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Financial Alignment Initiative Washington Health Home MFFS Demonstration: Third Evaluation Report

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FINANCIAL ALIGNMENT INITIATIVE
WASHINGTON HEALTH HOME MFFS DEMONSTRATION:
THIRD EVALUATION REPORT

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Executive Summary

The Medicare-Medicaid Coordination Office and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) have created the Medicare-Medicaid Financial Alignment Initiative to test, in partnerships with States, integrated care models for Medicare-Medicaid enrollees. CMS contracted with RTI International to monitor the implementation of the demonstrations and to evaluate their impact on beneficiary experience, quality, utilization, and cost. The evaluation will include a final aggregate evaluation report and individual State-specific evaluation reports.

Washington and CMS launched the Health Homes Managed Fee-for-Service (MFFS) Demonstration in July 2013 to integrate care for Medicare-Medicaid beneficiaries. Initially, health homes were competitively selected by the State to operate the demonstration across the State in all counties except for King and Snohomish Counties. In 2017 the demonstration was extended to King and Snohomish Counties. Health homes provide care coordination services to Medicare-Medicaid enrollees.

Washington has targeted the demonstration to high-cost, high-risk Medicare-Medicaid enrollees based on the principle that focusing intensive care coordination on those with the greatest needs provides the greatest potential for improved health outcomes and cost savings. In the course of integrating care for enrollees across primary care, long-term services and supports (LTSS), and behavioral health delivery systems, health home care coordinators are charged with engaging enrollees to set health action goals and increase self-management skills to achieve optimal physical and cognitive health.

This Third Evaluation Report describes implementation of the Washington demonstration and analysis of the demonstration's impacts. The report includes findings from qualitative data for calendar year 2017 through early 2018 and quantitative results for the 3.5-year demonstration period (July 1, 2013, through December 31, 2016). Data sources include key informant interviews, beneficiary focus groups, results from the 2016 modified Adult Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey, Medicare claims data, the Minimum Data Set nursing facility (NF) assessments, and other demonstration data. Future analyses also will include Medicaid claims as those data become available.

Highlights

- As of December 31, 2017, there were 19,170 Medicare-Medicaid beneficiaries enrolled in a health home in the Washington Health Home MFFS Demonstration.

- Washington has targeted the demonstration to high-cost, high-risk enrollees based on the principle that focusing on those with the greatest needs provides the greatest potential for improved outcomes and cost savings. Initial enrollment is based on use of a predictive modeling tool; eligible beneficiaries have minimum scores of 1.5. In 2017, the State adopted a new eligibility policy specifying that enrollees whose score from the predictive modeling tool falls to 1.0 (the average chronic care need of a Supplemental Security Income recipient) and who has no contact with the demonstration for 9 months will no longer be eligible for the demonstration.

- Health homes are designated by the State to be a bridge for enrollees to integrate care across primary care, acute care, LTSS, and behavioral health services.

- Many functions of Washington health home coordinators are similar to those of care coordinators in other States. What makes Washington's care coordinators unique is their focus on engaging enrollees to set health action goals and increase self-management skills to achieve optimal physical and cognitive functioning. Health home care coordination—which focuses on meeting enrollees in the community, primarily in their own homes—is an intensive function. In most cases, care coordinators make monthly in-home visits.

- Eighty-seven percent of demonstration respondents to the 2017 CAHPS said they were satisfied or very satisfied with care coordination.

- The State will raise health home payment rates by 20 percent beginning July 1, 2018.

- In the fall of 2017, the State established the Service Experience Team to provide direct consumer input on the demonstration. It replaces the Health Home Advisory Team.

- Most 2016 and 2017 focus group participants said their health or quality of life had improved in the past 3 years.

- The results of cost savings analyses using a difference-in-differences regression approach indicate significant savings as a result of the Washington demonstration. The savings have been estimated at over 11 percent over the first 3 demonstration periods. This finding has been consistent with findings identified using an actuarial methodology to inform performance payments for the demonstration.

- Cumulative impact analysis results show that expensive institutional care (total inpatient hospitalization, skilled and long-term NF use) decreased as a result of the demonstration. However, somewhat surprisingly, other specific measures expected to be more directly impacted by care coordination, such as 30-day readmissions, preventable emergency room use, and ambulatory care sensitive condition chronic admissions, all increased. We do observe that both 30-day readmissions and ambulatory care sensitive condition chronic admissions were both lower in Washington than in the comparison group in both the predemonstration and demonstration periods.

Table ES-1
Summary of Washington cumulative demonstration impact estimates for the demonstration period, July 1, 2013–December 31, 2016
(90 percent confidence interval)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with SPMI
Inpatient admissions	Decreased	NS
Ambulatory care sensitive condition (ACSC) admissions, overall	NS	Increased
Probability of ACSC admissions, chronic	Increased	Increased
All-cause 30-day readmissions	Increased	Increased
Emergency room (ER) visits	NS	NS
Preventable ER visits	Increased	Increased
30-day follow-up after mental health discharges	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased
Probability of any long-stay nursing facility use	Decreased	NA
Physician evaluation and management visits	NS	NS

NA = not applicable; NS = not statistically significant; SPMI = severe and persistent mental illness.

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

Table ES-2
Washington annual demonstration impact estimates for all demonstration eligible beneficiaries, July 1, 2013–December 31, 2016
(90 percent confidence interval)

Measure	Demonstration year 1	Demonstration year 2	Demonstration year 3
Inpatient admissions	Decreased	Decreased	NS
Ambulatory care sensitive condition (ACSC) admissions, overall	NS	NS	NS
Probability of ACSC admissions, chronic	NS	Increased	NS
All-cause 30-day readmissions	Increased	Increased	Increased
Emergency room (ER) visits	NS	NS	Increased
Preventable ER visits	NS	Increased	Increased
30-day follow-up after mental health discharges	NS	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased	Decreased
Probability of any long-stay nursing facility use	Decreased	Decreased	Decreased
Physician evaluation and management visits	NS	NS	Decreased

NS = not statistically significant.

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1. Evaluation Overview

1.1 Purpose

The Medicare-Medicaid Coordination Office and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) have created the Medicare-Medicaid Financial Alignment Initiative (FAI) to test, in partnerships with States, integrated care models for Medicare-Medicaid enrollees. CMS contracted with RTI International to monitor the implementation of the demonstrations under the FAI and to evaluate their impact on beneficiary experience, quality, utilization, and cost.

This report includes qualitative evaluation information for calendar year 2017 through early 2018. This report provides updates to the Second Evaluation Report in key areas, including enrollment, care coordination, beneficiary experience, and stakeholder engagement activities, and discusses the challenges, successes, and emerging issues identified during the reporting period. Results on quality of care, service utilization, and costs for the entire predemonstration and demonstration periods spanning July 1, 2011, to December 31, 2016, are also presented.

The First Annual Report and the Second Evaluation Report, which include extensive background information about the demonstration and prior implementation updates, can be found here: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/WAFirstAnnualEvalReport.pdf and https://innovation.cms.gov/Files/reports/fai-wa-secondevalrpt.pdf.

1.2 Data Sources

Data sources used to prepare this report include the following:

Key informant interviews. The evaluation team conducted virtual site visits in April and May 2018. The team interviewed the following individuals: State demonstration staff, health home directors, directors of care coordination organizations, and beneficiary service team members. Unless otherwise cited, all references to information collected through site visits was gathered at this time.

Focus groups. The RTI evaluation team conducted seven focus groups in Washington. One focus group for Hispanic participants was held in Pasco on July 24, 2017. Two of the English-speaking focus groups were held in Yakima on July 25, two groups were held in Vancouver on July 26, and two were held in Spokane on July 27. A total of 64 enrollees participated in the focus groups.

Surveys. We include information from the 2016 modified Adult Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey administered by the NORC at the University of Chicago (NORC) and Health Services Advisory Group, Inc. (HSAG) to beneficiaries enrolled in the Washington Health Home Managed Fee-for-Service (MFFS) Demonstration.

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

Demonstration policies, contracts, and other materials. The RTI evaluation team reviewed a wide range of demonstration documents, including demonstration and State-specific information on the CMS website (CMS, 2018); and other publicly available materials on the Washington Health Home MFFS Demonstration website.

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

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

Medicaid service data on use of long-term services and supports (LTSS), behavioral health, and other Medicaid-reimbursed services were either not available or not useable in their current form for the demonstration period and therefore are not included in this report. Future reports will include findings on Medicaid service use once data are available.

2. Demonstration Overview

2.1 Demonstration Description and Goals

The Washington Health Homes Managed Fee-for-Service (MFFS) Demonstration model leverages health homes to integrate care for high-cost, high-risk, full-benefit Medicare-Medicaid enrollees. Health homes were established by the Affordable Care Act to coordinate care for Medicaid enrollees with chronic conditions. During the time period covered by this report, the demonstration operated statewide. The Washington Health Home MFFS Demonstration began July 1, 2013, and is currently scheduled to continue until December 31, 2018. Washington submitted an extension request, which was approved and is awaiting amendment to the Final Demonstration Agreement. Once complete, it would extend the demonstration through December 31, 2020. The demonstration is jointly administered at the State level by the Health Care Authority (HCA), which houses the Medicaid agency, and the Department of Social and Health Services (DSHS), which in turn houses the State offices responsible for service delivery systems, including long-term services and supports (LTSS) and behavioral health.

Medicare-Medicaid enrollees in Washington continue to receive their health care and LTSS through fee-for-service (FFS) Medicare and Medicaid, except for Medicaid community mental health services, which are capitated. Medicare and Medicaid services available to enrollees in the demonstration are unchanged, except for the addition of Medicaid health home services. These services are financed and defined under the authority of Section 2703 of the Affordable Care Act, which established health home services as an optional Medicaid State Plan service.

Health home services consist of six statutorily defined services, which are mostly variations of care coordination and health promotion. In Washington, health homes are the vehicle for coordinating primary care, acute care, LTSS, and behavioral health services for Medicare-Medicaid beneficiaries enrolled in the Washington Health Home MFFS Demonstration.

The goals for the Washington Health Home MFFS Demonstration are to integrate care for Medicare-Medicaid enrollees, alleviate fragmentation, and improve coordination of services for high-cost, high-risk Medicare-Medicaid enrollees served primarily in FFS systems of care; improve beneficiary outcomes; and reduce costs over time for the State and the Federal government.

2.2 Changes in Demonstration Design

When the demonstration began in July 2013, it did not cover King and Snohomish Counties. Beginning in April 1, 2017, the demonstration became statewide.

2.3 Overview of State Context

Washington has targeted the demonstration to high-cost, high-risk Medicare-Medicaid enrollees based on the principle that focusing intensive care coordination on those with the greatest needs provides the greatest potential for improved health outcomes and cost savings. Its

positive experience with the State's previous Chronic Care Management program led Washington to adopt a comparable model for the demonstration organized around the principles of patient activation and engagement, supporting enrollees to take steps to improve their own health. In the course of integrating care for enrollees across primary care, LTSS, and behavioral health delivery systems, health home care coordinators are charged with engaging enrollees to set health action goals and increase self-management skills to achieve optimal physical and cognitive health.

The State's demonstration approach was also shaped by a detailed analysis of Washington's Medicare and Medicaid data conducted by the State's internal research office, showing extensive overlap between Medicare-Medicaid enrollees with both high health risk factors and service needs, particularly LTSS needs. This series of population- and claims-based analyses led State officials to conclude that a demonstration design that targeted intensive interventions to a high-cost, high-risk population would present the greatest potential for care improvement and cost savings.

3. Update on Demonstration Implementation

Highlights

- As of December 31, 2017, there were 19,170 Medicare-Medicaid beneficiaries enrolled in a health home in the Washington Health Home Managed Fee-for-Service Demonstration.
- Washington has targeted the demonstration to high-cost, high-risk enrollees based on the principle that focusing on those with the greatest needs provides the greatest potential for improved outcomes and cost savings.
- The State designed health homes to be a bridge for enrollees to integrate primary care, acute care, LTSS, and behavioral health services.
- In 2017, the State adopted a new eligibility policy specifying that enrollees whose score from the predictive modeling tool falls to 1.0 (the average chronic care need of a Supplemental Security Income [SSI] recipient) and who have no contact with the demonstration for 9 months will no longer be eligible for the demonstration.
- The State established the Service Experience Team to provide direct consumer input on the demonstration.
- The State will raise health home payment rates by 20 percent beginning July 1, 2018, subject to CMS's approval.

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

3.1 Integration of Medicare and Medicaid

In the Washington Health Home MFFS Demonstration, enrollees' health care needs are primarily addressed by Medicare-funded services, whereas their LTSS and behavioral health needs are primarily addressed by Medicaid-funded services. Health homes do not directly deliver health care, LTSS, and behavioral health services, nor do they finance them or authorize their provision. Rather, health home care coordinators work to identify enrollee needs that are not being addressed by existing delivery systems. They are charged with acting as a bridge to integrate care across existing health delivery systems.

3.1.1 Joint Management of the Demonstration

Unlike capitated model demonstrations under the Financial Alignment Initiative, in which the State and CMS would jointly contract with managed care organizations, Washington and CMS do not share management of the health homes participating in the Washington Health Home MFFS Demonstration. Instead, health homes have contracts with the State to provide

health home services to demonstration enrollees as well as Medicaid-only beneficiaries, and there is no contractual relationship between health homes and CMS.

3.1.2 Integrated Delivery System

Washington has designated Medicaid health homes to be the lead local entities to organize enhanced integration of primary, acute, LTSS, and behavioral health services for Medicare-Medicaid enrollees participating in the demonstration. The State views health homes as the bridge to integrate care across existing health delivery systems. Of the six organizations originally selected to be health homes, the State categorized four of them as community-based health homes. In addition, two managed care organizations were selected to be health homes in several coverage areas. Initially, the State enrolled a few Medicare-Medicaid beneficiaries in the managed care health homes but prioritized enrollment of Medicare-Medicaid beneficiaries in community-based health homes.

Each health home is required to establish a network of care coordination organizations (CCOs) representing primary care, mental health, LTSS, chemical dependency providers, and specialty providers; the network must include the local agencies that authorize Medicaid LTSS and behavioral health services. This diversity in type of CCOs is intended to ensure that each health home has experience among its affiliates to engage enrollees with diverse service needs and coordinate their health care and other services.

Three of the four original community-based health homes as well as the new health home for King County also operate their own internal CCO, thereby providing some care coordination directly. Health home care coordinators conduct outreach to achieve enrollee engagement, develop an individualized health action plan (HAP) with the enrollee, and provide health home care coordination services.

To achieve coverage of one of the two new counties, Snohomish County, the health home that serves four counties contiguous to Snohomish County, has extended its coverage to include the county. The State issued a request for proposal to solicit a health home for King County, the other new county, on August 2016. Only one organization submitted an application to serve as a health home for King County. According to the State, although the applicant is very qualified to be a health home, it is a small agency and does not have the capacity to serve the entire county. So, the State has reissued the RFP, hoping that an additional organization will apply.

During the 2016 site visit, the RTI evaluation team heard repeatedly from health homes and CCOs that they were skeptical about whether an entity would step forward to become a health home in King County, citing inadequate rates to support the required functions. They reported that with the higher Seattle (located in King County) labor costs, it would be very difficult for an organization to take on this role. Now (as the State reported during the 2018 site visit), with the anticipated rate increase (see ***Section 3.5, Financing, Payment, and Cost Savings***), the State hopes additional agencies will apply.

3.2 Eligibility and Enrollment

CMS has worked with the State to align Washington beneficiaries with the demonstration, ensuring that beneficiaries are attributed to only one Medicare shared savings

program, such as accountable care organizations or the demonstration. The State auto-enrolls eligible Medicare-Medicaid beneficiaries dependent upon capacity who have been attributed to the demonstration into health homes. According to data provided to the RTI team via the State Data Reporting System, as of December 31, 2017, a total of 19,170 eligible beneficiaries were enrolled in health homes. Yearly enrollment data are presented in ***Table 1*** below.

Table 1
Eligibility and enrollment data for Washington Health Home MFFS Demonstration

As of date	Eligibility	Enrollment
December 31, 2013	16,176	2,045
December 31, 2014	19,670	10,632
December 31, 2015	21,861	18,822
December 31, 2016	24,543	21,050
December 31, 2017	33,558	19,170

MFFS = Managed Fee-for-Services.

SOURCE: State reported data to RTI through the State Data Reporting System.

Participation in the demonstration is open to Medicare-Medicaid enrollees of all ages who do not have other comprehensive health insurance; are not enrolled in Medicare Advantage, Program of All-Inclusive Care for the Elderly (PACE), or receiving hospice services; and meet the State's health home eligibility criteria of having one chronic condition and being at risk of developing another, measured by a risk score generated by the Predictive Risk Intelligence SysteM (PRISM). PRISM incorporates Medicare and Medicaid claims information in an individual profile for each enrollee. All eligible Medicare-Medicaid beneficiaries are auto-enrolled in health homes, gradually, dependent upon health home capacity, unless they opt out prior to enrollment or choose a different health home provider.

Washington officials described the enrollment process as follows: The State re-enrolls eligible Medicare-Medicaid beneficiaries with prior health home histories. Subsequently, the State enrolls eligible beneficiaries with higher PRISM scores, up to a capacity that health homes indicate is manageable. According to State staff, when health homes indicate that they lack capacity to serve additional beneficiaries, Washington pauses enrollment. They restart the process when health homes report adequate capacity.

When the demonstration expanded in April 2017, the State added a zip code methodology to the enrollment process in King and Snohomish Counties. Every month, health homes give the State the number of individuals they have the capacity to enroll and the State pulls enrollees by ZIP code. This way, health homes can assign enrollees to care coordinators based on their locations and can achieve efficiencies in scheduling and mileage.

The PRISM risk score for eligibility is 1.5, which reflects a chronic care need that is 1.5 times higher than that of an average Supplemental Security Income recipient. The State adopted a new eligibility policy in 2017 which states that if an individual's PRISM score drops to 1.0 or below for 6 months and has no contact with a health home for 9 months, the individual's

eligibility for health home services is terminated. This change enables health homes to focus on those with the greatest needs and increases their engagement rate—the percentage of enrollees to whom the health home is providing active assistance.

Reaching enrollees continues to be a significant challenge for the demonstration. When beneficiaries are enrolled in a health home by the State, the health home receives the beneficiaries' contact information that is available to the State. State officials have pointed out that because Medicaid enrollment application data can be updated online, an unintended consequence of the shift to electronic Medicaid enrollment processes is that Washington State Health Care Authority (HCA) is unaware of changes in enrollees' mailing addresses. The inevitable result is that it does not have current addresses for many enrollees. Because the centerpiece of Washington's demonstration is the engagement of enrollees to work with care coordinators to develop and implement a HAP, it is essential for care coordinators and enrollees to develop a relationship.

Over the course of the demonstration, a great deal of attention has been devoted to identifying new ways to reach enrollees. The results have been somewhat successful. Using claims information in PRISM that identifies an enrollee's providers, care coordinators have contacted primary care physicians and other providers to reach enrollees; they have contacted pharmacies; and they have contacted the Medicaid transportation broker to see if an individual has requested services. Health homes and CCOs noted that one way they identify enrollees is through the hospitalization notification service in which they participate. The service has the names of all the health home enrollees; when an enrollee enters a hospital, the health home is notified.

Working together with the health homes, in 2017 the State instituted a new due diligence policy that requires health homes to contact potential enrollees three times over a 3-month period to attempt to enroll them. If the individuals cannot be found, they will be terminated from enrollment in the program. This policy is intended to address the backlog of individuals who cannot be engaged.

3.3 Care Coordination

Washington's health home care coordinators complement the roles of existing LTSS and behavioral health case managers and serve as a bridge for connecting individual service delivery systems. Health home care coordinators are employed by CCOs or by the health home itself. They conduct outreach to enrollees, engaging them in their homes, assessing their needs, and developing person-centered HAPs. Health home care coordinators identify unmet needs, arrange services, coordinate across delivery systems, and assist with transitions and referrals.

Many of the functions Washington's health home care coordinators perform are similar to those of care coordinators in other States' systems that are trying to integrate care across delivery systems. What makes Washington's care coordination system unique is its focus on engaging enrollees to set health action goals and increase self-management skills to achieve optimal physical and cognitive functioning and meeting enrollees primarily in the community. The State's prior experience with the Chronic Care Management (CCM) program as well as research on patient engagement has shaped its approach to care coordination provided through the

demonstration. The State believes this approach improves the health status of enrollees and reduces use of high-cost health services, such as repeated hospital and emergency department admissions.

Health home staff described a wide range of health goals reached by enrollees, including fewer hospitalizations and emergency department visits, more social connections, and improved interactions with health care providers. The demonstration's focus on patient activation and engagement has helped empower enrollees to set goals, engage with their physicians, and make health decisions that will improve their health and quality of life. As noted in ***Section 4, Beneficiary Experience***, enrollees continue to have a high regard for the care coordination services they receive.

For many enrollees, care coordination addresses primary care, LTSS, and behavioral health services. The health home care coordinator's role will vary depending on whether enrollees have a formal relationship with the LTSS and/or behavioral health delivery system. In those instances, the care coordinator will collaborate with enrollees' service-specific case managers. However, these service-specific case managers are charged with coordinating services provided by their delivery systems; they are not responsible for addressing—nor do they have the time to address—enrollees' other needs, such as health care, housing, transportation, and nutrition. In particular, during our 2016 and 2017 site visits, the RTI evaluation team was informed of several instances in which the behavioral health system was only focused on treatment and did not have the resources to address broader needs.

Health home care coordinators were able to provide that additional support. Health home care coordination is an intensive function. In most cases, a care coordinator makes an in-home visit once a month, thus providing intensive support.

The RTI evaluation team asked all interviewees whether or how enrollees with LTSS or behavioral health needs experience the demonstration. Across all types of sources, responses were remarkably similar. Over one-half of all enrollees were users of home and community-based services (HCBS), and therefore they already had an existing relationship with a case manager, according to respondents. This relationship made it easier for the health home care coordinator to reach and engage them. For this group, the most valuable role a health home might perform is a focus on needs of the whole person that may not be related to any particular service. Also, for these enrollees, their relationship with an HCBS waiver case manager does not provide them with dependable access to primary care, nor does it empower them to take charge of their own health; those are health home roles.

Enrollees with behavioral health needs are not likely to have a case manager that arranges services for them. If they have had a case manager in the mental health system, the case manager's role has been mainly to link them with treatment. Some enrollees are homeless, making the task of finding and engaging them daunting. Similar to HCBS users, those with behavioral health needs often need help accessing primary care. One interviewee in 2016 described the role a health home care coordinator can play in working with a physician's office: the care coordinator can say, "I know this person has burned you three times out of failure to show, but I will come with him and make sure he keeps the appointment. Then I will help explain your instructions and make sure he works on adherence."

The labor market for care coordinators was characterized by State and health home staff as very competitive. Some initiatives were undertaken to enhance care coordination capacity. In 2016 a work group of health homes and State staff performed a comprehensive review of the components of each of the six health home services to determine if some functions could be performed by less skilled workers. They recommended two to three functions of each service that met this criterion, including using community health workers to take on outreach and enrollee-finding activities and permitting peer counselors to support behavioral health activities. These policy changes were incorporated into the SPA implemented in April 2017 that extended program coverage to King and Snohomish Counties.

In addition, during the 2018 site visit, health homes indicated that allied staff who are not care coordinators work on transition activities. Often these functions need to be conducted in a very timely manner to assist with hospital discharge and are an unscheduled task conducted outside of a care coordinator's regular monthly schedule.

Another way the State and health homes are addressing the supply of care coordinators is through the State's exception policy on care coordination qualifications. Generally, care coordinators are required to have an RN or MSW degree. Through the SPA adopted in April 2017, the State is able to approve hiring a care coordinator without such a degree as long as their experience demonstrates appropriate qualifications.

During the 2018 site visit, health homes and CCOs commented on the low turnover rate among their staff. They attribute this to being very deliberate in their hiring practices and the fact that care coordinators find their jobs very rewarding.

To provide better care coordination coverage in rural areas, one health home has allowed care coordinators to work out of their homes to achieve greater proximity to their enrollees. This same health home ended its exclusive reliance on contracted CCOs and established its own internal CCO to aggressively recruit more care coordinators. To support its CCO-contracted agencies in locating enrollees, another health home has hired an outreach worker who would be available to all of its CCOs.

Care coordinators are required to complete a 2-day training course prior to working with an enrollee to develop a HAP. The course covers care coordination functions as well as how to access and use PRISM. In addition, the State holds monthly webinars on a wide range of care coordination topics. As the demonstration was extended to King and Snohomish Counties, the State conducted extra training sessions to accommodate new care coordinators and conducted seven 1-day training sessions for care coordinator supervisors. As of January 2018, the State has been publishing the Health Home Herald, a newsletter directed at health homes which provides information on new developments within the demonstration.

As of January 1, 2018, statewide approximately 29 percent of enrollees have been engaged, which the State defines as having a HAP and being involved with a care coordinator. During the 2018 site visit, all interviewees considered this percentage to be somewhat of an understatement because its calculation includes enrollees who cannot be reached and enrollees who have declined health home services but have not opted out of the demonstration. Interviews

with CCOs consistently indicated that a portion of enrollees did not have a connection with a care coordinator for a variety of reasons.

Health homes place a high priority on their efforts to help enrollees transition from hospitals to the community. One health home director reported that hospitals have divested themselves of their discharge and social work roles. Another health home director said that enrollees are being discharged with conflicting medications, without follow-up appointments, no transportation set up for follow-up, and are being sent to unsafe homes. Health homes respond to those needs and provide stabilizing supports.

In April 2018 the State, health homes and care coordinators held a retreat to assess potential changes that could be made to improve operations of the demonstration. They established four workgroups to develop specific proposals. The four topics are as follows:

Use of allied staff in lieu of care coordinators. As discussed earlier in this section, the State has proposed care coordination functions that could be performed by allied staff who are not care coordinators. The work group will discuss how to implement those recommendations and propose additional functions.

Face-to-face enrollee contacts less frequently than monthly. Currently, a health home must conduct a face-to-face contact in order to qualify for billing an intensive care coordination contact. In 2018, health homes commented that some months care coordinators might be undertaking a significant amount of behind the scenes activity. Care coordinators could also triage the needs of their enrollees. The payment model assumes a caseload of 55 enrollees per care coordinator which health homes point out amounts to close to 60 face-to-face visits per month per care coordinator.

Standardizing processes to ease care coordinator burden. Although there are a range of processes that care coordinators have identified as being burdensome, the primary one is having to work with multiple internal care coordination platforms for tracking and reporting on care coordination. CCOs could have as many as five different platforms they have to use depending on how many health homes with which they contract.

Rate structure. As noted in this section, the State has proposed to increase health home rates by 20 percent (see ***Section 3.5, Financing, Payment, and Cost Savings***). Some health homes have commented that the rate for the first tier—initial enrollee outreach, assessment, and HAP development—is inadequate.

3.4 Stakeholder Engagement

Washington has conducted an extensive stakeholder engagement process for demonstration design and ongoing input on implementation. As the implementation of the demonstration proceeded, the State has concentrated on soliciting input from stakeholders on operational policies and on increasing awareness of health home services among beneficiaries and providers.

Engagement has been conducted through State participation in meetings and conferences sponsored by key stakeholder groups, by regularly scheduled monthly meetings with Area

Agencies on Aging (AAAs) and health home directors, and through webinars focused on aspects of health home roles targeted to providers and other stakeholders to increase awareness of the demonstration. The bi-monthly meetings with health home directors are a vehicle for the State to review administrative policies, to highlight needed program improvements, and to share best practices among health home directors.

The State established the Health Home Advisory Team (HAT), which, until the fall of 2017, met quarterly to provide ongoing stakeholder input about the demonstration. Members included consumer advocacy organizations, provider associations, State and county agencies, and the union representing most home care workers. In 2016 and 2017 it was very active in planning for the extension of the demonstration to King and Snohomish Counties by providing input into the new State plan amendment, reviewing heath home rate increases, reviewing the solicitation for new health home providers, and reviewing the bidders' responses to the solicitation.

In the fall of 2017 the State replaced the HAT with a new advisory body called the Service Experience Team consisting of all consumer members. The State determined that with only two of the sixteen members of the HAT being actual consumers, their voice was getting buried by the professional interests. Now the State said that there are no conflicts of interest, members see each other as peers, and as a result, a much richer conversation occurs.

3.5 Financing and Payment

The State pays health homes for delivery of health home services on a per-member per-month basis, using three payment tiers. The first payment is a one-time fee of $252.93 for outreach, engagement, and development of the enrollee's HAP. After the health home has submitted an enrollee's HAP, health homes are paid $172.61 for intensive care coordination for months in which face-to-face care coordination is provided to an enrollee. For any month when low-level care coordination is provided to an enrollee, the health home is paid $67.50. Most health home payments are for intensive care coordination.

The rates were developed at the start of the demonstration by the actuarial firm Milliman under contract with the State using data from the State's CCM program, which was the design model upon which the demonstration is based. The rates were based upon program experience as of 2006. Their adequacy has been a source of contention between the State, health homes, and CCOs since the start of the demonstration. As discussed in ***Section 3.3, Care Coordination***, inadequacy of the rates has reportedly been a reason why some health homes have not fully engaged with the enrollees to which they have been assigned.

Site visit interviews in 2016 with health homes and CCOs focused extensively on the financial viability of the demonstration. Data developed in 2016 by the health homes indicated a 20 percent shortfall in payments versus costs since the start of the demonstration. Health homes and CCOs said they are only able to participate in the demonstration because they are cross-subsidizing their care coordination costs with other program funds or drawing upon their organizations' financial reserves. The State took these concerns seriously and developed new approaches to health homes payments in subsequent years.

In April 2017, when the State developed its new State plan amendment to cover King and Snohomish Counties, it included a provision to provide health homes with a 20 percent performance payment if a health home had an engagement rate of 20 percent or more. All but one of the original health homes qualified for the performance payment. The new health home for King County qualified for the performance payment in two months of 2018 (February and March).

Health homes reported in 2018 that they used their performance payments to reduce their agencies' need to cross-subsidize health home operations and to hire more care coordinators, which is what the State hoped they would do. One health home representative reported that the performance payments enabled the health home to cover its direct costs, but it is still not financing the cost of the agency's overhead program support. Despite this, the representative noted that "we don't need to have a going-out-of-business sale." In its 2018 session, the State legislature changed course and will increase the base payment rate by 20 percent for all health homes as of July 1, 2018, with a 5 percent additional performance payment, the qualifications for which have yet to be defined.

Across demonstration years 1 and 2, the Washington demonstration achieved gross Medicare savings of $68 million (Wilkin et al., 2017). In 2018, the evaluation team asked State officials and health homes why they believed the demonstration saved money. They cited data showing reduced hospitalizations, re-hospitalizations, and nursing facility use. They also pointed to a wide range of demonstration activities that helped to achieve those results. The coordination among all of an enrollee's providers—primary care providers, specialists, behavioral health specialists and others—enables the health care system to be more efficient and reduce duplication. And medication reconciliation helps providers be aware of the full range of prescriptions ordered, some of which may conflict with one another. An appropriate level of care may be achieved through reductions in emergency department use and increases in the use of primary care. Enrollees are encouraged to visit their physicians and keep on top of chronic conditions before they become acute episodes. And they are taught how to navigate the health care system to promote stability and successful community living.

3.6 Quality of Care

Washington uses a combination of quality management strategies to oversee the operation of health homes. As with all Medicaid service contracts, health homes are subject to annual post audits and external quality reviews, managed by the HCA and the Department of Social and Health Services (DSHS). The two agencies also share responsibility for tracking performance and quality measures. Ongoing contract compliance monitoring of health homes is performed by the State's two contract managers.

The State convenes a bi-monthly meeting of all health home leadership and State demonstration staff to review identified trends in quality concerns and strategize about approaches to address them. Performance issues related to individual health homes are addressed through regular monthly calls with HCA and DSHS contract managers. In the fall of 2017, the State instituted a new quality measure on health home completion of HAPs within 90 days of a beneficiary's enrollment.

The State conducts annual audits of health home performance that consist of two components: (1) a desk audit that reviews the health home's required policies and procedures, and (2) a review of the care coordination records of a randomized list of health home enrollees requested by the State. Health homes submit to the State quarterly reports that cover the obstacles they are facing and vignettes documenting their successes in working with individual enrollees. In 2017 the State identified in the quarterly reports a pattern of health homes having difficulties in securing interpreter services for both enrollees and care coordinators. Because the State pays for interpreters directly, it was able to step in and resolve the matter on behalf of health homes.

In its 2017 annual reviews of health homes, the State identified a deficiency across health homes in the documentation they are including in the HAPs. Specifically, the State wanted better documentation of the tasks health homes were performing to support their tier level encounter payment submissions, whether the elements of the six health home services are being provided, and identification of short- and long-term enrollee goals. As a result, the State established a working committee of State and health home staff to develop a detailed documentation guide that lays out the elements that should be included in the HAPs. The State also designated one of its monthly health home webinars to cover this topic—a strategy that the State consistently follows to address deficiencies it finds through its annual reviews.

4. Beneficiary Experience

Highlights

- Eighty-seven percent of respondents to the 2017 Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey said they were satisfied or very satisfied with care coordination, and 88 percent said their personal doctor usually or always seemed informed and updated about care they received from other health care providers.
- Awareness of care coordinators varied among the 2017 English-speaking focus group participants, but those who were aware of care coordinators said they were in regular contact and worked on goal-setting. Participants in the Spanish-speaking group showed some confusion about care coordination; most indicated that care coordinators had visited them and had mentioned goals, but just one reported a two-way discussion of goals.
- Many participants in the English-speaking focus groups said that their health or quality of life had improved in the past 3 years, and participants in the Spanish-speaking group generally agreed that their health coverage was having a positive impact.
- Many participants in the English-speaking groups were dissatisfied with the limited scope of dental and vision coverage and said their prescription drug coverage had been reduced. Participants in the Spanish-speaking group said no one had explained the scope of their benefits.

4.1 Introduction

This section updates key findings on overall beneficiary satisfaction with the Washington Health Home MFFS Demonstration and beneficiary experience with medical and specialty services; care coordination; access to care; and personal health outcomes and quality of life. We also provide updates on experiences of special populations and beneficiary protections. Data sources include the 2017 RTI focus groups, 2017 CAHPS survey, and 2018 stakeholder interviews. The focus groups and CAHPS are both conducted in English and Spanish.

RTI conducted seven focus groups from July 24–27, 2017. One group, in Pasco, was conducted entirely in Spanish. Two of the English-speaking groups were in Yakima; two were in Vancouver, and two were in Spokane. In each of these locations, one group was composed of participants using LTSS, and the other was composed of participants using behavioral health services. A total of 57 beneficiaries and two proxies participated in the English-speaking groups. A total of four participants and one proxy participated in the Spanish-speaking focus groups.

4.2 Impact of the Demonstration on Beneficiaries

4.2.1 Overall Satisfaction with the Demonstration

Consistent with reported experience in prior years, most 2017 focus group participants indicated overall satisfaction, with most participants in the English-speaking group rating their health care delivery system a 6 or higher on an 11-point scale. As in the previous year, many participants were not familiar with the term "health home." Therefore, their satisfaction with health homes may be most accurately assessed in their responses to questions about health care access and care coordination, as described in subsequent sections. In the Spanish-speaking group, it appeared that overall satisfaction was due mainly to having low or no copayments.

Approximately 58 percent of respondents to the 2017 CAHPS survey rated their health homes as a 9 or 10 on an 11-point scale (see ***Table 2***). This result is similar to reported satisfaction in the 2 previous years.

4.2.2 New or Expanded Benefits

The Washington Health Home MFFS Demonstration did not create any new or expanded benefits beyond those provided as part of the health home program (i.e., comprehensive care management, care coordination, health promotion, comprehensive transitional care and follow-up, individual and family support, and referrals for community and social services support).

4.2.3 Medical and Specialty Services

Participants in the Spanish-speaking groups reported satisfaction with their primary care physicians (PCPs), indicating that they were patient, treated them well, asked detailed questions, and reminded them of upcoming appointments. Several participants in the English-speaking groups were dissatisfied with the quality of their health care providers, due to their perceived lack of competence, education, and training, and failure to read important information in their medical charts.

Many focus group participants in the English-speaking groups reported difficulty obtaining specialty care. Some reported waiting times for specialist appointments that averaged 4 to 6 months, and more focus group participants indicated challenges with specialist access than in past years. The challenge was particularly notable in Yakima and Vancouver. Participants specifically mentioned difficulty with access to behavioral health services. Spanish-speaking group participants did not report challenges in access to specialists.

4.2.4 Care Coordination Services

As in past years, focus group participants who knew they had care coordinators generally said that care coordinators had contacted them and had mentioned or discussed goal-setting. In 2017, about half of the Spokane participants knew they had care coordinators, and nearly all in the Yakima and Vancouver groups knew their care coordinators' names.

All participants in the English-speaking groups who said they had care coordinators reported contacts at least once annually; most reported more frequent contact, such as monthly.

Participants in the English-speaking groups said their care coordinators listened to them and helped them talk through issues important for goal-setting. Participants generally said it was easy to reach their care coordinators, but coordinators' reported ability to effect change varied. A few participants said their care coordinators were not able resolve issues of concern. Two of the 64 participants said that due to frequent turnover, they were not receiving any useful services from care coordinators.

Most participants in the Spanish-speaking group indicated that care coordinators had visited them and mentioned or asked about goals. One participant reported discussing goals with her PCP, but another said no one had asked about his goals.

As in prior years, respondents to the 2017 CAHPS survey reported high levels of satisfaction with care coordination. Eighty-seven percent said they were satisfied or very satisfied, and 88 percent said their personal doctor usually or always seemed informed and updated about care they received from other health care providers (see ***Table 2***).

Table 2
Beneficiary experience with care coordination and overall satisfaction, calendar years 2015–2017

CAHPS survey item	2015	2016	2017
Percent who said that their personal doctor "usually" or "always" seemed informed and up to date about the care they received from doctors or other health providers.	85.9% (n=497)	83.6% (n=451)	88.2% (n=456)
Percent who said they were "satisfied" or "very satisfied" with the help they received to coordinate their care.	83.4% (n=471)	89.5% (n=409)	87.1% (n=427)
Percent rating health home as a 9 or 10.	57.7% (n=692)	58.1% (n=656)	58.4% (n=688)
Number of survey respondents.	827	750	793

CAHPS = Consumer Assessment of Healthcare Providers and Systems.

SOURCE: CAHPS data for 2016–2018.

4.2.5 Access to Care

In the 2017 focus groups, comments about access addressed several issues not discussed in prior years. Besides challenges with access to specialists (see ***Section 4.2.3***), which were discussed in previous years, some participants in the English-speaking groups reported delays in obtaining prior authorization for services, particularly for radiology and imaging services, fittings for durable medical equipment (DME), and medications.

Many participants in the English-speaking groups were dissatisfied with access to dental and vision care because they believed the scope of coverage was too narrow. (Although benefits are the same as those prior to the start of the demonstration.) Nearly all said the scope of their prescription drug coverage had been reduced in the past 3 years, with many indicating they no longer had access to opioids. However, almost all said prescription drug coverage was among the best parts of their health benefits.

Participants in the Spanish-speaking group reported that no one had explained the scope of their benefits, and two said they had not sought care (in one case, dental care) because they did not know if it would be covered. Two reported that they no longer had coverage for out-of-pocket costs for dental care or prescription drugs. (Note that the demonstration made no change to coverage.)

Approximately 85 percent of 2017 CAHPS respondents said they were satisfied with obtaining needed care, and about 86 percent said they were satisfied with how quickly they were able to receive care. About 74 percent of 2017 CAHPS respondents were satisfied with access to specialized services. These findings were similar to those of prior years (see ***Table 3***).

Table 3
Beneficiary experience with access to services, calendar years 2015–2017

Washington FAI CAHPS survey item	2015	2016	2017
Percent who said they were satisfied with access to specialized services.[1]	75.5% (n=299)	76.9% (n=250)	73.9% (n=286)
Percent who said they were satisfied with obtaining needed care.[2]	84.3% (n=592)	83.8% (n=538)	84.8% (n=582)
Percent who said they were satisfied with how quickly they were able to receive care.[3]	84.7% (n=521)	84.4% (n=482)	86.3% (n=500)
Number of survey respondents.	827	750	793

CAHPS = Consumer Assessment of Healthcare Providers and Systems; FAI = Financial Alignment Initiative.

[1] "Access to Specialized Services" is a composite of three items: (1) "In the last 6 months, how often was it easy to get the medical equipment you needed?"; (2) "In the last 6 months, how often was it easy to get the special therapy you needed?"; and (3) "In the last 6 months, how often was it easy to get the treatment or counseling you needed?" The composite response of "satisfied" comprises "usually/always" responses.

[2] "Getting Needed Care" is a composite of two items: (1) "In the last 6 months, how often was it easy to get the care, tests, or treatment you needed?"; and (2) "In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?" The composite response of "satisfied" comprises "usually/always" responses.

[3] "Getting Care Quickly" is a composite of two items: (1) "In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?"; and (2) "In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?" The composite response of "satisfied" comprises "usually/always" responses.

SOURCE: CAHPS data for 2016–2018.

4.2.6 Personal Health Outcomes and Quality of Life

As in prior focus groups, many participants in the 2017 English-speaking focus groups said their health or quality of life had improved in the past 3 years. Participants cited their care coordinators, PCPs, and their own increased sense of independence among the reasons for improvement. Participants in the Spanish-speaking group generally agreed that their health coverage was having a positive impact.

4.2.7 Experience of Special Populations

As in the previous year, 2017 Spanish-speaking group participants discussed linguistic access. Two participants said written materials about their health coverage were in English rather than Spanish. One noted that State agencies will send materials in both Spanish and English upon request. Another participant said she asked pharmacy staff to translate written correspondence about her mother's medications and said she would prefer to receive materials in Spanish. One participant reported that his care coordinators spoke Spanish.

4.2.8 Beneficiary Protections

As in previous years, some participants in the 2017 English-speaking groups showed awareness of their right to submit complaints about their services. Beneficiaries reported that materials about their health coverage were difficult to understand and that their care coordinators helped them understand their rights. A small number of participants said they had complained or submitted formal grievances about providers' services. About one-half said they had received coverage denials, mostly for prescription drugs. However, participants expressed satisfaction that they were able to obtain alternative, covered medications after providers wrote new prescriptions.

Some participants in the Spanish-speaking group said they did not know whom to contact with complaints about their services.

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5. Service Utilization

The purpose of the analyses in this section is to understand the effects of the Washington demonstration through demonstration year 3 using difference-in-differences (DID) regression analyses. In addition, descriptive statistics on service utilization are provided for selected Medicare services. We find evidence that the demonstration resulted in significant changes in most utilization patterns, including changes in quality of care and care coordination. As noted in ***Section 3.2, Eligibility and Enrollment***, although enrollment into health homes began slowly and increased gradually in demonstration year 1, by demonstration years 2 and 3, the State made significant progress in enrolling demonstration eligible beneficiaries in health homes. Importantly, in demonstration year 3, the State's health home entities have continued to increase the number of enrollees who have completed health action plans and are receiving care coordination services. If enrollment and engagement trends continue or accelerate, the demonstration's care coordination strategies may yet affect other utilization and quality measures.

Table 4 presents an overview of the results from impact analyses using Medicare and Minimum Data Set (MDS) data. The relative direction of all statistically significant results at the 90 percent confidence interval is shown. Monthly inpatient admissions, skilled nursing facility (SNF) admissions, 30-day follow-up after mental health discharges, and probability of any long-stay nursing facility (NF) use decreased for the Washington demonstration group compared to the comparison group. Conversely, the 30-day all-cause risk-adjusted readmission rate, the probability of chronic ambulatory care sensitive condition (ACSC) admissions, and preventable emergency room (ER) visits increased for the demonstration group.

Table 4
Summary of Washington cumulative demonstration impact estimates for the demonstration period, July 1, 2013–December 31, 2016
(90 percent confidence interval)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with SPMI
Inpatient admissions	Decreased	NS
Ambulatory care sensitive condition (ACSC) admissions, overall	NS	Increased
Probability of ACSC admissions, chronic	Increased	Increased
All-cause 30-day readmissions	Increased	Increased
Emergency room (ER) visits	NS	NS
Preventable ER visits	Increased	Increased
30-day follow-up after mental health discharges	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased
Probability of any long-stay nursing facility use	Decreased	NA
Physician evaluation and management visits	NS	NS

NA = not applicable; NS = not statistically significant; SPMI = severe and persistent mental illness.

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

The relative direction of the impact estimates for demonstration eligible beneficiaries with a severe and persistent mental illness (SPMI) were in the same direction as for the overall demonstration eligible population except for inpatient admissions, which were not statistically significant, and ACSC admissions overall, which were higher.

Table 5 summarizes annual impact estimates for all demonstration eligible beneficiaries. The higher entire-demonstration DID impacts for ACSC admissions overall were concentrated in year 2. By year 3, the demonstration was making progress in SNF admissions and the probability of any long-stay NF admission, but also had lower 30-day follow-up after mental health discharge visits and physician evaluation and management (E&M) visits, which was undesirable.

Table 5
Washington annual demonstration impact estimates for all demonstration eligible beneficiaries, July 1, 2013–December 31, 2016
(90 percent confidence interval)

Measure	Demonstration year 1	Demonstration year 2	Demonstration year 3
Inpatient admissions	Decreased	Decreased	NS
Ambulatory care sensitive condition (ACSC) admissions, overall	NS	NS	NS
Probability of ACSC admissions, chronic	NS	Increased	NS
All-cause 30-day readmissions	Increased	Increased	Increased
Emergency room (ER) visits	NS	NS	Increased
Preventable ER visits	NS	Increased	Increased
30-day follow-up after mental health discharges	NS	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased	Decreased
Probability of any long-stay nursing facility use	Decreased	Decreased	Decreased
Physician evaluation and management visits	NS	NS	Decreased

NS = not statistically significant.

5.1 Overview of Benefits and Services

As was the case prior to the demonstration, most Medicare-Medicaid enrollees in Washington continue to receive their health care and LTSS through fee-for-service Medicare and Medicaid, except for Medicaid community mental health services, which are capitated. Medicare and Medicaid services available to enrollees in the demonstration are unchanged, except for the addition of Medicaid health home services. Health home services consist of six statutorily defined services, which are mostly variations of care coordination and health promotion. In Washington, health homes are the vehicle for coordinating services for Medicare-Medicaid beneficiaries enrolled in the demonstration.

5.2 Impact Analyses on the Demonstration Eligible Population

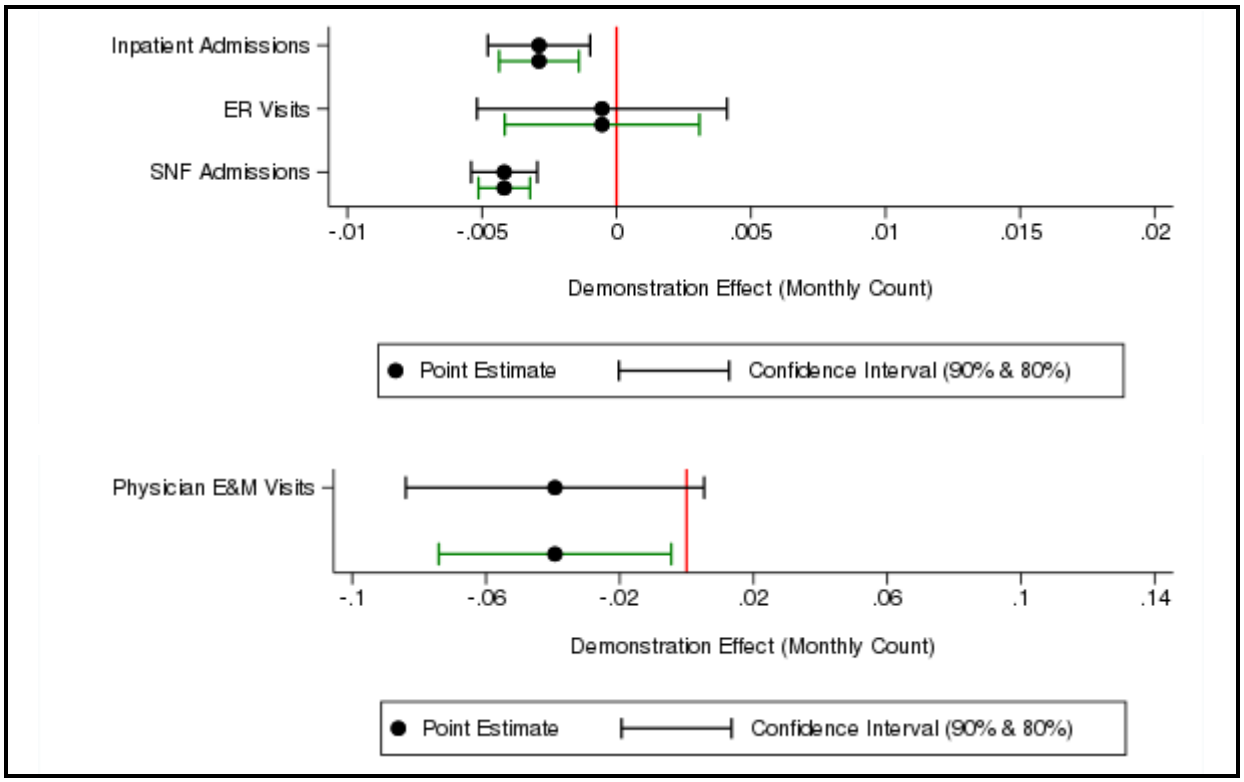
The population analyzed in this section includes all beneficiaries who met demonstration eligibility criteria in Washington State or in the comparison areas for Washington. Please see

Section 3.2 for details on demonstration eligibility criteria. A subsection following this section presents the results for demonstration eligible beneficiaries with SPMI. ***Appendix A*** provides a description of the comparison group for Washington.

Appendix B contains a description of the evaluation design, the comparison group identification methodology, data used, measure definitions, and regression methodology used in estimating demonstration impacts using a DID approach. Medicaid data derived from the Transformed-Medicaid Statistical Information System (T-MSIS) was not available for demonstration years 2 and 3, so no Medicaid regression results are presented in this report. The regression methodology accounts for differences between the demonstration and comparison groups over the predemonstration period (July 1, 2011, to June 30, 2013) and the demonstration period (July 1, 2013–December 31, 2016) to provide estimates of demonstration impact.

Figures 1 and ***2*** display the Washington demonstration's effect on key service utilization measures for the demonstration eligible population relative to the comparison group through demonstration year 3. The demonstration reduced monthly inpatient admissions by 0.0029 admissions (90 percent CI: –0.0048, –0.0010). The demonstration reduced SNF admissions on average by 0.0042 visits per month (90 percent CI: –0.0054, –0.0030), which is 0.0504 fewer SNF admissions per eligible beneficiary per year. The demonstration also resulted in a 7.85 percentage-point decrease (90 percent CI: –8.78, –6.91) in the probability of any long-stay NF use per demonstration year. There was no statistically significant demonstration effect on monthly ER visits or physician monthly E&M visits.

Figure 1
Demonstration effects on service utilization for eligible beneficiaries—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)

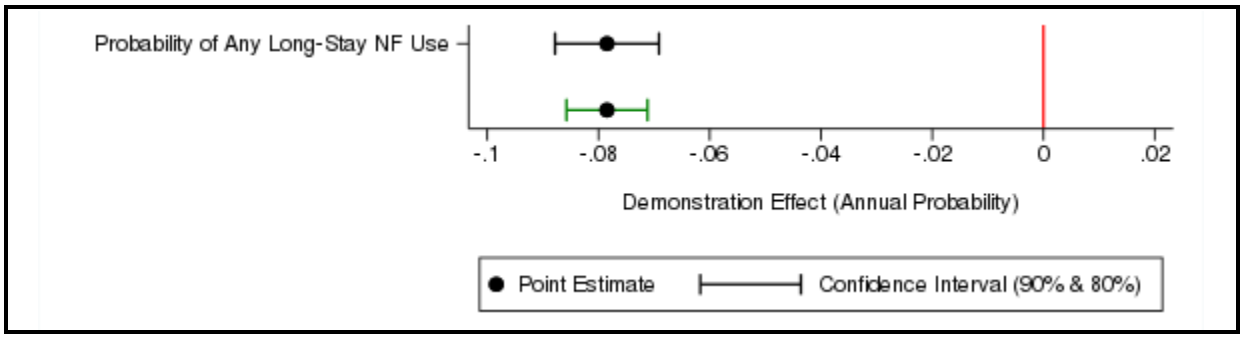


E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility.

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

SOURCE: RTI International analysis of Medicare data.

Figure 2
Demonstration effects on long-stay nursing facility use for eligible beneficiaries—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)



NF = nursing facility.

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

SOURCE: RTI International analysis of Minimum Data Set data.

Tables 6 and *7* present the demonstration's effects on service utilization for each of the demonstration years. Each number in ***Table 6*** presents the *monthly* change in the measure during each demonstration year reported, whereas the numbers reported in ***Table 7*** present the *yearly* change in the measure during each demonstration year reported. There was a decrease in inpatient admissions in demonstration year 1 and year 2 by 0.0034 and 0.0025 admissions per month for the demonstration group relative to the comparison group, for each year, respectively ($p < 0.10$). Monthly ER visits increased by 0.0070 visits per month for the demonstration group in year 3 relative to the comparison group ($p = 0.0470$). There was not a statistically significant effect of the demonstration on monthly physician E&M visits in year 1 and year 2; however, in year 3 there was a decrease of 0.0594 visits per month per beneficiary, relative to the comparison group ($p = 0.0336$). There was a persistent decrease in monthly SNF admissions each demonstration year between 0.0039 and 0.0044 admissions, relative to the comparison group ($p < 0.001$). There was also a persistent decrease in the probability of any long-stay NF use for all demonstration years, ranging from a 7.29 to 8.77 percentage-point reduction, relative to the comparison group ($p < 0.001$). This measure is defined as the number of individuals who stayed in a NF for 101 days or more, who were long-stay after the first month of demonstration eligibility, and includes both new admissions from the community and those with a continuation of a stay in a NF.

Table 6
Demonstration effects by year on service utilization for eligible beneficiaries in Washington
(* indicates significant at $p < 0.20$; ** indicates significant at $p < 0.10$)

Utilization measure (per month)	Demonstration year 1 (7/13–12/14)	Demonstration year 2 (1/15–12/15)	Demonstration year 3 (1/16–12/16)
Acute inpatient admissions	−0.0034**	−0.0025**	−0.0024
Monthly ER visits (non-admit)	−0.0057*	−0.0032	0.0070**
Physician E&M visits	−0.0294	−0.0240	−0.0594**
SNF admissions	−0.0039**	−0.0040**	−0.0044**

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

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

SOURCE: RTI International analysis of Medicare data.

Table 7
Annual demonstration effects on probability of long-stay nursing facility use for eligible beneficiaries in Washington
(* indicates significant at $p < 0.20$; ** indicates significant at $p < 0.10$)

Utilization measure (per demonstration year)	Demonstration year 1 (7/13–12/14)	Demonstration year 2 (1/15–12/15)	Demonstration year 3 (1/16–12/16)
Probability of any long-stay nursing facility use	−0.0877**	−0.0729**	−0.0761**

SOURCE: RTI International analysis of Minimum Data Set data.

Table 8 provides estimates of the regression-adjusted mean values of the utilization measures for the demonstration and comparison groups for the predemonstration and demonstration periods for each service. The purpose of this table is to understand the magnitude of the DID estimate relative to the adjusted mean outcome value in each period.

The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group and period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. In addition to the graphic representation in the figures above, the DID estimate is reported, along with the *p*-value and the relative percent change of the DID estimate compared to the average adjusted rate for the comparison group over the entire demonstration period.

To interpret the adjusted mean values in the third and fourth columns, as an example, the adjusted mean for monthly inpatient admissions was lower in the demonstration group than in the comparison group in both the predemonstration and demonstration periods. Alternatively, the adjusted mean for monthly ER visits was higher for the demonstration group in both the predemonstration and demonstration periods.

To help interpret the relative percentage difference reported in the fifth column, the DID estimate for monthly inpatient admissions implies a decrease of 4.5 percent as a result of the demonstration.

Table 8
Adjusted means and impact estimates for eligible beneficiaries in the demonstration and comparison groups for Washington through December 31, 2016

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted difference-in-differences (90% confidence interval)	*p*-value
Acute inpatient admissions	Demonstration group	0.0688	0.0499	−4.5	−0.0029 (−0.0048, −0.0010)	0.0127
	Comparison group	0.0828	0.0634			
Emergency room visits that did not lead to hospitalization	Demonstration group	0.1514	0.1455	NS	−0.0005 (−0.0052, 0.0041)	0.8489
	Comparison group	0.1373	0.1325			
Physician evaluation and management visits	Demonstration group	1.1415	1.1433	NS	−0.0395 (−0.0840, 0.0052)	0.1466
	Comparison group	1.2063	1.2506			
Skilled nursing facility admissions	Demonstration group	0.0286	0.0148	−19.8	−0.0042 (−0.0054, −0.0029)	< 0.0001
	Comparison group	0.0307	0.0211			
Probability of any long-stay nursing facility use	Demonstration group	0.2157	0.1382	–27.4	–0.0785 (–0.0878, –0.0691)	< 0.0001
	Comparison group	0.2841	0.2867			

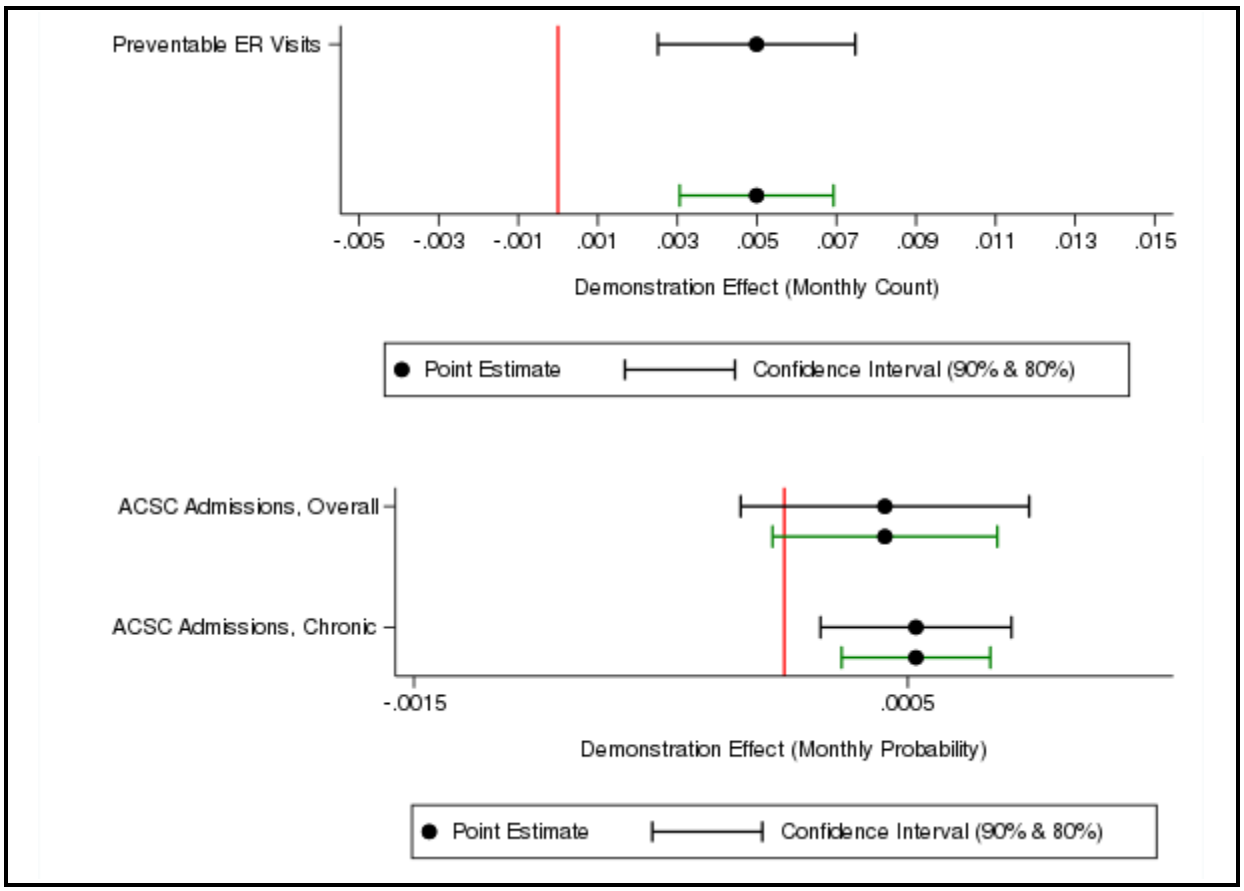
NS = not statistically significant.

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

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

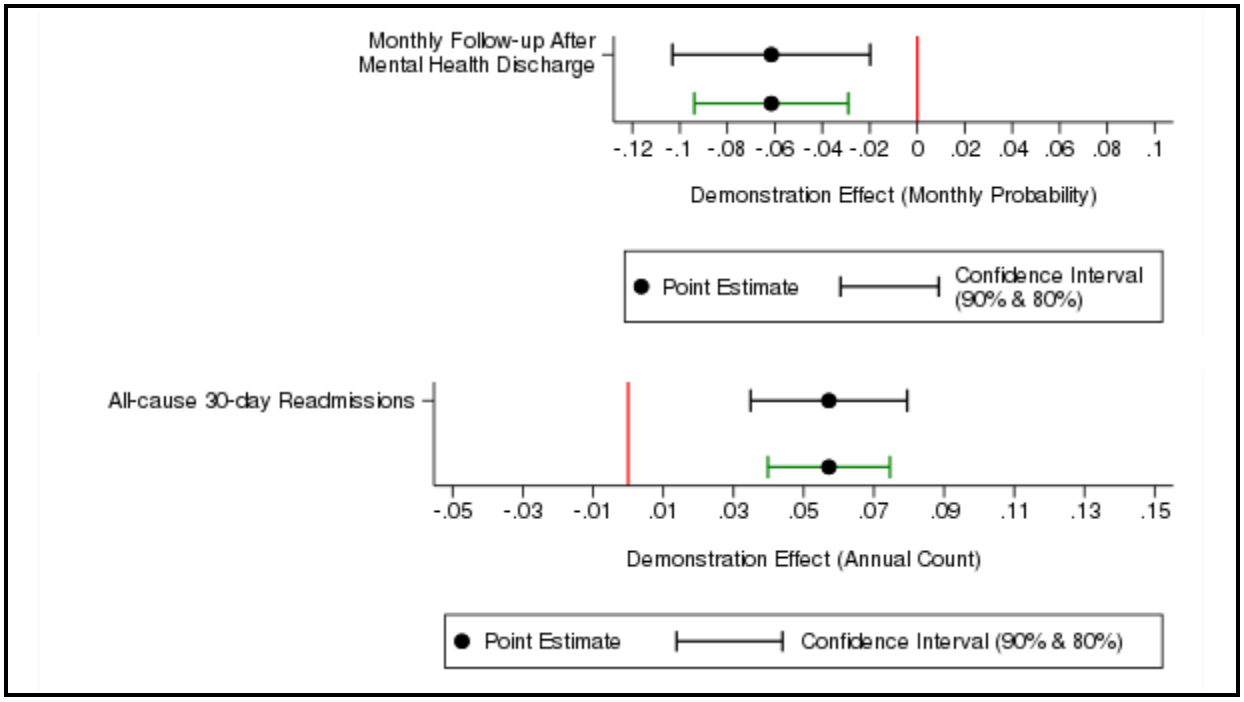
Figure 3 displays the Washington demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population. The Washington demonstration increased monthly preventable ER visits (0.0050 visits; 90 percent CI: 0.0025, 0.0075), the probability of ACSC admissions for chronic conditions (0.05 percentage points; 90 percent CI: 0.01, 0.09), and also lowered the monthly probability of a follow-up visit after a mental health admission (−6.1 percentage points; 90 percent CI: −10.30, −1.98), relative to the comparison group. The Washington demonstration also increased all-cause 30-day readmissions (0.0572 admissions for each demonstration year over the demonstration period; 90 percent CI: 0.0349, 0.0795). There was no statistically significant demonstration effect on monthly ACSC admission for overall conditions over the course of the demonstration period.

Figure 3
Demonstration effects on RTI quality of care measures for eligible beneficiaries—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)



(continued)

Figure 3 (continued)
Demonstration effects on RTI quality of care measures for eligible beneficiaries—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016



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

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

SOURCE: RTI International analysis of Medicare data.

Table 9 presents the demonstration's effects on the RTI quality of care and care coordination measures for each demonstration year. There was no demonstration effect on monthly preventable ER visits in year 1; however, by year 2 and year 3 there was a statistically significant increase in visits relative to the comparison group (0.0038 visits in year 2, $p = 0.0908$; 0.0093 visits in year 3, $p < 0.001$). The probability of an ACSC admission (chronic) was significantly higher in year 2 (0.07 percentage points, $p = 0.0259$), though there was no statistically significant effect during year 1 or year 3 of the demonstration period. The probability of a monthly follow-up visit after a mental health discharge was lower among those in the demonstration group in years 2 and 3, relative to the comparison group (−7.4 percentage points in year 2 and −7.7 percentage points in year 3, $p < 0.05$). The increase in all-cause 30-day readmissions for the demonstration group relative to the comparison group was statistically significant in all 3 demonstration years (0.0801 readmissions in year 1; 0.0529 readmission in year 2; 0.0400 readmissions in year 3, $p < 0.05$). There was no statistically significant effect on the probability of ACSC admissions for overall conditions in any of the demonstration years.

Table 9
Demonstration effects by year on quality of care and care coordination for eligible beneficiaries in Washington
(* indicates significant at $p < 0.20$; ** indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration year 1 (7/13–12/14)	Demonstration year 2 (1/15–12/15)	Demonstration year 3 (1/16–12/16)
Monthly preventable ER visit	0.0018	0.0038**	0.0093**
Monthly ACSC admissions, overall	0.0002	0.0005*	0.0005
Monthly ACSC admissions, chronic	0.0004	0.0007**	0.0006*
30-day follow-up after mental health discharges	−0.0167	−0.0743**	−0.0769**
Annual all-cause 30-day readmission	0.0801**	0.0529**	0.0400**

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

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

SOURCE: RTI International analysis of Medicare data.

Table 10 provides estimates for the regression-adjusted mean value for each of the demonstration and comparison groups for the predemonstration and demonstration periods for the RTI quality of care and care coordination measures. The purpose of this table is to understand the magnitude of the DID estimates for quality of care outcomes relative to the adjusted mean values in each period. The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group in each period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period and the relative direction of any potential effect in each group over time. In addition to the graphic representation above, the DID estimate is also provided for reference, along with the *p*-value and the relative percent change of the DID estimate compared to an average mean use rate for the comparison group during the entire demonstration period.

To interpret the adjusted mean values in the third and fourth columns, as an example, the adjusted mean for the number of preventable ER visits was higher in the demonstration group than in the comparison group in both the predemonstration and demonstration periods. Alternatively, the adjusted means for the probability of a follow-up visit after a mental health discharge was higher in the demonstration group than in the comparison group in the predemonstration period, but lower in the postdemonstration period.

To help interpret the relative percentage difference reported in the fifth column, the DID estimate for all-cause 30-day readmissions implies an annual 14.8 percent increase as a result of the demonstration; and the DID estimate for the probability of ACSC (chronic) admissions implies an increase of 7.3 percent as a result of the demonstration.

Table 10
Adjusted means and impact estimate for eligible beneficiaries in the demonstration and comparison groups

Measure	Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Regression-adjusted difference-in-differences estimate (90% confidence interval)	*p*-value
Preventable ER visit	Demonstration group	0.0668	0.0694	7.9	0.0050 (0.0025, 0.0075)	0.0009
	Comparison group	0.0663	0.0634			
ACSC overall admission	Demonstration group	0.0117	0.0087	3.3	0.0004 (−0.0002, 0.0011)	0.2515
	Comparison group	0.0174	0.0125			
ACSC chronic admission	Demonstration group	0.0081	0.0062	7.3	0.0005 (0.0001, 0.0009)	0.0239
	Comparison group	0.0105	0.0073			
30-day follow-up after mental health discharge	Demonstration group	0.3484	0.3473	−15.6	−0.0615 (−0.1031, −0.0198)	0.0151
	Comparison group	0.3290	0.3932			
All-cause 30-day readmission rate	Demonstration group	0.2741	0.3782	14.8	0.0572 (0.0349, 0.0795)	< 0.0001
	Comparison group	0.3306	0.3863			

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

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

SOURCE: RTI International analysis of Medicare data.

5.2.1 Descriptive Statistics on the Demonstration Eligible Population

In addition to the impact results presented for the eligible population in this section, ***Appendix C, Tables C-1*** through ***C-5*** present descriptive statistics for the demonstration eligible population for each service by year to help understand the utilization experience over time. We present results on 16 Medicare service utilization measures, seven RTI quality of care measures, and five NF-related measures derived from the MDS. No testing was performed between groups or years. The results reflect the underlying experience of the two groups, changes over time are not intended to be interpreted as caused by the demonstration.

The demonstration and comparison groups were similar across many of the service utilization measures in each of the predemonstration (baseline) years and the demonstration years (***Table C-1***). However, there were a few outcomes where some differences were apparent. For example, inpatient use, SNF admissions, and primary care E&M visits were higher for the comparison group compared to the demonstration group. With the exception of SNF admissions and outpatient therapy services, Medicare payments per eligible month were higher in the demonstration group compared to the comparison group.

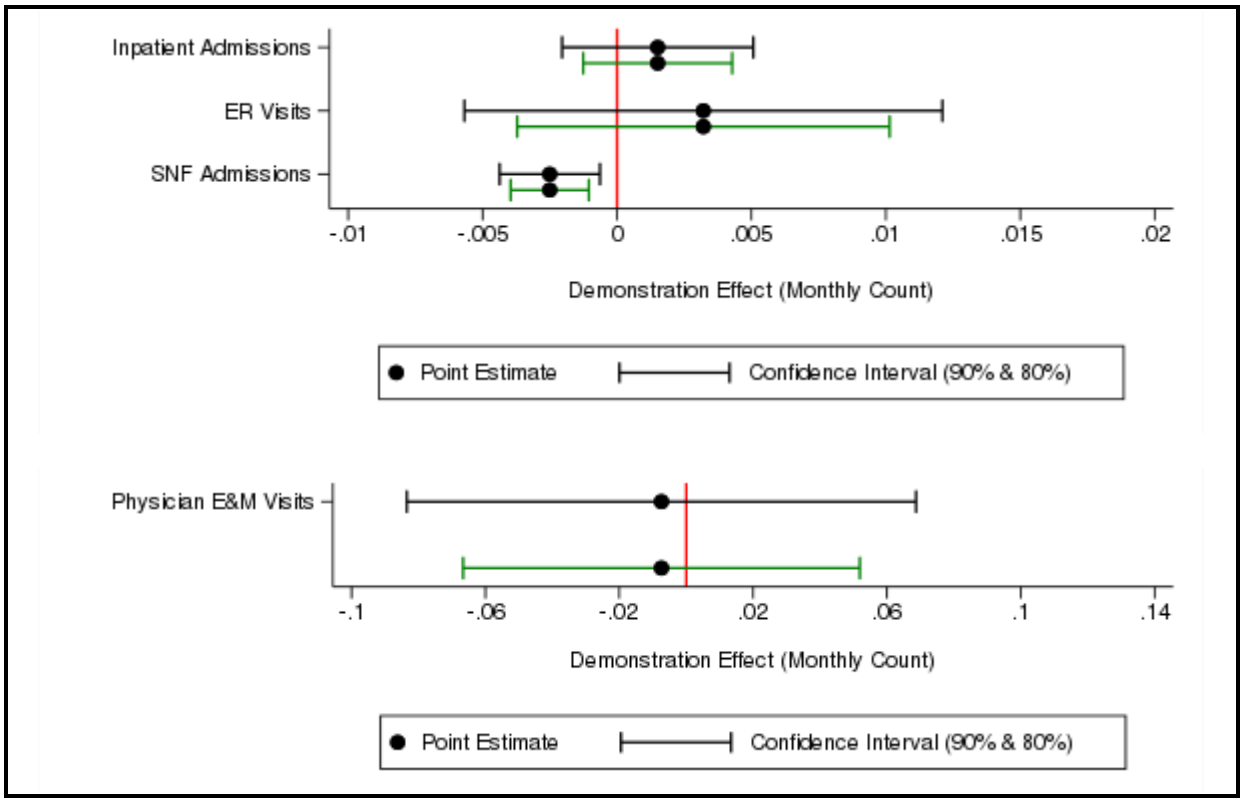
As with the service utilization measures, the Washington demonstration eligible beneficiaries were similar to the comparison group on many, but not all, of the RTI quality of care and care coordination measures (***Table C-2***). In general, demonstration eligible beneficiaries had fewer 30-day all-cause readmissions, 30-day follow-up visits after mental health discharges, admissions for overall and chronic ACSC diagnoses, and screening for clinical depression over the predemonstration and demonstration periods. No clear pattern was evident for the pneumococcal vaccination rate or preventable ER visits. Finally, there was no clear pattern for long-stay NF admissions between the demonstration group and comparison group (***Table C-3***), although demonstration eligible beneficiaries had a lower percentage of long-stay NF users relative to the comparison group. There were differences in some characteristics of long-stay NF residents: demonstration eligible beneficiaries had lower rates of severe cognitive impairment, worse functional status, and relative to the comparison group, fewer beneficiaries had a low level of care need during the demonstration period.

5.2.2 Impact Analyses on the Demonstration Eligible Population with SPMI

Demonstration eligible beneficiaries were defined for the Financial Alignment Initiative evaluation as having SPMI if there were any inpatient or outpatient mental health visits for schizophrenia or bipolar disorders within the past 2 years. Approximately 51 percent of all demonstration eligible beneficiaries had SPMI in demonstration year 3. Similar to the overall eligible population, eligible beneficiaries with SPMI had fewer SNF admissions, relative to the comparison group. However, there was no effect of the demonstration on inpatient admissions, relative to the comparison group. Consistent with the overall population, the demonstration eligible population with SPMI had higher preventable ER visits, lower monthly follow-up visits after a mental health discharge, and higher readmissions, relative to the comparison group. In contrast to the overall population, the demonstration increased the probability of any ACSC admissions (overall and chronic) for those with SPMI, relative to the comparison group.

Figure 4 displays the demonstration's effects on key service utilization measures for the demonstration eligible population with SPMI. The Washington demonstration reduced monthly SNF admissions over the demonstration period among those with SPMI, relative to the comparison group (−0.0025 admissions; 90 percent CI: = −0.0044, −0.0006). There was no statistically significant impact on inpatient admissions, ER visits, or physician E&M visits among beneficiaries with SPMI.

Figure 4
Demonstration effects on service utilization for eligible beneficiaries with SPMI in Washington—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)



E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility; SPMI = severe and persistent mental illness.

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

SOURCE: RTI International analysis of Medicare data.

Table 11 displays the demonstration effects on key service utilization measures among beneficiaries with SPMI for each demonstration year. There was a statistically significant increase in monthly ER visits in demonstration year 3 (0.0130 visits, $p = 0.0217$). Similar to the overall eligible population, there was a decline in SNF admissions in year 1 (−0.0040 admissions, $p = 0.0058$) and year 2 (−0.0023 admissions, $p = 0.0508$) among demonstration eligible beneficiaries with SPMI, relative to the comparison group. There were no statistically significant effect of the demonstration on inpatient admissions or physician E&M visits among beneficiaries with SPMI in any of the 3 demonstration years.

Table 11
Demonstration effects by year on service utilization for eligible beneficiaries with SPMI in Washington

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

Utilization measure (per month)	Demonstration year 1 (7/13–12/13)	Demonstration year 2 (1/15–12/15)	Demonstration year 3 (1/16–12/16)
Acute inpatient admissions	−0.0028	0.0033*	0.0033
ER visits (non-admit)	−0.0134*	0.0036	0.0130**
Physician E&M visits	−0.0091	0.0287	−0.0278
SNF admissions	−0.0040**	−0.0023**	−0.0017

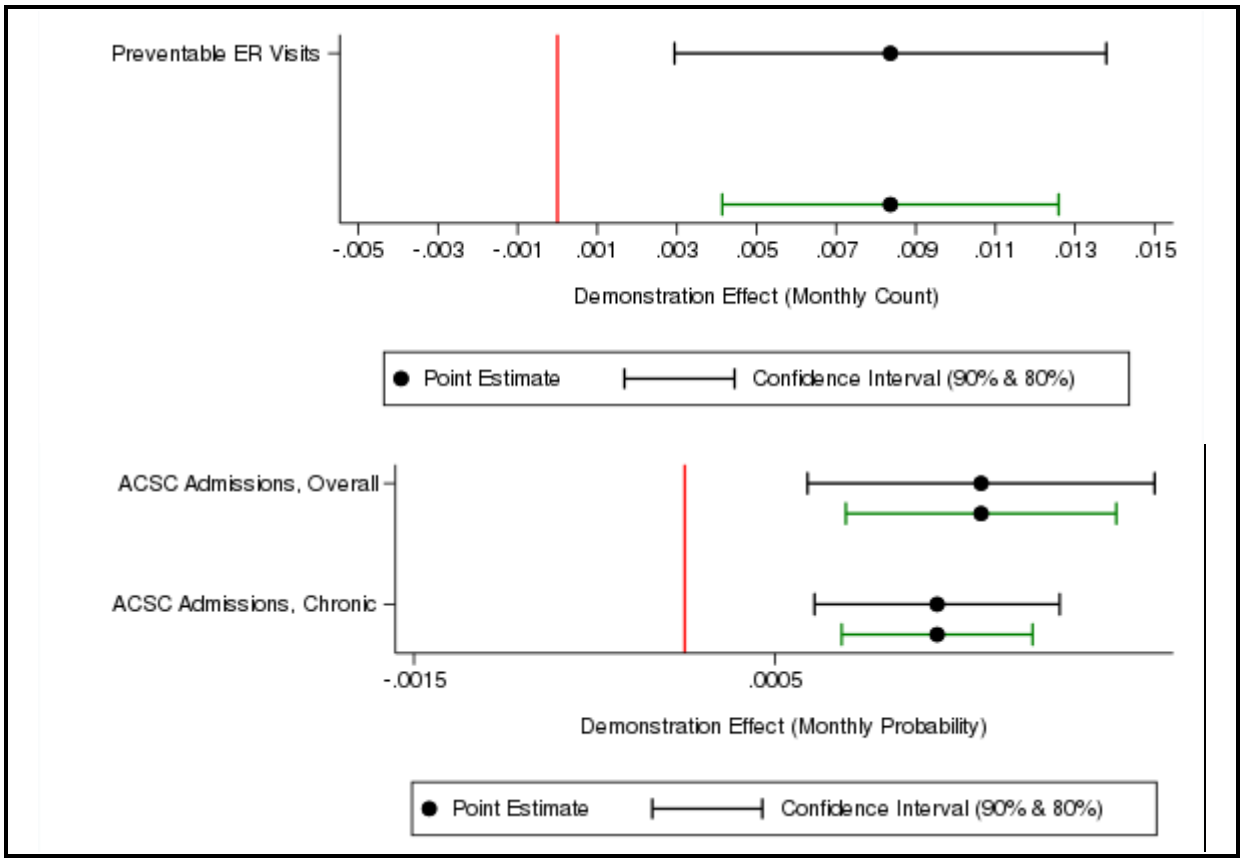
E&M = evaluation and management; ER = emergency room; SNF = skilled nursing facility; SPMI = severe and persistent mental illness.

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

SOURCE: RTI International analysis of Medicare data.

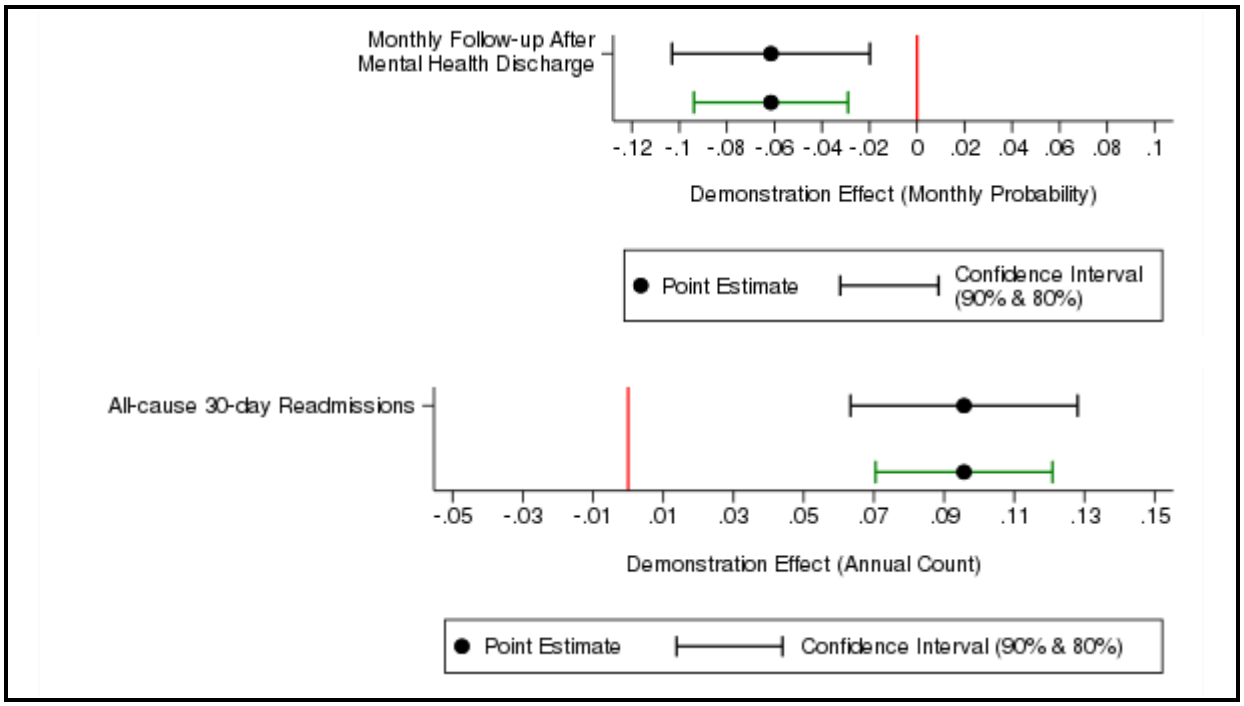
Figure 5 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with SPMI. There was a statistically significant increase in monthly preventable ER visits in the demonstration group, relative to the comparison group (0.0084 visits; 90 percent CI: 0.0029, 0.0138). The probability of both overall and chronic ACSC admissions increased by 0.16 percentage points (90 percent CI: 0.07, 0.26) and 0.14 percentage points (90 percent CI: 0.07, 0.21), respectively, relative to the comparison group. Similar to the overall population, the probability of a monthly follow-up after a mental health discharge declined among those in the demonstration group with SPMI, relative to the comparison group (−6.15 percentage points; 90 percent CI: −10.31, −2.00). Finally, the Washington demonstration increased the annual all-cause 30-day readmission rate among those with SPMI by 0.0957 readmissions per discharge (90 percent CI: 0.0633, 0.1280).

Figure 5
Demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI in Washington—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)



(continued)

Figure 5 (continued)
Demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI in Washington—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2016
(90 and 80 percent confidence intervals)



ACSC = ambulatory care sensitive condition; ER = emergency room; SPMI = severe and persistent mental illness.

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

SOURCE: RTI International analysis of Medicare data.

Table 12 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with SPMI, by each demonstration year. Preventable ER visits increased among those in the demonstration group with SPMI in demonstration year 2 and year 3 (0.0075 visits in year 2, $p = 0.0848$; 0.0148 visits in year 3; $p < 0.001$), relative to the comparison group. In addition, the probability of both overall and chronic ACSC admissions was greater among those in the demonstration group in year 1 (0.17 and 0.11 percentage points, respectively, $p < 0.10$), demonstration year 2 (0.13 and 0.14 percentage points, respectively, $p < 0.10$), and year 3 (0.18 and 0.16 percentage points, respectively, $p < 0.10$), relative to the comparison group. Similar to the overall population, the probability of a 30-day follow-up visit after a mental health discharge was lower in the demonstration group in year 2 (−7.43 percentage points, $p = 0.0010$) and in year 3 (−7.69 percentage points, $p = 0.0103$), relative to the comparison group. Finally, there was an increase in the annual count of readmissions in the demonstration group in demonstration year 1 (0.1183 readmissions per discharge, $p < 0.001$), demonstration year 2 (0.1043 readmissions per

discharge, $p < 0.0001$), and demonstration year 3 (0.0794 readmissions per discharge, $p < 0.001$), relative to the comparison group.

Table 12
Demonstration effects by year on quality of care and care coordination for eligible beneficiaries with SPMI in Washington
(* indicates significant at $p < 0.20$; ** indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration year 1 (7/13–12/14)	Demonstration year 2 (1/15–12/15)	Demonstration year 3 (1/16–12/16)
Monthly preventable ER visit	−0.0027	0.0075**	0.0148**
Monthly ACSC admissions, overall	0.0017**	0.0013**	0.0018**
Monthly ACSC admissions, chronic	0.0011**	0.0014**	0.0016**
30-day follow-up after mental health discharges	−0.0167	−0.0743**	−0.0769**
Annual all-cause 30-day readmission	0.1183**	0.1043**	0.0794**

ACSC = ambulatory care sensitive condition; ER = emergency room; SPMI = severe and persistent mental illness.

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

SOURCE: RTI International analysis of Medicare data.

5.2.3 Service Use for Health Home and Non-Health Home Populations

Tables C-4 and ***C-5*** in ***Appendix C*** present descriptive statistics for the health home user population, compared to those demonstration eligible beneficiaries who were not health home users, for each service by demonstration year, to help understand the utilization experience over time.

Health home users generally had higher utilization than the eligible non-health home group across most service settings (***Table C-4***). For the quality of care and care coordination measures, health home users had a higher probability of ACSC admissions and rates of all-cause 30-day readmissions (***Table C-5***). Preventable ER visits were also higher for health home users. Follow-up care after a mental health discharge was similar across both groups after the first demonstration year.

5.2.4 Service Use by Demographic Characteristics of Eligible Beneficiaries

To examine any differences in racial and ethnic groups, ***Figures 6, 7,*** and **8** provide month-level results for six settings of interest for Washington eligible beneficiaries: inpatient admissions, emergency department (ED) visits (non-admit), hospice admissions, primary care E&M visits, behavioral health visits, and outpatient therapy (physical therapy [PT], occupational therapy [OT], and speech therapy [ST]) visits. Results across these six settings are displayed using three measures: percentage with any use of the respective service, counts per 1,000 eligible beneficiaries with any use of the respective service, and counts per 1,000 demonstration eligible beneficiaries.

Figure 6 presents the percentage of use of selected Medicare services. African American beneficiaries had slightly higher inpatient admissions and ED visits, relative to other racial categories. A slightly higher percentage of white beneficiaries had monthly primary care visits, relative to other races. White beneficiaries also received more outpatient therapy visits and behavioral health visits in 1 month, compared to other races.

Regarding counts of services used among users of each respective service, as presented in ***Figure 7***, there were limited differences across racial groups for inpatient admissions, ED visits, hospice use, and physician E&M visits. However, African American and white beneficiaries received more behavioral health visits and outpatient therapy visits in months when there was any use, relative to other racial groups.

Figure 8 presents counts of services across all Washington demonstration eligible beneficiaries regardless of having any use of the respective services. When looking at use for all eligible beneficiaries in all eligible months, the results are quite different from those of users of services in ***Figure 7***. African American beneficiaries had more inpatient admissions and ED visits relative to the other racial groups. White and African American beneficiaries had more behavioral health visits and outpatient therapy visits relative to the other racial groups.

Figure 6
Percent with use of selected Medicare services

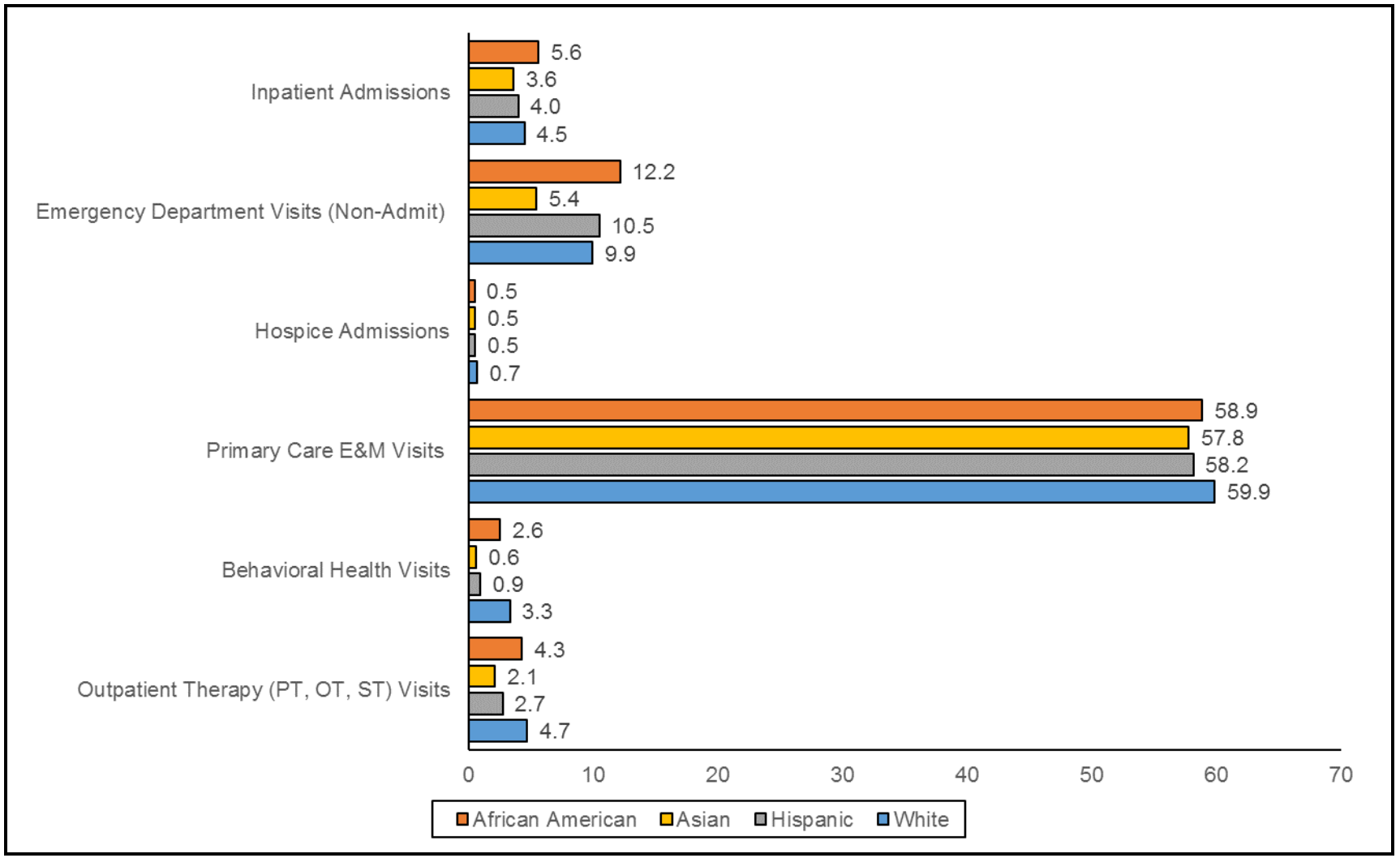


Figure 7
Service use among all demonstration eligible beneficiaries with use of service per 1,000 user months

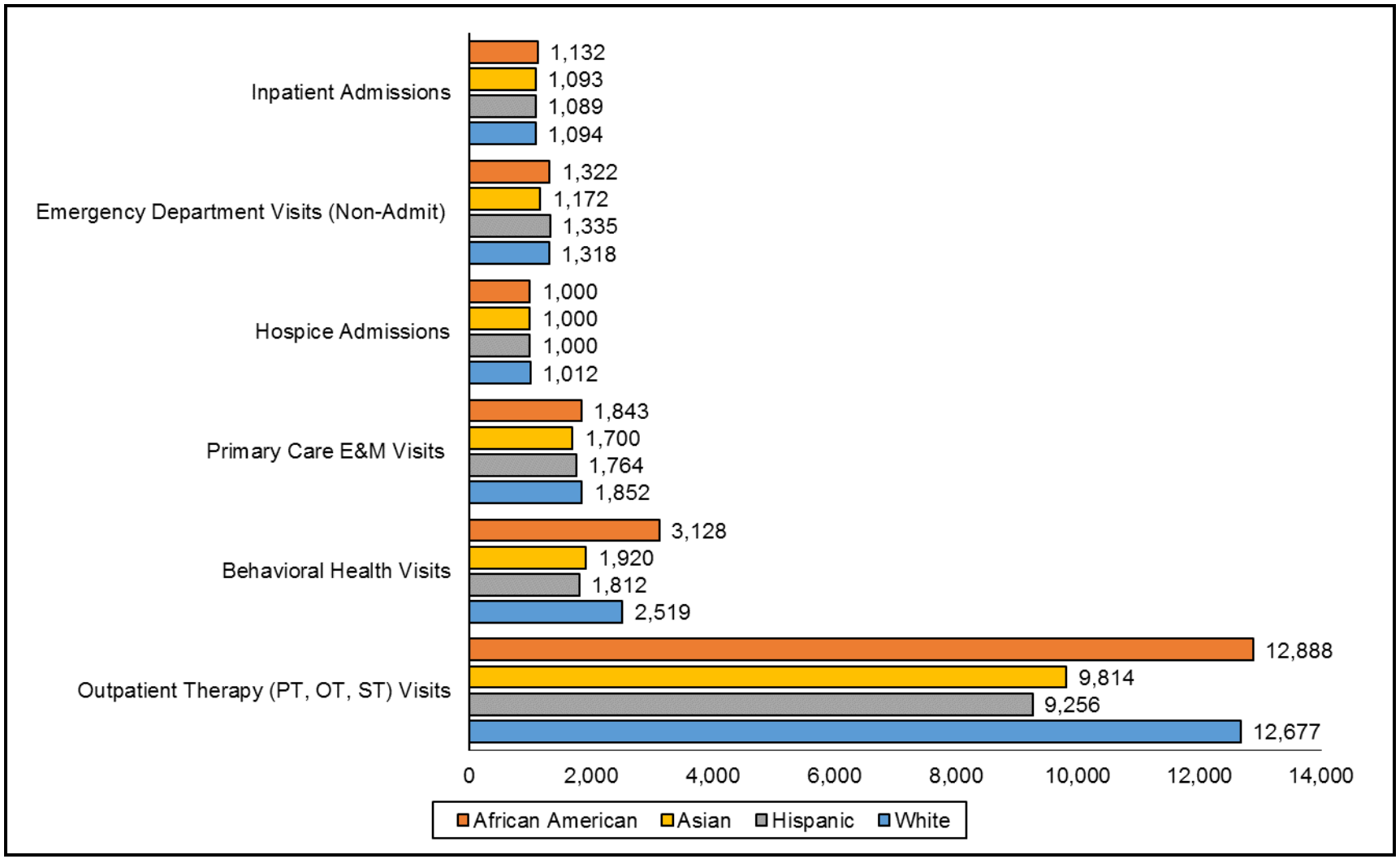
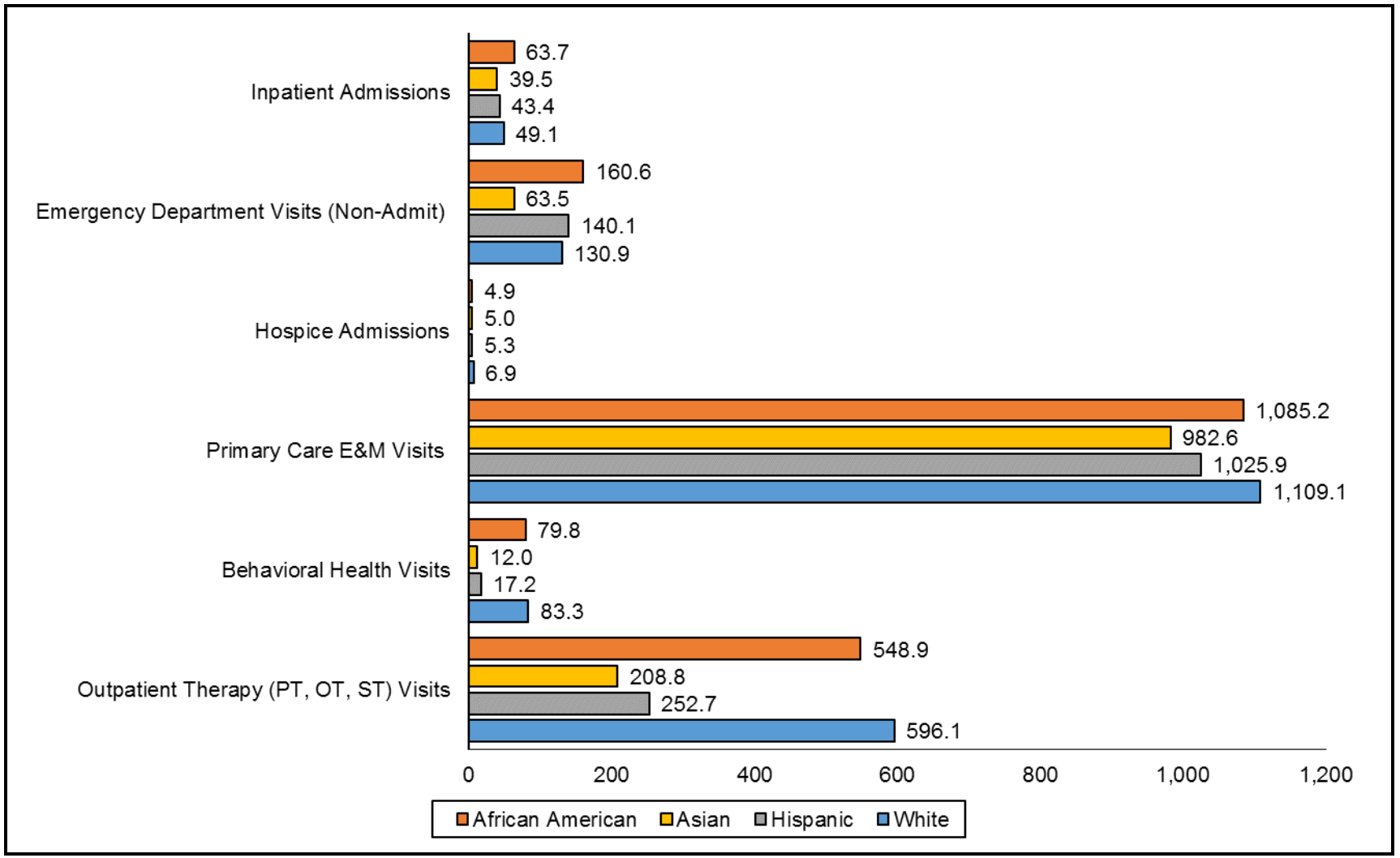


Figure 8
Service use among all demonstration eligible beneficiaries per 1,000 eligible months



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6. Cost Savings Calculation

Highlights

- RTI and CMS conducted an estimate of Medicare savings using a difference-in-differences (DID) analysis examining all beneficiaries eligible for the demonstration in the Washington demonstration area and in comparison areas.
- The results of these analyses show significant savings as a result of the demonstration.
- The magnitude of identified gross Medicare savings was higher in demonstration period 2 compared to demonstration periods 1 and 3.
- The finding of significant positive gross Medicare savings is consistent with findings using an actuarial methodology, which are used to assess performance payments for the demonstration, though the magnitude of savings identified is higher in the regression-based calculation ($149.6 million).

This chapter presents Medicare Parts A and B savings calculations for the first 42 months of the Washington Health Home MFFS Demonstration, from July 1, 2013, through December 31, 2016. Future reports will also include Medicaid savings calculations for each year of the demonstration as data are available.

The Medicare savings calculation presented here uses a regression-based difference-in-differences (DID) methodology as part of the larger evaluation. The calculations use an intent-to-treat (ITT) analytic framework that includes all beneficiaries eligible for the demonstration rather than only those who engage in the demonstration.

Note that separate Medicare savings calculations are conducted for the Washington demonstration using an actuarial approach to assess performance payments from CMS based on achieving statistically significant savings and meeting or exceeding quality requirements. The total gross Medicare savings identified for the first 3 demonstration periods using the actuarial method is approximately $107.0 million, compared to $149.6 million from the DID analysis.[1] Though the purpose and methods of these savings calculations differ, both show significant savings as a result of the Washington demonstration.

The following sections discuss the analytic approach and results of the regression-based Medicare savings analysis for the first 42 months of the Washington demonstration.

6.1 Evaluation Design

To assess the impact of the demonstration on Medicare costs for Medicare-Medicaid enrollees, RTI used an ITT approach comparing the population eligible for the Washington demonstration with a comparison group not affected by the demonstration. An ITT approach diminishes the potential for selection bias and highlights the effect of the demonstration on all

[1] Actuarial report can be found here: https://innovation.cms.gov/Files/reports/fai-wa-finalyr2preyr3.pdf

beneficiaries in the demonstration eligible population. All Medicare-Medicaid enrollees eligible for the demonstration constitute the evaluation sample, regardless of whether they actively participated in the demonstration care model. Therefore, the analyses presented here include all demonstration eligible beneficiaries, including those who were eligible but were not contacted by the State or those who were eligible but did not seek services. Beneficiaries eligible for the demonstration were identified using quarterly files submitted by the State of Washington.

A comparison group was identified in two steps. First, RTI identified comparison areas that are most similar to the Washington demonstration areas with regard to area-level measures of health care market characteristics, such as Medicare and Medicaid spending and State policies affecting Medicaid-Medicare enrollees. Second, beneficiaries were selected using a propensity score model. Further discussion of the comparison group selection process is detailed in ***Appendix A***. RTI used a DID approach to evaluate the impact of the demonstration on Medicare costs. DID refers to an analytic strategy whereby two groups—one affected by the policy intervention and one not affected—are compared on an outcome of interest before and after the policy intervention. The baseline period included 2 years prior to the start of the Washington demonstration (July 1, 2011–June 30, 2013), the first demonstration period included the first 18 months of the demonstration (July 1, 2013–December 31, 2014), the second demonstration period included calendar year 2015 (January 1, 2015–December 31, 2015), and the third demonstration period included calendar year 2016 (January 1, 2016–December 31, 2016).

To estimate the average treatment effect on the demonstration eligible population for monthly Medicare expenditures, RTI ran generalized linear models (GLMs) with a gamma distribution and a log link. This is a commonly used approach in analysis of skewed data or in cases where a high proportion of observations may have values equal to zero. The model also employed propensity-score weighting and adjusted for clustering of observations at the county level.

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

Demographic variables included in the model were gender, race, end-stage renal disease status, and hierarchical condition category score. Area-level variables included in the savings model were Medicare spending per Medicare-Medicaid enrollee age 19 or older, Medicare Advantage penetration rate, Medicaid-to-Medicare fee-for-service (FFS) index for all services, Medicaid spending per Medicare-Medicaid enrollee age 19 or older, proportion of Medicare-Medicaid enrollees age 65 or older using nursing facilities (NFs), proportion of Medicare-

Medicaid enrollees age 65 or older using home and community-based services, proportion of Medicare-Medicaid enrollees age 65 or older using personal care, proportion of Medicare-Medicaid enrollees age 19 or older with Medicaid managed care, population per square mile, and physicians per 1,000 population. Additional area-level variables—such as the proportion of adults with a college degree and proximity to hospitals or NFs—were used as proxies for sociodemographic indicators and local area characteristics. Note that these variables were also used in the comparison group selection process. Also, a beneficiary may not have observations for the entirety of the baseline and demonstration periods (66 months) due to changes in eligibility over this time.

6.2 Medicare Expenditures: Constructing the Dependent Variable

RTI gathered baseline and demonstration monthly Medicare expenditure data for both the demonstration and comparison groups from Medicare FFS claims data. FFS claims included all Medicare Parts A and B services.

Two adjustments were made to the monthly Medicare expenditures. The first was to account for Medicare sequestration reductions starting April 1, 2013. The second was the average geographic adjustment (AGA) to ensure that observed expenditure variations are not caused by differences in Medicare payment policies in different areas of the country. ***Table 13*** summarizes each adjustment in greater detail.

After applying all adjustments, beneficiary-level monthly expenditures were Winsorized (capped) at the 99th percentile across all comparison group and demonstration group observations to limit the effect of extreme outliers in the data.

Table 13
Adjustments to Medicare expenditures variable

Adjustment description	Reason for adjustment	Adjustment detail
Medicare sequestration payment reductions	Under sequestration, Medicare payments were reduced by 2% starting April 1, 2013. Because the baseline period includes months prior to April 1, 2013, it is necessary to apply the adjustment to these months of data.	Reduced FFS claim payments incurred before April 2013 by 2%.
Average geographic adjustments (AGAs)	FFS claims also reflect geographic payment adjustments. To ensure that change over time is not related to differential change in geographic payment adjustments, payments were "unadjusted" using the appropriate county-specific AGA factor.	Medicare payments were divided by the appropriate county-specific full AGA factor for each year.

FFS = fee-for-service.

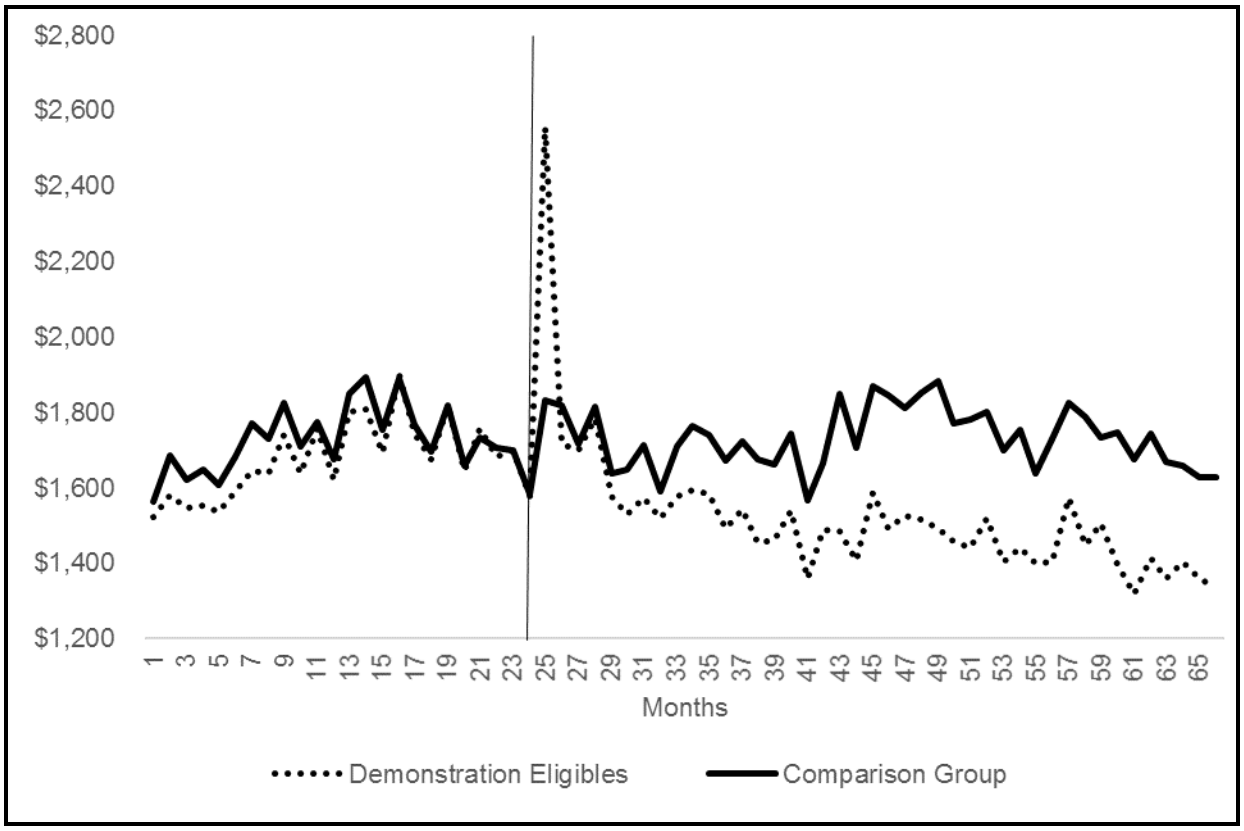
6.3 Results

6.3.1 Descriptive Cost Analysis

The first step in the analysis was to plot the unweighted mean monthly Medicare expenditures (Winsorized) for both the demonstration group and the comparison group. ***Figure 9***

indicates that the demonstration group and the comparison group had parallel trends in mean monthly expenditures during the 24-month baseline period, which is an important assumption to the DID analysis. Note that the spike in monthly expenditures for demonstration eligible beneficiaries in the first month of the demonstration is due to a small number of relatively higher cost eligible beneficiaries at the start of the demonstration period.

Figure 9
Mean monthly Medicare expenditures (unweighted), baseline and demonstration periods, Washington demonstration eligible beneficiaries and comparison groups, July 2011–December 2016

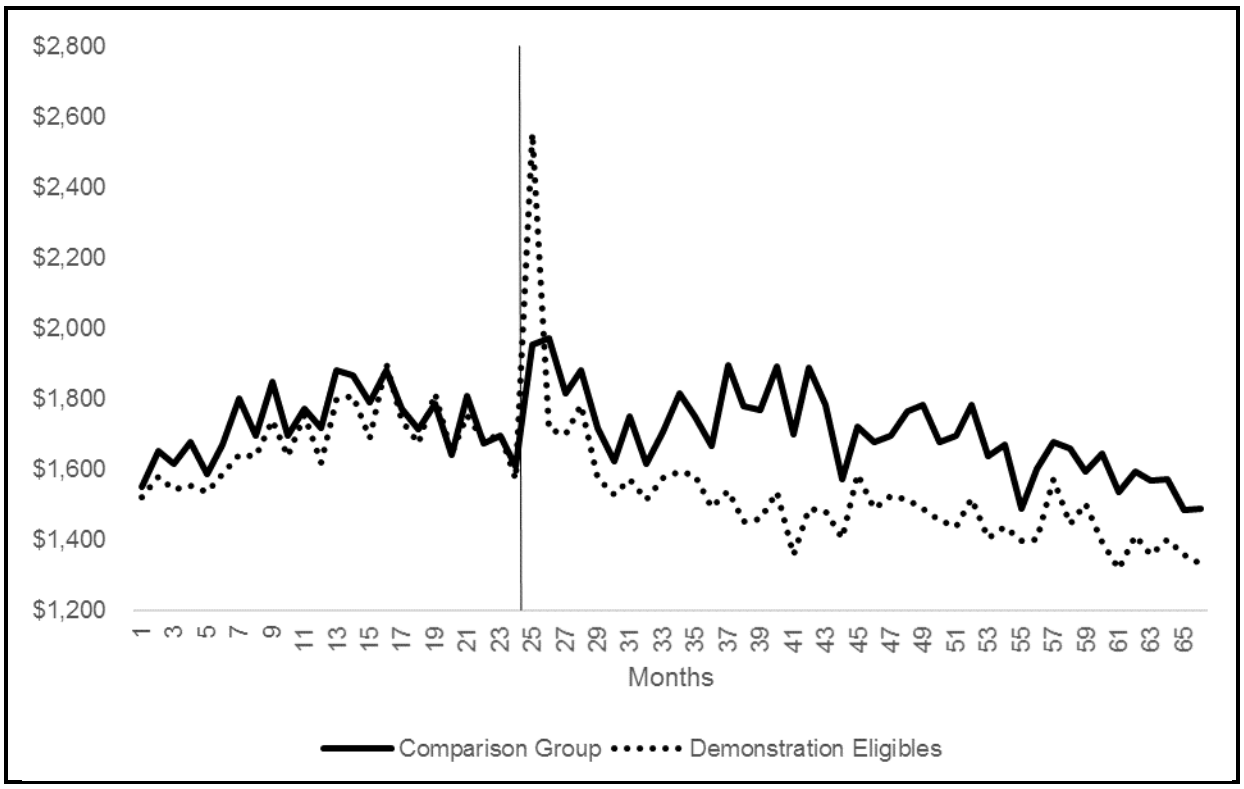


NOTE: Beneficiary-level monthly expenditures were Winsorized at the 99th percentile across all comparison group and demonstration group observations to limit the effect of extreme outliers.

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_482warar201.part 12d).

Figure 10 demonstrates the same plot of mean monthly Medicare expenditures (Winsorized) for both the demonstration group and the comparison group, after applying the propensity weights.

Figure 10
Mean monthly Medicare expenditures (weighted), baseline and demonstration periods, Washington demonstration eligible beneficiaries and comparison groups, July 2011–December 2016



NOTE: Beneficiary-level monthly expenditures were Winsorized at the 99th percentile across all comparison group and demonstration group observations to limit the effect of extreme outliers.

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_482warar201.part 12b).

Tables 14 and ***15*** show the mean monthly Medicare expenditures (Winsorized) for the demonstration and comparison groups in the baseline and demonstration periods, unweighted and weighted respectively. Both tables show a decrease in mean monthly Medicare expenditures (Winsorized) during the demonstration period for the demonstration group. The unweighted mean decrease was −$197 compared to an increase of $7 for the comparison group. When the weights are added, there is a net decrease of −$27 for the comparison group between baseline and demonstration periods. The descriptive DID values in each table represent the overall impact on savings using descriptive statistics. The change in the demonstration group minus the change in the comparison group is the descriptive DID value. This value would be equal to zero if the differences between baseline and demonstration periods were the same for both the demonstration group and the comparison group. A negative value indicates savings for the

demonstration group, and a positive value indicates that there were no savings for the demonstration group. The descriptive data shown in both ***Tables 14*** and ***15*** indicate that there were savings over the first 3 demonstration periods.

Table 14
Mean monthly Medicare expenditures (unweighted), baseline and demonstration periods, Washington demonstration eligible beneficiaries and comparison groups

Group	Baseline period	Demonstration period	Difference
Demonstration group	$1,675	$1,478	−$197
Comparison group (unweighted)	$1,724	$1,731	$7
Difference-in-differences results	—	—	−$204

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0482warar201.part13d).

Table 15
Mean monthly Medicare expenditures (weighted), baseline and demonstration periods, Washington demonstration eligible beneficiaries and comparison groups

Group	Baseline period	Demonstration period	Difference
Demonstration group	$1,675	$1,478	−$197
Comparison group (weighted)	$1,729	$1,702	−$27
Difference-in-differences results	—	—	−$170

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0482warar201.part13b).

6.3.2 Regression-based Cost Impact Results

While the descriptive statistics are informative, to obtain a more accurate estimate of savings, RTI conducted a multivariate regression analysis to estimate savings controlling for beneficiary and area-level characteristics by adjusting for clustering at the county level. In addition to controlling for beneficiary and area-level characteristics, the model included a time trend variable (coded as months 1–66), a dichotomous variable for whether the observation was from the baseline or demonstration period ("Post"), a variable to indicate whether the observation was from a beneficiary in the comparison group or the demonstration group ("Intervention"), and an interaction term ("Intervention * Post") which is the DID estimate in the multivariate model for the net effect of demonstration eligibility. RTI also ran a model specific to the year of the demonstration and included a dummy variable for each year of the demonstration ("DemoYear1," "DemoYear2," and "DemoYear3") and three interaction terms ("Demonstration*DemoYear1," "Demonstration*DemoYear2," and "Demonstration*DemoYear3").

Table 16 shows the main results from a regression-based DID analysis for demonstration years 1, 2, and 3, controlling for beneficiary demographics and market characteristics. The coefficients on the interaction terms are negative and statistically significant, indicating that there

were Medicare Parts A and B savings as a result of the demonstration using the ITT analysis framework. The coefficient on the DID variable for year 2 of the demonstration (−$219.51) shows greater savings than year 1 of the demonstration (−$179.51). The coefficient on the DID variable for year 3 of the demonstration (−$166.35) was slightly lower than the first 2 demonstration years.

Table 16
Demonstration effects on Medicare savings for eligible beneficiaries—difference-in-differences regression results, Washington demonstration

Covariate	Marginal effect	*p*-value	95% confidence interval	90% confidence interval
Intervention*DemoYear1	−$179.51	< 0.0001	−$240.60, −$118.41	−$230.78, −$128.23
Intervention*DemoYear2	−$219.51	< 0.0001	−$269.08, −$169.93	−$261.11, −$177.90
Intervention*DemoYear3	−$166.35	< 0.0001	−$238.91, −$93.79	−$227.25, −$105.46

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar205).

Table 17 shows the main results from a regression-based DID analysis of the entire demonstration period compared to the baseline period, controlling for beneficiary demographics and market characteristics. The purpose of this table is to show the magnitude of the DID estimate relative to the adjusted mean outcome value in each period. The second and third columns represent the post-regression, mean-predicted savings or loss for each group and period, based on the composition of a reference population (the comparison group in the demonstration period). These values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. The remaining columns show the DID estimate (the coefficient on PostYear * Intervention, or adjusted difference-in-differences), the *p*-value demonstrating significance, and the relative percent change of the DID estimate compared to the mean monthly Medicare expenditures for the comparison group in the entire demonstration period.

Table 17
Adjusted means and impact estimate for eligible beneficiaries in the demonstration and comparison groups

Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Adjusted difference-in-differences	*p*-value	Relative difference (%)
Demonstration group	$1,657	$1,470	−$202.49 (95% CI: −$244.01, −$160.97) (90% CI: −$237.33, −$167.64)	< 0.0001	11.4
Comparison group	$1,774	$1,783			

CI = confidence interval.

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_502warar213, WAY3_CS_492_warar205).

The adjusted mean for monthly expenditures decreased 11 percent between the predemonstration and demonstration periods for the demonstration group, and increased less than 1 percent for the comparison group for the same time periods. Additionally, the adjusted mean for monthly expenditures was lower in the demonstration group than in the comparison group in both the predemonstration and demonstration periods. We see this reflected in the DID estimate (the "Adjusted difference-in-differences" column, which is the coefficient on PostYear * Intervention) in that it is negative and statistically significant, indicating that there were strong Medicare Parts A and B savings as a result of the demonstration using the ITT analysis framework. The coefficient on the regression-based DID variable (−$202.49 per member per month in ***Table 17***). The DID estimate, which was statistically significant, reflected a decrease of 11.4 percent over the demonstration period.

In addition to the total Medicare savings calculation, impact estimates were also run for each of the components of total savings, durable medical equipment (DME), home health agency, inpatient, outpatient, professional, hospice, and skilled nursing facility (SNF) payments. ***Table 18*** shows the results of each of the regression-based DID models examining the impact of the demonstration on each component of Medicare expenditures. This analysis is for the entire demonstration period and controls for the same variables as in the total Medicare savings calculation including beneficiary demographics and market characteristics. Each component of Medicare expenditures was Winsorized (capped) at the 99th percentile. Note that the estimated effect for each component will not sum to the total Medicare savings estimate because these are the results of nonlinear statistical modeling, and the model covariates may not have the same effects across different components of costs.

Table 18
Demonstration effects for combined years on Medicare savings for eligible beneficiaries—difference-in-differences regression results for components of total cost, Washington demonstration

Medicare payment	Marginal effect	*p*-value	95% confidence interval	90% confidence interval
Total Medicare payments	−$202.49	< 0.001	−$244.01, −$160.97	−$237.33, −$167.64
Durable medical equipment	$1.92	0.423	−$2.77, $6.61	−$2.02, $5.86
Home health	−$4.12	0.043	−$8.12, −$0.13	−$7.48, −$0.77
Inpatient	−$60.90	< 0.001	−$81.75, −$40.06	−$78.40, −$43.41
Outpatient	−$31.94	0.001	−$50.90, −$12.99	−$47.85, −$16.04
Professional	−$31.02	< 0.001	−$39.42, −$22.62	−$38.07, −$23.97

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar205-211).

The demonstration had the largest impact on inpatient payments ($60.90), followed by professional services and outpatient. The effect on DME was not significant. Hospice and SNF payments were infrequent in the sample, and the number of observations for these services were insufficient for running a model. A similar analysis of impacts by service setting by the 3 demonstration years is presented in ***Tables 19, 20,*** and ***21***.

Table 19
Demonstration year 1 effects on Medicare savings for eligible beneficiaries—difference-in-differences regression results for components of total cost, Washington demonstration

Medicare payment	Marginal effect	*p*-value	95% confidence interval	90% confidence interval
Total DemoYear1 Medicare payments	−$179.51	< 0.001	−$240.60, −$118.41	−$230.78, −$128.23
Durable medical equipment	$1.27	0.645	−$4.13, $6.67	−$3.26, $5.81
Home health	−$3.72	0.112	−$8.30, $0.86	−$7.56, $0.12
Inpatient	−$35.03	0.023	−$65.16, −$4.90	−$60.31, −$9.74
Outpatient	−$28.49	0.002	−$46.21, −$10.78	−$43.36, −$13.63
Professional	−$25.37	< 0.001	−$34.59, −$16.15	−$33.11, −$17.64

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar205-211).

Table 20
Demonstration year 2 effects on Medicare savings for eligible beneficiaries—difference-in-differences regression results for components of total cost

Medicare payment	Marginal effect	*p*-value	95% confidence interval	90% confidence interval
Total DemoYear2 Medicare payments	−$219.51	< 0.001	−$269.08, −$169.93	−$269.11, −$177.90
Durable medical equipment	$3.38	0.254	−$2.43, $9.20	−$1.49, $8.27
Home health	−$3.24	0.125	−$7.39, $0.90	−$6.72, $0.24
Inpatient	−$74.47	< 0.001	−$102.06, −$46.88	−$97.62, −$51.32
Outpatient	−$35.49	0.003	−$59.04, −$11.94	−$55.25, −$15.73
Professional	−$37.54	< 0.001	−$49.25, −$25.83	−$47.37, −$27.71

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar205-211).

Table 21
Demonstration year 3 effects on Medicare savings for eligible beneficiaries—difference-in-differences regression results for components of total cost

Medicare payment	Marginal effect	*p*-value	95% confidence interval	90% confidence interval
Total DemoYear3 Medicare payments	−$166.35	< 0.001	−$238.91, −$93.79	−$227.25, −$105.46
Durable medical equipment	$2.04	0.329	−$2.05, $6.12	−$1.40, $5.47
Home health	−$3.44	0.271	−$9.57, $2.68	−$8.58, $1.70
Inpatient	−$58.14	0.005	−$98.31, −$17.97	−$91.86, −$24.43
Outpatient	−$28.55	0.012	−$50.85, −$6.26	−$47.26, −$9.84
Professional	−$25.44	0.000	−$39.37, −$11.51	−$37.13, −$13.75

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar205-211).

Table 22 is a summary of the overall impact of the findings presented here. Although the regression models show the impact of the demonstration on the unit of analysis, a beneficiary-month, it is also valuable to understand the total impact across all eligible months. The total impact of the demonstration on Medicare per-beneficiary per-month expenditures was $202.49 and there were 739,031 eligible beneficiary-months in Washington over the first 3 years of the demonstration. This translates to nearly $149.6 million in estimated savings to Medicare.

Table 22
Demonstration effects on total Medicare savings for eligible beneficiaries, Washington demonstration

Period	Marginal effect	Eligible months	Total savings	95% confidence interval	90% confidence interval
DemoYear1	−$179.51	243,442	$43,700,273	−$58,572,145; −$28,825,967	−$56,181,545; −$31,216,568
DemoYear2	−$219.51	236,067	$51,819,067	−$63,520,908; −$40,114,865	−$63,527,990; −$41,996,319
DemoYear3	−$166.35	269,031	$44,753,307	−$64,274,196; −$25,232,417	−$61,137,295; −$28,372,009
Full demo period (years 1–3)	−$202.49	739,031	$149,646,387	−$180,330,954; −$118,961,820	−$175,394,227; −$123,891,157

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_491warar0188).

6.4 Discussion

The results of the multivariate analyses presented here indicate significant gross Medicare savings as a result of the first 3 years of the Washington demonstration. Gross Medicare savings were largest in year 2 compared to year 1 and year 3 of the demonstration and were significant across all 3 years. The total savings of over 11.4 percent during the first 3 demonstration periods are significant and of a higher magnitude than the savings identified using the actuarial approach, in which over 9 percent savings were identified. Though the different methods identify different magnitude of savings, they do confirm the significant savings generated as a result of the Washington demonstration.

As Medicaid data become available to the Federal evaluator, and a similar calculation can be conducted on the Medicaid costs, it will be possible to have a more complete understanding of the potential savings from the first 3 years of the Washington demonstration. In the meantime, preliminary estimates provided by the State of Washington indicate Medicaid savings as a result of the demonstration. The State of Washington estimates program-wide Medicaid medical and LTSS savings of $2.0 million in the first demonstration period before accounting for the direct costs of health home services. The State also estimates an increase in total Federal Medicaid

costs for the first demonstration period to be $0.5 million after accounting for the cost of Duals Health Home services and the associated federal match.[2]

RTI will continue to examine these results and will rerun the analyses with information available for the life of the demonstration. Additional refinements under analytical considerations in the future include use of a revised single year–specific AGA factor based on claims paid in a given year. This refinement will help ensure that adjustments fully account for policy changes in a given year. Medicare and Medicaid calculations will also be conducted for each demonstration period as the data are available and future reports will show updated results for each year of the demonstration based on data reflecting additional claims runout and any retroactive adjustments.

[2] Estimates are assessed and provided by the State of Washington and are independent from the analyses presented in this evaluation report. CMS has not validated these estimates.

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7. Conclusions

7.1 Implementation Successes, Challenges, and Lessons Learned

Now in its fifth year, the Washington Health Home MFFS Demonstration has enrolled 19,170 people, providing the targeted enrollees with intensive support for achieving their health goals. The demonstration is now statewide, having extended into King and Snohomish Counties as of April 1, 2017. Each month, the State has deliberately enrolled a number of eligible beneficiaries into health homes to achieve a phased enrollment process.

Enrollees, in conjunction with their care coordinators, develop Health Action Plans that lay out concrete steps to meet their health goals and become the basis for all interaction between the care coordinator and the enrollee. Health home staff have described a wide range of health goals reached by enrollees, including fewer hospitalizations and emergency department visits, more social connections, and improved interactions with health care providers. The demonstration's focus on patient activation and engagement has helped empower enrollees to set goals, engage with physicians, and make health decisions that will improve their health and quality of life.

The intensive care coordination provided to enrollees by the demonstration includes interfacing with LTSS and behavioral health service delivery systems, housing, and other community services. Eighty-seven percent of respondents to the 2017 Consumer Assessment of Healthcare Providers and Systems survey responded that they were satisfied or very satisfied with the demonstration's care coordination supports.

In previous years, the biggest challenge facing the demonstration was the financial sustainability of health homes. However, because most health homes have received a performance bonus payment of 20 percent since April 2017, they have reportedly achieved some financial stability.

The demonstration achieved gross Medicare savings of $68 million over its first 2 years of operations (Wilkin et al., 2017). In 2018, site visit interviewees cited data showing reduced hospitalizations, re-hospitalizations, and nursing facility care as likely contributing to this outcome. Health home interviewees pointed to a wide range of demonstration activities that helped to achieve those results. For example, the coordination among all of an enrollee's providers—primary care providers, specialists, behavioral health specialists and others—enables the health care system to be more efficient and reduce duplication. And enrollees are encouraged to visit their physicians and keep on top of chronic conditions before they become acute episodes.

7.2 Demonstration Impact on Service Utilization and Costs

Impact analyses from the demonstration period reveal changes in service utilization patterns, attributable to the demonstration, mostly consistent with overall improvements in beneficiaries' reported experiences. In particular, with respect to the comparison group, results showed decreases in inpatient and skilled nursing facility admissions, as well as a decrease in the probability of any long-stay nursing facility use, all of which were desirable. However, relative to the comparison group, the demonstration also resulted in a decrease in 30-day follow-up after

mental health discharges and increases in the 30-day all-cause readmission rate, the probability of ambulatory care sensitive condition (ACSC) chronic admissions, and preventable emergency room (ER) visits. We do observe that both 30-day readmissions and ambulatory care sensitive condition chronic admissions were both lower in Washington than in the comparison group in both the predemonstration and demonstration periods. Results for the population with a severe and persistent mental illness were qualitatively similar to those for the overall demonstration eligible population, except for no decrease in inpatient admissions, and higher ACSC overall admissions. Given that in demonstration years 1 and 2, the demonstration achieved overall savings relative to the comparison population despite increases in some measures of utilization such as preventable ER visits and ACSC chronic admissions, this suggests the oversize influence of inpatient hospital stays and skilled and long-term nursing home admissions on total costs relative to other types of services.

The year-by-year impact analysis findings in ***Table 5*** show a reversal in some favorable trends: an end to statistically significant reductions in inpatient hospitalization, an increase in ER use, and a decrease in physician E&M visits. This emerging pattern in demonstration year 3 suggests that the suspension of new beneficiary outreach caused by the program pause of late 2015 discussed in the Second Evaluation Report (available at https://innovation.cms.gov/Files/reports/fai-wa-secondevalrpt.pdf) may have had an effect in 2016, because potential new health home clients in 2015 were not engaged by the entities until early 2016, possibly resulting in lost opportunities to favorably impact utilization.

The Washington demonstration has generated significant Medicare savings indicating successes of the demonstration during first 3 demonstration periods. The results of cost savings analyses using a difference-in-differences (DID) regression approach indicate significant savings of $213.9 million as a result of the Washington demonstration and are consistent with savings findings identified using an actuarial methodology to inform performance payments for the demonstration.

7.3 Next Steps

The RTI evaluation team will continue to collect information on a quarterly basis from Washington officials through the online State Data Reporting System, covering enrollment statistics and updates on key aspects of implementation. The RTI evaluation team will continue conducting quarterly calls with the State Washington Health Home MFFS Demonstration staff and will request the results of any evaluation activities conducted by the State or other entities. RTI will conduct additional qualitative and quantitative analyses over the course of the demonstration.

As noted previously, Washington requested an extension from CMS to continue the demonstration, which will provide further opportunities to evaluate the demonstration's performance. The next report will include a qualitative update on demonstration implementation and descriptive analyses of quality and utilization measures for those eligible for the demonstration and for an out-of-State comparison group.

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Appendix A:
Comparison Group Methodology for Washington Demonstration Year 3

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

Results for comparison group selection and assessment analyses are prepared for each demonstration year. The First Annual Report covering the first performance year and 2 prior baseline years for the State of Washington was submitted to CMS on July 13, 2016. The First Annual Report describes the comparison group identification methodology in detail.

This report provides the comparison group results for the third performance year for Washington demonstration (January 1, 2016 to December 31, 2016) and notes any major changes in the results since the previous performance years.

A.1 Demonstration and Comparison Group Characteristics

In 2016, the Washington demonstration area consisted of all counties in the State except for King and Snohomish. The comparison area is comprised of 214 counties from Arkansas, Georgia, and West Virginia. These geographic areas have not changed from the previous demonstration years. As described in the previous reports, RTI continues to use a scoring algorithm analogous to Washington's Predictive Risk Intelligence SysteM (PRISM) algorithm to identify beneficiaries in the comparison group areas similar to beneficiaries selected for the Washington demonstration. A slight majority of beneficiaries in the Washington analyses are 65 years or older. Beneficiaries with some enrollment in other shared savings programs were excluded from the analysis as they represent less than 10 percent of the eligible population.

The number of demonstration group beneficiaries listed in finder files increased slightly from 23,000 in demonstration year 1 to 25,132 in demonstration year 2 and then to 28,698 in demonstration year 3. There was a reduction in the size of the comparison group between demonstration year 1 and 2 from 57,810 to 46,873, followed by a slight increase in demonstration year 3 to 49,786. This may reflect the fact that demonstration years 2 and 3 were shorter (12 months) than demonstration year 1 (18 months).

A.2 Propensity Score Estimates

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

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

The logistic regression coefficients and z-values for the covariates included in the propensity model for Washington demonstration year 3 are shown in ***Table A-1***. The magnitude of the coefficients are very similar to those from previous years. Like the previous analyses, the biggest discrepancy between the groups is the proportion of beneficiaries residing in metropolitan statistical areas (MSAs), which is always higher in the demonstration group. We again found ZIP code–level group differences associated with rates of college-educated adults and adults with self-care limitations.

Table A-1
Logistic regression estimates for Washington propensity score models in demonstration year 3

Characteristic	Demonstration year 3		
	Coef.	Standard error	z-score
Age (years)	−0.004	0.001	−5.140
Died during year	−0.736	0.034	−21.430
Female (0/1)	0.019	0.019	0.970
White (0/1)	0.188	0.023	8.280
Disability as reason for original Medicare entitlement (0/1)	0.094	0.023	4.030
ESRD (0/1)	−0.258	0.043	−5.940
Share mos. elig. during year (prop.)	−1.077	0.034	−31.820
HCC risk score	−0.078	0.007	−11.650
MSA (0/1)	2.191	0.022	97.850
% of pop. living in married household	0.022	0.001	20.900
% of households with member ≥ 60 yrs.	−0.002	0.001	−1.770
% of adults with college education	0.044	0.001	34.600
% of adults with self-care limitation	−0.150	0.005	−32.830
% of households with member < 18 yrs.	0.000	0.001	0.320
Distance to nearest hospital (mi.)	0.002	0.002	0.950
Distance to nearest nursing facility (mi.)	0.047	0.002	22.020
Intercept	−2.664	0.120	−22.180

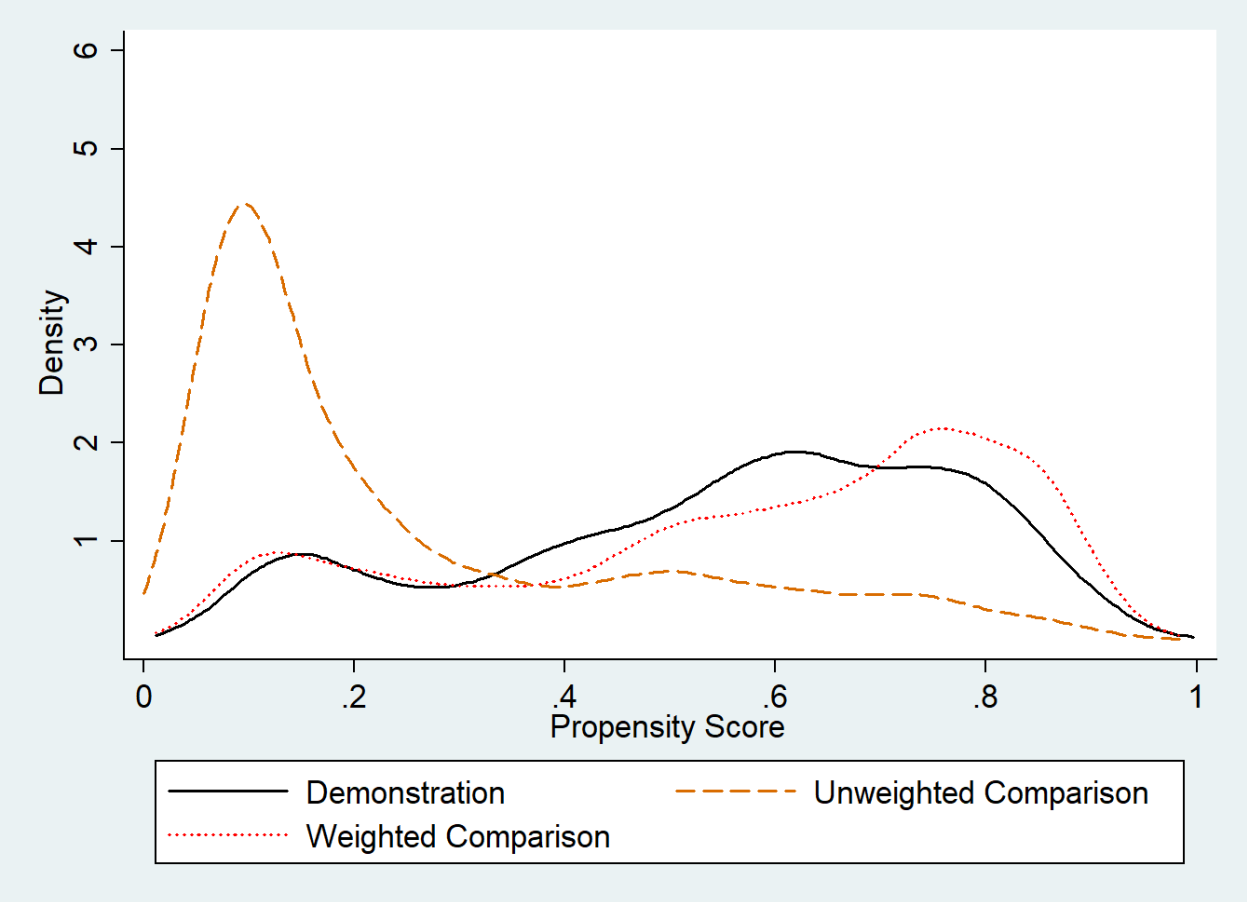
ESRD = end-stage renal disease; HCC = hierarchical condition category; MSA = metropolitan statistical area.

A.3 Propensity Score Overlap

The distributions of PSs by group for demonstration year 3 are shown in ***Figure A-1*** before and after propensity weighting. Estimated scores covered nearly the entire probability range in both groups. Like the previous analyses, the unweighted comparison group (dashed line) is characterized by a spike in predicted probabilities in the range from 0 to 0.20. Inverse probability of treatment weighting (IPTW) pulls the distribution of weighted comparison group PSs (dotted line) very close to that of the demonstration group (solid line).

Any beneficiaries who have estimated PSs below the smallest estimated value in the demonstration group are removed from the comparison group. Because of the very broad range of PSs found in the Washington demonstration data, only 306 beneficiaries were removed from the comparison group in demonstration year 3.

Figure A-1
Distribution of beneficiary-level propensity scores in the Washington demonstration and comparison groups, weighted and unweighted, January 1, 2016–December 31, 2016



A.4 Group Comparability

Covariate balance refers to the extent to which the characteristics used in the PS model are similar (or "balanced") for the demonstration and comparison groups. Group differences are measured by a standardized difference (the difference in group means divided by the pooled standard deviation of the covariate). An informal standard has developed that groups are considered comparable if the standardized covariate difference is less than 0.10 standard deviation.

The group means and standardized differences for all beneficiary characteristics are shown for demonstration year 3 in ***Table A-2***. The column of unweighted standardized differences indicates that several of these variables were not balanced before running the propensity model. Three variables (MSA, percent of adults with college education, and percent of adults with self-care limitation) had unweighted standardized differences exceeding 0.40. The results of PS weighting for Washington demonstration year 3 are illustrated in the far-right column (weighted standardized differences) in ***Table A-2***. Propensity weighting reduced the standardized differences below the threshold level of an absolute value of 0.1 for all but 3 covariates (percent of household with member >= 60 years, percent of adults with college education, percent of seniors with self-care limitations) in our model.

Table A-2
Washington dual eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 3: January 1, 2016–December 31, 2016

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age	64.828	67.505	64.849	−0.163	−0.001
Died	0.083	0.121	0.086	−0.129	−0.013
Female	0.641	0.658	0.643	−0.035	−0.003
White	0.794	0.761	0.794	0.079	0.000
Disability as reason for original Medicare entitlement	0.589	0.540	0.585	0.098	0.008
ESRD	0.042	0.054	0.046	−0.056	−0.017
Share mos. elig. during year	0.783	0.849	0.794	−0.227	−0.035
HCC score	1.838	2.003	1.873	−0.118	−0.026
MSA	0.793	0.316	0.811	1.094	−0.044
% of pop. living in married household	71.805	68.594	72.251	0.328	−0.049
% of households with member >= 60 yrs.	38.865	41.737	37.519	−0.332	0.150

(continued)

Table A-2 (continued)
Washington dual eligible beneficiary covariate means by group before and after weighting by propensity score—demonstration year 3: January 1, 2016–December 31, 2016

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
% of adults with college education	21.076	15.230	22.243	0.700	−0.118
% of adults with self-care limitation	3.690	5.028	3.430	−0.476	0.137
% of household with member < 18 yrs.	31.143	30.553	31.517	0.074	−0.044
Distance to nearest hospital	10.409	12.530	9.929	−0.276	0.064
Distance to nearest nursing facility	7.910	9.810	7.725	−0.298	0.031

ESRD = end-stage renal disease; HCC = hierarchical condition category; MSA = metropolitan statistical area.

A.5 Summary

Our demonstration year 3 analyses of the WA demonstration and comparison groups produced results that were very similar to those in demonstration years 1 and 2. The WA groups are distinguished by differences in MSA rates and several ZIP-related demographic measures. Propensity-score weighting successfully removes the MSA discrepancy and reduces but does not eliminate household age, educational attainment, and self-care limitation differences. However, we note again that these group differences amount to less than 2 percent for the households or adults in a ZIP code.

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Appendix B:
Analysis Methodology

B.1 Methodology

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

B.1.1 Evaluation Design

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

Results for one subpopulation within each of the demonstration and comparison groups are also presented in this section (e.g., those with any behavioral health claims in the demonstration and comparison groups). In addition, two groups for which results are also reported in this section are *not* compared to the comparison group because such groups do not exist within the comparison group: Washington demonstration enrollees and Washington health home users. For these latter two groups, we compare them to in-State non-enrollees, and in-State non-health home users, respectively.

B.1.2 Comparison Group Identification

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

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

data submission to CMS. We identified a comparison group from MSAs in Arkansas, Georgia, and West Virginia at least as large as the eligible population in Washington. For details of the comparison group identification strategy, see ***Appendix C***.

To identify beneficiaries for the comparison group and the baseline period that had characteristics similar to those of the demonstration eligible population, it was important for the RTI evaluation team to develop an algorithm that closely replicated the Predictive Risk Intelligence SysteM (PRISM) algorithm used by the State to identify individuals eligible for the demonstration. After consultation with State staff, we developed an algorithm that required beneficiaries to have scores of 1.5 or greater for at least one quarter in order to qualify for inclusion. When comparing the results of the RTI scoring algorithm with results generated by Washington, we found that beneficiaries had similar prevalence of chronic conditions as those persons identified by Washington.

B.1.3 Data

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

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

B.1.4 Populations and Services Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as the following special populations: those with any behavioral health service use in the last 2 years for a severe and persistent mental illness (SPMI); health home service users; and three demographic groups (age, gender, and race).

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

The 16 service settings analyzed include both institutional (inpatient, inpatient psychiatric, inpatient substance use, emergency department [ED] visits not leading to admission, ED psychiatric visits, observation stays, skilled nursing facility [SNF], and hospice) and community settings (primary care; specialist care; behavioral health visits; outpatient as well as

independent physical speech, and occupational therapy; home health; durable medical equipment; and other hospital outpatient services).

In addition, seven quality measures representing specific utilization types of interest are presented: 30-day all-cause risk-standardized readmission rate; preventable emergency room visits; rate of 30-day follow-up after hospitalization for mental illness; ambulatory care sensitive condition overall composite rate (AHRQ PQI#90); ambulatory care sensitive condition chronic composite rate (AHRQ PQI#92); pneumococcal vaccination rate for those age 65 and older; and depression screening rate.

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

The analyses were conducted for each of the years in the 2-year predemonstration period (July 1, 2011 to June 30, 2013) and for the first, second, and third demonstration periods (July 1, 2013, to December 31, 2014; January 1, 2015, to December 31, 2015; and January 1, 2016, to December 31, 2016) for both the demonstration and comparison group in each of the five analytic periods.

Table B-1 presents descriptive statistics on the independent variables used in multivariate difference-in-differences (DID) regressions for impact analyses. Independent variables include demographic and health characteristics and market- and area-level characteristics. Results are presented for five groups: all demonstration eligibles in the FAI State, its comparison group, all health home service users, all non-health home service users, and demonstration eligible beneficiaries with an SPMI.

Under age 65 was the most prevalent age group, ranging from 40.0 percent in the comparison group to 53.6 percent in the group with SPMI. In the comparison group, 35.9 percent were 75 years and older, whereas 26.9 percent were 75 years and older in the demonstration group. Across all groups, the majority of eligible beneficiaries were female (63.4 to 68.1 percent), white (76.1 to 84.8 percent in the comparison and SPMI groups, respectively), and had disability as their original entitlement to Medicare (53.0 to 67.8 percent in the comparison and SPMI populations, respectively). Hierarchical condition category (HCC) scores did not vary much by group ranging from 1.8 to 2.1. The HCC score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas beneficiaries with scores of 2 are predicted to have twice the average annual cost. The majority of eligible beneficiaries resided in the metropolitan areas, compared to non-metropolitan areas. Those with health home services had a greater percent of months of dual eligibility that those without health home use (87.6 to 76.5 percent, respectively).

There were limited differences in area- and market-level characteristics. Those who were in the comparison group resided in counties with a slightly lower fraction of dual eligible beneficiaries using personal care services, relative to those in the Demonstration group (0.09

versus 0.15). Additionally, those in the comparison group resided in counties with slightly higher Medicare spending per dual eligible, relative to counties in the demonstration group ($16,710 versus $16,210). Those with health home service use resided in counties with a smaller population per square mile, relative to those not using health home services (134.60 versus 199.41), as well as counties with a higher Medicare Advantage penetration rate (0.27 versus 0.25).

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

Characteristics	Demonstration	Comparison	Health home users	Non-health home users	SPMI diagnosis
Number of beneficiaries	28,444	49,472	4,632	23,812	14,504
Demographic characteristics					
Age					
64 and under	45.58	39.96	44.30	45.83	53.59
65–74	27.48	24.10	31.48	26.70	26.83
75 and older	26.94	35.94	24.22	27.47	19.57
Female	64.15	65.84	67.94	63.41	68.15
Race					
White	79.44	76.08	82.47	78.85	84.82
Black	3.80	22.11	3.63	3.84	3.72
Hispanic	5.03	0.62	6.56	4.73	3.70
Asian	4.91	0.39	2.57	5.37	2.47
Disability as reason for original Medicare entitlement					
No	42.18	47.00	38.73	42.85	32.21
Yes	57.82	53.00	61.27	57.15	67.79
ESRD status					
No	96.30	95.13	95.23	96.51	96.88
Yes	3.70	4.87	4.77	3.49	3.12
Months with full-dual eligibility during year (%)	78.34	79.43	87.61	76.53	79.11
HCC score	1.84	1.87	2.14	1.78	1.97

(continued)

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

Characteristics	Demonstration	Comparison	Health home users	Non-health home users	SPMI diagnosis
Market characteristics					
Medicare spending per dual, ages 19+	14,565.86	15,768.39	14,597.03	14,559.79	14,540.49
MA penetration rate	0.25	0.22	0.27	0.25	0.25
Medicaid-Medicare fee index, all srvc	0.76	0.78	0.76	0.76	0.76
Medicaid spending per dual, ages 19+	16,210.22	16,709.91	16,090.10	16,233.58	16,257.14
Fraction of duals using NF, ages 65+	0.18	0.28	0.17	0.18	0.18
Fraction of duals using HCBS, ages 65+	0.39	0.21	0.40	0.38	0.39
Fraction of duals using personal care, ages 19+	0.15	0.09	0.15	0.15	0.15
Fraction of duals with Medicaid managed care, ages 19+	0.50	0.65	0.48	0.51	0.51
Population per square mile, all ages	188.86	146.22	134.60	199.41	192.22
Patient care physicians per 1,000 population	0.72	0.72	0.73	0.72	0.73
Fraction of duals living in MSA	79.32	31.65	84.26	78.36	80.18
Area characteristics					
% of pop. living in married households	71.81	72.25	72.34	71.70	71.89
% of adults with college education	21.08	22.24	20.75	21.14	21.55
% of adults with self-care limitations	3.69	3.43	3.72	3.68	3.74
Distance to nearest hospital	10.41	9.93	11.23	10.25	10.38
Distance to nearest nursing home	7.91	7.72	8.24	7.85	7.76
% of household with individuals younger than 18	31.14	31.52	31.84	31.01	30.67
% of household with individuals older than 60	38.87	37.52	38.77	38.88	38.91

ESRD = end-stage renal disease; HCBS = home and community-based services; HCC = hierarchical condition category; MA = Medicare Advantage, MSA = metropolitan statistical area; NF = nursing facility; SPMI = severe and persistent mental illness.

B.1.5 Detailed Population Definitions

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

Additional special populations were identified for the analyses as follows:

- *Health home service user*. A beneficiary was defined as having used health home services if they were enrolled in the demonstration and had any health home service use during the demonstration period.

- *Age*. Age was defined as a categorical variable where beneficiaries were identified as *under 65*, *65 to 74*, and *75 years and older* during the observation year (e.g., baseline period 1, baseline period 2, and demonstration period.)

- *Gende*r. Gender was defined as binary variable where beneficiaries were either male or female.

- *Race*. Race was defined as a categorical variable where beneficiaries were categorized as *White*, *African American*, *Hispanic*, or *Asian*.

- *SPMI.* A beneficiary was defined as having a SPMI if there were any inpatient or outpatient mental health visits for schizophrenia or bipolar disorders during the observation year.

B.1.6 Detailed Utilization and Expenditure Measure Definitions

For any health care service type, the methodology for estimating average monthly utilization, the percentage of users, and spending during the year (for managed fee-for-service [MFFS] States) takes into account differences in the number of eligibility months across beneficiaries. Because full-benefit dual eligibility status for the demonstration can vary by month over time for any individual, the methodology used determines dual eligibility status for the demonstration for each person on a monthly basis during a baseline or demonstration period. That is, an individual is capable of meeting the demonstration's eligibility criteria for 1, 2, 3, or up to 12 months during the observation year. The methodology adds the total months of full-benefit dual eligibility for the demonstration across the population of interest and uses it in the denominator in the measures in ***Section 1.3***, creating average monthly utilization and expenditure information for each service type. The methodology effectively produces average monthly use and expenditure statistics for each year that account for variation in the number of dual eligible beneficiaries in each month of the observation year. Months where dual eligible beneficiaries were enrolled in Medicare Advantage are excluded because of the lack of encounter data to use in developing the utilization and cost measures.

The utilization and costs measures, below, were calculated as the aggregate sum of the unit of measurement (counts, payments, etc.) divided by the aggregated number of eligible member months [and user months] within each group (*g*) where group is defined as (1) Washington Base Year 1, (2) Comparison Base Year 1, (3) Washington Base Year 2, (4) Comparison Base Year 2, (5) Washington Demonstration Period 1, (6) Comparison Demonstration Period 1, (7) Washington Demonstration Period 2, (8) Comparison Period 2, (9) Washington Demonstration Period 3, and (10) Comparison Period 3.

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

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

Where

Y_g = average count of the number services used [for a given service] per eligible or user month within group g.
Z_{ig} = the total units of utilization [for a given service] for individual i in group g.
n_{ig} = the total number of eligible/user months for individual i in group g.

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

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

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

Where

U_{ig} = average percentage of users [for a particular service] in a given month among beneficiaries in group *g*.
X_{ig} = the total number of eligible months of service use for an individual *i* in group *g*
n_{ig} = the total number of eligible or user months for an individual *i* in group *g*.

The average yearly expenditures for a given service per eligible month [and user month] was calculated as

$$S = \frac{\Sigma_{ig} V_{ig}}{\Sigma_{ig} n_{ig}}$$

Where

S_{ig} = average Medicare expenditures per eligible [or user] month for a given service among beneficiaries in group *g*.
V_{ig} = the total amount of Medicare expenditures for in individual *i* in group *g*.
n_{ig} = the total number of eligible or user months for an individual *i* in group *g*.

B.1.7 Quality of Care and Care Coordination Measures

Similar to the utilization and expenditure measures, the quality of care and care coordination measures were calculated as the aggregated sum of the numerator divided by the aggregated sum of the denominator for each respective outcome within each beneficiary group.

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

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

Where

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

Average adjusted probability of readmission by demonstration group	
Demonstration group	**Average adjusted probability of readmission**
Baseline period 1	
Washington	0.2082892359
Comparison	0.2020533399
Baseline period 2	
Washington	0.2126893358
Comparison	0.2101427575
Demonstration period 1	
Washington	0.215873008
Comparison	0.211357003
Demonstration period 2	
Washington	0.204172572
Comparison	0.204629974
Demonstration period 3	
Washington	0.207563892
Comparison	0.208122161

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

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

Where

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

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

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

Average Ambulatory Care Sensitive Condition admissions per 1,000 eligible beneficiaries, overall and chronic composite (PQI #90 and PQI #92) was calculated as follows:

$$ACSC_{ig} = \frac{\Sigma_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \Sigma_{ig} \mathrm{n}_{ig}}$$

Where

ASC_g = the average number of ACSC admissions per 1,000 eligible months for overall/chronic composites for individuals in group *g*.
X_{ig} = the total number of discharges that meet the criteria for AHRQ PQI #90 [or PQI #92] for individual *i* in group *g*.
n_{ig} = the total number of eligible months for individual *i* in group *g*.

Preventable ER visits per 1,000 eligible months was calculated as follows:

$$ER_{ig} = \frac{\Sigma_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \Sigma_{ig} \mathrm{n}_{ig}}$$

Where

ER_g = the average number of preventable ER visits per 1,000 eligible months for individuals in group *g*.
X_{ig} = the total number ER visits that are considered preventable based in the diagnosis for individual *i* in group *g*.
n_{ig} = the total number of eligible months for individual *i* in group *g*.

Average number of beneficiaries who received a pneumococcal vaccination during the observation year was calculated as follows:

$$PN_{ig} = \frac{\Sigma_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \Sigma_{ig} \mathrm{n}_{ig}}$$

Where

PN_g = the average number of pneumococcal vaccinations per 1,000 eligible months among individuals in group *g*.
X_{ig} = the total number eligible beneficiaries age 65+ who ever received a pneumococcal vaccination in group *g*.
n_{ig} = the total number of eligible months among beneficiaries 65 years and older in group *g*.

Average number of beneficiaries per 1,000 eligible months who received depression screening during the observation year was calculated as follows:

$$D_g = \frac{\Sigma_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \Sigma_{ig} \mathrm{n}_{ig}}$$

Where

D_g = the average number of beneficiaries per 1,000 eligible months who received depression screening in group *g*

X_{ig} = the total number eligible beneficiaries age 65+ who ever received depression screening in group *g*.

n_{ig} = the total number of eligible months among beneficiaries in group *g*.

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

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

Where

PD_g = the average number of beneficiaries per positive depression screening who received a follow-up plan among beneficiaries in group *g*.

X_{ig} = the total number beneficiaries who received a positive depression screen and a follow up plan in group *g*.

n_{ig} = the total number of beneficiaries who received a positive depression screen in group *g*.

Average number of beneficiaries per 1,000 eligible months, aged 65 and older, who received a fall screening assessment during the observation year was calculated as follows:

$$F_g = \frac{\Sigma_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \Sigma_{ig} \mathrm{n}_{ig}}$$

Where

F_g = the average number of beneficiaries per 1,000 eligible months who received a fall screening assessment among beneficiaries in group *g*.

X_{ig} = the total number eligible beneficiaries age 65+ who received a fall screening assessment among individuals in group *g*.

n_{ig} = the total number of eligible months among beneficiaries aged 65 and older in group *g*.

Average rate of beneficiaries in each year who were age 65 and older and had a history of falls within the preceding 12 months, and had a plan of care for falls within the preceding 12 months.

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

Where

PF_g = the average rate of care plans after falls among beneficiaries in group *g*.
X_{ig} = the total number beneficiaries, aged 65 and older, and had a history of falls within the preceding 12 months and a care plan in group *g*.
n_{ig} = the total number of beneficiaries who were 65 and older and had a history of falls with the preceding 12 months in group *g*.

B.1.8 Minimum Data Set Measures

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

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

B.1.9 Regression Outcome Measures

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

The outcome measures include the following:

- *Monthly inpatient admissions*: The count of inpatient admissions in which a beneficiary has an admission date within the observed month.

- *Monthly ED use*: The count of ED visits that occurred during the month that did not result in an inpatient admission.

- *Monthly physician visits*: The count of any evaluation and management visit within the month where the visit occurred in the outpatient or office setting, NF, domiciliary,

rest home, or custodial care setting, a federally qualified health center or a rural health center.

- *Monthly SNF admissions*: The count of any SNF admissions within the month.

- *Long-stay NF use*: The annual probability of residing in a nursing facility for 101 days or more during the year.

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

- *30-day all-cause risk-standardized readmissions (NQF #1768)*: The count of risk-standardized readmissions, defined above, that occurs during the year.

- *Preventable ER visits*: This is estimated as a continuous variable of weighted ER visits that occur during the month. The lists of diagnoses that are considered as either preventable/avoidable or treatable in a primary care setting were developed by researchers at the New York University Center for Health and Public Service Research.[3]

- *30-day follow-up after hospitalization for mental illness (NQF #576)*: This is estimated as the monthly probability of any follow-up visits within 30-days post-hospitalization for a mental illness

- *ACSC admissions—overall composite (AHRQ PQI # 90)*: The monthly probability of any acute admissions that meet the AHRQ PQI #90 (Prevention Quality Overall Composite) criteria within the month.

- *ACSC admissions—chronic composite (AHRQ PQI # 92)*: The monthly probability of any admissions that meet the AHRQ PQI #92 criteria within the month.

B.1.10 Regression Methodology for Determining Demonstration Impact

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

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

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

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

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

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

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

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

Impact estimates across the entire demonstration period are determined using the DID methodology and presented in figures for all demonstration eligible beneficiaries, and then for one special population of interest—demonstration eligible beneficiaries with SPMI. A table follows each figure displaying the annual demonstration difference-in-differences effect for each separate demonstration period for each of these populations. In each figure, the point estimate is displayed for each measure, as well as the 90 percent confidence interval (black) and the 80 percent confidence interval (green). The 80 percent confidence intervals are provided for comparison purposes only. The 80 percent confidence interval is narrower than the 90 percent confidence interval. If the confidence interval includes the value of zero, it is not statistically significant at that confidence level.

For only the full demonstration eligible population and not any special population, an additional table presents estimates of the regression-adjusted mean values of the utilization measures for the demonstration and comparison groups by period for each service. The purpose of this table is to understand the magnitude of the DID estimate relative to the adjusted mean

outcome value in each period. The adjusted mean values show how different the two groups were in each period, and the relative direction of any potential effect in each group over time. The values in the third and fourth columns represent the post-regression, mean predicted value of the outcomes for each group and period, based on the composition of a reference population (the comparison group in the demonstration period). The DID estimate is also provided for reference, along with the p-value and the relative percent change of the DID estimate compared to an average mean use rate for the comparison group in the entire demonstration period.

The relative percent annual change for the DID estimate for each outcome measure is calculated as [Overall DID effect] / [Adjusted mean outcome value of comparison group in the demonstration period].

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

Table B-2
Negative binomial regression results on monthly inpatient admissions
(n = 4,068,891 person months)

Independent variables	Coefficient	Standard error	z-value	*p*-value
Post period	−0.267	0.023	−11.450	0.000
Demonstration group	−0.185	0.046	−3.990	0.000
Interaction of post period x demonstration group	−0.054	0.021	−2.560	0.010
Trend	0.00154	0.001	2.08	0.038
Age	0.000	0.001	−0.370	0.712
Female	0.047	0.013	3.630	0.000
Black	−0.030	0.021	−1.440	0.151
Asian	−0.196	0.033	−5.990	0.000
Other race	−0.063	0.071	−0.880	0.380
Hispanic	−0.114	0.064	−1.770	0.076
Disability as reason for original Medicare entitlement	−0.013	0.017	−0.730	0.463
End-stage renal disease	1.197	0.029	40.940	0.000
Hierarchical condition category (HCC) score	0.302	0.005	58.170	0.000
Percent of months of demonstration eligibility	−1.292	0.027	−47.260	0.000
Metropolitan statistical area (MSA) residence	−0.029	0.031	−0.940	0.348
Percent of population living in a married household	−0.002	0.001	−2.350	0.019
Percent of households with family member greater than or equal to 60 years old	0.000	0.001	−0.130	0.893
Percent of households with family member less than 18 years old	0.003	0.001	2.770	0.006
Percent of adults with college education	0.000	0.001	0.150	0.882
Percent adult unemployment rate	0.000	0.001	−0.310	0.759
Percent of adults with self-care limitation	0.005	0.003	1.530	0.126
Distance to nearest hospital	0.000	0.001	0.100	0.923
Distance to nearest nursing home	−0.003	0.002	−1.740	0.083
Medicare spending per full-benefit dual eligible	0.000	0.000	2.130	0.033
Medicare Advantage penetration rate	0.335	0.133	2.530	0.012
Medicaid spending per full-benefit dual eligible	0.000	0.000	−0.840	0.404
Nursing facility users per full-benefit dual eligible over 65	−0.092	0.359	−0.260	0.797
State plan personal care users per full-benefit dual eligible over 65	0.635	0.188	3.380	0.001
Medicaid managed care enrollees per full-benefit dual eligible	−0.126	0.041	−3.110	0.002
Total population density	0.000	0.000	0.180	0.854
Patient care physicians per 1,000 (total) population	−0.166	0.074	−2.250	0.024
Intercept	−2.415	0.326	−7.410	0.000

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Appendix C:
Descriptive Tables

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

Tables are presented for the overall demonstration eligible population (***Tables C-1*** through ***C-3***), followed by tables on Washington demonstration eligible beneficiaries with and without health home service use (***Tables C-4*** and ***C-5***).

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Number of demonstration beneficiaries		28,214	27,748	21,193	24,855	28,444
Number of comparison beneficiaries		60,407	57,503	57,231	46,840	49,472
Institutional setting						
Inpatient admissions	Demonstration group					
% with use		5.4	5.8	5.1	4.7	4.5
Utilization per 1,000 user months		1,111.6	1,106.0	1,104.1	1,096.3	1,098.0
Utilization per 1, 000 eligible months		60.2	64.0	55.9	51.9	49.0
Payments per user month		12,677	13,734	14,105	14,216	14,400
Payments per eligible month		686	794	714	674	643
Inpatient admissions	Comparison group					
% with use		6.4	6.5	6.1	5.7	5.3
Utilization per 1,000 user months		1,112.4	1,111.1	1,103.0	1,096.1	1,101.4
Utilization per 1,000 eligible months		71.1	72.3	66.9	62.5	58.0
Payments per user month		9,983	10,610	10,996	10,854	10,833
Payments per eligible month		638	690	667	619	570
Inpatient psychiatric	Demonstration group					
% with use		0.2	0.2	0.1	0.1	0.1
Utilization per 1,000 user months		1,222.9	1,204.5	1,171.1	1,252.7	1,231.3
Utilization per 1,000 eligible months		2.2	2.1	1.4	1.5	1.5
Payments per user month		13,001	12,670	14,699	12,874	15,625
Payments per eligible month		23	22	18	15	19

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Inpatient psychiatric	Comparison group					
% with use		0.7	0.7	0.7	0.8	0.7
Utilization per 1,000 user months		1,074.5	1,070.1	1,056.6	1,057.1	1,078.8
Utilization per 1,000 eligible months		7.0	7.1	7.3	8.0	7.8
Payments per user month		7,789	7,815	7,593	8,399	7,784
Payments per eligible month		51	52	53	64	56
Inpatient substance abuse services	Demonstration group					
% with use		0.0	0.1	0.0	0.0	0.0
Utilization per 1,000 user months		1,110.2	1,088.9	1,053.2	1,063.2	1,024.4
Utilization per 1,000 eligible months		0.5	0.6	0.4	0.4	0.5
Payments per user month		5,850	6,874	6,785	7,426	7,301
Payments per eligible month		3	4	3	3	3
Inpatient substance abuse services	Comparison group					
% with use		0.1	0.1	0.1	0.1	0.1
Utilization per 1,000 user months		1,059.4	1,077.4	1,105.5	1,033.3	1,038.3
Utilization per 1,000 eligible months		0.8	0.8	0.6	0.9	0.8
Payments per user month		4,206	4,958	6,068	5,217	5,093
Payments per eligible month		3	3	3	4	4

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Emergency department use (non-admit)	Demonstration group					
% with use		9.4	9.5	9.8	9.8	9.8
Utilization per 1,000 user months		1,358.8	1,309.0	1,313.5	1,310.7	1,319.7
Utilization per 1,000 eligible months		127.1	123.8	128.5	127.8	129.6
Payments per user month		604	640	677	667	690
Payments per eligible month		56	61	66	65	68
Emergency department use (non-admit)	Comparison group					
% with use		9.6	9.8	10.1	10.4	9.7
Utilization per 1,000 user months		1,329.4	1,323.9	1,356.7	1,313.2	1,301.4
Utilization per 1,000 eligible months		127.3	129.2	137.2	136.1	125.8
Payments per user month		486	525	581	577	575
Payments per eligible month		47	51	59	60	56
Emergency department use (psychiatric)	Demonstration group					
% with use		0.6	0.6	0.6	0.6	0.6
Utilization per 1,000 user months		1,288.4	1,208.7	1,295.2	1,236.4	1,188.5
Utilization per 1,000 eligible months		7.6	7.3	7.4	7.1	6.9
Payments per user month		488	478	541	509	517
Payments per eligible month		3	3	3	3	3
Emergency department use (psychiatric)	Comparison group					
% with use		0.5	0.4	0.4	0.5	0.5
Utilization per 1,000 user months		1,122.9	1,143.5	1,102.5	1,083.5	1,132.1
Utilization per 1,000 eligible months		5.2	4.8	4.9	5.4	5.8
Payments per user month		371	389	386	390	394
Payments per eligible month		2	2	2	2	2

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Observation stays	Demonstration group					
% with use		1.0	1.1	1.1	1.0	0.9
Utilization per 1,000 user months		1,044.5	1,051.4	1,034.1	1,038.0	1,044.7
Utilization per 1,000 eligible months		10.3	11.4	11.8	10.6	9.8
Payments per user month		1,817	2,059	2,132	2,291	2,302
Payments per eligible month		18	22	24	23	22
Observation stays	Comparison group					
% with use		1.2	1.4	1.5	1.5	1.4
Utilization per 1,000 user months		1,041.2	1,056.8	1,059.7	1,044.9	1,041.8
Utilization per 1,000 eligible months		12.6	14.4	16.2	15.7	14.6
Payments per user month		1,575	1,637	1,818	1,801	1,879
Payments per eligible month		19	22	28	27	26
Skilled nursing facility	Demonstration group					
% with use		1.7	1.9	1.3	1.2	1.1
Utilization per 1,000 user months		1,095.2	1,087.3	1,080.6	1,081.7	1,076.4
Utilization per 1,000 eligible months		18.6	20.6	14.1	12.7	11.7
Payments per user month		12,014	11,881	12,216	13,361	12,875
Payments per eligible month		204	225	160	157	140
Skilled nursing facility	Comparison group					
% with use		2.1	2.2	2.0	1.9	1.8
Utilization per 1,000 user months		1,095.6	1,106.2	1,080.4	1,088.5	1,094.3
Utilization per 1,000 eligible months		23.3	24.4	22.0	20.6	19.9
Payments per user month		9,852	9,821	10,763	10,518	9,766
Payments per eligible month		210	216	219	199	177

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Hospice	Demonstration group					
% with use		1.0	1.7	0.7	0.7	0.6
Utilization per 1,000 user months		1,067.8	1,058.2	1,007.4	1,007.5	1,011.6
Utilization per 1,000 eligible months		10.9	18.0	6.6	7.4	6.5
Payments per user month		3,665	3,666	3,022	3,471	3,417
Payments per eligible month		37	62	20	26	22
Hospice	Comparison group					
% with use		1.4	1.7	1.7	1.5	1.4
Utilization per 1,000 user months		1,067.2	1,042.5	1,013.6	1,013.7	1,012.3
Utilization per 1,000 eligible months		14.5	18.0	17.5	15.0	14.7
Payments per user month		3,342	3,156	3,177	3,164	3,258
Payments per eligible month		45	54	55	47	47
Non-institutional setting						
Specialist E&M visits	Demonstration group					
% with use		5.8	5.8	6.0	6.1	6.1
Utilization per 1,000 user months		1,076.8	1,083.8	1,080.6	1,103.0	1,088.7
Utilization per 1,000 eligible months		62.7	63.1	65.2	67.6	66.7
Payments per user month		104	106	105	101	101
Payments per eligible month		6	6	6	6	6
Specialist E&M visits	Comparison group					
% with use		5.5	5.6	5.8	5.8	5.7
Utilization per 1,000 user months		1,075.8	1,082.6	1,079.4	1,110.4	1,103.7
Utilization per 1,000 eligible months		59.2	60.3	62.8	63.9	63.1
Payments per user month		95	96	96	93	92
Payments per eligible month		5	5	6	5	5

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Primary care E&M visits	Demonstration group					
% with use		62.1	62.1	62.0	60.7	59.5
Utilization per 1,000 user months		1,779.5	1,830.1	1,853.7	1,867.2	1,835.5
Utilization per 1,000 eligible months		1,104.3	1,136.4	1,149.7	1,133.6	1,091.6
Payments per user month		123	130	135	120	115
Payments per eligible month		77	81	84	73	68
Primary care E&M visits	Comparison group					
% with use		66.9	67.1	67.7	67.8	67.2
Utilization per 1,000 user months		1,797.7	1,828.8	1,881.3	1,837.3	1,828.4
Utilization per 1,000 eligible months		1,203.3	1,226.3	1,274.4	1,244.8	1,229.5
Payments per user month		106	107	115	103	99
Payments per eligible month		71	72	78	70	66
Behavioral health visits	Demonstration group					
% with use		5.9	4.7	3.0	2.9	2.9
Utilization per 1,000 user months		1,552.3	2,057.9	2,720.1	2,560.1	2,521.0
Utilization per 1,000 eligible months		92.0	96.7	81.2	73.6	73.2
Payments per user month		62	93	166	406	161
Payments per eligible month		4	4	5	12	5
Behavioral health visits	Comparison group					
% with use		6.4	5.2	4.4	5.4	5.9
Utilization per 1,000 user months		1,460.8	1,757.6	2,318.0	2,325.5	2,532.1
Utilization per 1,000 eligible months		93.3	92.1	102.3	126.3	148.6
Payments per user month		57	74	117	211	121
Payments per eligible month		4	4	5	11	7

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Outpatient therapy (PT, OT, ST)	Demonstration group					
% with use		5.8	5.8	4.9	4.7	4.4
Utilization per 1,000 user months		14,114.5	13,070.6	13,731.4	13,170.7	12,443.6
Utilization per 1,000 eligible months		813.0	756.0	668.7	617.6	542.7
Payments per user month		534	489	388	377	354
Payments per eligible month		31	28	19	18	15
Outpatient therapy (PT, OT, ST)	Comparison group					
% with use		6.1	6.1	6.7	7.2	6.9
Utilization per 1,000 user months		21,986.9	21,611.7	26,328.0	25,643.3	25,838.4
Utilization per 1,000 eligible months		1,334.0	1,310.2	1,770.9	1,855.7	1,788.2
Payments per user month		725	690	705	700	700
Payments per eligible month		44	42	47	51	48
Independent therapy (PT, OT, ST)	Demonstration group					
% with use		2.1	2.0	2.2	2.4	2.5
Utilization per 1,000 user months		8,375.0	7,935.5	8,738.7	9,270.7	9,124.5
Utilization per 1,000 eligible months		173.1	159.7	194.6	225.0	228.2
Payments per user month		261	243	225	222	222
Payments per eligible month		5	5	5	5	6
Independent therapy (PT, OT, ST)	Comparison group					
% with use		1.1	1.0	1.0	1.0	1.0
Utilization per 1,000 user months		9,076.1	8,638.8	10,548.0	10,675.5	10,453.4
Utilization per 1,000 eligible months		103.1	84.8	105.6	104.8	108.9
Payments per user month		279	267	270	256	267
Payments per eligible month		3	3	3	3	3

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Home health episodes	Demonstration group					
% with use		2.6	2.7	2.5	2.3	2.2
Utilization per 1,000 user months		1,006.4	1,004.4	1,001.4	1,003.1	1,001.3
Utilization per 1,000 eligible months		25.9	26.8	25.1	23.2	22.3
Payments per user month		2,766	2,740	2,667	2,805	2,917
Payments per eligible month		71	73	67	65	65
Home health episodes	Comparison group					
% with use		3.3	3.3	3.3	2.9	2.8
Utilization per 1,000 user months		1,010.4	1,007.9	1,003.3	1,003.7	1,002.5
Utilization per 1,000 eligible months		33.8	32.9	33.0	29.6	28.4
Payments per user month		2,413	2,361	2,423	2,425	2,446
Payments per eligible month		81	77	80	71	69
Durable medical equipment	Demonstration group					
% with use		31.4	30.2	30.2	30.2	28.4
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Payments per user month		269	266	241	242	209
Payments per eligible month		85	80	73	73	59
Durable medical equipment	Comparison group					
% with use		29.3	28.0	26.0	25.5	23.6
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Payments per user month		279	278	287	280	236
Payments per eligible month		82	78	75	72	56

(continued)

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2	Demonstration period 3
Other hospital outpatient services	Demonstration group					
% with use		42.0	42.1	44.2	42.9	42.5
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Payments per user month		674	694	709	697	705
Payments per eligible month		283	292	313	299	300
Other hospital outpatient services	Comparison group					
% with use		35.8	35.8	37.1	36.4	35.9
Utilization per 1,000 user months		—	—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—	—
Payments per user month		596	618	656	606	591
Payments per eligible month		213	221	243	220	212

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

SOURCE: RTI International analysis of Medicare data.

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

Quality and care coordination measures	Group	Baseline year 1	Baseline year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
30-day all-cause risk-standardized readmission rate (%)	Demonstration group	19.5	18.9	18.9	19.9	18.8
	Comparison group	23.1	22.7	20.8	20.6	19.9
Preventable ER visits per eligible month	Demonstration group	0.0586	0.0573	0.0609	0.0609	0.0601
	Comparison group	0.0608	0.0628	0.0669	0.0655	0.0576
Rate of 30-day follow-up after hospitalization for mental illness (%)	Demonstration group	37.6	39.7	36.7	30.5	24.9
	Comparison group	42.6	38.9	41.1	41.6	36.5
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Demonstration group	0.0124	0.0126	0.0107	0.0094	0.0096
	Comparison group	0.0180	0.0163	0.0140	0.0123	0.0123
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Demonstration group	0.0076	0.0075	0.0068	0.0059	0.0064
	Comparison group	0.0106	0.0094	0.0083	0.0070	0.0075
Pneumococcal vaccination for patients age 65 and older per eligible month	Demonstration group	0.0018	0.0113	0.0253	0.0042	0.0059
	Comparison group	0.0009	0.0029	0.0059	0.0073	0.0079
Screening for clinical depression per eligible month	Demonstration group	0.0000	0.0001	0.0008	0.0012	0.0016
	Comparison group	0.0004	0.0003	0.0010	0.0018	0.0025

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

SOURCE: RTI International analysis of Medicare data.

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

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration year 1	Demonstration year 2	Demonstration year 3
Annual nursing facility utilization						
Number of demonstration beneficiaries	Demonstration group	18,972	18,178	16,985	20,394	23,449
New long-stay nursing facility admissions per 1,000 eligible beneficiaries		24.6	27.3	36.5	20.0	19.3
Number of comparison beneficiaries	Comparison group	34,894	32,563	27,240	25,303	26,915
New long-stay nursing facility admissions per 1,000 eligible beneficiaries		24.2	26.2	33.1	27.6	23.5
Number of demonstration beneficiaries	Demonstration group	22,271	21,428	18,621	22,252	25,400
Long-stay nursing facility users as % of eligible beneficiaries		15.8	16.8	12.9	10.7	9.6
Number of comparison beneficiaries	Comparison group	47,098	43,993	36,172	33,361	36,135
Long-stay nursing facility users as % of eligible beneficiaries		25.5	26.8	23.5	26.9	25.7
Characteristics of new long-stay nursing facility residents at admission						
Number of admitted demonstration beneficiaries	Demonstration group	467	496	620	408	454
Number of admitted comparison beneficiaries	Comparison group	845	854	901	697	632
Functional status (RUG-IV ADL scale)	Demonstration group	8.9	9.7	9.2	9.5	9.5
Functional status (RUG-IV ADL scale)	Comparison group	7.2	8.0	7.6	8.2	8.0
Percent with severe cognitive impairment	Demonstration group	31.6	29.1	27.6	27.7	27.3
Percent with severe cognitive impairment	Comparison group	38.1	40.3	33.2	37.1	38.5
Percent with low level of care need	Demonstration group	2.3	1.3	0.5	0.5	0.7
Percent with low level of care need	Comparison group	2.2	1.0	3.3	1.8	3.6

ADL = activities of daily living; RUG IV = Resource Utilization Groups Version IV.

SOURCE: RTI International analysis of Minimum Data Set data.

Table C-4
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Number of health home users		1,371	2,979	4,632
Number of non-health home users		19,822	21,876	23,812
Institutional setting				
Inpatient admissions	Health home users			
% with use		5.2	5.3	5.4
Utilization per 1,000 user months		1,141.9	1,094.6	1,106.2
Utilization per eligible 1,000 months		59.6	58.3	59.7
Payments per user month		13,762	12,792	14,356
Payments per eligible month		719	681	774
Inpatient admissions	Non-health home users			
% with use		4.4	4.0	3.7
Utilization per 1,000 user months		1,092.6	1,085.5	1,087.7
Utilization per eligible 1,000 months		47.7	43.2	40.6
Payments per user month		13,586	13,708	13,715
Payments per eligible month		594	546	512
Inpatient psychiatric	Health home users			
% with use		0.1	0.0	0.1
Utilization per 1,000 user months		1,000.0	1,000.0	1,000.0
Utilization per eligible 1,000 months		0.5	0.5	0.6
Payments per user month		7,076	4,573	6,789
Payments per eligible month		4	2	4

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Inpatient psychiatric	Non-health home users			
% with use		0.0	0.0	0.0
Utilization per 1,000 user months		1,053.2	1,095.9	1,021.7
Utilization per eligible 1,000 months		0.4	0.4	0.4
Payments per user month		6,059	8,541	7,004
Payments per eligible month		2	3	3
Inpatient substance abuse	Health home users			
% with use		0.1	0.1	0.1
Utilization per 1,000 user months		1,000.0	1,000.0	1,000.0
Utilization per eligible 1,000 months		1.1	0.5	0.8
Payments per user month		3,647	6,319	14,120
Payments per eligible month		4	3	12
Inpatient substance abuse	Non-health home users			
% with use		0.1	0.1	0.1
Utilization per 1,000 user months		1,171.0	1,152.3	1,220.8
Utilization per eligible 1,000 months		1.4	1.1	1.3
Payments per user month		14,469	13,070	15,988
Payments per eligible month		17	13	17
Emergency department use (non-admit)	Health home users			
% with use		12.6	12.4	11.4
Utilization per 1,000 user months		1,402.2	1,353.1	1,327.1
Utilization per eligible 1,000 months		177.2	167.1	151.7
Payments per user month		770	744	710
Payments per eligible month		97	92	81

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Emergency department use (non-admit)	Non-health home users			
% with use		9.0	9.0	9.2
Utilization per 1,000 user months		1,304.5	1,301.1	1,303.9
Utilization per eligible 1,000 months		117.4	117.2	119.7
Payments per user month		656	653	652
Payments per eligible month		59	59	60
Emergency department use (psychiatric)	Health home users			
% with use		0.6	0.5	0.5
Utilization per 1,000 user months		1,083.3	1,062.5	1,250.0
Utilization per eligible 1,000 months		6.9	5.5	6.4
Payments per user month		591	426	603
Payments per eligible month		4	2	3
Emergency department use (psychiatric)	Non-health home users			
% with use		0.6	0.5	0.6
Utilization per 1,000 user months		1,281.0	1,253.8	1,186.0
Utilization per eligible 1,000 months		7.2	6.9	6.9
Payments per user month		517	523	492
Payments per eligible month		3	3	3
Observation stays	Health home users			
% with use		1.7	1.5	1.3
Utilization per 1,000 user months		1,042.6	1,025.5	1,011.5
Utilization per eligible 1,000 months		17.3	15.2	13.3
Payments per user month		2,224	2,554	2,437
Payments per eligible month		37	38	32

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Observation stays	Non-health home users			
% with use		1.1	0.9	0.8
Utilization per 1,000 user months		1,031.4	1,047.6	1,035.6
Utilization per eligible 1,000 months		10.9	9.8	8.6
Payments per user month		2,116	2,326	2,170
Payments per eligible month		22	22	18
Skilled nursing facility	Health home users			
% with use		1.1	1.2	1.2
Utilization per 1,000 user months		1,100.0	1,057.3	1,087.0
Utilization per eligible 1,000 months		11.6	13.0	13.3
Payments per user month		12,914	12,573	12,708
Payments per eligible month		137	155	155
Skilled nursing facility	Non-health home users			
% with use		1.2	1.1	1.0
Utilization per 1,000 user months		1,077.5	1,083.8	1,070.5
Utilization per eligible 1,000 months		13.3	11.5	10.3
Payments per user month		13,463	14,028	14,353
Payments per eligible month		167	149	137
Hospice	Health home users			
% with use		0.1	0.2	0.2
Utilization per 1,000 user months		1,000.0	1,000.0	1,025.0
Utilization per eligible 1,000 months		0.9	1.6	1.6
Payments per user month		3,173	4,412	4,874
Payments per eligible month		3	7	7

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Hospice	Non-health home users			
% with use		0.2	0.4	0.3
Utilization per 1,000 user months		1,016.8	1,009.8	1,011.9
Utilization per eligible 1,000 months		2.4	4.1	3.1
Payments per user month		4,441	4,837	4,819
Payments per eligible month		10	19	15
Non-institutional setting				
Specialist E&M visits	Health home users			
% with use		7.8	8.3	8.2
Utilization per 1,000 user months		1,088.0	1,097.1	1,104.6
Utilization per eligible 1,000 months		85.1	91.2	90.5
Payments per user month		99	100	100
Payments per eligible month		8	8	8
Specialist E&M visits	Non-health home users			
% with use		5.9	5.9	5.9
Utilization per 1,000 user months		1,088.0	1,096.8	1,093.1
Utilization per eligible 1,000 months		64.0	65.2	64.5
Payments per user month		106	102	100
Payments per eligible month		6	6	6

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Primary care E&M visits	Health home users			
% with use		70.2	70.2	67.9
Utilization per 1,000 user months		2,017.6	2,051.4	2,024.6
Utilization per eligible 1,000 months		1415.9	1440.8	1375.1
Payments per user month		154	139	129
Payments per eligible month		108	98	88
Primary care E&M visits	Non-health home users			
% with use		58.6	58.9	57.7
Utilization per 1,000 user months		1,858.4	1,834.3	1,802.2
Utilization per eligible 1,000 months		1089.6	1081.1	1040.3
Payments per user month		135	120	112
Payments per eligible month		79	71	64
Behavioral health visits	Health home users			
% with use		4.2	4.6	4.8
Utilization per 1,000 user months		2,885.6	2,419.5	2,355.6
Utilization per eligible 1,000 months		120.2	111.5	112.3
Payments per user month		197	312	170
Payments per eligible month		8	14	8
Behavioral health visits	Non-health home users			
% with use		2.7	2.4	2.5
Utilization per 1,000 user months		2,683.5	2,627.9	2,565.8
Utilization per eligible 1,000 months		72.4	63.4	64.5
Payments per user month		157	395	216
Payments per eligible month		4	10	5

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Outpatient therapy (PT, OT, ST)	Health home users			
% with use		6.4	6.1	5.9
Utilization per 1,000 user months		10,252.8	11,584.7	11,419.1
Utilization per eligible 1,000 months		651.3	704.1	669.6
Payments per user month		291	329	325
Payments per eligible month		19	20	19
Outpatient therapy (PT, OT, ST)	Non-health home users			
% with use		4.6	4.4	4.1
Utilization per 1,000 user months		14,447.1	13,656.3	13,060.8
Utilization per eligible 1,000 months		662.5	600.0	533.8
Payments per user month		409	389	372
Payments per eligible month		19	17	15
Independent therapy (PT, OT, ST)	Health home users			
% with use		4.3	3.8	3.6
Utilization per 1,000 user months		8,526.5	9,467.3	8,813.2
Utilization per eligible 1,000 months		368.6	361.0	314.9
Payments per user month		239	235	223
Payments per eligible month		10	9	8
Independent therapy (PT, OT, ST)	Non-health home users			
% with use		2.1	2.2	2.3
Utilization per 1,000 user months		8,746.6	9,280.4	9,331.6
Utilization per eligible 1,000 months		185.7	205.3	216.3
Payments per user month		222	223	223
Payments per eligible month		5	5	5

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Home health episodes	Health home users			
% with use		3.6	3.9	3.9
Utilization per 1,000 user months		1,000.0	1,002.8	1,000.0
Utilization per eligible 1,000 months		36.4	38.8	39.0
Payments per user month		2,862	2,874	3,023
Payments per eligible month		104	111	118
Home health episodes	Non-health home users			
% with use		2.3	2.1	1.9
Utilization per 1,000 user months		1,002.1	1,002.6	1,001.9
Utilization per eligible 1,000 months		23.3	20.6	19.2
Payments per user month		2,715	2,876	2,979
Payments per eligible month		63	59	57
Durable medical equipment	Health home users			
% with use		42.2	42.6	38.6
Payments per user month		229	242	227
Payments per eligible month		96	103	88
Durable medical equipment	Non-health home users			
% with use		27.5	27.4	26.1
Payments per user month		240	238	213
Payments per eligible month		66	65	56

(continued)

Table C-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Washington demonstration health home and non-health home users

Measures by setting	Group	Demonstration period 1 7/1/2013–12/31/2014	Demonstration period 2 1/1/2015–12/31/2015	Demonstration period 3 1/1/2016–12/31/2016
Other hospital outpatient services	Health home users			
% with use		58.1	55.6	53.0
Payments per user month		859	758	733
Payments per eligible month		499	422	389
Other hospital outpatient services	Non-health home users			
% with use		40.7	40.8	40.2
Payments per user month		686	689	693
Payments per eligible month		279	281	279

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

SOURCE: RTI International analysis of Medicare data.

Table C-5
Quality of care and care coordination outcomes for health home and non-health home users for the Washington demonstration

Quality and care coordination measures	Group	Demonstration period 1	Demonstration period 2	Demonstration period 3
30-day all-cause risk-standardized readmission rate (%)	Health home users	19.0	20.4	20.0
	Non-health home users	18.9	19.8	18.4
Preventable emergency room visits per eligible month	Health home users	0.0822	0.0823	0.0741
	Non-health home users	0.0590	0.0575	0.0570
Rate of 30-day follow-up after hospitalization for mental illness (%)	Health home users	46.4	29.4	26.0
	Non-health home users	35.6	30.8	24.6
Ambulatory care sensitive condition admissions per eligible month—overall composite (AHRQ PQI #90)	Health home users	0.0168	0.0134	0.0138
	Non-health home users	0.0101	0.0087	0.0087
Ambulatory care sensitive condition admissions per eligible month—chronic composite (AHRQ PQI #92)	Health home users	0.0122	0.0083	0.0095
	Non-health home users	0.0063	0.0055	0.0057
Pneumococcal vaccination for patients age 65 and older per eligible month	Health home users	0.0383	0.0044	0.0059
	Non-health home users	0.0242	0.0042	0.0059
Screening for clinical depression per eligible month	Health home users	0.0015	0.0015	0.0015
	Non-health home users	0.0007	0.0011	0.0016

AHRQ PQI = Agency for Healthcare Research and Quality Prevention Quality Indicator.

SOURCE: RTI International analysis of Medicare data.