3, the PMPM service spend was \$2,783 for CCA and \$2,468 for Tufts, representing increases of approximately 9 percent and 26 percent from demonstration year 2, respectively.

The results of preliminary Medicare cost savings analyses using a difference-in-differences regression approach do not indicate savings or losses due to the Massachusetts demonstration. Neither savings nor losses were identified in either demonstration year 1 or demonstration year 2. The costs savings analyses do not include Medicaid data due to current data availability, but these data will be incorporated into future calculations as they become available.

Quality of Care

MMPs are required to report on several quality measures; some are core to all demonstrations under the Financial Alignment Initiative, and others are specific to One Care. In the first year of the demonstration, MassHealth reported that a key quality oversight challenge

² Please see the first Annual Report for additional information on the Implementation Council.

was a lack of sufficient data; the demonstration had not yet matured to the point where data were available. As the demonstration matured, the challenge shifted from data collection to achieving meaningful data measurement. Although MassHealth and MMP officials are now able to report data on these measures, they noted that it was still too early to draw any conclusions or identify trends from the data, especially given the small sample of beneficiaries reported for some measures.

An additional quality measurement challenge arose due to One Care's eligibility being limited to Medicare-Medicaid beneficiaries under the age of 65 at the time of enrollment. Because all other demonstrations under the Financial Alignment Initiative also include beneficiaries age 65 and older, MassHealth and MMPs have had difficulty finding adequate benchmarks for the unique population served by One Care.

The Implementation Council has continued to play a key role in monitoring access to health care and compliance with the Americans with Disabilities Act (ADA), tracking quality of services, and promoting accountability and transparency. The One Care Ombudsman (OCO) program is responsible for providing independent advocacy on behalf of beneficiaries and for identifying broader systematic issues impacting quality of care. The MMP MABs also provide feedback on demonstration management issues and quality of enrollee care.

Beneficiary Experience

One of the main goals of the demonstration is to improve the experience of beneficiaries who access Medicare and Medicaid services. Data sources on beneficiary experience include Consumer Assessment of Healthcare Providers & Systems (CAHPS) and other surveys (such as a Quality of Life survey); reporting on grievances and appeals; and RTI evaluation team interviews. Additionally, RTI conducted three focus groups in February 2016.

Generally, MassHealth and MMP officials, as well as other stakeholders, reported anecdotes of positive beneficiary experiences under One Care. Many focus group participants reported satisfaction with One Care. Factors contributing to satisfaction included the availability of new benefits and assistance provided through care coordination. Focus group participants provided several examples of new services they are taking advantage of, including dental, optical, smoking cessation classes, nutrition classes, weight loss coaching, and in-home behavioral health services. Participants reported the elimination of pharmacy co-pays as an important advantage of participating in the demonstration. Additionally, most 2015 and 2016 CAHPS survey respondents indicated that they had a favorable view of their health plan. Most focus group participants expressed satisfaction with their primary care providers. This is generally consistent with the findings of the Quality of Life survey administered to One Care enrollees in 2016 by MassHealth, in collaboration with the Implementation Council and the University of Massachusetts Medical School; over three-quarters (77 percent) of respondents indicated that they had good relationships with their health care and other providers (Henry et al., 2015, 2016). Focus group feedback from One Care enrollees was mixed on whether and to what degree providers shared information and worked as a team.

Focus group participants provided mixed feedback regarding the degree of provider choice and the ease of access to services. Several focus group participants reported quality issues

with non-emergency transportation that impacted access to appointments and other needed services. This feedback was consistent with grievance data compiled and reported by MassHealth which showed that from April 2015 through December 2015, at least half of all grievances for two MMPs pertained to transportation. Data on grievances and appeals are collected by the MMPs, MassHealth, CMS, and the One Care Ombudsman Program. Most grievances and appeals are filed directly with the MMP: from CY 2015 to CY 2016, the highest rate of grievances for One Care combined across MMPs was 77.4 per 1,000 enrollees, during quarter 4 of 2015, the quarter following Fallon's departure from One Care. The highest rate of appeals was 9.6 per 1,000 enrollees during quarter 2 of 2016, two quarters following Fallon's departure from One Care.

Service Utilization Analyses

We find evidence that the Massachusetts demonstration resulted in significant changes in utilization patterns, including changes in quality of care and care coordination. These include higher monthly inpatient admissions (including inpatient admissions for ambulatory care sensitive conditions [ACSC]), physician evaluation and management (E&M) visits, skilled nursing facility (SNF) admissions, and all-cause 30-day readmission, along with a lower probability of any long-stay nursing facility (NF) use and lower quarterly follow-up after mental health inpatient discharges. Follow-up after mental health inpatient discharges may be partially lower because any follow-up by a care coordinator would not be included. The demonstration had no impact on monthly emergency room (ER) visits overall or on preventable ER visits.

An overview of the results from impact analyses using only Medicare and Minimum Data Set data is provided in **Table ES-1**. The direction of all statistically significant results at the $p < 0.1$ significance level (derived from 90 percent confidence intervals) is shown. Monthly inpatient admissions, physician E&M visits, SNF admissions, ACSC admissions (overall and chronic), and all-cause 30-day readmission were higher for the Massachusetts demonstration group than the comparison group. At the same time, the probability of any long-stay NF use and quarterly follow-up after mental health inpatient discharges was lower, although any follow-up by a care coordinator would not be included. The demonstration did not have a statistically significant impact on overall or preventable ER visits. The impacts of the demonstration on beneficiaries who used long-term services and supports (LTSS) and beneficiaries with severe and persistent mental illness (SPMI) followed the same pattern as the impacts for the overall demonstration eligible population.

Table ES-1
Summary of Massachusetts demonstration impact estimates for demonstration period
(October 1, 2013, to December 31, 2015)
(p < 0.10 significance level)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with LTSS use	Demonstration eligible beneficiaries with SPMI
Inpatient admissions	Increased	Increased	Increased
Ambulatory care sensitive condition (ACSC) admissions, overall	Increased	Increased	Increased
ACSC admissions, chronic	Increased	Increased	Increased
All-cause 30-day readmission	Increased	Increased	Increased
Emergency room (ER) visits	NS	NS	NS
Preventable ER visits	NS	NS	NS
Quarterly follow-up after mental health discharges	Decreased	Decreased	Decreased
Skilled nursing facility (SNF) admissions	Increased	Increased	Increased
Probability of any long-stay nursing facility (NF) use	Lower	N/A	N/A
Physician evaluation and management (E&M) visits	Increased	Increased	Increased

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

SOURCE: RTI analysis of Medicare and Minimum Data Set data.

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1. Evaluation Overview

1.1 Purpose

The Medicare-Medicaid Coordination Office (MMCO) and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) have created the Financial Alignment Initiative to test, in partnerships with States, integrated care models for Medicare-Medicaid beneficiaries. CMS contracted with RTI International to monitor the implementation of the demonstrations under the Financial Alignment Initiative and to evaluate their impact on beneficiary experience, quality, utilization, and cost. This report includes qualitative evaluation information for the second and third demonstration years (calendar years [CYs] 2015 and 2016, respectively), with relevant updates from early 2017. This report provides updates to the first Annual Report in key areas, including enrollment, care coordination, beneficiary experience, and stakeholder engagement activities, and discusses the challenges, successes, and emerging issues identified during the reporting period. Results on quality of care, service utilization, and costs for the entire predemonstration and demonstration periods spanning October 1, 2011 to December 31, 2015 are also presented.

The first Annual Report, which includes extensive background information about the demonstration, can be found here: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/MASSFirstAnnualEvalReport.pdf>.

1.2 Data Sources

Data sources used to prepare this report include the following.

Key informant interviews. The evaluation team conducted site visits in the Commonwealth of Massachusetts (the Commonwealth) in June 2016. The team interviewed the following individuals either during the site visits or during follow-up phone calls: Commonwealth officials, including MassHealth (Massachusetts' Medicaid program) policy leaders, operations and contract staff, quality management staff, data staff, and representatives from other Commonwealth agencies; officials from CMS' regional and central offices; representatives from One Care Medicare-Medicaid plans (MMPs); representatives from community-based organizations (CBOs), including the Independent Living Centers (ILCs), Recovery Learning Communities (RLCs), and Aging Services Access Points (ASAPs); representatives from provider organizations; stakeholders from the Implementation Council; and representatives from the One Care Ombudsman program and from Disability Advocates Advancing our Healthcare Rights (DAAHR). To monitor demonstration progress, the RTI evaluation team also engages in additional periodic phone conversations with officials from MassHealth and CMS.

Focus groups. The RTI evaluation team conducted three focus groups in Massachusetts specific to racial or ethnic minorities. One focus group for Hispanic participants was held in Holyoke on February 3, 2016. Two other focus groups were held in Springfield on February 4, 2016, one group for Hispanic participants and another for Black participants. A total of 12 One Care enrollees participated in the focus groups.

Surveys. Medicare requires all Medicare Advantage plans, including One Care plans, to conduct an annual assessment of beneficiary experiences using the Medicare Advantage Prescription Drug Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey instrument. In addition, the RTI evaluation team added 10 supplemental questions to the CAHPS survey and MassHealth added nine questions. This report includes survey results for a subset of the 2015 and 2016 survey questions. Findings are available at the MMP level. The frequency count for some survey questions may be suppressed because too few enrollees responded to the question. Comparisons with findings from all Medicare Advantage plans are available for core CAHPS survey questions but not for the RTI supplemental questions. Survey response rates varied by plan as follows: Commonwealth Care Alliance, 2015—28 percent, 2016—29 percent; Fallon Total Care, 2015—22 percent, 2016—not applicable; Tufts Health Unify, 2015—27 percent, 2016—21 percent.

This report also includes data from the 2015 and 2016 Quality of Life surveys conducted by MassHealth in collaboration with the Implementation Council and the University of Massachusetts Medical School. The 2015 survey was administered by mail and phone to a random sample of 600 One Care enrollees and had a response rate of 29.3 percent. The 2016 survey was administered by mail with telephone follow-up for non-responders to a random sample of 800 One Care enrollees and had a response rate of 35.2 percent.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Massachusetts through the State Data Reporting System (SDRS). These reports include eligibility, enrollment, opt-out, and disenrollment data, and information reported by Massachusetts on its integrated delivery system, care coordination, benefits and services, quality management, stakeholder engagement, financing and payment, and a summary of successes and challenges.

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;³ and other publicly available materials on the Massachusetts One Care website and the Massachusetts Executive Office of Health and Human Services (EOHHS) website.⁴ The RTI evaluation team reviewed available minutes and presentations from MassHealth Open Meeting⁵ and Implementation Council meetings.⁶

Complaints and appeals data. Complaint (also referred to as grievance) data are from three separate sources: (1) complaints from beneficiaries reported by One Care plans to MassHealth, and separately to CMS' implementation contractor, NORC at the University of

³ <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/FinancialModelstoSupportStatesEffortsinCareCoordination.html>

⁴ <https://www.mass.gov/eohhs/>

⁵ <https://www.mass.gov/service-details/one-care-open-meetings>

⁶ <https://www.mass.gov/eohhs/provider/guidelines-resources/services-planning/national-health-care-reform-plan/federal-health-care-reform-initiatives/integrating-medicare-and-medicaid/implementation-council.html>

Chicago (hereafter referred to as NORC);⁷ (2) complaints received by MassHealth or 1-800-Medicare and entered into the CMS electronic Complaint Tracking Module (CTM); and (3) complaints received by the One Care Ombudsman (OCO) program and reported to MassHealth and the Administration for Community Living (ACL), the federal agency that provides technical assistance to Financial Alignment Initiative ombudsman programs. Appeals data are generated by MMPs and reported to MassHealth and NORC. This report also includes critical incidents and abuse data reported by One Care MMPs to MassHealth and NORC. This report also includes data compiled and received by the Medicare Independent Review Entity (IRE), Maximus, for January 2014–December 2015.

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

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

Cost savings data. Two primary data sources were used to support the savings analyses, capitation payments, and Medicare claims. Capitation payments paid to One Care 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 2017). 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.

⁷ The technical specifications for reporting requirements are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/InformationandGuidanceforPlans.html>.

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2. Demonstration Overview

2.1 Demonstration Description and Goals

The goals of One Care are to alleviate fragmentation of care, improve coordination of services, enhance quality of care, and reduce costs. Key objectives include improving the beneficiary experience in accessing care, delivering person-centered care, promoting independence in the community, improving quality, and eliminating cost shifting between Medicare and Medicaid (MOU, 2012, pp. 2–3). As more fully described in the first Annual Report, the One Care demonstration integrates the full array of functions performed by Medicare and Medicaid. Targeted case management services and rehabilitation option services are not included as part of the integrated One Care benefit; they continue to be provided as part of the Medicaid fee-for-service (FFS) system. As in Medicare Advantage, Medicare hospice services continue to be provided as part of the Medicare FFS system. Of note, One Care is the only demonstration under the Financial Alignment Initiative that limits enrollment to Medicare-Medicaid beneficiaries age 21 to 64 at the time of enrollment.⁸ Initially, beneficiaries who turned 65 while enrolled in the demonstration could remain enrolled in One Care as long as they met eligibility for MassHealth Standard and continued to meet other demonstration criteria. In late 2016, eligibility criteria for remaining in the demonstration was expanded to include enrollees who met criteria for MassHealth CommonHealth. Implementation of this change continued into 2017.

Approximately 105,000 Medicare-Medicaid beneficiaries in Massachusetts were eligible for and over 14,300 enrolled in the demonstration as of December 1, 2016. One Care operates in nine of the Commonwealth's 14 counties.⁹ Initially, the demonstration was served by three Medicare-Medicaid plans (MMPs), but one withdrew from participation as of September 30, 2015. MassHealth intends to reprocur MMPs for One Care effective January 1, 2020.^{10,11} In past interviews, MassHealth officials reported that they would like to see the demonstration formalized into a regular program beyond the demonstration phase.

2.2 Changes in Demonstration Design

The One Care demonstration is a capitated model of service delivery in which CMS, the Commonwealth of Massachusetts, and One Care MMPs enter into a three-way contract to

⁸ Beneficiaries enrolled in any of the following programs are eligible for the demonstration only if they disenroll from the program and meet the other eligibility criteria: a Medicare Advantage plan; Program of All-Inclusive Care for the Elderly (PACE); Employer Group Waiver Plans (EGWPs), other employer-sponsored plans, or plans receiving a Retiree Drug Subsidy (RDS); or the CMS Independence at Home (IAH) demonstration. Enrollees using home and community-based services (HCBS) waiver services or residing in an intermediate care facility for individuals with intellectual disabilities (ICF/IDD) are not eligible to enroll (MOU, 2012, pp. 8–9).

⁹ In Plymouth County, One Care is not available in the towns of East Wareham, Lakeville, Marion, Mattapoisett, Wareham, and West Wareham.

¹⁰ CMS reported that its role in the reprocurement process would be limited to review and approval of any new plans responding to the One Care procurement; requiring reprocurement of existing MMPs is a state-level decision.

¹¹ <https://www.commbuys.com/bs0/external/bidDetail.sdo?docId=BD-18-1039-EHS01-EHS02-20518&external=true&parentUrl=bid>. Bid # BD-18-1039-EHS01-EHS02-20518.

provide comprehensive, coordinated care for eligible beneficiaries. The demonstration was initially authorized through December 31, 2016. CMS, MassHealth and the remaining two MMPs executed a contract amendment July 5, 2016 extending the demonstration by 2 years.¹² Since initial implementation, eligibility and the overall design of the care model within the One Care demonstration have not changed significantly. One Care design components are described in detail in the first Annual Report. MassHealth officials reported that they are “still very confident” in One Care’s design features, although minor adjustments have been made from time to time. Some benefit changes have occurred, recent examples being the addition of gender dysphoria coverage and expanded coverage of certain medication assisted treatment in methadone clinics. Generally, the benefit changes are not limited to One Care, but impact other MassHealth beneficiaries as well.

Most of the changes in One Care design that occurred since the last evaluation report affected financing and other operational aspects. Several changes were made to the financial structure of the demonstration as part of a contract amendment executed in December 2015. These changes will be discussed in greater detail in *Section 3.5, Financing and Payment*. Other operational changes included the extension of the demonstration through December 31, 2018. More recently, CMS and the Commonwealth agreed to allow passive (automatic) enrollment in counties where only one MMP operates and in counties only partially served by the demonstration.

2.3 Overview of State Context

Before the One Care demonstration, Medicare-Medicaid beneficiaries younger than age 65 were not eligible to enroll in Medicaid managed care in Massachusetts.

Massachusetts lacked a mechanism to provide comprehensive care coordination and care management services to Medicare-Medicaid enrollees under the age of 65 and a way to integrate Medicare and Medicaid payments and services. As a result, Medicare-Medicaid beneficiaries received long-term services and support (LTSS) services through the existing FFS system under the Medicaid State Plan. Services for Medicare-Medicaid beneficiaries included a personal care services benefit delivered through a participant-directed delivery model only. Some beneficiaries may have received services in a Program of All-Inclusive Care for the Elderly (PACE), which serves people age 55 or older. Many One Care beneficiaries were also not eligible for existing 1915(c) home and community-based services (HCBS) waivers.

MassHealth officials reported that One Care represented a learning experience in effectively serving individuals with complex needs. As one official reported:

From the very beginning, or before the beginning really, we knew that it was going to be unique to any experience we had ever had before, and it was.... It’s been a very, very challenging program, challenging in good ways and bad ways for us. In a good way it’s really kind of pushed us in our delivery system concept.

¹² By letter dated January 19, 2017, CMS offered Massachusetts, along with Washington and Minnesota, the opportunity to extend the demonstration for an additional 2 years, through December 31, 2020. Massachusetts submitted a non-binding letter of intent to pursue the extension, which will be covered in greater detail in the next evaluation report.

It was the most advanced delivery system approach that we had really taken in our managed care book ever. We were pretty ambitious with that. I think that paid off for us. That is the way we wanted this program to be. We wanted it to push and it has pushed the system for us. And when we get into that question of ‘how does this fit into the bigger picture,’ you’ll see that it’s really the model that we’re using to move and to how we approach folks with complex needs and integrated care, generally speaking.

MassHealth officials reported leveraging this experience into other, broader MassHealth reforms. In June 2016, MassHealth submitted an amendment to its 1115(a) MassHealth demonstration waiver to CMS that outlined restructuring of the MassHealth care delivery system and creating Medicaid Accountable Care Organizations (ACOs) as a new option alongside its current Primary Care Clinician (PCC) Plan and Managed Care Organization (MCO) program for the mandatory managed care population. The intent of the new delivery system is to promote integrated, coordinated care and to hold providers accountable for quality and total cost of care, with an explicit focus on establishing a behavioral health system that improves outcomes and coordination of care, including for members with serious mental illness and co-morbid conditions. Although Medicare-Medicaid beneficiaries are not included in the ACO initiative, MassHealth officials reported that experiences with One Care factored into the ACO design. For example, ACOs and MCOs share the principles of One Care, to provide member-centered, coordinated, and culturally competent care.¹³ As described by one MassHealth official:

Our new 1115 [waiver] is predicated on the idea that our managed care programs, including One Care and SCO,¹⁴ are to be expanded...I see us almost having doubled down on One Care, on SCO, on PACE, in our managed care book.

In November 2016, CMS approved an amendment to Massachusetts’ current 1115(a) demonstration waiver, and a new extension of the demonstration waiver to begin in July 1, 2017. Pilot ACOs were launched in December 2016; full implementation of the ACO program was in March 2018. MassHealth also reprocured its MCOs for March 2018 and plans to bring LTSS into the scope of covered services for MCOs in the latter part of the 1115(a) extension period.

¹³ The 1115(a) waiver demonstration includes requests for Delivery System Reform Incentive Payment (DSRIP) funding for upfront investments to support delivery system transformation over five years, with explicit funding to build community capacity for behavioral health and LTSS providers and health-related social services.

¹⁴ Senior Care Options (SCO) is a Dual Eligible Special Needs Plan (D-SNP) and MassHealth managed care program for Medicare-Medicaid beneficiaries age 65 and older at the time of enrollment.

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3. Update on Demonstration Implementation

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

3.1 Integration of Medicare and Medicaid

Highlights

- Joint management of the demonstration has continued through the Contract Management Team (CMT); MassHealth and CMS continue to report a high degree of collaboration at both the operational and policy levels.
- Although progress has been made in integrating Commonwealth-level Medicaid policies, procedures, and systems with those of Federal-level Medicare, the demonstration continues to be challenging to operationalize.
- One Care fostered a relationship among the MMPs that was mostly collaborative, rather than competitive.
- Strong support for the demonstration and its goals of integration continue; the Commonwealth initially extended the demonstration for an additional 2 years, through December 31, 2018, with an additional 1-year extension through December 31, 2019.

The One Care demonstration integrates Medicare and Medicaid into a unified set of benefits. From the beneficiary's perspective, One Care is designed to integrate access to and delivery of services covered under both programs. From the perspectives of MassHealth, CMS, and MMPs, the integration of these programs depends on the alignment of policies, procedures, and systems at many levels. This section provides updates on joint management functions and integrated delivery systems.

3.1.1 Joint Management of the Demonstration

As described in the first Annual Report, the CMT is the primary vehicle for joint management of One Care by CMS and MassHealth. The CMT includes representatives from the MassHealth Provider and Plan Unit, MassHealth central policy office, CMS regional office Medicare and Medicaid staff, and representatives from the Medicare-Medicaid Coordination Office (MMCO). The One Care CMT includes both an operational and policy component, with the former more involved in the day to day oversight and the latter involved on larger policy issues impacting the demonstration. The operational group, known as the CMTO, changed from weekly to bi-weekly meetings while the policy CMT has continued to meet weekly. The CMTO meets separately with each MMP on a bi-weekly basis. The weekly CMT meeting generally includes the CMTO members as well, with many members reporting "true co-management" and close collaboration at all levels of the joint management team. The CMT reviews set agenda

items, such as grievances and appeals and monitoring access to care issues, as well as ad hoc issues, including questions or concerns raised in discussions with the MMPs. An all-plan meeting is held monthly. Typically, these meetings focus on opportunities for programmatic enhancements and sharing of best practices. As one CMS official remarked about the MMPs:

They have taken a really collaborative approach to sharing what they're doing in certain areas and are not at all taking an approach of “this is proprietary information and we’re using it to our competitive advantage” or anything like that. There has been very much a focus on wanting to ensure the demonstration succeeds, wanting to bring the plans up to the highest possible level rather than having plans performing at different levels. That’s something we've really appreciated.

3.1.2 One Care Plans

The first Annual Report describes the MMPs and information relevant to experience and enrollment approaches during early implementation. Since then, the most significant change occurred in demonstration year 2, with the withdrawal of Fallon Total Care (Fallon), one of the three MMPs participating in the demonstration. Fallon’s withdrawal was effective as of September 30, 2015 and is described in ***Section 3.2, Eligibility and Enrollment***. Commonwealth Care Alliance (CCA) and Tufts Health Unify (Tufts) have signed a contract amendment extending the demonstration through December 31, 2018. Additionally, Tufts expanded its coverage area to include portions of Middlesex County effective February 1, 2017.

3.1.3 Provider Arrangements and Services

Requirements regarding provider networks are described in the first Annual Report. MMPs report that they have generally continued to reimburse most providers on an FFS basis because of the volatility experienced initially on the financial side of the demonstration. Although MMP officials reported some capitation payments and some limited incentive arrangements tied to utilization and quality, they noted that overall the data and care model was still considered too new to transition to risk-sharing arrangements. As discussed in ***Section 3.3, Care Coordination***, one MMP has a long-standing relationship with several primary care and behavioral health and human services providers to which it delegates care coordination activities for approximately 18 to 20 percent of its enrollees. These providers are reimbursed on a per member per month basis and are provided an opportunity to earn an additional incentive based on meeting certain process measures, such as blood pressure and diabetes control for its primary care practices.

The One Care model provided the opportunity and incentive for MMPs to develop or contract for new service delivery models. As noted in the first Annual Report, one MMP opened two new community-based residential programs as an alternative to inpatient psychiatric services, providing community support programs and crisis stabilization services to better serve individuals in a less restrictive, less costly setting. One site opened in fall 2014 at a hospital that had an empty wing. The other site, opened in June 2015, is a 14-bed behavioral health stabilization unit that is an unlocked safe place where people can be treated without needing hospitalization. According to one of the MMPs:

Our inpatient utilization for behavioral health has gone down and they [One Care beneficiaries] are using these outside diversionary services, the day programs. They've done a great job with that so that has been a big win for the program.

According to MassHealth and the MMP, this was possible because of the flexibility provided by capitated Medicare and Medicaid rates in the demonstration.

3.1.4 Training and Support for Plans and Providers

MassHealth has continued to invest in the development of webinars, educational sessions, and other training to support providers, community-based organizations (CBOs), and MMPs. Many of these training modules were designed by MassHealth and the University of Massachusetts Medical School in collaboration with providers and beneficiaries, including members of the Implementation Council. Topics covered in the webinars and video modules include: strategies for enhancing care to individuals who are homeless and to individuals with co-occurring mental health and substance use disorders; self-direction and independent living principles; promoting behavioral health privacy principles; and approaches to engaging beneficiaries in their own care.¹⁵ MassHealth officials continued to invest resources into these provider trainings in recognition that the underlying principles went beyond One Care itself and were consistent with larger reforms to enhance integrated and person-centered care.


3.1.5 Major Areas of Integration

Integrating Commonwealth-level Medicaid policies, procedures, and systems with Federal-level Medicare policies, procedures, and systems introduced a significant amount of complexity and effort into every level of operational implementation and service delivery. Generally, MassHealth officials noted progress in this area but also recognized there had been some challenges in aligning Medicare and Medicaid requirements, with one MassHealth official noting, “It’s been a tough two and a half years.” As one official from a MMP remarked:

The program is a high-touch, high-need program from the point of view of a Federal demonstration. I’ve been doing this kind of work for several decades and have never seen a program as hard to operationalize as this one.

Others noted that certain aspects of the demonstration—including the appeals and grievance processes; the ability to retain separate encounter data reporting for Medicare and Medicaid services; and the receipt of three separate capitation rates—were not fully integrated as designed. One MMP described the lack of integration in several operational areas as a “failed promise” of the demonstration; the lack of a completely combined, integrated program added to administrative costs and other operational challenges that interfered in the ability to effectively and efficiently scale the program.

Regardless of its complexity, officials from MassHealth, CMS, and the MMPs, as well as its other stakeholders, remain committed to the success of One Care. One MassHealth official noted that integrating Medicare with Medicaid was “critical” to the success of the care model for

¹⁵ One Care maintains a shared learning website with recorded webinars and related training materials at <https://onecarelearning.ehs.state.ma.us/> 

this population. That same MassHealth official reinforced that despite the challenges, Massachusetts did not regret its decision to go forward with the One Care demonstration. MassHealth officials described their experiences with One Care as instrumental in helping to define their current culture and direction in health care delivery reform. The MMPs noted that CMS and MassHealth had both been very responsive to issues over the course of the demonstration, illustrating a strong commitment to the success of One Care. One MMP noted that the responsiveness of CMS and MassHealth played a role in its decision to participate in the demonstration for an additional 2 years.

3.2 Eligibility and Enrollment

Highlights

- Enrollment declined during demonstration year 2 (calendar year [CY] 2015) from approximately 17,900 to 12,300 enrollees, due, primarily, to the withdrawal of the second largest MMP and limited enrollment by remaining MMPs. Enrollment started to recover in demonstration year 3 (CY 2016), with total enrollment of 14,300 as of December 1, 2016. As of January 1, 2017, enrollment increased to slightly over 16,000 beneficiaries.
- CMS and MassHealth amended enrollment guidance in late 2016 to allow for passive enrollment in counties where only one MMP participates and in counties only partially covered by the demonstration.
- One of the MMPs that operates in Suffolk and Worcester counties began operations in portions of Middlesex County in early 2017; three counties are now served by more than one MMP.

This section provides updates in eligibility and enrollment processes, including integration of eligibility systems, enrollment methods, and outreach. This section also outlines significant events affecting enrollment patterns during the timeframe of this report, including the withdrawal of one of the three MMPs participating in the demonstration and more recent enrollment activities.

3.2.1 Eligibility and Enrollment Process

Eligibility

No changes were made to eligibility requirements during the timeframe of this report. Of note, One Care is the only demonstration under the Financial Alignment Initiative that limits eligibility to Medicare-Medicaid beneficiaries age 21 through 64 at the time of enrollment. Massachusetts did not set an enrollment target for the demonstration although enrollment caps were established in the second half of demonstration year 2 (CY 2015), as described below in Enrollment Experience sub-section. As of December 1, 2016, approximately 105,000 Medicare-Medicaid beneficiaries were eligible for the demonstration.

Enrollment Systems

As noted in the first Annual Report, the integration of Medicare and Medicaid eligibility and enrollment systems resulted in operational challenges for MassHealth, CMS, and the MMPs. Although alignment issues in the underlying enrollment systems have not improved significantly since implementation, MassHealth officials described a “smoother process” for enrollment beginning in demonstration year 2. MassHealth officials attributed the improvements to utilization of an on-line processing tool. This on-line processing tool, an innovation the Commonwealth reported learning about in conversation with other states in early 2015, allows for quicker, more automated remediation of enrollment errors. Additionally, there was no passive enrollment into the demonstration during demonstration year 2, and the number of new enrollments significantly decreased from the previous year with the departure of one of the three MMPs. MassHealth officials reported that system enrollment errors continued to be caused by discrepancies in the spelling of, or changes to, beneficiary names, or other incorrect demographic information that does not match in the Medicare and Medicaid enrollment systems. MassHealth officials noted that the time and effort required to update and correct enrollment information presented barriers for beneficiaries; additionally, enrollees did not always complete the necessary authorizations allowing for representation by SHINE¹⁶ counselors who otherwise could assist them. Some of these barriers were attributed to the high behavioral health needs of this population.

Enrollment Processes

In demonstration year 1, beneficiaries could opt into the demonstration at any time or be passively (automatically) enrolled.¹⁷ Although additional passive enrollment had been anticipated for the second half of demonstration year 2, that process was delayed after one MMP (Fallon) reported that it would be withdrawing from the demonstration as of September 30, 2015. The next phase of passive enrollment did not occur until demonstration year 3 (CY 2016). Although beneficiaries could continue to opt into the demonstration during demonstration year 2, that ability was severely restricted during the second half of that year due to enrollments caps, as described below. The restrictions were lifted in demonstration year 3. Enrollees may choose to opt out of the demonstration at any time (three-way contract, 2015, p. 29).

Enrollment Experience

Fallon notified MassHealth and CMS in June 2015 of its intent to withdraw from the demonstration effective as of September 30, 2015. As the second largest MMP in terms of enrollment and counties of operation, Fallon’s withdrawal had significant negative impacts on enrollment, not only decreasing overall enrollment in the demonstration but also impacting the enrollment activities of the two remaining MMPs. **Table 1** shows total enrollment in the demonstration for the 3 months immediately prior to and after Fallon’s withdrawal. **Table 2** identifies the counties in which the three plans operated in the first 24 months of operation as compared to the counties in which the remaining two plans operated following Fallon’s withdrawal.

¹⁶ The SHINE Program (Serving the Health Insurance Needs of Everyone) is the name for Massachusetts’ state health insurance assistance program funded by the Administration for Community Living.

¹⁷ There were four phases of passive enrollment in demonstration year 1, as described in the first Annual Report.

Table 1
Total enrollment prior to and after Fallon’s withdrawal, by month

July 1, 2015	August 1, 2015	September 1, 2015	October 1, 2015	November 1, 2015	December 1, 2015
17,671	17,518	17,179	12,657	12,366	12,285

SOURCE: MassHealth, Enrollment Reports, July 2015; August 2015; September 2015; October 2015; November 2015; December 2015.

Table 2
Counties where One Care MMPs operated

County	October 1, 2013 to September 30, 2015			As of October 1, 2015	
	Commonwealth Care Alliance	Fallon Total Care	Tufts Health Unify	Commonwealth Care Alliance	Tufts Health Unify
Essex	X			X	
Franklin	X			X	
Hampden	X	X		X	
Hampshire	X	X		X	
Middlesex	X			X	
Norfolk	X			X	
Plymouth	X (partial)			X (partial)	
Suffolk	X		X	X	X
Worcester	X	X	X	X	X

SOURCE: MassHealth, August 17, 2015.

Following Fallon’s announcement in June 2015, MassHealth, CMS, and Fallon developed a plan for transitioning Fallon enrollees to other options. Fallon sent a letter to its enrollees on July 28, 2015, notifying them of its withdrawal from One Care; the letter included information about the transition, preliminary coverage options, and how to get help. Fallon also hosted two enrollment sessions, and MassHealth created a new page on its One Care website with information related to Fallon’s withdrawal. MassHealth began holding monthly Open Meetings, including one in Worcester, and invested significant resources to ensure that authorizations and transition plans for enrollees were in place. Overall, MassHealth, CMS, and stakeholders described the transition process as highly collaborative, with all parties trying to ensure adequate communication and minimum disruption to enrollees. Although some

beneficiaries transitioned to another One Care MMP, most returned to the FFS system, thereby decreasing overall enrollment in the demonstration.¹⁸

Because of Fallon's decision to withdraw and concerns on the part of the two remaining MMPs regarding the financial sustainability of the demonstration, both MMPs limited new enrollment shortly after Fallon's notice of withdrawal; this significantly restricted the ability of enrollees served by Fallon to transition to another MMP. As shown in **Table 2**, Fallon operated in three counties: Hampden, Hampshire, and Worcester. As of August 2015, CCA instituted a freeze on any new enrollments for individuals not previously enrolled with CCA in all counties in which it operated, including all counties in which Fallon operated. Tufts continued to accept enrollment in Suffolk county (where Fallon did not operate), but it limited enrollment in Worcester county (where Fallon did operate) up to 500 new enrollees. These changes not only severely restricted new enrollment into One Care overall but also significantly limited the options for enrollees previously served by Fallon to remain in the demonstration. MassHealth reported that approximately 610 enrollees in Fallon transitioned to either Tufts or CCA for effective enrollment dates between August 1 and November 1, 2015.¹⁹ Approximately 4,700 beneficiaries transitioned back to the FFS system (MassHealth presentation to Implementation Council, October 16, 2015).

Fallon's withdrawal also impacted passive enrollment activities since, at that time, passive enrollment was only allowed where more than one MMP was in operation. CCA modified their enrollment cap to allow for limited enrollment in counties where passive enrollment into Tufts was occurring.²⁰ Effective June 1, 2016, CMS and MassHealth lifted CCA's enrollment cap, and CCA began again to accept opt-in enrollment across all nine counties where the demonstration operated.

Three passive enrollment phases into Tufts MMP occurred in 2016. MassHealth and CMS have also initiated quarterly passive enrollment phases, which began January 2017. Passive enrollment was planned for both MMPs; these quarterly phases will target newly eligible Medicare-Medicaid beneficiaries as well as other eligible beneficiaries. As of December 1, 2016, enrollment in the demonstration totaled approximately 14,300 beneficiaries. Total enrollment in

¹⁸ Enrollees were provided a number of options that included:

- MassHealth fee for service with Medicare fee for service and a Medicare Part D plan
- MassHealth and a Medicare Advantage plan
- Another One Care MMP, if available
- Program for All-Inclusive Care for the Elderly (PACE)—for members 55 and older and who had nursing facility level of care
- Senior Care Options—an integrated Dual Eligible Special Needs Plan (D-SNP) program for members 65 and over

Enrollees who did not take any action were automatically enrolled in MassHealth fee for service, Medicare fee for service and Humana Insurance Company for Medicare prescription drug coverage, although members were able to choose a different Medicare Part D plan (EOHHS, August 17, 2015).

¹⁹ Those enrolling in CCA did so prior to CCA's enrollment freeze. In addition, CCA continued to accept re-enrollment of beneficiaries who had previously been enrolled in CCA but had transitioned to another plan or disenrolled from One Care.

²⁰ The first passive phase of enrollment into Tufts occurred in Suffolk County with an effective date of January 1, 2016. Another round occurred in Suffolk and Worcester counties with an effective date of May 1, 2016.

One Care increased to slightly over 16,000 beneficiaries as of January 1, 2017 due to additional passive enrollment.

As initially designed, passive enrollment was not allowed in counties with only one MMP or in counties only partially served by the demonstration. CMS and MassHealth agreed to allow passive enrollment in both situations, and MassHealth enrollment guidance has been updated to reflect these changes. The passive enrollment phase effective January 2017 included beneficiaries from across the Commonwealth in accordance with this change. Additionally, one of the MMPs, Tufts, expanded its coverage area to include portions of Middlesex County effective February 2017. Overall, officials from CMS and MassHealth, and the MMPs and other stakeholders, emphasized that enrollment in the demonstration was on a much firmer footing at the end of 2016 than it had been a year earlier. At the end of demonstration year 2, One Care was still impacted by the withdrawal of its second largest MMP; by the end of demonstration year 3, both MMPs were actively seeking to expand enrollment, and one MMP was in the process of initiating operations in an additional county.

Disenrollment experiences of individuals who ended their coverage after it started varied between MMPs. One MMP reported that this was an area of concern, especially for those beneficiaries who remained in the demonstration for months before choosing to disenroll as opposed to opting out of the demonstration before enrollment. The disenrollment rates impacted financial performance because, in the words of one MMP official, “getting members enrolled and engaged is very, very difficult and we spend an enormous amount of time and energy doing it.” For enrollees remaining in the demonstration, these initial costs could potentially be recouped over time through comprehensive care management. Although MassHealth, CMS, and the MMP reported wanting to improve their understanding of factors influencing disenrollment, no beneficiary surveys or other data were available to inform this experience.

Enrollment Outreach

In the first half of demonstration year 2, MassHealth continued education and outreach activities for beneficiaries not yet enrolled in the demonstration. MassHealth reported that these activities included collaborative presentations with the One Care Ombudsman Program and the One Care MMPs. MassHealth implemented a beneficiary-focused, paid media campaign in Boston, Springfield, and Worcester that included transit advertising, billboards, and media in both English and Spanish, and featured One Care enrollees. In the third quarter of demonstration year 2, MassHealth shifted its outreach from trying to increase new enrollments to assisting enrollees affected by Fallon’s withdrawal from the demonstration, described in greater detail below.

MassHealth initiated targeted outreach activities to support the passive enrollment of beneficiaries into Tufts during 2016, with a goal of reducing the percent of beneficiaries who opted out. MassHealth adapted its outreach practices based in part on feedback received through the work of the Implementation Council, a stakeholder group described in **Section 3.4, Stakeholder Engagement**. Changes included updating enrollment materials and structuring community-based outreach events in selected areas where there were high concentrations of beneficiaries impacted by passive enrollment. These events offered light refreshments and other giveaways such as branded gloves and tote bags for attendees. These events included representatives from MassHealth eligibility and enrollment, SHINE, the OCO, as well as

enrollees serving on Tufts' Member Advisory Board (MAB). Members of the Implementation Council were also invited to attend, although some Implementation Council members noted that the lack of a stipend to cover transportation and other costs was a barrier for members and deterred participation. MassHealth moved over time to structuring these outreach events as drop-in events rather than formal presentations.

Although neither MassHealth nor Implementation Council members reported that the outreach events garnered significant attendance, both felt that the events were valuable as learning opportunities and as an opportunity for collaboration. Both noted the importance of word of mouth and having enrollees available to talk about their experiences. Some Implementation Council members expressed a preference for MassHealth partnering more strongly with community-based organizations to lead future outreach efforts, rather than having events conducted by MassHealth or MMP representatives. MassHealth reported "moving the dial ever so slightly" on lowering the opt-out rate in the first two phases of passive enrollment in 2016, but officials were not able to attribute the change directly to these new processes.

As part of the overall growth strategy for One Care, beginning in 2016, MassHealth developed strategies to reengage beneficiaries who had previously opted out of One Care. Of note, MassHealth conducted targeted outreach to former Fallon enrollees in the fall of 2016, letting them know of their ability to enroll in One Care again. Former enrollees residing in Hampshire and Hampden counties were also notified if their primary care provider was available in the provider network for the MMP serving those counties. These efforts were part of a larger initiative to increase opt-in enrollment.

Contacting and Locating Enrollees

Once a member is enrolled in a plan, the plan is required to establish contact and conduct an initial assessment within 90 days of the enrollment date. As reported in the first Annual Report, MMPs had difficulties in locating enrollees—particularly those who had been passively enrolled—to conduct the initial assessments. Although the number of new enrollees was significantly lower in demonstration year 2, MMPs reported continuing challenges in this area. As one MMP noted:

Again, looking over the arc of the program, the major challenges really haven't changed. Getting members enrolled and engaged is very, very difficult, and we spend an enormous amount of time and energy doing it.

The effort required to reach and engage new enrollees resulted in administrative costs as well as other costs related to continuing care without the benefit of a comprehensive assessment of needs and coordination of services.

Table 3 shows the percentage of members that the plans were unable to reach.²¹ For demonstration year 2, the percentage that MMPs were unable to reach within 90 days improved. The percentage of enrollees One Care plans were unable to reach declined steadily over time from the last quarter of demonstration year 1 (calendar year [CY] 2014) through the second quarter of demonstration year 3 (CY 2016). This decline was followed by an uptick in the third quarter of demonstration year 3 (CY 2016) when the percentage of enrollees that were unreachable increased to slightly under one-third.

Table 3
Percentage of enrollees that One Care plans were unable to reach following three attempts, within 90 days of enrollment

Quarter	CY 2014	CY 2015	CY 2016
Q1	38.0%	31.0%	19.9%
Q2	36.6%	26.3%	14.0%
Q3	39.1%	23.5%	28.0%
Q4	32.8%	21.9%	19.5%

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015 and after represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for Core Measure 2.1, as of March 2018. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.html>.

3.2.2 Summary Data

Enrollment in the demonstration by quarter is shown in *Table 4*. The distribution of enrollees by counties is displayed in *Table 5*. The counties with the highest penetration of enrollment (Hamden, Hampshire, Suffolk, and Worcester) were those in which at least two plans were initially operating and where beneficiaries were passively enrolled.

²¹ In order to clarify the reporting requirements, CMS issued guidance in March 2015 that plans should report the number of enrollees they were unable to reach after three attempts; and that they should document each attempt to reach the member, including the method used. CMS also encouraged the plans to continue beneficiary outreach after three unsuccessful attempts and to try to reach members via multiple methods, including phone, mail, or email; and to work with community organizations, network providers, and others to determine accurate contact information and promote member engagement (CMS, March 6, 2015).

Table 4
Enrollment in One Care plans, by quarter

One Care plan	2015				2016			
	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Commonwealth Care Alliance	10,287	10,430	10,664	10,216	10,022	10,050	10,380	11,771
Fallon Total Care	5,615	5,474	4,684	—	—	—	—	—
Tufts Health Unify	1,895	1,801	1,831	2,069	2,574	2,988	2,632	2,560
Total enrollment	17,797	17,705	17,179	12,285	12,596	13,038	13,012	14,331
Total eligible	97,393	99,136	100,523	100,293	101,835	103,041	103,640	104,415

— = data are not available because the MMP withdrew from the demonstration.

NOTES: Enrollment numbers are as of the first day of the last month of each quarter. Quarter 1 2015= January 1, 2015 to March 31, 2015; Quarter 2 2015 = April 1, 2015 to June 30, 2015; Quarter 3, 2015 = July 1, 2015 to September 30, 2015; Quarter 4, 2015 = October 1, 2015 to December 31, 2015. Quarter 1, 2016 = January 1, 2016 to March 31, 2016; Quarter 2 2016 = April 1, 2016 to June 30, 2016; Quarter 3, 2016 = July 1, 2016 to September 30, 2016; Quarter 4, 2016 = October 1, 2016 to December 31, 2016

SOURCE: MassHealth, Enrollment Reports, March 2015; June 2015; September 2015; December 2015; March 2016; June 2016; September 2016; December 2016.

Table 5
Enrollment by county as of December 1, 2016

County	Eligible (n)	Enrolled (n)	Percent enrolled (%)
Essex	15,709	1,139	7.3
Franklin	2,267	93	4.1
Hampden ¹	16,296	3,007	18.5
Hampshire ¹	2,834	226	8.0
Middlesex	18,852	1,481	7.9
Norfolk	7,928	628	7.9
Plymouth	7,617	462	6.1
Suffolk ¹	16,016	4,322	27.0
Worcester ¹	16,896	2,973	17.6
Total	104,415	14,331	13.7

¹ Counties with two or more plans.

SOURCE: MassHealth, Enrollment Report, December 2016.

3.3 Care Coordination

Highlights

- MassHealth officials, stakeholders, and MMPs continue to view care coordination as integral to the success of One Care.
- Both MMPs reported that as the demonstration matured, they focused on improving the assessment process and timeliness of assessments; overall trends for One Care show that assessment completion rates increased over time, particularly among enrollees who were documented as reachable or willing to participate.
- MassHealth and the MMPs have worked collaboratively with community-based organizations and advocates to improve the implementation of the LTS coordinator role; it is not yet clear whether those improvements are sufficient to address all concerns.
- Anecdotal stories of successful care coordination highlight the promise of One Care to improve care through effective care planning, integrated care teamwork, shared enrollee records, and innovative care delivery.

This section provides a summary of the One Care coordination model. It highlights the status of and major accomplishments in key care coordination components and processes: assessment, care planning, LTSS coordination and the LTS Coordinator role, and information exchange. This section also includes selected quotes that reflect key informants' perspectives on care coordination.

3.3.1 Care Coordination Model

Care coordination is a hallmark of the One Care delivery model and is integral to helping beneficiaries access the full spectrum of needed services and to improving quality and ultimately, reducing costs. For medical and behavioral health services, plans must offer care coordination to all enrollees through a care coordinator or, for members with complex needs, a clinical case manager. With One Care, enrollees may also have an Independent Living and Long-term Services and Supports Coordinator (LTS Coordinator) to work with them to incorporate community-based services into their care plans, as appropriate. The One Care plans are required to contract with community-based organizations (CBOs) for the LTS Coordinator role. (Care coordination requirements for MMPs are described fully in the first Annual Report.)

As noted in the first Annual Report, care coordination was successful in connecting beneficiaries to new services, integrating care, and helping beneficiaries access LTSS but had not reached its full potential. Challenges to care coordination in demonstration years 2 and 3 were similar to those described in the first Annual Report and included a lack of beneficiary trust needed to engage in care management and willingness to share information across providers, and confusion over different care coordination roles including the LTS Coordinator role. Other challenges to care coordination included exchange of information across providers and inefficiencies in the collaboration between plans and community-based LTSS providers. Overall,

however, MassHealth officials and MMP representatives and other stakeholders reported that the delivery of care coordination services continued to improve as the demonstration matured.

3.3.2 Assessment

One Care plans are responsible for ensuring the completion of an enrollee’s assessment. The comprehensive assessment covers immediate and current needs and services, current medications, functional status, informal and social supports, and a variety of other areas; it must be completed within 90 days of enrollment. The assessment and related processes are described in detail in the first Annual Report.

Both MMPs reported that during demonstration year 2, they focused on improving the assessment process and timeliness of assessments. As a result, the MMPs experienced a lower volume of newly enrolled beneficiaries in the first 15 months of the demonstration but also reported learning from their early experiences. To improve their assessment processes, one MMP ceased contracting out assessments to a third-party vendor. Additionally, the MMP began using a team approach to more quickly reach recently enrolled beneficiaries and employed community health outreach workers to better engage beneficiaries. The other MMP reported that they fine-tuned the manner in which they contracted out the assessment process to home health agencies staffed with personnel experienced with the population served by One Care. This plan reported that the assessment completion and timeliness improved as a result. **Table 6** shows, among all enrollees, overall rates for timely assessment completion ranged from 34 to 58 percent in 2014, 53 to 70 percent in 2015, and 42 to 69 percent in 2016. Among enrollees who were not documented as unreachable or unwilling to participate, rates for timely assessment completion ranged from 56 to 93 percent in 2014, 84 to nearly 100 percent in 2015 (during which period no passive enrollment occurred), and 58 to 93 percent in 2016.

Table 6
Enrollees whose assessment was completed within 90 days of enrollment

Quarter	Total number of enrollees whose 90th day of enrollment occurred within the reporting period (n)	Assessment completed within 90 days of enrollment (%)	
		All enrollees	All enrollees documented as reachable or willing to participate
2014			
Q1	7,469	34.1	55.8
Q2	3,973	34.7	56.8
Q3	6,338	34.9	59.9
Q4	890	57.8	92.9

(continued)

Table 6 (continued)
Enrollees whose assessment was completed within 90 days of enrollment

Quarter	Total number of enrollees whose 90th day of enrollment occurred within the reporting period (n)	Assessment completed within 90 days of enrollment (%)	
		All enrollees	All enrollees documented as reachable or willing to participate
2015			
Q1	1,389	53.4	84.3
Q2	750	68.1	99.8
Q3	616	69.6	96.6
Q4	827	64.2	85.8
2016			
Q1	815	42.1	57.5
Q2	201	69.1	83.9
Q3	1,205	59.6	93.4
Q4	1,315	59.8	79.6

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015, and after represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for Core Measure 2.1, as of March 2018. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.html>.

3.3.3 The Care Planning Process

One Care plans are responsible for developing an individualized care plan (ICP) through an interdisciplinary care team (ICT) for each enrollee. The ICP must reflect the enrollee’s preferences and needs, and must include a description of how services and care will be integrated and coordinated among providers. The care coordinator is expected to ensure that ICT meetings and calls are held periodically, monitor the provision and outcomes of services, and ensure that mechanisms are in place for enrollees to provide input and feedback. Like findings in the first Annual Report, the MMPs have continued to develop their own approaches to organizing and staffing care coordination.

Both MMPs reported contracting out a portion of their care coordination to external vendors. One MMP has continued to contract out care coordination activities to primary care and behavioral health community providers for about 20 percent of its enrollees, as described in the first Annual Report. The MMP reported that this model has remained essentially unchanged since the first demonstration year. Among other supports, a nurse practitioner is assigned to these practices for case review and additional supports. The other MMP has contracted out some of its care coordination functions to the same home health agencies it contracts with for completing assessments, a change since the first demonstration year. That MMP emphasized that even

though some functions were performed by contracted staff, it provided supportive services needed to ensure delivery of comprehensive care coordination to those enrollees.

MassHealth officials, many stakeholders, and MMP representatives reported that as the demonstration has matured, the focus on care coordination and care planning has increased. The parties acknowledged a lack of quantitative data on care coordination, but there was broad agreement that the implementation of care coordination has improved greatly, though it has not yet reached its full potential. Although care coordination activities are occurring, they are not adequately reflected in encounter or other data by function (i.e., home visits, telephone monitoring, participation on the care team, or overall). Similarly, available data are not sufficient for tracking the activities and composition of the integrated care team.

MMPs are required to report certain staffing data for care coordination, as set forth in *Table 7*. In 2014, the first full year of the demonstration, One Care plans employed a total of 234 full-time care coordinators. This decreased by nearly one-half in 2015, the year Fallon withdrew from the demonstration. MMP-reported data shows a member load of 107.9 in 2014. This increased to 122.9 in 2015. Care coordinator turnover rate increased from 11.5 to 16.8 percent between 2014 and 2015.

Table 7
Care coordination staffing

Calendar year	Total number of care coordinators (FTE) (n)	Percentage of care coordinators assigned to care management and conducting assessments (%)	Member load per care coordinator assigned to care management and conducting assessments (n)	Turnover rate (%)
2014	234	70.9	107.9	11.5
2015	125	80.0	122.9	16.8

NOTES: Data are not available for 2013, and are not yet available for 2016. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data presented for 2015 represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for Core Measure 5.1, as of March 2017. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.html>

During the site visits, plans and stakeholders cited specific instances where the assessment and integrated care planning between behavioral health and medical care had vastly improved beneficiaries' health. Others described cases in which care coordination had helped beneficiaries gain access to LTSS that ultimately helped them live more independently with reported improvements in quality of life. As a representative from one MMP described:

We really work as a team to understand what the goals of our members are. I think that the initial assessment is key for really determining where they stand. Our behavioral health integration is critical for the success of these members we

work with [to] really understand where they are, what their needs are, meet them where they're at and work with the team to help them achieve their goals.

Care coordinators reported several anecdotal success stories in which effective care coordination had improved access to new or existing services or significantly improved the health and quality of life for beneficiaries. Both MMPs reported that they had seen improvements in quality of life for enrollees through the integration of care, e.g., through interdisciplinary management of behavioral and medical health care. For example, an official at one MMP described integrating care for an enrollee who had been receiving care through behavioral health providers for a serious mental health condition, but had not been receiving treatment for long-term, uncontrolled diabetes: “At the end of the day, it’s really the interdisciplinary approach that allows that member to have the best of both [behavioral and medical care].”

Another care coordinator described her experience with a beneficiary who, at the time of her first visit, was being treated for a mental health condition, and had a history of trauma, physical abuse, and autoimmune disease. After reviewing the beneficiary’s goals, history, and medications, the care coordinator arranged for short-term intensive therapy; a health outreach worker to help with social coordination including facilitating registration for GED classes; and transportation. Over time, the beneficiary was able to decrease her medications to more “appropriate dosing,” and her need for skilled nursing services declined from twice daily to none. As the care coordinator described:

Her mental clarity was so much better, and just her overall thought process and mental health was [better]. She was a different person about a year after I started working with her and got all this going. In the meantime, she had been going three times a week to GED classes. So, medications were decreased, nurses were gone. She was doing things on her own, visiting her children, working towards her GED. She even saved up money to buy herself a laptop to try to further her education.

Both MMPs reported increased use of community outreach workers to help reach enrollees or to encourage them to more actively participate in the health care delivery model, e.g. through uptake of LTSS. One MMP had bilingual outreach workers or used a telephonic translation line to communicate with enrollees. Another plan described using community outreach workers to build a relationship that might lead to greater use of care coordination among enrollees who did not initially request or want those services. Community health outreach workers were already known in the community and therefore were at times viewed as the best avenue for gaining the trust of beneficiaries and encouraging engagement with the MMP.

Stakeholders, MassHealth officials, MMP representatives, and CBO personnel acknowledged some confusion around care coordination roles. MMPs have been working to improve coordination of care through improvements to the centralized enrollee record, improvements to assessment timeliness, and improved relationships and administrative processes with LTSS providers. One Care has developed provider and beneficiary guidance aimed at improving their understanding of the care team member roles. The Implementation Council Behavioral Health Subcommittee has recommended the development of a one-page template for

MMP use that would provide enrollees information about the care team membership, contact information, ombudsman contact information and the individual’s identified goals every 6 months to (1) educate enrollees about their care team and care plan and (2) provide a means for beneficiaries to engage with their care coordinators around their care plans. The Implementation Council reported that it intends to focus on enhancing beneficiaries’ understanding of the care planning process and beneficiaries’ role in care planning as part of future activities.

As part of the demonstration, MassHealth requires plans to track and report data on care plan development (see **Table 8**). The percentage of enrollees with a care plan developed within 90 days of enrollment has increased nearly every quarter, as has the percent of completed care plans within 90 days of enrollment for enrollees willing to participate and who could be reached. The percentage of enrollees with a care plan completed within 90 days of enrollment has gradually increased over the course of the demonstration. Among all enrollees, the proportion with a care plan completed ranged from 23 to 37 percent in 2014, 48 to 68 percent in 2015, and 51 to 64 percent in 2016. Among enrollees not documented as unreachable or unwilling to participate, the percentage of enrollees with a care plan completed ranged from 33 to 59 percent in 2014, 65 to 80 percent in 2015, and 64 to 81 percent in 2016.

Table 8
Members with care plans within 90 days of enrollment

Quarter	Total number of enrollees whose 90th day of enrollment occurred within the reporting period (n)	Care plan completed within 90 days of enrollment (%)	
		All enrollees	All enrollees not documented as unreachable or unwilling to participate
2014			
Q1	5,871	22.8	32.8
Q2	3,977	25.8	41.0
Q3	6,330	24.8	39.2
Q4	886	37.0	59.1
2015			
Q1	1,398	48.1	65.2
Q2	748	54.3	73.2
Q3	614	59.3	80.4
Q4	821	68.3	79.9

(continued)

Table 8 (continued)
Members with care plans within 90 days of enrollment

Quarter	Total number of enrollees whose 90th day of enrollment occurred within the reporting period (n)	Care plan completed within 90 days of enrollment (%)	
		All enrollees	All enrollees not documented as unreachable or unwilling to participate
2016			
Q1	810	50.6	63.5
Q2	291	61.5	72.8
Q3	1,208	63.8	81.1
Q4	1,317	56.4	74.2

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015 and after represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for MA1.1, as of March 2018. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Massachusetts-Specific Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.html>

Among enrollees with a care plan, the percentage of members with at least one documented discussion of care goals increased from a range of 58 to 64 percent in 2014 to a range of 97 to 100 percent in 2015 and 2016 (see *Table 9*).

Table 9
Members with care plans with at least one documented discussion of care goals

Quarter	Total number of members with an initial care plan developed during the reporting period (n)	Members with at least one documented discussion of care goals in the care plan (%)
2014		
Q1	2,218	72.4
Q2	2,668	57.5
Q3	3,039	60.1
Q4	2,892	64.2
2015		
Q1	1,956	98.4
Q2	2,038	97.3
Q3	573	98.8
Q4	641	99.7

(continued)

Table 9 (continued)
Members with care plans with at least one documented discussion of care goals

Quarter	Total number of members with an initial care plan developed during the reporting period (n)	Members with at least one documented discussion of care goals in the care plan (%)
2016		
Q1	501	98.0
Q2	565	96.6
Q3	618	99.0
Q4	970	100.0

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015 and after represent totals for the remaining two plans. Documented discussion of care goals in revised care plans are excluded from these calculations.

SOURCE: RTI analysis of MMP reported data for MA 1.2, as of March 2017. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Massachusetts-Specific Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/MMPReportingRequirements.html>.

3.3.4 LTS Coordination and LTS Coordinator Role

To fulfill the LTS Coordinator role, MMPs contract with CBOs, including Aging Service Access Points (ASAPs), Independent Living Centers (ILCs), and Recovery Learning Communities (RLCs). The RLCs are consumer-driven networks that focus on recovery and wellness for individuals with behavioral health needs and were included in the design of One Care to tailor the LTS Coordinator role for this population.

As reported in the first Annual Report, although there was widespread support for the role of the LTS Coordinator, implementation of the model proved difficult. For the most part, many of these challenges continued into the second and third years of the demonstration. These challenges included: lack of LTS Coordinator inclusion as a full member of the ICT; inconsistent communication between the MMPs and the LTS Coordinator around service approvals and denials; beneficiary knowledge of the LTS Coordinator role on their care team; and contracting issues. Relatedly, very few RLCs are contracted to provide LTS coordination; one MMP reported during the RTI evaluation interview that it had no contracts with RLCs at that time for LTS coordination services. CBOs continue to report differences in implementation of the role across MMPs in terms of LTSS assessments, authorizations, and billing practices.

MassHealth officials reported that they had heard from stakeholders that LTS Coordinators do not always have adequate access to the care team, even though the contract language specifies that they should be fully included in the team. Several stakeholders and CBO representatives expressed interest in modeling the role to be more like that of the Geriatric Support Services Coordinator (GSSC) in the Senior Care Options (SCO) integrated Dual Eligible Special Needs Plan (D-SNP) program for Medicare-Medicaid beneficiaries ages 65 and older. In the SCO program, every enrollee is assigned a GSSC from a CBO, whereas in One Care,

enrollees are offered an LTS coordinator but not automatically assigned one. Several distinctions exist between the GSSC role and that of the LTS Coordinator, but as one CBO stated:

We think [coordinators for LTSS are] much more successful in the SCO plan where we are much more integral to the model of care and to the care teams; have a much greater role around the care plan development. In the One Care program, that's not been the case at all. And so, in general, I think that the One Care members have not been served well as far as that goes, because on the one hand, like I said, they don't really have organizational competence around LTSS, but also the LTS Coordinator is not really engaged fully most of the time.

MassHealth officials noted that the role of the GSSC as designed for the SCO program differed from the role of the LTS coordinator and stressed that the design incorporated flexibility for the MMPs, CBOs, and beneficiaries:

Ultimately, we want it to be the member's choice and we don't want it to be baked into the contract that you must have [a certain] number of visits or something like that, because it really should be member-specific.

MassHealth acknowledged that the challenges in balancing a flexible design with ensuring consistent and defined roles for the LTS coordinator led to differences of opinion among CBOs, advocates, and MMPs as to roles and responsibilities of the LTS coordinator.

Due to contract issues among several CBOs and one MMP, MassHealth began hosting joint meetings between the MMP and CBO providers in September 2015, and MassHealth began meeting with CBOs on a regular basis. Key issues were in the areas of payment and billing, authorization, and program design. MassHealth developed a work plan for resolving these issues; overall, representatives from MassHealth, the MMP, and CBOs noted that these efforts resulted in improvements in communication and operations. During RTI evaluation team interviews, a number of representatives from CBOs reported they were being granted access to the MMPs' Centralized Enrollee Record (CER), which was a major improvement. CBO staff felt access to MMPs' EHRs promoted communication between LTS Coordinators, MMP care coordinators, and the larger care team.

The Implementation Council LTSS Subcommittee met three times in 2016 to evaluate barriers to full integration of the LTS Coordinator into the care team. The subcommittee aimed to improve communication between care coordinators, LTS Coordinators, and beneficiaries, and recommended amending the three-way contract to clarify the LTS Coordinator role, including processes and procedures for working with MMP care coordinators and care teams.

3.3.5 Information Exchange

The success of the One Care model of integrated care is dependent on information sharing and exchange across interdisciplinary providers. The first Annual Report described two challenges to information exchange: behavioral health privacy concerns and inadequate content within and sharing of MMPs' centralized enrollee records.

3.3.6 Behavioral Health Privacy

The first Annual Report outlined tension between One Care’s model for care integrated across behavioral and medical health providers and the rights of beneficiaries to maintain privacy over their behavioral health records. In demonstration years 2 and 3, the Implementation Council, through its Behavioral Health Privacy workgroup, worked on integrating behavioral and medical health, including the development of resources for MMPs on guiding principles and best practices. In 2016, MassHealth, in collaboration with the University of Massachusetts Medical School (UMMS) and the Behavioral Health Privacy workgroup, developed a webinar on behavioral health privacy principles and best practices.

To facilitate care coordination, One Care plans are required to maintain a single, centralized, comprehensive record, known as the Centralized Enrollee Record (CER), that documents enrollees’ medical, prescription, functional, and social status. Initially, one MMP reported some confusion in differentiating between the CER and its other electronic health records systems that included an externally-facing member portal. MassHealth clarified that the CER parameters were set by contract requirement, and that the CER was primarily a management system. MassHealth reported that MMPs’ CER use had grown between demonstration years 1 and 2, they perceive the CER as a good tool for understanding what is going on with beneficiaries, and plans had worked to improve access among LTS providers. One MMP reported that sharing access to the CER with key LTS Coordinators had improved communication between the two organizations:

Previously, it had been sometimes difficult to communicate with them. The [LTS Coordinator] would fax assessments and [they] might not get [the assessments] quickly. Team communication is much improved.

3.4 Stakeholder Engagement

Highlights

- The demonstration continues to embed a robust stakeholder engagement process into its structure through such measures as the activities of a consumer-driven Implementation Council.
- Implementation Council members reported key successes in demonstration year 2, including collaboration with MassHealth and CMS to assist enrollees affected by the withdrawal of one of the MMPs (Fallon) and successful advocacy efforts to increase financial support for One Care.
- One Care requires MMPs to establish member advisory boards; MMPs report relying on the input of the enrollees on these boards to identify issues with quality and service delivery, provide feedback, and in some cases, assist with outreach to potential enrollees.

Key informants expressed broad agreement that stakeholder engagement has been a critical component of the One Care demonstration from its inception, and that the high level of engagement has continued and is a notable success of the demonstration. This section describes stakeholder engagement activities during the period of this report and the impact of those efforts on the demonstration.

3.4.1 Commonwealth Open Meetings

Since One Care's inception, MassHealth has held public meetings to present and discuss issues relevant to the demonstration.²² MassHealth held six Open Meetings in demonstration year 2 (CY 2015), convening them monthly from June through September to focus on issues related to the withdrawal of one of the MMPs (Fallon) from the demonstration. Fallon's withdrawal is discussed in ***Section 3.2, Eligibility and Enrollment***. Only one Open Meeting occurred in CY 2016. In part, MassHealth did not conduct as many regular Open Meetings because MassHealth staff regularly provided information on One Care as part of monthly Implementation Council meetings. As the demonstration has matured and stabilized, MassHealth has also shifted some of its resources to other stakeholder processes related to its broader Medicaid reforms, described in ***Section 2, Demonstration Overview***.

3.4.2 Implementation Council Meetings

As described in the first Annual Report, the design of One Care includes an Implementation Council that consists of up to 21 members to operate during the length of the demonstration. The Implementation Council plays a key role in monitoring access to health care and compliance with the Americans with Disabilities Act (ADA), tracking quality of services, providing support and input to MassHealth, and promoting accountability and transparency. The role of the Implementation Council has remained the same during this entire demonstration. Implementation Council members noted that having staff from the University of Massachusetts supporting the operations of the council was "critical" to having a robust stakeholder structure:

I think the model is only as strong as the relationship between representatives from the state and the council. So, if those representatives are not supportive of the council, supportive of its work, it's not going to work. There are states where they may have a minimalistic approach to the work with the council as opposed to [UMass staff], who are fully engaged and support all our activities... the council works [as a facilitator] in communicating with the state and the plans.

Because of resignations and changes in membership, MassHealth published a Notice of Opportunity in the summer of 2015 soliciting six new members to serve on the Implementation Council through December 2016. One council member noted that the resulting diversity was both exciting and challenging; the council member remarked on the council's pursuit of multiple and diverse initiatives while operating within limited resources. Another membership solicitation occurred in November 2016 because the terms of all members expired in December 2016. All

²² Agenda and meeting minutes can be viewed at: <https://www.mass.gov/service-details/one-care-open-meetings>

members interested in continuing their participation were required to apply; the application deadline was extended from December 2016 to January 2017.²³

Generally, the Implementation Council meets monthly; 10 meetings occurred in 2015 and 11 in 2016. Typical agenda items include presentations by MassHealth and the OCO, with other occasional reports from subcommittees and MMPs. In addition to the council meetings, subcommittees and workgroups address a range of topics, including behavioral health privacy; LTSS; and quality and encounter data. The Implementation Council creates an annual work plan and summarizes its work in an annual report. Meeting minutes, presentations, and related items are publicly available.²⁴

Although the Implementation Council provided input and collaboration in a number of different areas, council members highlighted two key successes in demonstration year 2: (1) the level of collaboration with MassHealth and others to achieve a smooth transition for members affected by Fallon’s withdrawal from the demonstration, and (2) effective advocacy that achieved greater financial stabilization for the MMPs remaining in the demonstration. With respect to Fallon, the Implementation Council worked closely with MassHealth, meeting weekly during the summer of 2015 during what one member described as a “tenuous time,” with an especially sharp focus on continuity-of-care issues for beneficiaries returning to the fee-for-service system. Shortly after Fallon announced its intent to withdraw from the demonstration, the Acting Director of the CMS Medicare-Medicaid Coordination Office and the Assistant Secretary of MassHealth attended an Implementation Council meeting. In early September 2015, two council members travelled to Washington, DC, to meet with representatives from MassHealth, CMS, and other government agencies to evaluate the financial structure of One Care. As one MassHealth official noted, the Implementation Council holds an important role in the demonstration:

If we didn't have tremendous support for the program mainly from the users of the program, I don't think we would have got CMS to the table to make the kind of changes that we needed to keep the program going. I think if the program had been unsupported it would have easily... disappeared in a second.

The discussions in Washington, DC, resulted in changes to the demonstration’s financial structure, as outlined in *Section 3.5, Financing and Payment*.

Examples of other ongoing areas of engagement and focus for the Implementation Council included:

- Working to clarify and improve the role of the LTS Coordinator in the delivery of LTSS. A subgroup was reconvened in 2016 to address several issues, including strengthening communication between MMPs and community-based organizations,

²³ Additional information on this process and resulting membership will be provided in the next evaluation report.

²⁴ Materials from Implementation Council meetings can be viewed at:
<https://www.mass.gov/eohhs/provider/guidelines-resources/services-planning/national-health-care-reform-plan/federal-health-care-reform-initiatives/integrating-medicare-and-medicaid/implementation-council.html>

achieving greater integration of the LTS Coordinator into service delivery, and other policy and operational issues.

- Collaboratively working on the topic of behavioral health privacy in an integrated care model, including the development of behavioral health privacy principles and the sharing of best practices by MMPs.
- Advocating and enhancing the delivery of culturally-competent services.
- Developing approaches to enhance enrollment outreach, including making stipends available to Council members to attend outreach activities. Outreach activities are described in *Section 3.2, Eligibility and Enrollment*.
- Advocating for more timely and actionable data to assist the council in better monitoring the demonstration. The Implementation Council has been exploring potential data dashboards or other publicly accessible information tools for tracking and displaying key performance indicators and data points that could be adapted for One Care.
- Improving beneficiary education about the care planning process.
- Closely collaborating with the One Care Ombudsman (OCO).
- Some of this work has resulted in suggestions for consideration by MassHealth and CMS as potential amendments to the three-way contract. Some stakeholders reported a concern that focus would shift from One Care to MassHealth’s broader reforms, in part based on the size of the respective initiatives. One goal of the Implementation Council was to ensure that this did not happen.

3.4.3 Member Advisory Boards

As required as part of the demonstration design, each MMP is required to establish a Member Advisory Board (MAB). Both MMPs reported that the feedback and input they receive from these boards has been valuable on several levels. As one MMP noted, MABs serve as a “great sounding board and a thermometer for how things are going.” MMPs reported using feedback from MAB members to improve service design. Enrollees commonly raised issues regarding transportation to providers and questions about MMP provider networks. In the case of at least one MMP, enrollees provided suggestions for improving the readability of the member handbooks and other printed materials provided by the MMPs to enrollees. One MMP also noted that the MAB provided a sense of community for the participants where it might not have existed before. One MMP used feedback from the MAB to improve service design. The One Care Ombudsman program and members of the Implementation Council reported meetings with MABs.

Both MMPs noted that although issues and complaints were raised at these meetings, advisory board members also reported positive experiences with the demonstration overall and viewed the MAB as an opportunity to provide peer-to-peer outreach to potential new enrollees

about actual experiences with the demonstration. One MMP has invited members of the MAB to passive enrollment outreach events.

3.5 Financing and Payment

Highlights

- All three MMPs reported losses in the first 18 months of operation, leading one MMP (Fallon) to withdraw from the demonstration effective September 30, 2015.
- Several changes to the financial structure of the demonstration were finalized in a contract amendment executed in December 2015 that helped to stabilize the demonstration.
- The two remaining MMPs reported improved financial results for CY 2015 and 2016; both MMPs reported a goal of increasing enrollment and, in the case of one MMP, increasing its geographic coverage area.
- The percent of enrollees with complex needs has increased over time. While the average per member per month (PMPM) spend varied across MMPs and rating categories, the average PMPM for demonstration year 2 was \$2,560 for one MMP and \$1,952 for the other, increases from demonstration year 1 of 16 percent and 30 percent, respectively.

All covered Medicare and Medicaid services are paid on a capitated basis. One Care plans receive three monthly capitation payments from CMS and MassHealth. CMS makes a monthly payment for Medicare Parts A and B covered services and a separate payment for Medicare Part D, prescription drug benefits. MassHealth makes a monthly payment for Medicaid covered services—which typically includes non-acute care coverage. In addition to the capitation rates, the demonstration incorporates other reimbursement methodologies, including savings percentages, high cost risk pools, and risk corridors. This section outlines changes in financing and payment since demonstration year 1 and relevant findings relating to these changes.

3.5.1 Rate Methodology

As discussed in the first Annual Report, MassHealth officials, MMPs, and stakeholders reported concerns about the adequacy of the financing for the demonstration from the outset. In the first 18 months of operation, all three plans reported losses. Although a contract addendum was executed in September 2014 and another in January 2015,²⁵ concerns regarding financial sustainability persisted into demonstration year 2. In June 2015, one of the MMPs, Fallon, announced its intention of withdrawing from participation in the demonstration as of September 30, 2015. Fallon's withdrawal and the related consequences are discussed in *Section 3.2, Eligibility and Enrollment*.

²⁵ These contract addenda are discussed in detail in the first Annual Report.

On September 2, 2015, representatives from CMS, EOHHS/MassHealth, the Federal Office of Management and Budget, the Federal Office of the Actuary, and Implementation Council met in Washington, DC, to evaluate the financial structure and payment parameters of the demonstration. Several changes were negotiated as part of that meeting which were subsequently formalized in a three-way contract amendment executed December 28, 2015 (three-way contract, 2015). These changes increased capitation rates and revised other financial provisions, as described throughout this section. A contract addendum was subsequently executed July 5, 2016. This addendum extended the demonstration through December 31, 2018, and addressed quality withhold amounts, savings percentages, and risk corridor provisions for the 2 additional years of the demonstration.

3.5.2 Rating Categories and Risk Adjustments

CMS and MassHealth are each responsible for a portion of the overall capitation rate that is paid to MMPs. The Medicaid component is risk-adjusted through the assignment of one of six rating categories based on the enrollee's clinical status and care setting. These rating categories are described in detail in the first Annual Report. The Medicare Parts A and B rate component is individually risk-adjusted using the prevailing Medicare Advantage CMS-Hierarchical Condition Category (HCC) and CMS HCC-End Stage Renal Disease (HCC-ESRD) models. The Medicare Part D payment is risk adjusted using the Part D RxHCC model.

During the time frame of this report, CMS revised the CMS-HCC risk adjustment model as it pertains to Medicare-Medicaid beneficiaries for payment of Medicare services.²⁶ Specifically, in November 2015, CMS solicited public comment for a potential revised risk adjustment model for Medicare Advantage plans for payment year 2017. In April 2016, CMS finalized the revised risk adjustment model for Medicare Advantage for payment year 2017 in the CY 2017 Final Rate Notice and Call Letter. The revised model would be implemented in both the capitated model demonstrations under the Financial Alignment Initiative and more broadly in Medicare Advantage. For payment year 2016, capitated payments to MMPs participating in the capitated model demonstrations under the Financial Alignment Initiative continued to use the prevailing risk adjustment model. However, CMS adjusted the fee for service (FFS) component of the Medicare Parts A and B capitation payments to better align payments with FFS costs.

As noted above, the contract amendment executed in December 2015 increased the Medicare and Medicaid capitated rates to the plans. The Commonwealth reported that rate adjustments over a 2-year period included an increase of \$29.8 million in the Medicaid rate and an increase of \$17.8 million in Medicare. On the Medicaid side, MassHealth increased its base rate component to include additional funding for administrative spending, expanded community support services, dental services, additional behavioral health services, and complex care management.²⁷ As MassHealth reported, these changes increased the capitation rates to more

²⁶ In 2015, CMS evaluated the accuracy of the 2014 CMS-HCC risk adjustment model in predicting costs of Medicare-Medicaid enrollees. The evaluation found that the model predicts national costs well for Medicare-Medicaid enrollees who are long-term residents in facility settings, and under-predicts costs for full-benefit enrollees and over-predicts costs for partial-benefit Medicare-Medicaid enrollees residing in the community.

²⁷ As described in the first Annual Report, not all of these costs had been built into the initial One Care rates.

expected to report on and meet the required quality measures; the Commonwealth and CMS continued to use data collected on these measures for contract management. The quality withhold was reduced from 3 to 1 percent for demonstration year 3.

Because the withhold amounts for CY 2014 were not finalized at the time of the first Annual Report, they are included in this report in *Table 10* and *Table 11*. Earned quality withhold payments across all three MMPs were approximately \$810,000 in Medicaid payments (*Table 10*) and approximately \$1,086,000 in Medicare payments (*Table 11*) in CY 2014. In total, Medicaid and Medicare made approximately \$1,900,000 in earned withhold payments across all three MMPs in CY 2014. Two of the three MMPs (CCA and Tufts) reported quality withholds of \$0 in 2015 as the quality withhold for these MMPS was set to 0 percent in CY 2015.

Table 10
Quality withhold measures: MassHealth payments for calendar year 2014

One Care plan	Number of measures passed	Quality withhold amount (rounded)	Percent of earned withhold	Earned quality payment (rounded)
CCA	3 out of 6	\$864,000	50	\$432,000
Fallon	5 out of 6	\$318,000	100	\$318,000
Tufts	4 out of 6	\$80,000	75	\$60,000

CCA = Commonwealth Care Alliance.

NOTES: Quality withholds were calculated separately for the first quarter of the demonstration (October 1, 2013–December 31, 2013). For that quarter, all three MMPs met each of the three required measures. Withhold amounts varied from \$60,000 to \$6,000 and all three MMPs received 100 percent of the earned withhold amounts.

SOURCE: MassHealth Open Meeting, May 24, 2016.

Table 11
Quality withhold measures: CMS Medicare payments for calendar year 2014

One Care plan	Medicare Quality withhold amount (rounded)	Percent of earned withhold	Earned Medicare Quality payment (rounded)
CCA	\$989,000	50	\$495,000
Fallon	\$484,000	100	\$484,000
Tufts	\$143,000	75	\$107,000

NOTES: Quality withholds were calculated separately for the first quarter of the demonstration (September October 1, 2013, 2014–December 31, 2014). For that quarter, all three MMPs met each of the required measures. Withhold amounts varied from approximately \$9,000 to \$79,000, and all MMPs received 100 percent of the earned withhold amounts.

SOURCE: CMS, May 2017.

Quality withholds for calendar year 2014 included three core measures that apply across all demonstrations under the Financial Alignment Initiative as well as three State-specific measures. The CMS core measures include measures relating to completed assessments;

encounter data; and establishment of MMP member advisory boards. The State-specific measures include measures related to centralized enrollee record; documented discussion of care goals; and access to LTS Coordinators. Quality withhold payments by CMS and MassHealth were tied to performance on both the core and State-specific measures. (Three-way contract, 2015, pp. 206–7).

3.5.5 High-Cost Risk Pools

The demonstration design established a high-cost risk pool (HCRP) designed to redistribute funding across MMPs in the event of disproportionate enrollment of high-cost beneficiaries. The first Annual Report provides detail about how the HCRP operated. The January 2015 contract addendum eliminated the HCRPs for demonstration year 1.³⁰ It also provided flexibility to eliminate HCRPs in future years: subsequently, HCRPs were eliminated for demonstration years 2 and 3.

3.5.6 Risk Corridors

The three-way contract established risk-sharing corridors for demonstration year 1 and set forth the method for calculating the percentage of the gain or loss to be shared by the MMP, CMS, or MassHealth. The three-way contract was amended in September 2014 and January 2015 to expand and extend the risk corridors for the demonstration. For MMPs with losses, the extension of the risk corridors reduced their share of losses and increased the proportion that CMS and MassHealth would have to bear. The July 2016 contract addendum established risk corridors for demonstration years 4 and 5, consistent with the methodology for demonstration year 3.

3.5.7 Reported Cost Experience

Officials from CMS, MassHealth, and the MMPs reported that the financial status of One Care improved following the changes made in the December 2015 contract amendment. As one MassHealth official noted:

One Care is in a much more stable place than it was before. It is a stable program. It is sustainable. And that was a big focus of when we were going through the financial negotiations with CMS. We have to sustain this program, we have to stabilize it. We have to get it to a sustainable place. And I think we've very much turned the corner on that and done that, and we have positive results to show on that so far.

In addition to the increased Medicare and Medicaid capitation rates, one MMP also reported the importance of changing the timing of Part D reconciliation payments. As noted in the first Annual Report, MMPs experienced high pharmacy costs, which were attributed in part to the Medicare-Medicaid population served by One Care. CMS has increased prospective Part D Low Income Cost Sharing Subsidy (LICS) amount and reinsurance payments to more closely

³⁰ The One Care plans expected this change to be budget neutral and health care reimbursement plan withholdings were refunded to each plan through May 2015. Beginning in June 2015, the HCRP withholdings were no longer withheld as part of the rate payments. .

align with the plan’s projected costs, which has reduced the need of the MMP to carry the bulk of these pharmacy costs for extended periods of time. MMPs also remarked favorably on other adjustments to savings percentages, risk corridors, and other contract changes. Because of these combined changes, the MMPs reported improvements in their financial situation in demonstration year 2.³¹ Table 12 presents the One Care plan revenue and spending for demonstration years 2 and 3. Both MMPs show increasing revenues and spending in demonstration year 3, with one MMP showing increased net gains and the other indicating a new loss of almost 12 percent.

Table 12
One Care plan revenue and spending for demonstration years 2 and 3

Revenue and spending	January 1, 2015 to December 31, 2015		January 1, 2016 to December 31, 2016	
	CCA	Tufts Health Unify	CCA	Tufts Health Unify
Total revenue	\$390,439,960	\$53,496,338	\$431,736,831	\$72,317,561
Total spending	\$375,809,100	\$51,590,243	\$408,492,208	\$80,056,801
Net income	\$14,813,130	\$1,906,095	\$23,244,623	(\$7,739,240)
Net gain/loss	3.8%	3.6%	5.4%	(10.7%)

CCA = Commonwealth Care Alliance.

NOTES: Financial information from CY 2015 and CY 2016 may not be directly comparable due to the completion of financial reconciliation. Total revenue includes Medicaid Premiums; Medicare Parts A & B Premiums; Medicare Part D Premiums; Medicare Part D LICs & Reinsurance; Investment Income; Quality Incentive Revenue; Risk Corridor Payments; High Risk Cost Pool; Other Revenue—Medicaid; and Other Revenue—Medicare. Total spending includes Medical Expenses (Inpatient—Acute, Inpatient—MH/SA, Hospital Outpatient, Outpatient-MH/SA, Professional, HCBS/HomeHealth, LTC Facility, Pharmacy Part D, Pharmacy Non Part-D, DME and Supplies, Transportation, Incurred but not Reported, and All Other) and Administrative Expenses (HCQU Expenditures, Direct Variable Expenses, Direct Fixed Expenses, Indirect Variable Expenses, Indirect Fixed Expenses, and Expenses Disallowed by CMS).

SOURCE: January 1, 2015—December 31, 2015 CCA data are derived from plan reported data to MassHealth as of May 1, 2017. January 1, 2016—December 31, 2016 CCA data are derived from plan reported data to MassHealth as of July 31, 2017. January 1, 2015—December 31, 2015 Tufts data are derived from plan reported data to MassHealth as of April 30, 2017. January 1, 2016—December 31, 2016 Tufts data are derived from plan reported data to MassHealth as of July 30, 2017.

MMPs previously reported the need to make significant up-front investments, which, in part, contributed to initial financial losses. One MMP reported seeing some early signs of return on some of those initial start-up costs and investments:

I would echo that it’s early yet and we have some early promising data that suggests that over time with people engaged in our model that we’re starting to bend the cost curve in certain key areas. One of the key findings is that particularly for populations like our One Care population with unmet need, marginalization, social/behavioral health complexity, stigma, that engagement period takes longer than we would have hoped. But we have lots of certainly very

³¹ As detailed in the first Annual Report, CCA reported a loss of approximately \$18 million for demonstration year 1 and for Tufts, a loss of approximately \$500,000.

positive anecdotal evidence like some of the stories told here and many, many, many more to show that we can not only engage people, but actually start to engage them in meaningful primary preventive care and to defray acute care utilization. We have early findings from the first quarter of this year that suggest that our medical expenses are making a downward trend, but I think it's still early.

MassHealth and the MMPs reported different cost experiences related to disenrollment rates. Because of the early cost investments, one MMP was concerned about enrollment retention periods, as they were experiencing higher disenrollment rates for certain cohorts:

One of the challenges for the program is you do all this work, you get people enrolled, you spend a lot of money on them. We know that if they stay after nine to 12 months, which is longer than the typical managed care population, after that period they stabilize and we see some plateauing of their utilization but [right now] we don't keep them. From an underwriting perspective, that's difficult.

Although MassHealth, CMS, and the MMP expressed an interest improving their understanding of factors influencing disenrollment, no beneficiary surveys or other data were available at the time of the RTI site visit to inform this experience.

Based on financial data provided by the MMPs to MassHealth, the average PMPM spend for demonstration year 2 was \$2,560 for CCA and \$1,952 for Tufts, an increase from demonstration year 1 of 16 percent and 30 percent, respectively. MassHealth and officials from the MMPs attributed this change, in part, to increased complexity of beneficiaries enrolled in the demonstration. For example, both MMPs experienced significant decreases in the proportion of enrollees assigned the lowest community rating category (C1)³² in demonstration year 2: CCA decreased from 52 to 34 percent, and Tufts decreased from 41 to 30 percent.

In demonstration year 3, the PMPM medical expense service spend across all rate cells³³ was \$2,783 for CCA and \$2,468 for Tufts, representing increases of approximately 9 percent and 26 percent from demonstration year 2, respectively. From demonstration year 2 to demonstration year 3, CCA saw an increase in the overall number of member months, with a large decrease in the number of member months in the C1 Community: Other rating category (42,425 member months to 24,809 member months). All other rating categories had an increase. From demonstration year 2 to demonstration year 3, Tufts had an increase in the overall number of member months, with an increase in the number of member months in the C1 Community: Other and C2A Community: High Behavioral rating categories.

MassHealth officials reported that average PMPM amounts reflected more significant fluctuations when broken down across MMPs and rating categories. Plans reported different enrollment patterns, case mix, enrollment numbers, and differences in care approaches, some or all of which influence these differences. The MMPs noted that their membership included a higher proportion of people with complex behavioral health needs, with a heavy substance use disorder overlay.

³² See the first Annual Report for a description of the MassHealth rating categories for One Care.

³³ See *Table 13* for the service categories.

MMPs also observed that limiting the demonstration to younger Medicare-Medicaid beneficiaries presented unique differences from other programs that affected costs. One MMP noted:

We think this demonstration is the right thing to do. It serves a population who traditionally have flown under the radar, but we find the under-65 focus in Massachusetts to be a blessing and a curse. It's a blessing because it forces us to focus on very hard-to-reach people. It's a curse because they are really hard to serve and we have no offsetting of well elders aging in place with medical frailties but with none of the social challenges that the folks [we serve] have.

Table 13 shows the percentage PMPM service spend in demonstration years 2 and 3 for CCA and Tufts. Both MMPs reported similar PMPM spend by service category.

Table 13
Percentage PMPM spend by service category:
Demonstration years 2 and 3

Service	January 1, 2015–December 31, 2015		January 1, 2016–December 31, 2016	
	CCA: %	Tufts: %	CCA: %	Tufts: %
Inpatient—Acute	14.8	19.5	13.8	20.6
Inpatient—Mental health and substance abuse	4.9	6.4	6.1	4.8
Hospital outpatient	8.3	9.3	8.8	9.2
Outpatient—Mental health and substance abuse	4.7	5.9	4.5	6.1
Professional	11.0	7.5	10.8	7.6
Home and community-based services/home health	15.6	13.8	15.9	13.7
Long-term care facility	1.4	1.5	1.6	2.0
Pharmacy Part D	25.7	28.2	22.2	24.6
Pharmacy non-Part D	0.9	0.5	0.9	0.4
Durable medical equipment and supplies	3.8	1.2	3.7	2.9
Transportation	4.3	3.2	4.3	4.0
Incurred but not reported	0.0	0.1	3.8	1.1
All other	4.5	3.1	3.6	3.0
Total medical	100.0	100.0	100.0	100.0

CCA = Commonwealth Care Alliance.

NOTE: Incurred but not reported (IBNR) spending is an estimate of costs that have been incurred for services provided during the reporting period, but that have not yet been billed or adjudicated.

SOURCE: One Care Plan Submissions to MassHealth as of August 2017.

3.6 Quality of Care

Highlights

- MassHealth, CMS, the MMPs, and other independent organizations have a role in the quality oversight of One Care.
- Officials from MassHealth and the MMPs report that while the demonstration is sufficiently mature to produce data on quality indicators, it is still too early to reach any meaningful conclusions.
- One Care lacks comparable quality metric benchmarking because it is the only State with a demonstration under the Financial Alignment Initiative that limits enrollment to individuals under age of 65 at the time of enrollment.

This section provides information on the quality measures for the demonstration and updates on the quality management structure for the demonstration and includes HEDIS results. Results of quality measures for the demonstration period are discussed in *Section 5, Service Utilization*.

3.6.1 One Care Quality Measures

As described in the first Annual Report, the demonstration requires that MMPs report standardized quality measures. These measures include a set of core measures specific to all capitated demonstrations under the Financial Alignment Initiative and a set of State-specific measures that were selected by One Care staff in consultation with CMS. The demonstration also utilizes quality measures required of Medicare Advantage 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. One Care plans submit two additional measure sets as part of the Medicare Advantage requirement: selected Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures; and selected Health Outcomes Survey (HOS) measures. Several adjustments and changes to reporting requirements have been made over the course of the demonstration.³⁴ Reporting and performance on some of these measures constitute quality withholds, meaning that a percentage amount is withheld from capitation rates and returned to the MMPs subject to their performance on certain quality metrics. Measures may change for different demonstration years.

While MMP officials reported that the required quality measures were useful overall, they observed that some measures appeared to focus more on compliance than quality, and a few did not appear particularly useful for the Medicare-Medicaid beneficiaries served by One Care. As an example, one MMP noted that it reported “infinitesimal numbers” when reporting measurements around congestive heart failure and chronic obstructive pulmonary disease. One

³⁴ Guidance memoranda on Financial Alignment Initiative reporting requirements can be accessed at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/InformationandGuidanceforPlans.html>

MMP noted that the specifications as written did not always translate well into quality measurement.

Both MMPs noted the challenging resource and time requirements needed to report measures that relied on extensive provider-level chart review. MassHealth officials recognized some issues but noted that overall, the concerns were of the type to be expected for any measures set. MMPs also reported a collaborative relationship with MassHealth and CMS around interpreting and improving reporting guidelines and procedures.

In the first demonstration year, MassHealth reported that the demonstration had not yet matured to the point where sufficient data were available to inform many of the quality activities related to One Care. Moving from demonstration year 2 into demonstration year 3, the challenge has shifted from data collection to data measurement. Although data on these measures, including HEDIS and CAPHS data, are now being reported, MassHealth and MMP officials noted that it was still too early to draw conclusions from the data, and in some cases, too early to even identify trends, especially since some reported measures reflected small numbers of beneficiaries. Also, MassHealth and MMPs both noted the difficulty of benchmarking quality data to other programs in the Commonwealth or to other demonstrations under the Financial Alignment Initiative because they were the only demonstration that limited enrollment to beneficiaries under the age of 65 at the time of enrollment.

3.6.2 Quality Management Structures and Activities

MassHealth, CMS, the MMPs, and other independent organizations have a role in quality oversight; the overall quality management structure and activities for One Care are described in the first Annual Report. As the demonstration has matured, MassHealth officials reported that they have had fewer meetings with the MMPs as a group to review core and state-specific quality measures. Meetings were initially held bi-weekly, then monthly, and now meetings are held on a quarterly basis. These meetings are also used for best practice development sessions.³⁵ MassHealth conducts on-site clinical reviews on an annual basis (bi-annual in some cases), primarily focused on the adequacy of the Centralized Enrollee Record and its required elements.

MassHealth reported a preliminary observation of improvement to the quality of beneficiaries' behavioral health services. This observation was primarily derived through anecdotal sources but was consistent with other preliminary One Care data. MassHealth staff also reported high satisfaction with the initial CAHPS results.³⁶ Both MMPs reported quality improvement activities focused on a number of areas including access, utilization, beneficiary experience, and beneficiary outcome. Both MMPs have primarily focused on required quality activities at this point in the demonstration, including but not limited to HEDIS measures, CAHPS surveys, chronic care improvement projects (CCIP), and quality improvement projects (QIP). For CY 2015 and 2016, one MMP focused on cardiovascular disease prevention in high-risk diabetics as its CCIP and on investigating beneficiary experiences with the LTSS coordinator role as its QIP (KEPRO [formerly APS Healthcare]: Massachusetts External Quality Review Reports for CCA and Tufts: Calendar Year 2015, 2016). The other MMP focused on

³⁵ These meetings were initially held bi-weekly, then monthly.

³⁶ CAHPS results are reported in *Section 4, Beneficiary Experience*.

improving diabetes health outcomes as its CCIP and on emergency department utilization and LTSS as its QIP.

3.6.3 Independent Quality Activities

The Implementation Council plays key roles in monitoring access to health care and compliance with the Americans with Disabilities Act (ADA), tracking quality of services, and promoting accountability and transparency. In part, the Implementation Council examined quality by reviewing issues raised through the grievances and appeals process and One Care Ombudsman reports, soliciting beneficiary feedback, and monitoring access to services. Additionally, the Implementation Council and MassHealth established a quality subgroup; MassHealth collaborated with this subgroup to design a Quality of Life survey for One Care beneficiaries (Henry et al., 2015, 2016). MassHealth expressed a preference for ad hoc meetings of the quality subgroup, in part they felt the flow of data reporting did not lend itself to regular monthly or quarterly meetings.

Additionally, the One Care Ombudsman (OCO) program provides independent advocacy on behalf of beneficiaries and identifies broader systematic issues impacting quality of care. The OCO reports quarterly to MassHealth and regularly attends and presents on quality issues at the monthly Implementation Council meetings. Data on complaints and grievances is presented in ***Section 4, Beneficiary Experience***. At the end of demonstration year 2, MassHealth was in the process of extending the OCO's contract through May 31, 2017. MassHealth reported its intention to submit an application in January 2017 in response to a funding opportunity through CMS for on-going support of the OCO. Funding has since been awarded and is expected to begin on June 1, 2017.

An External Quality Review Organization (EQRO) annually validates Medicaid's performance measures and its CCIPs and QIPs. For the purposes of these reports, the performance rates of One Care plans are compared to the national Medicaid percentiles. As described previously, MMPs are required to have a member advisory board to provide regular feedback on issues of demonstration management and enrollee care. The member advisory boards are also described in ***Section 4, Beneficiary Experience***.

3.6.4 Results for Selected Quality Measures

HEDIS Quality Measures Reported for One Care Plans

Twelve Medicare HEDIS measures for MMP enrollees are reported in ***Table 14***. RTI identified these measures for reporting in this Evaluation Report after reviewing the list of measures we previously identified in RTI's Aggregate Evaluation Plan as well as the available HEDIS data on them for completeness, reasonability, and sample size; 2015 calendar year data were available for two out of the three One Care plans. Detailed descriptions of the measures can be found in the RTI Aggregate Evaluation Plan.³⁷ As noted in ***Table 14***, several of these measures also serve as quality withhold measures for One Care. Results were reported for measures where sample size was greater than 30 beneficiaries. In addition to the results for each

³⁷ <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/EvalPlanFullReport.pdf>

MMP, the mean value for Medicare Advantage plans in 2015 for each measure is provided for comparison.

Table 14
Selected HEDIS measures for One Care plans, 2014 and 2015

Measure	National Medicare Advantage plan mean (2015) (%)	CCA (2014) (%)	CCA (2015) (%)	Tufts (2014) (%)	Tufts (2015) (%)
Adult body mass index (BMI) assessment	93.0	—	77.9	—	92.2
Adults' access to preventive/ambulatory health services [†]	94.7	96.9	97.5	96.4	96.0
Annual monitoring for patients on persistent medications					
Annual monitoring for members on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARB)	92.6	89.6	91.1	82.3	85.2
Annual monitoring for members on digoxin	57.4	—	—	—	—
Annual monitoring for members on diuretics	92.9	90.9	90.3	81.7	86.3
Total rate of members on persistent medications receiving annual monitoring	91.9	89.9	90.6	81.8	85.5
Antidepressant medication management					
Effective acute phase treatment ¹	69.6	65.0	56.6	—	83.1
Effective continuation phase treatment ²	55.6	53.7	45.3	—	74.7
Blood pressure control ^{3††}	67.6	54.7	61.1	63.4	64.1
Breast cancer screening	72.3	—	83.1	—	—
Colorectal cancer screening	66.7	—	46.2	—	57.5
Comprehensive diabetes care					
Received Hemoglobin A1c (HbA1c) testing	93.1	95.9	93.2	91.9	88.8
Poor control of HbA1c level (> 9.0%) (higher is worse)	28.4	55.2	58.2	31.6	29.7
Good control of HbA1c level (< 8.0%)	61.8	35.8	35.0	56.6	62.0
Received eye exam (retinal)	68.3	66.9	66.2	72.8	63.1
Received medical attention for nephropathy	95.5	92.5	93.7	93.4	93.7
Blood pressure control (< 140/90 mm Hg)	60.9	66.7	60.8	75.0	69.7
Follow-up after hospitalization for mental illness ^{††}	51.0	55.4	72.1	78.4	76.6
Initiation and engagement of alcohol and other drug (AOD) dependence treatment [†]					
Initiation of AOD treatment ⁴	32.3	43.8	43.3	32.8	40.0
Engagement of AOD treatment ⁵	3.2	7.1	11.3	9.4	13.2

(continued)

Table 14 (continued)
Selected HEDIS measures for One Care plans, 2014 and 2015

Measure	National Medicare Advantage plan mean (2015) (%)	CCA (2014) (%)	CCA (2015) (%)	Tufts (2014) (%)	Tufts (2015) (%)
Plan all-cause readmissions (average adjusted probability total) (higher is worse; these data are not percentages) ^{† †}	17.3	22.5	22.0	18.2	22.2
Ambulatory care (Per 1,000 members; these data are not percentages)					
Outpatient visits	9,161.2	10,825.6	12,192.0	8,831.7	9,581.0
Emergency department visits (higher is worse)	607.8	1,318.6	1,418.6	1,176.0	1,446.3

CCA = Commonwealth Care Alliance; — = not available.

¹ Represents the percentage of members who remained on an antidepressant medication for at least 84 days (12 weeks).

² Represents the percentage of members who remained on an antidepressant medication for at least 180 days (6 months).

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

⁴ Represents percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis.

⁵ Represents the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

† Indicates HEDIS measure that is included as part of state-specific quality withhold measures. The Massachusetts-specific quality withhold technical notes for DY 2–5 are available here: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/MAQualityWithholdGuidanceDY2-5_03162018.pdf

†† Indicates HEDIS measure that is included as part of core quality withhold measures for demonstration years 2–3 (three-way contract, 2015, pp.207–9). The core quality withhold technical notes for DY 2–5 can be found here: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/QualityWithholdGuidanceDY2-503142018.pdf>

NOTES: Data for fall risk management, physical activity in older adults, and management of urinary incontinence in older adults do not apply to the under age 65 demonstration population. Data for which the final sample size was < 30 were determined too small to present; in cases where final sample size was unavailable, RTI used eligible population to make this determination. Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/EvalPlanFullReport.pdf>.

SOURCE: RTI analysis of 2014 and 2015 HEDIS measures.

We provide national benchmarks from Medicare Advantage plans, where available, understanding that Medicare Advantage enrollees and demonstration enrollees may have different health and sociographic characteristics that 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. HEDIS measure performance, in particular, is slightly worse among plans active in areas with lower income and populations with a higher proportion of minorities (Office of the Assistant Secretary for Planning and Evaluation, 2016). Benchmarks should be considered with those limitations in mind. These findings on One Care MMP HEDIS measure performance represent the early experience in the demonstration, and are likely to change over time as MMPs gain more experience in working with enrollees. Monitoring trends over time in MMP performance may be more important than the comparison to the National Medicare Advantage plans, given the population differences. Several years of HEDIS results are likely needed to know how well MMPs perform relative to each other and whether they perform above or below any potential benchmark.

For each measure reported for One Care, results across CCA and Tufts vary, and there was not a consistent trend across measures for one MMP versus the other. For four measures reported (adults' access to preventive/ambulatory health services, follow-up after hospitalization for mental illness, and initiation and engagement of alcohol and other drug dependence treatment), both plans performed better than the national Medicare HMO benchmark value in 2015. For the remaining measures, one or both plans performed below the 2015 benchmark value. These measures related to adult BMI assessment, annual monitoring for patients on persistent medications, antidepressant medication management, blood pressure control, colorectal cancer screening, comprehensive diabetes care, plan all-cause readmissions, and ambulatory care.

Performance on HEDIS measures remained relatively stable between 2014 and 2015. However, CCA experienced decreases in the percentage of enrollees with antidepressant medication management, blood pressure control for enrollees receiving diabetes care, and disease modifying anti-rheumatic drug therapy in rheumatoid arthritis. CCA also saw a nearly 17 percent increase in the number of enrollees receiving follow-up after hospitalization for mental illness. Tufts saw a decrease in eye exams and blood pressure control among those receiving diabetes care, and an increase in control of HbA1c level (< 8.0 percent) for those receiving diabetes care and initiation of alcohol and other drug dependence treatment. Ambulatory care per 1,000 members for outpatient visits increased between 2014 and 2015 for both CCA and Tufts, which is desirable, but ambulatory care for emergency department visits also increased for both CCA and Tufts, which is not desirable.

4. Beneficiary Experience

Highlights

- Many success stories about One Care have been reported by beneficiaries directly and anecdotally from stakeholders. Medicare-Medicaid enrollees report overall satisfaction with One Care. This is often attributed to the availability of new and expanded services offered by the demonstration as well as care coordination activities.
- Across multiple data sources—focus group, CAHPS survey, and Quality of Life survey—most One Care enrollees expressed satisfaction with their plan, health care and services, and their providers.
- One Care enrollees considered to be special populations shared mixed feedback about access to behavioral health services. A few focus group participants reported challenges accessing specialists including behavioral health providers, whereas CAHPS survey respondents indicated that between 68 to 87 percent of enrollees who needed treatment or counseling were always or usually able to receive it.
- One Care enrollees in need of home care assistance were able to access and avail themselves of this care provided through their plan.
- Based on data provided by MassHealth, the delivery of transportation services continues to generate the largest number of grievances. This is consistent with findings from other stakeholder reports as well as the focus groups conducted in both 2015 and 2016.

One of the main goals of the demonstration under the Financial Alignment Initiative is to improve the beneficiary experience accessing Medicare and Medicaid. This section highlights beneficiary experience with One Care and provides information on beneficiary protections, data related to complaints and appeals, and critical incident and abuse reports. The section also includes information on the experience of special populations.

4.1 Methods and Data Sources

In line with all Medicare Advantage plans, One Care plans conducted annual assessments of beneficiary experiences using a Medicare Advantage Prescription Drug CAHPS survey instrument, which included question items added for the Financial Alignment Initiative evaluation of capitated model demonstrations. This section presents results from the 2015 and 2016 CAHPS survey. This section also presents results from the 2015 and 2016 Quality of Life survey, key informant interviews with MassHealth officials, One Care representatives, CBO staff, and other relevant stakeholders along with input received from the Implementation Council and the MMP MAB. Complaint, grievance, and appeals data are also included in this section. Sources of these data include CMS's Complaint Tracking Module, Report covering October 2014–December 2016; MMP reported data for Core Measure 4.2; IRE data for January 2014–December 2015; and ACL's quarterly data report for January 1, 2015–March 31, 2016.

The RTI evaluation team conducted three focus groups with One Care enrollees who were receiving LTSS and had self-reported behavioral health needs. Focus groups targeted ethnically and racially diverse One Care enrollees, specifically Hispanic and African-American One Care enrollees in Massachusetts. A total of 12 One Care enrollees participated in the three focus groups in February 2016. Each session was approximately 2 hours long. Two groups were conducted in Spanish and one was conducted in English. The focus groups explored One Care enrollees' experiences with care, their interactions with their providers, their experiences with One Care beneficiary protections, and the impact of demonstration services on their lives. For Spanish-speaking enrollees, the focus groups also aimed to understand their experience with the demonstration as a special population, including the availability of Spanish-speaking care coordinators, medical staff, or translators, and the level of cultural sensitivity care coordinators and other One Care staff exhibited. Focus group participants received gift cards as a token of the RTI evaluation team's appreciation for their input. Findings from a previous round of focus groups conducted by RTI in June 2015 were reported in the first Annual Report. See *Section 1.1* for a full description of these data sources.

4.2 Impact of the Demonstration on Beneficiaries

4.2.1 Overall Satisfaction with the Demonstration

Focus groups and CAHPS and Quality of Life survey results provide insight into how satisfied beneficiaries are with the demonstration. The Black and Spanish-speaking focus group participants reported experiences with One Care like those participating in the non-Spanish-speaking focus groups conducted in 2015 and discussed in the first Annual Report.

Many focus group participants also expressed satisfaction with One Care. Although some participants noted issues with service delivery, they often characterized the demonstration overall as being better than the care they previously received. One participant said that before enrolling in the demonstration, "there was no help." Another participant stated:

They changed my plan to [One Care] and it is tremendous. People are concerned about me. They do whatever they have to do so I feel well.

Some of the factors contributing to satisfaction included the availability of new benefits and assistance provided through care coordination, feedback that was consistent with the findings from the focus groups conducted the previous year.³⁸ As one participant reported: "Before One Care, I had to fight for everything. Now I love it. As I tell you, it's magic. If I call at 9, I know something will be done at 5." One participant reported seeing an improvement the second year:

The first year, they did the full assessment, everybody came. They made their salary that day, but they just didn't do anything for me, [and the services and equipment they talked about never happened]. It was so discouraging that I didn't even fill out the survey... They came the second year, and that time everything I

³⁸ The first set of focus groups were held in July 2015 and are described in the first Annual Report.

needed was done within the year, and we even have another plan so for this year they were very good... They followed through with everything.

As indicated in **Table 15** below, most 2015 and 2016 CAHPS survey respondents indicated they had a favorable view of their health plan. Respondents reported a high degree of satisfaction with their health plans, personal doctors, specialists, and drug plans. When asked to provide an overall rating (on a scale of 0 to 10 with 10 being the best) of their One Care plan, most survey respondents ranked it as a 9 or 10. Only one MMP, CCA, had 2016 CAHPS data on the percent of respondents reporting they were “usually” or “always” treated with courtesy and respect. One Care plan ratings generally met or exceeded the national distribution for all Medicare Advantage contracts and all MMP contracts.

Table 15
Beneficiary overall satisfaction, 2015 and 2016

CAHPS survey item	Year	National distribution— All MA contracts	National distribution— All MMP contracts	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent rating health plan 9 or 10 on scale of 0 (worst) to 10 (best)	2015	62 (N=148,335)	51 (N=5,141)	70 (N=324)	62 (N=204)	62 (N=189)
	2016	61 (N=142,984)	59 (N=9,765)	77 (N=342)	—	58 (N=169)
Percent rating drug plan 9 or 10 on scale of 0 (worst) to 10 (best)	2015	62 (N=136,044)	56 (N=5,042)	76 (N=324)	71 (N=205)	62 (N=185)
	2016	61 (N=132,613)	61 (N=9,617)	78 (N=343)	—	67 (N=168)
Percent reporting being “usually” or “always” treated with courtesy and respect	2015	79 (N=45,771)	70 (N=2,070)	98 (N=163)	94 (N=84)	98 (N=90)
	2016	79 (N=43,077)	75 (N=3,719)	89 (N=155)	—	—

— = data are not available because MMP withdrew from the demonstration.

MassHealth, MMPs, and other stakeholders also provided anecdotal One Care success stories. A member of the Implementation Council noted:

There are a lot of amazing things happening out there. People who have never had access to services are finding those services. They're getting coordination. They've got access to durable medical equipment and access to behavioral health services. I attended three of the outreach programs by the state and I was amazed by the stories of folks.... Then I visited the advisory council for [an MMP] and was so amazed by what people in that room were talking about they received that they hadn't received before. That's so exciting and they talked about the value of this program.

4.2.2 New or Expanded Benefits

A key design feature of One Care is that it offers new and expanded benefits to enrollees. These benefits include diversionary health services, expanded Medicaid services, and new community LTSS. Many of the focus group participants described receiving new or expanded benefits under One Care, including dental services, eyeglasses, smoking cessation classes, nutrition classes, weight loss coaching, and in-home behavioral health services. Similar to reports in the first Annual Report, Black and Spanish-speaking focus group participants also reported the elimination of pharmacy co-pays as an important feature of One Care. As one participant described her experience:

[One Care] helped pay for a lot of things I couldn't afford...like dentists, the eyes and different medications.... Then to see the zero [for the co-pay] on my medications is a blessing.

Another participant provided the following example:

[One Care] provided me everything for the bathroom, the railings, the shower, the chair for bathing.... They [also] sent me home therapy and I can now walk.

Some participants in the focus groups conducted in 2016 reported confusion around the scope of dental services available under the demonstration. MassHealth and MMP officials who were interviewed noted the same issue. MassHealth officials reported a growing trend in dental appeals that officials attributed, in part, to a lack of clarity and, in part, to previous unmet need. One MassHealth official noted:

A lot of enrollees haven't had a comprehensive dental package like they have under One Care. One Care has given expansive dental compared to what One Care members have had access to before. So, we're finding a lot of people that have had a lot of deterioration in their mouths. Now they finally have access to a dentist and they are trying to do a lot of different restorative work that requires prior authorization. Sometimes the [physical condition] of the mouth cannot support it or there are unique requirements to make sure the right documentation is in place.

In both the 2015 and 2016 focus groups, dental care was an important benefit for participants, but one that also led to complaints about access and coverage. In response, MassHealth and MMPs reported working together on dental provider education; the goals were to better define the scope of dental benefits available to enrollees and expedite the authorization process.

4.2.3 Medical and Specialty Services

A combined set of Medicare and Medicaid benefits is offered as part of a single benefit package under the demonstration. Benefits include coordination by the One Care plans of all medical services, including primary care, behavioral health, specialty care, and prescription medications. Most focus group participants expressed satisfaction with their primary care providers. This is consistent with results reported in the first Annual Report as well as with the

findings of the Quality of Life survey administered to One Care enrollees in 2016; over three-quarters (77 percent) of respondents indicated that they had good relationships with their health care and other providers.

Focus group participants who reported satisfaction specified that their provider knew them, communicated well, and cared about their health. Several participants had long-standing relationships with their primary care provider; several participants reported relationships going back more than 10 years. Participants reported that being able to keep their doctor was an important consideration when choosing to participate in the demonstration.

Although most focus group participants reported overall satisfaction with their providers, some expressed dissatisfaction with their primary care provider and, in some cases, reported quality of care issues and disagreements over treatment decisions. Despite their dissatisfaction, these participants expressed reluctance to switch providers, in part out of concerns that things could go “from bad to worse,” that they would “feel bad about it,” or that they were “a bit afraid to do so.” Combined grievance data compiled by MassHealth for the period April through December 2015 indicated that approximately 10 percent of One Care complaints concerned quality of care and provider or network issues.

In terms of provider communications, some focus group participants reported that their primary care and specialist providers communicated well with each other, but other participants did not feel there was much communication between them or a team approach. One participant noted that lack of communication between medical and behavioral health providers was an intentional result of participant preference for separation between those two roles. Of note, balancing behavioral health privacy within an integrated care model has been a key focus area for the Implementation Council, as described in *Section 3.4, Stakeholder Engagement*.

According to the 2016 CAHPS survey data presented in *Table 16*, approximately two-thirds of beneficiaries surveyed in all One Care MMPs (range of 63–67 percent) reported having the same doctor before enrolling in One Care. This is slightly lower than the percentage of respondents who answered affirmatively to the question in 2015 (5 percent lower for CCA, 2 percent lower for Tufts).

Table 16
Beneficiary experience with medical services (including specialists), 2015 and 2016

CAHPS survey item	Year	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent reporting that they had the same doctor before enrolling in One Care	2015	72 (N=325)	69 (N=200)	65 (N=168)
	2016	67 (N=157)	—	63 (N=65)

— = data are not available because MMP withdrew from the demonstration.

SOURCE: RTI Supplemental CAHPS data for 2015 and 2016.

4.2.4 Care Coordination Services

Care coordination is a central component of the One Care demonstration intended to ensure comprehensive assessment of enrollees' medical, behavioral health, and LTSS needs, and to coordinate services across the various service systems and providers. One Care MMPs are expected to coordinate medical services for enrollees with complex conditions or who are cared for by multiple providers. Delivery of care coordination under One Care, including delivery systems and models, is discussed in **Section 3.3, Care Coordination**. This section focuses on beneficiary experience with care coordination. By design, One Care enrollees may have multiple people coordinating their care. As discussed in **Section 3.3, Care Coordination**, plans have implemented different models of delivery for care coordination, including one MMP that contracted out this function.

While most focus group participants identified a person (or persons) responsible for coordinating their care, a few participants reported not having a care coordinator or a person calling or checking in with them. Some participants were not able to distinguish among the different roles of people involved in their care, especially for participants receiving LTSS through a home care agency and working through an LTS Coordinator. As one participant commented:

I sometimes call 'eenie, meenie, miny, mo' for someone and they tell me, 'No, that is not me, that is my co-worker, but I will let her know.'

For the most part, participants expressed satisfaction with their care coordination services and reported that care coordination had helped them access new and existing services. Some reported assistance with finding specialists and accessing durable medical equipment. Others reported that having a care coordinator provided "peace of mind" and a sense of support. As one participant explained:

My doctor would help me too but [the MMP] is more proactive... When I told [my care coordinator] about my eyes, she came up with a name just like that...it's just that my care coordinator is more accessible.

Table 17 presents CAHPS survey results for beneficiaries' experience with care coordination within the One Care MMPs. Based on 2016 CAHPS survey results, overall between 30 and 40 percent of respondents had someone from their health plan, doctor's office, or clinic help them coordinate their care. This was a decrease for both plans from 2015, when between 37 and 44 percent of respondents reported getting help coordinating care. Only CCA had data to report on respondent satisfaction with care coordination; that data showed a 1 percentage point decrease (from 54 percent in 2015 to 53 percent in 2016) of respondents saying they were very satisfied with their care coordination. Between 43 and 56 percent of respondents reported always receiving the information they need from their health plan in 2016. For both plans, the percentage of respondents that reported always receiving the information decreased between 2016 and 2015, when the range was between 56 and 61 percent for the same plans. By comparison, the national distribution of all Medicare Advantage contracts in 2016 for always receiving information was 55 percent and for all MMP contracts was 52 percent.

Table 17
Beneficiary experience with care coordination, 2015 and 2016

CAHPS survey item	Year	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent who had anyone from their health plan, doctor’s office, or clinic help them coordinate their care among doctors or other health providers	2015	44 (N=302)	47 (N=194)	37 (N=162)
	2016	40 (N=139)	—	30 (N=63)
Of those who used care coordination, the percent who were “very satisfied” with the help from the One Care plan or doctor’s office in coordinating their care	2015	54 (N=130)	47 (N=90)	33 (N=60)
	2016	53 (N=55)	—	#
Percent reporting that health plan “always” gave them information they needed	2015	61 (N=162)	51 (N=85)	56 (N=90)
	2016	56 (N=154)	—	43 (N=92)

— = data are not available because MMP withdrew from the demonstration. # = sample size too small (greater than or equal to 10).

SOURCE: RTI Supplemental CAHPS data for 2015 and 2016 and CAHPS data for 2015 and 2016.

4.2.5 Quality of and Access to Care

Focus group participants provided mixed feedback regarding the degree of provider choice and the ease of access to services. Some participants reported satisfaction with their ability to access medical care since enrolling in the demonstration. One participant reported:

It is an exceptionally good plan... because with One Care, I have not had any problems getting an orthopedist, cardiologist, and therapist... If there is one I cannot go to, they will help me find someone else who is more convenient, who is closer, so that you don’t go through any difficulties.

Other participants reported that they felt provider choice was limited under One Care, and a few reported experiencing waiting lists for services, especially for specialists. Based on grievance data compiled by MassHealth for the period April through December 2015, the number of grievances pertaining to provider networks was not significant (less than 1 percent) across the demonstration, but for one MMP, those complaints constituted the second highest complaint category after transportation (16 percent of all complaints). The MMP reported working with those members individually, with the most common complaint being that the beneficiary’s primary care physician or specialist was not in the MMP’s network. The MMP noted that its provider network met or exceeded proximity access requirements for facilities and providers. Almost three-quarters (74 percent) of respondents to the Quality of Life survey administered to One Care enrollees in 2016 indicated that they could easily get the medical services they needed.

Many focus group participants reported issues and complaints about non-emergency transportation, which was also discussed in the first Annual Report; lack of transportation

impeded access to appointments and other needed services. Some participants reported they no longer used the transportation services because of quality issues. In the words of one participant:

They gave me very bad service...I would have to wait, and I would be late for my appointments. And since it was with specialists, I could not be late nor could I miss the appointment... I stopped using that transportation because the same thing always happened to me.

Grievance data collected from April 2015 through December 2015 was consistent with focus group feedback and indicated that at least one-half of all grievances for both MMPs pertained to transportation, ranging from 50 percent to 81 percent. Both MMPs reported implementing interventions to improve this service while also noting that less than 1 percent of all rides result in a grievance. MMPs also relied on feedback from their member advisory boards, where transportation issues were also a topic of concern.

Table 18 presents the 2015 and 2016 CAHPS survey results for beneficiary experience with access to services. Surveys showed that between 30 and 35 percent of respondents needed treatment or counseling for a personal or family problem in 2016. This represents a decrease from 2015 for CCA. Of those who needed treatment or counseling, 68 and 87 percent of responding beneficiaries from Tufts and CCA, respectively, said it was usually or always easy to get the treatment they needed in 2016. This is a broader range than reported in 2015, when between 83 and 86 percent of respondents had the same response. In 2016, 66 percent of respondents from both CCA and Tufts reported that they were usually or always examined on the examination table when they visited their personal doctor’s office. This was similar to 2015, when 65 and 70 percent of respondents reported this.

Table 18
Beneficiary experience with access to services, 2015 and 2016

CAHPS survey item	Year	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent who needed any treatment or counseling for a personal or family problem	2015	42 (N=313)	36 (N=203)	30 (N=166)
	2016	35 (N=153)	—	30 (N=64)
Of those who reported needing it, percent who report it is “usually” or “always” easy to get the treatment or counseling they needed through their health plan	2015	86 (N=129)	83 (N=70)	83 (N=47)
	2016	87 (N=54)	—	68 (N=19)
Percent who reported they were “usually” or “always” examined on the examination table when they visited their personal doctor’s office	2015	65 (N=325)	65 (N=191)	70 (N=169)
	2016	66 (N=151)	—	66 (N=65)

— = data are not available because MMP withdrew from the demonstration.

SOURCE: RTI and Massachusetts Supplemental CAHPS data for 2015 and 2016.

4.2.6 Personal Health Outcomes and Quality of Life

A key goal of One Care is to positively impact health outcomes and quality of life for beneficiaries. Generally, focus group participants reported that the demonstration had positively impacted their lives; none reported an adverse impact of the demonstration on health, well-being, or quality of life. A few beneficiaries reported significant positive impacts, including an individual who was able to access a range of services and assistance not previously available:

I couldn't move. I couldn't walk... I felt I wasn't going to survive if I didn't get help from [One Care]... I really felt my life was not going to go anywhere; I was physically very done, and I didn't think I had a future... I don't think I would have lived too much longer [without the help One Care gave me]... It helped me immensely.

Most CAHPS survey respondents in both MMPs remaining in the demonstration in 2016 reported that their doctor usually or always understood how their health problems affected their day to day life (see **Table 19**). In 2016, 81 and 92 percent of respondents reported this; in 2015, 87 and 90 percent of respondents had the same response.

Table 19
Beneficiary experience with personal health outcomes, 2015 and 2016

CAHPS survey item	Year	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent reporting that their personal doctor “usually” or “always” understands how any health problems you have affect your day to day life?	2015	90 (N=322)	84 (N=195)	87 (N=167)
	2016	92 (N=154)	—	81 (N=64)

— = data are not available because MMP withdrew from the demonstration.

SOURCE: RTI Supplemental CAHPS data for 2015 and 2016.

4.2.7 Experience of Special Populations

This section summarizes the beneficiary experience for One Care special populations, including individuals with LTSS or behavioral health needs, and racial, ethnic, or linguistic minorities. As noted in **Section 4.1**, RTI conducted three focus groups with Hispanic (two of the groups) or Black participants (one group). Generally, Spanish-speaking participants reported that they were able to communicate adequately with their MMP and their providers. A few participants, especially those who spoke only Spanish, reported that language was a very important consideration for them. One MMP reported that using interpreters with whom beneficiaries are familiar has been well received and may be helpful in contributing to better beneficiary engagement in their care.

The design of One Care requires enrollees to be offered an LTS Coordinator, who is independent of the plans, to coordinate their LTSS. The role of the LTS Coordinator is discussed above in **Section 4, Care Coordination**. Just under half of the focus group participants reported a

need for help with activities of daily living (ADLs). Participants did not report many issues in the delivery of home care assistance; notably, many of the participants receiving personal care assistance self-directed their services, employing a friend or family member, rather than receiving services through a homecare agency. As one participant noted: “I said I wanted [to employ] my daughter because I don’t trust outsiders.”

Focus group participants provided mixed feedback on their ability to distinguish their MMP-level care coordinator from their LTS Coordinator. In some cases, participants were not clear how to distinguish between these staff. As one participant explained:

And let me tell you, I have two [first name], two [first names], and one [first name]. Sometimes [when I need help], I call [and have to ask] “Which one are you?”

Over half of the focus group participants reported depression or anxiety; a third reported serious mental illness. Feedback on access to behavioral health services was mixed. A few participants reported access challenges for specialists, including for behavioral health. For example, one participant reported being on a wait list for psychiatry services, while another participant reported increased access to in-home behavioral health services.

Table 20 presents some CAHPS survey results on beneficiary experience from respondents characterized as special populations:

- From 2015 to 2016, both CCA and Tufts had an increase in the percent of respondents that said they needed someone to come into their home to give them home health care or assistance, with 31 to 32 percent reporting so in 2016.
- The two plans (CCA and Tufts) diverged in the number of respondents saying that it was usually or always easy to get personal care or aide assistance at home through their care plan. In 2016, between 67 and 81 respondents reported this, whereas the range was between 68 and 73 for the same plans in 2015. The greater difference is due to CCA increasing while Tufts decreased the percent of respondents reporting this response category.
- The range in responses also increased for those who had a health problem for which they needed special medical equipment. In 2015, the range was 32 to 35 percent of respondents needing such equipment, while in 2016, between 22 and 36 percent said they did. This represents a 4-percentage point increase for CCA and a 13-percentage point decrease for Tufts.
- In 2016 only CCA had data for whether respondents found it usually or always easy to get or replace medical equipment. It had a decrease from 78 to 70 percent of respondents who said this from 2015 to 2016.
- Most respondents were usually or always weighed when they visited their personal doctor’s office in both 2015 and 2016, although the range in percent of respondents reporting this in 2016 was greater than in 2015.

- Only CCA had 2015 and 2016 data on respondents’ need for interpreter services to speak with health providers—7 percent of respondents needed these services in both years.

Table 20
Beneficiary experience among special populations, 2015 and 2016

CAHPS survey item	Year	Commonwealth Care Alliance (%)	Fallon Total Care (%)	Tufts Health Unify (%)
Percent who needed any treatment or counseling for a personal or family problem	2015	42 (N=313)	36 (N=203)	30 (N=166)
	2016	35 (N=153)	—	30 (N=64)
Of those who reported needing it, percent who report it is “usually” or “always” easy to get the treatment or counseling they needed through their health plan	2015	86 (N=129)	83 (N=70)	83 (N=47)
	2016	87 (N=54)	—	68 (N=19)
Percent who needed someone to come into their home to give them home health care or assistance	2015	23 (N=320)	28 (N=203)	29 (N=171)
	2016	31 (N=158)	—	32 (N=65)
Percent who reported it is “usually” or “always” easy to get personal care or aide assistance at home through their care plan	2015	73 (N=70)	82 (N=54)	68 (N=47)
	2016	67 (N=48)	—	81 (N=21)
Percent who had a health problem for which they needed special medical equipment, such as a cane, wheelchair or oxygen equipment	2015	32 (N=324)	31 (N=201)	35 (N=169)
	2016	36 (N=157)	—	22 (N=64)
Of those who report needing it, percent who report it is “usually” or “always” easy to get or replace the medical equipment they needed through their health plan	2015	78 (N=96)	60 (N=55)	62 (N=55)
	2016	70 (N=56)	—	#
Percent who reported they were “usually” or “always” weighed when they visited their personal doctor’s office	2015	91 (N=322)	87 (N=191)	92 (N=168)
	2016	92 (N=157)	—	84 (N=64)
Percent who needed an interpreter to help them speak with doctors or other health providers	2015	7 (N=315)	10 (N=205)	# (N=163)
	2016	7 (N=151)	—	#

— = data are not available because MMP withdrew from the demonstration; # = sample size too small (≤ 10).

SOURCE: RTI and Massachusetts Supplemental CAHPS data for 2015 and 2016.

4.2.8 Beneficiary Protections

The One Care demonstration was designed to ensure enrollees have access to high quality health and support services (Commonwealth Proposal, February 16, 2012, p. 23). Protections include complaint and appeals processes that provide an avenue for beneficiaries to seek redress when they have issues or disagree with decisions made by One Care plans or providers, and the availability of an ombudsman program to advocate for the beneficiary. The One Care Ombudsman Program (OCO) is an independent entity created through Federal funding to ensure adequate oversight of these beneficiary protections that began operating in March 2014. This section describes the numbers and types of beneficiary complaints and appeals received about One Care. Because One Care integrates Medicare and Medicaid services, these data have been compiled from several sources, including the OCO, One Care plans, MassHealth, and Medicare. Many focus group participants reported that they were aware of their rights to file a complaint or appeal about their services.

Complaints

Beneficiaries have the option of submitting a complaint (also known as a grievance) to their One Care MMP, MassHealth, Medicare, or the OCO. Complaints or grievances are defined to include “dissatisfaction with any aspect of the contractor’s or provider’s operations, activities, or behavior, regardless of whether remedial action is requested” (three-way contract, 2013, p. 9). Most often, beneficiaries submit complaints directly to their One Care plan. Plans are required to develop a system to log complaints and to track all actions and final resolution pertaining to each complaint. On a monthly basis, plans must report to MassHealth and to NORC, CMS’ implementation contractor, on the status of all outstanding complaints. Beneficiaries may also file complaints directly with MassHealth or 1-800-Medicare. MassHealth or Medicare documents the details of a complaint in the CMS Complaint Tracking Module (CTM), which is used to communicate with the One Care plan when resolution requires plan action. In addition, beneficiaries may file complaints with the OCO, which is required to maintain a system for documenting and tracking complaints.

The total number of complaints per 1,000 enrollees reported to MMPs, by quarter, is shown in **Table 21**. The highest percent of complaints occurred in the last quarter of demonstration year 2. From CY 2015 to CY 2016, the highest rate of grievances—77.4 per 1,000 enrollees for One Care combined across MMPs—was during quarter 4 of 2015, the quarter following Fallon’s departure from One Care, and the highest rate of appeals was 9.6 per 1,000 enrollees. Also, enrollees filed more than four times as many grievances as they did appeals during the fourth quarter of 2016.

Table 21
Total number of complaints and appeals across MMPs, by quarter

Quarter	Enrollment	Total grievances per 1,000 enrollees	Total appeals per 1,000 enrollees
2014			
Q1	9,699	16.703	2.474
Q2	13,399	29.778	4.254
Q3	17,729	27.243	5.753
Q4	17,919	31.140	2.735
2015			
Q1	17,792	33.273	2.136
Q2	17,708	36.989	4.179
Q3	17,177	45.875	7.801
Q4	12,287	77.399	4.558
2016			
Q1	12,609	43.223	5.790
Q2	13,057	35.613	9.650
Q3	13,011	35.047	5.380
Q4	14,335	31.601	7.743

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015.

SOURCE: RTI analysis of MMP reported data for Core Measure 4.2, as of March 2017. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/InformationandGuidanceforPlans.html>.

As described above, beneficiaries may file complaints directly with MassHealth or 1-800-Medicare. The most current data available at the time of this report on the number and nature of those complaints cover the period October 2013 through June 2016 and are shown in **Table 22**.

Table 22
Number and category of beneficiary complaints filed with MassHealth and 1-800-Medicare
October 2013–December 2016

Category	Demonstration year 1	Demonstration year 2	Demonstration year 3
Benefits/access	14	23	11
Confidentiality/privacy	0	2	0
Contractor/partner performance	1	0	0
Customer service	9	2	2
Enrollment/disenrollment	24	2	9
Exceptions/appeals/grievances	2	4	2
Marketing	3	0	0
Payment/claims	2	4	1
Plan administration	1	3	2
Pricing/premium/co-Insurance	5	0	0
Total	61	40	27

NOTES: This table includes data outside of the time frames generally covered by this report due to limitations in the format in which data were available at the time of the report. Demonstration year 1 represents the period from October 2013 through December 2014; demonstration year 2 represents the period from January 2015 through December 2015; demonstration year 3 represents the period from January 2016 through December 2016. Information is current as of February 15, 2017.

SOURCE: CMS, Complaint Tracking Module. Report covering October 2013–December 2016. Information Current as of February 15, 2017.

Demonstration year 1 represents a period of 15 months; in addition to challenges related to demonstration start-up, this longer timeframe may contribute to the higher number of complaints reported in demonstration year 1 compared to demonstration year 2. In demonstration year 1, the highest number of complaints was reported in the enrollment and disenrollment category. In demonstration years 2 and 3, the highest number of complaints was reported in benefits/access area. The number of complaints in the area of benefits/access increased from the first to the second demonstration year and decreased in the third demonstration year. The data indicates decreases in all categories of complaints from the first to the third demonstration years, however the number of complaints related to exceptions/appeals increased from the second to third demonstration years. Notably, there are complaints for pricing/premium/co-insurance in the first demonstration year but not in years 2 or 3.

Complaints filed directly with the OCO are reported to MassHealth and the Administration for Community Living (ACL) as part of the demonstration’s efforts to monitor plan complaints.³⁹ **Table 23** provides a summary of complaints received by the OCO for demonstration year 2 and first quarter of 2016. Access and customer service constituted the two highest complaint categories. The OCO reported that assisting beneficiaries who have behavioral health needs comprises over 80 percent of its caseload. The OCO also reported that many of the complaints appeared to derive from poor communication between the beneficiary and the MMP

³⁹ The OCO began operations in March 2014.

or its providers. In some cases, the OCO is able to bridge this divide and either resolve the problem or improve the situation for beneficiaries. The OCO noted that some of its staff are One Care enrollees; this facilitates more effective communication and interaction with beneficiaries. The OCO reported that over 90 percent of the time, beneficiaries who are assisted with complaints are pleased or satisfied with the outcome.

Table 23
Number and type of complaints received by the OCO January 1, 2015–March 31, 2016

Complaint category	2015 QTR 1	2015 QTR 2	2015 QTR 3	2015 QTR 4	2016 QTR 1	Total
Medicaid eligibility	4	0	0	9	12	21
Benefits/access	27	17	25	43	68	180
Customer service	10	33	12	33	26	114
Enrollment	2	2	2	4	13	23
Payment/claims	7	11	4	8	5	35
Total—number	46	63	43	107	129	388

SOURCE: Administration for Community Living, Quarterly Data Reported by OCO, Section C – Complaints Issue Category/Subcategory for Complaints Received.

Appeals

Beneficiaries have a basic right to appeal decisions made by a One Care plan to deny, limit, terminate, or suspend a service or procedure (known as an “adverse action”). CMS and MassHealth developed a coordinated appeals process that is detailed in the three-way contract (three-way contract, 2015, pp. 131–42). The coordinated appeals process is described in detail in the first Annual Report.

The highest rate of appeals occurred in the second quarter of 2016, with 9.65 appeals per 1,000 enrollees (see **Table 24**). Information on the first-level appeal by outcome and type is shown in **Table 24**. These represent determinations made at the MMP level.

Table 24
Appeals by outcome across plans, by quarter

Calendar quarter	Enrollment	Total appeals	Fully favorable outcomes	Partially favorable outcomes	Adverse outcomes
2014					
Q1	9,699	24	20.8%	8.3%	70.8%
Q2	13,399	57	31.6%	3.5%	64.9%
Q3	17,729	102	50.0%	1.0%	49.0%
Q4	17,919	49	40.8%	6.1%	53.1%

(continued)

Table 24 (continued)
Appeals by outcome across plans, by quarter

Calendar quarter	Enrollment	Total appeals	Fully favorable outcomes	Partially favorable outcomes	Adverse outcomes
2015					
Q1	17,792	38	50.0%	0.0%	50.0%
Q2	17,708	74	51.4%	5.4%	43.2%
Q3	17,177	134	37.3%	5.2%	57.5%
Q4	12,287	56	32.1%	7.1%	60.7%
2016					
Q1	12,609	73	50.7%	2.7%	46.6%
Q2	13,057	126	43.7%	8.7%	47.6%
Q3	13,011	70	48.6%	2.9%	48.6%
Q4	14,335	111	57.7%	8.1%	34.2%

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015 and after represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for Core Measure 4.2, as of March 2017. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/InformationandGuidanceforPlans.html>

As described earlier, initial appeals that result in an adverse outcome related to Medicare services are automatically referred to the IRE for further review. **Table 25** presents data on the number of appeals sent to the IRE January 2014 to December 2015. During this time-period, the IRE received 80 appeals. Of these appeals, the determination made by the MassHealth plan was upheld in 63 cases (78.8 percent); 10 (12.5 percent) were overturned; 3 (3.8 percent) were partially overturned; and 4 (5.0 percent) were dismissed. Appeals relating to non-Medicare benefits and clinic/lab/x-ray represent the areas where the highest percent of appeals were overturned in favor of the beneficiary.

Table 25
Medicare-Medicaid plan appeals received, by service category, 2014 and 2015

Service category	Upheld n (%)	Overturned n (%)	Partially overturned n (%)	Dismissed n (%)	Withdrawn n (%)	Pending n (%)
Practitioner services	8 (10.0)	4 (5)	0 (0)	2 (2.5)	0 (0)	0 (0)
Emergency room	0 (0)	0 (0)	0 (0)	1 (1.3)	0 (0)	0 (0)
Acute inpatient hospital	2 (2.5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Clinic/lab/x-ray	14 (17.5)	0 (0)	1 (1.3)	0 (0)	0 (0)	0 (0)
Nursing home	2 (2.5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

(continued)

Table 25
Medicare-Medicaid plan appeals received, by service category, 2014 and 2015 (continued)

Service category	Upheld n (%)	Overturned n (%)	Partially overturned n (%)	Dismissed n (%)	Withdrawn n (%)	Pending n (%)
Outpatient therapies/CORF	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Ground transportation	0 (0)	1 (1.3)	0 (0)	0 (0)	0 (0)	0 (0)
Home health	1 (1.3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Durable medical equipment	13 (16.3)	1 (1.3)	0 (0)	1 (1.3)	0 (0)	0 (0)
Outpatient mental health	0 (0)	1 (1.3)	0 (0)	0 (0)	0 (0)	0 (0)
Hospice	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Non-Medicare benefit	23 (28.8)	3 (3.8)	2 (2.5)	0 (0)	0 (0)	0 (0)
Summary	63 (78.8)	10 (12.5)	3 (3.8)	4 (5.0)	0 (0)	0 (0)

CORF = comprehensive outpatient rehabilitation facilities.

NOTE: Data represented are for calendar year 2014 and 2015.

SOURCE: RTI calculations from data provided by MAXIMUS Federal Services, Medicare-Medicaid Plan Reconsideration Data.

For appeals relating to Medicaid services, the beneficiary must request an appeal with the MassHealth Board of Hearings following an adverse outcome at the first level of review. Information provided by MassHealth for appeals filed with the Board of Hearings indicates just over 20 beneficiaries filed appeals related to One Care from January 1, 2015 through June 10, 2016.⁴⁰ More than half of the appeals filed with MassHealth were withdrawn or dismissed at or before the hearing; of those that resulted in a hearing decision, approximately half were in favor of the beneficiary. Dental benefits constituted the highest number of filed appeals (six), although almost all were withdrawn at or before the hearing.⁴¹ Officials from MassHealth reported they often attended these hearings in person or by phone as part of monitoring the demonstration.

Critical Incidents and Abuse Reporting

MMPs are also required to report to MassHealth and CMS' implementation contractor on the number of critical incidents and abuse reports among members receiving LTSS; **Table 26** presents these data for demonstration years 1 through 3.⁴² For all quarters reported, the number

⁴⁰ MassHealth officials noted that this information was the best available data available from the Board of Hearings specific to One Care, and reported that complete accuracy in the number count could not be confirmed.

⁴¹ MassHealth officials indicated that this generally meant that an adjustment to a full approval or acceptable alternative occurred.

⁴² Reporting requirements define "critical incident" as "any actual or alleged event or situation that creates a significant risk of substantial or serious harm to the physical or mental health, safety, or well-being of a member." Abuse refers to (1) willful use of offensive, abusive, or demeaning language by a caretaker that causes mental anguish; (2) 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) rape or sexual assault; (4) corporal punishment or striking of an individual; (5) unauthorized use or the use of excessive force in the placement of bodily restraints on an individual; and (6) use of bodily or chemical restraints on an individual which is not in

of critical incident and abuse reports was fewer than 10 per 1,000 members receiving LTSS, without an apparent trend throughout this period. The highest number reported was 2.95 reports per 1,000 members receiving LTSS in Quarter 2 2014 and lowest in Quarter 3 2015, with 0 reports. In 2016, the number of reports increased to 1.86 reports per 1,000 members by the last quarter.

Table 26
Critical incidents and abuse reports by calendar quarter among members receiving LTSS

Calendar quarter	Total number of members receiving LTSS	Total number of critical incident and abuse reports during the reporting period	Number of critical incident and abuse reports per 1,000 members receiving LTSS during the reporting period
2014			
Q1	1,909	1	0.524
Q2	2,032	6	2.953
Q3	1,969	1	0.508
Q4	4,739	4	0.844
2015			
Q1	5,355	5	0.934
Q2	4,196	9	2.145
Q3	4,539	0	0.0000
Q4	3,926	1	0.255
2016			
Q1	3,954	7	1.770
Q2	3,954	7	1.770
Q3	4,074	6	1.473
Q4	4,297	8	1.862

LTSS = long-term services and supports.

NOTES: Data are not available for Quarter 4, 2013. Fallon Total Care withdrew from the demonstration on September 30, 2015. Data for Fallon are available through Quarter 3, 2015. Data presented for Quarter 4, 2015 and after represent totals for the remaining two plans.

SOURCE: RTI analysis of MMP reported data for Core Measure 4.2, as of March 2017. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document, which is available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/InformationandGuidanceforPlans.html>

compliance with Federal or State laws and administrative regulations (CMS, November 12, 2014). In the third quarter of 2016, CMS clarified that critical incidents did not need to be limited to those providers defined as LTSS providers.

5. Service Utilization

The purpose of the analyses in this section is to understand the effects of the Massachusetts One Care demonstration through demonstration year 2 (calendar year [CY] 2015) using difference-in-differences regression analyses. In addition, descriptive statistics on service utilization are provided for selected Medicare services. Utilization data were analyzed for only two of the three MMPs in One Care; Fallon Total Care encounters were not included or analyzed because Fallon exited the demonstration before the end of 2015, and therefore, it was difficult to assess encounter completeness.

We find evidence that the demonstration resulted in significant changes in utilization patterns, including changes in quality of care and care coordination. These include higher monthly inpatient admissions (including inpatient admissions for ambulatory care sensitive conditions (ACSC), physician evaluation and management (E&M) visits, skilled nursing facility (SNF) admissions, and all-cause 30-day readmission, along with a lower probability of any long-stay nursing facility (NF) use and lower quarterly follow-up after mental health discharges, although any follow-up by a care coordinator would not be included. The demonstration had no impact on emergency room (ER) visits overall or on preventable ER visits.

Table 27 presents an overview of the results from impact analyses using Medicare and MDS data through demonstration year 2 (calendar year [CY] 2015). The relative direction of all statistically significant results at the $p < 0.10$ significance level (derived from 90 percent confidence intervals) is shown. Monthly inpatient admissions, physician E&M visits, and SNF admissions were higher, although the probability of any long-stay NF use was lower for the Massachusetts demonstration group than for the comparison group. There was no statistically significant difference in monthly ER visits between the demonstration and comparison groups. For the RTI quality of care and care coordination measures, overall and chronic ACSC admissions and all-cause 30-day readmission were higher for the demonstration group than the comparison group, whereas the quarterly follow-up after mental health discharges was lower. As with ER visits overall, the demonstration had no impact on preventable ER visits.

The relative directions of the impact estimates for demonstration eligible beneficiaries who used long-term services and supports (LTSS) and those with severe and persistent mental illness (SPMI) were similar to the findings for the overall demonstration eligible population.

Table 27
Summary of Massachusetts demonstration impact estimates for demonstration period
(October 1, 2013, to December 31, 2015)
(p < 0.10 significance level)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with LTSS use	Demonstration eligible beneficiaries with SPMI
Inpatient admissions	Higher	Higher	Higher
Ambulatory care sensitive condition (ACSC) admissions, overall	Higher	Higher	Higher
ACSC admissions, chronic	Higher	Higher	Higher
All-cause 30-day readmission	Higher	Higher	Higher
Emergency room (ER) visits	NS	NS	NS
Preventable ER visits	NS	NS	NS
Quarterly follow-up after mental health discharges	Lower	Lower	Lower
Skilled nursing facility (SNF) admissions	Higher	Higher	Higher
Probability of any long-stay nursing facility (NF) use	Lower	N/A	N/A
Physician evaluation and management (E&M) visits	Higher	Higher	Higher

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

SOURCE: RTI analysis of Medicare and Minimum Data Set data.

5.1 Overview of Benefits and Services

Under One Care, eligible beneficiaries enroll in a One Care plan that covers Medicare and Medicaid services, as well as new or expanded services available under the demonstration. Generally, these new services include a set of diversionary behavioral health services that have been available to Medicaid-only beneficiaries enrolled in managed care, but that have not otherwise been a covered service for Medicare-Medicaid beneficiaries in Massachusetts; services expanded in amount, duration, or scope over Medicaid State Plan services; and new community-based services. Targeted case management services and rehabilitation option services are not included as part of the integrated One Care benefit, but they continue to be provided as part of the Medicaid FFS system. As in Medicare Advantage, Medicare hospice services continue to be provided as part of the Medicare FFS system.

5.2 Impact Analyses on the Demonstration Eligible Population

The population analyzed in this section includes all beneficiaries who met demonstration eligibility criteria in Massachusetts or in the comparison areas for Massachusetts. For context, in Massachusetts, only approximately 12 percent of eligible beneficiaries in demonstration year 2 whose utilization was analyzed were enrolled in One Care. *Appendix A* provides a description of

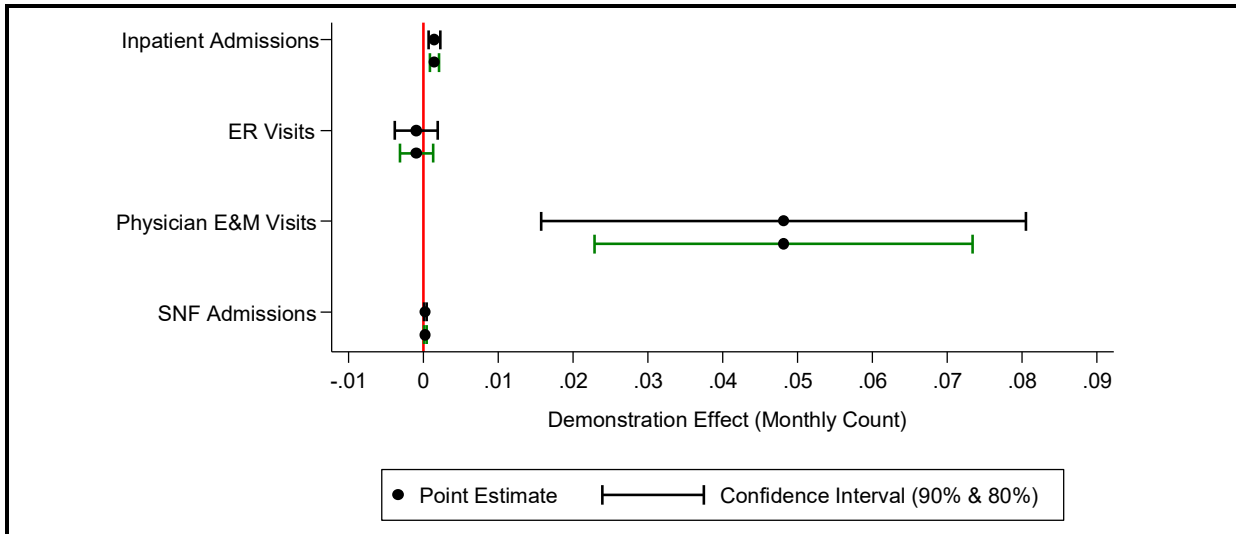
the comparison group for Massachusetts. Please see *Section 3.2* for details on demonstration eligibility. Subsections following this section present the results for demonstration eligible beneficiaries with any use of LTSS (defined as receipt of any institutional long-stay nursing facility services because Medicaid encounters for HCBS were not yet available for use), and for demonstration eligible beneficiaries with SPMI.

Appendix B contains a description of the evaluation design, the comparison group identification methodology, data used, measure definitions, and regression methodology used in estimating demonstration impacts using a difference-in-differences approach. The regression methodology accounts for differences between the demonstration and comparison groups over the predemonstration period (October 1, 2011 to September 30, 2013) and the first 2 demonstration years (October 1, 2013–December 31, 2014 and January 1, 2015–December 31, 2015) to provide estimates of demonstration impact.

Regression results for all demonstration eligible beneficiaries over the entire demonstration period show at the 90 percent confidence interval (CI) that the Massachusetts demonstration reduced the probability of any long-stay NF use and increased chronic and overall ACSC admissions and all-cause 30-day readmission. These findings were statistically significant in both demonstration years. In addition, the demonstration resulted in higher monthly inpatient admissions, physician E&M visits, and SNF admissions over the entire demonstration period, and a decrease in quarterly follow-up after mental health discharges. The statistical significance of these changes varied by demonstration year.

Figures 1 and *2* display the Massachusetts demonstration's effect on key service utilization measures for the demonstration group relative to the comparison group through demonstration year 2. The demonstration increased monthly inpatient admissions by 0.0015 admissions per month (90 percent CI: 0.0007, 0.0023), which corresponds to 0.0177 more inpatient admissions per eligible beneficiary per year. The demonstration also increased physician E&M visits by 0.0482 visits per month (90 percent CI: 0.0157, 0.0806) and SNF admissions by 0.0002 visits per month (90 percent CI: 0.00004, 0.0004). The demonstration also resulted in a 0.40 percentage-point decrease (90 percent CI: -0.53, -0.28) in the probability of any long-stay NF use over the demonstration years. There was no statistically significant demonstration effect on ER visits.

Figure 1
Demonstration effects on service utilization for eligible beneficiaries in Massachusetts—
Difference-in-differences regression results for the demonstration period,
October 1, 2013–December 31, 2015
 (90 and 80 percent confidence intervals)

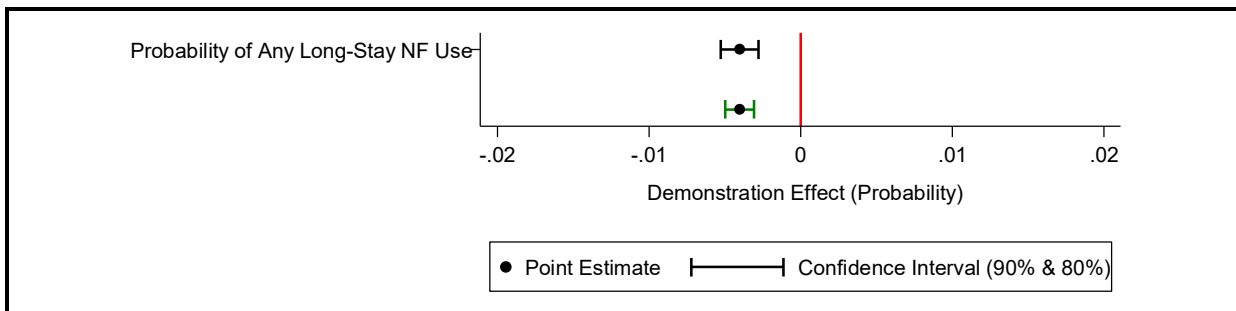


E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent interval is represented by the top bar (black), and the 80 percent interval is represented by the bottom bar (green).

SOURCE: RTI International analysis of Medicare data.

Figure 2
Demonstration effects on long-stay nursing facility use for eligible beneficiaries in
Massachusetts—Difference-in-differences regression results for the demonstration period,
October 1, 2013–December 31, 2015
 (90 and 80 percent confidence intervals)



NF = nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent interval is represented by the top bar (black), and the 80 percent interval is represented by the bottom bar (green).

SOURCE: RTI International analysis of Minimum Data Set data.

Tables 28 and 29 present the demonstration’s effects on service utilization for each of the demonstration years. Although the direction of the impacts on service utilization are consistent across the two demonstration years, only the reduction in the probability of any long-stay NF use is statistically significant in both years, with a 0.26 percentage-point decrease (90 percent CI: –0.39, –0.13) and 0.54 percentage-point decrease (90 percent CI: –0.70, –0.37) over the first and second demonstration years, respectively. This measure is defined as the number of individuals who stayed in a NF for 101 days or more, who were long-stay after the first month of demonstration eligibility, and includes both new admissions from the community and those with a continuation of a stay in a NF. For the other service measures, only the increase in monthly physician E&M visits (up by .0733 visits per month; 90 percent CI: 0.0436, 0.1029) was statistically significant in demonstration year 1, while inpatient admissions and SNF admissions were the only other statistically significant changes in demonstration year 2. In year 2, monthly inpatient admissions increased by 0.0027 (90 percent CI: 0.0016, 0.0039) admissions per month and SNF admissions increased by 0.0004 (90 percent CI: 0.0001, 0.0007) admissions per month. There were no statistically significant effects of the demonstration on ER visits in either of the demonstration years.

Table 28
Annual demonstration effects on service utilization for eligible beneficiaries in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Utilization measure (per month)	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Inpatient admissions	0.0004	0.0027**
ER visits	–0.0015	–0.0003
Physician E&M visits	0.0733**	0.0194
SNF admissions	0.0001	0.0004**

E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

Table 29
Annual demonstration effects on probability of long-stay nursing facility use for eligible beneficiaries in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Utilization measure (per demonstration year)	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Probability of any long-stay NF use	–0.0026**	–0.0054**

NF = nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Minimum Data Set data.

Table 30 provides estimates of the regression-adjusted mean values of the utilization measures for the demonstration and comparison groups for the predemonstration and demonstration periods for each service. The purpose of this table is to understand the magnitude of the difference-in-differences estimate relative to the adjusted mean outcome value in each period. The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group in each period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. In addition to the graphic representation above, the difference-in-differences estimate is also provided for reference, along with the p -value and the relative percent change of the difference-in-differences estimate compared to an average mean use rate for the comparison group over the entire demonstration period.

As shown in the table, the adjusted mean for monthly inpatient admissions was lower in the demonstration group than in the comparison group in the predemonstration period and higher in the demonstration period. The difference-in-differences estimate, which was positive (0.0015) and statistically significant ($p = 0.0019$), implies a higher annual relative percentage difference of 3.9 percent between the demonstration and comparison groups. The adjusted mean for physician E&M visits displayed a similar pattern, with lower mean visits for the demonstration group in the predemonstration period and higher mean visits in the demonstration period, with a positive (0.0482) and statistically significant ($p = 0.0145$) difference-in-difference estimate reflecting a relative percentage difference of 5.3 percent between the demonstration and comparison groups. In contrast, the adjusted mean for monthly SNF admissions in the demonstration group was lower than for the comparison group in both the predemonstration and demonstration periods, yielding a positive (0.0002) and statistically significant ($p = 0.0436$) difference-in-differences estimate that implies a relative percentage difference of 4.9 percent between the demonstration and comparison groups. The largest relative percentage difference between the demonstration and comparison group is found for the probability of any long-stay NF use per demonstration year over the demonstration period, which has a relative percentage difference of -10.6 percent, reflecting lower adjusted means for the demonstration group over both periods.

Table 30
Adjusted means and impact estimate for eligible beneficiaries in the demonstration and comparison groups in Massachusetts through December 31, 2015

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted difference-in-differences (90% confidence interval)	p-value
Inpatient admissions	Demonstration group	0.0449	0.0389	3.9	0.0015 (0.007, 0.0023)	0.0019
	Comparison group	0.0458	0.0382			
ER visits	Demonstration group	0.1046	0.0999	NS	-0.0009 (-0.0038, 0.0019)	0.5910
	Comparison group	0.0989	0.0954			
Physician E&M visits	Demonstration group	0.8573	0.9586	5.3	0.0482 (0.0157, 0.0806)	0.0145
	Comparison group	0.8789	0.9336			
SNF admissions	Demonstration group	0.0045	0.0036	4.9	0.0002 (0.0000, 0.0004)	0.0436
	Comparison group	0.0057	0.0042			
Probability of any long-stay NF use	Demonstration group	0.0208	0.0111	-10.6	-0.0040 (-0.0053, -0.0028)	< 0.001
	Comparison group	0.0441	0.0335			

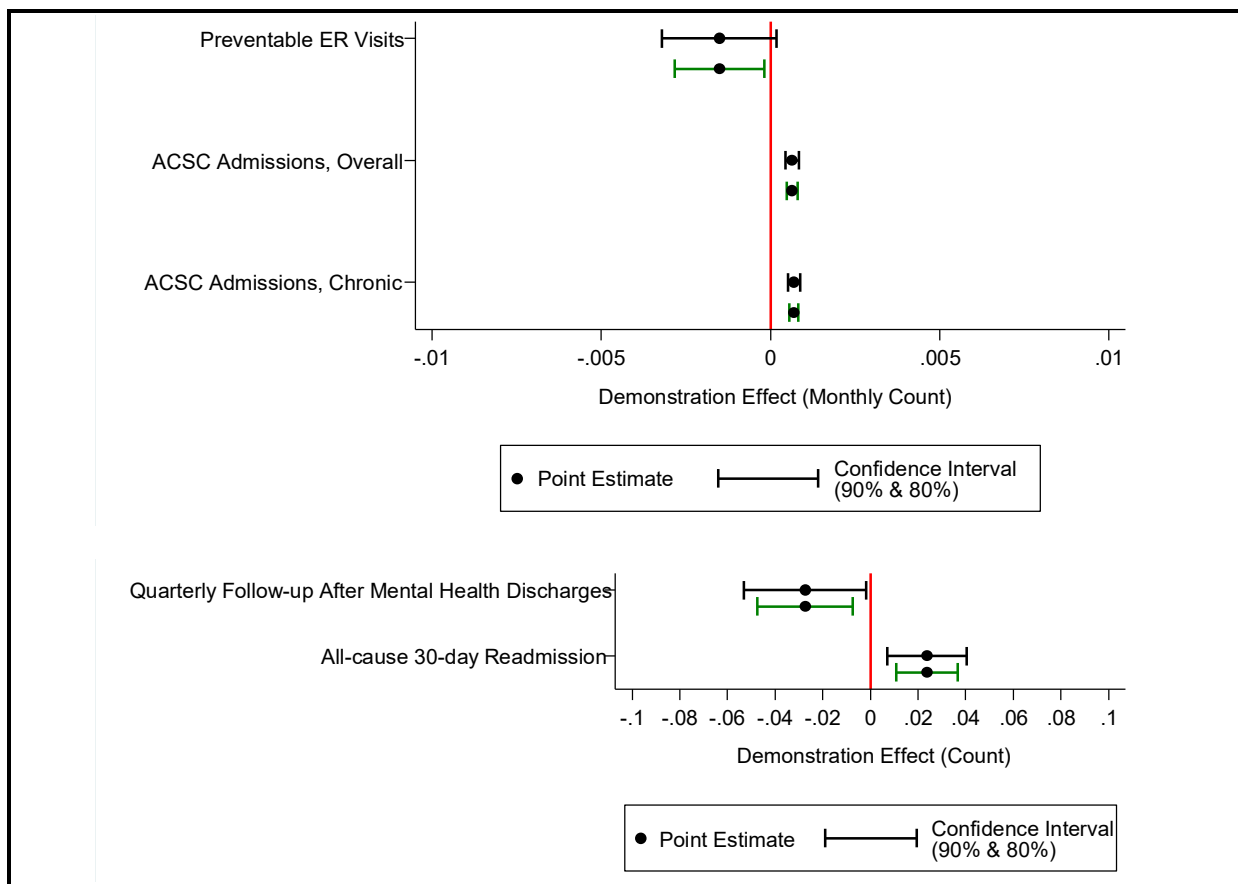
E&M = evaluation and management; ER = emergency room; NF = nursing facility; NS = not statistically significant; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. The difference-in-differences result obtained from the regression may differ from a similar calculation using the results in the adjusted mean columns, due to methodological differences.

SOURCE: RTI International analysis of Medicare and Minimum Data Set data.

Figure 3 displays the Massachusetts demonstration’s effects on RTI quality of care and care coordination measures for the demonstration group relative to the comparison group through demonstration year 2. The Massachusetts demonstration increased monthly inpatient ACSC admissions for overall (higher by 0.0006 admissions per month; 90 percent CI: 0.0004, 0.0008) and chronic conditions (higher by 0.0007 admissions per month; 90 percent CI: 0.0005, 0.0009), and for all-cause 30-day readmission (higher by 0.02338 admissions for each demonstration year over the demonstration period; 90 percent CI: 0.0071, 0.0404). There was also a decrease in quarterly follow-up after mental health discharge (lower by 0.0274 follow-up visits; 90 percent CI: -0.0532, -0.0017) over the demonstration period. There was no statistically significant demonstration effect on preventable ER visits.

Figure 3
Demonstration effects on RTI quality of care measures for eligible beneficiaries in Massachusetts—Difference-in-differences regression results for the demonstration period, October 1, 2013–December 31, 2015
 (90 and 80 percent confidence intervals)



ACSC = ambulatory care sensitive condition; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent intervals are represented by the top bar (black), and the 80 percent intervals are represented by the bottom bar (green).

SOURCE: RTI International analysis of Medicare data.

Table 31 presents the demonstration’s effects on the RTI quality of care and care coordination measures for each demonstration year. Compared to the service utilization outcomes reported in **Tables 28** and **29**, the findings for the quality of care and care coordination outcomes are more consistent across the demonstration years. For example, the monthly ACSC admissions (both overall and chronic) are significantly higher in both periods (with effects ranging from 0.0008–0.0009 visits in demonstration year 1 and 0.0004 admissions in demonstration year 2), as is the change in all-cause 30-day readmissions (increase of 0.0304 and 0.0484 admissions in each demonstration year). Quarterly follow-up for mental health discharges decreased only in demonstration year 2 (down by 0.0406 follow-ups), with a similar trend for monthly preventable ER visits, which is lower only in demonstration year 1 by 0.0017 visits. Although quarterly follow-up for mental health discharges had a statistically significant effect over the demonstration period, preventable ER visits did not.

Table 31
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Preventable ER visits	–0.0017**	–0.0013
ACSC admissions, overall	0.0008**	0.0004**
ACSC admissions, chronic	0.0009**	0.0004**
Quarterly follow-up after mental health discharges	–0.0163	–0.0406**
All-cause 30-day readmission	0.0304**	0.0484**

ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

Table 32 provides estimates for the regression-adjusted mean value for each of the demonstration and comparison groups for the predemonstration and demonstration periods for the RTI quality of care and care coordination measures. The purpose of this table is to understand the magnitude of the difference-in-differences estimates for quality of care outcomes relative to the adjusted mean values in each period. The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group in each period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. In addition to the graphic representation above, the difference-in-differences estimate is also provided for reference, along with the p -value and the relative percent change of the difference-in-differences estimate compared to an average mean use rate for the comparison group over the entire demonstration period.

Table 32
Adjusted means and impact estimate for eligible beneficiaries in the demonstration and comparison groups for Massachusetts through demonstration year 2

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted difference-in-differences estimate (90% confidence interval)	p-value
Preventable ER visits	Demonstration group	0.0497	0.0466	-3.3	-0.0015 (-0.0032, 0.0002)	0.144
	Comparison group	0.0478	0.0462			
ACSC admission, overall	Demonstration group	0.0042	0.0042	15.8	0.0006 (0.0004, 0.0008)	< 0.0001
	Comparison group	0.0048	0.0040			
ACSC admission, chronic	Demonstration group	0.0027	0.0033	26.59	0.0007 (0.0005, 0.0009)	<0.0001
	Comparison group	0.0028	0.0026			
Quarterly follow-up after mental health discharges	Demonstration group	0.6910	0.6637	-5.3	-0.0274 (-0.0532, -0.0017)	0.080
	Comparison group	0.5673	0.5639			
All-cause 30-day readmission	Demonstration group	0.4458	0.4749	12.7	0.0238 (0.0071, 0.0404)	0.019
	Comparison group	0.4405	0.4346			

ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. The difference-in-differences result obtained from the regression may differ from a similar calculation using the results in the adjusted mean columns, due to methodological differences.

SOURCE: RTI International analysis of Medicare data.

The relative percentage differences between the demonstration and comparison groups based on the difference-in-differences estimates are generally small for the quality of care and care coordination measures. The adjusted mean for overall ACSC admissions was lower for the demonstration group than for the comparison group in the predemonstration period but higher in the demonstration period. The difference-in-differences estimate, which was positive (0.0006) and statistically significant ($p < 0.0001$), implies an annual relative percentage difference of only 0.16 percent between the demonstration and comparison groups, with a similar pattern for the chronic ACSC admissions (relative difference of 0.26 percent). In contrast, the adjusted means for quarterly follow-up after mental health discharge and all-cause 30-day readmission were higher for the demonstration group than the comparison group during both periods, reflecting a positive and statistically significant relative difference of -0.05 percent and 0.13 percent, respectively.

5.2.1 Descriptive Statistics on the Demonstration Eligible Population

In addition to the impact results presented for the demonstration eligible population in this section, **Appendix C, Tables C-1 through C-3** present descriptive statistics for the demonstration eligible population for each service for the predemonstration and demonstration years to help understand the utilization experience over time. We examine 14 Medicare service utilization measures, six RTI quality of care measures, and five nursing facility-related measures derived from the Minimum Data Set (MDS). No testing was performed between groups or years. The results reflect the underlying experience of the two groups, and not the difference-in-differences estimates presented earlier.

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 C-1**). However, there were a few outcomes where some differences were apparent. For example, ER use tended to be higher for the demonstration group than the comparison group, whereas SNF use tended to be lower. As with the service utilization measures, the Massachusetts demonstration eligible beneficiaries were similar to the comparison group on many, but not all, of the RTI quality of care and care coordination measures (**Table C-2**). Key differences included higher rates of 30-day follow-up after hospitalization for mental illness, higher rates of all-cause 30-day readmission, and for the demonstration years, more screenings for clinical depression. Finally, there are more differences between the demonstration group and comparison group in long-stay nursing facility utilization (**Table C-3**), including fewer new long-stay NF admissions and fewer long-stay NF users in the demonstration group. There were also differences in some characteristics of long-stay NF residents: demonstration eligible beneficiaries had a lower percentage with severe cognitive impairment, better functional status, and relative to the comparison group, fewer beneficiaries with a low level of care need during the demonstration period.

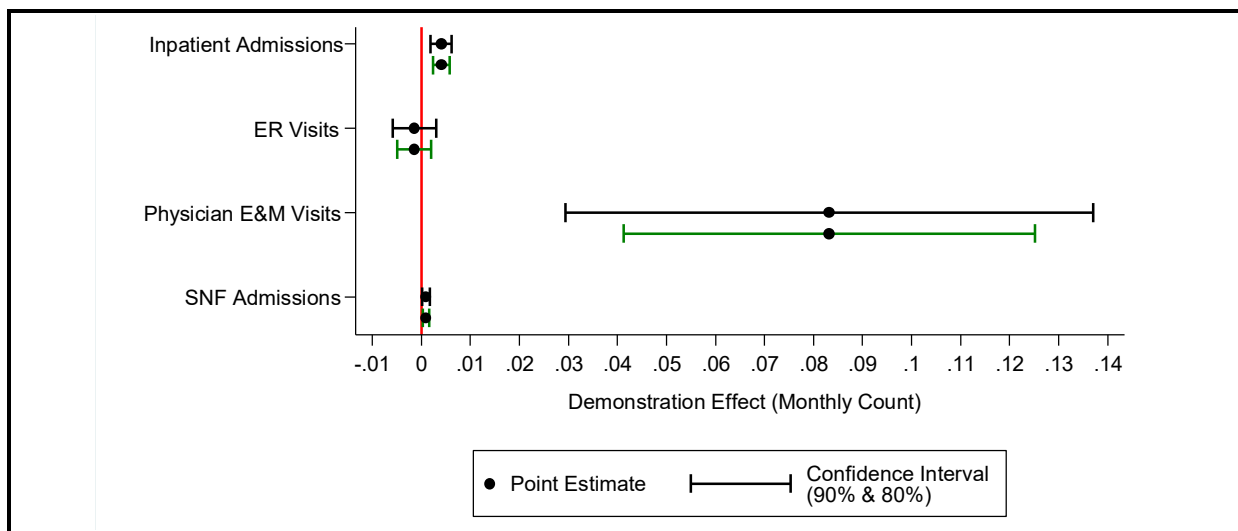
5.2.2 Impact Analysis on Demonstration Eligible Beneficiaries with LTSS Use

Demonstration eligible beneficiaries were defined as using LTSS in a demonstration year if they received any institutional services. Approximately 1.5 percent of all eligible beneficiaries in demonstration year 2 were LTSS users. As was true for the overall demonstration eligible population, demonstration eligible beneficiaries with LTSS use had increased monthly inpatient

admissions, SNF admissions, physician E&M visits, ACSC admissions, and all-cause 30-day readmission, but lower quarterly follow-up for mental health discharges and a lower probability of any long-stay NF use. As for all demonstration-eligible beneficiaries, the demonstration had no impact on ER use or preventable ER use for beneficiaries with LTSS use.

Figure 4 displays the demonstration’s effects on key service utilization measures among demonstration eligible beneficiaries who were LTSS users in the demonstration group relative to the comparison group through demonstration year 2. The demonstration led to small changes in monthly inpatient admissions and SNF admissions and large changes in physician E&M visits. Inpatient admissions among those with LTSS use increased by 0.0040 admissions per month (90 percent CI: 0.0019, 0.0062), which corresponds to 0.0483 more inpatient admissions per year on average for eligible beneficiaries with LTSS use; SNF admissions increased by 0.0010 admissions per month (90 percent CI: 0.0002, 0.0017), which corresponds to 0.0114 more admissions per year on average for eligible beneficiaries with LTSS use. By contrast, physician E&M visits increased by 0.0832 visits per month (90 percent CI: 0.0293, 0.1370), which corresponds to 0.9982 visits per year on average for eligible beneficiaries with LTSS use. There was no significant effect of the demonstration on ER visits.

Figure 4
Demonstration effects on service utilization for eligible beneficiaries with LTSS use in Massachusetts—Difference-in-differences regression results for the demonstration period, October 1, 2013–December 31, 2015
 (90 and 80 percent confidence internals)



E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent interval is represented by the top bar (black), and the 80 percent interval is represented by the bottom bar (green).

SOURCE: RTI International analysis of Medicare data.

Table 33 presents the demonstration effects on key service utilization for the demonstration eligible population with LTSS use for each demonstration year. Although the direction of the impacts on service utilization are consistent across the two demonstration periods, the increase in physician E&M visits (up by 0.1216 visits per month; 90 percent CI: 0.0750, 0.1683) was only statistically significant in demonstration year 1, while inpatient admissions and SNF admissions were only statistically significant in demonstration year 2, with increases of 0.0082 admissions per month (90 percent CI: 0.0049, 0.0115) and .0018 admissions per month (90 percent CI: 0.0006, 0.0029), respectively. There was no statistically significant effect of the demonstration on ER visits in either of the demonstration periods.

Table 33
Annual demonstration effects on service utilization for eligible beneficiaries,
Massachusetts LTSS users

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Utilization measure (per month)	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Inpatient admissions	0.0011	0.0082**
ER visits	-0.0022	-0.0004
Physician E&M visits	0.1216**	0.0359
SNF admissions	0.0004	0.0018**

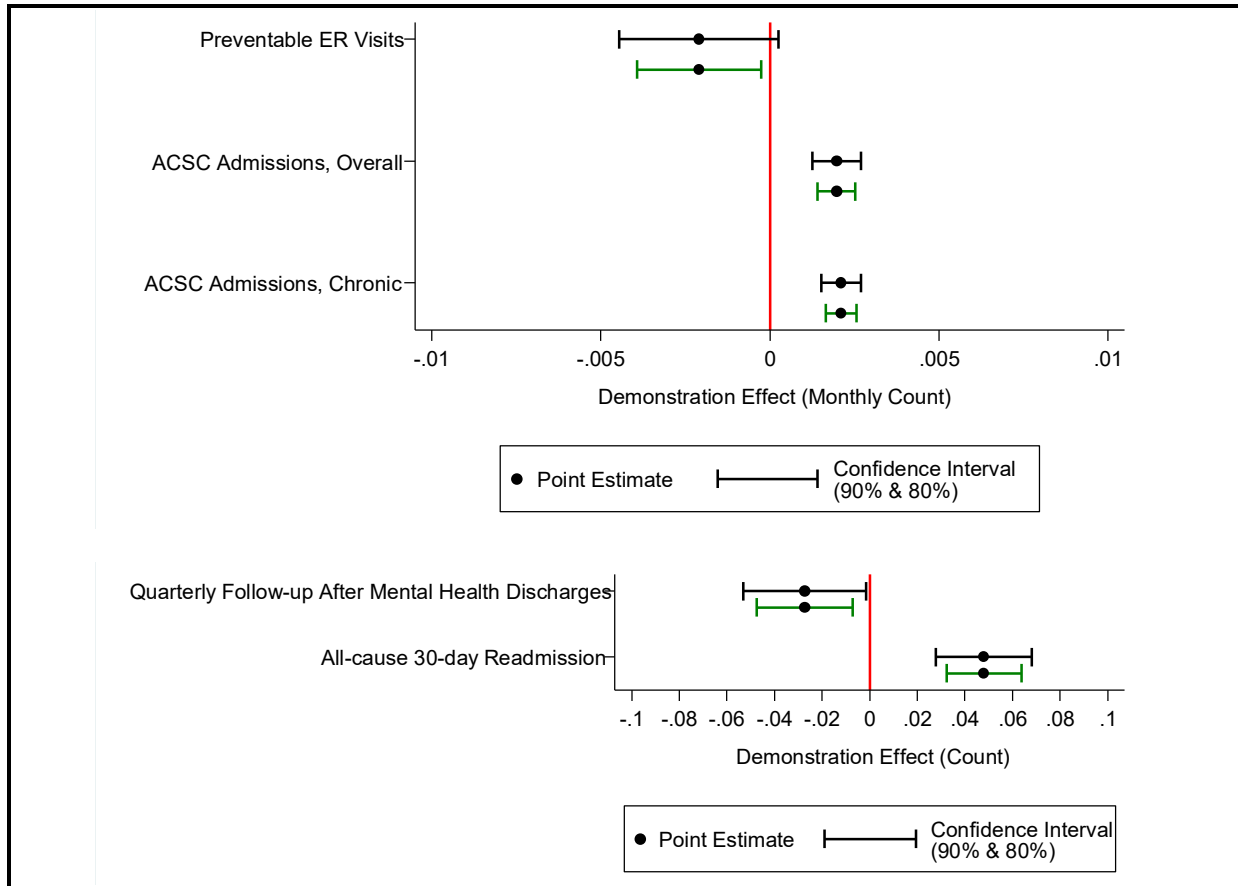
E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

Figure 5 displays demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population who were LTSS users through demonstration year 2. The Massachusetts demonstration increased overall and chronic ACSC admissions by 0.0020 overall admissions per month (90 percent CI: 0.0013, 0.0027) and 0.0021 chronic admissions per month (90 percent CI: 0.0015, 0.0027). The demonstration also increased all-cause 30-day readmission by 0.0480 admissions for each demonstration year over the demonstration period (90 percent CI: 0.0278, 0.0681), while reducing quarterly follow-up of mental health discharges by 0.0273 follow-up visits for each discharge (90 percent CI: -0.0531, -0.0014) during the demonstration period. There was no demonstration effect on preventable ER visits by LTSS users.

Figure 5
Demonstration effects on RTI quality of care and care coordination for eligible beneficiaries with LTSS use in Massachusetts—Difference-in-differences regression results for the demonstration period, October 1, 2013–December 31, 2015
 (90 and 80 percent confidence intervals)



ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent intervals are represented by the top bar (black), and the 80 percent intervals are represented by the bottom bar (green)..

SOURCE: RTI International analysis of Medicare data.

Table 34 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with LTSS use for each demonstration year. In contrast to the service utilization outcomes reported in **Table 34**, the findings for the quality of care and care coordination outcomes are generally more consistent across the demonstration years. In both demonstration years, the Massachusetts demonstration increased overall and chronic ACSC admissions for beneficiaries with LTSS use. Overall ACSC admissions increased by 0.0024 admissions per month (90 percent CI: 0.0018, 0.0030) and 0.0014 admissions per month (90 percent CI: 0.0003, 0.0024) in the two demonstration periods, respectively, while chronic ACSC admissions increased by 0.0027 admissions per month (90 percent CI: 0.0023, 0.0032) and 0.0014 admissions per month (90 percent CI: 0.000, 0.0023), respectively. All-cause

30-day readmission also increased in both demonstration years, by 0.0375 readmissions and 0.0632 readmissions respectively over demonstration years 1 and 2. While the direction of the effect of quarterly follow-up of mental health discharges was negative during both demonstration years, this was only statistically significant in demonstration year 2, with a decrease of 0.0404 (90 percent CI: -0.0708, -0.0099). There was no statistically significant demonstration effect on preventable ER visits in either demonstration year 1 or 2.

Table 34
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries with LTSS use in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Preventable ER visits	-0.0022*	-0.0019
ACSC admissions, overall	0.0024**	0.0014**
ACSC admissions, chronic	0.0027**	0.0014**
Quarterly follow-up after mental health discharges	-0.0162	-0.0404**
All-cause 30-day readmission	0.037**	0.0632**

ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

5.2.3 Descriptive Statistics on the Demonstration Eligible Population with LTSS Use

In addition to the impact results presented for the demonstration eligible population with LTSS use in this section, **Tables C-4** through **C-5** in **Appendix C** present descriptive statistics for this population for each service for the predemonstration and demonstration periods to help understand the utilization experience over time. We present descriptive statistics on 14 Medicare service utilization and 6 RTI quality of care measures. No testing was performed between groups or years. These results reflect the underlying experience of the two groups, and not the difference-in-differences estimates presented earlier.

Relative to their comparison group, demonstration group beneficiaries with LTSS use generally had higher rates of service use, including higher rates of inpatient admissions, ER visits, SNF admissions, and hospice admissions (**Table C-4**). The demonstration group beneficiaries also tended to have higher levels of utilization for the quality of care and care coordination measures, including higher more preventable ER visits and ACSC admissions, and a higher rate of 30-day follow-up for hospitalization after mental illness than their counterparts in the comparison group (**Table C-5**).

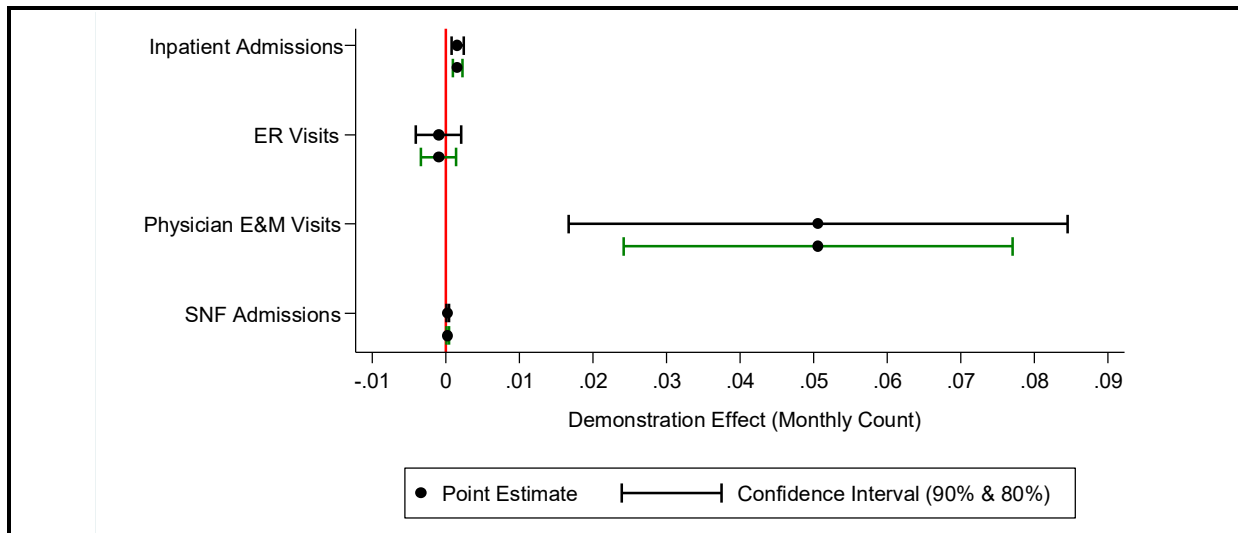
5.2.4 Impact Analyses on the Demonstration Eligible Population with SPMI

Demonstration eligible beneficiaries were defined as having SPMI if there were any inpatient or outpatient mental health visits for schizophrenia or bipolar disorders in the last 2 years. Approximately 54.0 percent of all eligible beneficiaries had SPMI in demonstration

year 2. As was true for the overall demonstration eligible population, demonstration eligible beneficiaries with SPMI had increased monthly inpatient admissions, SNF admissions, physician E&M visits, ACSC admissions, and all-cause 30-day readmission, but lower rate of 30-day follow-up for mental health discharges and a lower probability of any long-stay NF use. As for all demonstration-eligible beneficiaries, the demonstration had no impact on ER use or preventable ER use for beneficiaries with SPMI.

Figure 6 displays the demonstration’s effects on key service utilization measures for the demonstration eligible population with an SPMI. The demonstration led to small changes in inpatient and SNF admissions and large changes in physician E&M visits. Under the demonstration, inpatient admissions among those with SPMI increased by 0.0016 admissions per month (90 percent CI: 0.0007, 0.0024), which corresponds to 0.0188 more inpatient admissions per year. SNF admission also increased slightly among those with SPMI by 0.0002 admissions per month (90 percent CI: 0.00004, 0.0004). Over the same period, physician E&M visits increased by 0.0506 visits per month (90 percent CI: 0.0166, 0.0845) among those with SPMI. There was no statistically significant effect of the demonstration on ER visits or SNF admissions.

Figure 6
Demonstration effects on service utilization for eligible beneficiaries with SPMI in Massachusetts—Difference-in-differences regression results for the demonstration period, October 1, 2013–December 31, 2015



E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent intervals are represented by the top bar (black), and the 80 percent intervals are represented by the bottom bar (green).

SOURCE: RTI International analysis of Medicare data.

Table 35 displays the demonstration effects on key service utilization measures among beneficiaries with SPMI for each demonstration year. While the direction of the impacts on service utilization are consistent across the two demonstration periods for beneficiaries with SPMI, only the increase in physician E&M visits (higher by 0.0767 visits per month; 90 percent

CI: 0.0458, 0.1077) were statistically significant in demonstration year 1, while the increase in inpatient admissions (higher by 0.0029 admissions per month; 90 percent CI: 0.0017, 0.0041) and SNF admissions (higher by 0.0004 admissions per month; 90 percent CI: 0.0001, 0.0007) were the only statistically significant changes in demonstration year 2. There was no statistically significant effect of the demonstration on ER visits among beneficiaries with SPMI in either demonstration year.

Table 35
Annual demonstration effects on service utilization for eligible beneficiaries with SPMI in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Utilization measure (per month)	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Inpatient admissions	0.0005	0.0029**
ER visits	-0.0016	-0.0003
Physician E&M visits	0.0767**	0.0204
SNF admissions	0.0001	0.0004**

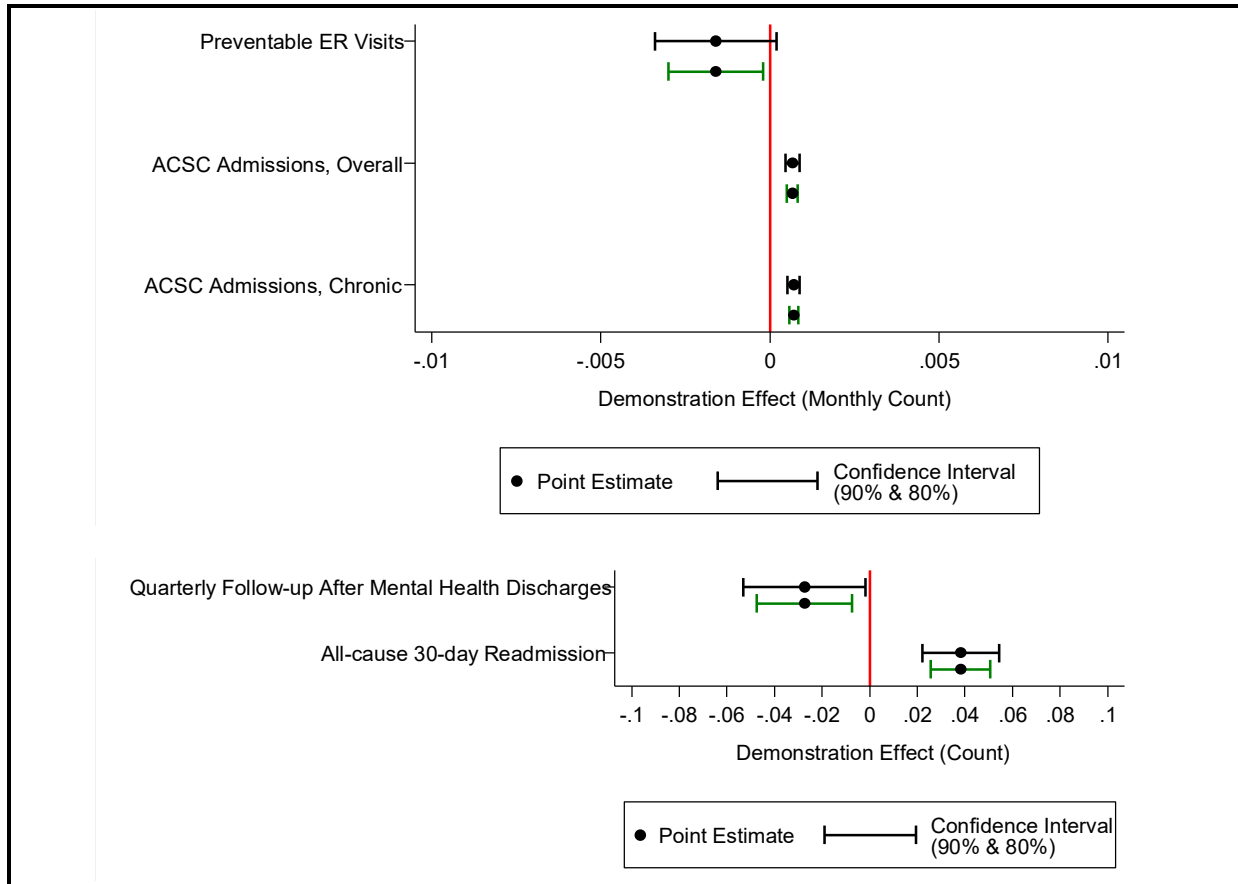
E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

Figure 7 displays the demonstration’s effects on RTI quality of care and care coordination measures for the demonstration eligible population with an SPMI. The demonstration increased both overall and chronic ACSC admissions by 0.0007 admissions per month (90 percent CI: 0.0005, 0.0009) for beneficiaries with SPMI, along with increasing all-cause 30-day readmission by 0.0382 readmissions for each demonstration year over the demonstration period (90 percent CI: 0.0222, 0.0542). Among beneficiaries with SPMI over the demonstration period, quarterly follow-up after mental health discharges increased by 0.0274 follow-ups (90 percent CI: -0.0532, -0.0017). There was no demonstration effect on preventable ER visits for beneficiaries with SPMI.

Figure 7
Demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI in Massachusetts—Difference-in-differences regression results for the demonstration period, October 1, 2013–December 31, 2015
 (90 and 80 percent confidence internals)



ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. 80 percent confidence intervals are provided here for comparison purposes only. The 90 percent intervals are represented by the top bar (black), and the 80 percent intervals are represented by the bottom bar (green).

SOURCE: RTI International analysis of Medicare data.

Table 36 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with an SPMI for each demonstration year. In both demonstration periods, the Massachusetts demonstration increased overall and chronic ACSC admissions, with 0.0009 more ACSC admissions per month (90 percent CI for overall: 0.0007, 0.0011; for chronic: 0.0008, 0.0011) in demonstration year 1, and 0.0004 more admissions per month (90 percent CI for overall: 0.0001, 0.0007; for chronic 0.0002, 0.0007) in demonstration year 2. While the change in all-cause 30-day readmission was statistically significant in both years (up by 0.0306 readmissions (90 percent CI: 0.0104, 0.0505) and 0.0486 readmissions (90 percent CI: 0.0275, 0.0697) respectively, for each demonstration year), the direction of effect of quarterly follow-up after mental health discharges was negative in both

years, but statistically significant only in demonstration year 2 (down by 0.0406 follow-up visits, 90 percent CI $-0.0706, -0.0105$). There was no statistically significant demonstration effect on preventable ER visits across the two demonstration years for beneficiaries with SPMI.

Table 36
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI in Massachusetts

(* indicates significant at $p < 0.20$, ** indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration year 1 (10/13–12/14)	Demonstration year 2 (1/15–12/15)
Preventable ER visits	-0.0018	-0.0014
Monthly ACSC admissions, overall	0.0009**	0.0004**
Monthly ACSC admissions, chronic	0.0009**	0.0004**
Quarterly follow-up after mental health discharges	-0.0163	-0.0406**
All cause 30-day readmission	0.0306**	0.0486**

ACSC = ambulatory care sensitive conditions; ER = emergency room.

NOTES: Standard statistical practice is to use confidence intervals of 90 percent or higher. Significance based on 80 percent confidence intervals are provided here for comparison purposes only.

SOURCE: RTI International analysis of Medicare data.

5.2.5 Descriptive Statistics on the Demonstration Eligible Population with SPMI

In addition to the impact results presented for the demonstration eligible population with SPMI in this section, *Tables C-6 through C-7 in Appendix C* present descriptive statistics for this population for each service by predemonstration and demonstration years to help understand the utilization experience over time. We present results for 14 Medicare service utilization and 6 RTI quality of care measures. No testing was performed between groups or years. These results reflect the underlying experience of the two groups, and not the difference-in-differences estimates presented earlier.

Among the beneficiaries with SPMI, the demonstration group and comparison group tended to have similar levels of utilization, with somewhat lower rates of inpatient admissions and SNF admissions for the demonstration group (*Table C-6*). On the quality of care and care coordination measures, the levels of utilization were generally similar for the demonstration and comparison groups, although the demonstration group had higher rates of 30-day follow-up visits after hospitalization for mental health and 30-day all-cause readmission rates (*Table C-7*).

5.2.6 Service Use for Enrollee and Non-Enrollee Populations

Tables C-8 through C-9 in Appendix C present descriptive statistics for the enrolled population, compared to those demonstration eligible beneficiaries who were not enrolled, for each service by demonstration year, to help understand the utilization experience over time.

There were few clear differences in patterns of service utilization for demonstration eligible enrollees and non-enrollees over the two demonstration years, although enrollees were more likely to use ER care and home health care and less likely to use hospice (*Table C-8*). For

the quality of care and care coordination measures, enrollees and non-enrollees have a similar number of ACSC admissions and rates of all-cause 30-day readmissions, while enrollees are more likely to have higher preventable ER visits and lower number of screenings for depression, as well as lower rates of 30-day follow-up for hospitalization for mental illness (*Table C-9*).

5.2.7 Service Use by Demographic Characteristics of Eligible Beneficiaries

Appendix C, Table 10 on pages C-29 to C-31 presents descriptive statistics by demographic group (age, gender, race, and ethnicity) for 14 Medicare service categories during demonstration year 2 for Massachusetts demonstration eligible beneficiaries. There were few consistent differences in service use across age groups, although those under age 45 had higher levels of ER use, psychiatric-related inpatient and ER use, and lower use of SNF, hospice, and primary care E&M visits relative to those 45 and older. Women appeared to have higher levels of physician E&M and ER visits compared to men, and Blacks appeared to have more ER visits compared to other racial and ethnic groups, while White beneficiaries had more physician E&M visits.

To further examine any differences in racial and ethnic groups, *Figures 8, 9, and 10* provide month-level results for five settings of interest: inpatient admissions, emergency department visits (non-admit), hospice admissions, primary care E&M visits, and outpatient therapy visits (physical therapy [PT], occupational therapy [OT], and speech therapy [ST]). 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 8 presents the percentage of use of selected Medicare services. Asians and Hispanics, compared to Blacks and Whites, had lower use of inpatient services. Asians had lower use of emergency department and outpatient therapy compared to Hispanics, Blacks, and Whites. For primary care E&M services, Whites had the highest percentage of use.

Regarding counts of services used among users of each respective service, as presented in *Figure 9*, Asians and Hispanics had slightly fewer emergency department visits, followed by Whites and then Blacks. Hospice admissions were slightly higher for Asians compared to Blacks, Whites, and Hispanics. For primary care E&M services, Whites had the highest count of visits compared to the other racial and ethnicity groups, followed by Hispanics and Blacks, and then Asians. Outpatient therapy visit counts appeared to vary widely by race and ethnicity, with Whites having the highest count, followed by Asians, Blacks, and then Hispanics. *Figure 10* presents counts of services across all demonstration eligible beneficiaries regardless of having any use of the respective services. Trends for inpatient admissions, emergency department visits, and hospice admissions were broadly similar to those displayed in *Figure 8*.

Figure 8
Percent with use of selected Medicare services

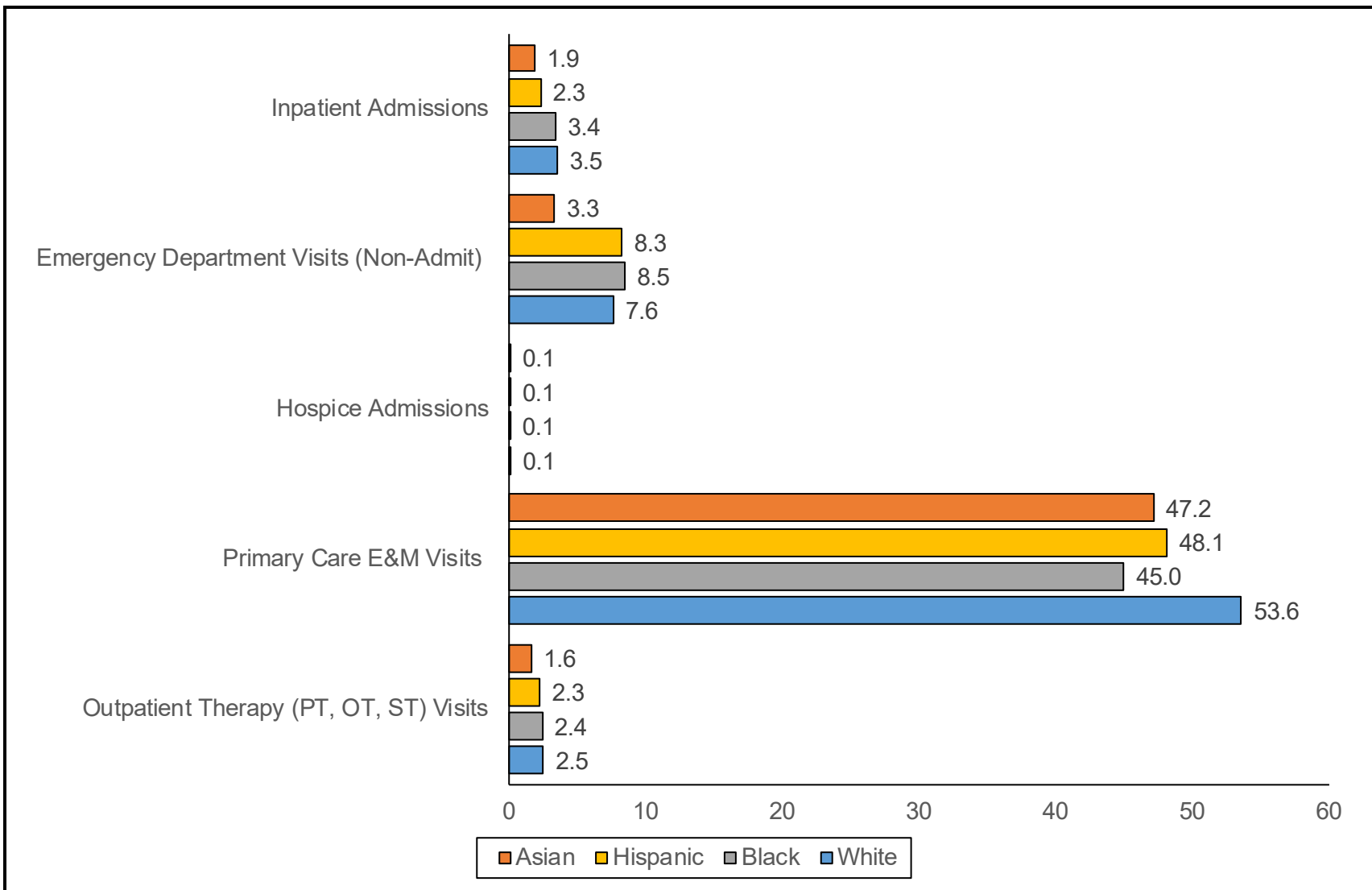


Figure 9
Service use among all demonstration eligible beneficiaries with use of service per 1,000 user months

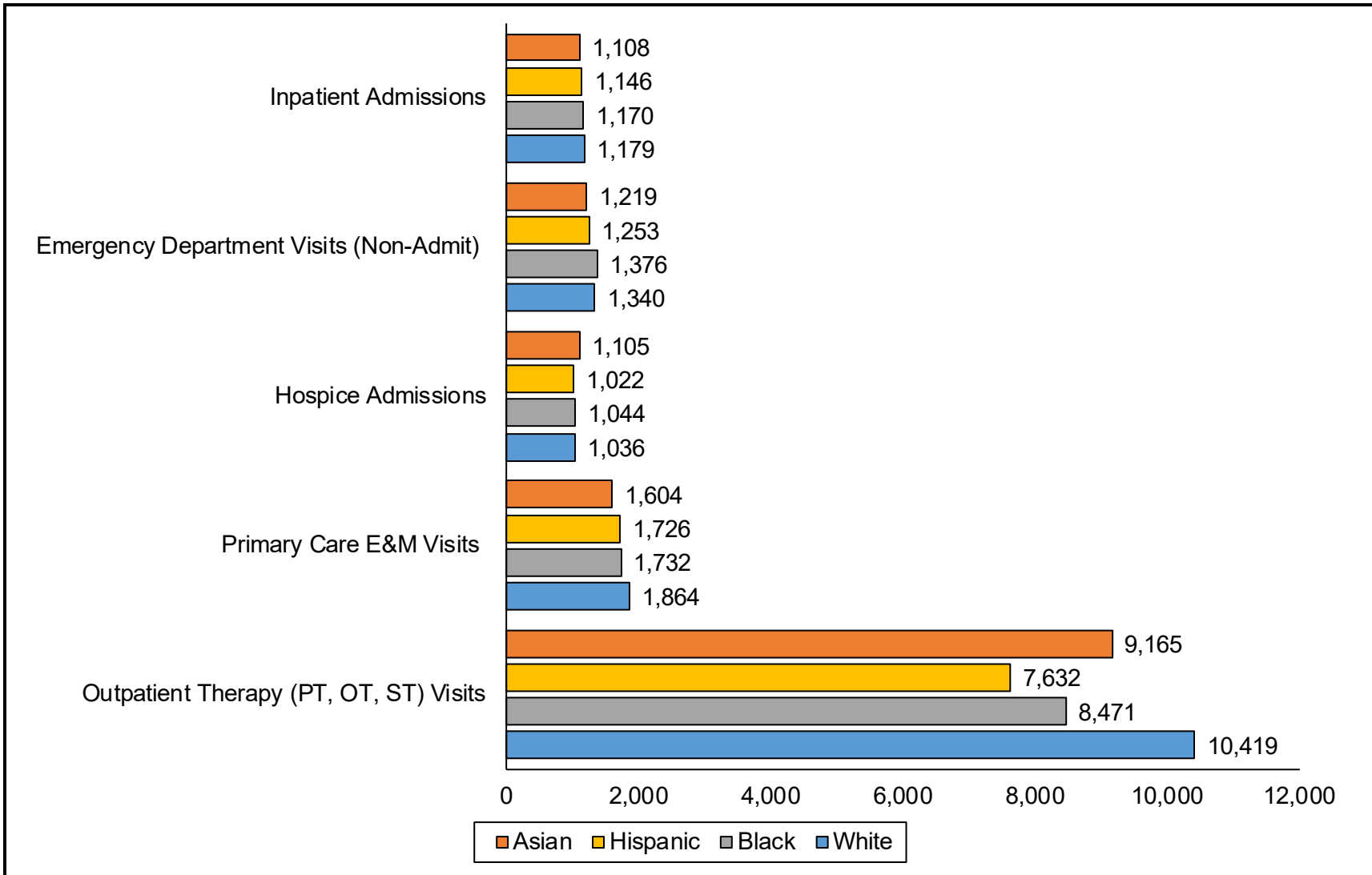
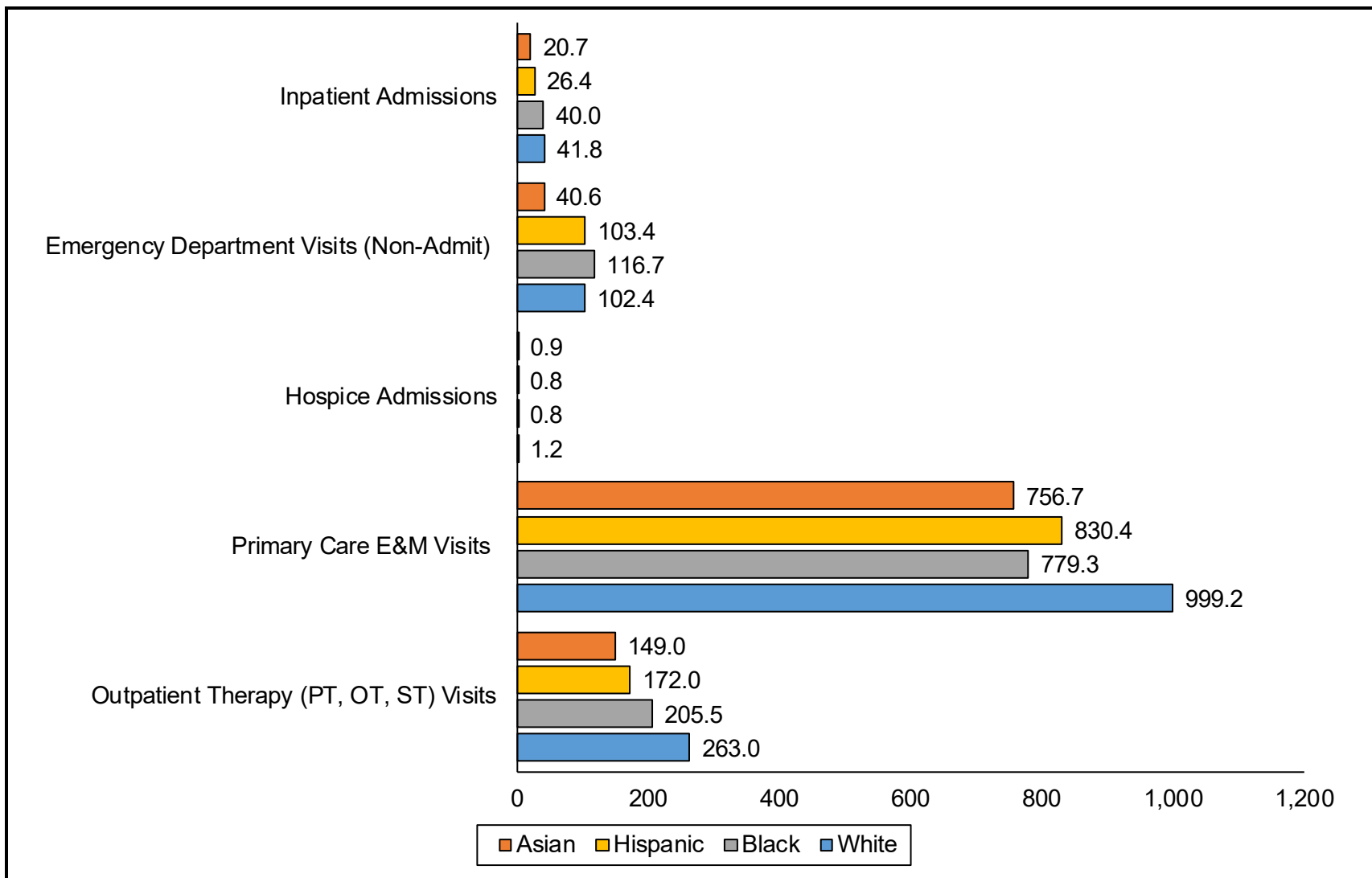


Figure 10
Service use among all demonstration eligible beneficiaries per 1,000 eligible months



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6. Cost Savings Calculation

Highlights

- RTI conducted a preliminary estimate of Medicare savings using a difference-in-differences analysis examining beneficiaries eligible for the demonstration in the Massachusetts demonstration area and comparison areas.
- The results of the preliminary cost analyses of beneficiaries eligible for the demonstration do not show statistically significant savings or losses as a result of the demonstration. This aligns with CMS expectations, given rate structure and modifications during the demonstration period covered.
- The low rate of enrollment in the demonstration (approximately 13 percent of eligible beneficiaries actually enrolled) is one potential reason for the finding of no statistically significant savings or losses among beneficiaries eligible for the demonstration. For example, limited enrollment may have limited the potential impact on costs.

As part of the capitated financial alignment model, Massachusetts, CMS, and health plans have entered into a three-way contract to provide services to Medicare-Medicaid enrollees (CMS, 2013). Participating health plans receive prospective blended capitation payment to provide both Medicare and Medicaid services for enrollees. CMS and Massachusetts developed risk adjusted capitation rates for Medicare Parts A, B, and D, and Medicaid services to reflect the characteristics of enrollees. The Medicare component of the payment is risk-adjusted using CMS' hierarchical risk-adjustment model. The rate development process is described in greater detail in the Memorandum of Understanding and the three-way contract, and a description of the risk adjusted Medicare components of the rate are described in the Final Rate Reports (CMS and State of Massachusetts, 2013b). As noted in *Chapter 3*, in April 2016, CMS finalized the revised risk adjustment model for Medicare Advantage for payment year 2017 in the CY 2017 Final Rate Notice and Call Letter. See *Section 3.5.2* for additional information about this change.

The capitation payment incorporates savings assumptions over the course of the demonstration. The same savings percentage is prospectively applied to both the Medicare and Medicaid components of the capitation payment, so that both payers can recognize proportional savings from this integrated payment approach, regardless of whether the savings is driven disproportionately by changes in utilization of services typically covered by Medicare or Medicaid. The goal of this methodology is to minimize cost shifting, to align incentives between Medicare and Medicaid, and to support the best possible outcomes for enrollees.

This chapter presents preliminary Medicare Parts A and B savings calculations for the first 27 months of the demonstration period using an intent-to-treat (ITT) analytic framework that includes beneficiaries eligible for the demonstration rather than only those who enrolled. Approximately 105,000 Medicare-Medicaid beneficiaries in Massachusetts were eligible for and over 14,000 (13 percent) enrolled in the demonstration as of December 2016.

The Medicare calculation presented here uses the capitation rate for beneficiaries enrolled in the demonstration, and not the actual payments that plans made to providers for services, so the savings are calculated from the perspective of the Medicare program. A similar approach will be applied to the Medicaid savings calculation when data is available. Part D costs are not included in the savings analysis.

The results shown here reflect quality withhold repayments and risk corridor payments and recoupments. Note that Medicare and Medicaid savings calculations will be conducted by RTI for each year of the demonstration as data are available.

The following sections discuss the analytic approach and results of these analyses.

6.1 Evaluation Design

To assess the impact of the demonstration on Medicare costs for Medicare-Medicaid enrollees, RTI used an ITT approach comparing the population eligible for the Massachusetts demonstration with a comparison group not affected by the demonstration. An ITT approach diminishes the potential for selection bias and highlights the effect of the demonstration on all beneficiaries in the demonstration eligible population. All Medicare-Medicaid enrollees eligible for the demonstration constitute the evaluation sample, regardless of whether they enrolled in the demonstration or actively participated in the demonstration care model. Therefore, the analyses presented here cover demonstration eligible beneficiaries including those who opted out, or who participated but subsequently disenrolled; who were eligible but were not contacted by the Commonwealth or participating plans; and those who enrolled but did not seek services.

Beneficiaries eligible for the demonstration were identified using quarterly files submitted by the Commonwealth of Massachusetts. These files include information on all beneficiaries eligible for the demonstration, as well as indicators for whether each beneficiary was enrolled.

A comparison group was identified in two steps. First, RTI identified comparison areas that are most similar to Massachusetts with regard to area-level measures of health care market characteristics such as Medicare and Medicaid spending and State policy affecting Medicaid-Medicare enrollees. Second, beneficiaries were selected using a propensity score model (described in further detail below). Further discussion of the comparison group selection process is detailed in *Appendix A*.

RTI used a difference-in-differences (DID) approach to evaluate the impact of the demonstration on Medicare costs. DID refers to an analytic strategy whereby two groups—one affected by the policy intervention and one not affected by it—are compared on an outcome of interest before and after the policy intervention. The predemonstration period included 2 years prior to the start of the Massachusetts demonstration (October 1, 2011–September 30, 2013), the first demonstration period (demonstration year 1) included the first 15 months of the demonstration (October 1, 2013–December 31, 2014) and the second demonstration period (demonstration year 2) included calendar year 2015 (January 1, 2015–December 31, 2015).

To estimate the average treatment effect on the demonstration eligible population for monthly Medicare expenditures, RTI ran generalized linear models (GLMs) with a gamma

distribution and a log link. This is a commonly used approach in analysis of skewed data or in cases where a high proportion of observations may have values equal to zero. The model also employed propensity score weighting and adjusted for clustering of observations at the county level.

The GLM model included indicators for demonstration period, an indicator for assignment to the demonstration group versus the comparison group, and an interaction term for demonstration period and demonstration assignment. The model also included demographic variables and area level variables. The interaction term represents the combined effect of being part of the demonstration eligible group during the demonstration periods and is the key policy variable of interest. The interaction term is a way to measure the impact of both time and demonstration group status. Separate models were run to distinguish between overall savings (pre- versus post-demonstration) as well as savings for each demonstration period. Because the difference-in-difference variable was estimated using a non-linear model, RTI employed a post-estimation procedure to obtain the marginal effects of demonstration impact. The aggregation of the individual marginal effects represents the net demonstration impact and are reported below.

- Demographic variables included in the model were:
 - Gender,
 - Race, and
 - ESRD status.
- Area level variables included in the savings model were:
 - Medicare spending per Medicare-Medicaid enrollee age 19 or older
 - Medicare Advantage penetration rate
 - Medicaid-to-Medicare fee for service (FFS) fee index for all services
 - Medicaid spending per Medicare-Medicaid enrollee age 19 or older
 - Proportion of Medicare-Medicaid enrollees using
 - Nursing facilities age 65 or older
 - Home and community-based services (HCBS) age 65 or older
 - Personal care age 65 or older
 - Medicaid managed care age 19 or older
 - Population per square mile, and physicians per 1,000 population

Additional area-based variables—such as the percent of adults with a college degree and proximity to hospitals or nursing facilities—were used as proxies for sociodemographic indicators and local area characteristics. Note that these variables were also used in the comparison group selection process. Though the One Care program targets beneficiaries younger than age 65, these variables are meant to control for health care market characteristics generally and will not bias the savings calculation for Massachusetts. Individual beneficiary demographic characteristics are controlled for in the models and are also accounted for in the propensity score weights used in the analysis.

In addition to the variables noted here, the propensity score weights used in the cost savings analyses also include Hierarchical Condition Category (HCC) risk score. HCC risk score is not included as an independent variable in the regression models predicting costs because HCC risk score is directly related to capitated payments. Due to the potential for differences in diagnoses coding for enrollees compared to beneficiaries in FFS after the start of the demonstration, the HCC risk score used to calculate the weights was “frozen” to the value at the start of the demonstration period. Diagnoses codes are the basis for risk score calculations, and by freezing the score prior to any potential impact of the demonstration, we are able to control for baseline health status using diagnosis codes available prior to the demonstration.

6.2 Medicare Expenditures: Constructing the Dependent Variable

RTI gathered predemonstration and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources. Capitation payments paid to One Care plans during the demonstration period were obtained for all demonstration enrollees from CMS Medicare Advantage and Prescription Drug system (MARx) data. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (March 2017). Medicare claims were used to calculate expenditures for all comparison group beneficiaries, demonstration beneficiaries in the predemonstration period, and demonstration eligible beneficiaries who were not enrolled during the demonstration period as summarized in *Table 37*. These FFS claims included all Medicare Parts A and B services.

Table 37
Data sources for monthly Medicare expenditures

Group	Predemonstration	Demonstration period
	October 1, 2011–September 30, 2013	October 1, 2013–December 31, 2015
Demonstration group	Medicare FFS	Capitation rate for enrollees Medicare FFS for non-enrollees
Comparison group	Medicare FFS	Medicare FFS

FFS = fee for service.

A number of 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 38* summarizes

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

The capitation payments MARx reflect the savings assumptions applied to the One Care and Medicare components of the rate (1 percent for April 1, 2014–December 31, 2014, and zero percent for calendar year 2015), but do not reflect the risk corridor payments or the quality withhold amounts (withhold of 1 percent in the first demonstration period and zero percent in the second demonstration period for two of the three plans and 2 percent for one of the plans). The results shown here reflect quality withhold repayments for the first demonstration period and the risk corridor payments and recoupments for both the first and second demonstration periods.

Table 38
Adjustments to Medicare expenditures variable

Data source	Adjustment description	Reason for adjustment	Adjustment detail
FFS	Indirect Medical Education (IME)	MMP 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	Medicare Sequestration Payment Reductions	Under sequestration Medicare payments were reduced by 2% starting April 1, 2013. Sequestration is not reflected in the capitation rates.	Reduced capitation rate by 2%
Capitation rate	Bad debt	The Medicare portion of the capitation rate includes an upward adjustment to account for bad debt. Bad debt is 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 0.87 for CY13, 0.88 for CY14, 0.89 for CY15, and 0.94 for CY16. Reduced the FFS portion of the capitation rate by an additional 1.89% for CY 2014 and by an additional 1.71% for CY 2015 to account for the disproportional share of bad debt attributable to Medicare-Medicaid enrollees in Medicare FFS.

(continued)

Table 38 (continued)
Adjustments to Medicare expenditures variable

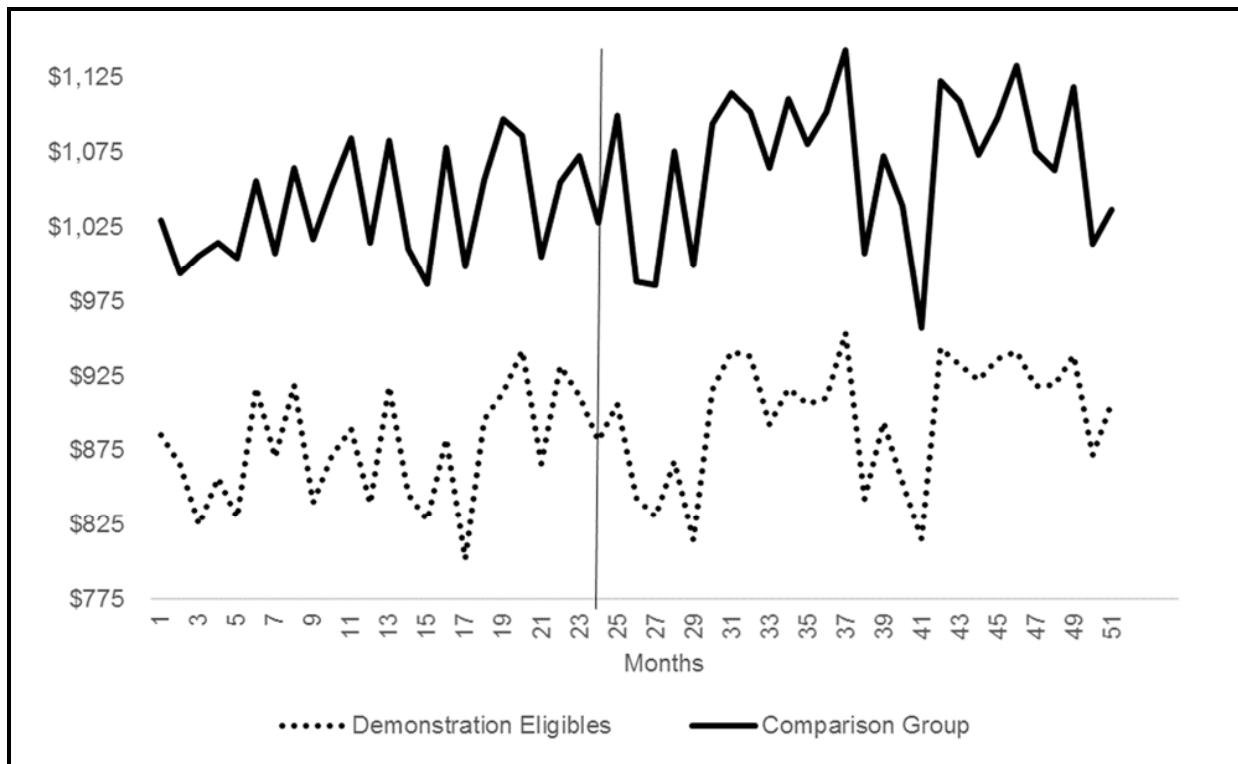
Data source	Adjustment description	Reason for adjustment	Adjustment detail
FFS and capitation rate	Average Geographic Adjustments (AGA)	The Medicare portion of the capitation rate reflects the most current hospital wage index and physician geographic practice cost index by county. FFS claims also reflect geographic payment adjustments. In order 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 expenditures were divided by the appropriate county-specific AGA factor for each year. Note that for 2014, a single year-specific AGA factor based on claims paid in the year, rather than the AGA factor used in Medicare Advantage (based on 5 years of data and lagged 3 years) was used to account for year specific policies. Note also that the AGA factor applied to the capitated rates for 2014 reflected the 50/50 blend that was applicable to the payment year.
Capitation rate	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	Quality withhold	A 1% quality withhold was applied in the first demonstration year but was not reflected in the capitation rate used in the analysis.	Final quality withhold repayments for 2013, 2014 were incorporated into the dependent variable construction. Note that the demonstration year 2 quality withhold and repayment applicable to Fallon will be incorporated as this information becomes available.
Capitation rate	Risk corridor	Risk corridor payments or recoupments are based on reconciliation after application of high cost risk pool or risk adjustment methodologies.	Final risk corridor payments and recoupments for were incorporated into the dependent variable construction.

CY = calendar year; FFS = fee for service; MMP = Medicare-Medicaid Plan.

6.3 Results

The first step in the analysis was to plot the unweighted mean monthly Medicare expenditures for both the demonstration group and the comparison group. *Figure 11* indicates that the demonstration group and the comparison group had parallel trends in mean monthly expenditures during the 24-month predemonstration period, which is an important assumption to the DID analysis.

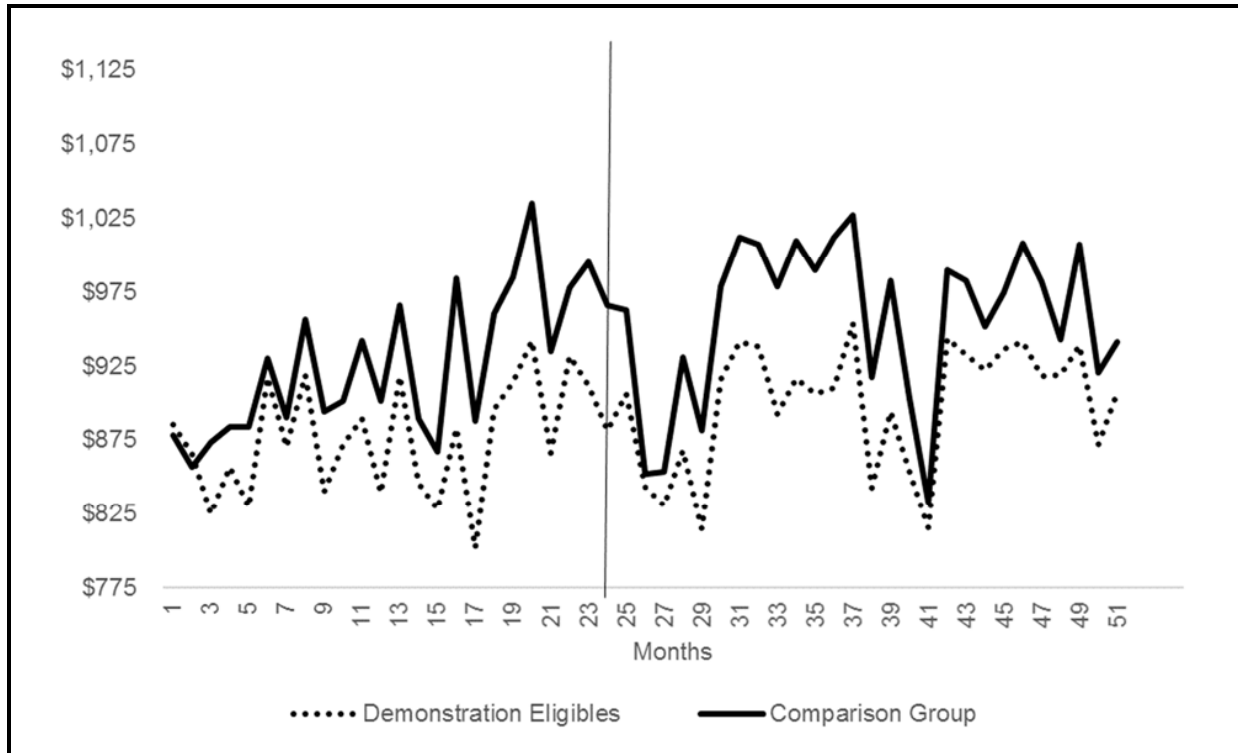
Figure 11
Mean monthly Medicare expenditures, predemonstration and demonstration period, One Care eligible and comparison group, October 2011–December 2015



SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: means_ma493aa).

Figure 12 demonstrates the same plot of mean monthly Medicare expenditures for both the demonstration group and the comparison group, after applying the propensity weights and establishes the parallel trends for both groups.

Figure 12
Mean monthly Medicare expenditures (weighted), predemonstration and demonstration period, One Care eligibles and comparison group, October 2011–December 2015



SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: means_ma493aa).

Table 39 and *Table 40* 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 both demonstration periods 1 and 2 for both the demonstration group and the comparison group. The unweighted mean increase in demonstration period 1 was \$15 for demonstration eligible beneficiaries and \$32 for the comparison group. Increases were also shown for demonstration periods 1 and 2 for both the demonstration group and the comparison group in the weighted tables (*Table 41* and *Table 42*).

The DID 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 DID value. This value would be equal to zero if the differences between predemonstration and the demonstration period 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. Although the DID values in demonstration period 1 are negative, indicating savings, none of the

DID values (weighted or unweighted) in period 1 or period 2 are statistically significant (illustrated by the 95 percent confidence intervals that include 0).

Table 39
Mean monthly Medicare expenditures for One Care eligibles and comparison group, predemonstration period and demonstration period 1, unweighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 1 Oct 2013–Dec 2014	Difference
Demonstration group	\$877 (\$846.5, \$907.4)	\$892 (\$868.8, \$914.7)	\$15 (-\$4.6, \$34.3)
Comparison group	\$1,038 (\$985.9, \$1089.9)	\$1,070 (\$1,010.2, \$1,129.7)	\$32 (\$17.7, \$46.5)
Difference-in-difference	—	—	-\$17 (-\$41.1, \$6.5)

— = data not available.

NOTE: 95 percent confidence intervals are shown in parentheses below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: DescriptiveTables).

Table 40
Mean monthly Medicare expenditures for One Care eligibles and comparison group, predemonstration period and demonstration period 2, unweighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 2 Jan 2015–Dec 2015	Difference
Demonstration group	\$877 (\$846.5, \$907.4)	\$909 (\$881.7, \$935.6)	\$32 (\$14.3, \$49.1)
Comparison group	\$1,038 (\$985.9, \$1089.9)	\$1,070 (\$1,010.0, \$1,126.7)	\$32 (\$18.9, \$45.0)
Difference-in-difference	—	—	\$0 (-\$21.3, \$20.8)

— = data not available.

NOTE: 95 percent confidence intervals are shown in parentheses below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: DescriptiveTables).

Table 41
Mean monthly Medicare expenditures for One Care eligibles and comparison group, predemonstration period and demonstration period 1, weighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 1 Oct 2013–Dec 2014	Difference
Demonstration group	\$877 (\$846.5, \$907.4)	\$892 (\$868.8, \$914.7)	\$15 (-\$4.6, \$34.3)
Comparison group	\$928 (\$882.9, \$972.9)	\$961 (\$904.4, \$1,016.8)	\$33 (-\$10.7, \$54.7)
Difference-in-difference	—	—	-\$18 (-\$46.8, \$11.1)

— = data not available.

NOTE: 95 percent confidence intervals are shown in parentheses below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: Descriptive TablesDescriptiveTables).

Table 42
Mean monthly Medicare expenditures for One Care eligibles and comparison group, predemonstration period and demonstration period 2, weighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 2 Jan 2015–Dec 2015	Difference
Demonstration group	\$877 (\$846.5, \$907.4)	\$909 (\$881.7, \$935.6)	\$32 (\$14.3, \$49.1)
Comparison group	\$928 (\$882.9, \$972.9)	\$953 (\$904.4, \$1,001.7)	\$25 (-\$3.3, \$47.0)
Difference-in-difference	—	—	-\$7 (-\$20.5, \$33.6)

— = data not available.

NOTE: 95 percent confidence intervals are shown in parenthesis below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program: DescriptiveTables).

6.3.1 Regression Analysis

While the descriptive statistics are informative, to get a more accurate estimate of savings, RTI conducted a multivariate regression analysis to estimate savings controlling for beneficiary and area level characteristics. Given the structure of the data, RTI used the GLM procedure in Stata with a gamma distribution and a log link, and adjusted for clustering at the county level.

In addition to controlling for beneficiary and market area characteristics, the model included a time trend variable (coded as months 1–51), a dichotomous variable for whether the

observation was from the pre-demonstration or demonstration period (“Post”), a variable to indicate whether the observation was from a beneficiary in the comparison group or the demonstration group (“Intervention”), and an interaction term (“Intervention*Post”) which is the difference-in-differences estimate in the multivariate model for the net effect of demonstration eligibility. We also ran a model specific to the year of the demonstration and for this we included a dummy variable for each year of the demonstration (“DemoYear1” and “DemoYear2”) and two interaction terms (“Intervention*DemoYear1” and “Intervention*DemoYear2”).

Table 43 shows the main results from the DID analysis for demonstration years 1 and 2, and for the entire demonstration period, controlling for beneficiary demographics and market characteristics. To obtain the effect of the demonstration from the non-linear model we calculated the marginal effect of coefficient of the interaction term. The marginal effect of the demonstration for the intervention group over the two demonstration periods in aggregate was negative (−0.90) but savings were small and not statistically significant, indicating that there were no net savings to Medicare as a result of the demonstration using the ITT analysis framework. The estimate of the effect of the demonstration in period 1 indicated −\$9.86 in savings, and \$10.15 in losses for demonstration period 2; however, neither finding was statistically significant, which indicates no effect of the demonstration using the ITT framework.

Table 43
Demonstration effects on Medicare savings for eligible beneficiaries—Difference-in-difference regression results, One Care eligibles and comparison group

Covariate	Adjusted coefficient DID	p-value	95% confidence interval	90% confidence interval	80% confidence interval ¹
Intervention *DemoYear1 (October 2013–December 2014)	−9.86	0.5212	−39.97, 20.26	−14.87, 35.17	−9.40, 29.70
Intervention *DemoYear2 (January 2015–December 2015)	10.15	0.5044	−19.66, 39.97	−14.87, 35.17	−9.40, 29.70
Intervention*Demo Period (October 2013–December 2015)	−0.90	0.9470	−27.41, 25.62	−23.15, 21.35	−18.28, 16.48

DID = difference-in-differences.

¹ 80 percent confidence intervals are provided for comparison purposes only.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program lgs_macs591_log).

Table 44 shows the magnitude of the DID estimate relative to the adjusted mean outcome value in the predemonstration and demonstration periods. The second and third columns represent the post-regression, mean predicted savings or loss for each group and period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. The remaining columns show the difference-in-differences estimate (the coefficient on Intervention*Post), the p-value demonstrating significance, and the relative percent change of the difference-in-differences estimate compared

to the mean monthly Medicare expenditures for the comparison group in the entire demonstration period.

The adjusted mean for monthly expenditures decreased between the predemonstration and demonstration period for the demonstration and comparison groups. The DID estimate of -0.90 (the coefficient on $\text{Intervention} \times \text{Post}$) is slightly negative, but the savings are not statistically significant ($p < 0.947$), indicating that there were no statistically significant savings in Medicare Parts A and B from the demonstration, using the ITT analysis framework. The adjusted coefficient on the DID estimate for the demonstration overall ($-\$0.9$, in **Table 44**) is between the marginal effect of the DID estimate from demonstration year 1 ($-\$9.86$ in **Table 43**) and the marginal effect of the DID estimate from demonstration year 2 ($\$10.15$, in **Table 43**). The DID estimate for demonstration years 1 and 2 in aggregate reflected an annual relative cost decrease of -0.09 percent, but this was not statistically significant.

Table 44
Adjusted means and overall impact estimate for eligible beneficiaries in the demonstration and comparison groups, One Care eligibles and comparison group

Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Adjusted coefficient DID	p-value
Demonstration group	\$868.75	\$847.44	-0.09	-0.90*	<0.947
Comparison group	\$985.36	\$962.14			

CI = confidence interval; DID = difference-in-differences.

* 95 percent CI: $-27.41, 25.62$; and 90 percent CI: $-23.15, 21.35$.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program RelativeDiffTable).

In addition to the cost savings analysis on all eligible beneficiaries (ITT approach), RTI conducted several sensitivity analyses to provide additional information on potential savings or losses associated with the demonstration overall and for the subset of beneficiaries enrolled in the demonstration. These sensitivity analyses included (1) simulating capitated rates for eligible enrollees not enrolled in the demonstration and comparing these rates to actual FFS expenditures; (2) predicting FFS expenditures for beneficiaries enrolled in the demonstration and comparing to the actual capitated rates; and (3) calculating a DID estimate based on a subgroup of beneficiaries enrolled in the demonstration with at least 3 months of eligibility in the baseline period. The results of these analyses are presented in **Appendix D**.

The findings of the sensitivity analyses indicate that the predicted capitated rates are not statistically significantly different than actual FFS expenditures for non-enrollees and that predicted FFS expenditures are lower than actual capitated rates for enrollees. The enrollee subgroup DID analysis indicates additional costs compared to a comparison group, and this finding is statistically significant. Note that these analyses do not control for unobservable characteristics that may be related to the decision to enroll in the demonstration. The enrollee subgroup DID analysis was conducted to learn more about the potential impact of the demonstration on the subset of beneficiaries touched by the demonstration for at least 3 months.

Note that similar 3-month eligibility criteria were applied to the comparison group for the baseline and demonstration periods for this analysis and weights were recalculated. The 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 be considered in the context of this limitation.

6.4 Discussion

The results of the preliminary multivariate analyses presented here do not indicate statistically significant savings or losses during the first 27 months of the Massachusetts demonstration. The savings calculated here are based on capitation rates paid for enrollees and the FFS expenditures for eligible beneficiaries that did not enroll in the demonstration. The estimates do not take into account actual payments for services incurred by enrollees and paid by the One Care plans.

One potential reason that savings were not identified in these analyses is that there was not sufficient time for the program to demonstrate impact. For example, limited enrollment could limit the potential impact on costs because there was “no critical mass” achieved. It is also important to note that given the ITT framework used to calculate savings, all eligible beneficiaries, regardless of their enrollment status were included in the calculation. However, enrollment in Massachusetts was modest at best during the first 27 months of the demonstration. Approximately 105,000 Medicare-Medicaid beneficiaries in Massachusetts were eligible for and over 14,000 (13.3 percent) enrolled in the demonstration as of December 2016. The large majority of the eligible beneficiaries (86.7 percent) were not enrolled in a One Care plan, and were therefore receiving usual FFS Medicare.⁴³ While the ITT framework helps mitigate selection bias in evaluating the impact of an intervention, it may be more challenging to detect savings in an ITT framework where enrollment penetration is so low. It should also be noted that the demonstration year 2 results for the enrollee subgroup in part reflect a risk adjustment-related change that increased the capitation payments for eligible individuals enrolled in Massachusetts MMPs in 2015. The associated risk adjustment change, which took effect across Medicare Advantage in 2017, will not be reflected in our analyses because the comparison groups are exclusively beneficiaries in Medicare FFS.

Once Medicaid data become available to the Federal evaluator, and a similar calculation can be conducted on the Medicaid costs, it will be possible to have a more complete understanding of potential savings from the first 2 years of the Massachusetts demonstration. In the meantime, preliminary analysis conducted by the Commonwealth of Massachusetts suggests the potential for savings to Medicaid and Medicare over time due to reduced inpatient and acute service utilization. Specifically, the Commonwealth has seen evidence that One Care Plans’ investment in Medicaid-covered services (e.g., LTSS) creates savings on Medicare-covered services (e.g., inpatient hospital, emergency department). The Commonwealth suggests that observed increases in Medicaid community LTSS under the demonstration is likely due, in part,

⁴³ Though Medicare Accountable Care Organizations (ACOs) are prevalent in the Commonwealth, the cost savings methodology takes that into account. The difference-in-differences regression model used to measure the impact of the demonstration on cost incorporates a control variable for any Medicare ACO or shared savings initiative experience beneficiaries may have (both in the intervention group and comparison group).

to under-utilization prior to the demonstration due to a lack of navigation, care planning and coordination in the fee-for-service environment prior to the Financial Alignment Initiative. Massachusetts has also found that continuous enrollment for an extended period of time (18+ months) appears to be a key factor in achieving reduced acute and inpatient utilization and savings.⁴⁴

RTI will continue to examine these results and will rerun the analyses when complete information on quality withholds become available. Once Medicaid data become available for the first demonstration period and a similar calculation can be conducted on the Medicaid costs, it will be possible to have a more complete understanding of potential savings from the first 2 years of the Massachusetts One Care plan demonstration. Additional Medicare and Medicaid savings calculations will be conducted by the evaluation contractor for each year of the demonstration as data are available and future reports will show updated results for the first 2 years of the demonstration based on data reflecting additional claims runout, risk score reconciliation, and any retroactive adjustments.

⁴⁴ These estimates are assessed and provided by the Commonwealth of Massachusetts and are independent from analyses presented in this report. CMS has not validated these estimates.

7. Conclusions

7.1 Implementation Successes, Challenges, and Emerging Issues

Overall, MassHealth officials, One Care MMPs, and other stakeholders continue to voice strong support for One Care and emphasize that it is the right care model for this population. For many enrollees, One Care has provided access to care coordination services for the first time, as well as access to new and expanded benefits. A key element of the One Care demonstration is the use of care coordinators and, as appropriate, community-based LTS Coordinators to assess the enrollees' needs and facilitate access to and coordination of services within the medical, behavioral health, and LTSS systems.

Support for One Care is evidenced in part by the decision to continue to extend the demonstration. Based on experience to date, MassHealth officials have also expressed interest in potentially converting the demonstration into a permanent program when the Financial Alignment Initiative ends.⁴⁵ MassHealth anticipates resoliciting MMPs for the demonstration for January 2019, potentially attracting additional plans. Moreover, MassHealth officials reported incorporating One Care's goals of member-centered, coordinated, and culturally competent care into broader MassHealth reforms related to its 1115(a) demonstration waiver.

Although Fallon's departure in the fall of 2015 was operationally challenging at the time, the experience also strengthened the relationships between CMS, MassHealth, the MMPs, and the Implementation Council, all of whom worked together to keep the demonstration in place. Most importantly, the financial stability of the demonstration has improved significantly over the last 2 years, for the most part due to changes in One Care's financing and payment model.

As reported in the first Annual Report, all three MMPs experienced financial losses during demonstration year 1, and, at the time, MMPs had concerns that anticipated losses would continue based on the existing financial structure. Subsequently, CMS, MassHealth, and the remaining two MMPs negotiated several financial changes that were finalized in a contract amendment executed in December 2015. Changes to rates, savings percentages, and other financing structures helped stabilize the demonstration. Although One Care is on better footing, some questions remain as to its sustainability. In part, this may depend on the ability of the care model to bend the cost curve by providing more efficient and effective care.

Both MMPs reported that during demonstration year 2, they focused on improving the assessment process and timeliness. In part, the MMPs experienced a lower volume of newly enrolled beneficiaries in year 2 than in the first 15 months of the demonstration, which allowed them to focus on process improvement, but also making adjustments based on learning from early implementation experiences. MassHealth officials, many stakeholders, and MMP representatives reported that as the demonstration matured, the focus on care coordination and care planning increased. MassHealth, MMPs, and stakeholders cited examples in which the assessment and integrated care planning between behavioral health and medical care had improved beneficiaries' health. MassHealth and the MMPs have worked collaboratively with community-based organizations and advocates to improve the implementation of the LTS

⁴⁵ In January 2017, CMS offered Massachusetts the ability to extend the demonstration through December 31, 2020.

coordinator role; it is not yet clear whether those improvements are sufficient to address all concerns.

MassHealth, MMPs, enrollees, and other stakeholders report success stories from One Care. One Care offers access to new services not previously available to Medicare-Medicaid beneficiaries. These include new community-based behavioral health services that provide an alternative to inpatient psychiatric care, and other LTSS community-based services to help people live independently in their homes. Overall experiences of participants in the 2016 focus groups were similar to those reported in the first Annual Report. Findings from the focus groups indicate that many participants report overall satisfaction with One Care. Transportation continues to be an area for improvement, with complaints around quality of transportation services constituting over half of all complaints for 2015.⁴⁶ While MMPs have worked to lessen these complaints, this will require continued monitoring.

The structure for soliciting stakeholder engagement has been a key element in One Care's success. The Implementation Council provides ongoing advice to MassHealth; solicits input from stakeholders; and monitors the implementation of the demonstration. As the demonstration has matured, some of the early, operational challenges have lessened. Implementation Council members reported that key successes in demonstration year 2 included collaborating with MassHealth and CMS to assist enrollees affected by Fallon's withdrawal from the demonstration, and successfully advocating for increased financial support for One Care. The Implementation Council also provides a public forum for discussion and exchange of information with the One Care Ombudsman, a program that assists beneficiaries with questions and complaints about their services.

As reported in the first Annual Report, implementation of the demonstration has been challenging. Integrating the policies, procedures, and systems of Medicare and Medicaid made program implementation and service delivery very complex and challenging. Although MassHealth and other key stakeholders noted progress in achieving a greater level of integration in operations, challenges were still reported in eligibility, data reporting, and operational areas. Others noted that certain aspects of the demonstration—such as the appeals and grievance processes; separate encounter data reporting for Medicare and Medicaid services; and the receipt of three separate capitation rates—were not fully integrated as designed.

Approximately 14 percent of eligible beneficiaries in Massachusetts were enrolled in the demonstration by the end of demonstration year 3. From the end of demonstration year 1 to the end of demonstration year 2, enrollment fell from approximately 17,900 to 12,300 individuals, mostly due to Fallon's withdrawal and temporary enrollment caps. Although enrollment as of December 11, 2016 had increased to approximately 14,300, it still fell short of enrollment numbers before Fallon's withdrawal. Enrollment continued to increase in January 2017 by approximately 2,000 enrollees because of additional passive enrollment. As noted in **Section 3.2, Enrollment and Eligibility**, there have been changes in the design of passive enrollment, as well as an added coverage area for one MMP, which provide greater potential for increasing enrollment numbers. However, the use and manner of implementing passive enrollment continues to be an area of some concern for stakeholders.

⁴⁶ This data is for April through December 2015; prior complaint data did not track complaint categories.

Overall, it is still too early in the demonstration for MassHealth and the MMPs to evaluate and identify any trends in much of the quality reporting data. One Care is the only demonstration under the Financial Alignment Initiative that limits eligibility to beneficiaries under the age of 65 at the time of enrollment; MassHealth and the MMPs report that this makes it challenging to benchmark One Care against other programs in Massachusetts and against other Financial Alignment Initiative demonstrations.

Beginning in demonstration year 4, stakeholders and others stressed the importance of ensuring a continued focus by MassHealth on One Care against the backdrop of the larger MassHealth reforms related to the approval and implementation of its Section 1115(a) demonstration waiver. Officials from MassHealth, the MMPs, and other stakeholders are encouraged by the improved financial stability and commitment to One Care demonstrated by both CMS and MassHealth. While most interviewees reported that they are cautiously optimistic about the future of One Care, they noted that more time and additional monitoring is needed, especially in areas of enrollment, finance, and quality data metrics. The continuation of the demonstration will allow for the maturation of data allowing for greater assessment of the ability of One Care to achieve its overall objectives under the Financial Alignment Initiative to alleviate fragmentation of care, enhance quality of care, and reduce costs.

7.2 Demonstration Impact on Service Utilization and Costs

Difference-in-differences regression results of demonstration impacts show that the Massachusetts demonstration resulted in statistically significant changes in utilization patterns, including changes in RTI quality of care and care coordination measures. These changes include higher monthly inpatient admissions (including inpatient admissions for overall and chronic ambulatory care sensitive conditions [ACSC]), all-cause 30-day readmissions, skilled nursing facility (SNF) admissions, and physician evaluation and management (E&M) visits, along with a lower probability of any long-stay nursing facility (NF) use over the year and lower quarterly follow-up after mental health discharges. The demonstration had no impact on monthly emergency room (ER) visits overall or on preventable ER visits. The impacts on ACSC inpatient admissions, all-cause 30-day readmission, and probability of long-stay NF use were factors in both years of the demonstration. Whereas the effects on physician E&M visits were concentrated in demonstration year 1, the impacts on overall inpatient admissions, SNF admissions, and quarterly follow-up after mental health discharges were concentrated in demonstration year 2. These findings are based on Medicare- and MDS-only data analysis. Massachusetts may be providing additional Medicaid-funded community-based follow-up services that are more extensive than those provided through Medicare funding.

Regression results for the special populations analyzed were very similar. Both eligible beneficiaries with LTSS use and eligible beneficiaries with SPMI experienced higher monthly inpatient admissions (including ACSC admissions), SNF admissions, physician E&M visits, and all-cause 30-day readmissions, along with a lower probability of any long-stay NF use and lower quarterly follow-up after mental health discharges, relative to comparison group eligibles with LTSS use and SPMI, respectively.

The results of cost savings analyses using a difference-in-differences regression approach on beneficiaries eligible for the One Care demonstration do not indicate statistically significant

savings or losses as a result of the Massachusetts demonstration. Savings were not identified in either demonstration period.

Generally, higher utilization for many service types as found in impact analyses may be consistent with unmet need among those who enrolled in One Care, which may have led to MMP reported losses in demonstration year 1 and only small reported profits in demonstration year 2. Although ACSC admissions were higher in the Massachusetts demonstration, such admissions are not necessarily inappropriate admissions—just more likely to be inappropriate. Upon enrollment, if existing medical conditions have not been routinely treated, MMPs may be addressing unmet needs in the demonstration, which may not be relevant for the comparison group. In addition, the time window for creating a successful program may be longer than 2 years, given One Care implementation challenges.

7.3 Next Steps

The RTI evaluation team will continue to collect information on a quarterly basis from Commonwealth officials through the online SDRS, covering enrollment statistics and updates on key aspects of implementation. The RTI evaluation team will continue conducting quarterly calls with CMS and the Massachusetts demonstration State staff and will request the results of any evaluation activities conducted by the Commonwealth or other entities. During the course of the demonstration, there will be additional site visits and focus groups.

Quantitative analyses in future evaluation reports will continue to analyze demonstration impact using the latest demonstration year's cost and utilization data to assess both cumulative and annual effects relative to a comparison group. Analyses will be made for all demonstration eligible beneficiaries and for important special populations of interest, including demonstration eligible beneficiaries who are enrolled, those with any LTSS, and those with SPMI.

As noted previously, Massachusetts has extended the demonstration for 2 additional years, through December 31, 2018, which will provide further opportunities to evaluate the demonstration's performance. CMS recently offered the Commonwealth the opportunity to extend the demonstration through December 31, 2020, and Massachusetts had responded with a non-binding letter of intent to extend. In 2018, CMS and the Commonwealth agreed to a 1-year extension through December 31, 2019. Updates on the anticipated extension will be provided in the third Evaluation Report on One Care. The third Evaluation Report will also include information on the recent decision to expand the use of passive enrollment to counties where, previously, it was not available; MMP Tufts' decision to begin operations in Middlesex County; and any changes or developments affecting One Care related to MassHealth's larger Medicaid reforms. In addition, the next report will include updated qualitative information on the status of the demonstration and additional analyses of quality, utilization, and cost measures for those eligible for the demonstration and an out-of-state comparison group that, in part, includes an MSA in Massachusetts outside of the demonstration areas.

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Appendix A: Comparison Group Methodology for Massachusetts Demonstration Year 2

CMS contracted with RTI International to monitor the implementation of demonstrations under the Financial Alignment Initiative (FAI) and to evaluate their impact on beneficiary experience, quality, utilization, and cost. Impact analyses using costs will be estimated using multivariate regression models.

Results for comparison group selection and assessment analyses are prepared for each demonstration period. The annual report for the first demonstration period and 2 predemonstration years for the Massachusetts demonstration was publicly released in September 2016. The Technical Appendix at the end of that document describes the comparison group identification methodology in detail.

This report provides the comparison group results for the second performance period for the One Care demonstration in Massachusetts (January 1, 2015–December 31, 2015), and notes any major changes in the results since the previous performance period. The first Massachusetts demonstration period covered five quarters (October 1, 2013 to December 31, 2014).

Demonstration and Comparison Group Characteristics

The Massachusetts demonstration area consists of three large urban Metropolitan Statistical Areas (MSAs) (Boston-Cambridge-Newton; Worcester; and Springfield) plus one Rest-of-State area containing rural areas. The comparison area is composed of 116 counties in 24 Metropolitan Statistical Areas. These geographic areas have not changed since the first Annual Report. All targeted beneficiaries in the two groups are younger than 65 years of age.

The number of demonstration group beneficiaries has remained steady over the two predemonstration periods and the two demonstration periods, ranging between 106,393 to 118,687 per period. In the comparison group, which is twice the size of the demonstration group, the number of beneficiaries has also been relatively stable (from 179,092 to 200,413 per period).

Propensity Score Estimates

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

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

One change in the specification of the propensity score model is that two new explanatory variables. One is for Black beneficiaries and the other is for those involved in other Medicare shared-savings initiatives (such as Accountable Care Organizations, which are prevalent in Massachusetts). Both have been added to the model because they now represent more than 10 percent of the beneficiaries in either the demonstration or comparison groups. Previously, any beneficiaries from practices participating in Medicare shared savings programs (labeled Other MDM for Master Data Management programs in our tables) were omitted from the analyses.

The logistic regression coefficients and z-values for the covariates included in the propensity model for Massachusetts demonstration year 2 are shown in *Table A-1*. In the revised specification, the two variables most strongly associated with group status are the two new variables. Demonstration beneficiaries in Massachusetts are much less likely to be Black (12.7 percent vs. 31.7 percent) and more likely to be part of a shared-savings practice (46.1 percent vs. 19.7 percent) than their comparison group counterparts. In addition, there are ZIP code-level group differences associated with rates of college-educated adults and the distances to hospitals and nursing facilities. The magnitude of the group differences for all variables prior to propensity score weighting may also be seen in *Table A-2*.

Propensity Score Overlap

The distributions of propensity scores by group for demonstration year 2 are shown in *Figure A-1* before and after propensity weighting. Estimated scores covered nearly the entire probability range in both groups. Like the previous analyses, the unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0 to 0.20. Inverse Probability of Treatment Weighting (IPTW) pulls the distribution of weighted comparison group propensity scores (dotted line) very close to that of the demonstration group (solid line).

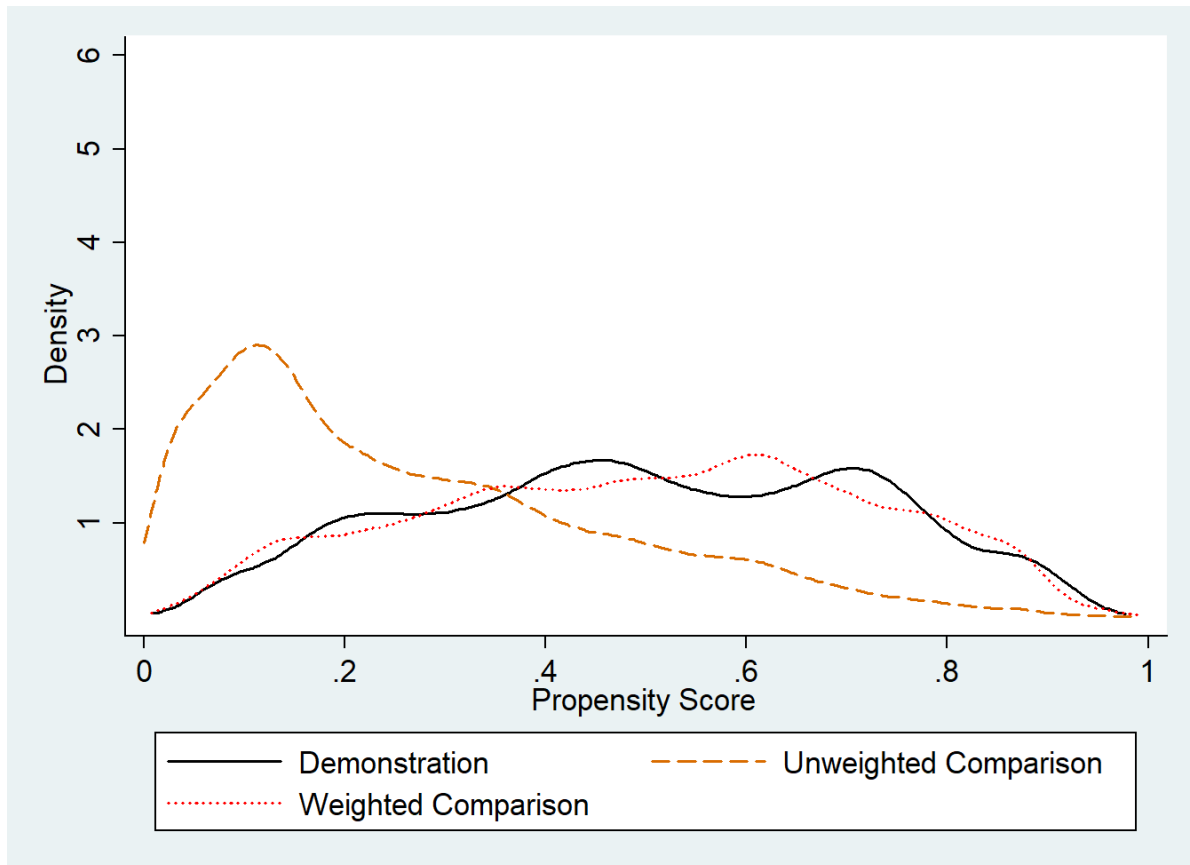
Any beneficiaries who have estimated propensity scores below the smallest estimated value in the demonstration group are removed from the comparison group. Because of the very broad range of propensity scores found in the Massachusetts demonstration data, only 15 beneficiaries were removed from the comparison group in demonstration year 2.

Table A-1
Logistic regression estimates for Massachusetts propensity score models
in demonstration year 2

Characteristic	Demonstration period 2		
	Coef.	Standard error	z-score
Age (years)	0.012	0.000	29.61
Died during year	-0.310	0.033	-9.26
Female (0/1)	-0.148	0.009	-16.25
White (0/1)	-0.528	0.014	-38.43
Black (0/1)	-1.897	0.016	-117.41
Disabled (0/1)	1.289	0.019	68.59
ESRD (0/1)	-0.458	0.033	-13.97
Share mos. elig. during period (prop.)	-0.158	0.017	-9.04
HCC risk score	-0.074	0.004	-16.45
Other MDM	1.083	0.009	117.45
MSA (0/1)	-0.335	0.027	-12.25
% of pop. living in married household	-0.013	0.001	-24.46
% of households w/member >= 60 yrs.	-0.013	0.001	-17.49
% of households w/member < 18 yrs.	0.043	0.001	65.91
% of adults w/college education	0.030	0.000	72.73
% of adults w/self-care limitation	-0.063	0.003	-19.57
% of those age < 65 yrs. unemployed	-0.006	0.001	-4.32
Distance to nearest hospital (mi.)	-0.032	0.002	-20.43
Distance to nearest nursing facility (mi.)	-0.187	0.003	-57.16
Intercept	-1.341	0.064	-21.01

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

Figure A-1
Distribution of beneficiary-level propensity scores in the Massachusetts demonstration and comparison groups, weighted and unweighted, demonstration year 2



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

Table A-2
Massachusetts dual eligible beneficiary covariate means by group before and after weighting by propensity score—Demonstration year 2: January 1, 2015–December 31, 2015

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age	50.266	50.127	49.992	0.012	0.024
Died	0.016	0.024	0.016	-0.059	0.000
Female	0.515	0.527	0.504	-0.024	0.023
White	0.696	0.613	0.701	0.176	-0.011
Black	0.127	0.317	0.122	-0.468	0.016
Disabled	0.949	0.868	0.946	0.284	0.016
ESRD	0.014	0.032	0.015	-0.120	-0.008
Share mos. elig. during period	0.875	0.853	0.870	0.085	0.020
HCC score	1.139	1.181	1.131	-0.042	0.008
Other MDM	0.461	0.197	0.450	0.584	0.021
MSA	0.979	0.932	0.981	0.230	-0.014
% of pop. living in married household	64.722	62.962	65.816	0.103	-0.065
% of households w/member >= 60	34.221	36.375	34.181	-0.294	0.006
% of households w/member < 18	32.046	30.753	32.640	0.174	-0.074
% of adults w/ college education	31.565	24.603	32.341	0.429	-0.042
% of adults w/self-care limitation	2.095	2.638	2.048	-0.262	0.027
% of those age < 65 yrs. unemployed	10.331	11.276	10.202	-0.162	0.024
Distance to nearest hospital	4.090	5.879	4.193	-0.418	-0.031
Distance to nearest nursing facility	2.555	3.835	2.656	-0.509	-0.062

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

The group means and standardized differences for all beneficiary characteristics are shown for demonstration year 2 in *Table A-2*. The column of unweighted standardized differences indicates that several of these variables were not balanced before running the propensity model. Five variables (percent Black, percent in Other MDM [shared savings] programs, percent of adults with a college education, and the distances [in miles] to the nearest hospital and nursing facility) all had unweighted standardized differences exceeding 0.40.

The results of propensity score weighting for Massachusetts demonstration period 2 are illustrated in the far-right column (weighted standardized differences) in **Table A-2**. Propensity weighting reduced the standardized differences below the threshold level of an absolute value of 0.1 for all the covariates in our model.

Summary

Our Massachusetts demonstration year 2 analyses added two new covariates to our propensity model and included beneficiaries participating in shared savings programs. The Massachusetts demonstration and comparison groups were initially distinguished by differences in both new covariates (percent Black and shared savings percent) as well as three other region-based variables. However, propensity-score weighting successfully reduced all covariate discrepancies below the threshold for standardized differences. As a result, the weighted Massachusetts groups are adequately balanced with respect to all 19 of the variables we consider for comparability.

Appendix B: Analysis Methodology

Methodology

We briefly describe the overall evaluation design, the data used, and the populations and measures analyzed.

Evaluation Design

RTI International is using an intent-to-treat (ITT) approach for the impact analyses conducted for the evaluation, comparing the eligible population under each State demonstration with a similar population that is not affected by the demonstration (i.e., a comparison group). ITT refers to an evaluation design in which all Medicare-Medicaid enrollees eligible for the demonstration constitute the evaluation sample, regardless of whether they actively participated in demonstration models. Thus, under the ITT framework, analyses include all beneficiaries eligible for the demonstration, including those who are eligible but are not contacted by the State or participating providers to enroll in the demonstration or care model; those who enroll but do not engage with the care model; and a group of similar eligible individuals in the comparison group.

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

Comparison Group Identification

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

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

comparison States, such as timeliness of Medicaid data submission to CMS. We identified a comparison group from MSAs in Alabama, Kentucky, Maryland, Massachusetts, Mississippi, North Carolina, Pennsylvania, Virginia, West Virginia, and Wisconsin at least as large as the eligible population in Massachusetts. For details of the comparison group identification strategy, see *Appendix A*.

Data

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

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

Populations and Services Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as the following special populations: those receiving any long-stay nursing facility services; those with any behavioral health service use in the last 2 years for a severe and persistent mental illness (SPMI); demonstration enrollees; and three demographic groups (age, gender, and race/ethnicity).

For each group and service type analyzed, we provide estimates of three access to care and utilization measures: the percent of demonstration eligible beneficiaries with any use of a service, and counts of service use for both all eligible beneficiaries and users of the respective service.

The 14 service settings analyzed include both institutional (inpatient, inpatient psychiatric, inpatient non-psychiatric, emergency department visits not leading to admission, emergency department psychiatric visits, observation stays, skilled nursing facility, and hospice) and community settings (primary care, outpatient as well as independent physical, speech, and occupational therapy, home health, durable medical equipment, and other hospital outpatient services).

In addition, six quality measures representing specific utilization types of interest are presented: 30-day all-cause risk-standardized readmission rate; preventable emergency room visits; rate of 30-day follow-up after hospitalization for mental illness; ambulatory care sensitive condition overall composite rate (Agency for Healthcare Research and Quality [AHRQ]

Prevention Quality Indicator [PQI] #90); ambulatory care sensitive condition chronic composite rate (AHRQ PQI #92); and depression screening rate.

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

The analyses were conducted for each of the years in the 2-year predemonstration period (October 1, 2011 to September 30, 2013) and for the first and second demonstration periods (October 1, 2013 to December 31, 2014, and January 1 to December 31, 2015) for both the demonstration and comparison groups in each of the four analytic periods.

Table B-1 presents descriptive statistics on the independent variables used in multivariate difference-in-differences regressions for impact analyses. Independent variables include demographic and health characteristics and market- and area-level characteristics. Results are presented for six groups: all demonstration eligible beneficiaries in the FAI State, its comparison group, demonstration enrollees, non-enrollees, demonstration eligible beneficiaries with any long-stay nursing facility use, and demonstration eligible beneficiaries with an SPMI.

The most prevalent age group was 45 and older, ranging from 91.1 percent in the LTSS user group to 69.2 percent in the group with SPMI. In the comparison group, 68.1 percent were 45 years and older, whereas 71.5 percent were 45 years and older in the demonstration group. Across all groups except SPMI, the majority of eligible beneficiaries were female (SPMI was 44.1 percent; the other groups ranged from 51.6 to 4.1 percent), White (58.5 to 79.8 percent in the enrollee and LTSS groups, respectively), and had disability as their original entitlement to Medicare (86.1 to 96.5 percent in the comparison and SPMI populations, respectively). HCC scores ranged from 1.1 in the demonstration and comparison group to 2.7 in the LTSS user group. The Hierarchical Condition Category (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. The vast majority of eligible beneficiaries resided in the metropolitan areas, compared to non-metropolitan areas. The percent of months of dual-eligibility was lowest for LTSS users.

There were limited differences in area- and market-level characteristics. Those who were in the comparison group resided in counties with a slightly lower rate of patient care physicians per 1,000 population, relative to those in the demonstration group (0.9 vs 1.1). Additionally, those in the comparison group resided in counties with higher Medicare spending per dual-eligible, relative to counties in the demonstration group (\$18,091 vs \$16,902). Enrollees resided in counties with a lower percentage of the population living in married households, relative to non-enrollees (58.8 vs 65.7), as well as counties with a higher percentage of nonelderly with self-care limitations (2.4 vs. 2.0), and lower distance to nearest hospital (3.3 vs. 4.2), and lower distance to nearest nursing facility (2.2 vs. 2.6).

Table B-1
Characteristics of demonstration eligible beneficiaries in current demonstration year by group

Characteristics	Demonstration	Comparison	Enrollees	Non-enrollees	LTSS users	SPMI diagnosis
Number of beneficiaries	104,303	199,075	12,777	91,526	1,546	56,370
Demographic characteristics						
Age						
21 to 44	28.5	31.9	28.3	28.5	8.9	30.8
45 and older	71.5	68.1	71.7	71.5	91.1	69.2
Female						
No	48.3	47.3	48.4	48.3	45.9	55.9
Yes	51.7	52.7	51.6	51.7	54.1	44.1
Race/Ethnicity						
White	69.4	61.3	58.5	71.0	79.8	72.7
Black	13.0	31.7	21.1	11.9	11.4	11.3
Hispanic	10.1	2.5	13.5	9.6	4.3	9.8
Asian	2.1	1.3	2.1	2.0	1.3	1.6
Disability						
No (0)	5.6	13.9	4.2	5.8	11.2	3.5
Yes (1)	94.4	86.1	95.8	94.2	88.8	96.5
ESRD status						
No (0)	98.6	96.9	98.9	98.6	96.1	99.1
Yes (1)	1.4	3.1	1.1	1.4	3.9	0.9
MSA						
Non-metro (0)	2.2	6.8	0.6	2.4	2.5	2.2
Metro (1)	97.8	93.2	99.4	97.6	97.5	97.8
Months with full-dual eligibility during year (%)	0.9	0.9	1.0	0.9	0.8	0.9
HCC score	1.1	1.1	1.2	1.1	2.7	1.3

(continued)

Table B-1 (continued)
Characteristics of demonstration eligible beneficiaries in current demonstration year by group

Characteristics	Demonstration	Comparison	Enrollees	Non-enrollees	LTSS users	SPMI diagnosis
Market characteristics						
Medicare spending per dual, ages 19+ (\$)	16,902	18,091	16,795	16,917	17,058	16,927
MA penetration rate	0.2	0.2	0.2	0.2	0.2	0.2
Medicaid-to-Medicare fee index (FFS)	0.8	0.7	0.8	0.8	0.8	0.8
Medicaid spending per dual, ages 19+ (\$)	22,450	22,430	22,496	22,443	22,446	22,447
Fraction of duals using NF, ages 65+	0.2	0.3	0.2	0.2	0.2	0.2
Fraction of duals using HCBS, ages 65+	0.1	0.1	0.1	0.1	0.1	0.1
Fraction of duals using personal care, ages 65+	0.0	0.0	0.0	0.0	0.0	0.0
Patient care physicians per 1,000 population	1.1	0.9	1.1	1.1	1.1	1.1
Area characteristics						
% of pop. living in married households	64.9	65.8	58.8	65.7	69.0	65.3
% of nonelderly with college education	32.0	32.3	30.0	32.3	36.0	33.0
% of nonelderly who are unemployed	10.3	10.2	11.5	10.1	9.4	10.0
% of nonelderly with self-care limitations	2.1	2.1	2.4	2.0	1.8	2.0
Distance to nearest hospital	4.0	4.2	3.3	4.2	4.0	4.0
Distance to nearest nursing facility	2.5	2.7	2.2	2.6	2.5	2.5
% of household with individuals younger than 18	32.0	32.6	31.9	32.0	31.3	31.6
% of household with individuals older than 60	34.2	34.2	32.2	34.5	35.2	34.1

ESRD = end-stage renal disease; FFS = fee for service; HCC = Hierarchical Condition Category; LTSS = long-term services and supports; MA = Medicare Advantage, MSA = metropolitan statistical area; NF = nursing facility; SPMI = severe and persistent mental illness.

Detailed Population Definitions

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

Additional special populations were identified for the analyses as follows:

- *Enrollees.* A beneficiary was defined as an enrollee if they were enrolled in the demonstration during the demonstration period.
- *Age.* Age was defined as a categorical variable where beneficiaries were identified as *21 to 44*, *45 years and older* during the observation year (e.g., predemonstration period 1, predemonstration period 2, and demonstration years 1 and 2).
- *Gender.* Gender was defined as binary variable where beneficiaries were either male or female.
- *Race/Ethnicity.* Race/ethnicity was defined as a categorical variable where beneficiaries were categorized as *White*, *Black*, *Hispanic*, or *Asian*.
- *Long-term care services and supports (LTSS).* A beneficiary was defined as using LTSS if there was any use of institutional based services during the observation year. Information on home and community-based services was not available.
- *Severe and persistent mental illness (SPMI).* A beneficiary was defined as having a SPMI if a beneficiary had incurred a claim for severe and persistent mental illness within the past 2 years.

Detailed Utilization and Expenditure Measure Definitions

For any health care service type, the methodology for estimating average monthly utilization and the percentage of users takes into account differences in the number of eligibility months across beneficiaries. Because full-benefit dual eligibility status for the demonstration can vary by month over time for any individual, the methodology used determines dual eligibility status for the demonstration for each person on a monthly basis during a predemonstration or demonstration period. That is, an individual can meet the demonstration's eligibility criteria for up to 12 months during the observation year. The methodology adds the total months of full-benefit dual eligibility for the demonstration across the population of interest and uses it in the denominator in the measures in **Section 5**, creating average monthly utilization information for each service type. The methodology effectively produces average monthly use statistics for each year that account for variation in the number of dual eligible beneficiaries in each month of the observation year.

The utilization measures below were calculated as the aggregate sum of the unit of measurement (e.g., counts) divided by the aggregated number of eligible member months [and user months] within each group (*g*) where group is defined as (1) Massachusetts base year 1, (2) Comparison base year 1, (3) Massachusetts base year 2, (4) Comparison base year 2, (5) Massachusetts demonstration year 1, (6) Comparison demonstration year 1, (7) Massachusetts demonstration year 2, (8) Comparison demonstration year 2.

We calculated the average number of services per 1,000 eligible months and per 1,000 user months by beneficiary group (*g*). In the Massachusetts first Annual Report, we defined *user month* as an eligible month among those with any utilization of the respective service in the period. In this second Evaluation Report, we have updated our methodology to define *user month* as an eligible month where the number of units of utilization used [for a given service] was greater than zero during the month. We weight each observation using yearly propensity weights. The average yearly utilization outcomes are measured as:

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

Where

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

Z_{ig} = the total units of utilization [for a given service] for individual *i* in group *g*.

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

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

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

$$U = \frac{\sum_{ig} X_{ig}}{\sum_{ig} n_{ig}} \times 100$$

Where

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

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

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

Quality of Care and Care Coordination Measures

Similar to the utilization measures, for the appendix tables of descriptive statistics, 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, except for the average 30-day all-cause risk standardized readmission rate and the 30-day followup after hospitalization for mental illness, which are reported as percentages.

Average 30-day all-cause risk standardized readmission rate (percent) was calculated as follows:

$$30 - \text{Risk Standardized Readmission} = \frac{\left(\frac{\sum_{ig} X_{ig}}{\sum_{ig} n_{ig}} \times C \right)}{Prob_g} * 100$$

Where

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

Average adjusted probability of readmission by demonstration group	
Demonstration group	Average adjusted probability of readmission
Predemonstration period 1	
Massachusetts	0.212
Comparison	0.223
Predemonstration period 2	
Massachusetts	0.214
Comparison	0.223
Demonstration year 1	
Massachusetts	0.221
Comparison	0.228
Demonstration year 2	
Massachusetts	0.220
Comparison	0.227

Rate of 30-day follow-up in a physician or outpatient setting after hospitalization for mental illness (percent) was calculated as follows:

$$MHFU = \frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}} * 100$$

Where

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

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

n_{ig} = the total number of discharges from a hospital stay for mental health for individual *i* in group *g*.

Average ambulatory care sensitive condition admissions per eligible beneficiary, overall and chronic composite (PQI #90 and PQI #92) was calculated as follows:

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

Where

$ACSC_g$ = the average number of ambulatory care sensitive condition admissions per eligible month for overall/chronic composites for individuals in group *g*.

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

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

Preventable ER visits per eligible month was calculated as follows:

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

Where

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

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

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

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

$$D_g = \frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}}$$

Where

- D_g = the average number of beneficiaries per eligible month who received depression screening in group g .
- X_{ig} = the total number eligible beneficiaries age 65+ who ever received depression screening in group g .
- n_{ig} = the total number of eligible months among beneficiaries in group g .

Average rate of beneficiaries per positive depression screening who received a follow-up plan during the observation year was calculated as follows:

$$PD_g = \frac{\sum_{ig} x_{ig}}{\sum_{ig} n_{ig}}$$

Where

- PD_g = the average number of beneficiaries per positive depression screening who received a follow-up plan among beneficiaries in group g .
- X_{ig} = the total number beneficiaries who received a positive depression screen and a follow up plan in group g .
- n_{ig} = the total number of beneficiaries who received a positive depression screen in group g .

Minimum Data Set Measures

Two measures of annual nursing facility-related utilization are derived from the MDS. The rate of new long-stay NF admissions per 1,000 eligible beneficiaries is calculated as the number of NF admissions for whom there is no record of NF use in the 100 days prior to the current admission and who subsequently stay in the NF for 101 days or more. Individuals are included in this measure only if their NF admission occurred after their first month of demonstration eligibility. The percentage of long-stay NF users is calculated as the number of individuals who have stayed in a NF for 101 days or more, who were long-stay after the first month of demonstration eligibility. The probability of any long-stay NF use includes both new admissions from the community and continuation of a stay in a NF.

Characteristics of new long-stay NF residents at admission are also included in order 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 (ADLs) and who were in the three lowest RUG-IV categories. Severe cognitive impairment is assessed by the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

Regression Methodology for Determining Demonstration Impact

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

$$\text{Equation 1: Dependent variable}_i = \beta_0 + \beta_1 \text{PostYear} + \beta_2 \text{Demonstration} + \beta_3 \text{PostYear} * \text{Demonstration} + \beta_4 \text{Demographics} + \beta_{5-j} \text{Market} + \varepsilon$$

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

Under this specification, the coefficient β_0 reflects the comparison group predemonstration period mean adjusted for demographic and market effects, β_1 reflects the average difference between postperiod 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 difference-in-differences 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 to estimating the model described in Equation 1, a less restrictive model was estimated to produce year-by-year effects of the demonstration. The specification of the unrestricted model is as follows:

$$\text{Equation 2: Dependent variable} = \beta_0 + \beta_{1-k} \text{PostYear}_{1-n} + \beta_2 \text{Demonstration} + \beta_{3-k} \text{PostYear}_{1-n} * \text{Demonstration} + \beta_4 \text{Demographics} + \beta_{5-j} \text{Market} + \varepsilon$$

This equation differs from the previous one in that separate difference-in-differences coefficients are estimated for each year. Under this specification, the coefficients β_{3-k} would reflect the impact of the demonstration in each respective year, whereas the previous equation reflects the impact of the entire demonstration period. This specification measures whether changes in dependent variables occur in the first year of the demonstration only, continuously over time, or in some other pattern. Depending on the outcome of interest, we will estimate the equations using logistic regression, Generalized Linear Models with a log link, or count models such as negative binomial or Poisson regressions (e.g., for the number of inpatient admissions). We used regression results to calculate the marginal effects of demonstration impact.

Impact estimates across the entire demonstration period are determined using the difference-in-differences methodology and presented in figures for all demonstration eligible beneficiaries, and then for two special populations of interest—demonstration eligible beneficiaries with any LTSS use, and demonstration eligible beneficiaries with SPMI. A table

follows each figure displaying the annual demonstration difference-in-differences effect for each separate demonstration period for each of these populations. In each figure, the point estimate is displayed for each measure, as well as the 90 percent confidence interval (black) and the 80 percent confidence interval (green). The 80 percent confidence intervals are provided for comparison purposes only. The 80 percent confidence interval is narrower than the 90 percent confidence interval. If the confidence interval includes the value of zero, it is not statistically significant at that confidence level.

For only the full demonstration eligible population and not each special population, an additional table presents estimates of the regression-adjusted mean values of the utilization measures for the demonstration and comparison groups by year for each service. The purpose of this table is to understand the magnitude of the difference-in-differences estimate relative to the adjusted mean outcome value in each period. The adjusted mean values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group and period, based on the composition of a reference population (the comparison group in the demonstration period). The difference-in-differences estimate is also provided for reference, along with the p -value and the relative percent change of the difference-in-differences estimate compared to an average mean use rate for the comparison group in the entire demonstration period.

The relative percent annual change for the difference-in-differences estimate for each outcome measure is calculated as $[\text{Overall monthly difference-in-differences effect}] / \{[(\text{proportion of eligible beneficiaries in the comparison group in demonstration year 1 of the total comparison group eligible beneficiaries in demonstration year 1} + \text{demonstration year 2}) \times (\text{weighted comparison group demonstration year 1 mean value})] + [(\text{proportion of eligible beneficiaries in the comparison group in demonstration year 2 of the total comparison group eligible beneficiaries in demonstration year 1} + \text{demonstration year 2}) \times (\text{weighted comparison group demonstration year 2 mean value})]\}$. The mean values for the comparison group for the 2 demonstration years are averaged to obtain an annual average mean.

Table B-2 provides an illustrative example of the regression output for each independent variable in the negative binomial regression on monthly inpatient admissions across the entire demonstration period.

Table B-2
Negative binomial regression results on monthly inpatient admissions
(n = 12,287,543 person months)

Independent variables	Coefficient	Standard error	z-value	p-value
Post period	-0.0934	0.0147	-6.370	0.000
Demonstration group	-0.0204	0.0330	-0.620	0.536
Interaction of post period x demonstration group	0.0385	0.0127	3.020	0.002
Trend	-0.0036	0.0005	-6.790	0.000
Age	-0.0040	0.0010	-3.880	0.000
Female	-0.0032	0.0137	-0.240	0.814
Black	-0.0377	0.0286	-1.320	0.187
Asian	-0.5099	0.0712	-7.160	0.000
Other race	-0.3234	0.0363	-8.910	0.000
Hispanic	-0.2371	0.0333	-7.120	0.000
Disability as reason for original Medicare entitlement	0.0773	0.0163	4.730	0.000
End stage renal disease	1.4337	0.0353	40.620	0.000
Hierarchical Condition Category (HCC) score	0.4474	0.0071	63.380	0.000
Percent of months of demonstration eligibility	-1.0250	0.0355	-28.840	0.000
Metropolitan statistical area (MSA) residence	-0.0142	0.0662	-0.210	0.830
Percent of population living in a married household	-0.0017	0.0009	-1.820	0.068
Percent of households with family member greater than or equal to 60 years old	-0.0059	0.0013	-4.470	0.000
Percent of households with family member less than 18 years old	-0.0059	0.0013	-4.680	0.000
Percent of adults with college education	-0.0007	0.0009	-0.760	0.446
Percent adult unemployment rate	0.0039	0.0021	1.810	0.070
Percent of adults with self care limitation	-0.0058	0.0076	-0.750	0.451
Distance to nearest hospital	0.0001	0.0028	0.020	0.985
Distance to nearest nursing facility	-0.0028	0.0052	-0.530	0.598
Medicare spending per full-benefit dual eligible	0.0000	0.0000	2.090	0.036
Medicare Advantage penetration rate	-0.1277	0.1879	-0.680	0.497
Medicaid spending per full-benefit dual eligible	0.0000	0.0000	-1.490	0.136
Nursing facility users per full-benefit dual eligible over 65	0.3203	0.2747	1.170	0.244
State plan personal care users per full-benefit dual eligible over 65	-0.3718	0.4830	-0.770	0.441
HCBS users per full-benefit dual eligible over 65	0.4179	0.3246	1.290	0.198
Medicaid-to-Medicare fee index	0.1609	0.4039	0.400	0.690
Patient care physicians per 1,000 (total) population	0.1238	0.0705	1.760	0.079
Participating in shared savings program	0.1837	0.0397	4.630	0.000
Intercept	-2.8119	0.4662	-6.030	0.000

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Appendix C: Descriptive Tables

Tables in *Appendix C* present results on the average percentage of demonstration eligible beneficiaries using selected Medicare service types during the months in which they met demonstration eligibility criteria in the predemonstration and demonstration periods. In addition, average counts of service use and payments are presented across all such eligible months, and for the subset of these months in which eligible beneficiaries were users of each respective service type. Data is shown for the predemonstration and demonstration period for both Massachusetts eligible beneficiaries (a.k.a. the demonstration group) and the comparison group. Similar tables of Medicaid service utilization are also presented, as well as tables for the RTI quality of care and care coordination measures.

Tables are presented for the overall demonstration eligible population (*Tables C-1* through *C-3*), followed by tables on special populations of interest: demonstration eligible beneficiaries with LTSS use (*Tables C-4* through *C-5*), demonstration eligible beneficiaries with SPMI use (*Tables C-6* through *C-7*), Massachusetts demonstration eligible beneficiaries who were enrollees and non-enrollees (*Tables C-8* through *C-9*), and a final table on service use according to demographic characteristics (age, gender, and race/ethnicity) (*Table C-10*).

Table C-1
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Number of demonstration beneficiaries		109,027	118,663	96,915	104,333
Number of comparison beneficiaries		178,795	191,725	198,338	199,988
Institutional setting					
Inpatient admissions ¹	Demonstration group				
% with use		3.5	3.4	3.3	3.3
Utilization per 1,000 user months		1,178.9	1,170.4	1,169.6	1,172.9
Utilization per 1,000 eligible months		41.6	39.7	38.6	38.8
Inpatient admissions ¹	Comparison group				
% with use		3.4	3.4	3.3	3.2
Utilization per 1,000 user months		1,164.5	1,164.4	1,162.0	1,152.4
Utilization per 1,000 eligible months		39.9	40.1	38.1	37.4
Inpatient psychiatric	Demonstration group				
% with use		0.8	0.7	0.7	0.7
Utilization per 1,000 user months		1,085.6	1,086.3	1,078.7	1,081.0
Utilization per 1,000 eligible months		8.6	8.0	8.0	7.8
Inpatient psychiatric	Comparison group				
% with use		0.7	0.7	0.7	0.6
Utilization per 1,000 user months		1,100.5	1,109.3	1,094.8	1,084.0
Utilization per 1,000 eligible months		7.6	7.8	7.5	6.7

(continued)

Table C-1 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Inpatient non-psychiatric	Demonstration group				
% with use		2.8	2.7	2.6	2.7
Utilization per 1,000 user months		1,164.8	1,156.6	1,157.4	1,162.1
Utilization per 1,000 eligible months		33.0	31.7	30.6	31.0
Inpatient non-psychiatric	Comparison group				
% with use		2.8	2.8	2.7	2.7
Utilization per 1,000 user months		1,150.3	1,145.0	1,146.7	1,139.8
Utilization per 1,000 eligible months		32.2	32.3	30.6	30.7
Emergency department use (non-admit)	Demonstration group				
% with use		7.7	7.6	7.6	7.7
Utilization per 1,000 user months		1,320.9	1,315.6	1,334.3	1,331.7
Utilization per 1,000 eligible months		102.0	99.7	100.8	102.3
Emergency department use (non-admit)	Comparison group				
% with use		6.8	6.8	7.0	7.4
Utilization per 1,000 user months		1,336.5	1,319.7	1,330.0	1,322.9
Utilization per 1,000 eligible months		90.8	89.8	93.0	97.3
Emergency department use (psychiatric)	Demonstration group				
% with use		0.8	0.8	0.9	0.9
Utilization per 1,000 user months		1,285.6	1,321.8	1,358.7	1,378.2
Utilization per 1,000 eligible months		10.7	10.7	12.1	12.6
Emergency department use (psychiatric)	Comparison group				
% with use		0.6	0.6	0.6	0.6
Utilization per 1,000 user months		1,239.8	1,235.0	1,228.8	1,260.9
Utilization per 1,000 eligible months		6.9	6.9	6.9	7.4

(continued)

Table C-1 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Observation stays	Demonstration group				
% with use		0.7	0.8	0.8	0.8
Utilization per 1,000 user months		1,071.4	1,073.8	1,078.4	1,075.3
Utilization per 1,000 eligible months		7.5	8.3	8.6	8.5
Observation stays	Comparison group				
% with use		0.6	0.6	0.7	0.7
Utilization per 1,000 user months		1,058.7	1,059.5	1,066.6	1,058.2
Utilization per 1,000 eligible months		5.9	6.6	7.6	7.9
Skilled nursing facility	Demonstration group				
% with use		0.4	0.4	0.4	0.4
Utilization per 1,000 user months		1,091.5	1,089.4	1,097.7	1,090.9
Utilization per 1,000 eligible months		4.0	4.3	3.9	3.9
Skilled nursing facility	Comparison group				
% with use		0.5	0.5	0.5	0.4
Utilization per 1,000 user months		1,093.2	1,089.3	1,083.3	1,090.8
Utilization per 1,000 eligible months		5.1	5.7	4.9	4.8
Hospice	Demonstration group				
% with use		0.2	0.2	0.1	0.1
Utilization per 1,000 user months		1,047.9	1,037.2	1,038.8	1,037.6
Utilization per 1,000 eligible months		1.6	1.6	1.2	1.1
Hospice	Comparison group				
% with use		0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,059.2	1,033.3	1,017.2	1,026.6
Utilization per 1,000 eligible months		2.3	2.2	2.0	2.2

(continued)

Table C-1 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries 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 group				
% with use		43.0	49.7	52.2	51.5
Utilization per 1,000 user months		1,678.1	1,755.9	1,832.2	1,823.9
Utilization per 1,000 eligible months		720.9	872.8	956.1	940.0
Primary care E&M visits	Comparison group				
% with use		42.2	47.8	49.4	51.8
Utilization per 1,000 user months		1,700.0	1,769.0	1,782.6	1,827.2
Utilization per 1,000 eligible months		716.9	844.7	880.7	947.3
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		2.5	2.5	2.4	2.4
Utilization per 1,000 user months		9,546.7	9,379.2	10,123.0	9,816.8
Utilization per 1,000 eligible months		235.7	231.1	242.6	239.7
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		2.5	2.5	2.5	2.7
Utilization per 1,000 user months		13,786.8	13,493.5	15,620.3	15,828.0
Utilization per 1,000 eligible months		339.7	339.3	389.3	426.3
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		1.3	1.3	1.4	1.4
Utilization per 1,000 user months		9,605.7	9,711.7	11,645.1	11,457.6
Utilization per 1,000 eligible months		120.3	123.2	158.4	159.8
Independent therapy (PT, OT, ST)	Comparison group				
% with use		1.3	1.3	1.4	1.6
Utilization per 1,000 user months		11,006.3	11,447.5	12,749.5	13,678.7
Utilization per 1,000 eligible months		142.7	153.1	182.6	220.2

(continued)

Table C-1 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Home health episodes ²	Demonstration group				
% with use		1.3	1.4	1.4	1.7
Utilization per 1,000 user months		1,011.4	1,010.1	1,323.1	1,828.6
Utilization per 1,000 eligible months		13.6	13.9	18.4	31.2
Home health episodes	Comparison group				
% with use		1.1	1.1	1.2	1.2
Utilization per 1,000 user months		1,010.3	1,007.3	1,005.9	1,005.4
Utilization per 1,000 eligible months		10.8	11.3	11.6	11.7
Durable medical equipment	Demonstration group				
% with use		12.4	12.5	12.1	12.0
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Durable medical equipment	Comparison group				
% with use		12.9	12.8	11.9	14.3
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—

(continued)

Table C-1 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration eligible beneficiaries and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Other hospital outpatient services	Demonstration group				
% with use		37.3	36.5	36.2	36.0
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Other hospital outpatient services	Comparison group				
% with use		21.5	22.1	22.3	23.0
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.

² Results for the Demonstration group may be inflated due to a data anomaly under investigation.

SOURCE: RTI International analysis of Medicare data.

Table C-2
Quality of care and care coordination outcomes for demonstration eligible and comparison beneficiaries for the Massachusetts demonstration

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 group	21.3	21.1	20.4	21.2
	Comparison group	19.7	19.6	19.1	18.4
Preventable ER visits per eligible months	Demonstration group	0.0482	0.0466	0.0466	0.0465
	Comparison group	0.0452	0.0449	0.0464	0.0459
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	59.1	59.5	58.8	53.2
	Comparison group	50.5	52.0	53.1	49.9
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Demonstration group	0.0039	0.0037	0.0043	0.0043
	Comparison group	0.0042	0.0042	0.0038	0.0043
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Demonstration group	0.0023	0.0022	0.0031	0.0031
	Comparison group	0.0024	0.0025	0.0023	0.0030
Screening for clinical depression per eligible months	Demonstration group	0.0001	0.0008	0.0023	0.0038
	Comparison group	0.0001	0.0007	0.0018	0.0034

AHRQ PQI = Agency for Healthcare Research and Quality Prevention Quality Indicator; ER = emergency room.

NOTES: The last quarter of demonstration year 2 (October–December 2015) was the first quarter of the switch from ICD9 to ICD10 codes. Some differences between demonstration year 2 and the predemonstration period/demonstration year 1 may have resulted from misalignment of ICD9 and ICD10 codes.

Table C-3
Minimum Data Set long-stay nursing facility utilization and characteristics at admission for the
Massachusetts demonstration and comparison groups

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Annual nursing facility utilization					
Number of demonstration beneficiaries	Demonstration group	87,609	95,857	80,441	89,563
New long-stay nursing facility admissions per 1,000 eligible beneficiaries		3.2	2.7	3.7	2.3
Number of comparison beneficiaries	Comparison group	105,354	115,131	117,096	126,676
New long-stay nursing facility admissions per 1,000 eligible beneficiaries		4.0	3.6	3.9	3.4
Number of demonstration beneficiaries	Demonstration group	89,204	97,621	81,315	90,384
Long-stay nursing facility users as % of eligible beneficiaries		2.1	2.1	1.5	1.2
Number of comparison beneficiaries	Comparison group	110,497	120,177	121,387	131,005
Long-stay nursing facility users as % of eligible beneficiaries		5.0	4.6	3.9	3.6
Characteristics of new long-stay nursing facility residents at admission					
Number of admitted demonstration beneficiaries	Demonstration group	284	261	297	206
Number of admitted comparison beneficiaries	Comparison group	420	415	460	429
Functional status (RUG-IV ADL scale)	Demonstration group	6.5	7.3	6.7	7.3
Functional status (RUG-IV ADL scale)	Comparison group	7.5	7.6	7.6	7.7
Percent with severe cognitive impairment	Demonstration group	14.5	13.9	14.2	17.9
Percent with severe cognitive impairment	Comparison group	26.0	24.9	16.3	19.2
Percent with low level of care need	Demonstration group	2.7	4.0	3.3	2.4
Percent with low level of care need	Comparison group	2.9	4.4	2.4	4.0

RUG-IV ADL = Resource Utilization Group IV Activities of Daily Living.

SOURCE: RTI International analysis of Minimum Data Set data.

Table C-4
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Number of demonstration beneficiaries		2,939	3,108	1,899	1,546
Number of comparison beneficiaries		8,973	10,117	9,350	9,696
Institutional setting					
Inpatient admissions ¹	Demonstration group				
% with use		8.9	8.5	11.0	11.6
Utilization per 1,000 user months		1,203.6	1,193.2	1,223.9	1,211.8
Utilization per 1,000 eligible months		106.8	101.8	134.6	140.3
Inpatient admissions ¹	Comparison group				
% with use		7.4	7.7	7.9	7.7
Utilization per 1,000 user months		1,180.1	1,172.7	1,194.3	1,175.2
Utilization per 1,000 eligible months		87.8	90.5	93.9	90.1
Inpatient psychiatric	Demonstration group				
% with use		0.9	0.9	1.5	1.8
Utilization per 1,000 user months		1,070.0	1,081.2	1,093.7	1,091.9
Utilization per 1,000 eligible months		10.0	10.0	16.8	19.7
Inpatient psychiatric	Comparison group				
% with use		0.6	0.7	0.9	0.7
Utilization per 1,000 user months		1,100.1	1,097.4	1,114.5	1,097.5
Utilization per 1,000 eligible months		6.2	7.9	9.5	7.4

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Inpatient non-psychiatric	Demonstration group				
% with use		8.1	7.8	9.7	10.1
Utilization per 1,000 user months		1,195.3	1,179.6	1,214.4	1,193.7
Utilization per 1,000 eligible months		96.7	91.7	117.7	120.4
Inpatient non-psychiatric	Comparison group				
% with use		7.0	7.1	7.2	7.1
Utilization per 1,000 user months		1,168.7	1,157.5	1,170.7	1,160.0
Utilization per 1,000 eligible months		81.5	82.4	84.3	82.6
Emergency department use (non-admit)	Demonstration group				
% with use		6.3	6.6	8.5	8.5
Utilization per 1,000 user months		1,288.4	1,290.3	1,439.9	1,492.6
Utilization per 1,000 eligible months		81.7	85.7	122.5	126.7
Emergency department use (non-admit)	Comparison group				
% with use		5.3	5.4	6.3	6.1
Utilization per 1,000 user months		1,240.7	1,304.3	1,362.0	1,361.1
Utilization per 1,000 eligible months		65.2	70.6	85.6	83.7
Emergency department use (psychiatric)	Demonstration group				
% with use		0.7	0.9	1.4	1.6
Utilization per 1,000 user months		1,189.1	1,243.6	1,396.1	1,469.4
Utilization per 1,000 eligible months		8.8	11.6	20.0	23.9
Emergency department use (psychiatric)	Comparison group				
% with use		0.4	0.4	0.6	0.5
Utilization per 1,000 user months		1,246.8	1,381.5	1,283.8	1,492.8
Utilization per 1,000 eligible months		4.5	5.9	7.3	8.0

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Observation stays	Demonstration group				
% with use		1.0	1.4	1.9	1.7
Utilization per 1,000 user months		1,081.1	1,058.1	1,077.7	1,074.5
Utilization per 1,000 eligible months		11.2	14.7	20.0	18.2
Observation stays	Comparison Group				
% with use		0.6	0.8	1.0	1.0
Utilization per 1,000 user months		1,058.9	1,088.4	1,082.8	1,125.6
Utilization per 1,000 eligible months		6.4	8.7	10.4	11.6
Skilled nursing facility	Demonstration group				
% with use		4.9	5.1	6.2	6.7
Utilization per 1,000 user months		1,113.9	1,109.7	1,130.4	1,100.8
Utilization per 1,000 eligible months		54.3	56.7	70.5	73.8
Skilled nursing facility	Comparison group				
% with use		4.3	4.8	4.5	4.3
Utilization per 1,000 user months		1,112.7	1,100.1	1,093.8	1,104.2
Utilization per 1,000 eligible months		48.1	52.4	48.8	47.8
Hospice	Demonstration group				
% with use		2.0	2.3	2.1	1.8
Utilization per 1,000 user months		1,050.4	1,021.7	1,029.1	1,029.5
Utilization per 1,000 eligible months		21.5	24.0	21.4	18.5
Hospice	Comparison group				
% with use		1.8	1.8	1.8	1.7
Utilization per 1,000 user months		1,054.8	1,015.9	1,013.9	1,025.6
Utilization per 1,000 eligible months		19.2	18.4	18.1	17.7

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

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 group				
% with use		65.0	68.1	75.4	77.9
Utilization per 1,000 user months		2,459.3	2,641.7	3,044.0	3,056.3
Utilization per 1,000 eligible months		1,598.7	1,798.4	2,294.3	2,380.0
Primary care E&M visits	Comparison group				
% with use		69.2	71.7	73.0	77.7
Utilization per 1,000 user months		2,302.7	2,454.4	2,600.3	2,689.9
Utilization per 1,000 eligible months		1,593.7	1,759.0	1,897.9	2,090.3
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		17.6	17.0	20.2	23.1
Utilization per 1,000 user months		23,392.8	21,995.8	26,625.4	26,665.9
Utilization per 1,000 eligible months		4,126.8	3,744.2	5,381.8	6,170.9
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		14.0	15.2	16.5	18.6
Utilization per 1,000 user months		24,154.7	23,049.1	27,643.5	28,945.7
Utilization per 1,000 eligible months		3,374.0	3,505.3	4,554.5	5,397.9
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		0.3	0.2	0.3	0.3
Utilization per 1,000 user months		9,295.5	7,590.4	11,661.8	8,000.0
Utilization per 1,000 eligible months		25.5	18.9	36.9	23.3
Independent therapy (PT, OT, ST)	Comparison group				
% with use		0.8	0.6	0.4	0.6
Utilization per 1,000 user months		17,181.1	16,816.2	13,877.9	13,315.4
Utilization per 1,000 eligible months		138.8	99.0	59.3	78.0

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Home health episodes ²	Demonstration group				
% with use		1.9	1.9	2.7	2.9
Utilization per 1,000 user months		1,008.2	1,017.6	1,110.3	1,819.8
Utilization per 1,000 eligible months		19.2	19.0	29.5	53.5
Home health episodes	Comparison group				
% with use		1.3	1.7	1.9	1.8
Utilization per 1,000 user months		1,019.6	1,011.8	1,004.6	1,002.2
Utilization per 1,000 eligible months		12.8	17.2	19.1	18.5
Durable medical equipment	Demonstration group				
% with use		19.2	17.4	21.7	20.7
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Durable medical equipment	Comparison group				
% with use		16.8	16.0	16.7	26.1
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, LTSS population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Other hospital outpatient services	Demonstration group				
% with use		34.6	32.1	38.9	37.5
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Other hospital outpatient services	Comparison group				
% with use		26.8	27.0	28.7	28.4
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—

— = data not available. E&M = evaluation and management; LTSS = long-term services and supports; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

² Results for the demonstration group may be inflated due to a data anomaly under investigation.

SOURCE: RTI International analysis of Medicare data.

Table C-5
Quality of care and care coordination outcomes for eligible beneficiaries with LTSS use
for the Massachusetts demonstration

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 group	21.2	20.7	22.5	22.2
	Comparison group	20.7	20.4	20.9	19.5
Preventable ER visits per eligible months	Demonstration group	0.0293	0.0291	0.0440	0.0422
	Comparison group	0.0244	0.0278	0.0333	0.0306
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	35.1	44.9	50.0	50.4
	Comparison group	25.9	41.3	51.2	39.4
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Demonstration group	0.0118	0.0112	0.0169	0.0143
	Comparison group	0.0098	0.0094	0.0100	0.0097
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Demonstration group	0.0054	0.0058	0.0122	0.0098
	Comparison group	0.0044	0.0055	0.0057	0.0062
Screening for clinical depression per eligible months	Demonstration group	0.0000	0.0002	0.0007	0.0037
	Comparison group	0.0003	0.0011	0.0035	0.0027

AHRQ PQI =Agency for Healthcare Research and Quality Prevention Quality Indicator; ER = emergency room.

Table C-6
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Number of demonstration beneficiaries		51,585	55,300	48,739	56,393
Number of comparison beneficiaries		61,744	65,318	68,722	82,745
Institutional setting					
Inpatient admissions ¹	Demonstration group				
% with use		4.9	4.7	4.4	4.5
Utilization per 1,000 user months		1,200.3	1,183.0	1,180.9	1,185.3
Utilization per 1,000 eligible months		59.3	55.8	52.5	53.1
Inpatient admissions ¹	Comparison group				
% with use		5.2	5.2	4.8	4.6
Utilization per 1,000 user months		1,184.0	1,184.1	1,180.7	1,169.2
Utilization per 1,000 eligible months		61.4	61.5	57.1	54.1
Inpatient psychiatric	Demonstration group				
% with use		1.6	1.5	1.4	1.3
Utilization per 1,000 user months		1,085.8	1,086.5	1,078.9	1,081.1
Utilization per 1,000 eligible months		17.4	16.5	15.1	13.8
Inpatient psychiatric	Comparison group				
% with use		1.7	1.7	1.6	1.3
Utilization per 1,000 user months		1,100.8	1,109.7	1,095.0	1,084.2
Utilization per 1,000 eligible months		18.5	19.2	17.5	14.0

(continued)

Table C-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Inpatient non-psychiatric	Demonstration group				
% with use		3.5	3.4	3.2	3.3
Utilization per 1,000 user months		1,185.6	1,165.1	1,166.0	1,174.2
Utilization per 1,000 eligible months		41.8	39.3	37.4	39.3
Inpatient non-psychiatric	Comparison group				
% with use		3.7	3.7	3.4	3.5
Utilization per 1,000 user months		1,165.5	1,155.4	1,160.8	1,154.2
Utilization per 1,000 eligible months		42.9	42.3	39.6	40.0
Emergency department use (non-admit)	Demonstration group				
% with use		9.9	9.7	9.4	9.5
Utilization per 1,000 user months		1,389.0	1,381.5	1,403.0	1,381.7
Utilization per 1,000 eligible months		136.9	133.7	131.7	131.8
Emergency department use (non-admit)	Comparison group				
% with use		9.5	9.6	9.5	9.7
Utilization per 1,000 user months		1,417.6	1,401.3	1,402.5	1,398.0
Utilization per 1,000 eligible months		135.0	134.5	133.7	135.7
Emergency department use (psychiatric)	Demonstration group				
% with use		1.5	1.5	1.5	1.5
Utilization per 1,000 user months		1,296.8	1,327.3	1,367.1	1,371.0
Utilization per 1,000 eligible months		19.6	19.8	20.8	20.3
Emergency department use (psychiatric)	Comparison group				
% with use		1.2	1.2	1.1	1.1
Utilization per 1,000 user months		1,257.3	1,258.9	1,252.1	1,282.7
Utilization per 1,000 eligible months		14.8	15.1	14.4	14.1

(continued)

Table C-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Observation stays	Demonstration group				
% with use		0.9	1.0	1.0	1.0
Utilization per 1,000 user months		1,091.9	1,093.5	1,086.7	1,088.6
Utilization per 1,000 eligible months		10.1	11.0	10.7	10.9
Observation stays	Comparison group				
% with use		0.8	0.9	1.0	1.0
Utilization per 1,000 user months		1,077.9	1,077.1	1,079.9	1,071.6
Utilization per 1,000 eligible months		8.4	9.7	10.5	10.9
Skilled nursing facility	Demonstration group				
% with use		0.5	0.5	0.5	0.5
Utilization per 1,000 user months		1,094.9	1,092.7	1,097.5	1,094.0
Utilization per 1,000 eligible months		5.5	5.9	5.1	5.4
Skilled nursing facility	Comparison group				
% with use		0.7	0.8	0.7	0.7
Utilization per 1,000 user months		1,099.0	1,096.4	1,079.8	1,095.7
Utilization per 1,000 eligible months		8.1	9.1	7.7	7.5
Hospice	Demonstration group				
% with use		0.2	0.2	0.1	0.1
Utilization per 1,000 user months		1,046.4	1,028.7	1,038.1	1,043.6
Utilization per 1,000 eligible months		1.7	1.6	1.1	0.9
Hospice	Comparison group				
% with use		0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,041.9	1,028.1	1,013.4	1,026.9
Utilization per 1,000 eligible months		2.3	2.4	2.2	2.4

(continued)

Table C-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

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 group				
% with use		45.9	58.1	60.5	59.8
Utilization per 1,000 user months		1,750.6	1,858.5	1,928.9	1,918.4
Utilization per 1,000 eligible months		803.3	1,079.7	1,166.2	1,146.4
Primary care E&M visits	Comparison group				
% with use		48.3	58.6	61.1	61.7
Utilization per 1,000 user months		1,785.8	1,891.9	1,912.0	1,955.9
Utilization per 1,000 eligible months		862.6	1,109.2	1,169.2	1,206.6
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		2.9	2.9	2.6	2.7
Utilization per 1,000 user months		10,599.0	10,284.7	10,902.4	10,666.1
Utilization per 1,000 eligible months		306.2	296.2	288.2	293.0
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		3.1	3.2	3.1	3.4
Utilization per 1,000 user months		15,371.3	14,989.5	17,405.9	17,752.1
Utilization per 1,000 eligible months		475.4	474.9	546.6	600.8
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		1.4	1.4	1.4	1.5
Utilization per 1,000 user months		9,324.9	9,278.0	11,184.6	11,060.2
Utilization per 1,000 eligible months		127.7	126.8	160.4	164.1
Independent therapy (PT, OT, ST)	Comparison group				
% with use		1.5	1.5	1.6	1.7
Utilization per 1,000 user months		10,669.3	11,477.2	12,508.9	13,863.7
Utilization per 1,000 eligible months		163.1	172.8	200.0	240.6

(continued)

Table C-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Home health episodes ²	Demonstration group				
% with use		1.5	1.6	1.6	2.3
Utilization per 1,000 user months		1,008.5	1,009.8	1,477.0	2,052.4
Utilization per 1,000 eligible months		15.0	15.8	23.9	46.9
Home health episodes	Comparison group				
% with use		1.2	1.2	1.3	1.4
Utilization per 1,000 user months		1,007.6	1,008.9	1,006.5	1,005.5
Utilization per 1,000 eligible months		11.6	12.6	12.8	14.1
Durable medical equipment	Demonstration group				
% with use		11.8	12.1	11.6	12.0
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Durable medical equipment	Comparison group				
% with use		13.4	13.4	12.2	14.6
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—

(continued)

Table C-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, SPMI population

Measures by setting	Group	Predemonstration year 1	Predemonstration year 2	Demonstration year 1	Demonstration year 2
Other hospital outpatient services	Demonstration group				
% with use		42.6	41.6	39.8	40.0
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Other hospital outpatient services	Comparison group				
% with use		26.3	26.8	26.5	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; SPMI = severe and persistent mental illness; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

² Results for the demonstration group may be inflated due to a data anomaly under investigation.

SOURCE: RTI International analysis of Medicare data.

Table C-7
Quality of care and care coordination outcomes for Massachusetts demonstration eligible beneficiaries with SPMI

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 group	22.5	21.8	21.1	21.8
	Comparison group	20.5	20.7	19.7	19.0
Preventable ER visits per eligible months	Demonstration group	0.0619	0.0595	0.0581	0.0572
	Comparison group	0.0616	0.0617	0.0617	0.0619
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	59.1	59.5	58.8	53.5
	Comparison group	50.5	52.0	53.1	49.9
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI #90)	Demonstration group	0.0046	0.0043	0.0051	0.0053
	Comparison group	0.0052	0.0051	0.0046	0.0055
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI #92)	Demonstration group	0.0027	0.0025	0.0036	0.0038
	Comparison group	0.0030	0.0029	0.0027	0.0037
Screening for clinical depression per eligible months	Demonstration group	0.0001	0.0010	0.0032	0.0049
	Comparison group	0.0002	0.0009	0.0026	0.0040

AHRQ PQI =Agency for Healthcare Research and Quality Prevention Quality Indicator; ER = emergency room.

Table C-8
Proportion and utilization for institutional and non-institutional services for the
Massachusetts demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Number of enrollees		14,268	13,272
Number of non-enrollees		86,274	94,371
Institutional setting			
Inpatient admissions ¹	Enrollees		
% with use		2.4	3.0
Utilization per 1,000 user months		1,136.3	1,158.2
Utilization per 1,000 eligible months		27.70	34.51
Inpatient admissions ¹	Non-enrollees		
% with use		3.3	3.4
Utilization per 1,000 user months		1,173.5	1,177.6
Utilization per 1,000 eligible months		39.3	39.9
Inpatient psychiatric	Enrollees		
% with use		0.4	0.6
Utilization per 1,000 user months		1,065.7	1,093.0
Utilization per 1,000 eligible months		4.7	6.8
Inpatient psychiatric	Non-enrollees		
% with use		0.8	0.8
Utilization per 1,000 user months		1,080.2	1,080.3
Utilization per 1,000 eligible months		8.3	8.1
Inpatient non-psychiatric	Enrollees		
% with use		2.1	2.4
Utilization per 1,000 user months		1,121.8	1,142.0
Utilization per 1,000 eligible months		23.0	27.7
Inpatient non-psychiatric	Non-enrollees		
% with use		2.7	2.7
Utilization per 1,000 user months		1,160.5	1,166.5
Utilization per 1,000 eligible months		31.0	31.7
Emergency department use (non-admit)	Enrollees		
% with use		7.5	8.6
Utilization per 1,000 user months		1,352.4	1,390.2
Utilization per 1,000 eligible months		101.0	119.2
Emergency department use (non-admit)	Non-enrollees		
% with use		7.4	7.6
Utilization per 1,000 user months		1,327.5	1,327.8
Utilization per 1,000 eligible months		97.9	101.2

(continued)

Table C-8 (continued)
Proportion and utilization for institutional and non-institutional services for the
Massachusetts demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Emergency department use (psychiatric)	Enrollees		
% with use		1.0	1.2
Utilization per 1,000 user months		1,374.7	1,494.2
Utilization per 1,000 eligible months		14.4	17.7
Emergency department use (psychiatric)	Non-enrollees		
% with use		0.8	0.9
Utilization per 1,000 user months		1,354.7	1,361.8
Utilization per 1,000 eligible months		11.5	12.3
Observation stays	Enrollees		
% with use		0.6	0.9
Utilization per 1,000 user months		1,056.9	1,068.7
Utilization per 1,000 eligible months		6.0	9.6
Observation stays	Non-enrollees		
% with use		0.8	0.8
Utilization per 1,000 user months		1,079.0	1,078.6
Utilization per 1,000 eligible months		8.5	8.4
Skilled nursing facility	Enrollees		
% with use		0.2	0.3
Utilization per 1,000 user months		1,097.9	1,080.3
Utilization per 1,000 eligible months		2.6	3.5
Skilled nursing facility	Non-enrollees		
% with use		0.4	0.4
Utilization per 1,000 user months		1,098.2	1,092.1
Utilization per 1,000 eligible months		4.1	4.0
Hospice	Enrollees		
% with use		0.0	0.0
Utilization per 1,000 user months		1,000.0	1,122.4
Utilization per 1,000 eligible months		0.3	0.4
Hospice	Non-enrollees		
% with use		0.1	0.1
Utilization per 1,000 user months		1,038.7	1,034.8
Utilization per 1,000 eligible months		1.3	1.2

(continued)

Table C-8 (continued)
Proportion and utilization for institutional and non-institutional services for the
Massachusetts demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Non-institutional setting			
Primary care E&M visits	Enrollees		
% with use		43.0	42.8
Utilization per 1,000 user months		1,885.7	1,745.7
Utilization per 1,000 eligible months		810.1	747.9
Primary care E&M visits	Non-enrollees		
% with use		52.3	52.6
Utilization per 1,000 user months		1,827.2	1,834.4
Utilization per 1,000 eligible months		955.2	964.3
Outpatient therapy (PT, OT, ST)	Enrollees		
% with use		1.4	1.9
Utilization per 1,000 user months		5,192.8	5,416.5
Utilization per 1,000 eligible months		75.1	103.4
Outpatient therapy (PT, OT, ST)	Non-enrollees		
% with use		2.5	2.5
Utilization per 1,000 user months		10,669.7	10,364.5
Utilization per 1,000 eligible months		265.5	259.4
Independent therapy (PT, OT, ST)	Enrollees		
% with use		1.1	0.7
Utilization per 1,000 user months		10,280.2	11,951.3
Utilization per 1,000 eligible months		110.1	85.1
Independent therapy (PT, OT, ST)	Non-enrollees		
% with use		1.3	1.5
Utilization per 1,000 user months		11,843.1	11,456.7
Utilization per 1,000 eligible months		159.5	170.5
Home health episodes ²	Enrollees		
% with use		3.9	5.8
Utilization per 1,000 user months		2,143.6	2,873.5
Utilization per 1,000 eligible months		84.6	166.0
Home health episodes ²	Non-enrollees		
% with use		1.1	1.1
Utilization per 1,000 user months		1,008.6	1,005.9
Utilization per 1,000 eligible months		11.0	10.9

(continued)

Table C-8 (continued)
Proportion and utilization for institutional and non-institutional services for the
Massachusetts demonstration enrollees and non-enrollees

Measures by setting	Group	Demonstration year 1	Demonstration year 2
Durable medical equipment	Enrollees		
% with use		7.9	10.0
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Durable medical equipment	Non-enrollees		
% with use		12.4	12.2
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Other hospital outpatient services	Enrollees		
% with use		26.0	31.5
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Other hospital outpatient services	Non-enrollees		
% with use		36.2	36.3
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.

² Results for the demonstration group may be inflated due to a data anomaly under investigation.

SOURCE: RTI International analysis of Medicare data.

Table C-9
Quality of care and care coordination outcomes for enrollees and non-enrollees for the
Massachusetts demonstration

Quality and care coordination measures	Group	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Enrollees	21.4	20.2
	Non-enrollees	21.0	21.2
Preventable emergency room visits per eligible months	Enrollees	0.0543	0.0546
	Non-enrollees	0.0458	0.0460
Rate of 30-day follow up after hospitalization for mental illness (%)	Enrollees	48.7	40.6
	Non-enrollees	60.5	55.9
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI #90)	Enrollees	0.0045	0.0048
	Non-enrollees	0.0043	0.0042
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI #92)	Enrollees	0.0035	0.0037
	Non-enrollees	0.0031	0.0030
Screening for clinical depression per eligible months	Enrollees	0.0009	0.0006
	Non-enrollees	0.0026	0.0043

AHRQ PQI = Agency for Healthcare Research and Quality Prevention Quality Indicator; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

Table C-10
Utilization of health care services during demonstration year 2 for Massachusetts demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category		Gender		Race/Ethnicity			
	Less than 45	45-plus	Male	Female	White	Black	Hispanic	Asian
Institutional setting								
Inpatient admissions ¹								
% with use	3.2	3.3	3.4	3.2	3.5	3.4	2.3	1.9
Utilization per 1,000 user months	1,174.0	1,172.5	1,185.4	1,160.6	1,179.5	1,170.3	1,145.6	1,107.7
Utilization per 1,000 eligible months	37.8	39.2	40.6	37.2	41.8	40.0	26.4	20.7
Inpatient psychiatric								
% with use	1.1	0.6	0.8	0.7	0.8	0.6	0.5	0.5
Utilization per 1,000 user months	1,093.0	1,071.2	1,082.6	1,079.3	1,081.6	1,099.2	1,071.3	1,037.7
Utilization per 1,000 eligible months	12.2	6.0	8.4	7.2	8.7	6.5	4.9	4.9
Inpatient non-psychiatric								
% with use	2.2	2.9	2.7	2.6	2.8	2.9	1.9	1.4
Utilization per 1,000 user months	1,157.4	1,163.6	1,175.0	1,149.6	1,167.3	1,163.2	1,137.0	1,120.6
Utilization per 1,000 eligible months	25.6	33.3	32.2	30.0	33.1	33.5	21.5	15.8
Emergency department use (non-admit)								
% with use	9.3	7.0	7.2	8.2	7.6	8.5	8.3	3.3
Utilization per 1,000 user months	1,378.3	1,306.5	1,368.4	1,302.0	1,339.8	1,376.3	1,253.1	1,218.8
Utilization per 1,000 eligible months	128.3	91.7	97.8	106.5	102.4	116.7	103.4	40.6
Emergency department use (psychiatric)								
% with use	1.3	0.8	1.1	0.7	1.0	0.8	0.6	0.4
Utilization per 1,000 user months	1,296.3	1,435.0	1,470.1	1,247.3	1,375.6	1,478.5	1,352.9	1,347.8
Utilization per 1,000 eligible months	16.8	10.9	16.5	9.1	13.8	12.1	8.6	5.5

(continued)

Table C-10 (continued)
Utilization of health care services during demonstration year 2 for Massachusetts demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category		Gender		Race/Ethnicity			
	Less than 45	45-plus	Male	Female	White	Black	Hispanic	Asian
Observation stays								
% with use	0.6	0.9	0.7	0.8	0.8	1.1	0.6	0.3
Utilization per 1,000 user months	1,120.7	1,061.7	1,073.0	1,077.1	1,063.7	1,137.8	1,049.9	1,013.2
Utilization per 1,000 eligible months	7.1	9.2	8.0	9.0	8.3	12.6	6.8	3.4
Skilled nursing facility								
% with use	0.1	0.5	0.4	0.3	0.4	0.4	0.1	0.2
Utilization per 1,000 user months	1,099.6	1,090.3	1,102.1	1,079.6	1,089.7	1,100.0	1,068.5	1,078.9
Utilization per 1,000 eligible months	0.9	5.1	4.1	3.7	4.5	3.9	1.4	1.8
Hospice								
% with use	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Utilization per 1,000 user months	1,046.0	1,036.9	1,055.1	1,020.9	1,036.5	1,044.2	1,021.5	1,105.3
Utilization per 1,000 eligible months	0.3	1.4	1.1	1.0	1.2	0.8	0.8	0.9
Non-institutional setting								
Primary care E&M visits								
% with use	45.0	54.2	47.0	55.7	53.6	45.0	48.1	47.2
Utilization per 1,000 user months	1,748.8	1,849.4	1,749.7	1,881.7	1,864.4	1,732.3	1,725.5	1,604.4
Utilization per 1,000 eligible months	787.7	1,002.2	822.2	1,048.9	999.2	779.3	830.4	756.7
Outpatient therapy (PT, OT, ST)								
% with use	1.6	2.8	1.9	2.9	2.5	2.4	2.3	1.6
Utilization per 1,000 user months	8,129.5	10,207.5	10,802.9	9,208.3	10,419.2	8,470.9	7,631.8	9,164.8
Utilization per 1,000 eligible months	128.7	285.0	209.6	267.6	263.0	205.5	172.0	149.0

(continued)

Table C-10 (continued)
Utilization of health care services during demonstration year 2 for Massachusetts demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category		Gender		Race/Ethnicity			
	Less than 45	45-plus	Male	Female	White	Black	Hispanic	Asian
Independent therapy (PT, OT, ST)								
% with use	1.0	1.5	0.9	1.8	1.5	1.3	1.1	1.0
Utilization per 1,000 user months	10,682.2	11,671.0	11,866.4	11,266.4	11,140.7	12,609.5	12,078.8	13,475.8
Utilization per 1,000 eligible months	110.9	179.8	109.8	206.1	163.6	164.4	133.9	136.7
Home health episodes ²								
% with use	1.0	2.0	1.7	1.7	1.8	2.2	1.0	1.2
Utilization per 1,000 user months	2,077.0	1,776.1	1,880.4	1,783.0	1,787.7	1,819.7	2,245.8	2,592.1
Utilization per 1,000 eligible months	21.4	35.3	31.3	31.2	31.6	40.4	22.0	32.1
Durable medical equipment								
% with use	7.7	13.8	11.4	12.6	12.5	11.8	11.2	8.4
Utilization per 1,000 user months	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—
Other hospital outpatient services								
% with use	29.3	38.7	32.4	39.3	34.9	40.7	37.2	36.5
Utilization per 1,000 user months	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—

— = data not available. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long term care hospital admissions.

² Results for the demonstration group may be inflated due to a data anomaly under investigation.

SOURCE: RTI International analysis of Medicare data.

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Appendix D: Sensitivity Analysis Tables

Tables in *Appendix D* present results from sensitivity analyses focusing on the Massachusetts demonstration cost saving models.

D.1 Predicting Medicare Capitated Rates for Non-Enrollees

D.1.1 Sample Identification

- Eligible but non-enrolled Massachusetts beneficiaries in demonstration period 1 (October 1, 2013–December 31, 2014). Predicted Medicare capitated rates were calculated using the beneficiary risk score and the county of residence.

D.1.2 Calculating the Medicare Capitated Rate for Eligible but Non-Enrolled Beneficiaries

- Predicted Medicare capitated rates were calculated using the monthly beneficiary risk score (final resolved) and the base rate associated with the beneficiary’s county of residence. Differences in ESRD, non-ESRD, and dialysis risk scores and base rates were taken into account.
- Mean predicted Medicare capitated rates were compared to mean Medicare FFS expenditures (non-Winsorized). Note that bad debt was removed from the Medicare capitated rate as this is not reflected in Medicare FFS payments. Sequestration was reflected in both the FFS payments and the capitated payment. Disproportionate share hospital payments and uncompensated care payment amounts were included in the FFS expenditures as these amounts are reflected in the capitated rates.

**Table D-1
Observed Medicare FFS and predicted cap rates for eligible but not enrolled beneficiaries**

Variable	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
Predicted cap	1,158,079	\$978.4	\$1.0	\$1,118.4	\$976.4	\$980.4
Observed FFS	1,158,079	\$981.0	\$4.1	\$4,389.4	\$973.0	\$989.0
diff		-\$2.59	\$3.9	\$4,240.3	-\$10.3	\$5.1

FFS = fee for service.

RTI also tested the accuracy of the predicted capitated rate by generating a predicted capitated rate for enrollees and comparing it to the actual capitated rate from the plan payment files. RTI’s mean predicted capitated rate for enrollees was \$891.3 compared to an actual capitated rate of \$889.7 (difference of \$1.5). Observed FFS and predicted capitated values reflect parallel adjustments.

D.2 Predicting Medicare FFS Expenditures for Enrollees

The goal of this analysis is the converse of what is presented in *Analysis D.1*. Here, we look at predicted Medicare FFS expenditures for enrollees based on a model predicting Medicare FFS expenditures for non-enrollees.

D.2.1 Methods

A dataset with observations from base year 2 and from demonstration year 1 was created from the full data set to allow us to look at Medicare expenditures between the two periods. Beneficiary expenditures were summed across all months of each period and then “annualized” to represent the full 12 months of base year 1 (or 15 months of base year 2).

The estimation process involved two steps. First, using non-enrollees, we regressed demonstration year 1 expenditures on base year 2 expenditures, base year 2 Hierarchical Condition Category (HCC) score, and a set of base year 2 demographic and area level variables. We used an unlogged dependent variable and ran ordinary least squares (OLS) models with and without propensity score weights (using the frozen HCC scores in the composition of the weights). The data were clustered by Federal Information Processing Standards (FIPS) code. This model explained 26.8 percent of the variation in expenditures for non-enrollees.

In the second step, we used the covariate values for demonstration enrollees estimated in the OLS non-enrollee model (from step 1) to calculate predicted expenditures for enrollees. We compared the predicted expenditure values for enrollees to the actual capitated payments made under the demonstration.

D.2.2 Results

Table D-2 shows enrollees had lower predicted Medicare expenditures in base year 2 (\$8,825 for enrollees versus \$11,313 for non-enrollees) and a mean HCC score below 1 (0.969 for enrollees versus 1.022 for non-enrollees).

Table D-3 shows that actual Medicare capitated PMPM payments for enrollees were, on average, \$22 per month higher than the predicted mean Medicare expenditures for enrollees in demonstration year 1. Mean predicted Medicare expenditures for enrollees were \$2,962 lower than actual expenditures for non-enrollees (mean = \$16,279, not shown). Translating these findings into monthly Medicare expenditures, the mean predicted FFS expenditures for enrollees was \$887 per month which was \$198 per month lower than actual mean expenditures for non-enrollees (\$1,085, not shown in Table D-3).

Table D-2
Mean values of model covariates by group

Covariate	Non-enrolled, both comparison group and eligible (observations = 215,198)	Enrolled (N = 21,880)
FFS expenditures in base year 2	\$11,313	\$8,825
HCC Score in base year 2	1.022	0.969
Age	46.029	46.25
Also in another CMS demonstration	0.427	0.473
Female	0.520	0.519
Black	0.249	0.164
Asian	0.014	0.017
Other	0.014	0.026
Hispanic	0.047	0.146
Disabled	0.933	0.955
ESRD	0.025	0.011
Patient care physicians per 1,000 population	0.930	1.019
% of households with member >= 60 years	35.085	32.772
% of households with member < 18 years	31.790	32.981
% of those aged < 65 years, with college education	26.903	26.922
% of those aged < 65 years, unemployed	11.169	11.868
% of those aged < 65 years, with self-care limitation	2.331	2.497
Fraction of duals with Medicaid managed care, ages 19	0.297	0.093
Medicare Advantage penetration rate	0.207	0.229
% of pop. living in married household	64.384	59.676
Population per square mile, all ages	1,067	981
Medicaid spending per dual, ages 19+	\$21,723	\$22,682
Medicare spending per dual, ages 19+	\$17,444	\$16,436
Fraction of duals using nursing facilities, ages 65+	0.261	0.258
Fraction of duals using personal care, ages 65+	0.041	0.047
Distance to nearest hospital (miles)	5.293	3.796
Distance to nearest nursing home (miles)	3.380	2.604

SOURCE: RTI Program: predictFFSJan29: Summary statistics: mean by categories of: enrollee.

Table D-3
Expenditures prediction results from an unweighted OLS model

Enrollee observations = 21,880	Mean expenditures over the first year of the demonstration (15 months)		95% confidence interval	
	Actual PMPM for enrollees	\$13,642	\$13,455	\$13,829
Predicted FFS for enrollees	\$13,317	\$13,098	\$13,535	
Difference	\$325 (\$22 per month)	P = 0.0000		

FFS = fee for service; PMPM = per member per month.

SOURCE: RTI program: predictFFSJan29 unweighted FFS3b

D.3 Enrollee-Subgroup Analyses

The enrollee-subgroup analyses focused on a subgroup of 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 (October 1, 2013–December 31, 2015) and at least 3 months of eligibility in the predemonstration period (October 1, 2011–September 30, 2013), analogous to the criteria for identifying enrollees. The results indicate additional costs associated with enrollees. This enrollee sub-group analysis is limited by the absence of person-level data on characteristics that potentially would lead an individual in a comparison area to enroll in a similar demonstration, and thus the results should be considered in the context of this limitation.

Table D-4
Mean monthly Medicare expenditures for One Care eligibles and comparison group, enrollee subgroup analysis, predemonstration period and demonstration period 1, weighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 1 Oct 2013–Dec 2014	Difference
Demonstration group	723.41 (681.03, 765.79)	879.11 (818.44, 939.78)	155.70 (127.25, 184.15)
Comparison group	785.70 (743.20, 828.20)	854.60 (811.16, 898.20)	68.90 (54.14, 83.67)
Difference-in-difference	N/A	N/A	86.80 (56.67, 116.92)

95 percent confidence intervals are shown in parenthesis below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program EnrolleeSubanalysis).

Table D-5
Mean monthly Medicare expenditures for One Care eligibles and comparison group, enrollee subgroup analysis, predemonstration period and demonstration period 2, weighted

Group	Predemonstration period Oct 2011–Sept 2013	Demonstration period 2 Jan 2015–Dec 2015	Difference
Demonstration group	723.41 (681.03, 765.79)	874.95 (821.92, 927.98)	151.54 (124.29, 178.79)
Comparison group	785.70 (743.20, 828.20)	854.50 (820.84, 888.16)	68.8 (52.15, 85.46)
Difference-in-difference	N/A	N/A	82.74 (52.53, 112.94)

95 percent confidence intervals are shown in parenthesis below estimates.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program EnrolleeSubanalysis).

Table D-6
Demonstration effects on Medicare savings, enrollee subgroup analysis, difference-in-difference regression results, One Care eligibles and comparison group

Covariate	Adjusted coefficient DID	p-value	95% confidence interval	90% confidence interval	80% confidence interval¹
Intervention *DemoYear1 (October 2013–December 2014)	102.55	0.0000	66.29, 138.81	72.12, 132.98	78.87, 126.23
Intervention *DemoYear2 (January 2015–December 2015)	84.55	0.0000	52.19, 116.91	57.39, 111.71	63.42, 105.68
Intervention*Demo Period (October 2013–December 2015)	93.32	0.0000	63.24, 123.40	68.07, 118.57	73.67, 112.97

DID = difference-in-differences.

¹ 80 percent confidence intervals are provided for comparison purposes only.

SOURCE: RTI Analysis of Massachusetts demonstration eligible and comparison group Medicare data (program EnrolleeSubanalysis).

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