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Measurement, Monitoring, and Evaluation of State Demonstrations to Integrate Care for Dual Eligible Individuals: Massachusetts Evaluation Design Plan.

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Massachusetts Evaluation Design Plan

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by

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Executive Summary

The Massachusetts demonstration under the Financial Alignment Initiative will contract with Medicare-Medicaid Plans (MMPs, hereafter referred to as One Care plans) to provide all Medicare and Medicaid services to full-benefit Medicare-Medicaid enrollees aged 21 to 64. The Centers for Medicare & Medicaid Services (CMS) and the Commonwealth of Massachusetts have established a Federal-State partnership to implement the demonstration, which includes a three-way contract between CMS, the Commonwealth, and participating One Care plans based on a capitated model of financing. Individuals enrolled in 1915(c) waivers for home and community-based services (HCBS) and a small number of individuals residing in an intermediate care facility for individuals with intellectual disabilities (ICF/IID) are not eligible to enroll in the demonstration. Benefits under the demonstration will be expanded to include services not previously available to the eligible population, including diversionary behavioral health services, community support services, and enhancements to existing State Plan services. The demonstration will operate in counties where at least one plan proposed coverage and passed the CMS/Commonwealth readiness review (CMS and Commonwealth of Massachusetts, 2012; hereafter, Memorandum of Understanding [MOU], 2012). These counties will be Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth (partial county), Suffolk, and Worcester. The demonstration began on October 1, 2013, and will continue until December 31, 2016 (CMS communication, 5/29/13).

CMS contracted with RTI International to monitor the implementation of all State demonstrations under the Financial Alignment Initiative, and to evaluate their impact on beneficiary experience, quality, utilization, and cost. The evaluation includes an aggregate evaluation and State-specific evaluations. This report describes the State-specific Evaluation Plan for the Massachusetts demonstration as of December 16, 2013. The evaluation activities may be revised if modifications are made to either the Massachusetts demonstration or to the activities described in the *Aggregate Evaluation Plan* (Walsh et al., 2013). Although this document will not be revised to address all changes that may occur, the annual and final evaluation reports will note areas where the evaluation as executed differs from this evaluation plan.

The goals of the evaluation are to monitor demonstration implementation, evaluate the impact of the demonstration on the beneficiary experience, monitor unintended consequences, and monitor and evaluate the demonstration's impact on a range of outcomes for the eligible population as a whole and for subpopulations (e.g., people with mental illness and/or substance use disorders and long-term services and supports (LTSS) recipients). To achieve these goals, RTI International will collect qualitative and quantitative data from Massachusetts each quarter; analyze Medicare and Medicaid enrollment and claims data; conduct site visits, beneficiary focus groups, and key informant interviews; and incorporate relevant findings from any beneficiary surveys conducted by other entities. Information from monitoring and evaluation activities will be reported in a 6-month initial implementation report to CMS and the Commonwealth, quarterly monitoring reports provided to CMS and the Commonwealth, annual reports and a final evaluation report. The key research questions and data sources for each are summarized in *Table ES-1*.

Table ES-1
Research questions and data sources

Research questions	Stakeholder interviews and site visits	Beneficiary focus groups	Claims and encounter data analysis	Demonstration statistics ¹
1) What are the primary design features of the Massachusetts demonstration, and how do they differ from the Commonwealth's previous system?	X	X	—	X
2) To what extent did Massachusetts implement the demonstration as designed? What factors contributed to successful implementation? What were the barriers to implementation?	X	—	—	X
3) What impact does the Massachusetts demonstration have on the beneficiary experience overall and for beneficiary subgroups? Do beneficiaries perceive improvements in how they seek care, choice of care options, how care is delivered, personal health outcomes, and quality of life?	X	X	—	X
4) What impact does the Massachusetts demonstration have on cost and is there evidence of cost savings in the Commonwealth? How long did it take to observe cost savings in the Commonwealth? How were these savings achieved in the Commonwealth?	—	—	X	—
5) What impact does the Massachusetts demonstration have on utilization patterns in acute, long-term, and behavioral health services, overall and for beneficiary subgroups?	X	X	X	X
6) What impact does the Massachusetts demonstration have on health care quality overall and for beneficiary subgroups?	—	—	X	X
7) Does the Massachusetts demonstration change access to care for medical, behavioral health, long-term services and supports (LTSS) overall and for beneficiary subgroups? If so, how?	X	X	X	X
8) What policies, procedures, or practices implemented by Massachusetts in its demonstration can inform adaptation or replication by other States?	X	X	—	X
9) What strategies used or challenges encountered by Massachusetts in its demonstration can inform adaptation or replication by other States?	X	X	—	X

— = not applicable.

¹ Demonstration statistics refer to data that the Commonwealth, CMS, or other entities will provide regarding topics, including enrollments, disenrollments, grievances, appeals, and the number of One Care plans.

The principal focus of the evaluation will be at the State level. CMS has engaged an operations support contractor to monitor fulfillment of the demonstration requirements outlined in the MOU and three-way contracts, including One Care plan (or MMP)-level monitoring. RTI will integrate that information into the evaluation as appropriate.

Demonstration Implementation. Evaluation of demonstration implementation will be based on case study methods and quantitative data analysis of enrollment patterns. We will monitor progress, revisions to the demonstration, and identify transferable lessons from the Massachusetts demonstration through the following: document review, ongoing submissions by

the Commonwealth through an online State Data Reporting System (e.g., enrollment and disenrollment statistics and qualitative updates on key aspects of implementation), quarterly key informant telephone interviews, and at least two sets of site visits. We will also monitor and evaluate several demonstration design features, including the Commonwealth's progress developing an integrated delivery system, integrated delivery system supports, care coordination/case management, benefits and services, enrollment and access to care, beneficiary engagement and protections, financing, and payment elements. **Table 6** in **Section 3** of this report provides a list of the implementation tracking elements that we will monitor for each design feature. Examples of tracking elements include State efforts to build plan and provider core competencies for serving beneficiaries with various disability types; State requirements for coordination and integration of clinical, LTSS, and behavioral health services; documentation of coordination activities between One Care plans and community-based organizations; phase-in of new or enhanced benefits, and methods to communicate them to eligible populations; and strategies for expanding beneficiary access to demonstration benefits.

The data we gather about implementation will be used for within-State and aggregate analyses, included in the 6-month implementation report to CMS and the Commonwealth and annual reports, and will provide context for all aspects of the evaluation.

Beneficiary Experience. The impact of this demonstration on beneficiary experience is an important focus of the evaluation. Our framework for evaluating beneficiary experience is influenced by work conducted by the Center for Health Care Strategies (CHCS) on the elements of integration that directly affect beneficiary experience for Medicare-Medicaid enrollees. Table 8 in Section 4 of this report aligns key elements identified in the CHCS framework with the demonstration design features listed in the demonstration implementation section. The goals of these analyses are to examine the beneficiary experience and how it varies by subpopulation, and whether the demonstration has had the desired impact on beneficiary outcomes, including quality of life.

To understand beneficiary experience, we will monitor Commonwealth-reported data quarterly (e.g., reports of beneficiary engagement activities), and discuss issues related to the beneficiary experience during quarterly telephone follow-up calls and site visits with the Commonwealth and with stakeholders. We will also obtain data on grievances and appeals from CMS and, as available, other sources. Focus groups will include Medicare-Medicaid enrollees from a variety of subpopulations, such as people with mental health conditions, substance use disorders, LTSS needs, and multiple chronic conditions. Relevant demonstration statistics will be monitored quarterly and quantitative and qualitative analyses of the beneficiary experience will be included in annual State-specific reports and the final evaluation report.

Analysis Overview. Quality, utilization, access to care, and cost will be monitored and evaluated using encounter, claims, and enrollment data for a 2-year predemonstration period and during the course of the demonstration. The evaluation will use an intent-to-treat (ITT) approach for the quantitative analyses, comparing the eligible population for the Commonwealth's demonstration with a similar population that is not affected by the demonstration (i.e., a comparison group). Under the ITT framework, outcome analyses will include all beneficiaries eligible for the demonstration in the demonstration area, including those who opt out, participate

but then disenroll, and those who enroll but may not seek services, and a group of similar individuals in the comparison group. This approach diminishes the potential for selection bias and highlights the effect of the demonstration on all beneficiaries in the demonstration-eligible population. RTI will compare the characteristics of those who enroll with those who are eligible but do not enroll in the care model and conduct analyses to further explore demonstration effects on demonstration enrollees, acknowledging that selection bias must be taken into account in interpreting the results.

Identifying Demonstration and Comparison Groups. To identify the population eligible for the demonstration, Massachusetts will submit demonstration evaluation (finder) files to RTI on a quarterly basis. RTI will use this information to identify the characteristics of eligible beneficiaries for the quantitative analysis. **Section 4.2.2.1** of this report provides more detail on the contents of the demonstration evaluation (finder) files.

Identifying the comparison group members will entail two steps: (1) selecting the geographic area from which the comparison group will be drawn and (2) identifying the individuals who will be included in the comparison group. Because most Massachusetts counties and demonstration-eligible beneficiaries will be included in the demonstration area, RTI will most likely identify a comparison group from out-of-State Metropolitan Statistical Areas (MSAs). We will use cluster analysis to identify potential comparison States and areas that are most similar to Massachusetts in regard to costs, care delivery arrangements, and State policy affecting Medicare-Medicaid enrollees. We will also consider including the nondemonstration Massachusetts counties in the comparison group, together with the out-of-State areas. If the Massachusetts demonstration is implemented in fewer counties than anticipated, we will consider whether we can identify a comparison group that draws beneficiaries from nondemonstration areas within the Commonwealth or from out of State that are similar to the demonstration areas.

Once a comparison area is selected, all Medicare-Medicaid enrollees in those States or areas who meet the demonstration's eligibility criteria will be selected for comparison group membership based on the intent-to-treat study design. The comparison group will be refreshed annually to incorporate new entrants into the eligible population as new individuals become eligible for the demonstration over time. We will use propensity-score weighting to adjust for differences in individual-level characteristics between the treatment and comparison group members, using beneficiary-level data (demographics, socioeconomic, health, and disability status) and county-level data (health care market and local economic characteristics). We will remove from the comparison group any beneficiaries with a propensity score lower than the lowest score found in the demonstration group.

The comparison areas will be determined within the first year of implementation in order to use the timeliest data available. The comparison group members will be determined retrospectively at the end of each demonstration year, allowing us to include information on individuals newly eligible or ineligible for the demonstration during that year.

Analyses. Analyses of quality, utilization, and cost in the Massachusetts evaluation will consist of the following:

1. A monitoring analysis to track quarterly changes in selected quality, utilization, and cost measures over the course of the Massachusetts demonstration.
2. A descriptive analysis of quality, utilization, and cost measures with means and comparisons for subgroups of interest, including comparison group results, for annual reports. This analysis will focus on estimates for a broad range of quality, utilization, and cost measures, as well as changes in these measures across years or subgroups of interest within each year.
3. Multivariate difference-in-differences analyses of quality, utilization, and cost measures using a comparison group.
4. A calculation of savings twice during the demonstration. RTI is developing the methodology for evaluating savings for States implementing capitated model demonstrations, which will include an analysis of spending by program (Medicaid, Medicare Parts A & B services, Medicare Part D services).

Subpopulation Analyses. For the Massachusetts demonstration, individuals with end stage renal disease (ESRD), people receiving behavioral health services, individuals with chronic physical conditions, and people receiving LTSS (including individuals with developmental disabilities in the community who are not in 1915(c) waivers) are subpopulations of interest for this evaluation. For these subpopulations and others, we will evaluate the impact of the demonstration on quality, utilization, and access to care for medical, LTSS, and behavioral health services, and also examine qualitative data gathered through interviews, focus groups, and surveys. Descriptive analyses for annual reports will present results on selected measures stratified by subpopulations (e.g., those using and not using behavioral health services, LTSS). Multivariate analyses performed for the final evaluation will account for differential effects for subpopulations to understand whether quality, utilization, and cost are higher or lower for these groups.

Utilization and Access to Care. Medicare, Medicaid, and One Care plan encounter data will be used to evaluate changes in the levels and types of services used, ranging along a continuum from institutional care to care provided at home (see **Table 15** of this report for more detail). We will also include a specific focus on mental health and substance use disorder prevention and treatment services and community support services, which will be expanded under the demonstration.

Quality. Across all demonstrations, RTI will evaluate a core quality measure set for monitoring and evaluation purposes that are available through claims and encounter data. RTI will obtain these data from CMS (see **Table 16** of this report). We will supplement these core measures with the following:

- Additional quality measures specific to Massachusetts, which will be finalized within the first 6 months of implementation.

- Quality of life, satisfaction, and access to care information derived from the evaluation as discussed in **Section 4.1** and **Section 4.2**.
- HEDIS measures that One Care plans are required to submit, as outlined in the Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements (CMS, 2013).
- Beneficiary surveys, such as HOS and CAHPS, that One Care plans are required to report to CMS.

Cost. To determine annual total costs (overall and by payer), we will aggregate the Medicare and Medicaid per member per month (PMPM) payments paid to the One Care plans and the costs for the eligible population that is not enrolled in the demonstration, per the intent-to-treat evaluation design. This approach will help us to detect overall cost impact and eliminate the effects of potential selection bias among beneficiaries who participate in the demonstration and those who opt out or disenroll. We will also include Part D PMPM and any PMPM reconciliation data provided by CMS in the final assessment of cost impact to ensure that all data are available. Cost savings will be calculated twice for capitated model demonstrations using a regression-based approach. The methodology for determining cost savings for capitated model demonstrations is currently under development and will be reviewed and approved by the CMS Office of the Actuary.

Summary of Data Sources. *Table ES-2* displays the sources of information the RTI evaluation team will use to monitor demonstration progress and evaluate the outcomes of the Financial Alignment Demonstrations. The table provides an overview of the data that Massachusetts will be asked to provide and evaluation activities in which State staff will participate. As shown in this table, the evaluation team will access claims, encounter, and other administrative data from CMS. These data, and how they will be used in the evaluation, are discussed in detail in this evaluation plan and in the *Aggregate Evaluation Plan* (Walsh et al., 2013).

Table ES-2
Sources of information for the evaluation of the Financial Alignment Demonstrations

RTI will obtain data from:	Type of data
CMS	<ul style="list-style-type: none"> • Encounter data (Medicare Advantage, Medicaid, and One Care plans) • HEDIS measures • Results from HOS and CAHPS surveys • Medicare and Medicaid fee-for-service claims • Medicare Part D costs • Nursing Home data (MDS) • CMS-HCC and RXHCC risk scores • Demonstration quality measures that States are required to report to CMS (listed in MOU) • Demonstration quality measures that health plans are required to report to CMS (listed in three-way contracts or other guidance) • Other administrative data as available
State	<ul style="list-style-type: none"> • Detailed description of State's method for identifying eligible beneficiaries • File with monthly information identifying beneficiaries eligible for the demonstration (can be submitted monthly or quarterly)¹ • SDRS (described in detail in Section 4 of the <i>Aggregate Evaluation Plan</i>) quarterly submissions of demonstration updates including monthly statistics on enrollments, opt-outs, and disenrollments • Participation in key informant interviews and site visits conducted by RTI team • Results from surveys, focus groups, or other evaluation activities (e.g., EQRO or Ombuds reports) conducted or contracted by the State,² if applicable • Other data State believes would benefit this evaluation, if applicable
Other sources	<ul style="list-style-type: none"> • Results of focus groups conducted by RTI subcontractor (The Henne Group) • Grievances and appeals • Other sources of data, as available

CAHPS = Consumer Assessment of Healthcare Providers and Systems; EQRO = external quality review organization; HCC = hierarchical condition category; HEDIS = Healthcare Effectiveness Data and Information Set; HOS = Health Outcomes Survey; MDS = Minimum Data Set; MMP = Medicare Medicaid Plan; RXHCC = prescription drug hierarchical condition category; SDRS = State Data Reporting System.

¹ These data, which include both those enrolled and those eligible but not enrolled, will be used (in combination with other data) to identify the characteristics of the total eligible and the enrolled population. More information is provided in **Section 4** of this report.

² States are not required to conduct or contract for surveys or focus groups for the evaluation of this demonstration. However, if the State chooses to do so, the State can provide any resulting reports from its own independent evaluation activities for incorporation into this evaluation, as appropriate.

References

Centers for Medicare & Medicaid Services (CMS): Personal communication, May 29, 2013.

Centers for Medicare & Medicaid Services (CMS): Medicare-Medicaid Capitated Financial Alignment Model Reporting Requirements. November 25, 2013. <http://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/FinalCY2014CoreReportingRequirements.pdf>. As obtained December 9, 2013.

Centers for Medicare & Medicaid Services (CMS) and the Commonwealth of Massachusetts: Memorandum of Understanding Regarding a Federal-State Partnership to Test a Capitated Financial Alignment Model for Medicare-Medicaid Enrollees. <http://www.mass.gov/eohhs/docs/eohhs/healthcare-reform/state-fed-comm/120822-duals-demo-mou.pdf>. August 22, 2012.

Walsh, E. G., Anderson, W., Greene, A. M., et al.: Measurement, Monitoring, and Evaluation of State Demonstrations to Integrate Care for Dual Eligible Individuals: Aggregate Evaluation Plan. Contract No. HHSM500201000021i TO #3. Waltham, MA. RTI International, December 16, 2013.

1. Introduction

1.1 Purpose

The Medicare-Medicaid Coordination Office (MMCO) and Innovation Center at the Centers for Medicare & Medicaid Services (CMS) have created the Financial Alignment Demonstrations for States to test integrated care models for Medicare-Medicaid enrollees. The goal of these Financial Alignment Demonstrations is to develop person-centered care delivery models integrating the full range of medical, behavioral health, and long-term services for Medicare-Medicaid enrollees, with the expectation that integrated delivery models would address the current challenges associated with the lack of coordination of Medicare and Medicaid benefits, financing, and incentives.

CMS contracted with RTI International to monitor the implementation of the demonstrations and to evaluate their impact on quality, utilization, and cost. The evaluation includes an aggregate evaluation and State-specific evaluations.

This report describes the State-specific Evaluation Plan for the Massachusetts demonstration as of December 23, 2013. The evaluation activities may be revised if modifications are made to either the Massachusetts demonstration or to the activities described in the *Aggregate Evaluation Plan* (Walsh et al., 2013). Although this document will not be revised to address all changes that may occur, the annual and final evaluation reports will note areas where the evaluation as executed differs from this evaluation plan. This report provides an overview of the Massachusetts demonstration and provides detailed information on the framework for quantitative and qualitative data collection; the data sources, including data collected through RTI's State Data Reporting System (described in **Section 3.5, Progress Indicators**, and in detail in the *Aggregate Evaluation Plan* [Walsh et al., 2013]); and impact and outcome analysis (i.e., the impact on beneficiary experience and quality, utilization, access to care, and costs) that will be tailored to Massachusetts.

1.2 Research Questions

The major research questions of the Massachusetts evaluation are presented in **Table 1** with an identification of possible data sources. The evaluation will use multiple approaches and data sources to address these questions. These are described in more detail in **Sections 3** and **4** of this report.

Unless otherwise referenced, the summary of the Massachusetts demonstration is based on the Commonwealth's proposal submitted to CMS on February 16, 2012 (Commonwealth of Massachusetts, 2012a); the Commonwealth's Memorandum of Understanding (MOU) with CMS (CMS and Commonwealth of Massachusetts, 2012; hereafter, MOU, 2012); the Request for Responses from Integrated Care Organizations (Commonwealth of Massachusetts and CMS, 2012c; hereafter, RFR, 2012); and an Addendum to the State Demonstration to Integrate Care for Dual Eligible Individuals (Commonwealth of Massachusetts, 2012b; hereafter, Addendum, 2012).

Table 1
Research questions and data sources

Research questions	Stakeholder interviews and site visits	Beneficiary focus groups	Claims and encounter data analysis	Demonstration statistics ¹
1) What are the primary design features of the Massachusetts demonstration, and how do they differ from the Commonwealth's previous system?	X	X	—	X
2) To what extent did Massachusetts implement the demonstration as designed? What factors contributed to successful implementation? What were the barriers to implementation?	X	—	—	X
3) What impact does the Massachusetts demonstration have on the beneficiary experience overall and for beneficiary subgroups? Do beneficiaries perceive improvements in how they seek care, choice of care options, how care is delivered, personal health outcomes, and quality of life?	X	X	—	X
4) What impact does the Massachusetts demonstration have on cost and is there evidence of cost savings in the Commonwealth? How long did it take to observe cost savings in the Commonwealth? How were these savings achieved in the Commonwealth?	—	—	X	—
5) What impact does the Massachusetts demonstration have on utilization patterns in acute, long-term, and behavioral health services, overall and for beneficiary subgroups?	X	X	X	X
6) What impact does the Massachusetts demonstration have on health care quality overall and for beneficiary subgroups?	—	—	X	X
7) Does the Massachusetts demonstration change access to care for medical, behavioral health, long-term services and supports (LTSS) overall and for beneficiary subgroups? If so, how?	X	X	X	X
8) What policies, procedures, or practices implemented by Massachusetts in its demonstration can inform adaptation or replication by other States?	X	X	—	X
9) What strategies used or challenges encountered by Massachusetts in its demonstration can inform adaptation or replication by other States?	X	X	—	X

N/A = not applicable.

¹ Demonstration statistics refer to data that the Commonwealth, CMS, or other entities will provide regarding topics, including enrollments, disenrollments, grievances, appeals, and the number of One Care plans.

The details of the evaluation design are covered in the three major sections that follow:

- An overview of the Massachusetts demonstration
- Demonstration implementation, evaluation and monitoring
- Impact and outcome evaluation and monitoring.

2. Massachusetts Demonstration

2.1 Demonstration Goals

The goals of the Massachusetts demonstration are “to alleviate the fragmentation and improve coordination of services for Medicare-Medicaid Enrollees, enhance quality of care and reduce costs for both the Commonwealth and the Federal government” (Memorandum of Understanding [MOU], 2012, p. 2). Key objectives of the demonstration are “to improve the beneficiary experience in accessing care, deliver person-centered care, promote independence in the community, improve quality, eliminate cost shifting between Medicare and Medicaid and achieve cost savings for the Commonwealth and Federal government through improvements in care and coordination. CMS and the Commonwealth expect this model of integrated care and financing to, among other things, improve quality of care and reduce health disparities, meet both health and functional needs, and improve transitions among care settings. Meeting beneficiary needs, including the ability to self-direct care, be involved in one’s care, and live independently in the community, are central goals of this initiative” (MOU, 2012, p. 3).

2.2 Summary of Demonstration

Massachusetts and CMS have contracted with Medicare-Medicaid Plans (MMPs; hereafter referred to as One Care plans), to provide Medicare and Medicaid services for full-benefit Medicare-Medicaid enrollees aged 21 to 64 at the time of enrollment who are not enrolled in Home and Community-Based Services (HCBS) waivers, are not residing in an intermediate care facility for individuals with intellectual disabilities (ICF/IID), do not have other comprehensive insurance, and meet other eligibility criteria as described in the MOU. The demonstration will operate in counties in which at least one plan proposed coverage and passed the CMS/Commonwealth readiness review (CMS and Commonwealth of Massachusetts, 2012; hereafter, MOU, 2012). These counties will be Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth (partial county), Suffolk, and Worcester. The demonstration began on October 1, 2013, and will continue until December 31, 2016 (CMS communication, 5/29/13).

Benefits for individuals enrolled in the demonstration will include all Medicare and Medicaid services, as well as services not previously available to these beneficiaries, including diversionary behavioral health services (e.g., community crisis stabilization, partial hospitalization, acute treatment and clinical support for substance abuse), community support services (e.g., home care services, peer support/counseling/navigation, care transition assistance), and enhancements to existing State Plan services (e.g., preventive, restorative, and emergency oral health; cueing and supervision for personal care services) (MOU, 2012, pp. 69–81). “[One Care plans] will offer care coordination services to all Enrollees through a Care Coordinator or Clinical Care Manager, for medical and behavioral health services; and through an Independent Living and Long-Term Services and Supports (IL-LTSS) Coordinator contracted from a community-based organization, for LTSS. The IL-LTSS Coordinator [will] be a full member of the Interdisciplinary Care Team as appropriate, serving at the discretion of the Enrollee” (MOU, 2012, p. 58).

Beneficiaries will be offered a choice of One Care plans in their service area, or to opt out of the demonstration. Those who do not select a One Care plan and do not opt out of the demonstration may be passively enrolled in the demonstration and assigned to a One Care plan. Prior to the effective date of passive enrollment, individuals will have a period of at least 60 days to choose a different One Care plan or opt out of the demonstration.

To participate in the demonstration, One Care plans had to meet the Commonwealth's requirements set forth in the Massachusetts Request for Responses (RFR) (RFR, 2012); CMS requirements outlined in capitated Financial Alignment Demonstration guidance; and pass a joint CMS/Commonwealth readiness review. Both existing organizations and newly formed organizations were eligible to apply to be One Care plans. Selected One Care plans will be responsible for the delivery and management of all Medicaid, Medicare, and new and expanded services for demonstration enrollees, with the exception of Targeted Case Management (TCM) services provided by the Massachusetts Department of Mental Health (DMH) and the Department of Developmental Services (DDS) or rehabilitation option services purchased by DMH (MOU, 2012, p. 82). TCM and rehabilitation option services will not be included in the capitated rate, and will continue to be provided on an FFS basis to demonstration enrollees.

Capitation payments to the One Care plans are described and agreed to in three-way contracts among CMS, the Commonwealth, and participating One Care plans. The goal of the integrated capitation payments is to test a new payment methodology that will minimize cost shifting, align incentives between Medicare and Medicaid, and support the best possible outcomes for enrollees (MOU, 2012, p. 3).

Table 2 provides a summary of the key characteristics of the Massachusetts demonstration compared with the system that currently exists for demonstration-eligible beneficiaries.

Table 2
Key features of Massachusetts model predemonstration and during the demonstration

Key features	Predemonstration	Demonstration ¹
<i>Summary of covered benefits</i>		
Medicare	Medicare Parts A, B, and D	Medicare Parts A, B, and D. Exclusions are listed below.
Medicaid	Medicaid State Plan	Medicaid State Plan services, as well as new diversionary behavioral health and community support services, and expanded State Plan services (e.g., dental, DME services). Exclusions are listed below.
<i>Payment method (capitated/FFS/MFFS)</i>		
Medicare	Mostly FFS; very small percentage in Medicare Advantage Plans or PACE	Capitated
Medicaid (capitated or FFS)		
Primary/medical	FFS	Capitated. Medicare hospice services remain FFS (as in Medicare Advantage).
Behavioral health	FFS	Capitated. Service exclusions: TCM for beneficiaries with SPMI or developmental disabilities and rehabilitation option services for beneficiaries with SPMI are not included in the capitation rate under the demonstration. The Commonwealth continues to provide this service on an FFS basis.
LTSS	FFS	Capitated. Individuals enrolled in 1915(c) HCBS waivers and individuals residing in ICF/IIDs are not eligible to enroll in the demonstration.
Other (specify)		
Diversionary behavioral health services	Not available to the eligible population; some services available via HCBS waivers or managed care plans.	Capitated
Expanded services including preventive, restorative, and emergency oral health benefits; personal care assistance that may be hands on or cueing and supervision)	No	Capitated

(continued)

Table 2 (continued)
Key features of Massachusetts model predemonstration and during the demonstration

Key features	Predemonstration	Demonstration ¹
Community Support Services (day services, home care services, respite, peer support, care transition assistance, home modifications, community health workers, medication management, nonmedical transportation)	Not available to the eligible population; some services available via HCBS waivers or managed care plans.	Capitated
Care coordination/case management		
Care coordination for medical, behavioral health, or LTSS and by whom	Medical homes provide some care coordination for medical and behavioral services.	One Care plans will offer care coordination through a care coordinator or clinical care manager for medical and behavioral health services; and through an IL-LTSS coordinator, contracted from a community-based organization, for LTSS.
Care coordination/case management for HCBS waivers and by whom	Case management of LTSS via HCBS waivers operated by Department of Developmental Services (DDS), The Massachusetts Rehabilitation Commission and the Executive Office of Elder Services. ²	People enrolled in HCBS waivers are not eligible for the demonstration.
Targeted Case Management	Provided to certain individuals served by DDS and DMH. ³	No change; TCM is not included in the capitation rate under the demonstration. The Commonwealth continues to provide this service on an FFS basis. People receiving TCM are eligible to participate in the demonstration.
Rehabilitation Option services	Provided through DMH contractors to clients of DMH. ³	No change; Rehabilitation Option services are not included as covered service in the capitation rate. The Commonwealth continues to provide on an FFS basis. People receiving Rehabilitation Option services are eligible to participate in the demonstration.
Clinical, integrated, or intensive care management	None	Primary care provider, with One Care plan support, will provide clinical care management for individuals with multiple chronic conditions, prescription drugs, or at high risk. Care coordinators for enrollees with complex clinical care needs will be clinical care managers.

(continued)

Table 2 (continued)
Key features of Massachusetts model predemonstration and during the demonstration

Key features	Predemonstration	Demonstration ¹
<i>Enrollment/assignment</i>		
Enrollment method	N/A	Beneficiaries are offered a choice of One Care plan, or to opt out of the demonstration and remain in FFS (or join Medicare Advantage or another program, if applicable). Those who do not select a One Care plan and who do not opt out are passively enrolled in the demonstration, and can change One Care plans or opt out of the demonstration on a monthly basis.
Attribution/assignment method	N/A	Beneficiaries who do not opt out or make an affirmative choice of a One Care plan are auto-assigned to a One Care plan.
<i>Implementation</i>		
Geographic area	N/A	9 counties: Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth (partial), Suffolk, Worcester.
Phase-in plan	N/A	The first enrollment period will be opt-in only. Beneficiaries will be offered the opportunity to select a One Care plan or indicate that they will opt out of the demonstration. First enrollments will take effect no sooner than October 1, 2013. Subsequently, there will be at least two passive enrollment periods, with tentative effective enrollment dates of January 1, 2014, and April 1, 2014, first.
Implementation date	N/A	The first effective enrollment date will be no sooner than October 1, 2013, for beneficiaries who opt into the demonstration.

DMH = Department of Mental Health; FFS = fee-for-service; HCBS = home and community-based services; ICF/IID = intermediate care facility for individuals with intellectual disabilities; LTSS = long-term services and supports; MFFS = managed fee for service; N/A = not applicable; SPMI – severe and persistent mental illness; TCM = targeted case management.

¹ Information related to the Demonstration in this table is from the Memorandum of Understanding between Centers for Medicare & Medicaid Services and the Commonwealth of Massachusetts; dated August 22, 2012 (MOU, 2012).

² Commonwealth of Massachusetts, 2012b, p.1; hereafter, Addendum, 2012.

³ Addendum, 2012, p 3.

Individuals aged 21 through 64 at the time of enrollment who are enrolled in Medicare Parts A and B and eligible for Medicare Part D, who are enrolled in MassHealth Standard (the Massachusetts Medicaid program, operating under a §1115(a) waiver) or CommonHealth,¹ and who have no other comprehensive private or public insurance will be eligible for enrollment in this demonstration (MOU, 2012, p. 8). Beneficiaries who are enrolled in an HCBS waiver or who are residents of an ICF/ID are not eligible to enroll in the demonstration, although the

¹ CommonHealth is an expansion program for working and nonworking people with disabilities authorized through the MassHealth §1115 demonstration.

Commonwealth is considering phasing in the HCBS waiver enrollees later. Beneficiaries who turn 65 while enrolled in the demonstration will be able to choose to remain in the demonstration, return to FFS Medicare and Medicaid, join a Medicare Advantage plan or the Program of All-inclusive Care for the Elderly (PACE), or participate in another program, if applicable. Eligible beneficiaries who are enrolled in a Medicare Advantage or PACE plan, Employer Group Waiver Plans (EGWP), other employer-sponsored plans, plans receiving a Retiree Drug Subsidy, or individuals participating in the CMS Independence at Home demonstration may enroll in the Financial Alignment Demonstration if they choose to disenroll from their existing programs (MOU, 2012, p. 8).

Providers serving as Medicare Pioneer or Shared Savings Program Accountable Care Organizations (ACOs) may contract with One Care plans as network providers and serve Medicare-Medicaid enrollees under the Financial Alignment Demonstration, but these providers will not be eligible to earn Medicare shared savings payments from CMS for beneficiaries who are enrolled in the Financial Alignment Demonstration. Massachusetts encourages One Care plans to enter into alternative payment arrangements with contracted providers, including providers also serving as ACOs, that will advance the demonstration delivery system innovations, incentivize quality care, and improve health outcomes for demonstration enrollees.

The characteristics of the population eligible to participate in the demonstration are presented in **Table 3**. Approximately 98.5 percent of the eligible population resides in the community and 1.5 percent of the individuals reside in a facility. Of those residing in the community, approximately 41 percent of the individuals had a severe and persistent mental illness and 34 percent had a substance use disorder. Fifty-six percent had a chronic physical condition, and 8 percent had an intellectual disability. Of those residing in a facility, 60 percent had a severe and persistent mental illness, 24 percent had a substance use disorder, 76 percent had a chronic physical condition, and 10 percent had an intellectual disability² (Commonwealth of Massachusetts, 2013).

² Individuals can have more than one condition; thus the sum of the percentages for the characteristics of the eligible population will be greater than 100 percent.

Table 3
Characteristics of eligible population¹ for December 2012

Condition	No. of beneficiaries	Percentage of eligible population
Population residing in a facility²	1,608	1.5%
Severe and persistent mental illness ^{3,4}	—	60%
Substance use condition ³	—	24%
Chronic physical condition ^{3,5}	—	76%
Intellectual disability ³	—	10%
Population residing in the community	107,245	98.5%
Severe and persistent mental illness ^{3,4}	—	41%
Substance use condition ³	—	34%
Chronic physical condition ^{3,5}	—	56%
Intellectual disability ³	—	8%
Total individuals potentially eligible for demonstration (Medicare-Medicaid enrollees aged 21 to 64)	108,853	100.0%

— = not available.

¹ Includes individuals 21–64 years old who are enrolled in Medicare Parts A and B, eligible for Medicare Part D, receiving MassHealth Standard or CommonHealth, and have no other comprehensive coverage. These numbers include beneficiaries throughout the Commonwealth, and are not limited to the counties served by One Care plans in 2013.

² Facility residence includes individuals with extended episodes of care in any of the following: Intermediate Care Facility, Skilled Nursing Facility, Chronic Disease Hospital, Psychiatric Hospital, or Rehabilitation Hospital.

³ Conditions based on Verisk Health's DxCG Risk Solutions software. Individuals can have more than one condition; thus the sum of the percentages for the characteristics of the eligible population will be greater than 100 percent.

⁴ Includes Schizophrenia, and Major Depressive, Bipolar and Paranoid Disorders.

⁵ Includes Asthma, Diabetes, COPD, CHF, Hypertension, Arthritis and Coronary Artery Disease.

SOURCE: Commonwealth of Massachusetts, Executive Office of Health and Human Services. Office of Medicaid. Boston, MA (September 4, 2013).

Although Massachusetts will not include TCM services or Rehabilitation Option services in the capitation rate, the people receiving those services will be eligible for the demonstration (as long as they meet demonstration eligibility criteria). Their other services (e.g., medical, acute, community LTSS) will be managed and paid for by the One Care plans, whereas TCM and Rehabilitation Option services will continue to be purchased separately by the Commonwealth agencies. Massachusetts stresses the importance of including people receiving these services in the demonstration because they will be able to access the integrated diversionary behavioral health services that are not available in the fee-for-service (FFS) system. Massachusetts indicated that approximately 8,046 individuals (who were not on HCBS waivers) used TCM in 2009 and used approximately \$24.5 million in nonwaiver services. The same year, 2,565 Department of Mental Health clients used approximately \$37.5 million in services (including the Rehabilitation Option and the TCM) (Addendum, 2012, p. 3).

As shown in **Table 4**, the total Medicare and Medicaid spending on Medicare-Medicaid enrollees aged 21 to 64 was \$2.6 billion in CY 2008. This spending was roughly evenly divided between the two programs. Total Medicare and Medicaid spending for those enrolled in HCBS waivers (aged 18 to 64) was \$569 million; as noted, this population will not be eligible for the demonstration (not shown) (Massachusetts proposal, p. 6).

Table 4
Total expenditures for Medicare-Medicaid enrollees aged 21–64, CY 2008

Population	Medicaid expenditures	Medicare expenditures	Total expenditures
Eligible population	\$1.305 billion	\$1.319 billion	\$2.624 billion

NOTE: These numbers include beneficiaries throughout the Commonwealth, and are not limited to the counties served by One Care plans in 2013.

SOURCE: Commonwealth of Massachusetts, Executive Office of Health and Human Services. Office of Medicaid: State demonstration to integrate care for dual eligible individuals: Proposal to the Center for Medicare and Medicaid Innovation. (Contract No. HHSM-500-2011-00033C). Boston, MA, Massachusetts Office of Health and Human Services; February 16, 2012; pp. 5 and 6. These data include expenditures for HCBS Waiver enrollees.

2.3 Relevant Historical and Current Context

History/Experience with Managed Care. Massachusetts has extensive experience with the design, implementation, and operation of managed care for Medicare-Medicaid enrollees and Medicaid-only individuals. The Massachusetts demonstration builds on the Commonwealth’s experience with two programs that serve Medicare-Medicaid enrollees: the PACE program and the Senior Care Options (SCO) program. PACE programs first were implemented in Massachusetts in 1990, and five such programs now serve individuals 55 or older. The SCO program was implemented in 2004 and has enrolled more than 18,000 individuals aged 65 or older. The PACE and SCO programs include comprehensive, integrated, managed care plans that include all services covered by Medicare and MassHealth. The five SCO organizations in Massachusetts operate “as Medicare Advantage duals special needs plans (D-SNPs) and as Medicaid Managed Care plans” (Commonwealth of Massachusetts, 2012a).

Massachusetts also has experience with managed care for individuals who have only Medicaid benefits. Under its §1115(a) demonstration, the Commonwealth operates a behavioral health plan for MassHealth-only members who are enrolled in the Primary Care Clinician Plan (PCCP), and the Commonwealth contracts with other managed care organizations for Medicaid-only members enrolled in managed care.

Other Initiatives. The Massachusetts demonstration is part of a larger health care reform strategy to transform the Commonwealth’s health care system. Phase I of the reform began in 2006 with passage of a health care reform law to expand access to health care insurance, resulting in coverage of 98 percent of the population by 2012 (Massachusetts Proposal, 2012b, p. 20). The law also created the Health Care Quality and Cost Council, which is directed to establish goals for improving health care quality, containing costs, and reducing racial and ethnic disparities in health care; to demonstrate progress in meeting those goals; and to disseminate comparative cost and quality information on its website. Phase II focuses on innovative delivery

system and payment reforms designed to improve quality, expand access to care coordination, enhance accountability, and reduce costs. The Commonwealth administration is promoting a shift across all sectors of the health care system from fee-for-service payment to global payments.

Several other initiatives in the Commonwealth are aligned with the goals of the demonstration. These include the Patient-Centered Medical Home Initiative (PCMHI), the development of Medicaid accountable care organizations, the implementation of the Money Follows the Person (MFP) rebalancing demonstration, bundled payment pilots in MassHealth, and exploration of Medicaid Health Homes.

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3. Demonstration Implementation Evaluation

3.1 Purpose

The evaluation of the implementation process is designed to answer the following overarching questions about the Massachusetts demonstration:

- What are the primary design features of the Massachusetts demonstration, and how do they differ from the Commonwealth's previous system available to the demonstration eligible population?
- To what extent did Massachusetts implement the demonstration as designed? What factors contributed to successful implementation? What were the barriers to implementation?
- What Commonwealth policies, procedures, or practices implemented by Massachusetts can inform adaptation or replication by other States?
- Was the demonstration more easily implemented for certain subgroups?
- How have beneficiaries participated in the ongoing implementation and monitoring of the demonstration?
- What strategies used or challenges encountered by Massachusetts can inform adaptation or replication by other States?

3.2 Approach

The evaluation team will examine whether the demonstration was implemented as designed and will look at modifications to the design features that were made during implementation; any changes in the time frame or phase-in of the demonstration; and other factors that facilitated or impeded implementation. This section will discuss the following:

- Monitoring implementation of the demonstration by key demonstration design features
- Implementation tracking elements
- Progress indicators
- Data sources
- Interview questions and implementation reports

3.3 Monitoring Implementation of the Demonstration by Key Demonstration Design Features

The major design features of the Massachusetts demonstration are described using a common framework that RTI will apply to all of the Financial Alignment demonstrations as follows:

- Integrated delivery system
- Integrated delivery system supports
- Care coordination/case management
- Benefits and services
- Enrollment and access to care
- Beneficiary engagement and protections
- Financing and payment
- Payment elements

Our analysis of the implementation of the Massachusetts demonstration will be organized by these key demonstration design features. This framework will be used to define our areas of inquiry, structure the demonstration variables we track, organize information from our data collection sources, and outline our annual report. **Table 5** illustrates the key components of each design feature that we will monitor as part of the implementation evaluation.

Table 5
Demonstration design features and key components

Design feature	Key components
Core components of integrated delivery systems (how the delivery system is organized/integrated; interrelationships among the core delivery system components)	<ul style="list-style-type: none"> • One Care plans • Primary care, including medical homes • LTSS • Behavioral health services • Developmental disability services • Integration functions that bridge delivery systems and roles of community-based organizations

(continued)

Table 5 (continued)
Demonstration design features and key components

Design feature	Key components
Integrated delivery systems supports	<ul style="list-style-type: none"> • Care team composition • Health IT applied throughout the demonstration (at Commonwealth level, by One Care plans, at provider level or other) • Data (Medicare claims or encounter data) and other feedback to One Care plans, medical homes, other providers (by the Commonwealth or other entities) • Primary care practice support (e.g., coaching, learning collaboratives, training)
Care coordination/case management (by subpopulation and/or for special services) <ul style="list-style-type: none"> • Medical/primary • LTSS • Behavioral health services • Integration of care coordination 	<ul style="list-style-type: none"> • Assessment process • Service planning process • Care management targeting process • Support of care transitions across settings • Communication and hand-offs between care coordinators/case managers and providers
Benefits and services	<ul style="list-style-type: none"> • Scope of services/benefits • New or enhanced services • Excluded services • Service authorization process
Enrollment and access to care	<ul style="list-style-type: none"> • Integrated enrollment and access • Provider accessibility standards • Marketing/education protocols • Enrollment brokers • Beneficiary information and options counseling • Opt-out, disenrollment, and auto-assignment policy • Assignment/referrals to providers and medical homes • Phased enrollment of eligible populations • Workforce development for worker supply and new functions
Beneficiary engagement and protections	<ul style="list-style-type: none"> • Commonwealth policies to integrate Medicare and Medicaid grievances and appeals • Quality management systems • Ongoing methods for engaging beneficiary organizations in policy decisions and implementation • Approaches to capture beneficiary experience, such as surveys and focus groups

(continued)

Table 5 (continued)
Demonstration design features and key components

Design feature	Key components
Demonstration financing model and methods of payment to plans and providers	<ul style="list-style-type: none"> • Financing model—capitation • Entities to which the Commonwealth is directly making payments • Innovative payment methods to One Care plans and/or to providers
Elements of payments to One Care plans and providers	<ul style="list-style-type: none"> • Incentives • Shared savings • Risk adjustment

IT = information technology; LTSS = long-term services and supports.

3.4 Implementation Tracking Elements

Through document review and interviews with Commonwealth agency staff, we will identify and describe the delivery system for Medicare-Medicaid enrollees in the eligible population. This will enable us to identify key elements that Massachusetts intends to modify through the demonstration and measure the effects of those changes. Using a combination of case study methods, including document review, and telephone interviews, we will conduct a descriptive analysis of the Commonwealth’s key demonstration features.

The evaluation will analyze how Massachusetts is carrying out its implementation plan and track any changes it makes to its initial design as implementation proceeds. We will identify both planned changes that are part of the demonstration design (e.g., phasing in new populations) and operational and policy modifications Massachusetts makes based on changing circumstances. Finally, we anticipate that, in some instances, changes in the policy environment in the Commonwealth will trigger alterations to the original demonstration design.

During site visit interviews and our ongoing communication with the Commonwealth, we will collect detailed information on how Massachusetts has structured care coordination for beneficiaries enrolled in the demonstration. The evaluation will analyze the scope of care coordination responsibilities assigned to One Care plans, the extent to which they conduct these functions directly or through contract, and internal structures established to promote service integration. We will also identify ways that the scope of care coordination activities conducted under the demonstration by One Care plans compares to the Commonwealth’s approach in their capitated managed care programs serving other populations.

We will also collect data from the Commonwealth to track implementation through the State Data Reporting System (SDRS). The Commonwealth will submit quarterly demonstration statistics and qualitative updates through the SDRS (described in **Section 3.5, Progress Indicators**, and in detail in the *Aggregate Evaluation Plan* [Walsh et al., 2013]). RTI will generate reports based on these data and conduct telephone calls with the Commonwealth demonstration director as needed to understand the Massachusetts entries. We will make additional calls to Commonwealth agency staff and key informants as needed to keep abreast of

demonstration developments. We will use site visit interviews to learn more about what factors are facilitating or impeding progress or leading to revisions in the Massachusetts demonstration implementation.

Table 6 shows the types of demonstration implementation elements we will track using State submissions to the SDRS, quarterly calls with State demonstration staff, other interviews, and site visits.

Table 6
Implementation tracking elements by demonstration design feature

Design feature	Tracking elements
Integrated delivery system	<ul style="list-style-type: none"> • Three-way contracts with One Care plans • Documentation of coordination activities between One Care plans and community-based organizations • New waiver authorities submitted for the demonstration and approved • Emergence of new medical homes and health homes • Strategies for integrating primary care, behavioral health, and LTSS (as documented in Commonwealth policies, contracts, or guidelines) • Recognition and payment for care/services by nontraditional workers • Innovative care delivery approaches adopted by the demonstration
Integrated delivery system supports	<ul style="list-style-type: none"> • Learning collaboratives of primary care providers • Support with dissemination and implementation of evidence-based practice guidelines (e.g., webinars for providers; topics addressed in learning collaboratives) • Decision-support tools provided or supported by the Commonwealth • Commonwealth efforts to build One Care plan and provider core competencies for serving beneficiaries with various types of disabilities • Provision of regular feedback to One Care plans and providers on the results of their performance measures
Care coordination	<ul style="list-style-type: none"> • Adoption of person-centered care coordination practices • Commonwealth or plan systems for collecting data on care coordination use • As available, care coordination activities directed to individual enrollees • Commonwealth requirements for assessment and care planning • Commonwealth requirements for coordination and integration of clinical, LTSS, and behavioral health services • Commonwealth approaches to stratify care coordination intensity based on individual needs • Commonwealth-level analyses of enrollee care transitions • Commonwealth requirements for care transition support, medication reconciliation, notification of hospitalizations • Commonwealth actions to facilitate adoption of EMR and EHR • Use of informatics to identify high-risk beneficiaries

(continued)

Table 6 (continued)
Tracking elements by demonstration design feature

Design feature	Tracking elements
Benefits and services	<ul style="list-style-type: none"> • Phase-in of new or enhanced benefits, and methods to communicate them to enrollees and potential enrollees • Adoption of evidence-based practices and services (e.g., use of chronic disease self-management programs, fall prevention programs, other)
Enrollment and access to care	<ul style="list-style-type: none"> • Commonwealth efforts to provide integrated consumer information on enrollment, benefits, and choice of One Care plan/providers • Options counseling and information provided by Aging and Disability Resource Centers and State Health Insurance Assistance Programs • Initiatives to increase enrollment in the demonstration • Strategies for expanding beneficiary access to demonstration benefits • Emergence of new worker categories/functions (e.g., health coaches, community care workers)
Beneficiary engagement and protections	<ul style="list-style-type: none"> • Strategies implemented to engage beneficiaries in oversight of the demonstration • Quality management strategy, roles, and responsibilities • Implementation of quality metrics • Adoption of new Commonwealth policies for beneficiary grievances and appeals based on demonstration experience
Financing and payment	<ul style="list-style-type: none"> • Revisions to the demonstration's initial payment methodology, including risk-adjustment methodology • Risk-mitigation strategies • Performance incentive approaches • Value-based purchasing strategies

EHR = electronic health records; EMR = electronic medical records; LTSS = long-term services and supports; QIs = quality improvement initiatives.

3.5 Progress Indicators

In addition to tracking implementation of demonstration design features, we will also track progress indicators, including growth in enrollment and disenrollment patterns, based on Massachusetts demonstration data. These progress indicators will be reported quarterly by Massachusetts through the SDRS, which will be the evaluation team's tool for collecting and storing information and for generating standardized tables and graphs for quarterly monitoring reports for CMS and the Commonwealth. The primary goals of the system are to serve as a repository for up-to-date information about the Massachusetts demonstration design and progress, to capture Commonwealth-specific data elements on a quarterly basis, and to monitor and report on demonstration progress by individual States and the demonstration as a whole. More detail on the SDRS can be found in the *Aggregate Evaluation Plan* (Walsh et al., 2013).

Table 7 presents a summary of progress indicators developed to date. The list of progress indicators may be refined in consultation with CMS as needed. RTI will provide trainings and an instruction manual to assist States in using the SDRS.

Table 7
Examples of progress indicators

Indicator
Eligibility
No. of beneficiaries eligible to participate in the demonstration
Enrollment
Total no. of beneficiaries currently enrolled in the demonstration
No. of beneficiaries newly enrolled in the demonstration as of the end of the given month
No. of beneficiaries automatically (passively) enrolled in the demonstration
Disenrollment
No. of beneficiaries who opted out of the demonstration prior to enrollment
No. of beneficiaries who voluntarily disenrolled from the demonstration
No. of beneficiaries whose enrollment in the demonstration ended involuntarily (e.g., died, moved out of area, lost Medicaid eligibility, were incarcerated)
Demonstration service area
Whether demonstration is currently statewide vs. in specific counties or geographic areas (and provide list if in specific geographic areas)
Self-direction of personal care services
No. of enrollees in the demonstration who have chosen to self-direct their personal care services
Specific to capitated model demonstrations
No. of three-way contracts with One Care plans

3.6 Data Sources

The evaluation team will use a variety of data sources to assess whether the Massachusetts demonstration was implemented as planned; identify modifications made to the design features during implementation; document changes in the time frame or phase-in of key elements; and determine factors that facilitated implementation or presented challenges. These data sources include the following:

- **Commonwealth policies and Commonwealth requirements for provider and One Care plan agreements:** The evaluation team will review a wide range of Commonwealth-developed documents that specify the Massachusetts approach to implementing its demonstration in order to develop a baseline profile of its current delivery system. Review of the Massachusetts agreements with CMS articulated through the demonstration Memorandum of Understanding (MOU), waivers,

contracts, and State Plan Amendments (if applicable) will further enhance our understanding of the Massachusetts approach.

- **Demonstration data (collected via the State Data Reporting System):** On a quarterly basis, we will collect data from Massachusetts to inform ongoing analysis and feedback to the Commonwealth and CMS throughout the demonstration. Specifically, we will collect data to track policy and operational changes and progress indicators that are mostly numeric counts of key demonstration elements presented in **Table 7**. These demonstration data also may include specific information provided by CMS or other entities engaged in this demonstration, and incorporated into the State Data Reporting System.
- **Commonwealth agency staff, stakeholders, selected One Care plans/providers:** There will be at least two sets of site visits; the first one will occur within 6 months of demonstration implementation. Using two-person teams, supplemented with telephone interviews, we will obtain perspectives from key informants on progress to date, internal and external environmental changes, reasons Massachusetts took a particular course, and current successes and challenges. In addition to the site visits, and interim calls for clarification about Commonwealth data submitted to the reporting system, in consultation with CMS we will develop a schedule of quarterly telephone interviews with various individuals involved in the demonstration.
- In addition to consumer advocates, as discussed in **Section 4.1, Beneficiary Experience**, candidates for key informant interviews on demonstration implementation include the following:
 - Representatives from Implementation Council
 - Representatives from CMS–State Contract Management Team
 - State officials, such as:
 - Secretary of Executive Office of Health and Human Services
 - Medicaid director
 - Deputy Medicaid director for policy and programs
 - One Care plan program manager
 - Contract managers from the Contracted Customer Service and Integrated Contracting Unit
 - MassHealth finance managers
 - Commonwealth representatives from the Interagency Duals Steering Committee
 - Commonwealth agencies representing Medicare-Medicaid enrollees aged 21 to 64, including the Department of Mental Health, Department of Developmental Services, MA Rehabilitation Commission, Executive Office of

Elder Affairs, MA Commission for the Deaf and Hard of Hearing, and the
MA Commission for the Blind

- Representatives from selected One Care plans
- Representatives from providers and provider associations
- Representatives from the SHINE Program (Serving the Health Information Needs of Everyone)
- Representatives from the Medicare-Medicaid Ombuds program

The site visit interview protocols used in the evaluation will contain a core set of questions that allow us to conduct an aggregate evaluation, questions specific to the financial alignment model (capitated), as well as a few questions that are specific to the Massachusetts demonstration. Questions tailored to the key informants in Massachusetts will be developed once the demonstration is implemented and will be provided to the Commonwealth in advance of the site visit. The site visit interview protocols with core questions are provided in the *Aggregate Evaluation Plan* (Walsh et al., 2013) and will also be tailored for Massachusetts. In advance of the site visits, the RTI team will contact the Commonwealth to determine the appropriate individuals to interview. We will work with the Commonwealth to schedule the site visit and the on-site interviews. We will develop an interview schedule that best suits the needs of the Commonwealth and key informants we plan to interview.

3.7 Analytic Methods

Evaluation of the Massachusetts demonstration implementation will be presented in an initial report to CMS and the Commonwealth covering the first 6 months of implementation, in annual State-specific evaluation reports, and integrated into annual aggregate reports comparing implementation issues and progress across similar demonstrations and across all demonstrations, as appropriate. We will collect and report quantitative data quarterly as noted in **Table 7**, Examples of Progress Indicators, through the State Data Reporting System. We will integrate these quantitative data with qualitative data we will collect through site visits and telephone interviews with Commonwealth agency staff and other key informants, and include these data in the annual reports and the final evaluation report. These data will provide context for interpreting the impact and outcomes related to beneficiary experience, quality, utilization, and costs, and enable us to analyze (1) the changes Massachusetts has made to the preexisting delivery systems serving Medicare-Medicaid enrollees; (2) challenges Massachusetts has met; and (3) approaches that can inform adaptation or replication by other States.

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4. Impact and Outcomes

4.1 Beneficiary Experience

4.1.1 Overview and Purpose

The evaluation will assess the impact of the Massachusetts demonstration on beneficiary experience. Using mixed methods (i.e., qualitative and quantitative approaches), we will monitor and evaluate the experience of beneficiaries, their families, and caregivers. Our methods will include the following:

- the beneficiary voice through focus groups and stakeholder interviews conducted by RTI;
- results of Consumer Assessment of Healthcare Providers and Systems (CAHPS) and any other surveys conducted by Massachusetts, CMS, or other entities;
- Massachusetts demonstration data and data from other sources submitted via the State Data Reporting System (SDRS; e.g., data on enrollments, disenrollments, appeals, grievances, stakeholder engagement activities);
- claims and encounter data obtained from CMS will be used to analyze utilization as well as access to services and outcomes for key quality measures; and
- interviews with Massachusetts demonstration staff during site visit or telephone interviews with RTI.

Table 8 (described in more detail below) shows the range of topics and data sources we will use to monitor and evaluate beneficiary experience. We are interested in the perspective of the beneficiaries themselves, determining specifically the impact of the demonstration on their access to needed services, the integration and coordination of services across settings and delivery systems, provider choice, enrollee rights and protections, and the provision of person-centered care. In the process, we will identify what has changed for beneficiaries since their enrollment in the demonstration and its perceived impact on their health and well-being.

This section of the evaluation plan focuses specifically on the methods we will use to monitor and evaluate beneficiary experience, such as focus groups with beneficiaries and interviews with consumer and advocacy groups. We also discuss information about data we will obtain from Massachusetts through interviews and the SDRS, and results of beneficiary surveys that may be administered and analyzed independent of this evaluation by the Commonwealth, CMS, or by other entities.

Through beneficiary focus groups and key stakeholder interviews (i.e., consumer and advocacy group members), we also will explore whether we can identify specific demonstration features in Massachusetts that may influence replication in other States. We will also collect information from Commonwealth demonstration staff and CMS or other entities that reflects the beneficiaries' experiences (e.g., grievances and appeals, disenrollment patterns) using RTI's

State Data Reporting System. **Section 3, *Demonstration Implementation Evaluation***, describes topics we will monitor and document through interviews with Massachusetts demonstration staff and document reviews, including consumer protections and other demonstration design features intended to enhance the beneficiary experience. Refer to **Section 4.2** for a discussion of the use of claims and encounter data to establish baseline information about the beneficiaries eligible for the demonstration, and how we will use these data to inform our understanding of the impact of the Commonwealth’s demonstration on its access to care and health outcomes.

Specifically, we will address the following research questions in this section:

- What impact does the Massachusetts demonstration have on the beneficiary experience overall and for beneficiary subgroups?
- What factors influence the beneficiary enrollment decision?
- Do beneficiaries perceive improvements in their ability to find needed health services?
- Do beneficiaries perceive improvements in their choice of care options, including self-direction?
- Do beneficiaries perceive improvements in how care is delivered?
- Do beneficiaries perceive improvements in their personal health outcomes?
- Do beneficiaries perceive improvements in their quality of life?

4.1.2 *Approach*

This mixed-method evaluation will combine qualitative information from focus groups and key stakeholder interviews with quantitative data related to beneficiary experience derived from the RTI State Data Reporting System and findings from surveys that may be conducted independently by Massachusetts, CMS, or other entities (e.g., CAHPS). Qualitative data will be obtained directly from a beneficiary or beneficiary representative through focus groups and interviews. To avoid potential bias or conflict of interest, we will apply a narrow definition of “representative” to include only family members, advocates, or members of organizations or committees whose purpose is to represent the interest of beneficiaries and who are not service providers or do not serve in an oversight capacity for the initiative. Although no baseline qualitative data are available, beneficiaries will be asked about their experience before the demonstration and how it may have changed during the course of the demonstration.

Our framework for evaluating beneficiary experience is influenced by work conducted by the Center for Health Care Strategies (CHCS), which identified essential elements of integration affecting beneficiary experience, including the care process and quality of life (Lind and Gore, 2010). Its work is intended to guide the design of integrated care systems for Medicare-Medicaid enrollees and to do so in ways that strengthen the beneficiary experience in the areas defined in **Table 8**.

Table 8
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question ¹	Massachusetts demonstration data ²	Interviews with Massachusetts agency staff on demonstration implementation
Integrated delivery system					
<i>Choice</i>					
Beneficiaries have choice of medical, behavioral, and LTSS <i>services</i> .	X	X	X	X	X
Beneficiaries have choice of medical, behavioral, and LTSS <i>providers</i> within the network.	X	X	X	X	X
Beneficiaries have choice to self-direct their care.	X	X	—	X	X
Beneficiaries are empowered and supported to make informed decisions.	X	X	—	—	—
<i>Provider network</i>					
Beneficiaries report that providers are available to meet routine and specialized needs.	X	X	X	X	—
Beneficiaries report that LTSS and behavioral health are integrated into primary and specialty care delivery.	X	X	—	X	—
<i>Beneficiary engagement</i>					
Beneficiaries consistently and meaningfully have the option to participate in decisions relevant to their care.	X	X	X	X	—
There are ongoing opportunities for beneficiaries to be engaged in decisions about the design and implementation of the demonstration.	X	X	—	—	X

(continued)

Table 8 (continued)
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question¹	Massachusetts demonstration data²	Interviews with Massachusetts agency staff on demonstration implementation
<i>Streamlined processes</i>					
Beneficiaries can easily navigate the delivery system.	X	X	—	X	—
<i>Reduced duplication of services</i>					
Beneficiary burden is reduced through elimination of duplicative tests and procedures.	—	—	—	X	—
Enrollment and access to care					
<i>Enrollment</i>					
Beneficiaries have choices and assistance in understanding their enrollment options.	X	X	—	X	X
Beneficiaries report ease of disenrollment.	X	X	—	X	—
Rate of beneficiaries who opt out of enrolling into demonstration.	—	—	—	X	—
Rate of disenrollment from the demonstration, by reason.	—	—	—	X	—
<i>Access to care</i>					
Beneficiaries can access the full range of scheduled and urgent medical care, behavioral health services, and LTSS.	X	X	—	X	—
Beneficiaries report improved quality of life due to access to the full range of services.	X	X	X	—	—
Beneficiaries report that waiting times for routine and urgent primary and specialty care are reasonable.	X	X	—	X	—

(continued)

Table 8 (continued)
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question¹	Massachusetts demonstration data²	Interviews with Massachusetts agency staff on demonstration implementation
<i>Health Outcomes</i>					
Beneficiary health rating.	—	—	X	—	—
<i>Quality of Life</i>					
Days free from pain.	—	—	X	—	—
Beneficiaries get the social and emotional supports they need.	—	X	X	—	—
Beneficiaries report that they are satisfied with their life.	—	X	X	—	—
<i>Cultural appropriateness</i>					
Beneficiaries have access to multilingual and culturally sensitive providers.	X	X	—	X	X
Beneficiaries report that written and oral communications are easy to understand.	X	X	—	X	—
Delivery systems supports					
<i>Data sharing and communication</i>					
Information is available and used by beneficiaries to inform decisions.	X	X	—	—	X
Beneficiaries report that providers are knowledgeable about them and their care history.	X	X	—	X	—
Beneficiaries have adequate discharge and referral instructions.	X	X	—	X	X
Beneficiaries report that providers follow up after visits or discharge.	X	X	—	X	—
Beneficiaries understand their options to specify that personal health data not be shared.	X	X	—	X	—

(continued)

Table 8 (continued)
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question¹	Massachusetts demonstration data²	Interviews with Massachusetts agency staff on demonstration implementation
Care coordination					
<i>Assessment of need</i>					
Assessment process integrates/addresses health, behavioral health, and LTSS.	X	X	—	X	X
Medical providers actively participate in individual care planning.	—	X	X	—	—
Beneficiaries report active participation in the assessment process.	X	X	—	X	—
<i>Person-centered care</i>					
Care is planned and delivered in a manner reflecting a beneficiary's unique strengths, challenges, goals, and preferences.	X	X	—	X	—
Beneficiaries report that care managers have the skills and qualifications to meet their needs	—	X	X	—	—
Beneficiaries report that providers listen attentively and are responsive to their concerns.	X	X	X	X	—
<i>Coordination of care</i>					
The system facilitates timely and appropriate referrals and transitions within and across services and settings.	X	X	X	X	—
Beneficiaries have supports and resources to assist them in accessing care and self-management.	X	X	—	X	—
Beneficiaries report ease of transitions across providers and settings.	X	X	X	X	—

(continued)

Table 8 (continued)
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question¹	Massachusetts demonstration data²	Interviews with Massachusetts agency staff on demonstration implementation
<i>Family and caregiver involvement</i>					
Beneficiaries have the option to include family and/or caregivers in care planning.	X	X	—	X	—
The family or caregiver's skills, abilities, and comfort with involvement are taken into account in care planning and delivery.	X	X	—	X	—
Benefits and services					
<i>Awareness of covered benefits</i>					
Beneficiaries are aware of covered benefits.	X	X	—	X	—
<i>Availability of enhanced benefits</i>					
The demonstration covers important services to improve care outcomes that are not otherwise available through Medicaid or Medicare program.	—	—	—	X	X
Flexible benefits are available to meet the needs of beneficiaries.	—	—	—	X	X
<i>Awareness of enhanced benefits</i>					
Beneficiaries are aware of enhanced benefits and use them.	X	X	—	X	—
Beneficiary safeguards					
<i>Beneficiary protections</i>					
Beneficiaries understand their rights.	X	X	—	X	—
Beneficiaries are treated fairly, are informed of their choices, and have a strong and respected voice in decisions about their care and support services.	X	X	—	X	—

(continued)

Table 8 (continued)
Methods for assessing beneficiary experience by beneficiary impact

Direct measure	Key stakeholder interviews	Beneficiary focus groups	Recommended survey question ¹	Massachusetts demonstration data ²	Interviews with Massachusetts agency staff on demonstration implementation
<i>Complaints, grievances, and appeals</i>					
Beneficiaries have easy access to fair, timely, and responsive processes when problems occur.	X	X	—	X	—
Number and type of beneficiary complaints, grievance, and appeals.	—	—	—	X	—
<i>Advocacy/member services</i>					
Beneficiaries get assistance in exercising their rights and protections.	X	X	—	X	—
Finance and payment					
<i>Provider incentives</i>					
Beneficiary experience is taken into account when awarding provider and plan incentives.	X	—	—	—	X
Rate of auto-assignment (if available).	—	—	—	X	—
Rate of change of PCP requests (if available).	—	—	—	X	—

— = no data for cell; HCBS = home and community-based services; LTSS = long-term services and supports; PCP = primary care provider.

¹ The evaluation team will recommend questions to add to surveys conducted by Massachusetts or CMS.

² Drawn from State Data Reporting System, RTI analysis of administrative data, Consumer Assessment of Healthcare Providers and Systems (CAHPS) or Health Outcomes Survey (HOS) results, or from other beneficiary surveys that may be conducted by the Commonwealth or other entities.

Table 8 aligns key elements identified in the CHCS framework with the demonstration design features described in **Section 3, Demonstration Implementation Evaluation**. We modified some elements of the CHCS framework to reflect that not all Medicare-Medicaid enrollees require intensive services as suggested by the original CHCS language used when describing comprehensive assessments and multidisciplinary care teams. For each key element, we identify the impact on beneficiary experience and detail the data sources that RTI will use to obtain the information.

As shown in **Table 8**, we will solicit direct feedback from beneficiaries served through the demonstration to determine how closely their experience compares to the desired outcomes (improvements in personal health outcomes, quality of life, how beneficiaries seek care, choice of care options, and how care is delivered). We will include topics specific to the demonstration and supplement our understanding of direct beneficiary experience with key stakeholder interviews (e.g., consumer and advocacy groups), a review of enrollment and disenrollment, grievances and appeals, claims and encounter data analysis, and interviews with Massachusetts staff on demonstration implementation.

Table 9 highlights some of the quantitative measures of beneficiary experience we will monitor and evaluate using demonstration statistics and claims or encounter data analysis. See **Section 4.2** for a discussion of the quality, utilization, and access to care measures we plan to examine as part of the overall evaluation of impact of the Massachusetts demonstration on beneficiary outcomes, including for subpopulations. The draft focus group protocol and the draft stakeholder interview protocol are both discussed in this section and are available in the *Aggregate Evaluation Plan* (Walsh et al., 2013).

We will analyze our findings by subpopulation. When we can recruit sufficient numbers of individuals from the subpopulations of interest to participate in the focus groups, we will also analyze our focus group findings about beneficiary experience to determine whether differences exist by subpopulation.

Table 9
**Demonstration statistics on quality, utilization, and access to care measures
of beneficiary experience**

Rate of auto-assignment to One Care plans (if available)
Rate of disenrollment from the demonstration by reason ¹
Rate of beneficiaries who opt out of enrolling into demonstration
Number and type of beneficiary complaints, grievance, and appeals
Use of preventive services ¹
Nursing facility admissions and readmissions ¹
Emergency room use ¹
Hospital admission and readmission rates ¹
Follow-up care after hospital discharge ¹

¹ See **Section 4.2**, for discussion of specific measures.

4.1.3 Data Sources

We will rely on five major data sources to assess beneficiary experience as shown in **Table 8**. In this section, we describe our plan for using focus group and stakeholder interviews; results of beneficiary surveys planned by the Commonwealth, CMS, or other entities (e.g., CAHPS); the Commonwealth demonstration data entered into the State Data Reporting System; and interviews with Commonwealth demonstration staff.

4.1.3.1 Focus Groups

We will conduct four focus groups in Massachusetts to gain insight into how the initiative affects beneficiaries. To ensure that we capture the direct experience and observations of those served by the Massachusetts demonstration, focus groups will be limited to demonstration enrollees, their family members, and informal caregivers. **Table 10** shows our current plan for the composition and number of focus groups.

We are aware that Massachusetts has conducted its own focus groups during the planning/design phase of its initiative and may continue to do so during the demonstration period. We will use findings from the Commonwealth's activities to inform the content of the guides we use in conducting the focus groups. Preliminary topics of the focus groups include beneficiaries' understanding of the demonstration, rights, options, and choices (e.g., plan, primary care provider); reasons beneficiaries choose to enroll and disenroll; their benefits; concerns or problems encountered; experience with care coordination; and access to primary and specialty care. Timing for conducting the focus groups will be influenced by our assessment of whether there is more to be learned about the experience of beneficiaries shortly after initial enrollment into the Massachusetts demonstration versus their perceptions of its effectiveness later in the Massachusetts demonstration. If the latter, we will conduct focus groups at least 1 year after implementation so that beneficiaries have had a substantial amount of experience with the demonstration. We will make the decision regarding timing of the focus groups in conjunction with CMS.

Table 10
Purpose and scope of Commonwealth focus groups

Primary purpose	To understand beneficiary experience with the demonstration and, where possible, to identify factors and design features contributing to their experience.
Composition	Each focus group includes 8–10 individuals who may be beneficiaries or family members or caregivers representing beneficiaries. These may include but are not limited to beneficiaries aged 21 to 64 with <ul style="list-style-type: none"> • developmental disabilities • severe and persistent mental illness • substance use disorders • long-term services and supports (LTSS) use • multiple chronic conditions • serious physical disabilities
Number	Four focus groups

We will recruit focus group participants from eligibility and enrollment files independent of input from the Commonwealth. In doing so, we will identify beneficiaries reflecting a range of eligibility, clinical, and demographic characteristics enrolled in the Massachusetts demonstration. Our subcontractor, the Henne Group, will use a structured approach for screening potential participants and obtaining their agreement to participate. If there appear to be high initial rates of opting out or disenrollment from the demonstration in Massachusetts, we will consider convening focus groups with beneficiaries who have chosen to opt out or disenroll, to understand their decisions. We will work closely with Massachusetts demonstration staff to make the process of recruiting focus group members as smooth as possible for beneficiaries, such as selecting an accessible site and ensuring transportation and any needed special accommodations and supports to allow for full participation. Focus group recruitment and all focus group arrangements will be conducted with an awareness of the subpopulations of concern in Massachusetts. We will investigate the prevalence of non-English-speaking beneficiaries in the eligible population, and determine whether to hold any of the focus groups in languages other than English. A preliminary focus group protocol is presented in the *Aggregate Evaluation Plan* (Walsh et al., 2013). The protocol may be modified based on final decisions about focus group composition, content, and our understanding of issues raised during implementation of the Massachusetts demonstration.

4.1.3.2 Key Stakeholder Interviews

Our evaluation team will conduct key stakeholder interviews (consumer and advocacy groups) in Massachusetts, either in person as part of a scheduled site visit or by telephone, with major beneficiary groups whose stakeholders are served by the Massachusetts demonstration. The purpose of these interviews will be to assess the level of beneficiary engagement and experience with the demonstration and its perceived impact on beneficiary outcomes. Although we will interview service providers as part of our implementation analyses, service provider perspectives will not be the source of information for assessing beneficiary experience.

Table 11 identifies potential groups in Massachusetts whose representatives we may wish to interview and the overall purpose of the interview. We will finalize the list of key stakeholders following discussions with demonstration staff in Massachusetts, a review of events and issues raised during the development of the demonstration, and the composition of enrollment by subpopulations.

A draft outline of the key stakeholder interview at baseline is presented in the *Aggregate Evaluation Plan* (Walsh et al., 2013). We will revise this draft as we obtain more information about the Massachusetts demonstration and the issues that arise during its planning/design phase and early implementation.

Table 11
Preliminary subpopulations and scope of key stakeholder interviews

Primary purpose	<p>Baseline: Assess understanding of and satisfaction with demonstration design; expectations for the demonstration; perceived concerns and opportunities.</p> <p>Throughout demonstration: Spot improvements and issues as they emerge and assess factors facilitating and impeding positive beneficiary experience.</p> <p>Final year: Assess extent to which expectations were met; major successes and challenges; lessons learned from beneficiary’s perspective.</p>
Subpopulations	<p>Interviews will be held with consumer and advocacy groups whose members are served by the Massachusetts demonstration. These may include the following:</p> <ul style="list-style-type: none"> • Advocacy and consumer organizations representing the demonstration’s eligible populations • Advocacy and consumer organizations participating in the Massachusetts Medicaid Advisory Committee and its subcommittees • Beneficiaries and/or consumer organizations serving on the Implementation Council for the Massachusetts demonstration • Beneficiaries serving on One Care plan Consumer Advisory Committees • Beneficiary advocates
Number and frequency	<p>Baseline: Up to eight telephone interviews within 6 months after implementation.</p> <p>Throughout demonstration: Up to eight telephone or in-person interviews in Massachusetts each year to be conducted with the same individuals each time, unless other stakeholders or topics of interest are identified.</p> <p>Final year: Up to eight telephone or in-person interviews.</p>

4.1.3.3 Beneficiary Surveys

The RTI evaluation team will not directly administer any beneficiary surveys as part of the evaluation, and we are not requiring that States administer beneficiary surveys for purposes of the evaluation. We will include relevant findings from beneficiary surveys already being conducted for this demonstration by Massachusetts, CMS, or other entities. We understand that One Care plans will be required to conduct a beneficiary experience survey and a Quality of Life survey, although final decisions on the content of the beneficiary survey have not been made. We will recommend standard questions for inclusion in surveys across all Financial Alignment Demonstrations, such as quality of life measures. Should Massachusetts be amenable to including these questions in the surveys to be conducted by the One Care plans, we will participate in discussions with the Commonwealth and CMS (and other CMS contractors, as appropriate) regarding content and sampling issues. Topics on which we will recommend common questions across State demonstrations are shown in Table 8.

As part of CMS requirements for capitated managed care plans, One Care plans will be required to conduct the Health Outcomes Survey (HOS) and CAHPS. The Medicare CAHPS and HOS surveys will be sampled at the One Care plan level, allowing cross-plan and aggregate comparisons, where appropriate.

4.1.3.4 Demonstration Data

We will use data about the demonstration that we collect from Massachusetts during site visits, from reports and other materials developed by the Commonwealth, through the State Data Reporting System, and data obtained from CMS or other entities to assess the beneficiary experience. Data of particular interest include the following:

- Complaint, appeal, and grievance data from CMS or other entities, as available.
- Disenrollment and opt-out rates.
- Information about waiting lists or lags in accessing services, which will provide useful indications of where the system lacks capacity, as a topic for discussion during site visits or focus groups.
- Rate of change in primary care provider (PCP) assignment (if available).

The above quantitative indirect measures will be collected for all Medicare-Medicaid enrollees served under the demonstration and will be analyzed by subpopulations.

In addition, Massachusetts plans to monitor quality using a selection of national measures, CMS/Commonwealth-defined process measures, and Commonwealth-specified measures (Memorandum of Understanding [MOU], 2012, pp. 93–105). To the extent relevant, we will use findings from these State-specific metrics to augment our assessment of beneficiary experience and outcomes in Massachusetts.

4.1.3.5 Interviews with Massachusetts Demonstration Staff

In addition to key stakeholder interviews conducted with consumer and advocacy groups, we will address issues of beneficiary engagement and feedback during our interviews with Massachusetts demonstration staff. These interviews, described in **Section 3**, will provide another perspective on how Massachusetts communicates and works with beneficiaries during the design and implementation of its demonstration.

4.1.4 Analytic Methods

Our analysis will assess beneficiary experience and determine, where possible, how it is affected by financial model and demonstration design features. We also want to examine whether and how beneficiary experience varies by subpopulations. The Henne Group will audio-record all focus groups, subject to approval of the group members, and the audio-recordings will be transcribed. Key stakeholder interview and focus group transcripts will be imported and analyzed using QSR NVivo 9, qualitative data analysis software, to identify emergent themes and patterns regarding beneficiary experiences during the demonstration and issues related to the evaluation research questions. A structured approach to qualitative analysis in NVivo 9 will allow us to identify themes in Massachusetts and compare and contrast those themes by subpopulation within and across States. Because it is implementing a demonstration using the capitated financial alignment model, we are particularly interested in comparing the Massachusetts

findings with those of other States' capitated model demonstrations and in determining whether particular design features in this State's demonstration are likely to affect beneficiary experience.

Most demonstration data will be collected and tracked through the State Data Reporting System and analyzed using descriptive statistics reported quarterly through that system. We will also request summary statistics and reports from Massachusetts on its beneficiary experience and Quality of Life surveys and others that may be required. Information from site visits and site-reported data beyond those described specifically in this section also are expected to inform analysis of beneficiary experience research questions. The findings will be grouped into the beneficiary experience domains defined in *Section 4.1.2*.

As noted, the Commonwealth has conducted focus groups prior to the demonstration, and further indications of predemonstration beneficiary experience may be available from other sources. The evaluation will not, however, have baseline data or comparison group results in this area. Results of beneficiary surveys, focus groups, and other approaches employed during the demonstration period will be presented in the annual and final evaluation reports along with available context to inform interpretation.

4.2 Analyses of Quality, Utilization, Access to Care, and Cost

4.2.1 Purpose

This section of the report outlines the research design, data sources, analytic methods, and key outcome variables (quality, utilization, and cost measures) on which we will focus in evaluating the Massachusetts demonstration. These analyses will be conducted using secondary data, including Medicare and Medicaid claims and managed care encounter data. This section addresses the following research questions:

- What impact does the Massachusetts demonstration have on utilization patterns in acute, long-term, and behavioral health services, overall and for beneficiary subgroups?
- What impact does the Massachusetts demonstration have on health care quality overall and for beneficiary subgroups?
- Does the Massachusetts demonstration change access to care for medical, behavioral health, long-term services and supports (LTSS) overall and for beneficiary subgroups? If so, how?
- What impact does the Massachusetts demonstration have on cost and is there evidence of cost savings in the Commonwealth? How long did it take to observe cost savings in the Commonwealth? How were these savings achieved in the Commonwealth?

In this section, we discuss our approach to identifying the eligible population for Massachusetts and for identifying comparison group beneficiaries. This section also describes the data sources, key analyses to be performed over the course of the demonstration, and the

quality measures that will inform the evaluation. RTI will use both descriptive and multivariate analyses to evaluate the Massachusetts demonstration. Results of descriptive analyses focusing on differences across years and important subgroups on key outcome variables will be included in the Massachusetts quarterly reports to CMS and the Commonwealth and annual reports. Multivariate analyses of each year of demonstration data will be included in the final evaluation. Savings will be calculated at least twice during the demonstration period: once during the demonstration and once after the end of the demonstration.

4.2.2 Approach

An appropriate research design for the evaluation must consider whether selection is a risk for bias. Potential sources of selection bias exist in the Massachusetts demonstration whereby the beneficiaries choosing not to enroll in the demonstration may differ from demonstration participants. First, beneficiaries may choose to opt out or disenroll from the demonstration. Reasons for opting out or disenrolling will vary but may be related to demonstration benefits or previous experience in a One Care plan. Second, beneficiaries already enrolled in a Medicare Advantage plan or Program of All Inclusive Care for the Elderly (PACE) will not be eligible for passive enrollment into the demonstration, but can choose to disenroll from their current plans. To limit selection bias in the evaluation of this demonstration, we will use an intent-to-treat design. This design will address potential selection bias issues by including the entire population of beneficiaries eligible for the Massachusetts demonstration, regardless of whether they enroll in a One Care plan or actively participate in the care model.

Under the intent-to-treat framework, outcome analyses will include all beneficiaries eligible for the demonstration in the demonstration States, including those who opt out, participate but then disenroll, are eligible but are not contacted by the State or participating providers, and those who enroll but do not engage with the care model, and a group of similar individuals in the comparison group. This approach diminishes the potential for selection bias and highlights the effect of the demonstrations on all beneficiaries in the demonstration-eligible population. In addition, RTI will compare the characteristics of those who enroll with those who are eligible but do not enroll in the care model and conduct analyses to further explore demonstration effects on demonstration enrollees, acknowledging that interpreting such results will be difficult given likely selection bias.

4.2.2.1 Identifying Demonstration Group Members

The demonstration group for Massachusetts will include full-benefit Medicare-Medicaid enrollees aged 21 to 64 years old, including individuals with severe and persistent mental illness, drug dependence, substance use disorders, and chronic physical conditions. To analyze quality, utilization, and costs in the predemonstration period, and throughout the demonstration period, Massachusetts will submit a demonstration evaluation (finder) file that includes data elements needed for RTI to correctly identify Medicare-Medicaid enrollees for linking to Medicare and Medicaid data, and information about whether the enrollees were eligible for or enrolled in a Financial Alignment Demonstration (**Table 12**). The file will list all of the Medicare-Medicaid eligible population for the demonstration, with additional variables in the file indicating monthly participation in the demonstration. Eligible individuals who were not enrolled in the demonstration in a given month will still be part of the evaluation under the intent-to-treat

research design. In addition to indicating who was eligible and enrolled, this file will contain personal identifying information for linking to Medicare and Medicaid data. RTI will notify the State about the file's design and the method and timing of transmission after the start of the demonstration.

Table 12
State demonstration evaluation (finder) file data fields

Data field	Length	Format	Valid value	Description
Medicare Beneficiary Claim Account Number (Health Insurance Claim Number [HICN])	11	CHAR	Alphanumeric	The HICN. Any Railroad Retirement Board (RRB) numbers should be converted to the HICN number prior to submission to the MDM.
MSIS number	20	CHAR	Alphanumeric	MSIS identification number.
Social security number (SSN)	9	CHAR	Numeric	Individual's SSN.
Sex	1	CHAR	Alphanumeric	Sex of beneficiary (1=male or 2=female).
Person first name	30	CHAR	Alphanumeric	The first name or given name of the beneficiary.
Person last name	40	CHAR	Alphanumeric	The last name or surname of the beneficiary.
Person birth date	8	CHAR	CCYYMMDD	The date of birth (DOB) of the beneficiary.
Person ZIP code	9	CHAR	Numeric	9-digit ZIP code.
Eligibility identification flag	1	CHAR	Numeric	Coded 0 if identified as not eligible for the demonstration, 1 if identified as eligible from administrative data, 2 if identified as eligible from nonadministrative data.
Monthly enrollment indicator	1	CHAR	Numeric	Each monthly enrollment flag variable would be coded 1 if enrolled, and zero if not. Quarterly demonstration evaluation (finder) files would have 3 such data fields; annual demonstration evaluation (finder) files would have 12 such data fields.

MDM = Master Data Management; MSIS = Medicaid Statistical Information System.

4.2.2.2 Identifying a Comparison Group

The methodology described in this section reflects the plan for identifying comparison groups based on discussions between RTI and CMS and detailed in the *Aggregate Evaluation Plan* (Walsh et al., 2013). Identifying the comparison group members will entail two steps: (1) selecting the geographic area from which the comparison group will be drawn and (2) identifying the individuals who will be included in the comparison group.

Because most Massachusetts counties and demonstration-eligible beneficiaries will be included in the demonstration area, we will most likely consider a comparison group from out-of-State Metropolitan Statistical Areas (MSAs). In general, we expect to draw out-of-State

comparison groups from multiple comparison States and areas. However, if for any reason the Massachusetts demonstration is not implemented statewide, we will determine whether there are areas within Massachusetts that could also be part of the comparison group. The approach for identifying in-State comparison areas would be the same as the process for identifying an out-of-State comparison group, described below.

We will use statistical distance analysis to identify potential comparison areas that are most similar to Massachusetts in regard to costs, care delivery arrangements, and policy affecting Medicare-Medicaid enrollees. The specific measures for the statistical distance analysis we will use are Medicare spending per Medicare-Medicaid enrollee, Medicaid spending per Medicare-Medicaid enrollee, nursing facility users per 65-and-over Medicaid enrollee, home and community-based (HCBS) users per 65-and-over Medicaid enrollee, Personal Care users per 65-and-over Medicaid enrollee, Medicare Advantage penetration, and Medicaid managed care penetration for full-benefit Medicare-Medicaid enrollees. The three LTSS variables capture how areas differ in the settings in which they provide these services. Variation in LTSS policy is most easily visible in the population using the most LTSS (i.e., those aged 65 and over). The relative importance of institutional care observed in that population is expected to affect such use in the population under age 65 as well.

Once comparison areas are selected, all Medicare-Medicaid enrollees in those States who meet the demonstration's eligibility criteria will be selected for comparison group membership based on the intent-to-treat study design. The comparison areas will be determined within the first year of demonstration implementation, in order to use the timeliest data available. The comparison group members will be determined retrospectively at the end of each demonstration year, allowing us to include information on individuals newly eligible or ineligible for the demonstration during that year. The comparison group will be refreshed annually to incorporate new entrants into the eligible population as new individuals become eligible for the demonstration over time. To ensure that the comparison group is similar to the demonstration group, we will compute propensity scores and weight comparison group beneficiaries using the framework described in *Section 4.2.2.4* of this report.

4.2.2.3 Issues/Challenges in Identifying Comparison Groups

The RTI team will make every effort to account for the following four issues/challenges when identifying and creating comparison groups.

1. **Similarities between demonstration and comparison groups:** Comparison group members are as much like demonstration group members as possible and sufficient data are needed to identify and control for differences.
2. **Sample size:** Given that the team plans to use all comparable beneficiaries in an out-of-State comparison group that would be eligible for the demonstration, we expect to have sufficient sample size for the statewide analyses and for analyses of smaller subpopulations.
3. **Accounting for enrollment in other demonstrations:** Some Medicare-Medicaid enrollees may not be suitable for comparison group selection because of participation in other demonstrations or enrollment in Accountable Care Organizations. We will

work with CMS to specify these parameters and apply them to both Massachusetts and the comparison group.

4. **Medicaid data:** Significant time delays currently exist in obtaining Medicaid data. If unaddressed, this could result in delays in formulating appropriate comparison groups. Timeliness of Medicaid Statistical Information System (MSIS) data submissions will need to be considered if out-of-State comparison areas are required for the evaluation.

4.2.2.4 *Propensity Score Framework for Identifying Comparison Group Members*

Because comparison group members may differ from the demonstration group on individual characteristics, we will compute propensity scores for the demonstration and comparison group members. The propensity score represents how well a combination of characteristics, or covariates, predicts that a beneficiary is in the demonstration group. To compute these scores for beneficiaries in the demonstration and comparison groups, we will first identify beneficiary- and market-level characteristics to serve as covariates in the propensity-score model. Beneficiary-level characteristics may include demographics, socioeconomic, health, and disability status, and county-level characteristics may include health care market and local economic characteristics. Once the scores are computed, we will remove from the comparison group any beneficiaries with a propensity score lower than the lowest score found in the demonstration group to ensure that the comparison group is similar to the demonstration group.

The propensity scores for the comparison group will then be weighted so that the distribution of characteristics of the comparison group is similar to that of the demonstration group. By weighting comparison group members' propensity scores, the demonstration and comparison group samples will be more balanced. More detail on this process is provided in the *Aggregate Evaluation Plan* (Walsh et al., 2013).

4.2.3 *Data Sources*

Table 13 provides an overview of the data sources to be used in the Massachusetts evaluation of quality, utilization, and cost. Data sources include Medicare and Medicaid fee-for-service data, Medicare Advantage encounter data, and Medicare-Medicaid Plan encounter data. These data will be used to examine quality, utilization, and cost in the predemonstration period and during the demonstration. Data will be needed for all beneficiaries enrolled in the demonstration as well as other beneficiaries in the eligible population who do not enroll. Note that data requirements for an individual beneficiary will depend on whether they were in Medicare fee-for-service or Medicare Advantage in the pre- and postdemonstration periods.

The terms of the Massachusetts MOU require the Commonwealth to provide timely Medicaid data through MSIS submissions for the predemonstration and demonstration periods. Any delays in obtaining data may also delay portions of the evaluation.

The activities to identify demonstration and comparison groups and to collect and utilize claims and encounter data may be revised if modifications are made to the demonstrations or if data sources are not available as anticipated. If modifications to this evaluation plan are required, they will be documented in the annual and final evaluation reports as appropriate.

Table 13
Data sources to be used in Massachusetts Financial Alignment Demonstration evaluation analyses of quality, utilization, and cost

Aspect	Medicare fee-for-service data	Medicaid fee-for-service data	Encounter data ¹
Obtained from	CMS	CMS	CMS
Description and uses of data	<p>Will be pulled from</p> <ul style="list-style-type: none"> Part A (hospitalizations) and Part B (medical services). <p>Will be used to evaluate quality of care, utilization, and cost during the demonstration. These data will also be used for beneficiaries who opt out of the demonstration, have disenrolled, or do not enroll for other reasons; for predemonstration analyses of demonstration-eligible beneficiaries for the 2 years prior to the demonstration; and for comparison groups that may be in-state or out-of state.</p>	<p>Medicaid claims and enrollment data will include data on patient characteristics, beneficiary utilization, and cost of services. Eligibility files will be used to examine changes in number and composition of Medicare-Medicaid enrollees. Will also need these data for beneficiaries who opt out of the demonstration, have disenrolled, or do not enroll for other reasons; for predemonstration analyses of demonstration-eligible beneficiaries for the 2 years prior to the demonstration; and for comparison groups.</p>	<p>Pre- and postperiod beneficiary encounter data (including Medicare Advantage, and Medicare-Medicaid Plan, and Part D data) will contain information on</p> <ul style="list-style-type: none"> beneficiary characteristics and diagnoses, provider identification/type of visit, and beneficiary IDs (to link to Medicare and Medicaid data files). <p>Will be used to evaluate quality (readmissions), utilization, and cost; health; access to care; and beneficiary satisfaction. Part D data will be used to evaluate cost only. These data will also be used for beneficiaries who opt out of the demonstration, have disenrolled, or do not enroll for other reasons; for predemonstration analyses of demonstration-eligible beneficiaries for the 2 years prior to the demonstration; and for comparison groups that may be in-state or out-of state.</p>
Sources of data	<p>Will be pulled from the following:</p> <ul style="list-style-type: none"> NCH Standard Analytic File NCH TAP Files Medicare enrollment data 	<p>Will be pulled from the following:</p> <ul style="list-style-type: none"> MSIS (file on inpatient care, institutional, and the “other” file) Medicaid eligibility files 	<p>Data will be collected from the following:</p> <ul style="list-style-type: none"> CMS Medicare enrollment data

(continued)

Table 13 (continued)
Data sources to be used in Massachusetts Financial Alignment Demonstration evaluation analyses of quality, utilization, and cost

Aspect	Medicare fee-for-service data	Medicaid fee-for-service data	Encounter data ¹
Time frame of data	Baseline file = 2 years prior to the demonstration period (NCH Standard Analytic File). Evaluation file = all demonstration years (NCH TAP Files).	Baseline file = 2 years prior to the demonstration period. Evaluation file = all demonstration years.	Baseline file = Medicare Advantage plans submit encounter data to CMS as of January 1, 2012. RTI will determine to what extent these data can be used in the baseline file. Evaluation file = Medicare Advantage and One Care plans are required to submit encounter data to CMS for all demonstration years.
Potential concerns	—	Expect significant time delay for all Medicaid data.	CMS will provide the project team with data under new Medicare Advantage requirements. Any lags in data availability are unknown at this time.

— = no data; MSIS = Medicaid Statistical Information System; NCH = National Claims History; TAP = monthly Medicare claims files.

¹ Encounter data from Medicare Advantage (MA) or PACE plans in the pre-period are needed to evaluate demonstration effects for beneficiaries who previously were enrolled in Medicare Advantage or PACE plans but who enroll in the demonstration. There may also be movement between Medicare Advantage or PACE plans and the demonstration throughout implementation, which we will need to take into account using Medicare Advantage or PACE encounter data during the implementation period.

Notes on Data Access: CMS data contain individually identifiable data that are protected under the Health Insurance Portability and Accountability Act (HIPAA) of 1996. CMS, however, makes data available for certain research purposes provided that specified criteria are met. RTI has obtained the necessary Data Use Agreement (DUA) with CMS to use CMS data. A listing of required documentation for requesting CMS identifiable data files such as Medicare and MSIS is provided at http://www.resdac.umn.edu/medicare/requesting_data.asp.

4.3 Analyses

The analyses of quality, utilization, and cost in the Massachusetts evaluation will consist of the following:

1. a monitoring analysis to track quarterly changes in selected quality, utilization, and cost measures over the course of the Massachusetts demonstration (as data are available);
2. a descriptive analysis of quality, utilization, and cost measures for annual reports with means and comparisons for subgroups of interest, including comparison group results; and
3. multivariate difference-in-differences analyses of quality, utilization, and cost measures using an in-State or out-of-State comparison group, depending on whether the demonstration is implemented statewide.

At least one multivariate regression-based savings analysis will be calculated during the demonstration period, most likely using 2 years of demonstration data. A second savings analysis will be included in the final evaluation.

The approach to each of these analyses is outlined below in *Table 14*.

Table 14
Quantitative analyses to be performed for Massachusetts demonstration

Aspect	Monitoring analysis	Descriptive analysis	Multivariate analyses
Purpose	Track quarterly changes in selected quality, utilization, and cost measures over the course of the demonstration.	Provide estimates of quality, utilization, and cost measures on an annual basis.	Measure changes in quality, utilization, and cost measures as a result of the demonstration.
Description of analysis	Comparison of current value and values over time to the baseline period for each outcome.	Comparison of the baseline period with each demonstration year for demonstration and comparison groups.	Difference-in-differences analyses using demonstration and comparison groups.
Reporting frequency	Quarterly to CMS and the Commonwealth	Annually	Once, in the final evaluation except for costs, which will also be calculated (at least) once prior to the final evaluation.

NOTE: The reports to be submitted to CMS will include the qualitative data described earlier in this report in addition to the quantitative data outlined here.

4.3.1 Monitoring Analysis

Data from Medicare fee for service (FFS) and Medicare Advantage encounter data, One Care plan encounter data, MSIS files, and other data provided by Massachusetts via the State Data Reporting System will be analyzed quarterly to calculate means, counts, and proportions on

selected quality, utilization, and cost measures common across States, depending on availability. Examples of measures that may be included in these quarterly reports to CMS include rates of inpatient admissions, emergency room visits, long-term nursing facility admissions, cost per member per month, and all-cause hospital readmission and mortality. We will present the current value for each quarter and the predemonstration period value for each outcome to look at trends over time.

The goal of these analyses is to monitor and track changes in quality, utilization, and costs. Though quarterly analyses will not be multivariate or include comparison group data, these monitoring data will provide valuable, ongoing information on trends occurring during the demonstration period. Various inpatient and emergency room measures that can be reported are described in more detail in the section on quality measures.

4.3.2 Descriptive Analysis on Quality, Utilization, and Cost Measures

We will conduct a descriptive analysis of quality, utilization, and cost measures for the Massachusetts demonstration annually for each performance period that includes means, counts, and proportions for the demonstration and comparison groups. This analysis will focus on estimates for a broad range of quality, utilization, and cost measures, as well as changes in these measures across years or subgroups of interest within each year. The results of these analyses will be presented in the annual evaluation reports. The sections below outline the measures that will be included.

To perform this analysis, we will develop separate (unlinked) encounter, Medicare, and Medicaid beneficiary-level analytic files annually to measure quality, utilization, and cost. Although the Medicare, Medicaid, and encounter data will not be linked, the unlinked beneficiary-level files will still allow for an understanding of trends in quality, utilization, and cost measures. The analytic files will include data from the predemonstration period and for each demonstration year. Because of the longer expected time lags in the availability of Medicaid data, Medicare fee-for-service data and One Care plan encounter data may be available sooner than Medicaid fee-for-service data. Therefore, we expect that the first annual report will include predemonstration Medicare and Medicaid fee-for-service data and Medicare fee-for-service, Medicare Advantage, and One Care plan encounter data for the demonstration period. Medicaid fee-for-service data will be incorporated into later reports as the data become available.

Consistent with the intent-to-treat approach, all individuals eligible to participate in the demonstration will be included in the analysis, regardless of whether they opt out of the demonstration or disenroll, or actively engage in the care model. Data will be developed for demonstration and comparison group beneficiaries for a 2-year predemonstration period and for each of the years of the demonstration. The starting date for Massachusetts will be based on the Commonwealth's implementation date and, therefore, may represent a "performance period," not necessarily a calendar year. Because the Commonwealth plans to phase in enrollment first for those who actively select a One Care plan and later for those who are passively enrolled, enrollment for those who are passively enrolled later in the year will be identified by setting a dummy variable flag so that the analysis can determine whether the experience of those who passively enroll differs from that of those who actively enroll. For those beneficiaries with

shorter enrollment periods, because of beneficiary death or change of residence, for example, the analysis will weight their experience by months of enrollment within a performance period.

We will measure predemonstration and annual utilization rates and costs of Medicare- and Medicaid-covered services together, where appropriate, to look at trends in the type and level of service use during the State demonstrations. We will calculate average use rates for each demonstration period. Use rates will be stratified by hierarchical condition category (HCC) scores, which are derived from models predicting annual Medicare spending based on claim-based diagnoses in a prior year of claims where higher scores are predictive of higher spending, health status measures, or similar measures. We will adjust for hospitalizations in the prior year using categorical HCC scores or similar. Chi-square and t-tests will be used to test for significant differences in use across years and between subpopulations such as Medicare-Medicaid enrollees using behavioral health services and those referred for long-term care services.

4.3.3 Multivariate Analyses of Quality, Utilization, and Cost Measures

In the final year of the evaluation, we will use data collected for the eligible population in Massachusetts and data for the selected comparison group that will have been adjusted using propensity-score weighting methods to analyze the effect of the demonstration using a difference-in-differences method. This method uses both pre- and postperiod data for both the demonstration and comparison groups to estimate effects. This method will be applied to these data for each quality, utilization, and cost outcome described in the next section for the final evaluation. The analytic approaches are described in greater detail in the *Aggregate Evaluation Plan* (Walsh et al., 2013). In addition, multivariate regression-adjusted estimates of cost effects (only) will be performed at an intermediate point of the evaluation, using data after 2 years of implementation.

4.3.4 Subpopulation Analyses

Specific to the Massachusetts demonstration model, individuals with End Stage Renal Disease (ESRD), people receiving behavioral health services, and people receiving long-term services and supports (including individuals with developmental disabilities in the community not receiving waiver services) are subpopulations of interest for this evaluation. Individuals with chronic physical conditions, which the Commonwealth estimates to be about 40 percent of the eligible population, are another major subpopulation for the demonstration evaluation. Other subpopulations of potential interest to the evaluation may be identified to correspond to rating categories for payments to One Care plans for people (1) with facility-based care; (2) high community needs based on activities of daily living (ADL) needs, as determined from a Minimum Data Set-Home Care (MDS-HC) assessment, if data are available electronically; or (3) community high behavioral health needs. RTI will compare the characteristics of those who enroll with those who are eligible but do not enroll in the care model and conduct analyses to further explore demonstration effects on demonstration enrollees, acknowledging that selection bias must be taken into account in interpreting the results.

For these subpopulations and others, RTI will evaluate the impact of the demonstration on quality, utilization, and access to care for medical, LTSS, and behavioral health services, and also examine qualitative data gathered through interviews, focus groups, and surveys. Descriptive analyses for annual reports will present results on selected measures stratified by

subpopulations (e.g., those using and not using behavioral health services, LTSS). Multivariate analyses performed for the final evaluation will account for differential effects for subpopulations in specification testing by using dummy variables for each of the specific subpopulations of interest one at a time so that the analyses can suggest whether quality, utilization, and cost are higher or lower for each of these groups.

4.4 Utilization and Access to Care

Medicare, Medicaid, and One Care plan encounter data will be used to evaluate changes in the levels and types of services used, ranging along a continuum from institutional care to care provided at home (**Table 15**). In addition to the services shown in **Table 15**, the Massachusetts analysis will include a specific focus on mental health and substance use disorder prevention and treatment services and community support services that will be expanded under the demonstration. Expanded services that will be available in the Massachusetts demonstration that may be tracked over time include dental, vision, and nonmedical transportation. As noted, two services (but not the people receiving them) are excluded from the Massachusetts demonstration: Department of Mental Health (DMH)– and Department of Developmental Services (DDS)– provided targeted case management services, and DMH-purchased Rehabilitation Option services. Note that **Table 15** indicates the sources of data for these analyses during the demonstration, given that the analyses will include beneficiaries who enroll in the demonstration as well as those who are part of the population eligible for the demonstration, but do not enroll in the demonstration.

Table 15
Service categories and associated data sources for reporting utilization measures

Service type	Encounter data (Medicare Advantage, One Care plans, and Medicaid MCOs)	Medicaid only (FFS)	Medicare and Medicaid (FFS)
Inpatient	X	—	X
Emergency room	X	—	X
Nursing facility (short rehabilitation stay)	X	—	X
Nursing facility (long-term stay)	X	X	—
Other facility-based ¹	X	—	X
Outpatient ²	X	—	X
Outpatient behavioral health (mental and substance use)	X	X	—
Home health	X	—	X
HCBS (PAS, waiver services)	X	X	—
Dental	X	X	—

— = not available; FFS = fee for service; HCBS = home and community-based services; MCO = managed care organization; PAS = personal assistance services.

¹ Includes long-term care hospital, rehabilitation hospital, State mental health facility stays.

² Includes visits to physician offices, hospital outpatient departments, rehabilitation agencies.

We anticipate being able to develop traditional utilization measures for each of the service classes in **Table 15** (e.g., various inpatient use rates based on diagnoses of interest); however, as of this writing, the data that demonstration One Care plans will be required to submit have not been finalized.

4.5 Quality of Care

Across all States, we will evaluate a core quality measure set for monitoring and evaluation purposes. There are multiple data sources for quality measures: claims and encounter data, which will be obtained and analyzed by the RTI team for evaluation measures listed in **Table 16**; and information collected by the Commonwealth, CMS, or others and provided in aggregate to the RTI team for inclusion in reports. The latter may include Health Care Effectiveness Data and Information Set (HEDIS) measures collected as part of health plan performance, other data Massachusetts requires its One Care plans to report, and any beneficiary survey data collected by Massachusetts, CMS, or other entities (e.g., CAHPS). CMS and Massachusetts have also identified a set of quality measures that will determine the amount of quality withhold payments (i.e., One Care plans must meet quality standards to earn back a withheld portion of their capitated payments). The quality withhold measures, listed in the Massachusetts MOU, include some measures noted in this report, as well as additional measures. RTI expects to have access to the aggregated results of these additional measures and will include them in the evaluation as feasible and appropriate, understanding that these data are not available for the pre-demonstration period or for the comparison group.

RTI and CMS have developed the core set of evaluation measures for use across State demonstrations; the evaluation will also include a few measures specific to Massachusetts. **Table 16** provides a working list of the core quality measures for the evaluation of the financial alignment initiative. The table specifies the measure, the source of data for the measure, whether the measure is intended to produce impact estimates, as well as a more detailed definition and specification of the numerator and denominator for the measure. These measures will be supplemented by additional evaluation measures appropriate to the Massachusetts demonstration. We will finalize State-specific quality measures within the first 6 months of implementation.

Many of the measures in **Table 16** are established HEDIS measures that demonstration plans are required to report. The National Committee for Quality Assurance (NCQA) definitions are established and standardized. Given that these data will not be available for those who opt out or disenroll or for comparison populations, we will collect and present the results for each relevant demonstration period.

The unique features of Massachusetts's planned demonstration suggest areas of special focus in quality of care analyses. Notably, the new One Care plans will serve only those aged 21 to 64 at the time of enrollment (allowing those who turn 65 after enrollment to remain in the demonstration). We have considered the value of collecting quality measures that have been developed specifically for the over-65 population in the context of the younger age groups eligible for the Massachusetts demonstration. We have decided to include measures such as medication reconciliation and pneumonia vaccination, though they were developed for the over-65 population. In the case of pneumonia vaccine, for example, the Centers for Disease Control

and Prevention (CDC) has recommended that those aged 2 to 64 receive the vaccine if they have long-term health problems.

Our analyses will pay particular attention to the types of care with the most change. The Massachusetts demonstration plans to change the behavioral health system for enrollees by making available a wide array of new services aimed at reducing the rate of acute psychiatric hospitalization through the use of “diversionary” services. Thus, although the generic measures of quality include all-cause readmission rates, and ambulatory care sensitive conditions (ACSC) hospitalization rates, our evaluation of the Massachusetts demonstration will also examine rates of hospitalization with primary diagnosis of a severe and persistent mental illness or substance use disorder. Another measure of relevance to Massachusetts given the increase in mental health benefits during the demonstration may be a National Quality Forum (NQF) measure of initiation and engagement of alcohol and other drug dependence treatment. This measure looks at the initiation of treatment and subsequent service use within 30 days of initiating treatment and can be calculated using claims and encounter data.

Finally, the evaluation will analyze subgroups of interest, as appropriate, and look at measures that might be particularly relevant to them (e.g., measures that might be specific to people with developmental disabilities, behavioral health conditions). We will continue to work with CMS and the Commonwealth to identify measures relevant to Massachusetts and will work to develop specifications for these measures.

Table 16
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
All-cause readmission 30-day all-cause risk-standardized readmission rate	Claims/encounter RTI will acquire and analyze	Care coordination	Yes	Risk-adjusted percentage of demonstration-eligible Medicare-Medicaid enrollees who were readmitted to a hospital within 30 days following discharge from the hospital for the index admission (https://www.cms.gov/sharedsavingsprogram/Downloads/ACO_QualityMeasures.pdf).	Numerator: Risk-adjusted readmissions among demonstration-eligible Medicare-Medicaid enrollees at a non-Federal, short-stay, acute-care or critical access hospital, within 30 days of discharge from the index admission included in the denominator, and excluding planned readmissions. Denominator: All hospitalizations among demonstration-eligible Medicare-Medicaid enrollees not related to medical treatment of cancer, primary psychiatric disease, or rehabilitation care, fitting of prostheses, and adjustment devices for beneficiaries at non-Federal, short-stay acute-care or critical access hospitals, where the beneficiary was continuously enrolled in Medicare and Medicaid for at least 1 month after discharge, was not discharged to another acute-care hospital, was not discharged against medical advice, and was alive upon discharge and for 30 days postdischarge.
Immunizations Influenza immunization	Claims/encounter RTI will acquire and analyze	Prevention	Yes	Percentage of demonstration-eligible Medicare-Medicaid enrollees seen for a visit between October 1 and March 31 of the 1-year measurement period who received an influenza immunization OR who reported previous receipt of an influenza immunization (https://www.cms.gov/sharedsavingsprogram/Downloads/ACO_QualityMeasures.pdf).	Numerator: Demonstration-eligible Medicare-Medicaid enrollees who have received an influenza immunization OR who reported previous receipt of influenza immunization. Denominator: Demonstration-eligible Medicare-Medicaid enrollees seen for a visit between October 1 and March 31 (flu season), with some exclusions allowed.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Immunizations (cont'd) Pneumococcal vaccination for patients under age 65	Claims/encounter RTI will acquire and analyze	Prevention	Yes	Percentage of demonstration-eligible patients under age 65 who have ever received a pneumococcal vaccine.	Numerator: Demonstration-eligible Medicare-Medicaid enrollees under age 65 who have ever received a pneumococcal vaccination. Denominator: All demonstration-eligible Medicare-Medicaid enrollees under age 65, excluding those with documented reason for not having one.
Ambulatory care-sensitive condition admission Ambulatory care sensitive condition admissions—overall composite (AHRQ PQI # 90)	Claims/encounter RTI will acquire and analyze	Prevention, care coordination	Yes	Combination using 12 individual ACSC diagnoses for chronic and acute conditions. For technical specifications of each diagnosis, see http://www.qualityindicators.ahrq.gov/Modules/POI_TechSpec.aspx .	Numerator: Total number of acute-care hospitalizations for 12 ambulatory care-sensitive conditions among demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older. Conditions include diabetes—short-term complications; diabetes—long-term complications; COPD; hypertension; CHF; dehydration; bacterial pneumonia; UTI; angina without procedure; uncontrolled diabetes; adult asthma; lower extremity amputations among diabetics. Denominator: Demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older.
Ambulatory care-sensitive condition admissions—chronic composite (AHRQ PQI # 92)	Claims/encounter RTI will acquire and analyze	Prevention, care coordination	Yes	Combination using 9 individual ACSC diagnoses for chronic diseases. For technical specifications of each diagnosis, see http://www.qualityindicators.ahrq.gov/Modules/POI_TechSpec.aspx .	Numerator: Total number of acute-care hospitalizations for 9 ambulatory care sensitive chronic conditions among demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older. Conditions include diabetes—short-term complications; diabetes—long-term complications; COPD; hypertension; CHF; angina w/o procedure; uncontrolled diabetes; adult asthma; lower-extremity amputations among diabetics). Denominator: demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates?¹	Definition (link to documentation if available)	Numerator/denominator description
Admissions with primary diagnosis of a severe and persistent mental illness or substance use disorder	Claims/encounter RTI will acquire and analyze	Prevention, care coordination	Yes	Percentage of demonstration-eligible Medicare-Medicaid enrollees with a primary diagnosis of a severe and persistent mental illness or substance use disorder who are hospitalized	Numerator: Total number of acute-care hospitalizations among demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older with a primary diagnosis of a severe and persistent mental illness or substance use who are hospitalized. Denominator: Demonstration-eligible Medicare-Medicaid enrollees, aged 18 or older.
Avoidable emergency department visits Preventable/avoidable and primary care treatable ED visits	Claims/encounter RTI will acquire and analyze	Prevention, care coordination	Yes	Based on lists of diagnoses developed by researchers at the New York University Center for Health and Public Service Research, this measure calculates the rate of ED use for conditions that are either preventable/avoidable, or treatable in a primary care setting (http://wagner.nyu.edu/faculty/billings/nyued-background).	Numerator: Total number of ED visits with principal diagnoses defined in the NYU algorithm among demonstration-eligible Medicare-Medicaid enrollees. Denominator: Demonstration-eligible Medicare-Medicaid enrollees.
Emergency department visits ED visits excluding those that result in death or hospital admission	Claims/encounter RTI will acquire and analyze	Prevention, care coordination	Yes	Percentage of demonstration-eligible Medicare-Medicaid enrollees with an emergency department visit.	Numerator: Total number of ED visits among demonstration-eligible Medicare-Medicaid enrollees excluding those that result in death or hospital admission. Denominator: Demonstration-eligible Medicare-Medicaid enrollees.

(continued)

Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Follow-up after mental health hospitalization Follow-up after hospitalization for mental illness	Claims/encounter RTI will acquire and analyze	Care coordination	Yes	Percentage of discharges for demonstration-eligible Medicare-Medicaid enrollees who were hospitalized for selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner. Two rates are reported: (1) The percentage of members who received follow-up within 30 days of discharge; (2) The percentage of members who received follow-up within 7 days of discharge (http://www.qualityforum.org/QPS/).	Numerator: Rate 1: (Among demonstration-eligible Medicare-Medicaid enrollees) an outpatient visit, intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days after discharge. Include outpatient visits, intensive outpatient encounters, or partial hospitalizations that occur on the date of discharge; Rate 2: (Among demonstration-eligible Medicare-Medicaid enrollees) an outpatient visit, intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 7 days after discharge. Include outpatient visits, intensive outpatient encounters, or partial hospitalizations that occur on the date of discharge. Denominator: demonstration-eligible Medicare-Medicaid enrollees who were discharged alive from an acute inpatient setting (including acute-care psychiatric facilities) in the measurement year. The denominator for this measure is based on discharges, not members. Include all discharges for members who have more than one discharge in the measurement year.
Fall prevention Screening for Fall Risk	Claims/encounter RTI will acquire and analyze if available	Prevention, care coordination	Yes	Percentage of demonstration-eligible Medicare-Medicaid enrollees under age 65 who were screened for future fall risk at least once within 12 months	Numerator: Demonstration-eligible Medicare-Medicaid enrollees who were screened for future fall risk at least once within 12 months. Denominator: All demonstration-eligible Medicare-Medicaid enrollees under age 65.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Cardiac rehabilitation Cardiac rehabilitation following hospitalization for AMI, angina CABG, PCI, CVA	Claims/encounter RTI will acquire and analyze	Care coordination	Yes	Percentage of demonstration-eligible beneficiaries evaluated in an outpatient setting who within the past 12 months have experienced AMI, CABG surgery, PCI, CVA, or cardiac transplantation, or who have CVA and have not already participated in an early outpatient CR program for the qualifying event/diagnosis who were referred to a CR program.	Numerator: Number of demonstration-eligible Medicare-Medicaid enrollees in an outpatient practice who have had a qualifying event/diagnosis in the previous 12 months who have been referred to an outpatient cardiac rehabilitation/secondary prevention program. Denominator: Number of demonstration-eligible Medicare-Medicaid enrollees in an outpatient clinical practice who have had a qualifying cardiovascular event in the previous 12 months, who do not meet any of the exclusion criteria, and who have not participated in an outpatient cardiac rehabilitation program since the cardiovascular event.
Pressure ulcers Percent of high-risk residents with pressure ulcers (long stay)	MDS RTI will acquire and analyze	Prevention, care coordination	Yes	Percentage of all demonstration-eligible long-stay residents in a nursing facility with an annual, quarterly, significant change, or significant correction MDS assessment during the selected quarter (3-month period) who were identified as high risk and who have one or more Stage 2–4 pressure ulcer(s).	Numerators: Number of demonstration-eligible Medicare-Medicaid enrollees who are long-stay nursing facility residents who have been assessed with annual, quarterly, significant change, or significant correction MDS 3.0 assessments during the selected time window and who are defined as high risk with one or more Stage 2–4 pressure ulcer(s). Denominators: Number of demonstration-eligible Medicare-Medicaid enrollees who are long-stay residents who received an annual, quarterly, or significant change or significant correction assessment during the target quarter and who did not meet exclusion criteria.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Treatment of alcohol and substance use disorders Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	Claims/encounter RTI will acquire and analyze	Care coordination	Yes	The percentage of demonstration-eligible Medicare-Medicaid enrollees with a new episode of alcohol or other drug (AOD) dependence who received the following: a. Initiation of AOD Treatment. The percentage who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis. b. Engagement of AOD Treatment. The percentage who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. (http://www.qualityforum.org/QPS/)	Numerator: Among demonstration-eligible Medicare-Medicaid enrollees (a) Initiation: AOD treatment through an inpatient admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of diagnosis; (b) Engagement: AOD treatment and two or more inpatient admissions, outpatient visits, intensive outpatient encounters or partial hospitalizations with any AOD diagnosis within 30 days after the date of the Initiation encounter (inclusive). Multiple engagement visits may occur on the same day, but they must be with different providers in order to be counted. Do not count engagement encounters that include detoxification codes (including inpatient detoxification) Denominator: Demonstration-eligible Medicare-Medicaid enrollees age 13 years and older who were diagnosed with a new episode of alcohol and drug dependency during the intake period of January 1–November 15 of the measurement year. EXCLUSIONS: Exclude those who had a claim/encounter with a diagnosis of AOD during the 60 days before the IESD. For an inpatient IESD, use the admission date to determine the Negative Diagnosis History. For an ED visit that results in an inpatient stay, use the ED date of service.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Depression screening and follow-up Screening for clinical depression and follow-up	Claims/encounter RTI will acquire and analyze if available	Prevention, care coordination	No	Percentage of patients aged 18 and older screened for clinical depression using an age-appropriate standardized tool AND follow-up plan documented (http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/2014_eCQM_EP_June_2013.zip).	Numerator: Demonstration-eligible Medicare-Medicaid enrollees whose screening for clinical depression using an age-appropriate standardized tool AND follow-up plan is documented. Denominator: All demonstration-eligible Medicare-Medicaid enrollees 18 years and older with certain exceptions (see source for the list).
Blood pressure control Controlling high blood pressure	Medical records (HEDIS EOC035)	Prevention, care coordination	No	Percentage of members aged 18–85 who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90) during the measurement year (http://www.qualityforum.org/QPS).	Numerator: Number of demonstration participants in the denominator whose most recent, representative BP is adequately controlled during the measurement year. For a member's BP to be controlled, both the systolic and diastolic BP must be <140/90mm Hg. Denominator: Demonstration participants with hypertension. A patient is considered hypertensive if there is at least one outpatient encounter with a diagnosis of HTN during the first 6 months of the measurement year.
Weight screening and follow-up Adult BMI assessment	Medical records (HEDIS EOC110)	Prevention	No	Percentage of patients aged 18–74 years of age who had an outpatient visit and who had their BMI documented during the measurement year or the year prior to measurement.	Numerator: BMI documented during the measurement year, or the year prior. Denominator: Demonstration-eligible Medicare-Medicaid enrollees 18–74 who had an outpatient visit.

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Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates?¹	Definition (link to documentation if available)	Numerator/denominator description
Breast cancer screening	Medical records (HEDIS 0003)	Prevention	No	Percentage of women 40–69 years of age and participating in demonstration who had a mammogram to screen for breast cancer.	Numerator: Number of women 40–69 receiving mammogram in year. Denominator: Number of women 40–69 enrolled in demonstration.
Antidepressant medication management	Medical records (HEDIS EOC030)	Care coordination	No	Percentage of members 18+ who were diagnosed with a new episode of major depression and treated with antidepressant medication, and who remained on an antidepressant medication treatment.	Numerator: Two rates are reported. (1) Effective acute phase treatment—newly diagnosed and treated demonstration participants who remain on antidepressant medication for at least 84 days. (2) Effective continuation phase treatment—newly diagnosed and treated demonstration participants who remained on antidepressant medication for at least 180 days. Denominator: Newly diagnosed and treated demonstration participants over age 18.
Diabetes care Comprehensive diabetes care: selected components—HbA1c control, LDL-C control, retinal eye exam	Medical records (HEDIS EOC020)	Prevention/care coordination	No	Percentage of demonstration participants 18–75 years of age with diabetes (type 1 and type 2) who had each of the following: HbA1c control, LDL-C control, and retinal eye exam.	Numerator: Number of these who had HbA1c control or LDL-C control, or retinal eye exam in year. Denominator: Demonstration participants 18–75 with type 1 or type 2 diabetes.

(continued)

Table 16 (continued)
Evaluation quality measures: Detailed definitions, use, and specifications

Measure concept (specific measure)	Data sources and responsibility for data collection	Domain (prevention, care coordination, beneficiary experience)	Will evaluation produce impact estimates? ¹	Definition (link to documentation if available)	Numerator/denominator description
Medication management Annual monitoring for patients on persistent medications	Medical records (HEDIS EOC075)	Care coordination	No	Percentage who received at least 180 treatment days of ambulatory medication therapy for a select therapeutic agent during the measurement year and at least one therapeutic monitoring event for the therapeutic agent in the measurement year. Agents measured: (1) ACE inhibitors or ARB, (2) digoxin, (3) diuretics, (4) anticonvulsants.	Numerator: Number with at least 180 days of treatment AND a monitoring event in the measurement year. Combined rate is sum of 4 numerators divided by sum of 4 denominators. Denominator: Demonstration participants with at least 180 days of treatment in the year for a particular agent.

ACE = angiotensin-converting-enzyme; ACSC = ambulatory care-sensitive conditions; AMI = acute myocardial infarction; AOD = alcohol or other drug; ARB = angiotensin II receptor blockers; BMI = body mass index; BP = blood pressure; CABG = coronary artery bypass graft; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; CVA = cerebrovascular accident; ED = emergency department; HbA1c = Hemoglobin A1C; HEDIS = Healthcare Effectiveness Data and Information Set; HTN = hypertension; IESD = Index Episode Start Date; LDL-C = low-density-lipoprotein cholesterol (bad cholesterol); MDS = minimum data set; PCI = percutaneous coronary intervention; UTI = urinary tract infection.

¹ Impact estimates will be produced only for measures where data can also be obtained for the comparison group. Measures for which data are not expected to be available in the comparison group will be tracked only within the demonstration to measures changes over time.

NOTE: Definitions, use, and specifications are as of 12/23/2013.

4.6 Cost

To determine annual total costs (overall and by payer), we will aggregate the Medicare and Medicaid per member per month (PMPM) payments paid to the One Care plans and the costs for the eligible population who are not enrolled in the demonstration, per the intent to treat evaluation design. This approach will help us to detect overall cost impact and eliminate the effects of potential selection bias among beneficiaries who participate in the demonstration and those who opt out or disenroll. We will include Part D PMPM and any PMPM reconciliation data provided by CMS in the final assessment of cost impact to ensure that all data are available.

The evaluation will analyze cost data for the service types shown in *Table 14* in the previous section on utilization with the addition of prescription drug costs. We will present results for important subgroups, and in more detail to better understand their demonstration experience. We will also create a high-cost-user category and track costs of this group over time. To do this, we will measure the percentage of beneficiaries defined as high cost in Year 1 (e.g., those beneficiaries in the top 10 percent of costs). In subsequent years we will look at the percentage of beneficiaries above the Year 1 threshold to learn more about potential success in managing the costs of high-cost beneficiaries as a result of the demonstration.

We will also evaluate cost savings for capitated model demonstrations twice during the demonstration, using a regression-based approach and the comparison group described in *Section 4.2.2* of this report. The methodology for evaluating cost savings for capitated model demonstrations is currently under development and will be reviewed and approved by the CMS Office of the Actuary. We will also estimate cost savings accruing to the Medicare and Medicaid programs separately.

4.7 Analytic Challenges

Obtaining Medicaid fee-for-service data for the predemonstration and demonstration periods and One Care plan encounter data for the demonstration period will be critical for the evaluation. It will be important for Massachusetts to submit Medicaid fee-for-service data in a timely manner. It will also be important for CMS to continue to work with other States that may serve as comparison groups to update and maintain their MSIS/t-MSIS submissions. Additionally, in order to identify costs by service category, encounter data need to include pricing information. One Care plan encounter data are in the process of being finalized, so RTI will continue to work closely with CMS to understand the contents of the data provided by plans and how best these data can be utilized by the evaluation.

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