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

Prepared for

Daniel Lehman

Centers for Medicare & Medicaid Services
Center for Medicare & Medicaid Innovation
Mail Stop WB-06-05
7500 Security Boulevard
Baltimore, MD 21244-1850

Submitted by

Edith G. Walsh

RTI International
307 Waverly Oaks Road, Suite 101
Waltham, MA 02452-8413

RTI Project Number 0214448.001.007.000.000.006

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FINANCIAL ALIGNMENT INITIATIVE
WASHINGTON HEALTH HOMES MFFS DEMONSTRATION:
SECOND EVALUATION REPORT

by

National Academy for State Health Policy

Diane Justice, MA
Scott Holladay, MA

RTI International

Melissa Morley, PhD
Emily Gillen, PhD
Giuseppina Chiri, PhD
Matthew Toth, PhD
Winnie Chi, PhD
Joyce Wang, MPH
Kevin Smith, MA
Wayne Anderson, PhD
Angela M. Greene, MS, MBA
Brienne Lyda-McDonald, MS

Urban Institute

Timothy Waidmann, PhD
Kyle Caswell, PhD

Project Director: Edith G. Walsh, PhD
Federal Project Officer: Daniel Lehman

RTI International

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Executive Summary

This second Evaluation Report on the Washington Managed Fee-for-Service (MFFS) model demonstration under the Medicare-Medicaid Financial Alignment Initiative, called Washington Health Homes, is one of several reports that will be prepared over the next several years to evaluate the demonstration. Centers for Medicare & Medicaid Services (CMS) contracted with RTI International to monitor the implementation of the demonstrations under the Financial Alignment Initiative and to evaluate their impact on beneficiary experience, quality, utilization, and cost.

This report uses a variety of data sources to analyze the impact of the Washington Health Homes demonstration from July 1, 2013, through December 31, 2015, covering demonstration period 1 (July 1, 2013 through December 31, 2014) and demonstration period 2 (January 1, 2015 through December 31, 2015). It also provides qualitative information on the demonstration from July 1, 2015, through December 31, 2016, and key information from early 2017. It describes the demonstration's key features; the policies, administrative processes, and strategies the State and CMS adopted as they implemented the demonstration; and successes achieved and challenges encountered. Specifically, this report addresses the demonstration's approach to integrating the Medicare and Medicaid programs; providing care coordination to enrollees; enrolling beneficiaries into the demonstration; and engaging stakeholders in the oversight of the demonstration. We also provide impact analyses using enrollment and claims data, evaluating service utilization patterns and quality metrics for July 1, 2013, through December 31, 2015, and a summary of preliminary findings related to Medicare savings results in the second demonstration year.

The Washington MFFS Demonstration

The Washington Health Homes MFFS demonstration 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 period covered by this report, the demonstration operated statewide. King and Snohomish Counties joined the demonstration as of April 1, 2017.

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.

Integration of Medicare and Medicaid

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. 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.

During the 2015 Washington legislative session, State funding for the health home program was terminated, effective December 31, 2015, a decision that was later rescinded. According to a joint statement released by the Washington Department of Social and Health Services (DSHS) and the Health Care Authority (HCA), the legislature's decision to terminate funding was based on a lack of supporting information about whether the demonstration would meet its projected savings target amid a challenging budget climate. Following the close of the legislative session in June 2015, the State suspended auto-enrollment and assignment of demonstration eligible beneficiaries into health homes and began planning for termination.

In late October 2015, the State received communication from CMS that indicated the State would likely receive a payment for Medicare shared savings generated by the demonstration. As a result, the legislature changed course and permitted the State to continue health home services through June 2016, using reprogrammed funds. In April 2016 the legislature adopted a budget that included funding for health homes through June 2017 and extended the demonstration to the two excluded counties, King and Snohomish (effective April 2017). The State issued a request for proposals to solicit applicants to serve as health homes for these two new counties in August 2016. Future reports will include a discussion of how this process unfolds.

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 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 roles performed by 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. 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.

During the time period the State refers to as the "program pause," which spanned the state legislature's initial action in June 2015 to terminate health home funding until funding was temporarily restored in November 2015, the demonstration lost care coordination capacity. The State suspended auto-enrollment and because of uncertainty about the program's future, some care coordinators took other jobs. Some CCOs stopped accepting health home referrals of beneficiaries already enrolled in the demonstration and some withdrew from the demonstration entirely. According to health homes and the State, CCOs continued to be reluctant to hire new care coordinators from November 2015 to April 2016 because funding for the next fiscal year was uncertain.

Another factor affecting the supply of care coordinators has been the labor market, which has been characterized by State and health home staff as being very competitive. To address the supply of care coordinators, a work group of health homes and State staff performed a comprehensive review of each of the six health home services to determine if some functions could be performed by less skilled workers. Their recommendations were incorporated into a state plan amendment (SPA) that Washington submitted in December 2016 to CMS to extend program coverage to King and Snohomish Counties. The State received CMS approval of its SPA in time to begin enrolling beneficiaries in the two counties on April 1, 2017. Implementation of the SPA will be discussed in future reports.

Eligibility and Enrollment

The State auto-enrolls eligible Medicare-Medicaid beneficiaries who have been attributed to the demonstration into health homes. As of December 31, 2016, a total of 21,050 eligible beneficiaries were enrolled in a health home.

Locating enrollees has continued to be a major challenge for the demonstration. In late 2015 a work group of State and health home staff was convened to develop a due diligence policy that describes steps the care coordinators are expected to follow in attempting to locate enrollees. During the 2016 site visit, health home staff estimated that approximately 50 percent of all enrollees could not be located and thus could not be engaged with the demonstration. In the SPA implemented in April, 2017 was an updated health home payment methodology to give health homes a performance payment for achieving a certain engagement rate, which was viewed as a way to provide both a health home rate increase, while offering incentives to increase engagement rates.

Stakeholder Engagement

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

The State established the Health Home Advisory Team (HAT), which meets monthly to solicit ongoing stakeholder input regarding the demonstration. Members include consumer advocacy organizations, provider associations, State and county agencies, and the union representing most home care workers. In late 2015 the HAT played a major role in developing a strategy for ending the demonstration by preparing a communications plan and participating in drafting the letter intended to be sent to enrollees announcing the end of the demonstration. In 2016 the HAT was very active in planning the extension of the demonstration to King and Snohomish Counties by providing input into the SPA implemented in April 2017, reviewing health home rate increases, and reviewing the solicitation for new health home providers.

Financing, Payment, and Cost Savings

The State pays health homes for delivery of health home services on a per-member per-month (PMPM) basis, using three payment tiers. The first payment is a one-time fee of \$252.93

for outreach and engagement, health screening, and development of the enrollee's health action plan (HAP). After the health home has submitted an enrollee's HAP, it can submit encounters for either intensive or low-level services. Health homes are paid for intensive care coordination for months in which the highest level of face-to-face care coordination is provided to an enrollee; the rate for intensive care coordination is \$172.61. For any month that 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.

Site visit interviews with health homes and CCOs during the reporting period focused extensively on the financial viability of the demonstration. Data developed by the health homes and shared with the evaluation team during the 2016 site visit 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.

In its SPA submission to CMS to extend the demonstration to King and Snohomish Counties (implemented in 2017), the State updated the rate methodology for paying health homes. This performance payment to health homes (based upon engagement rate) would be funded using the amount of the CMS health home payment to the State that has not been allocated to other purposes. The threshold amount was set at a level that would provide all health homes with an increase, with larger payments provided to health homes with higher engagement rates. The State viewed this proposal as meeting two objectives: increase the base rate to all health homes and provide health homes with an incentive to increase their engagement rates.

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 11.8 percent over the first two demonstration periods. This finding has been consistent with findings identified using an actuarial methodology to inform performance payments for the demonstration.

Quality of Care

Washington uses a combination of quality management strategies to oversee the operation of health homes. One of the most effective methods has been on-site program audits. In 2016 program audits, the State identified engagement rates as the area in greatest need of improvement for all health homes. Two significant aspects of the State's quality improvement efforts have been revising the State's payment methodology for health homes to provide an incentive for achieving increased engagement rates and adjusting the engagement rate calculations by revising eligibility criteria for receipt of home health services.

Stakeholder Engagement

Since completion of the first Washington Annual Report, RTI has conducted two activities to identify beneficiary experience with the demonstration. First, we reviewed results from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey conducted with demonstration enrollees, and second, we conducted focus groups of enrollees.

Results from both activities show a high degree of satisfaction by the enrollees, successful care coordination efforts, and substantial LTSS utilization.

Service Utilization Analyses

We have found evidence that the demonstration resulted in lower inpatient and skilled nursing facility (SNF) admissions and a lower probability of any long-stay nursing facility (NF) use, but higher rates of hospital readmission. Although enrollment into health homes began slowly and increased gradually in demonstration year 1, by demonstration year 2, the State made significant progress in enrolling Medicare-Medicaid beneficiaries in health homes. Importantly, the State's health home entities have increased the number of enrollees who have completed HAPs and received care coordination services. If enrollment and engagement trends continue or accelerate, the demonstration's care coordination strategies may affect other measures of utilization and quality.

An overview of the results from impact analyses using only Medicare data is provided in **Table ES-1**. The direction of all statistically significant results at the 95 percent confidence interval is shown. Monthly inpatient admissions, SNF admissions, and probability of any long-stay NF use were lower for the Washington demonstration group than the comparison group, whereas the 30-day all-cause risk-adjusted readmission rate was higher.

Table ES-1
Summary of Washington Demonstration impact estimates for demonstration period
(July 1, 2013, to December 31, 2015)
(95 percent confidence interval)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with LTSS use	Demonstration eligible beneficiaries with SPMI
Monthly inpatient admissions	Decreased	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased	Decreased
Emergency room (ER) visits	NS	NS	NS
Physician evaluation and management visits	NS	NS	NS
Probability of any long-stay nursing facility use	Decreased	NA	NA
30-day all-cause risk-adjusted readmission rate	Increased	Increased	Increased
30-day follow-up after hospitalization for mental illness	NS	NS	NS
Preventable ER visits	NS	NS	NS
Ambulatory Care Sensitive Condition (ACSC) admissions, overall composite	NS	NS	NS
ACSC admissions, chronic composite	NS	NS	NS

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

SOURCE: RTI analysis of Medicare and Minimum Data Set data. As Medicaid data become available, a similar analysis will be conducted for personal care service use.

1. Evaluation Overview

This second Evaluation Report on the Washington Managed Fee-for-Service (MFFS) model demonstration under the Medicare-Medicaid Financial Alignment Initiative, called Washington Health Homes, is one of several reports that will be prepared over the next several years to monitor and evaluate the demonstration. Centers for Medicare & Medicaid Services (CMS) contracted with RTI International to monitor the implementation of the demonstrations under the Financial Alignment Initiative and to evaluate their impact on beneficiary experience, quality, utilization, and cost.

This report uses a variety of data sources to analyze the impact of the Washington Health Homes demonstration from January 1, 2015, through December 31, 2015. It also provides qualitative information on the demonstration from July 1, 2015, through December 31, 2016, and key information from early 2017. It describes the demonstration's key features; the policies, administrative processes, and strategies the State adopted as it implemented the demonstration; and successes achieved and challenges encountered. Specifically, this report addresses the demonstration's approach to integrating the Medicare and Medicaid programs; providing care coordination to enrollees; enrolling beneficiaries into the demonstration; and engaging stakeholders in the oversight of the demonstration. We also provide a summary of preliminary findings related to Medicare savings results. Results on enrollee, quality of care, service utilization, and costs for the entire demonstration period spanning July 1, 2013, to December 31, 2015 are also presented.

Analyses of access to care, quality, utilization, and costs are based on Medicare claims data for both Washington and a comparison group for 2 baseline years before the demonstration (July 2011 to June 2013) and for demonstration years 1 (July 2013 to December 2014) and 2 (January 2015 to December 2015). The Nursing Home Minimum Data Set (MDS) is also analyzed to evaluate nursing facility use rates, characteristics of entrants, and nursing facility quality. *Appendix A* includes details on the comparison group identification for Demonstration Year 2, and *Appendix B* contains the analysis methodology.

A wide range of information sources informed this second Evaluation Report of the Washington Health Homes Demonstration. The RTI evaluation team conducted a site visit in Washington from August 8–11, 2016. Activities during this site visit included interviews with State officials and stakeholders, which provided information on the rationale for the policies put in place to implement the demonstration, and its operational experiences. In addition to a wide range of State officials with differing demonstration roles, the RTI evaluation team interviewed CMS staff, health home directors, directors of care coordination agencies, representatives of aging and disability advocacy groups, and Area Agencies on Aging (AAAs). Enrollee focus groups were conducted in January 2016 and were a source of information on beneficiary experience. We also include information from the 2015 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 Homes Demonstration.

The RTI evaluation team also drew on the official agreements between CMS and Washington that outline demonstration policies and operational strategies: the Final

Demonstration Agreement (Agreement, 2016); the Memorandum of Understanding (MOU, 2012); and the approved Medicaid Health Home State Plan Amendments (SPAs) (Washington Health Care Authority [HCA], hereafter SPAs, 2013a and 2013b). Other useful documents were those prepared by Washington, such as its contracts with health homes, the solicitation for applications for health home selection, and its initial proposal to conduct this demonstration. The State's Medicaid health homes website was a rich source of new health home policies and operational procedures as well as data on demonstration enrollment data and completion of enrollee Health Action Plans (HAPs). Finally, RTI used data submitted by Washington to the RTI evaluation team through the State Data Reporting System (SDRS).

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

2. Demonstration Overview

2.1 Model Description and Demonstration Goals

The Washington Health Homes MFFS demonstration 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 of the 2016 site visit and the associated data collection, the demonstration operated statewide, except in two counties, King and Snohomish, which were added effective April 1, 2017. The Washington Health Homes MFFS demonstration began July 1, 2013, and is scheduled to continue until December 31, 2018. Washington submitted an extension request, which was approved and is awaiting amendment to the FDA. Once complete, it would extend the demonstration through December 31, 2020. CMS plans to work with the State to effectuate an extension. The demonstration is jointly administered at the State level by the 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 Homes MFFS Demonstration.

The goals for the Washington Health Homes 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 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 (CCM) 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

- 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.
- During the 2015 legislative session, state funding for the health home program was terminated, which would have ended the demonstration by December 2015. In 2016 funding was restored.
- Washington extended the demonstration service area to cover King and Snohomish Counties effective April 1, 2017, making the demonstration statewide.

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

3.1 Integration of Medicare and Medicaid

In the Washington Health Homes 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 Homes 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 to be 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 community-based health homes have also operated their own internal CCO, thereby providing some care coordination directly. Health home care coordinators conduct outreach to achieve enrollee engagement, develop an individualized HAP with the enrollee, and provide health home care coordination services.

During the 2015 Washington legislative session, State funding for the health home program was terminated, effective December 31, 2015. According to a joint statement released by the Washington DSHS and HCA, the legislature's decision to terminate funding was based on a lack of supporting information about whether the demonstration would meet its projected savings target amid a challenging budget climate. Following the close of the legislative session in June 2015, the State suspended auto-enrollment into health homes and began planning for termination. The MOU detailed a process to be followed to end the demonstration and the State developed notices to send to demonstration enrollees to inform them of the demonstration's termination.

In late October 2015, the State received communication from CMS that indicated the State would likely receive a payment for Medicare shared savings generated by the demonstration. As a result, the legislature changed course and permitted the State to continue health home services through June 2016, using reprogrammed. Auto-enrollment was reinstated effective December 2015, and the prepared termination notices were not sent to enrollees. In April 2016 the legislature adopted a budget that included funding for health homes through the end of the budget biennium, June 2017, and extended the health home program, and thus the demonstration, to the two excluded counties, King and Snohomish.

At the time of the August 2016 site visit, planning for the demonstration's extension to King and Snohomish counties was well under way. On August 14, 2016, the State issued a request for proposals (RFP) to solicit applications for health homes in the two new counties and for any other part of the State. In July 2016, the State conducted three webinars to give potential bidders information about the State's expectations. When the State first established health homes it created seven geographic coverage areas. Snohomish County would be part of coverage area 2, which has several other counties and has been served by an existing health home. The existing health home that serves coverage area 2 would also serve other successful applicants; King County would be its own region.

Only one organization submitted an application to serve as a health home for King County. According to the State, although the applicant was very qualified to be a health home, it

was a small agency and would not have the capacity to serve the entire county. So, the State reissued the RFP, with a due date of January 14, 2017. The State has noted that two existing managed care health homes were selected to participate in the demonstration during the initial solicitation and were therefore qualified to be a provider upon submitting to the State their care coordination network adequacy plan. The State has limited enrollment of beneficiaries in the managed care health homes, preferring to build enrollment in the community-based health homes, which the State defines as the non-managed care entities.

During the 2016 site visit, the RTI evaluation team heard repeatedly from health homes and care coordination organizations 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 substantial program deficits and with the higher Seattle (located in King County) labor costs, it would be very difficult for an organization to take on this role.

A Medicaid Health Home SPA was implemented in April 2017. It replaced the two prior ones and covers the entire State. Washington has used this opportunity to implement new health home policies. Specifically, an updated eligibility policy would make enrollees ineligible if their Predictive Risk Intelligence System (PRISM) score drops to 1.0 or lower for a period of 6 months and they have not participated in the program for 6 months. [Initial eligibility criteria included a PRISM score of 1.5, which reflected a chronic care need of 1.5 times greater than that of an average Supplemental Security Income (SSI) recipient (Justice et al., 2016).] The other major policy change was a revision of the health home rate structure, described in **Section 3.5, Financing, Payment, and Cost Savings**.

The State received CMS approval of its proposed SPA in time to begin enrolling beneficiaries in the two new counties on April 1, 2017. Implementation of that SPA will be discussed in future reports.

3.2 Eligibility and Enrollment

Highlights

- Washington has established eligibility criteria for the demonstration based on a risk score generated by a predictive modeling tool.
- The State continues to experience difficulties locating enrollees.
- A work group of State and health home staff has established a due diligence policy for health homes to follow when seeking to locate enrollees.

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 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, 2016, a total of 21,050 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 Homes MFFS

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

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 live in counties where the demonstration is active; 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: having one chronic condition and being at risk of developing another, measured by a risk score generated by PRISM. PRISM is a predictive modeling tool that incorporates Medicare and Medicaid claims information in an individual profile for each enrollee. All eligible Medicare-Medicaid beneficiaries are auto-enrolled in a health home unless they opt out prior to enrollment or choose a different health home provider. Originally implemented in all counties except Snohomish and King counties, the demonstration became active statewide as of April 2017.

Locating enrollees has presented 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 enrollees receive enrollment verifications by e-mail, an unintended consequence of the shift to electronic Medicaid enrollment processes is that HCA is unaware of changes in their mailing address. 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 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 locate 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 locate enrollees; they have contacted pharmacies; and they have contacted the Medicaid transportation broker to see if an individual has requested services. Health home 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.

In late 2015 a work group of State and health home staff was convened to develop a due diligence policy that describes steps the care coordinators are expected to follow in attempting to

locate enrollees. During the 2016 site visit, health home staff estimated that approximately 50 percent of all enrollees cannot be located and thus cannot be engaged with the demonstration. As discussed in *Section 3.5, Financing, Payment, and Cost Savings*, the State implemented a change in health home payment methodology to provide incentives to health homes to increase their engagement rate.

3.3 Care Coordination

Highlights

- Health homes have developed networks of CCOs that provide an intensive level of service.
- From July 1, 2015, to April 2016 the State lost substantial care coordination capacity because CCOs were reluctant to hire care coordinators because of budgetary uncertainties.
- The State implemented several steps to increase care coordination capacity.

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 roles performed by 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. The State's prior experience with the 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 have a high regard for the care coordination services they receive.

For many enrollees, care coordination addresses primary care, LTSS, and behavioral health services. As previously noted, the care coordinator's role is to be a bridge across these

delivery systems and identify gaps in needed supports. 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 site visit the RTI evaluation team was informed of several instances in which the behavioral health system was only able to focus 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.

The RTI evaluation team asked all interviewees during the 2016 site visit whether or how enrollees with LTSS or behavioral health needs experience the demonstration. Across all types of sources, responses were remarkably similar. Over 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 find and engage them. For this group of HCBS users, 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, they mainly link them with treatment. Some enrollees are homeless, making the task of finding and engaging them daunting. Similar to HCBS users, help accessing primary care may be a big need. One interviewee 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."

During the time period that the State has referred to as the "program pause" which spans the state legislature's initial action in June 2015 to terminate health home funding until funding was restored in November 2015, the demonstration lost care coordination capacity. As previously noted, the State suspended auto-enrollment and because of uncertainty about the program's future, some care coordinators left and took other jobs. Some CCOs stopped accepting health home referrals of beneficiaries already enrolled in the demonstration and some withdrew from the demonstration entirely. The one health home that relied on providing care coordination exclusively through contracted CCOs and did not have its own internal CCO estimated that it lost about one-third of its care coordination capacity during this time. According to health homes and the State, CCOs continued to be reluctant to hire new care coordinators from November 2015 to April 2016 because funding for the next fiscal year was uncertain.

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. 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. Implementation of the new SPA will be discussed in future reports.

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. And in a joint effort in the northeastern part of the state, the demonstration health home and several managed care health homes that served a Medicaid-only population recruited new entities to serve as CCOs by promising a number of ongoing referrals that would make provision of care coordination economically feasible. As reported by health homes and the State, care coordination capacity has recovered to levels prior to the program pause, but it remained significantly below the level needed to serve all enrollees.

Discussions of the health home payment structure dominated many of the 2016 site visit interviews. The State pays health homes for delivery of health home services on a per-member per-month (PMPM) basis, using three payment tiers. Monthly payments are made only for months that an encounter is submitted by the health home. The first payment is a one-time fee of \$252.93 for outreach and engagement, health screening, assessment for self-management, and development of the enrollee's HAP. After the health home has submitted an enrollee's HAP, in succeeding months, it can submit encounters for either intensive or low-level services. Health homes are paid for intensive care coordination for months in which the highest level of face-to-face care coordination is provided to an enrollee; the rate for intensive care coordination is \$172.61. For any month that low-level care coordination is provided to an enrollee, the health home is paid \$67.50.

At the time of the 2016 site visit, statewide approximately 14 percent of enrollees are engaged, which the State defines as having a HAP and being involved with a care coordinator. All interviewees considered this percentage to be somewhat of an understatement because its calculation includes enrollees who cannot be found and enrollees who have declined health home services but have not opted out of the demonstration. Interviews with CCOs indicated that a portion of enrollees did not have a connection with a care coordinator for a variety of reasons. Some CCOs said they only accept care coordination referrals from health homes for persons with whom they have a preexisting relationship in order to avoid costs related to locating enrollees. Other CCOs did not initiate care coordination with enrollees referred to them because they could not sustain any more financial losses from hiring more staff.

A policy the State included in the SPA affects the calculation of the engagement rate. If an enrollee's PRISM score drops to 1.0 or below, and the enrollee has not been engaged for 6 months, the individual will be deemed ineligible for health home services and will therefore not be included in the calculation of the engagement rate.

Locating enrollees has continued to be a major challenge as is discussed in greater detail in *Section 3.2, Eligibility and Enrollment*. The State included in its SPA an updated health home payment methodology to give health homes a performance payment for achieving a certain engagement rate. This has been viewed as a way to provide both a health home rate increase, while offering incentives to increase engagement rates.

3.4 Stakeholder Engagement

Highlights

- Washington has conducted an extensive stakeholder engagement process for demonstration design and ongoing input on implementation.
- The Health Home Advisory Team has played a significant role in developing demonstration policy.
- The State has convened a work group of health homes, nursing facility and assisted living associations, the adult family home coalition, and the State to address the refusal by some nursing facilities to provide access to health home care coordinators to nursing home facility residents.

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 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 monthly (now every other month) 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 and health homes began observing that service providers lacked an understanding of health home roles and what health homes can offer providers in supplementing the support they give to their enrollees. As a result, the State developed a Health Home Provider Toolkit in July 2015 with targeted information for providers delivering medical services, behavioral supports, LTSS, nursing facility services, and hospital services and disseminated it to providers. The State also conducted targeted outreach to nursing facilities when it learned some providers were refusing to give health home coordinators access to residents. In addition to working with Washington's nursing facility associations, in May 2015, HCA sent a Dear

Provider Letter that described health home roles and underscored that residents have a right to participate in the demonstration and have access to health home care coordinators.

That outreach effort did not resolve the problem of facilities refusing to provide health home care coordinators with access to residents. In the summer of 2016 the State created a work group of State staff, the nursing facility and assisted living associations, the adult family home coalition, and several health homes to establish a positive strategy for responding to the opposition of nursing facilities to development of HAPs for residents. The work group hoped to counter the perception that HAPs would hinder or be counterproductive with facility care plans. Potential vehicles identified by the work group for addressing these concerns included development of best practice documents, training and education for facilities and care coordinators, and drafting a letter that care coordinators could use when visiting enrollees in facilities, with the primary message being the advantages to nursing facilities in having their residents be active health home enrollees.

The State established the Health Home Advisory Team (HAT), which meets monthly, to solicit ongoing stakeholder input regarding the demonstration. Members include consumer advocacy organizations, provider associations, State and county agencies, and the union representing most home care workers. Examples of HAT activities include providing input on the Health Home Provider Toolkit, the Medicaid policy to provide enrollees with nonemergency medical transportation to support care coordination activities, and health home performance measures. One HAT member commented during the RTI evaluation team's 2016 site visit that she has served on many program advisory committees, and she considered the HAT to be the most effective.

In late 2015 the HAT played a major role in developing a strategy for closing down the demonstration by preparing a communications plan and participating in drafting the letter intended to be sent to enrollees announcing the shutdown of the demonstration, had the legislature not reversed its stance later in the year. In 2016 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 health home rate increases and reviewing the solicitation for new health home providers.

3.5 Financing, Payment, and Cost Savings

Highlights

- The payment system for Washington Health Home uses a PMPM methodology with three payment tiers.
- During the 2016 site visit, health homes reported that the rates are 20 percent below their costs and question whether their involvement can be sustained.
- Through the SPA implemented in April, 2017, the State adopted a new performance-based payment rate to increase rates for all health homes.
- Results of savings analyses using a difference-in-differences (DID) regression approach indicate significant Medicare savings, over 18 percent, in the first two periods of the Washington demonstration.

As described in *Section 3.3, Care Coordination*, the State pays health homes for delivery of health home services on a PMPM 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 \$171.61 for intensive care coordination for months in which face-to-face care coordination is provided to an enrollee. For any month that 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. In developing the new health home SPA, the State solicited cost information from health homes and again contracted with Milliman to examine rates. By legislative mandate, any rate changes must be budget neutral as compared with the initial cost projections for the health home program. As discussed in the care coordination section, inadequacy of the rates has reportedly been a reason why 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 by the health homes indicate 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. One health home commented that its parent organization has financially supported health home operations as a public mission, but that in a year or so it will no longer be able to take another budget deficit to its board of directors.

In the SPA implemented in April 2017, the demonstration service area was extended to King and Snohomish counties and the State adopted a new rate methodology for paying health

homes. Using the amount of the CMS health home payment to the State that was not allocated to other purposes, the State established a performance payment to health homes, based upon their engagement rate. The threshold amount was to be set at a level that would provide all health homes with some increase, with larger payments provided to health homes with higher engagement rates. The State viewed this proposal as meeting two objectives: increasing the base rate to all health homes and providing health homes with an incentive to increase their engagement rates. The State also adjusted the eligibility criteria for health home services, which would reduce the number of people eligible for health home services and thereby increase the engagement rate.

The results of the demonstration period 1 and 2 cost savings analyses using a DID regression approach indicate significant Medicare (Part A and Part B) savings as a result of the Washington demonstration. The gross savings are estimated at over 18 percent over the first two demonstration periods. This finding is consistent with findings identified using an actuarial methodology (over 9 percent for the same demonstration periods¹) to inform performance payments for the demonstration. As Medicaid data become available, RTI will conduct a similar calculation looking at Medicaid services.

3.6 Quality of Care

Highlights

- Washington uses a combination of quality management strategies to oversee the operation of health homes.
- As a result of the annual audits conducted in 2016, the State identified the engagement rates of health homes as the area in greatest need of improvement for the coming year.

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 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 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. As discussed in **Section 4, Beneficiary Experience**, CMS administers the CAHPS, which is also used by the State for quality assessment.

The State conducts annual audits of health home performance that consist of two components. One component is a desk audit that reviews the health home's required policies and

¹ Report can be found here: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/WAEvalMedicareCostYr1FinalYr2Preliminary072817.pdf>

procedures. The other component is a review of the care coordination records of a randomized list of health home enrollees requested by the State. As a result of the annual audits conducted in the fall of 2016, the State identified the engagement rates of health homes as the area in greatest need of improvement for the coming year. Two significant aspects of the State's quality improvement strategy were discussed in ***Section 3.5, Financing, Payment, and Cost Savings***. They include revising the State's payment methodology for health homes to provide an incentive for achieving increased engagement rates and adjusting the engagement rate calculations by revising eligibility criteria for receipt of home health services.

Results of quality measures for the demonstration period are discussed in ***Section 5, Service Utilization***.

4. Beneficiary Experience

Highlights

- The results of the Hispanic focus groups conducted in 2016 were very similar to the results of the enrollee focus groups held in the fall of 2015.
- Although only about half of 2015 CAHPS respondents provided a high rating for their health home services, and focus group participants identified a few individual areas for improvement, the results show a high degree of satisfaction by the enrollees, successful care coordination efforts, and substantial LTSS utilization.
- CAHPS results show that a majority of survey respondents feel their cultural values, beliefs, or practices were “somewhat” or “definitely” incorporated into the care they received.

Since the completion of the first Washington Annual Report, RTI has conducted two activities to identify beneficiary experience with the demonstration. First, we reviewed results of a CAHPS survey fielded to demonstration enrollees, and second, we conducted focus groups of enrollees. The results of these activities are remarkably similar to each other, and are also very similar to the results of the previous year’s focus groups. They show a high degree of satisfaction by the enrollees, successful care coordination efforts, and substantial LTSS utilization, while identifying some areas for improvement. A summary of the results is presented below.

4.1 Methods and Data Sources

Beginning in 2015, CMS sponsored an annual assessment of beneficiary experiences with health homes in the Washington demonstration using a modified version of the CAHPS survey instrument, which included question items added for the Financial Alignment Initiative evaluation of MFFS model demonstrations. The 2015 survey was conducted from September to November 2015 and included items from the standard CAHPS 5.0 Adult Medicaid Health Plan Survey, CAHPS Survey for Accountable Care Organizations (ACO-12 Survey), Care Transitions Measure (CTM-15), HCBS Experience Survey, Patient Assessment of Care for Chronic Conditions, and the Use of Participant Experience Survey. Survey results incorporated in this report are from a subset of 2015 survey questions that were presented in a report by NORC at the University of Chicago to CMS. Findings are available at the overall state level only. The sample size for the survey was 2,025, with a 45 percent response rate. The survey was fielded via mail and telephone (if participants did not respond to mail survey) to demonstration enrollees who were age 18 years or older, had completed a HAP since their initial enrollment, and were enrolled in the demonstration for at least 5 months between January 1, 2015, and June 30, 2015. The survey was conducted in English; proxies were allowed (e.g., for individuals with cognitive disabilities or language barriers). Approximately 8 percent of respondents were Hispanic or Latino.

The RTI evaluation team conducted two focus groups with Spanish-speaking enrollees over 2 days in Washington as part of the evaluation of the Washington Health Homes MFFS

demonstration: one group met in Pasco on January 20 and another met on January 21, 2016, in Yakima. Although the goal was to recruit eight participants for each group, we were unable to do so because of the small numbers of Spanish language enrollees who had a HAP at the time of the focus groups. A total of eight individuals participated in the two focus groups, including four Washington Health Homes MFFS enrollees and four family members acting as proxies for enrollees. Each session was approximately 2 hours long and was conducted in Spanish to identify the experience of this subpopulation with the demonstration, including the availability of Spanish-speaking care coordinators, medical staff, or translators, and whether these care coordinators are culturally sensitive. Focus group participants received gift cards as a token of the RTI evaluation team's appreciation for their input. Findings from a previous round of focus groups conducted by RTI in September 2015 were reported in the first Annual Report (Justice et al., 2016).

4.2 Impact of the Demonstration on Beneficiaries

4.2.1 Overall Satisfaction with the Demonstration

Focus groups and CAHPS survey results provide insight into how satisfied beneficiaries have been with the demonstration. Spanish-speaking focus group participants reported similar experiences as those participating in the non-Spanish-speaking focus groups conducted in 2015 and discussed in the first Annual Report. Overall, they indicated satisfaction with the services they receive under the demonstration. One participant described overcoming social isolation with encouragement from her care coordinator. Several others voiced general satisfaction with their services and the assistance they receive from their care coordinators. One proxy expressed frustration about delays getting a wheelchair for his father, even with help from the care coordinator. The following responses provide examples of participants' overall satisfaction with the demonstration:

“It went well for me because I identified myself with [my care coordinator]. She helped me out a lot...She helped me and encouraged me. She said: “You spend too much time inside this house and... You are always in this house and that’s too much stress for you, you’re locking yourself up inside your sickness, in your condition.”

“...she came once a month and I told her this and this, I’m having a hard time. And then she would say, ‘Don’t worry’...She helped me with that, she helped me with many other things. Yes, I felt very supported by her.”

“...every time I needed something, I always asked for it, and I knew I could go to this care coordinator.”

“The truth is we’ve not seen that much help, I don’t know...my dad, I’ve talked about that with him, and he says: ‘Well son, as long as I am as I am now,’ he says, ‘that I’m no longer back at the hospital or that anything else happens to me, I’m all right. Let God keep me alive for some more years and that’s it.’”

The CAHPS survey has two related questions: satisfaction with health homes and with doctor’s communication. Although 8 percent of CAHPS respondents were Spanish-speaking, results are not provided separately for this population. Results provide baseline information about beneficiaries’ overall satisfaction with the care and services they have received as enrollees in the demonstration. As shown in **Table 2**, a total of 58 percent of beneficiaries gave their health home a high rating. However, the RTI evaluation team learned from two rounds of focus groups, those in 2015 and 2016, that participants were not familiar with the term “health home,” because the health homes do not market themselves to current or prospective enrollees and they deliver care coordination services through networks of community agencies. Satisfaction with health homes may be more accurately gauged by the responses to questions about access to services, coordination of care, and care transitions, which are presented in **Sections 4.2.3** and **4.2.4**.

Survey respondents rated how well doctors communicated with them more favorably than they rated satisfaction with their health homes. Because coaching enrollees about communicating with their physicians and accompanying enrollees on physician visits is a major care coordinator role, health homes may have contributed to this result. For example, health home care coordinators sometimes help enrollees prepare questions for their physicians and share HAPs with enrollee’s personal physicians. Beneficiaries’ experiences with medical and specialty services and their interactions with physicians are discussed in **Section 4.2.2**.

Table 2
Beneficiary overall satisfaction, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent who rated health home 9 or 10 on scale of 1 (worst) to 10 (best).	58% (N=692)
Percent who said they were satisfied with how well doctors communicated with them. ^{1,2}	90% (N=643)

¹ “How Well Doctors Communicate” is a composite of four items: (1) “In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?”; (2) “In the last 6 months, how often did your personal doctor listen carefully to you?”; (3) “In the last 6 months, how often did your personal doctor show respect for what you had to say?”; and (4) “In the last 6 months, how often did your personal doctor spend enough time with you?” The composite response of “satisfied” comprises “Usually/Always” responses.

² The 2014 National Committee for Quality Assurance (NCQA) national average appears to be similar to the Washington CAHPS measure. The actual NCQA national average percentile values cannot be displayed, as the source of the data is Quality Compass. Quality Compass data is proprietary data that must be purchased from NCQA (i.e., data are not publicly available) and data display is limited by NCQA.

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

4.2.2 Medical and Specialty Services

Medical and specialty services are delivered through the existing FFS system and affected by the demonstration to the extent care coordinators assist people to access needed care. All or nearly all the focus group participants had regular primary care providers (PCPs) and most

received primary care through a Federally Qualified Health Center (FQHC). Several mentioned relying on specialists to provide primary care. The following responses provide examples of participants’ satisfaction with these providers:

“There’s good communication between us [enrollee and PCP]. She checks me every certain time and everything is under control.”

“The primary doctor I saw is a very nice person but also very absent-minded. Now I started with a new medical staff in a clinic for help for the pregnancy, and in these four months they have done even more around my health problems, researching everything, more than what my primary doctor did in 10, 11 years I was with him...”

At least half of the participants said that they see medical specialists. One participant said her care coordinator identifies available specialists so she can select one:

“...my doctor only tells me: ‘You have this problem, you should look for a specialist.’ But all I can do is make a Google search or something like that...So I just tell [the care coordinator]: ‘I have this problem but don’t know where to go.’ She says: ‘Ok, I’ll bring you information regarding which doctors within the insurance are available, which ones will see you and which ones you can choose to go to.’ And that’s it. That’s how she helps me.”

Again, experiences of the Spanish-Speaking focus group participants are similar to those described in the first Annual Report.

In the 2015 MFFS CAHPS survey, respondents responded favorably about whether their specialists know important information about their medical history, which health homes may impact by sharing HAPs with providers (*Table 3*).

Table 3
Beneficiary experience with specialists’ knowledge of medical history, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent who said the specialist they saw the most seemed to know the important information about their medical history “usually” or “always.”	91% (N=487)

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

4.2.3 Care Coordination Services

As discussed in *Section 3.3*, health home care coordinators help connect beneficiaries to individual service delivery systems. These care coordinators work with beneficiaries to identify unmet needs, arrange services, coordinate across delivery systems, and assist with transitions and referrals. Findings from the 2016 focus groups are similar to those from focus groups conducted in 2015 and described in Washington’s first Annual Report. Most focus group participants said

their care coordinators take time to assess their care needs, help them obtain services, and monitor their services and health. Several also mentioned that their care coordinators had provided support and encouragement. These responses provide examples of participants' satisfaction with care coordinators:

“Every year he comes to evaluate my mother, every year. However, he always keeps in touch with me and me with him. If something new comes up I just have to talk to him and tell him what's going on...he knows all of her doctors, all of her medications...”

“She comes once a month. She asks me, ‘Who's doing what for you and what do you need, and can I get some information for you?’ Basically, if I didn't have her, I'd really be lost. I'm lost right now. But if I didn't have her, I wouldn't have what I have right now.”

“Anything I need, like when I have my treatment or something, I tell my case manager. She tells me: ‘You need a small step for your bathroom, so you can bend over,’ she gets it for me. Or that the battery of my wheelchair is not working, she calls and says: ‘Ok, I'll call them and tell them to come over and help you with that’... We are well coordinated for everything.”

“She comes every month to know how much she is weighing, if she's walking, what she's eating— because she also has diabetes—and how her health is, if she has been to the emergency room...” (Proxy)

One proxy said her father's care coordinator helped with the transition from a skilled nursing facility back to home and the family always felt supported:

“My dad fell down and broke his hip. He broke his hip, he was in the hospital, and when he got out the hospital...they said that because of his situation he had to go to the nursing home to get therapy...And then, when he was in therapy, we would make the arrangements for him to come back home. And I obviously knew [his care coordinator] was the person I should arrange this with.”

Several of the proxies said they were actively engaged in managing the care of loved ones and locating resources themselves, in addition to working with the care coordinator to get help. The following quotes provide examples of these activities:

“I organized and coordinated by myself. Because I'm a public health nurse...I knew how to coordinate it...[but] because I didn't have a primary doctor, I did need it [care coordination]. And when she came I realized she was very good. And I was always asking her, telling her: ‘I need this, that’...But I had to be on top of her. And she told me: ‘I love to work with you because you know what you're doing’...We would sit down and do it [together]...”

“...in some cases, you just don't want to leave everything to the care coordinator. I mean, they are obviously there to help us out, but sometimes...Sometimes there are non-profit organizations, like some churches or I don't know what, which

could provide some kind of help that might seem small but actually comes out very helpful for us.”

Participants in both rounds of focus groups (2015 and 2016) were very engaged in their health care and had well-formed opinions about their personal doctors and whether their care was coordinated. However, they did not describe their doctors, care coordinators, and other providers as being a part of their care teams. This may explain why, even though CAHPS survey respondents were satisfied with the help they received with care coordination (83 percent), the care team ratings are lower (*Table 4*).

Table 4
Beneficiary experience with care coordination, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent who said that their personal doctor seemed informed and up to date about the care they received from doctors or other health providers “usually” or “always.” ¹	86% (N=497)
Percent who said they were “satisfied” or “very satisfied” with the help they received to coordinate their care.	83% (N=477)
Percent who said they were satisfied with their care team. ²	62% (N=729)
Percent who said that they were satisfied with care transitions from the hospital. ³	86% (N=197)

¹ The 2014 National Committee for Quality Assurance (NCQA) national average was lower than the Washington CAHPS measure. The actual NCQA national average percentile values cannot be displayed, as the source of the data is Quality Compass. Quality Compass data is proprietary data that must be purchased from NCQA (i.e., data are not publicly available) and data display is limited by NCQA.

² “Care Team” is a composite of two items: (1) “In the last 6 months, how often were you helped by someone on your health care team to make a treatment plan that you could carry out in daily life?”; and (2) “In the last 6 months, how often were you helped by someone on your health care team to plan ahead so you could take care of your condition even in hard times?” The composite response of “satisfied” comprises “Usually/Always” responses.

³ “Care Transition” is a composite of four items: (1) “Before I left the hospital, the hospital staff and I agreed about clear health goals for me and how these would be reached.”; (2) “When I left the hospital, I had all the information I needed to be able to take care of myself.”; (3) “When I left the hospital, I was confident I could actually do the things I needed to do to take care of my health.”; and (4) “When I left the hospital, I had a readable and easily understood written list of the appointments or tests I needed to complete within the next couple of weeks.” The composite response of “satisfied” comprises “Agree/Strongly Agree” responses.

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

Care transitions are an important part of health home’s care coordination responsibilities, and several focus group participants said they had received assistance from care coordinators after a hospitalization. CAHPS survey respondents also provided ratings of care transitions, with 86 percent saying they were satisfied with this service (*Table 4*).

4.2.4 Access to Care

The Washington Health Homes MFFS demonstration uses the Managed FFS Financial Alignment Initiative model, and therefore enrollees continue to access their providers directly rather than through a managed care organization. The demonstration improves access to care for enrollees by helping them communicate their health goals to providers, identifying unmet needs, arranging services, and providing health education and information. Focus group participants reported a range of service needs. Most of the focus group participants needed assistance with daily activities. One participant said a care coordinator helped his father get in-home care, while two participants had declined in-home care because they preferred to receive care from their families. The following responses provide examples of these experiences:

“...for example, in my father’s case, [his care coordinator helped him] by getting someone who takes care of him, helps him to eat, cooks for him, arranges his clothes, assists him when he is taking bath or who pays attention to him.”

“...when he had his heart operation...a social worker asked me if I wanted, or, more exactly, if my father wanted to have a nurse sent over to take care of him, bathe him... but my dad didn’t want to...he doesn’t want anybody coming to do any stuff because my mom helps him, she’s with him, she cleans the house, cooks for him. That’s why.”

[The care coordinator] came with my dad and me to explain to the doctor why my dad needed the [wheel]chair, and they made my dad walk to see how he walks, and so [the care coordinator] explained to the doctor that this man needs the chair and that it was urgent to give him an appointment.

Several participants said they must travel several hours to Seattle to access physicians in certain specialties, which is difficult. The following quotes provide examples of participants’ challenges in this area:

“I used to go to Seattle every three months to see a couple of specialists there. In my case I have a car, so my daughter used to take me and [the Medicaid transportation broker] even provided us the gas, but either way, we had to leave at 2:00 a.m. and drive through the snow just to be there at 9:30 a.m., in time for my appointment.”

“One thing I have to say is that I did ask for transportation to see my specialist in Seattle. I had to get a ride from a family member because I was denied [transportation authorization] by my doctor...He said it took him about a week or two to get the paperwork together...I don’t have money to pay people for gas to do that.”

Several focus group participants mentioned long waits for appointments with specialists, as illustrated by the following responses:

“They give me the appointments 4 or 5 months later...”

“For example, that appointment my father has on the 10th of February is because we’re going to see a specialist...that appointment was given to me at the end of November... [The specialist] will evaluate if [my father] needs the wheelchair or not. (Proxy)

The Managed FFS CAHPS survey included several questions to measure access to services, as shown in **Table 5**. Three-quarters (76 percent) of the respondents indicated they were satisfied with access to specialized services, including access to medical equipment, special therapy, and treatment or counseling. The RTI evaluation team learned from two rounds of focus groups that while care coordinators were often able to help beneficiaries access services, there are still barriers in a FFS environment to accessing some services, such as durable medical equipment.

CAHPS respondents also rated their satisfaction with obtaining needed care and how quickly they were able to receive care. Although participants in the 2015 and 2016 focus groups said they sometimes make long trips to Seattle or Portland to see specialists if they are not satisfied with local physicians or need more specialized treatment, most CAHPS respondents indicated being satisfied with access to specialized services (76 percent) and satisfied with how quickly they were able to receive care (85 percent).

Table 5
Beneficiary experience with access to services, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent who said they were satisfied with access to specialized services. ¹	76% (N=299)
Percent who said they were satisfied with obtaining needed care. ^{2,3}	84% (N=592)
Percent who said they were satisfied with how quickly they were able to receive care. ^{3,4}	85% (N=521)

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 The 2014 National Committee for Quality Assurance (NCQA) national average was lower than the Washington CAHPS measure. The actual NCQA national average percentile values cannot be displayed, as the source of the data is Quality Compass. Quality Compass data is proprietary data that must be purchased from NCQA (i.e., data are not publicly available) and data display is limited by NCQA.

⁴ “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.

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

4.2.5 Personal Health Outcomes and Quality of Care

The Washington demonstration has emphasized patient activation, and health home services engage enrollees in goal-setting and self-management of their chronic conditions. The CAHPS survey results shown in **Table 6** suggest that a majority of respondents are engaged in their health care, discussing their goals with a member of their health care team, and that they feel included in making decisions about their health care.

Table 6
Beneficiary experience with personal health outcomes, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent reporting that their doctor or other health provider talked to them about specific things they could do to prevent illness. ¹	81% (N=694)
Percent reporting that anyone on their health care team talked with them about specific goals for their health.	79% (N=742)
Percent who said they were satisfied with the shared decision making for their health care with their doctor or other health provider. ²	92% (N=374)
Percent who said they were satisfied with the shared decision making for their prescriptions with their doctor or other health provider. ^{1,3}	82% (N=441)

¹ The 2014 National Committee for Quality Assurance (NCQA) national average was lower than the Washington CAHPS measure. The actual NCQA national average percentile values cannot be displayed, as the source of the data is Quality Compass. Quality Compass data is proprietary data that must be purchased from NCQA (i.e., data are not publicly available) and data display is limited by NCQA.

² “Shared Decision Making-Health Care” is a composite of two items: (1) “In the last 6 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?”; and (2) “In the last 6 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask you which choice you thought was best for you?” The composite response of “satisfied” comprises “Somewhat yes/Definitely yes” responses.

³ “Shared Decision Making-Prescriptions” is a composite of three items: (1) “Did you and a doctor or other health provider talk about the reasons you might want to take a medicine?”; (2) “Did you and a doctor or other health provider talk about the reasons you might not want to take a medicine?”; and (3) “When you talked about starting or stopping a prescription medicine, did a doctor or other health provider ask you what you thought was best for you?” The composite response of “satisfied” comprises “Yes” responses to these items.

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

2015 and 2016 focus group participants also reported achieving some of the personal health goals they set with their care coordinators, often through self-management of their health and chronic conditions. The first Annual Report included examples such as enrollees who had lost weight, quit smoking, controlled their blood sugar, improved their ambulation, and overcome self-isolation.

4.2.6 Experience of Special Populations

Participants in these Spanish language focus groups identified linguistic access as a key consideration in receiving medical care and care coordination services, even for those who could

communicate in English. Most participants received their primary care from providers at FQHCs, which provided linguistic access. The following responses provide examples of participants' perspectives on this issue:

“I go [to the FQHC] because they give us interpreters every time...that's why I changed from the clinic where I was before, because I had to pay for an interpreter all the time, they wouldn't give me one. And so, I didn't want to be at that clinic, so I came here [to the FQHC], and here they did give me an interpreter. It's also important because the man... the doctor who sees me doesn't speak Spanish, but he's been very good to me...”

“[My PCP visits are] always in Spanish and when I need someone they get me an interpreter. And because I've been going to the doctor for many years, I now understand a lot of English. I find it hard to speak the language, but I speak... I use both enough and I almost always ask for an interpreter, even if I understand but...But the language is sometimes a huge impediment; it's hard on us.”

Participants said linguistic access is important for care coordination, for themselves or other family members. Some enrollees had care coordinators who were bilingual, while other care coordinators brought translators to home visits. One participant said that even when translation is provided, language can be a barrier. Examples of responses supporting these themes are as follows:

“Mine is easier for me in English. But my husband doesn't speak Spanish, so I always have a note, you could say, in my documentation, asking them to have an available interpreter all the time, in case he needs one.”

“I need an interpreter, too. Either in the clinic, or when they go visit my mother each month, the nurse takes an interpreter with her.” (Proxy)

“I feel better having someone who speaks Spanish. But if there was no one it would also be OK to have someone with a translator.”

“I'll differ from the others, because when I was taking care of my father, for me language wasn't a barrier...But now I feel English is a barrier, because my sister is the one in charge and needs interpreters, I think that the coordination has decreased a little. We've lost a little because of the lack of communication...sometimes the staff, without being interpreters, passes the message on. It's like it has decreased, we've lost the coordination we've always had.” (Proxy)

Two participants said some Hispanics are averse to discussing certain medical procedures and end-of-life planning. One of them said her care coordinator helped her prepare advance directives, which was important because her husband did not share her preferences. The following responses illustrate these experiences:

“I believe that we are not culturally prepared to talk about things like...medical procedures that many of us won't accept like being fed through tubes or

resuscitation, if you want to be kept alive with machines on certain situations... Culturally we don't accept these practices, we don't want to take those decisions, don't even want to talk about it." (Proxy)

"...my husband, he doesn't believe in donating his organs or getting... things like blood transfusions or anything like that. So, it makes things difficult... Because of [my care coordinator], I have this document—I don't remember how it's called — which states that I do agree to have blood transfusions and am willing to get resuscitated, because if it were up to my husband, he would probably not have any of those things."

The CAHPS results presented in **Table 7** address the experiences of special populations, that is, individuals with behavioral health needs, LTSS users, and ethnic minorities, served by the Washington demonstration. In addition to a question about cultural values, beliefs, and practices, the survey elicited responses about home care and counseling services, which are relevant to large populations in the demonstration, since (as reported during the 2016 site visit) more than half of enrollees use HCBS, and approximately 30 percent have serious and persistent mental illness (SPMI). The responses below indicate that a majority of enrollees are satisfied with their home care services, whereas there is less satisfaction with treatment or counseling for personal or family problems.

Table 7
Beneficiary experience among special populations, CY 2015

CAHPS survey item	FAI CAHPS Washington
Percent rating treatment or counseling for a personal problem or family problem as 9 or 10 on scale of 1 (worst) to 10 (best).	53% (N=192)
Percent who said they were satisfied with home health services they received. ¹	91% (N=509)
Percent who said their cultural values, beliefs, or practices were "somewhat" or "definitely" incorporated into the care they received.	87% (N=226)

¹ "Home Health Services" is a composite of three items: (1) "In the last 6 months, how often was it easy to get home health care or assistance?"; (2) "In the last 6 months, when someone came into your home to give you home health care or assistance, did you feel the individual knew what kind of help you need with everyday activities, like getting ready in the morning, getting groceries, or going places?"; and (3) "In the last 6 months, when you received home health care or assistance, did you feel the services met all of your needs?" The composite response of "satisfied" comprises "Usually/Always/Somewhat Yes/Definitely Yes" responses.

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

SOURCE: NORC at the University of Chicago. Financial Alignment Initiative Quality of Care Survey Final Aggregate Report. May 2, 2016.

4.3 Beneficiary Protections

Under the Washington demonstration, beneficiaries continue to receive their Medicare and Medicaid services under FFS arrangements, except for behavioral health services which are provided by behavioral health organizations. Beneficiary protections are unchanged.

Several participants said they had been *informed* about beneficiary rights and protections by their care coordinators, and one participant reported receiving help from a care coordinator in filing a complaint about services:

“She said [care coordination] just was some extra help and that if I didn’t agree with something, I could always go to...a given person to complain or change my [care] manager. But that never happened.”

“Well, I’d also go to the supervisor to complain and tell him I need things changed because I’m not satisfied...When my daughter—who was the one who applied for my care—went there, they gave all that information to her.”

A proxy reported that her daughter’s care coordinator helped file a complaint about ambulance service:

“When the [care coordinator] came I told her everything and she made a formal complaint to the city and to the ambulance, and so they sent me a letter apologizing and saying they had acted wrong. But that was because she made the complaint. She’s like having another voice.” (Proxy)

5. Service Utilization

The purpose of the analyses in this section is to understand the effects of the Washington demonstration during demonstration periods 1 and 2 using difference-in-differences (DID) regression analyses. In addition, descriptive statistics on service utilization are provided for selected Medicare and Medicaid services. We find evidence that the demonstration resulted in lower inpatient and skilled nursing facility (SNF) admissions and lower probability of any long-stay nursing facility (NF) use, but higher rates of hospital readmission. As noted in **Section 3.2** on enrollment processes, although enrollment into health homes began slowly and increased gradually in demonstration year 1, by demonstration year 2, the State made significant progress in enrolling demonstration eligible beneficiaries in health homes. Importantly, the State’s health home entities have increased 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 measures of utilization and quality.

Table 8 presents an overview of the results from impact analyses using only Medicare data. The relative direction of all statistically significant results at the 95 percent confidence interval is shown. Monthly inpatient admissions, SNF admissions, and probability of any long-stay NF use were lower for the Washington demonstration group than the comparison group, whereas the 30-day all-cause risk-adjusted readmission rate was higher.

Table 8
Summary of Washington demonstration impact estimates for demonstration period,
July 1, 2013–December 31, 2015
 (95 percent confidence interval)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with LTSS use	Demonstration eligible beneficiaries with SPMI
Monthly inpatient admissions	Decreased	Decreased	Decreased
Skilled nursing facility admissions	Decreased	Decreased	Decreased
ER visits	NS	NS	NS
Physician Evaluation and Management (E&M) visits	NS	NS	NS
Probability of any long-stay nursing facility use	Decreased	NA	NA
30-day all-cause risk-adjusted readmission rate	Increased	Increased	Increased
30-day follow up after hospitalization for mental illness	NS	NS	NS

(continued)

Table 8 (continued)
Summary of Washington demonstration impact estimates for demonstration period,
July 1, 2013–December 31, 2015
(95 percent confidence interval)

Measure	All demonstration eligible beneficiaries	Demonstration eligible beneficiaries with LTSS use	Demonstration eligible beneficiaries with SPMI
Preventable ER visits	NS	NS	NS
Ambulatory Care Sensitive Condition (ACSC) admissions, overall composite	NS	NS	NS
Ambulatory Care Sensitive Condition (ACSC) admissions, chronic composite	NS	NS	NS

ER = emergency room; LTSS = long-term services and supports; NA = not applicable; NS = not statistically significant; SPMI = serious and persistent mental illness.

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

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 (see *Section 5.2.6* on Health Homes for more details). 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. Subsections following this section present the results for demonstration eligible beneficiaries with any LTSS use, and for demonstration eligible beneficiaries with SPMI. *Appendix A* provides a description of the comparison group for Washington.

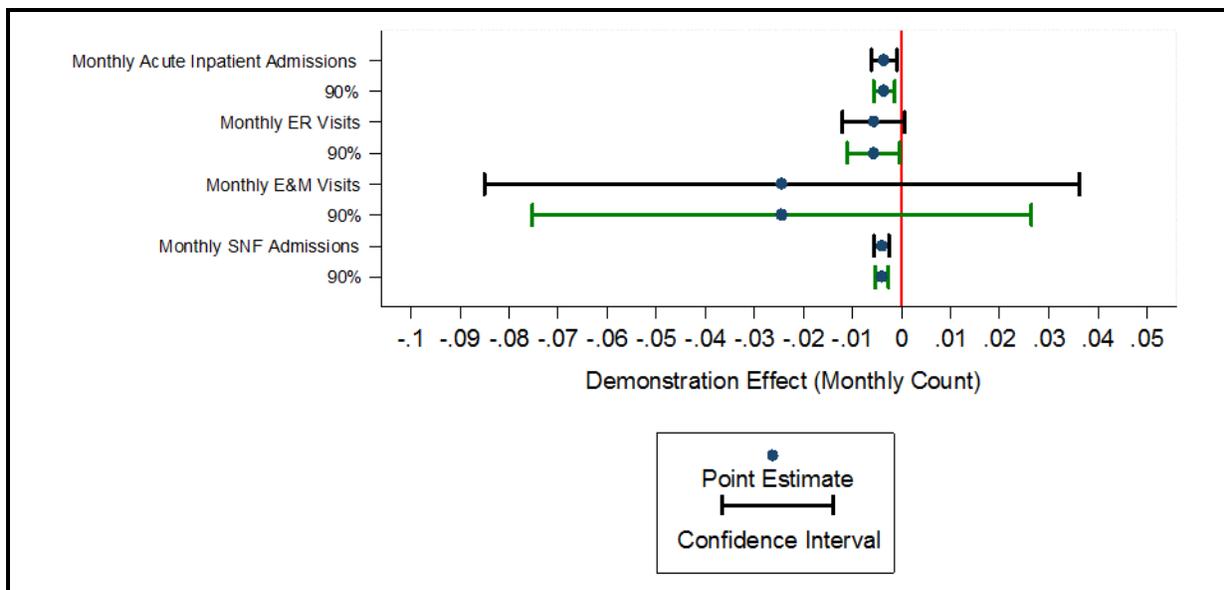
Appendix B contains a description of the evaluation design, the comparison group identification methodology, data used, measure definitions, and regression methodology used in estimating demonstration impacts using a DID approach. The regression methodology accounts for differences between the demonstration and comparison groups over the predemonstration and demonstration periods to provide estimates of demonstration impact.

Regression results for all demonstration eligible beneficiaries show at the 95 percent confidence interval (CI) that the demonstration reduced monthly inpatient admissions, SNF

admissions, and probability of any long-stay NF use. Utilization of these services all decreased in both demonstration periods 1 and 2. The demonstration population also had an increase in 30-day all-cause risk-standardized readmissions during both demonstration periods.

Figure 1 displays the demonstration’s effect on key service utilization measures for the demonstration eligible population relative to the comparison group over the first and second demonstration periods. The Washington demonstration reduced monthly inpatient admissions by 0.003 admissions [95 percent CI: –0.006, –0.001], which is 0.036 fewer inpatient admissions per eligible beneficiary per year. It also reduced skilled nursing facility admissions on average by 0.004 visits per month [95 percent CI: –0.005, –0.002], which is 0.048 fewer SNF admissions per eligible beneficiary per year. The Washington demonstration also resulted in a 7.0 percentage point decrease [95 percent CI: –8.0, –6.0] in the probability of any long-stay nursing facility (NF) use per demonstration year. For emergency department visits (listed as monthly ER visits in **Figure 1**), the reduction of 0.006 monthly visits was not statistically significant at the 95 percent CI, but was significant at the 90 percent CI [–0.012, –0.000], which is equivalent to 0.072 fewer emergency room (ER) visits per eligible beneficiary per year. There was no statistically significant demonstration effect on physician monthly evaluation and management (E&M) visits.

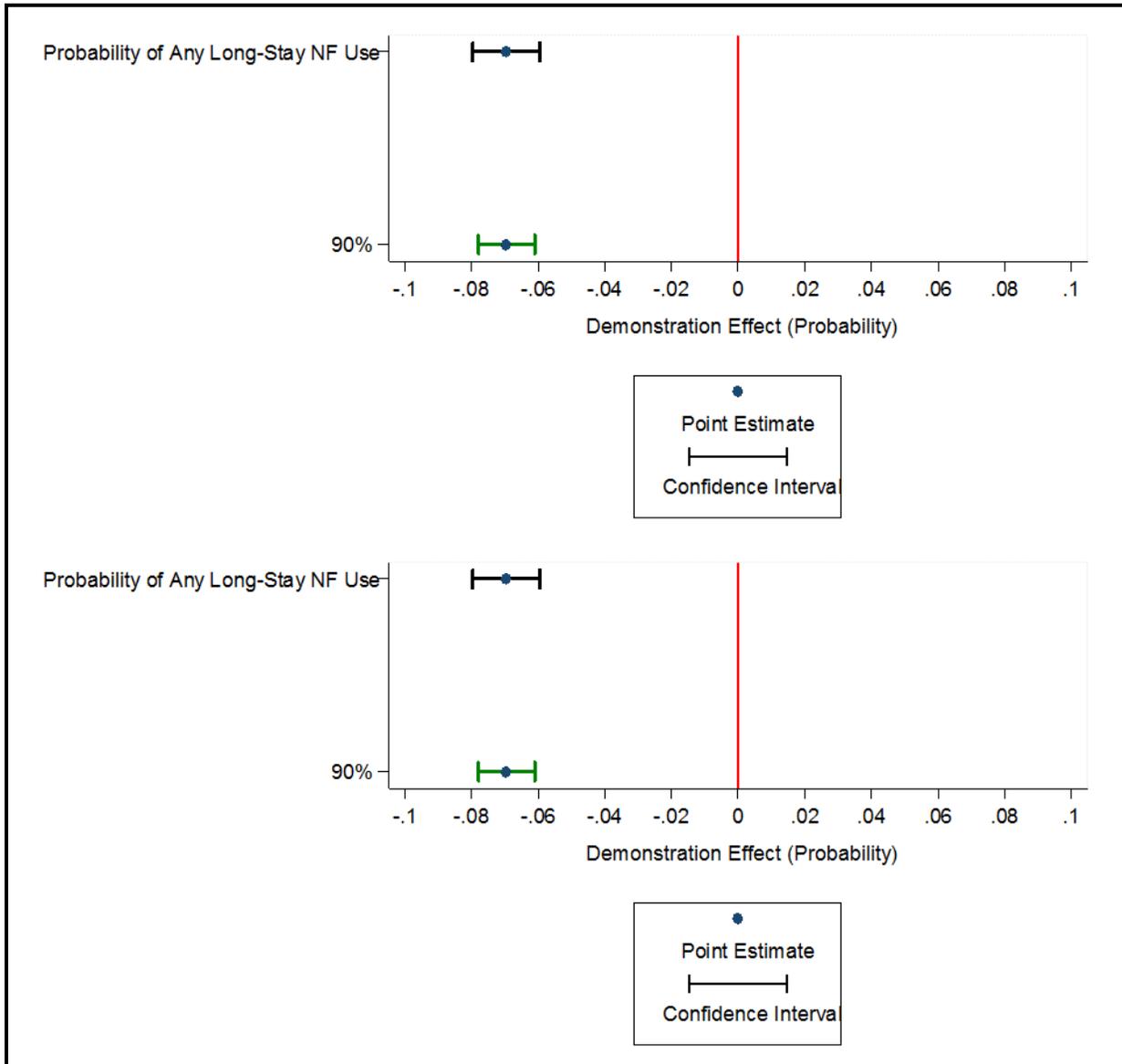
Figure 1
Demonstration effects on service utilization for eligible beneficiaries—difference-in-differences regression results for the demonstration period,
July 1, 2013–December 31, 2015
 (95 and 90 percent confidence intervals)



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

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, 2015
 (95 and 90 percent confidence intervals)



NF = nursing facility.

SOURCE: RTI International analysis of Minimum Data Set data.

Table 9 displays the demonstration effects on service utilization for the demonstration eligible population for each demonstration year (year 1 is July 1, 2013–December 31, 2014, and year 2 is January 1, 2015–December 31, 2015). In each demonstration year, the demonstration reduced average monthly inpatient admissions by 0.003 admissions ($p < 0.05$), and average monthly SNF admissions by 0.004 admissions ($p < 0.001$). The demonstration reduced ER visits

in demonstration year 1 ($p < 0.10$), but did not have a statistically significant effect in demonstration year 2. As indicated in **Table 10**, the demonstration reduced the probability of any long-stay NF use in both demonstration years, with an average reduction in probability of utilization of 7.3 percentage points ($p < .001$) in demonstration year 1 and 6.7 percentage points ($p < 0.001$) in demonstration year 2. 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. There was no statistically significant effect of the demonstration on physician E&M visits per month in each of the demonstration years.

Table 9
Annual demonstration effects on service utilization for eligible beneficiaries in Washington
 (Bold indicates significant at $p < 0.10$)

Utilization measure (per month)	Demonstration year 1 (07/13–12/14)	Demonstration year 2 (1/15–12/15)
Acute inpatient admissions	-0.003	-0.003
Monthly ER visits (non-admit)	-0.007	-0.004
SNF admissions	-0.004	-0.004
Physician E&M visits	-0.023	-0.020

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

SOURCE: RTI International analysis of Medicare data.

Table 10
Annual demonstration effects on probability of long-stay nursing facility use for eligible beneficiaries in Washington
 (Bold indicates significant at $p < 0.10$)

Utilization measure (per demonstration year)	Demonstration year 1 (07/13–12/14)	Demonstration year 2 (1/15–12/15)
Probability of any long-stay nursing facility use	-0.073	-0.067

SOURCE: RTI International analysis of Minimum Data Set data.

Table 11 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 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 in the entire demonstration period.

Table 11
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 (90% confidence interval)	p-value
Acute inpatient admissions	Demonstration group	0.064	0.049	-5.36	-0.004 (-0.006, -0.001)	0.006
	Comparison group	0.082	0.067			
Emergency room visits that did not lead to hospitalization	Demonstration group	0.151	0.142	-4.11	-0.006 (-0.011, -0.000)	0.080
	Comparison group	0.140	0.137			
Skilled nursing facility admissions	Demonstration group	0.024	0.015	-18.63	-0.004 (-0.005, -0.003)	0.000
	Comparison group	0.028	0.022			
Physician evaluation and management visits	Demonstration group	1.145	1.159	-2.13	-0.024 (-0.075, 0.026)	0.430
	Comparison group	1.217	1.256			
Probability of any long-stay nursing facility use	Demonstration group	0.257	0.157	-24.21	-0.070 (-0.078, -0.061)	< 0.001
	Comparison group	0.319	0.290			

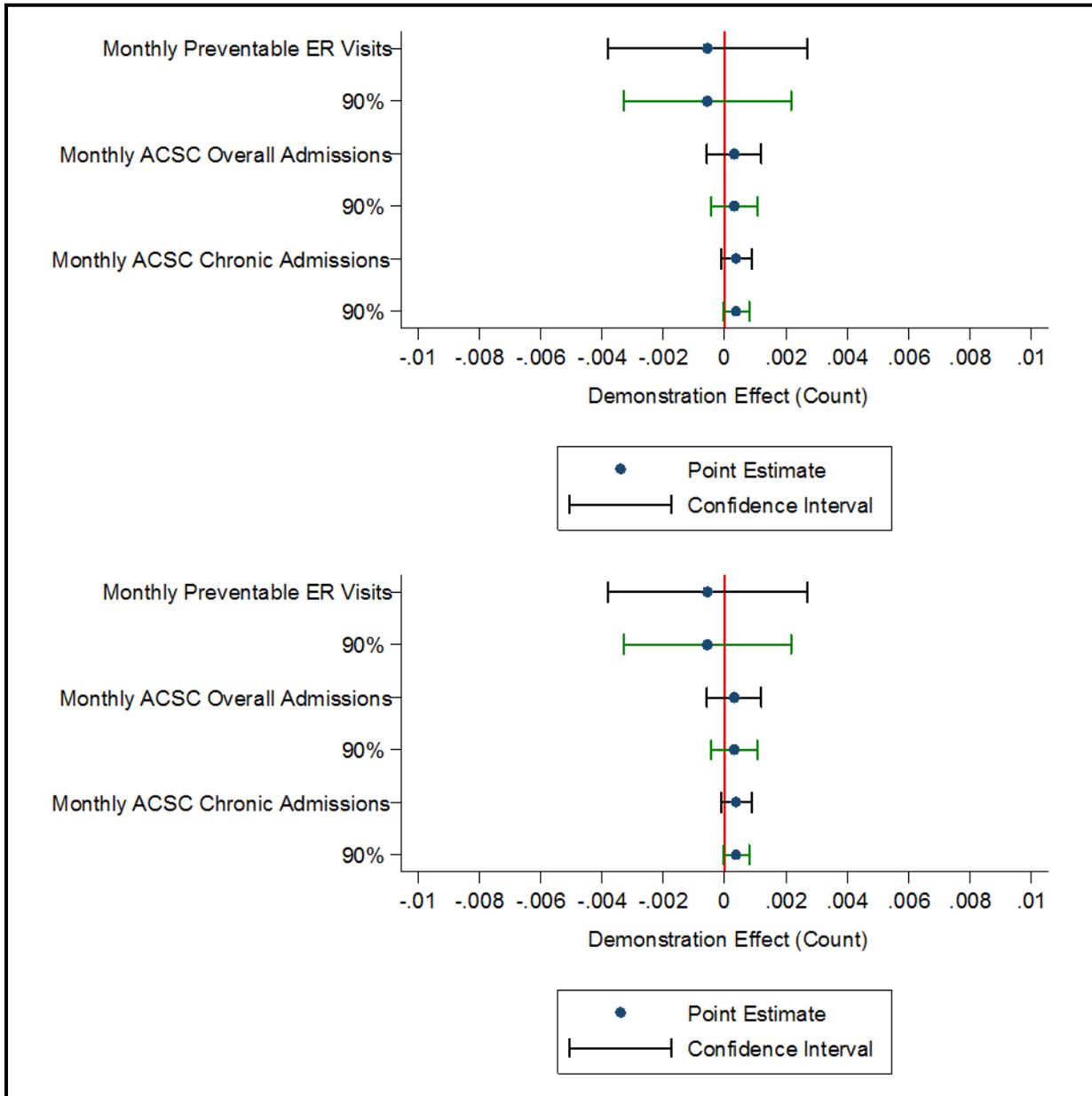
NOTE: The difference-in-differences result obtained from the regression may differ from a similar calculation using the results in the adjusted mean columns, due to methodological differences.

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

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. The DID estimate, which was statistically significant, reflected an annual relative difference of -5.36 percent over the demonstration period. SNF admissions in the demonstration group were lower than the comparison group in both periods (0.024 visits per month vs 0.028 in the predemonstration period, and 0.015 vs 0.022 visits in the demonstration period, respectively). The DID estimate, which was also statistically significant, represented a relative difference of -18.63 percent. Emergency room visits were lower for the demonstration group in the predemonstration and demonstration periods, with a statistically significant DID estimate of -4.11 percent. The probability of any long-stay NF use was lower in the demonstration group than the comparison group for both periods. The DID estimate, which was also statistically significant, reflected a relative difference of -24.21 percent. However, because the health home model was not explicitly targeted at nursing facility diversion, we do not interpret this finding as a direct result of the demonstration, although the broad goals of the demonstration support rebalancing of LTSS toward HCBS. The adjusted mean for physician E&M visits was lower in the demonstration group than in the comparison group (1.145 vs 1.217 visits per month in the predemonstration period, and 1.159 visits and 1.256 visits in the demonstration period, respectively). The DID estimate for monthly physician E&M visits was not statistically significant.

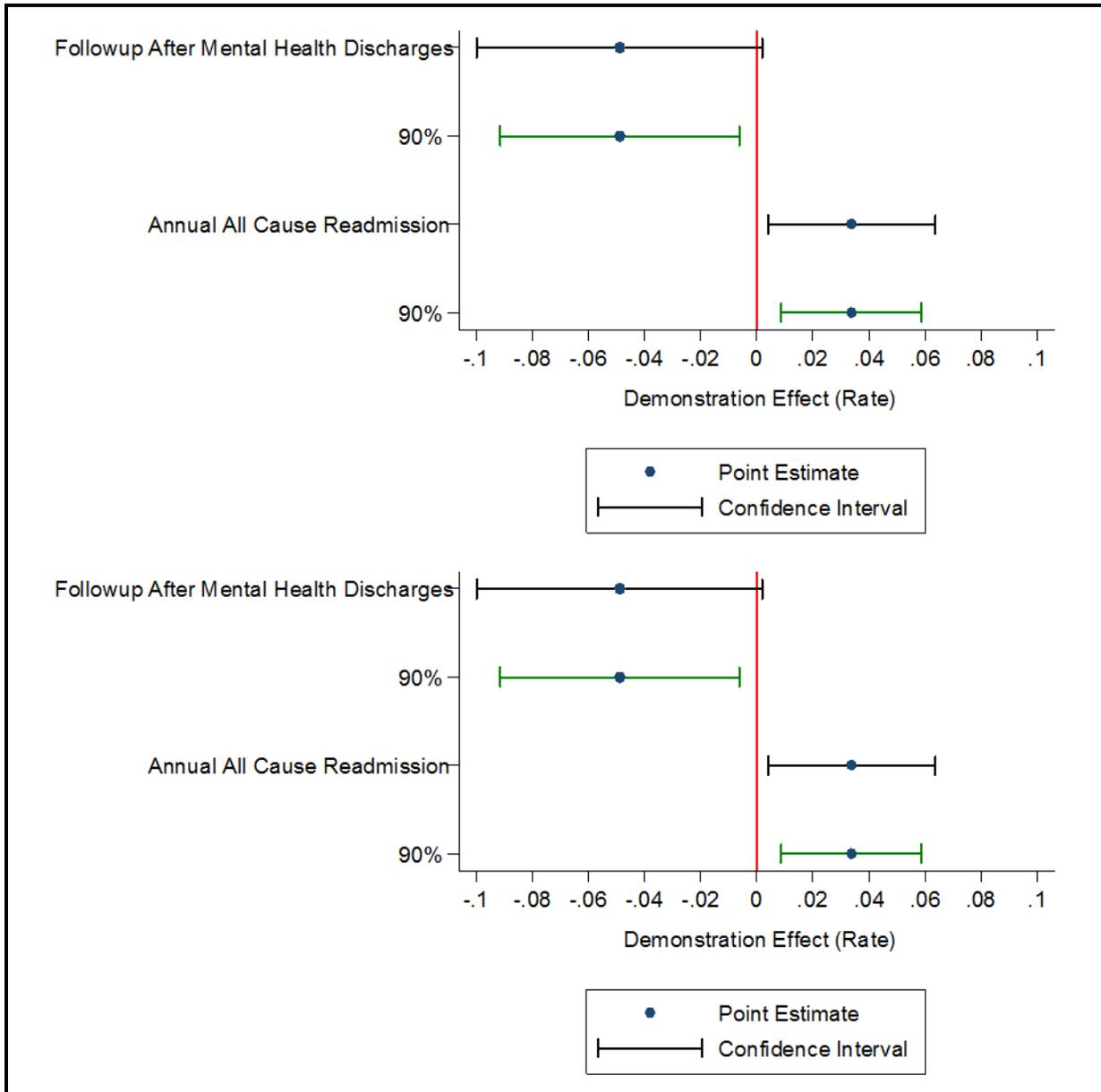
Figure 3 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population. The Washington demonstration increased the annualized 30-day all-cause risk-standardized readmission rate by 0.034 readmissions per discharge. This was statistically significant at the 95 percent confidence level [0.004, 0.064]. For the monthly 30-day follow-up rate after hospitalization for mental illness measure, the estimate of 0.049 fewer monthly follow-up visits per discharge was not statistically significant at the 95 percent confidence level, but it was significant at the 90 percent confidence level [-0.092, -0.006]. There was no statistically significant demonstration effect on monthly preventable ER visits or monthly inpatient admissions for ambulatory care sensitive conditions as measured by the overall composite measure and the chronic condition composite measure.

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, 2015
 (95 and 90 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, 2015



ACSC = Ambulatory Care Sensitive Condition; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

Table 12 displays the demonstration effects on the RTI quality of care and care coordination measures for the demonstration eligible population for each demonstration period. The Washington demonstration increased the annual all-cause 30-day risk-standardized readmission rate by 0.043 readmissions per discharge [95 percent CI: 0.008, 0.077] in the first demonstration period, and by 0.039 readmissions per discharge [95 percent CI: <0.001, 0.078] in the second demonstration period. The Washington demonstration had no effect on the monthly 30-day follow-up after hospitalization for mental illness measure in the first demonstration period, but it resulted in 0.081 fewer visits per discharge [95 percent CI: -0.140, -0.023] in the second demonstration period. There was no demonstration effect on monthly preventable ER visits and monthly admissions for ambulatory care sensitive conditions (overall) across the two demonstration periods. However, the demonstration increased monthly admissions for ambulatory care sensitive conditions (chronic) by 0.0005 admissions in demonstration period 2.

Table 12
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries in Washington
 (Bold indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration period 1 (07/13–12/14)	Demonstration period 2 (1/15–12/15)
Monthly preventable ER visit	-0.0016	0.0007
Monthly ACSC admissions, overall	0.0003	0.0003
Monthly ACSC admissions, chronic	0.0002	0.0005
30-day follow up after mental health discharges	-0.0135	-0.0815
Annual all cause 30-day readmission	0.0426	0.0390

ACSC = Ambulatory Care Sensitive Condition; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

Table 13 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 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 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 in the entire demonstration period.

After adjusting for population differences, the demonstration group had lower 30-day follow-up rates after mental illness discharges and a higher rate of 30-day all cause readmissions. There were no statistically significant differences in preventable ED visits or ACSC admissions (chronic and overall).

Table 13
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	0.071	0.069	-0.8	-0.0006 (-0.0033, 0.0022)	0.739
	Comparison group	0.067	0.066			
ACSC overall admission	Demonstration group	0.012	0.009	2.3	0.0003 (-0.0004, 0.0011)	0.498
	Comparison group	0.019	0.014			
ACSC chronic admission	Demonstration group	0.008	0.006	4.9	0.0004 (<0.0001, 0.0008)	0.124
	Comparison group	0.011	0.008			
30-day follow up after mental health discharge	Demonstration group	38.6%	34.9%	-0.1	-0.0488 (-0.0915, -0.0062)	0.060
	Comparison group	39.8%	41.6%			
All cause 30-day readmission rate	Demonstration group	31.7%	36.2%	0.2	0.0339 (0.0089, 0.0589)	0.026
	Comparison group	40.8%	42.2%			

ACSC = Ambulatory Care Sensitive Condition; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

NOTE: 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.

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-4* present descriptive statistics for the demonstration eligible population for each service by year to help understand the utilization experience over time. In addition to 16 Medicare service utilization measures, 7 RTI quality of care measures, and 5 nursing facility-related measures derived from the Minimum Data Set (MDS), we present descriptive statistics on key Medicaid service measures only for demonstration period 1 because Medicaid claims data in Washington and the comparison group were submitted under the Transformed Medicaid Statistical Information System (T-MSIS), a system being developed by CMS to collect state Medicaid utilization and cost data, during demonstration year 2 and these data are not yet available for analysis. No testing was performed between groups or years. These results reflect the underlying experience of the two groups, and not the DID estimates presented earlier.

Relative to the comparison group, demonstration eligible beneficiaries generally had lower rates of inpatient admissions, SNF admissions, and primary care E&M visits. However, the demonstration group appeared to have higher specialist E&M visits relative to the comparison group. There was no clear pattern of utilization for emergency department visits. Relative to the comparison group, demonstration eligible beneficiaries also generally had a lower number of 30-day all cause readmissions, preventable ER visits, 30-day follow-up visits after mental health discharges, admissions for overall and chronic ambulatory care sensitive conditions diagnoses, and screening for clinical depression. No clear pattern was evident for the pneumococcal vaccination rate. While there was no clear pattern for long-stay NF admissions, 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.

In the predemonstration period, demonstration and comparison group eligible beneficiaries had comparable levels of total Medicaid spending per member per month, but levels appeared to diverge in the first 12 months of the demonstration as spending in Washington declined. Regarding HCBS, the demonstration eligible population, had higher personal care services, lower home health services, and a higher percentage of users of HCBS waiver services, than the comparison group. Conversely, for institutional services, the demonstration population had lower use of nursing facility and intermediate care facility for individuals with intellectual or developmental disabilities ICF/IID services than the comparison group, although inpatient psychiatric use was higher. Among noninstitutional services, the demonstration population had lower use of behavioral health services, but generally higher dental and ambulatory care services.

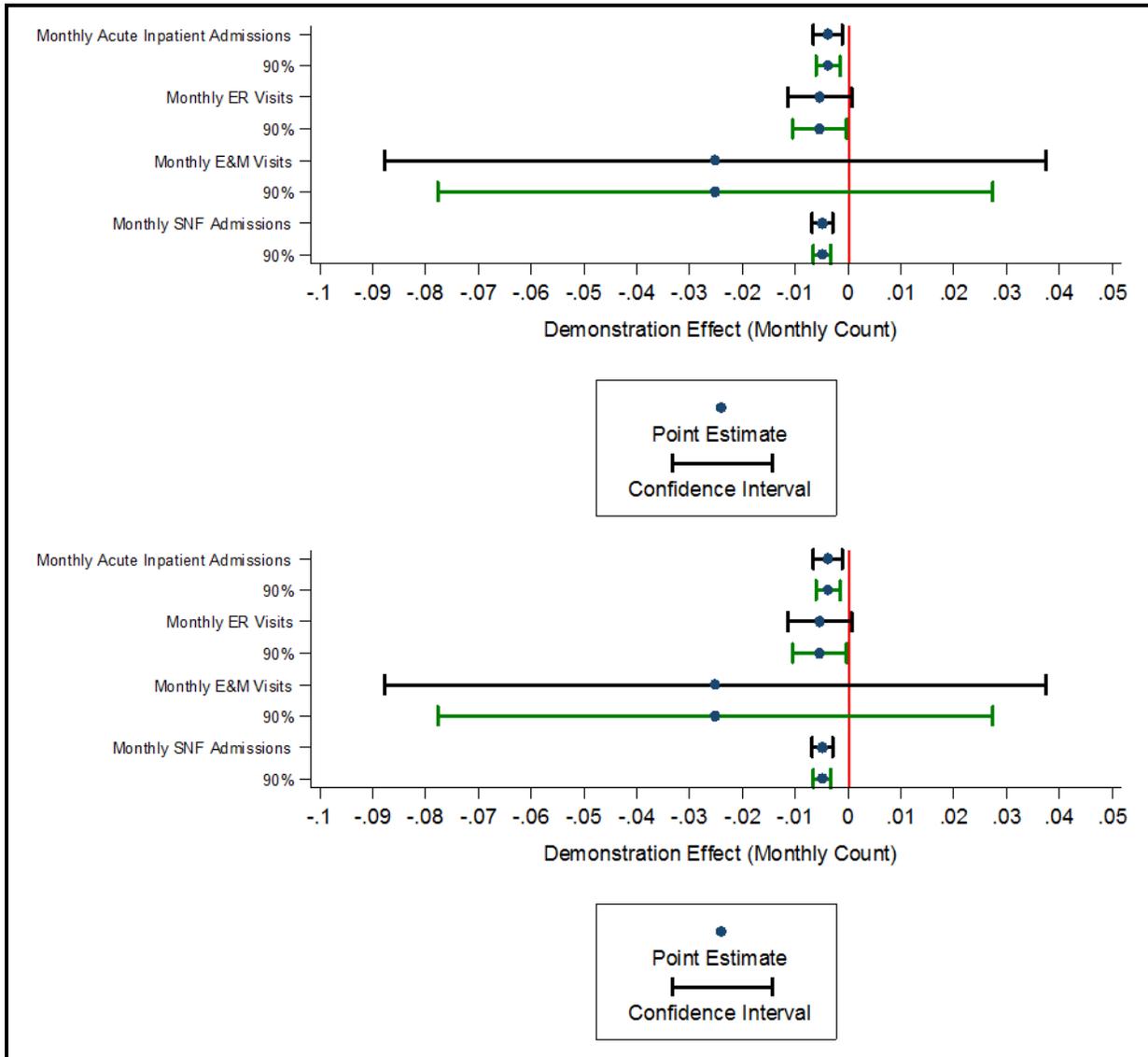
5.2.2 Impact Analysis on Demonstration Eligible Beneficiaries with LTSS Use

Demonstration eligible beneficiaries were defined as using LTSS in an analytic year if they received any institutional services or HCBS during that period. Approximately 55.1 percent of all demonstration eligible beneficiaries had any LTSS use in demonstration year 2. Among eligible beneficiaries with LTSS use, the demonstration reduced monthly inpatient admissions

and skilled nursing facility admissions in both demonstration periods. The demonstration population with LTSS use also had an increase in 30-day all-cause risk-standardized readmissions during both demonstration periods. During the second demonstration period there was lower 30-day follow-up after hospitalization for mental illness among the eligible population with LTSS use, but the impact of the demonstration was not statistically significant across both demonstration periods.

Figure 4 displays the demonstration effects on key service utilization measures among demonstration eligible beneficiaries who were LTSS users during an analytic year. The Washington demonstration reduced monthly inpatient admissions among those with LTSS use by 0.004 admissions [95 percent CI: -0.007, -0.001], which is 0.048 fewer inpatient admissions per eligible beneficiary with LTSS use per year. It also reduced skilled nursing facility admissions on average by 0.005 admissions per month [95 percent CI: -0.007, -0.003], which is 0.060 fewer SNF admissions per eligible beneficiary with LTSS use per year. For emergency department visits, the reduction of 0.005 monthly visits was not statistically significant at the 95 percent CI, but was significant at the 90 percent CI [-0.011, -0.000], which is equivalent to 0.060 fewer ER visits per eligible beneficiary with LTSS use per year. There was no demonstration effect on physician monthly evaluation and management visits.

Figure 4
Demonstration effects on service utilization for eligible beneficiaries with LTSS use—
difference-in-differences regression results for the demonstration period,
July 1, 2013–December 31, 2015
 (90 and 95 percent confidence intervals)



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

SOURCE: RTI International analysis of Medicare data.

Table 14 displays the demonstration effects on key service utilization for the demonstration eligible population with LTSS use, by each demonstration year. In both demonstration years, the demonstration reduced average monthly inpatient admissions by 0.004 admissions ($p < 0.05$), or 0.05 admissions per eligible beneficiary with LTSS use per year. The demonstration reduced SNF admissions by 0.004 admissions per month in demonstration year 1, and 0.005 admissions in demonstration year 2 ($p < 0.001$). The Washington demonstration reduced ER visits among those with LTSS use by 0.007 visits per month in year 1 ($p < 0.10$), but there was not a statistically significant effect in year 2. There was no statistically significant effect of the demonstration on physician E&M visits per month in either of the demonstration years.

Table 14
Annual demonstration effects on service utilization for eligible beneficiaries,
Washington LTSS users
 (Bold indicates significant at $p < 0.10$)

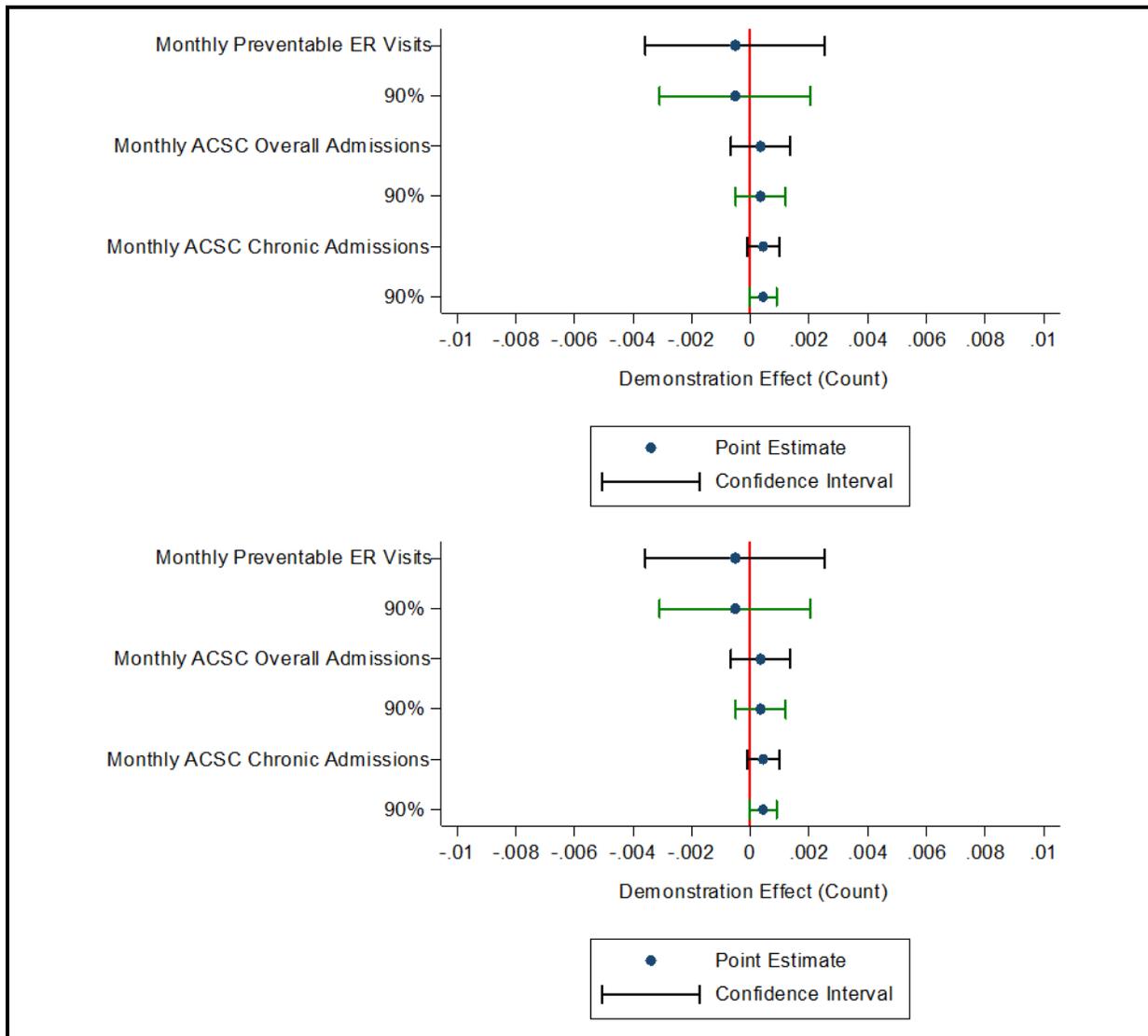
Utilization measure (per month)	Demonstration year 1 (07/13–12/13)	Demonstration year 2 (1/15–12/15)
Acute inpatient admissions	-0.004	-0.004
ER visits (non-admit)	-0.007	-0.004
SNF admissions	-0.004	-0.005
Physician E&M visits	-0.024	-0.021

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

SOURCE: RTI International analysis of Medicare data.

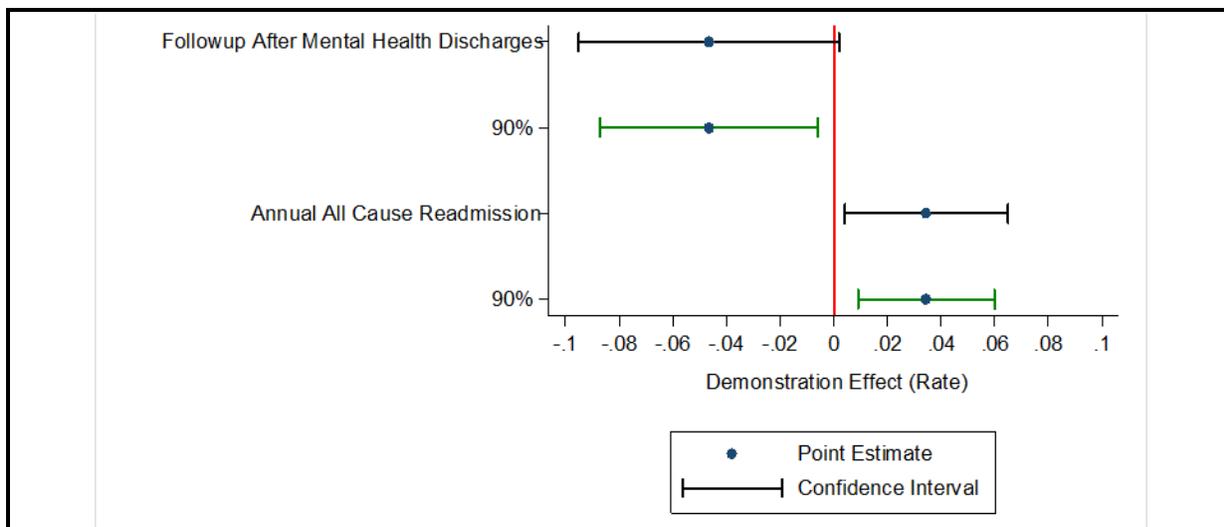
Figure 5 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population who were LTSS users during the analytic year. The Washington demonstration increased the annual all-cause 30-day readmission rate by 0.034 admissions per discharge [95 percent CI: 0.004, 0.065]. For the monthly 30-day follow-up rate after mental health discharges, the reduction of 0.047 follow-up visits per discharge was not statistically significant at the 95 percent CI, but was significant at the 90 percent CI [-0.087, -0.006]. The demonstration group had 0.0004 more monthly ambulatory care sensitive condition chronic admissions, which was not significant at the 95 percent confidence level but was at 90 percent level [<0.0001 , 0.0009]. There was no demonstration effect on monthly preventable ER visits and monthly ambulatory care sensitive conditions overall admissions chronic composites.

Figure 5
Demonstration effects on RTI quality of care and care coordination for eligible beneficiaries with LTSS use—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2015
 (90 and 95 percent confidence intervals)



(continued)

Figure 5 (continued)
Demonstration effects on RTI quality of care and care coordination for eligible beneficiaries with LTSS use—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2015



ACSC = Ambulatory Care Sensitive Conditions; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

Table 15 displays the demonstration effects on RTI quality of care and care coordination for the demonstration eligible population with LTSS use, by each demonstration period. In both demonstration periods, the Washington demonstration increased the annual all-cause 30-day readmission rate, with 0.043 readmissions per discharge [95 percent CI: 0.008, 0.078] in the first demonstration period and 0.040 readmissions per discharge [95 percent CI: <0.001, 0.080] in the second demonstration period. The Washington demonstration had no statistically significant effect on the monthly 30-day follow-up rate after mental health discharges in the first demonstration period, but lowered use by 0.078 follow-up visits per discharge [95 percent CI: -0.134, -0.022] in the second demonstration period. There was no statistically significant demonstration effect on monthly preventable ER visits or monthly ambulatory care sensitive conditions discharges (overall or chronic composites) across the demonstration periods.

Table 15
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries with LTSS use

(Bold indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration period 1 (07/13–12/14)	Demonstration period 2 (1/15–12/15)
Monthly preventable ER visit	-0.0015	0.0007
Monthly ACSC admissions, overall	0.0003	0.0003
Monthly ACSC admissions, chronic	0.0003	0.0006
30-day follow up after mental health discharges	-0.0128	-0.0779
Annual all cause 30-day readmission	0.0432	0.0399

ACSC = Ambulatory Care Sensitive Conditions; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

5.2.3 Descriptive Statistics on the Demonstration Eligible Population with LTSS Use

In addition to the impact results presented for the eligible population with LTSS use in an analytic year in this section, **Tables C-5 through C-7** in **Appendix C** present descriptive statistics for this population for each service by year to help understand the utilization experience over time. In addition to 16 Medicare service utilization measures and 7 RTI quality of care measures, we present descriptive statistics on key Medicaid service evaluation measures only for a portion of demonstration period 1 because Medicaid claims data in Washington and the comparison group are not yet available for analysis.

Relative to the comparison group with LTSS use, demonstration eligible beneficiaries with LTSS use generally had lower rates of inpatient admissions, skilled nursing facility admissions, hospice, primary care visits, and home health visits. The demonstration group with LTSS use had higher ED use and specialist E&M visits. Relative to the comparison group, demonstration eligible beneficiaries who used LTSS generally appeared to have a higher number of preventable ER visits. Conversely, demonstration eligible beneficiaries generally had a lower number of 30-day all cause readmissions, 30-day follow-up visits after mental health discharges, ambulatory care sensitive condition admissions (overall and chronic) and screening for clinical depression rate. No clear pattern was evident for pneumococcal vaccination rate.

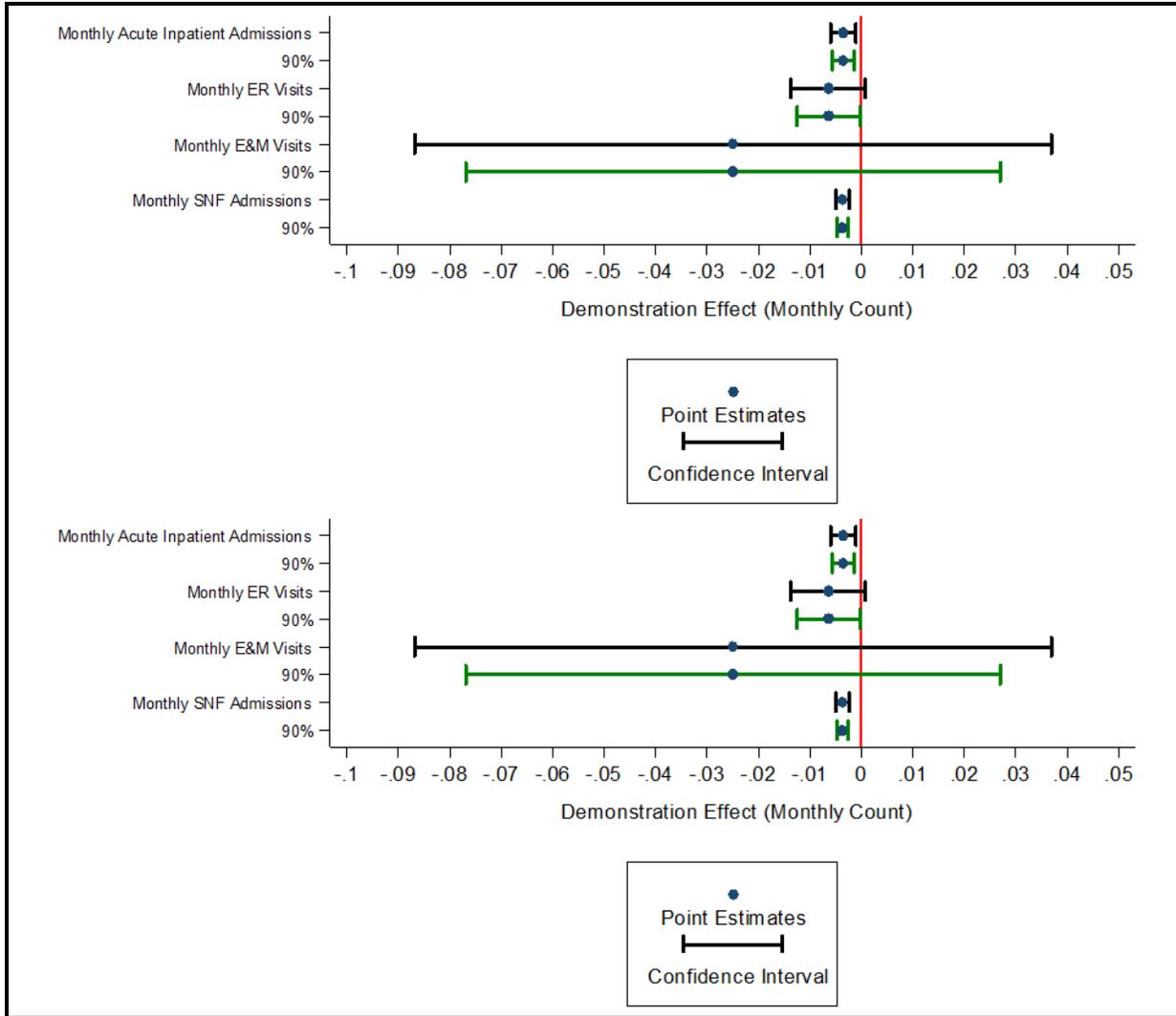
Compared to the overall demonstration eligible population, average Medicaid spending among LTSS users was higher in both Washington and the comparison group. Demonstration eligible beneficiaries with LTSS use relied more heavily on community-based care while those in comparison States relied more heavily on institutional care. This difference is most stark for personal care services where rates of utilization in Washington are approximately three times higher than in the comparison group. Consistent with lower rates of institutionalization in Washington, utilization of ambulatory care services among LTSS users was considerably higher in Washington than in the comparison group.

5.2.4 Impact Analyses on the Demonstration Eligible Population with SPMI

Demonstration eligible beneficiaries were defined as having SPMI if there were any inpatient or outpatient mental health visits for schizophrenia or bipolar disorders during the observation year. Approximately 37.9 percent of all demonstration eligible beneficiaries had an SPMI in demonstration year 2. Among eligible beneficiaries with SPMI, the demonstration reduced monthly inpatient admissions and skilled nursing facility admissions in both demonstration periods. The demonstration eligible population also had an increase in 30-day all-cause risk-standardized readmissions during both demonstration periods. During the second demonstration period there was lower 30-day follow-up after hospitalization for mental illness among the eligible population with SPMI, although results for this measure during the first demonstration period were not statistically significant.

Figure 6 displays the demonstration effects on key service utilization measures for the demonstration eligible population with an SPMI. The Washington demonstration reduced monthly inpatient admissions among those with SPMI by 0.004 admissions [95 percent CI: -0.006, -0.001], which is 0.042 fewer inpatient admissions per eligible beneficiary with SPMI per year. It also reduced skilled nursing facility admissions on average by 0.004 admissions per month [95 percent CI: -0.005, -0.002], which is 0.043 fewer SNF admissions per eligible beneficiary with SPMI per year. For emergency department visits, results differed depending on the level of statistical significance, with no demonstration effect at the 95 percent CI, but 0.006 fewer monthly visits at the 90 percent CI [-0.012, -0.000], which equals 0.077 fewer ER visits per eligible beneficiary with SPMI per year. There was no statistically significant demonstration effect on monthly physician E&M visits.

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



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

SOURCE: RTI International analysis of Medicare data.

Table 16 displays the demonstration effects on key service utilization measures among those with SPMI, in each year of the demonstration period. In both demonstration years, the Washington demonstration reduced acute inpatient admissions among those with an SPMI by 0.003 admissions per month, or 0.036 visits per eligible beneficiary with SPMI per year ($p < 0.05$). There was a reduction of 0.003 SNF admissions per month in demonstration year 1, and 0.004 admission per month in demonstration year 2, or 0.048 admissions per eligible beneficiary with SPMI per year ($p < 0.001$). The Washington demonstration reduced ER visits (non-admit) by -0.008 visits per month in year 1 ($p < 0.10$), but did not have statistically

significant effect in year 2. There was no statistically significant demonstration effect on monthly physician E&M visits among the SPMI population in either demonstration year.

Table 16
Annual demonstration effects on service utilization for eligible beneficiaries with SPMI
 (Bold indicates significant at $p < 0.10$)

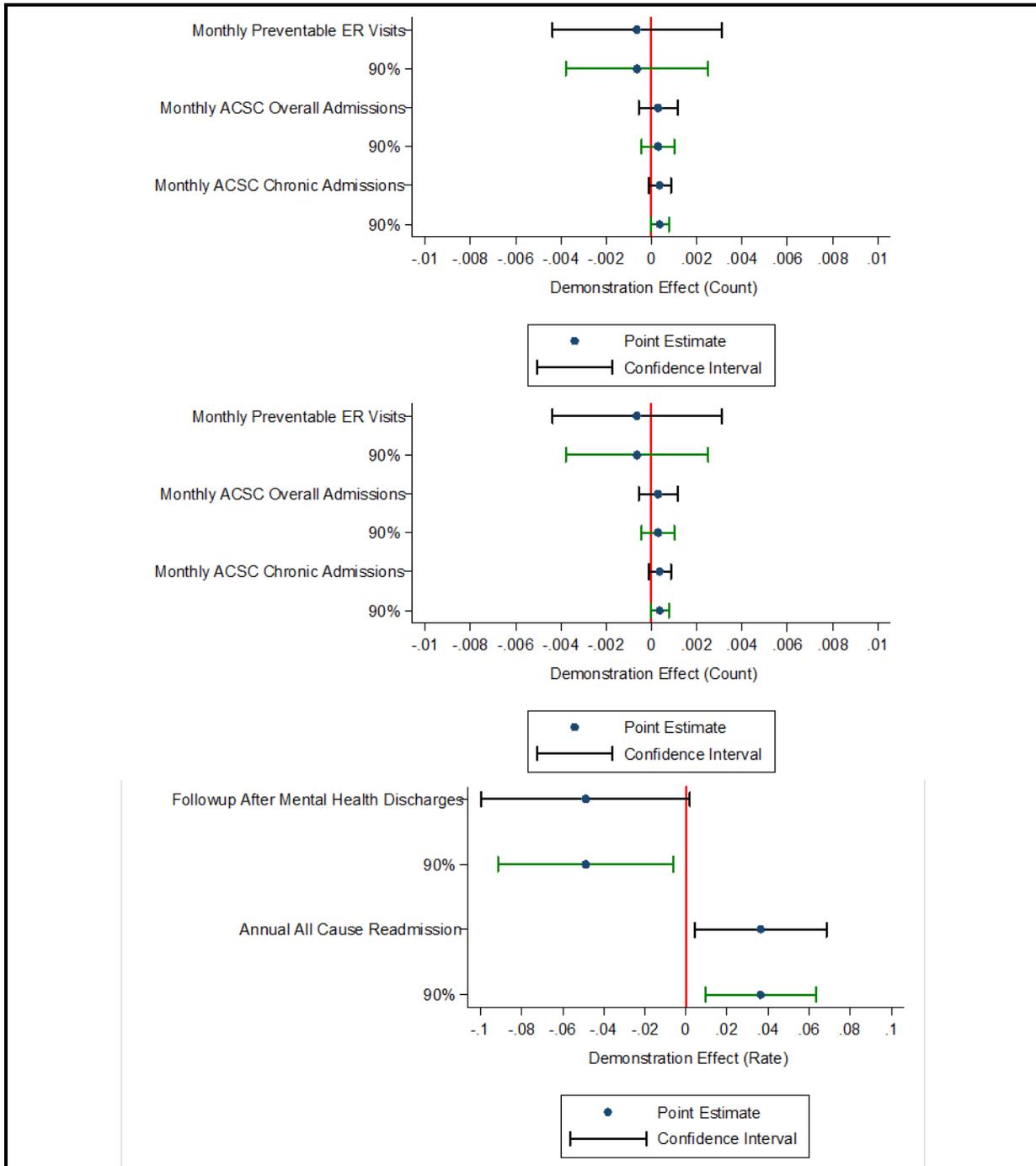
Utilization measure (per month)	Demonstration year 1 (07/13–12/13)	Demonstration year 2 (1/15–12/15)
Acute inpatient admissions	-0.003	-0.003
ER visits (non-admit)	-0.008	-0.005
SNF admissions	-0.003	-0.004
Physician E&M visits	-0.023	-0.020

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

SOURCE: RTI International analysis of Medicare data.

Figure 7 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with an SPMI. The Washington demonstration increased the annual all-cause 30-day readmission rate by 0.036 readmissions per discharge [95 percent CI: 0.004, 0.069]. For the monthly 30-day follow-up rate after mental health discharges, results differed depending on the level of statistical significance, with no demonstration effect at the 95 percent CI, but 0.049 fewer follow-up visits at the 90 percent CI [-0.092, -0.006]. Similarly, monthly ambulatory care sensitive condition chronic admissions were not significantly different at the 95 percent level, but were 0.0004 admissions higher at the 90 percent CI [< 0.0001 , 0.0008] in the demonstration group, which equals to 0.0048 admission more per year. There was no demonstration effect on monthly preventable ER visits and monthly ambulatory care sensitive condition overall admissions.

Figure 7
Demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI—difference-in-differences regression results for the demonstration period, July 1, 2013–December 31, 2015
 (90 and 95 percent confidence intervals)



ACSC = Ambulatory Care Sensitive Conditions; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

Table 17 displays the demonstration effects on RTI quality of care and care coordination measures for the demonstration eligible population with an SPMI, by each demonstration period. In both demonstration periods, the Washington demonstration increased the annual all-cause 30-day readmission rate, with 0.045 more readmissions per discharge [95 percent CI: 0.009, 0.082] in the first demonstration period and 0.042 more readmissions per discharge [95 percent CI: <0.001, 0.083] in the second demonstration period. The Washington demonstration had no statistically significant effect on monthly 30-day follow-up rate after mental health discharges in the first demonstration period, but it lowered the follow-up rate by 0.081 visits per discharge [95 percent CI: -0.140, -0.023] in the second demonstration period. There was no statistically significant demonstration effect on monthly preventable ER visits and monthly ambulatory care sensitive condition admissions (overall or chronic) across different demonstration periods.

Table 17
Annual demonstration effects on quality of care and care coordination for eligible beneficiaries with SPMI

(Bold indicates significant at $p < 0.10$)

Quality of care and care coordination measures	Demonstration period 1 (07/13–12/14)	Demonstration period 2 (1/15–12/15)
Monthly preventable ER visit	-0.0019	0.0008
Monthly ACSC admissions, overall	0.0003	0.0003
Monthly ACSC admissions, chronic	0.0002	0.0005
30-day follow up after mental health discharges	-0.0135	-0.0815
Annual all cause 30-day readmission	0.0454	0.0415

ACSC = Ambulatory Care Sensitive Conditions; ER = emergency room.

SOURCE: RTI International analysis of Medicare data.

5.2.5 Descriptive Statistics on the Demonstration Eligible Population with SPMI

In addition to the impact results presented for the eligible population with an SPMI in this section, *Tables C-8* through *C-10* in *Appendix C* present descriptive statistics for this population for each service by year to help understand the utilization experience over time. In addition to 16 Medicare service utilization and 7 RTI quality of care measures, we present descriptive statistics on key Medicaid service evaluation measures only for a portion of demonstration period 1 because Medicaid claims data in Washington and the comparison group are not yet available for analysis.

Demonstration eligible beneficiaries with SPMI generally had lower rates for inpatient admissions, skilled nursing facility admissions, primary care E&M visits, and behavioral health visits relative to the comparison group. The demonstration group, relative to the comparison group, appeared to have higher specialist E&M visits and psychiatric emergency department visits. There was no clear pattern of utilization for emergency department visits. Demonstration eligible beneficiaries who had SPMI generally had a lower number of preventable ER visits, 30-day follow-up visits after mental health discharges, inpatient admissions for ambulatory care sensitive conditions, and screening for clinical depression rate, relative to the comparison group. No clear pattern was evident for the 30-day all cause readmission rate, and the pneumococcal vaccination rate.

Compared to the overall eligible population, Medicaid spending in Washington is generally similar for the SPMI population. In the comparison group, average spending for this population is modestly higher than in the overall eligible population. Other than these differences, there are few other notable differences in terms of utilization. As in the overall eligible populations of Washington and the comparison group, the SPMI population in Washington is more likely than the SPMI population in the comparison group to use community based LTSS services and less likely to use institutional LTSS. They are also more likely to use dental and ambulatory care services than their counterparts in the comparison group.

5.2.6 Service Use for the Health Home and Non-Health Home User Population

Tables C-11 through C-13 in Appendix C present descriptive statistics for this population, compared to those demonstration eligible beneficiaries without health home service use, for each service by demonstration year to help understand the utilization experience over time. The results comparing these two populations are subject to potential selection bias in that beneficiaries identified for health home assessments and services had higher PRISM scores than those who did not receive such assessments and services. In addition to 16 Medicare service utilization and 7 RTI quality of care measures, we present descriptive statistics on key Medicaid service evaluation measures only for a portion of demonstration period 1 because Medicaid claims data in Washington and the comparison group are not yet available for analysis.

Demonstration eligible beneficiaries who were health home users had higher inpatient admissions, emergency department visits, specialists and primary care E&M visits, and home health use relative to those without health home use. There were no clear differences in outpatient and independent therapy, observation stays, or skilled nursing facility visits. Demonstration eligible beneficiaries who used health home services generally appeared to have a greater number of 30-day all cause readmissions, preventable ER visits, ambulatory care sensitive condition admissions, and screening for clinical depression compared to demonstration eligible beneficiaries who did not use health home services. No clear pattern was evident for 30-day follow-up rate after mental health discharges and pneumococcal vaccination rate. Washington targeted eligible beneficiaries with high PRISM scores for initial enrollment in health homes, and eligible beneficiaries with health home service use would have been expected to have higher use of Medicare services than eligible beneficiaries without health home service use.

Users of health home services in Washington have slightly lower average Medicaid expenditures than the demonstration eligible beneficiaries who did not use health home services. They are more likely to use personal care services and less likely to use institutional nursing care than eligible beneficiaries not using health home services. They are also more likely to use other non-institutional acute care services.

5.2.7 Service Use by Demographic Characteristics of Eligible Beneficiaries

Appendix C, Table 14 on pages C-52 to C-56 presents descriptive statistics by demographic group (age, gender, and race) for 16 Medicare service categories during demonstration year 2 for Washington demonstration eligible beneficiaries. There were few differences in service use across age groups, although those under age 65 had higher emergency department visits, primary care E&M visits, and behavioral health visits relative to older groups.

Women appeared to have higher primary care E&M visits compared to men, and African Americans appeared to have higher inpatient admissions, emergency department visits, and lower rates of primary care E&M visits compared to other race groups.

To further examine any differences in race groups, *Figures 8, 9, and 10* provide month-level results for six settings of interest: inpatient admissions, emergency department (non-admit), primary care E&M visits, behavioral health, outpatient therapy (physical therapy, occupational therapy, speech therapy), and hospice. Results across these six settings are displayed using three measures: percentage with any use of the respective service, counts per 1,000 demonstration eligible beneficiaries, and counts per 1,000 eligible beneficiaries with any use of the respective service.

In regard to percentage with use of the services shown, African Americans and Hispanics, compared to Asians and Whites, had higher use of inpatient and emergency department services, and lower use of hospice services. For primary care, behavioral health, and outpatient therapy visits, Whites had the highest percentage use, followed in order by African Americans, Hispanics and Asians.

Regarding counts of services used among users of each respective service in the second bar chart, African Americans and Hispanics had slightly higher inpatient admissions than Asians and Whites, and Asians had lower emergency department visits than the other race groups, who had roughly the same number of visits. Among hospice users, African American had the highest number of admissions, and Hispanics had the lowest. African Americans and Whites had higher visit counts for primary care E&M services. There appeared to be large differences in the number of behavioral health visits, with Whites having the highest and Asians having the lowest. Outpatient therapy visit counts also appeared to vary widely, with African Americans and Asians having much higher visit counts than Whites, with Hispanics having far lower visit counts than any other racial group. When viewing the last bar chart on counts of services across all demonstration eligible beneficiaries regardless of having any use of the respective services, a similar trend held as was observed in the prior bar chart except for outpatient therapy visits, where both African Americans and Whites appeared to have much higher visit counts than Asians and Hispanics.

Figure 8
Percent with use of selected Medicare services

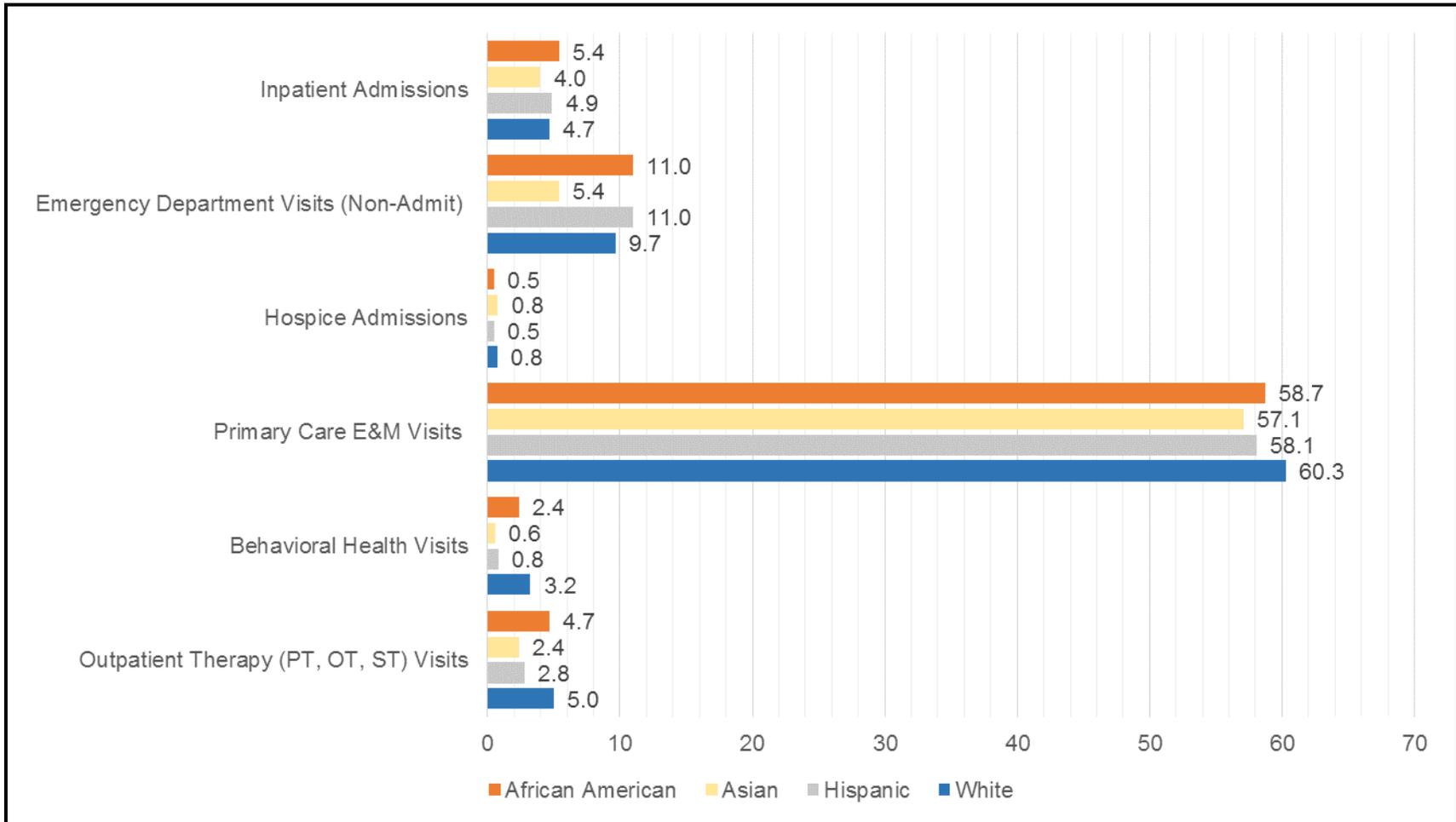


Figure 9
Service use among all demonstration eligible beneficiaries with use of service per 1,000 user months

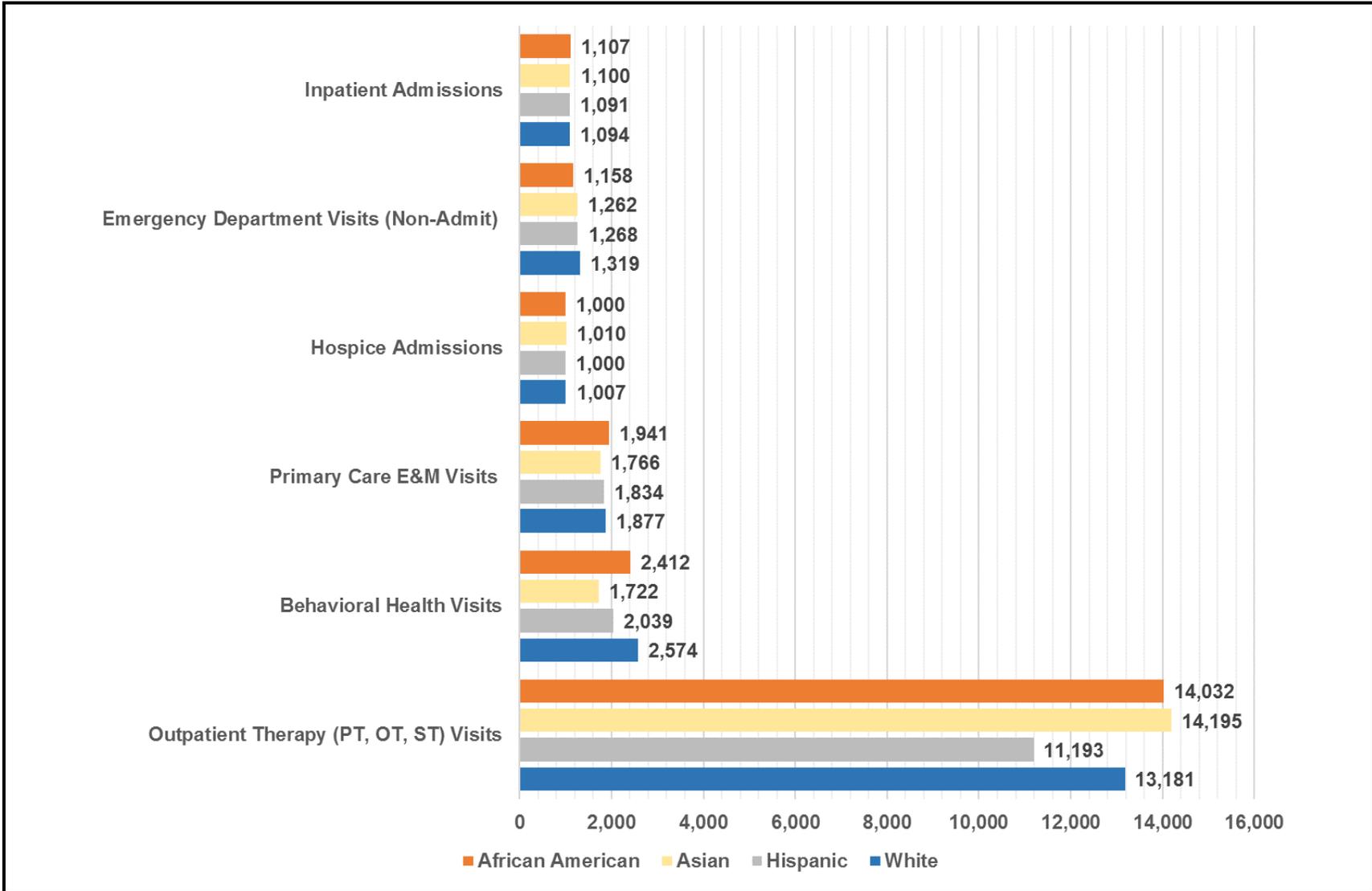
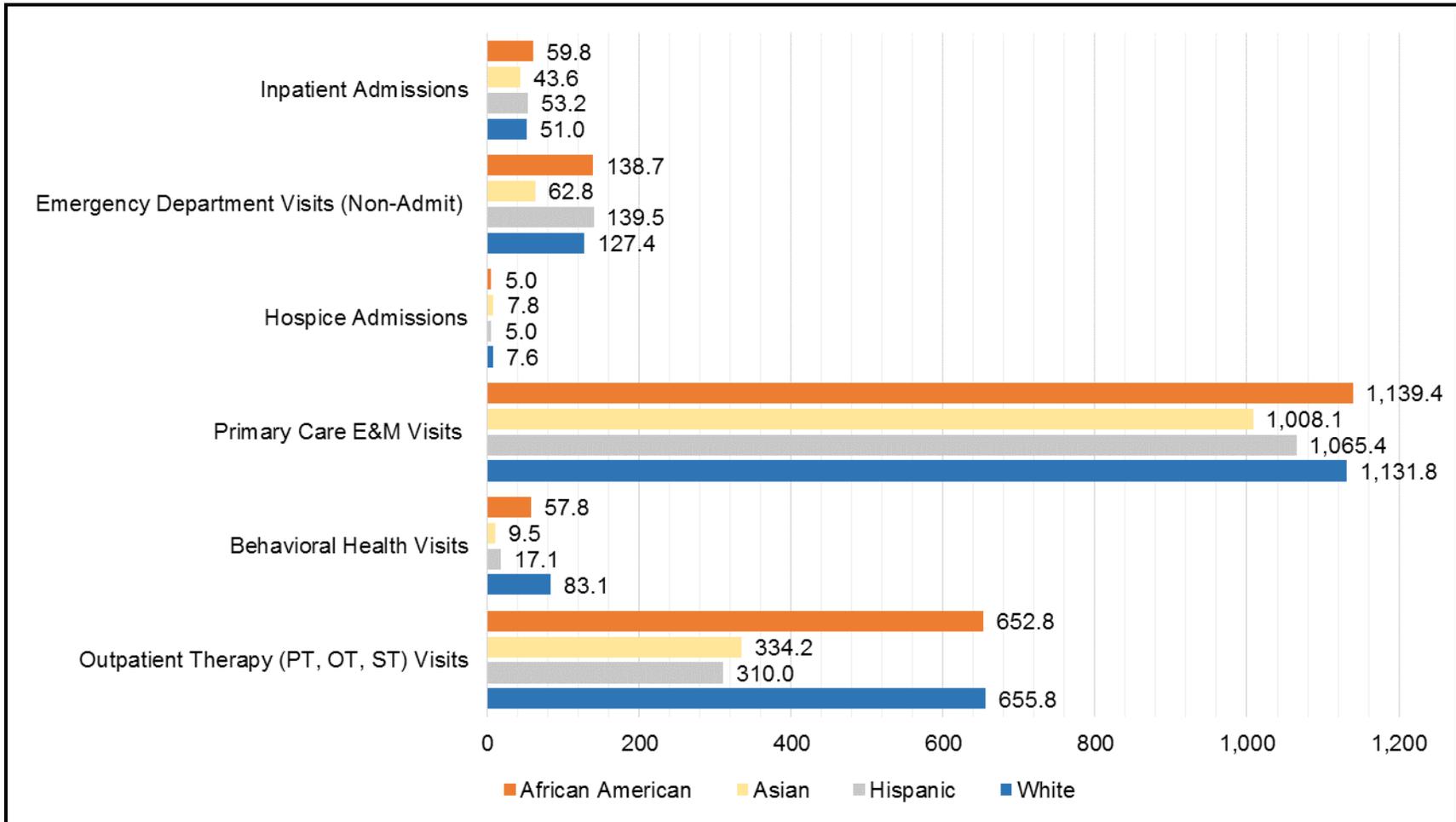


Figure 10
Service use among all demonstration eligible beneficiaries per 1,000 eligible months



6. Cost Savings Calculation

Highlights

- RTI and CMS conducted an estimate of Medicare savings using a 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 period 1.
- 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 (\$105.3 million).

This chapter presents Medicare Parts A and B savings calculations for the first 30 months of the Washington Health Homes MFFS demonstration from July 1, 2013, through December 31, 2015. 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 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 two demonstration periods using the actuarial method is approximately \$67 million, compared to \$105.3 million from the DID analysis.² 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 30 months of the Washington demonstration.

² Actuarial report can be found here: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/WAEvalMedicareCostYr1FinalYr2Preliminary072817.pdf>

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 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 policy 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), and the second demonstration period included calendar year 2015 (January 1, 2015–December 31, 2015).

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

The GLM included indicators for the first demonstration period, the second 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 post-demonstration) 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 (ESRD) status, and Hierarchical Condition Category (HCC) 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 FFS index for all services, Medicaid spending per Medicare-Medicaid enrollee age 19 or older, fraction of Medicare-Medicaid enrollees using nursing facilities age 65 or older, fraction of Medicare-Medicaid enrollees using HCBS age 65 or older, fraction of Medicare-Medicaid enrollees using personal care age 65 or older, fraction of Medicare-Medicaid enrollees with Medicaid managed care age 19 or older, population per square mile, and physicians per 1,000 population. Additional area-level variables—such as the percent of adults with a college degree and proximity to hospitals or nursing facilities—were used as proxies for sociodemographic indicators and local area characteristics. Note that these variables were also used in the comparison group selection process. Also, a beneficiary may not have observations for the entirety of the baseline and demonstration periods (54 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 18* 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 18
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. In order 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.

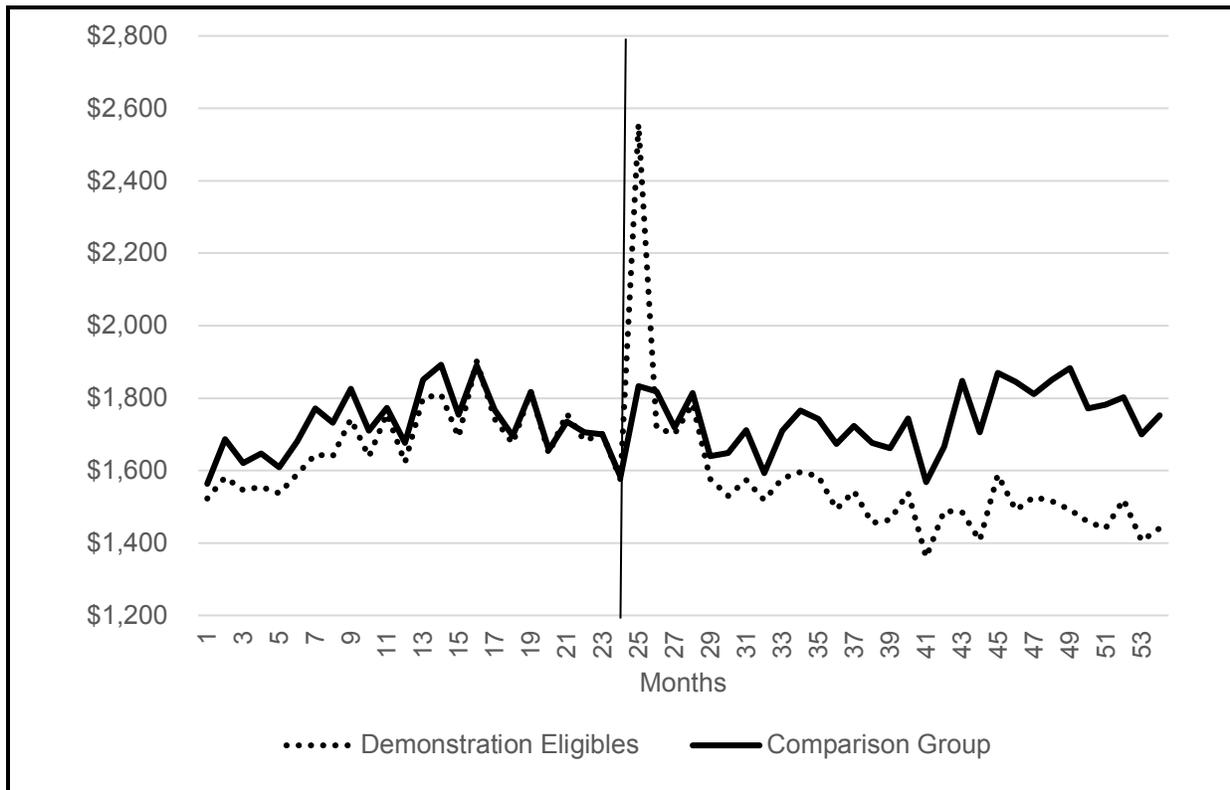
FFS = fee for service.

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 11* 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 two months of the demonstration is due to small numbers of eligible beneficiaries at the start of the demonstration period.

Figure 11
Mean monthly Medicare expenditures (unweighted), baseline and first demonstration period, Washington demonstration eligible beneficiaries and comparison group, July 2011–December 2015

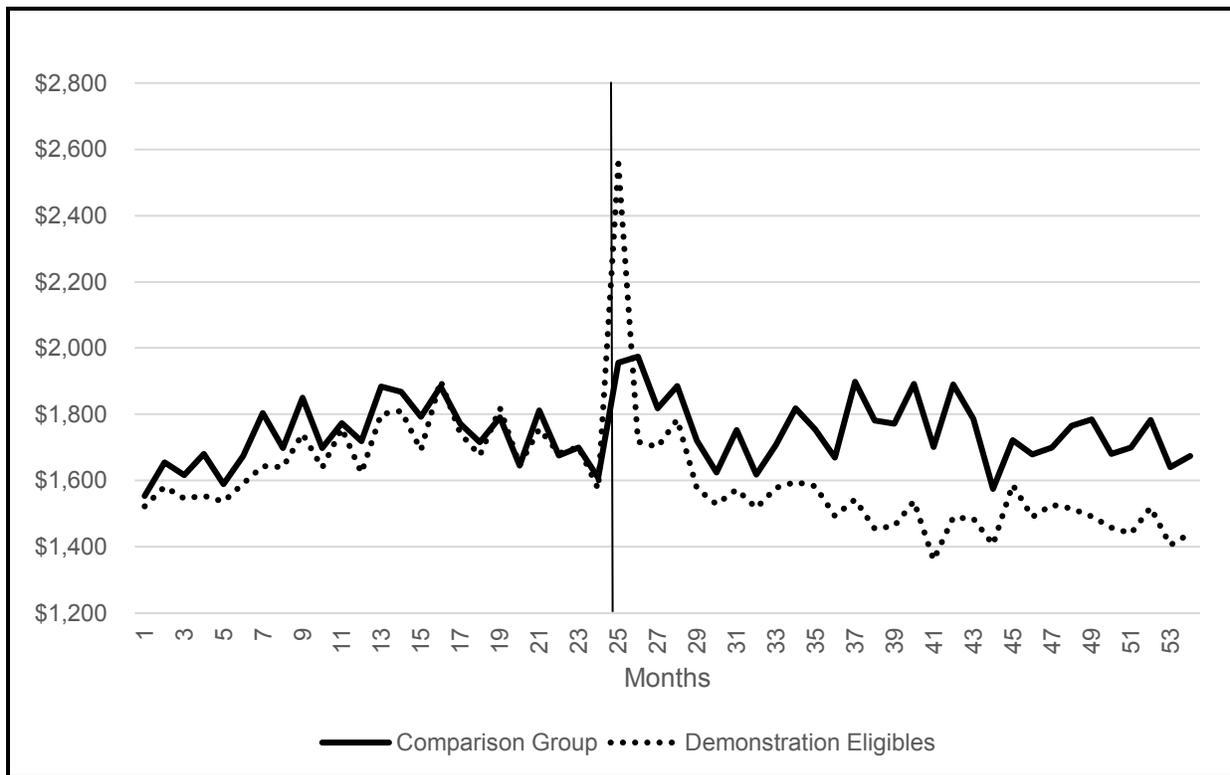


NOTE: Beneficiary-level monthly expenditures were Winsorized at the 99th percentile across all comparison group and demonstration group observations to limit the effect of extreme outliers.

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0482warar201.part12d).

Figure 12 demonstrates the same plot of mean monthly Medicare expenditures (Winsorized) for both the demonstration group and the comparison group, after applying the propensity weights. Note that the spike in monthly expenditures for demonstration eligible beneficiaries in the first 2 months of the demonstration is due to small numbers of eligible beneficiaries at the start of the demonstration period.

Figure 12
Mean monthly Medicare expenditures (weighted), baseline and first demonstration period,
Washington demonstration eligible beneficiaries and comparison group,
July 2011–December 2015



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_0482warar201.part 12b).

Tables 19 and *20* show the mean monthly Medicare expenditures (Winsorized) for the demonstration group and comparison group in the baseline and demonstration period, unweighted and weighted respectively. Both tables show a decrease in mean monthly Medicare expenditures (Winsorized) during the demonstration period for the demonstration group but an increase in expenditures for the comparison group over the same time period. The unweighted mean decrease was $-\$157$ for demonstration eligible beneficiaries compared to an increase of $\$17$ for the comparison group. When the weights are added, there is an increase of $\$29$ 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 the demonstration period 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 19* and *20* indicate that there were savings over the first and second demonstration periods.

Table 19
Mean monthly Medicare expenditures (unweighted), baseline and demonstration period, Washington demonstration eligible beneficiaries and comparison group

Group	Baseline	Demonstration period	Difference
Demonstration group	\$1,675	\$1,518	-\$157
Comparison group (unweighted)	\$1,724	\$1,741	\$17
Difference-in-differences	—	—	-\$174

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0482warar201.part19d).

Table 20
Mean monthly Medicare expenditures (weighted), baseline and demonstration period, Washington demonstration eligible beneficiaries and comparison group

Group	Baseline	Demonstration period	Difference
Demonstration group	\$1,675	\$1,518	-\$157
Comparison group (weighted)	\$1,729	\$1,758	\$29
Difference-in-differences	—	—	-\$186

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_482warar201.part19b).

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 1–54), 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” and “DemoYear2”) and two interaction terms (“Demonstration*DemoYear1” and “Demonstration*DemoYear2”).

Table 21 shows the main results from a DID analysis for demonstration years 1 and 2, 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 (-\$219.98) shows greater savings than year 1 of the demonstration (-\$179.07).

Table 21
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	-179.07	<0.0001	-239.91, -118.23	-230.13, -128.01
Intervention *DemoYear2	-219.98	<0.0001	-269.06, -170.91	-261.17, -178.80

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_492warar225).

Table 22 shows the main results from a DID analysis of the entire demonstration period compared to the baseline, 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), 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 22
Adjusted means and impact estimate for eligible beneficiaries in the demonstration and comparison groups

Group	Adjusted mean for pre-demonstration period	Adjusted mean for demonstration period	Adjusted difference-in-differences	p-value	Relative difference (%)
Demonstration group	\$1,877	\$1,502	-219.55 (95% CI: -266.63, -172.47)	<0.0001	11.8
Comparison group	\$2,036	\$1,855	(90% CI: -259.06, -180.04)		

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0502warar214, WAY3_CS_492warar225). CI = confidence interval.

The adjusted mean for monthly expenditures decreased 20 percent between the predemonstration and demonstration period for the demonstration group, and decreased 8.8 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 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 (−\$219.55 per member per month in **Table 22**) is larger than the DID value from the descriptive analysis (−\$186 per member per month in **Table 20**). The DID estimate, which was statistically significant, reflected a decrease of 11.8 percent over the demonstration period as shown in **Table 22**.

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 SNF payments. **Table 23** shows the results of each of the 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 23
**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	−\$219.55	<0.001	−\$266.63, −\$172.47	−\$259.06, −\$180.04
Durable medical equipment	\$1.90	0.494	−\$3.55, \$7.35	−\$2.67, \$6.47
Home health	−\$4.63	0.028	−\$8.76, −\$0.49	−\$8.09, −\$1.16
Inpatient	−\$62.31	<0.001	−\$85.55, −\$39.06	−\$81.81, −\$42.80
Outpatient	−\$33.35	0.001	−\$52.13, −\$14.57	−\$49.11, −\$17.59
Professional	−\$33.52	<0.001	−\$41.33, −\$25.71	−\$40.07, −\$26.97

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0492warar225-232).

The demonstration had the largest impact on inpatient payments (\$62.31), 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.

Although the demonstration may have had the largest impact on the inpatient setting, this may be because inpatient payments are a large proportion of total costs so there is more potential for affecting savings. A similar analysis of impacts by service setting by demonstration year is presented in **Tables 24** and **25**.

Table 24
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	-179.07	<0.0001	-239.91, -118.23	-230.13, -128.01
Durable medical equipment	\$1.18	0.666	-\$4.16, \$6.52	-\$3.31, \$5.66
Home health	-\$3.98	0.089	-\$8.56, -\$0.60	-\$7.82, -\$0.14
Inpatient	-\$34.96	<0.025	-\$65.42, -\$4.49	-\$60.53, -\$9.39
Outpatient	-\$28.29	0.002	-\$45.91, -\$10.68	-\$43.08, -\$13.51
Professional	-\$25.21	<0.001	-\$34.51, -\$15.92	-\$33.02, -\$17.41

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0492warar225-232).

Table 25
Demonstration year 2 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 DemoYear2 Medicare payments	-219.98	<0.0001	-269.01, -170.91	-261.17, -178.80
Durable medical equipment	\$3.32	0.2596	-\$2.45, \$9.09	-\$1.52, \$8.17
Home health	-\$3.53	0.100	-\$7.72, \$0.68	-\$7.05, \$0.00
Inpatient	-\$75.53	<0.001	-\$103.32, -\$47.74	-\$98.85, -\$52.21
Outpatient	-\$35.38	0.003	-\$59.04, -\$11.73	-\$55.23, -\$15.53
Professional	-\$37.46	<0.001	-\$49.03, -\$25.90	-\$47.17, -\$27.76

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0492warar225-232).

Table 26 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 \$219.55 in gross savings and there were 479,509 eligible beneficiary-months in Washington over the first 2 years of the demonstration. This translates to over \$105.3 million in estimated gross savings to Medicare.

Table 26
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	-179.07	243,442	-\$43,593,159	-\$58,404,170 -\$28,782,148	-\$56,023,307 -\$31,163,010
DemoYear2	-219.98	236,067	-\$51,930,019	-\$63,504,384 -\$40,346,211	-\$61,653,618 -\$42,208,780
Total (DemoYear1 + DemoYear2)	-219.55	479,509	-\$105,276,201	-\$127,851,485 -\$82,700,917	-\$124,221,602 -\$86,330,800

SOURCE: RTI International analysis of Washington demonstration eligible and comparison group Medicare data (program WAY3_CS_0492warar225).

6.4 Discussion

The results of the multivariate analyses presented here indicate significant gross Medicare savings as a result of the first 30 months of the Washington Demonstration. Gross Medicare savings were larger in year 2 as compared to year 1 of the demonstration but were significant in both years and overall. Savings of over 11.8 percent during the first two 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.

RTI will continue to examine these results and will rerun the analyses with information available for each year of the demonstration. Additional refinements in the future may 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. As Medicaid data become available, RTI will conduct a similar calculation looking at Medicaid services. Medicare and Medicaid calculations will also be conducted for each demonstration period as the data are available. Future reports will show updated results for the two periods of the demonstration based on data reflecting additional claims runout and any retroactive adjustments.

7. Conclusion

7.1 Success, Challenges, and Emerging Issues

The Washington Health Homes MFFS demonstration successfully provides enrollees with intensive support for achieving their health goals. The HAP, developed by the enrollees in conjunction with their care coordinators, is an action plan that lays out concrete steps that enrollees take to meet their health goals and becomes the basis for all interaction between the care coordinator and the enrollee. 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 intensive care coordination provided to enrollees by the demonstration includes interfacing with LTSS and behavioral health service delivery systems, housing, and other community services. 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.

Following the pause in enrollment of the health home program, the demonstration regained its lost care coordination capacity and increased its engagement rate. Extension of the demonstration service area to King and Snohomish Counties is proceeding but has been slowed down by the lack of an adequate supply of health homes.

Financial sustainability has been the biggest challenge facing the demonstration. Some care coordination organizations reported that they at times did not engage with new enrollees because they were concerned about losing money. During the 2016 site visit, health homes reported that their payments fall 20 percent short of their expenses. By increasing health home payments and restructuring the rate through the SPA implemented in April 2017, the State can greatly increase the prospects for the demonstration's stability.

Increasing the demonstration's care coordination capacity is essential to increasing the engagement rate. The demonstration cannot reach its full potential with a limited rate of enrollee engagement. Expanding the financial resources available to health homes will help increase care coordination resources.

The Washington demonstration has generated significant Medicare savings indicating successes of the demonstration during demonstration periods 1 and 2. The results of cost savings analyses using a DID regression approach indicate significant savings of \$105.3 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.

7.2 Preliminary Findings

Difference-in-differences regression results of demonstration impact Medicare-covered services show that the Washington demonstration reduced monthly inpatient admissions and skilled and long-stay nursing facility admissions among eligible beneficiaries, relative to the comparison group. These outcomes all decreased in both demonstration periods. The

demonstration population also had an increase in 30-day all-cause risk-standardized readmissions during both demonstration periods. During the second demonstration period, the demonstration group also had a lower 30-day follow-up rate after hospitalization for mental illness. This finding is based on Medicare-only data analysis. There were few statistically significant changes in physician monthly evaluation and management visits, monthly preventable emergency room visits, and monthly admissions for ambulatory care sensitive conditions (overall or chronic) across the two demonstration periods.

Regression results for the special populations analyzed were very similar. Both eligible beneficiaries with LTSS use and eligible beneficiaries with SPMI experienced reduced monthly inpatient admissions and skilled nursing facility admissions and increased 30-day all-cause risk-standardized readmissions, relative to comparison group eligible beneficiaries with LTSS use and SPMI, respectively. These special populations, relative to comparison group eligible beneficiaries with LTSS use and SPMI, also had lower 30-day follow-up after hospitalization for mental illness during the second demonstration period.

7.3 Next Steps

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

Quantitative analyses in future evaluation reports will continue to analyze demonstration impact using the latest demonstration year's cost and utilization data to assess both cumulative and annual effects relative to a comparison group. Analyses will be made for all demonstration eligible beneficiaries, and for important special populations of interest, including demonstration eligible beneficiaries with any health home service use in Washington, those with any LTSS, and those with SPMI. Future analyses will also use more Medicaid data as they become available.

As noted previously, the State and CMS have effectuated a 2-year demonstration extension through December 31, 2018, and are pursuing an additional extension through December 31, 2020, which will provide further opportunities to evaluate the demonstration's performance. The third Evaluation Report on the Washington Health Homes MFSS demonstration will include information about the State's extension of the demonstration service area to two additional counties. In addition, the next report will include updated qualitative information on the status of the demonstration and additional analyses of quality, utilization, and cost measures for those eligible for the demonstration and an out-of-state comparison group.

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Appendix A: Comparison Group Methodology for Washington State Demonstration Year 2

CMS contracted with RTI International to monitor the implementation of demonstrations under the Financial Alignment Initiative (FAI) and to evaluate their impact on beneficiary experience, quality, utilization, and cost. Impact analyses using costs will be estimated using multivariate regression models. A separate assessment of costs using an actuarial method will also be provided using comparison beneficiaries identified in the demonstration period but without propensity score weighting.

Results for comparison group selection and assessment analyses are prepared annually. The annual report for the first performance year and two prior baseline years for the State of Washington FAI was submitted to CMS on October 6, 2015. The Technical Appendix at the end of that document describes the comparison group identification methodology in detail.

This report provides the comparison group results for the second performance year for the FAI demonstration in the State of Washington (WA) (January 1, 2015–December 31, 2015), and notes any major changes in the results since the previous performance year.

Demonstration and Comparison Group Characteristics

The WA demonstration area currently consists of all counties in the State except for King and Snohomish. The comparison area is comprised of 282 counties from Arkansas, Georgia, and West Virginia. These geographic areas have not changed since the previous Annual Report. As described in the previous Annual Report for demonstration year 1, RTI continues to use a scoring algorithm analogous to Washington State’s PRISM algorithm to identify comparison beneficiaries similar to those selected for the Washington FAI program. Nearly all beneficiaries in the WA FAI analyses are 65 years or older, although a small number of younger beneficiaries also qualify under the algorithm.

The number of demonstration group beneficiaries listed in finder files increased slightly from 23,000 in demonstration year (DY)1 to 25,137 in DY2. There was a decrease in the size of the comparison group (from 57,694 to 46,656) during this period. This may be a reflection of the fact that DY2 was shorter (12 months) than DY1 (18 months, from July 2013 through December 31, 2014).

Propensity Score Estimates

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

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

The logistic regression coefficients and z-values for the covariates included in the propensity model for WA DY2 are shown in *Table A-1*. The magnitudes 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 MSAs, which is always higher in the demonstration group. There continue to be 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 model in demonstration period 2

Characteristic	Demo period 2		
	Coef.	Std. err.	z-score
Age (years)	-0.007	0.001	-8.72
Died during year	-0.654	0.035	-18.52
Female (0/1)	0.037	0.021	1.80
White (0/1)	0.216	0.024	8.94
Disabled (0/1)	0.052	0.025	2.13
ESRD (0/1)	-0.221	0.044	-5.08
Share mos. elig. during period (prop.)	-0.956	0.035	-27.14
HCC risk score	-0.086	0.007	-11.84
MSA (0/1)	2.181	0.024	91.84
% of pop. living in married household	0.015	0.001	13.89
% of households w/ member >= 60 yrs.	-0.016	0.001	-10.94
% of households w/ member < 18 yrs.	-0.010	0.001	-6.89
% of adults with college education	0.045	0.001	32.25
% of adults w/self-care limitation	-0.160	0.005	-31.54
Distance to nearest hospital (mi.)	-0.002	0.002	-1.15
Distance to nearest nursing home (mi.)	0.055	0.002	23.69
Intercept	-1.261	0.125	-10.13

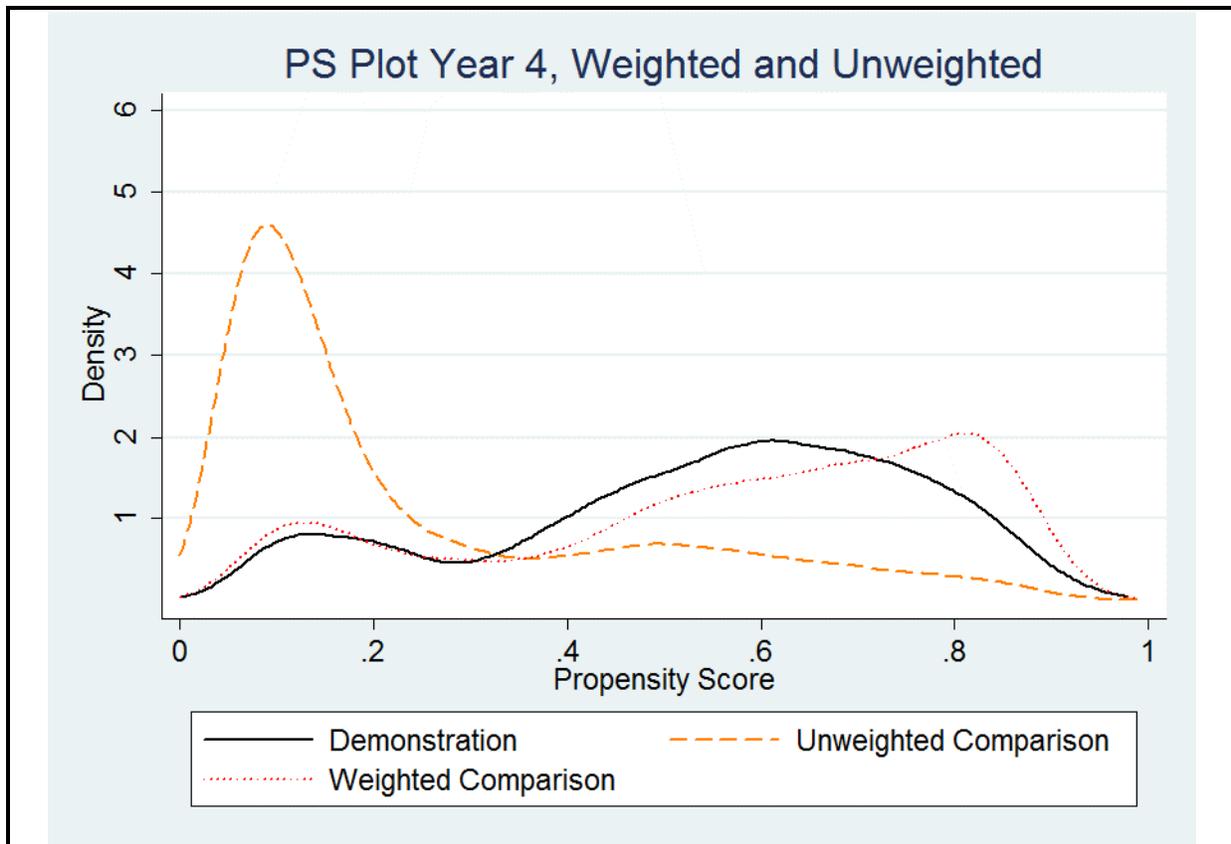
ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MSA = metropolitan statistical area.

Propensity Score Overlap

The distributions of propensity scores by group are shown for demonstration period 2 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 caused by the MSA effect. This spike is somewhat less pronounced in DY2 than it was in DY1. Inverse Probability of Treatment Weighting (IPTW) pulls the distribution of weighted comparison group propensity scores (dotted line) much closer to that of the demonstration group (solid line).

Any beneficiaries who have estimated propensity scores below the smallest estimated value in the demonstration group are removed from the comparison group. Because of the very broad range of propensity scores found in the WA data, once again only one beneficiary was removed from the comparison group in demonstration period 2.

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



Group Comparability

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

The group means and standardized differences for all beneficiary characteristics are shown for demonstration period 2 in *Table A-2*. The column of unweighted standardized differences indicates that several of these variables were not balanced before running the propensity model. Four variables (MSA, percent of households in the ZIP code with at least one member aged 60 years or older, percent of adults with a college education, and the percent of adults with self-care limitations) all had unweighted standardized differences exceeding 0.40.

Table A-2
Washington dual eligible beneficiary covariate means by group, before and after weighting by propensity score, demonstration year 2 (January 1, 2015–December 31, 2015)

Characteristics	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	Weighted standardized difference
Age	64.738	68.085	64.713	-0.204	0.001
Died	0.088	0.130	0.090	-0.135	-0.007
Female	0.639	0.666	0.644	-0.057	-0.012
White	0.799	0.769	0.796	0.073	0.008
Disabled	0.603	0.546	0.604	0.117	-0.001
ESRD	0.049	0.058	0.051	-0.040	-0.007
Share mos. elig. during period	0.787	0.846	0.796	-0.200	-0.030
HCC score	1.889	2.065	1.920	-0.130	-0.024
MSA	0.795	0.309	0.816	1.119	-0.053
% of pop. living in married household	71.695	69.326	72.230	0.239	-0.056
% of households w/member >= 60	36.954	40.428	35.793	-0.409	0.133
% of households w/member < 18	31.715	31.085	31.758	0.078	-0.005
% of adults w/college education	20.236	14.619	21.472	0.695	-0.128
% of adults w/self-care limitation	3.637	5.044	3.438	-0.439	0.100
Distance to nearest hospital	10.267	12.524	9.745	-0.294	0.070
Distance to nearest nursing home	7.792	9.821	7.690	-0.320	0.017

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

The results of propensity score weighting for WA DY2 are illustrated in the far-right column (weighted standardized differences) in *Table A-2*. Propensity weighting reduced the

standardized differences to at or below the threshold level of an absolute value of 0.1 or less with two exceptions—the share of households with members aged 60 years or older and the share of college-educated adults. The sizable initial difference in MSA rates was reduced far below the threshold. This is the same pattern of results that was found in DY1.

Summary

Our DY2 analyses of the WA demonstration and comparison groups produced results that were very similar to those in DY1 and for the baseline years. 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 completely eliminate household age and educational attainment differences. However, we note again that these group differences amount to less than 2 percent of the households or adults in a ZIP code.

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Appendix B: Analysis Methodology

Methodology

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

Evaluation Design

RTI International is using an intent-to-treat (ITT) approach for the 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 subpopulations within each of the demonstration and comparison groups are also presented in this section (e.g., those with any LTSS use in the demonstration and comparison groups; those with any behavioral health claims in the demonstration and comparison groups). In addition, 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.

Comparison Group Identification

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

To construct 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 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.

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 MDS.

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

Populations and Services Analyzed

The populations analyzed in the report include all demonstration eligible beneficiaries, as well as the following special populations: those receiving any LTSS; those with any behavioral health service use in the last 2 years for a serious 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 visits not leading to admission, emergency department psychiatric visits, observation stays, skilled nursing facility, 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-related measures are presented from the Minimum Data Set: two measures of annual NF utilization (admission rate and percentage of long-stay NF users) and three characteristics of new long-stay NF residents at admission (functional status, percent with severe cognitive impairment, percent with low level of care need).

The analyses were conducted for each of the years in the 2-year predemonstration period (July 1, 2011 to June 30, 2013) and for the first and second demonstration periods (July 1, 2013 to December 31, 2014, and January 1 to December 31, 2015) for both the demonstration and comparison group in each of the 4 analytic periods.

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

Under age 65 was the most prevalent age group, ranging from 38.4 percent in the LTSS user group to 58.7 percent in the group with SPMI. In the comparison group, 31.1 percent were 75 years and older, whereas 27.1 percent were 75 years and older in the demonstration group. Across all groups, the majority of eligible beneficiaries were female (63.4 to 67.5 percent), white (80.4 to 90.6 percent in the comparison and SPMI groups, respectively), and had disability as their original entitlement to Medicare (57.0 to 72.9 percent in the LTSS and SPMI populations, respectively). HCC scores ranged from 1.8 in the non-Health Home user group to 2.3 in the Health Home user group. The Hierarchical Condition Category (HCC) score is a measure of the predicted relative annual cost of a Medicare beneficiary based on the diagnosis codes present in recent Medicare claims. Beneficiaries with a score of 1 are predicted to have average cost in terms of annual Medicare expenditures. Beneficiaries with HCC scores less than 1 are predicted to have below average costs, whereas beneficiaries with scores of 2 are predicted to have twice the average annual cost. The 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 than those without health home use (90.8 to 77 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 vs 0.15). Additionally, those in the comparison group resided in counties with higher Medicare spending per dual-eligible, relative to counties in the demonstration group (\$15,614 vs \$14,572). Those with health home service use resided in counties with a smaller population per square mile, relative to those not using health home services (139.95 vs 201.53), as well as counties with a higher Medicare Advantage penetration rate (0.27 vs 0.25).

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

Characteristics	Demonstration group	Comparison group	Health home users	Non-health home users	LTSS users	SPMI diagnosis
Number of beneficiaries	24,868	46,660	2,981	21,887	13,691	9,413
Demographic and health characteristics (percent or number)						
Age						
Less than 65	46.5	47.4	48.3	46.3	38.4	58.7
65 to 74	26.4	21.5	29.7	25.9	27.4	25.2
75 and older	27.1	31.1	22.0	27.8	34.2	16.1
Female						
No	36.1	35.6	32.5	36.6	35.7	33.3
Yes	63.9	64.4	67.5	63.4	64.3	66.7
Race						
White	85.0	80.4	86.9	84.7	88.8	90.6
Black	4.3	17.9	4.1	4.3	4.1	4.0
Hispanic	5.2	1.1	6.4	5.0	3.7	3.1
Asian	5.6	0.7	2.5	6.0	3.3	2.3
Disability						
No (0)	41.0	40.8	35.8	41.8	43.0	27.1
Yes (1)	59.0	59.2	64.2	58.2	57.0	72.9
ESRD status						
No (0)	95.5	95.2	93.9	95.7	95.8	96.9
Yes (1)	4.5	4.8	6.1	4.3	4.2	3.1

(continued)

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

Characteristics	Demonstration group	Comparison group	Health home users	Non-health home users	LTSS users	SPMI diagnosis
MSA						
Non-metro (0)	20.5	18.4	17.4	21.0	20.8	18.7
Metro (1)	79.5	81.6	82.6	79.0	79.2	81.3
Months with full-dual eligibility during year (%)	78.7	79.7	90.8	77.0	80.1	80.9
HCC score	1.9	1.9	2.3	1.8	2.2	2.0
Market characteristics						
Medicare spending per dual, ages 19+ (\$)	14,572	15,614	14,560	14,573	14,565	14,545
MA penetration rate	0.3	0.2	0.3	0.3	0.3	0.3
Medicaid spending per dual, ages 19+ (\$)	16,214	16,559	16,049	16,237	16,255	16,276
Fraction of duals using NF, ages 65+	0.2	0.3	0.2	0.2	0.2	0.2
Fraction of duals using personal care, ages 19+	0.1	0.1	0.1	0.2	0.2	0.2
Fraction of duals with Medicaid managed care, ages 19+	0.5	0.6	0.5	0.5	0.5	0.5
Population per square mile, all ages	194.2	140.9	139.9	201.5	191.1	202.5
Patient care physicians per 1,000 population	0.7	0.7	0.7	0.7	0.7	0.7
Area characteristics						
% of pop. living in married households	71.7	72.2	72.0	71.7	72.1	71.6
% of adults with college education	20.2	21.5	20.2	20.2	20.6	20.8
% of adults who are unemployed	10.2	8.5	10.1	10.2	10.1	10.1
% of adults with self-care limitations	3.6	3.4	3.6	3.6	3.6	3.7
Distance to nearest hospital	10.3	9.7	11.3	10.1	10.5	10.2
Distance to nearest nursing home	7.8	7.7	8.1	7.8	7.9	7.5
% of household with individuals younger than 18	31.7	31.7	32.1	31.7	31.7	31.0
% of household with individuals older than 60	37.0	35.8	37.0	36.9	37.1	36.9

ESRD = end-stage renal disease; MSA = metropolitan statistical area; HCC = Hierarchical Condition Category; MA = Medicare Advantage, MSA = metropolitan statistical area; NF = nursing facility.

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.)
- *Gender.* 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*.
- *Long-term care services and supports (LTSS).* A beneficiary was defined as using LTSS if there was any use of institutional or home and community-based services during the observation year.
- *Severe and persistent mental illness (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.

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.

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:

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

Where

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

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

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

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

Where

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

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

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

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 individual i in group g .

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

Quality of Care and Care Coordination Measures

Similar to the utilization 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:

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

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
<i>Baseline Period 1</i>	
Washington	0.231713283
Comparison	0.220171257
<i>Baseline Period 2</i>	
Washington	0.231703099
Comparison	0.220802089
<i>Demonstration Period</i>	
Washington	0.220549052
Comparison	0.21633023

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

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

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:

$$ACSC_{ig} = \frac{\sum_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \sum_{ig} n_{ig}}$$

Where

- $ACSC_g$ = the average number of Ambulatory Care Sensitive Condition 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:

$$ER_{ig} = \frac{\sum_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \sum_{ig} n_{ig}}$$

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:

$$PN_{ig} = \frac{\sum_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \sum_{ig} n_{ig}}$$

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:

$$D_g = \frac{\sum_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \sum_{ig} n_{ig}}$$

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:

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

Where

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

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:

$$F_g = \frac{\sum_{ig} x_{ig}}{\left(\frac{1}{1000}\right) * \sum_{ig} n_{ig}}$$

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.

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

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 .

Minimum Data Set Measures

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

Characteristics of new long-stay NF residents at admission are also included in order to monitor nursing facility case mix and acuity levels. Functional status and low level of care need are determined by the Resource Utilization Groups Version IV (RUG-IV). Residents with low care need are defined as those who did not require physical assistance in any of the four late-loss

activities of daily living (ADLs) and who were in the three lowest RUG-IV categories. Severe cognitive impairment is assessed by the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

Regression Methodology for Determining Demonstration Impact

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

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

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

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

In addition to estimating the model described in Equation 1, a less restrictive model was estimated to produce year-by-year effects of the demonstration. The specification of the unrestricted model is as follows:

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

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

Impact estimates across the entire demonstration period are determined using the difference-in-differences methodology and presented in figures for all demonstration eligible beneficiaries, and then for two special populations of interest—demonstration eligible beneficiaries with any LTSS use, and demonstration eligible beneficiaries with SPMI. A table follows each figure displaying the annual demonstration difference-in-differences effect for each separate demonstration period for each of these populations. In each figure, the point estimate is displayed for each measure, as well as the 95 percent confidence interval (black) and the 90 percent confidence interval (green). The 90 percent confidence interval is narrower than the 95 percent confidence interval. If the confidence interval includes the value of zero, it is not statistically significant at that confidence level.

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

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

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=3,228,617 person months)

Independent variables	Coefficient	Std. err.	z-value	p-value
Post period	-0.1977	0.0168	-11.760	0
Demonstration group	-0.2487	0.0433	-5.750	0
Interaction of post period x demonstration group	-0.0557	0.0219	-2.550	0.011
Age	-0.0005	0.0007	-0.720	0.474
Female	0.0425	0.0131	3.250	0.001
Black	-0.0314	0.0270	-1.160	0.246
Asian	-0.2001	0.0369	-5.420	0
Other race	-0.0761	0.0995	-0.760	0.445
Hispanic	-0.1278	0.0614	-2.080	0.037
Disability as reason for original Medicare entitlement	-0.0246	0.0183	-1.340	0.179
End stage renal disease	1.1943	0.0309	38.630	0
Hierarchical condition category (HCC) score	0.3098	0.0060	51.830	0
Percent of months of demonstration eligibility	-1.2827	0.0259	-49.520	0
Metropolitan statistical area (MSA) residence	-0.0424	0.0336	-1.260	0.207
Percent of population living in a married household	-0.0007	0.0007	-0.960	0.335
Percent of households with family member greater than or equal to 60 years old	0.0005	0.0012	0.410	0.679
Percent of households with family member less than 18 years old	0.0034	0.0012	2.830	0.005
Percent of adults with college education	0.0009	0.0009	1.000	0.319
Percent adult unemployment rate	0.0004	0.0013	0.310	0.756
Percent of adults with self-care limitation	0.0053	0.0035	1.510	0.132
Distance to nearest hospital	-0.0001	0.0013	-0.100	0.921
Distance to nearest nursing home	-0.0035	0.0019	-1.810	0.07
Medicare spending per full-benefit dual eligible	0.0000	0.0000	0.300	0.765
Medicare Advantage penetration rate	0.3710	0.1367	2.720	0.007
Medicaid spending per full-benefit dual eligible	0.0000	0.0000	-2.420	0.015
Nursing facility users per full-benefit dual eligible over 65	-0.1880	0.3371	-0.560	0.577
State plan personal care users per full-benefit dual eligible over 65	0.7728	0.1929	4.010	0
Medicaid managed care enrollees per full-benefit dual eligible	-0.1751	0.0483	-3.630	0
Total population density	0.0000	0.0001	0.390	0.694
Patient care physicians per 1,000 (total) population	-0.1478	0.0776	-1.900	0.057
Intercept	-1.8950	0.2576	-7.360	0

Appendix C: Descriptive Tables

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

Tables are presented for the overall demonstration eligible population (*Tables C-1* through *C-3*), followed by tables on special populations of interest: demonstration eligible beneficiaries with LTSS use (*Tables C-4* through *C-7*), demonstration eligible beneficiaries with SPMI use (*Tables C-8* through *C-10*), Washington demonstration eligible beneficiaries with and without health home service use (*Tables C-11* through *C-13*), and a final table on service use according to demographic characteristics (age, gender, and race) (*Table C-14*).

Table C-1
Proportion, utilization, and payments 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
Number of demonstration beneficiaries		28,230	27,758	21,215	24,868
Number of comparison beneficiaries		60,446	57,561	57,185	46,660
Institutional setting					
Inpatient admissions	Demonstration group				
% with use		5.4	5.8	5.1	4.7
Utilization per 1,000 user months		1,111.7	1,107.1	1,104.1	1,096.5
Utilization per 1,000 eligible months		60.2	64.0	55.8	52.0
Payments per user month		12,673	13,731	14,104	14,218
Payments per eligible month		686	794	713	674
Inpatient admissions	Comparison group				
% with use		6.4	6.5	6.1	5.9
Utilization per 1,000 user months		1,112.8	1,110.9	1,103.7	1,097.5
Utilization per 1,000 eligible months		71.5	72.6	66.9	64.9
Payments per user month		9,977	10,612	11,017	11,102
Payments per eligible month		641	694	668	657
Inpatient psychiatric	Demonstration group				
% with use		0.4	0.4	0.3	0.3
Utilization per 1,000 user months		1,178.1	1,167.6	1,149.0	1,177.6
Utilization per 1,000 eligible months		4.2	4.3	3.2	3.0
Payments per user month		9,972	10,196	11,208	10,137
Payments per eligible month		36	37	31	26

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Inpatient psychiatric	Comparison group				
% with use		0.9	0.9	0.9	0.9
Utilization per 1,000 user months		1,117.1	1,092.3	1,095.8	1,091.3
Utilization per 1,000 eligible months		9.6	9.4	9.4	10.3
Payments per user month		7,565	7,649	7,614	8,164
Payments per eligible month		65	66	66	77
Inpatient substance abuse	Demonstration group				
% with use		0.0	0.1	0.0	0.0
Utilization per 1,000 user months		1,110.2	1,089.6	1,052.6	1,062.5
Utilization per 1,000 eligible months		0.5	0.6	0.4	0.4
Payments per user month		5,850	6,880	6,816	7,450
Payments per eligible month		3	4	3	3
Inpatient substance abuse	Comparison group				
% with use		0.1	0.1	0.1	0.1
Utilization per 1,000 user months		1,055.2	1,098.2	1,114.6	1,042.2
Utilization per 1,000 eligible months		0.8	0.8	0.7	0.9
Payments per user month		4,169	5,195	6,114	5,254
Payments per eligible month		3	4	4	4
Emergency department use (non-admit)	Demonstration group				
% with use		9.4	9.4	9.8	9.8
Utilization per 1,000 user months		1,358.5	1,310.5	1,313.5	1,310.8
Utilization per 1,000 eligible months		127.1	123.6	128.5	127.9
Payments per user month		604	640	677	667
Payments per eligible month		56	60	66	65

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Emergency department use (non-admit)	Comparison group				
% with use		9.6	9.7	10.1	10.5
Utilization per 1,000 user months		1,332.6	1,325.3	1,357.1	1,320.5
Utilization per 1,000 eligible months		127.8	128.7	136.8	138.3
Payments per user month		486	527	583	578
Payments per eligible month		47	51	59	61
Emergency department use (psychiatric)	Demonstration group				
% with use		0.6	0.6	0.6	0.6
Utilization per 1,000 user months		1,288.2	1,206.8	1,295.8	1,236.2
Utilization per 1,000 eligible months		7.6	7.2	7.4	7.1
Payments per user month		488	478	541	509
Payments per eligible month		3	3	3	3
Emergency department use (psychiatric)	Comparison group				
% with use		0.5	0.4	0.5	0.5
Utilization per 1,000 user months		1,121.8	1,147.2	1,100.1	1,083.6
Utilization per 1,000 eligible months		5.2	4.7	5.0	5.6
Payments per user month		374	395	388	389
Payments per eligible month		2	2	2	2
Observation stays	Demonstration group				
% with use		1.0	1.1	1.1	1.0
Utilization per 1,000 user months		1,044.1	1,050.9	1,034.1	1,038.0
Utilization per 1,000 eligible months		10.3	11.4	11.8	10.6
Payments per user month		2,057	2,317	3,036	2,686
Payments per eligible month		20	25	35	28

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Observation stays	Comparison group				
% with use		1.2	1.4	1.5	1.5
Utilization per 1,000 user months		1,040.9	1,056.4	1,058.7	1,047.6
Utilization per 1,000 eligible months		12.5	14.3	16.2	15.6
Payments per user month		1,755	1,820	2,025	2,085
Payments per eligible month		21	25	31	31
Skilled nursing facility	Demonstration group				
% with use		1.7	1.9	1.3	1.2
Utilization per 1,000 user months		1,095.0	1,087.9	1,080.6	1,081.6
Utilization per 1,000 eligible months		18.6	20.7	14.1	12.7
Payments per user month		12,016	11,810	12,205	13,356
Payments per eligible month		204	224	159	157
Skilled nursing facility	Comparison group				
% with use		2.1	2.2	2.0	2.0
Utilization per 1,000 user months		1,096.1	1,105.4	1,080.1	1,091.2
Utilization per 1,000 eligible months		23.5	24.4	22.0	21.5
Payments per user month		9,866	9,806	10,756	10,303
Payments per eligible month		211	216	219	203
Hospice	Demonstration group				
% with use		1.0	1.7	0.7	0.7
Utilization per 1,000 user months		1,067.8	1,057.8	1,007.4	1,007.5
Utilization per 1,000 eligible months		10.9	18.3	6.6	7.4
Payments per user month		3,665	3,664	3,022	3,471
Payments per eligible month		37	63	20	26

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Hospice	Comparison group				
% with use		1.4	1.8	1.7	1.7
Utilization per 1,000 user months		1,067.1	1,040.9	1,014.1	1,012.8
Utilization per 1,000 eligible months		14.6	18.5	17.7	17.4
Payments per user month		3,340	3,173	3,197	3,114
Payments per eligible month		46	56	56	54
Non-Institutional Setting					
Specialist E&M visits	Demonstration group				
% with use		5.8	5.8	6.0	6.1
Utilization per 1,000 user months		1,076.8	1,083.0	1,080.7	1,103.1
Utilization per 1,000 eligible months		62.7	62.7	65.2	67.6
Payments per user month		104	106	105	101
Payments per eligible month		6	6	6	6
Specialist E&M visits	Comparison group				
% with use		5.5	5.6	5.8	5.7
Utilization per 1,000 user months		1,075.2	1,083.3	1,079.9	1,111.0
Utilization per 1,000 eligible months		59.1	60.4	62.8	63.5
Payments per user month		95	96	96	93
Payments per eligible month		5	5	6	5
Primary care E&M visits	Demonstration group				
% with use		62.1	62.1	62.0	60.7
Utilization per 1,000 user months		1,779.7	1,832.9	1,853.7	1,867.1
Utilization per 1,000 eligible months		1,104.4	1,138.7	1,149.7	1,133.5
Payments per user month		123	130	135	119
Payments per eligible month		77	81	84	73

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Primary care E&M visits	Comparison group				
% with use		67.0	67.3	67.7	67.9
Utilization per 1,000 user months		1,796.2	1,838.1	1,878.0	1,842.3
Utilization per 1,000 eligible months		1,202.8	1,236.4	1,270.8	1,250.8
Payments per user month		106	107	115	104
Payments per eligible month		71	72	78	70
Behavioral health visits	Demonstration group				
% with use		5.9	4.6	3.0	2.9
Utilization per 1,000 user months		1,552.3	2,081.9	2,718.7	2,560.1
Utilization per 1,000 eligible months		92.0	96.7	81.1	73.6
Payments per user month		62	94	166	406
Payments per eligible month		4	4	5	12
Behavioral health visits	Comparison group				
% with use		6.4	5.2	4.4	5.5
Utilization per 1,000 user months		1,459.9	1,764.6	2,280.5	2,336.2
Utilization per 1,000 eligible months		93.8	92.4	99.9	128.8
Payments per user month		57	74	115	216
Payments per eligible month		4	4	5	12
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		5.8	5.8	4.9	4.7
Utilization per 1,000 user months		14,116.8	13,089.8	13,725.0	13,166.3
Utilization per 1,000 eligible months		812.7	761.6	668.8	617.3
Payments per user month		534	489	388	377
Payments per eligible month		31	28	19	18

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		6.1	6.1	6.7	7.4
Utilization per 1,000 user months		22,075.5	21,506.2	26,386.7	25,763.9
Utilization per 1,000 eligible months		1,339.7	1,318.9	1,763.8	1,915.7
Payments per user month		729	687	707	704
Payments per eligible month		44	42	47	52
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		2.1	2.0	2.2	2.4
Utilization per 1,000 user months		8,369.4	7,953.2	8,738.8	9,270.7
Utilization per 1,000 eligible months		173.1	160.6	194.6	224.9
Payments per user month		261	244	225	222
Payments per eligible month		5	5	5	5
Independent therapy (PT, OT, ST)	Comparison group				
% with use		1.1	1.0	1.0	0.9
Utilization per 1,000 user months		9,108.8	8,568.3	10,552.1	10,458.0
Utilization per 1,000 eligible months		102.2	87.0	105.8	99.1
Payments per user month		281	262	271	257
Payments per eligible month		3	3	3	2
Home health episodes	Demonstration group				
% with use		2.6	2.7	2.5	2.3
Utilization per 1,000 user months		1,006.4	1,004.5	1,001.4	1,003.1
Utilization per 1,000 eligible months		25.9	26.9	25.1	23.2
Payments per user month		2,767	2,735	2,667	2,805
Payments per eligible month		71	73	67	65

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Home health episodes	Comparison group				
% with use		3.3	3.3	3.3	2.9
Utilization per 1,000 user months		1,010.3	1,006.8	1,003.5	1,003.7
Utilization per 1,000 eligible months		33.8	33.4	33.1	29.4
Payments per user month		2,412	2,369	2,424	2,407
Payments per eligible month		81	79	80	70
Durable medical equipment	Demonstration group				
% with use		31.4	30.4	30.2	30.2
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		269	268	241	242
Payments per eligible month		85	81	73	73
Durable medical equipment	Comparison group				
% with use		29.4	28.2	26.1	25.5
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		279	283	289	290
Payments per eligible month		82	80	75	74
Other hospital outpatient services	Demonstration group				
% with use		42.0	42.1	44.2	42.9
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		674	701	709	698
Payments per eligible month		283	296	313	299

(continued)

Table C-1 (continued)
Proportion, utilization, and payments 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
Other hospital outpatient services	Comparison group				
% with use		35.8	35.7	36.9	36.6
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		592	631	656	615
Payments per eligible month		212	226	242	225

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 and comparison group eligible beneficiaries for the Washington demonstration

Quality and care coordination measures	Group	Baseline year 1	Baseline year 2	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Demonstration group	19.5	18.9	18.9	19.9
	Comparison group	23.1	22.8	20.8	21.2
Preventable ER visits per eligible months	Demonstration group	0.0586	0.0574	0.0609	0.0609
	Comparison group	0.0611	0.0626	0.0665	0.0664
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	37.6	39.4	36.9	30.4
	Comparison group	42.4	39.0	41.1	41.8
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Demonstration group	0.0124	0.0126	0.0106	0.0094
	Comparison group	0.0181	0.0164	0.0141	0.0129
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Demonstration group	0.0076	0.0076	0.0068	0.0059
	Comparison group	0.0106	0.0094	0.0084	0.0074
Pneumococcal vaccination for patients age 65 and older per eligible months	Demonstration group	0.0018	0.0115	0.0254	0.0042
	Comparison group	0.0010	0.0030	0.0057	0.0072
Screening for clinical depression per eligible months	Demonstration group	<0.0001	0.0001	0.0008	0.0012
	Comparison group	0.0004	0.0003	0.0010	0.0018

NOTE: The last quarter of demonstration year 2 (October–December 2015) was the first quarter of the switch from ICD-9 to ICD-10 codes. Some differences between demonstration year 2 and the predemonstration period/demonstration year 1 may have resulted from misalignment of ICD-9 and ICD-10 codes.

Table C-3
Medicaid service use for the demonstration eligible population

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011-June 2012		July 2012-June 2013		July 2013-June 2014	
Person-months of eligibility	267,059	572,541	250,189	521,663	162,405	369,169
Full year equivalent	22,255	47,712	20,849	43,472	13,534	30,764
Total Medicaid spending per beneficiary per month (excluding Rx)	\$1,526	\$1,576	\$1,599	\$1,685	\$1,464	\$1,732
Home and community-based services (HCBS)						
Personal care (waiver and non-waiver)						
Users as % of eligibles per eligibility month	34.2%	10.3%	33.7%	10.7%	30.1%	10.7%
Payments per eligibility month	\$511	\$131	\$513	\$175	\$521	\$193
Payments per user month	\$1,494	\$1,276	\$1,520	\$1,631	\$1,734	\$1,796
Home health services						
Users as % of eligibles per eligibility month	0.1%	0.5%	0.1%	0.5%	0.0%	0.4%
Payments per eligibility month	\$0.42	\$1.82	\$0.54	\$1.74	\$0.32	\$1.52
Payments per user month	\$702	\$399	\$816	\$373	\$655	\$393
Any HCBS service						
Users as % of eligibles per eligibility month	36.4%	20.2%	38.1%	18.6%	31.7%	16.6%
Payments per eligibility month	\$713	\$421	\$763	\$416	\$741	\$413
Payments per user month	\$1,958	\$2,082	\$1,999	\$2,243	\$2,337	\$2,491
Institutional services						
Medicaid long-stay nursing						
Users as % eligibles per eligibility month	13.4%	19.3%	14.6%	21.2%	10.4%	21.3%
Use days per eligibility month	3.7	5.3	4.0	5.7	2.9	5.7
Payments per eligibility month	\$544	\$821	\$587	\$916	\$448	\$938

(continued)

Table C-3 (continued)
Medicaid service use for the demonstration eligible population

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011-June 2012		July 2012-June 2013		July 2013-June 2014	
Days per user month	27.9	27.7	27.7	27.0	27.9	26.7
Payments per user month	\$4,061	\$4,256	\$4,021	\$4,311	\$4,299	\$4,395
Medicaid ICF/IID						
Users as % eligibles per eligibility month	0.0%	0.4%	0.0%	0.4%	0.0%	0.5%
Use days per eligibility month	0.0	0.1	0.0	0.1	0.0	0.2
Payments per eligibility month	\$0.40	\$0.00	\$0.38	\$0.15	\$0.31	\$0.05
Days per user month	25.8	29.0	26.3	28.8	29.4	29.4
Payments per user month	\$1,667	\$0	\$3,131	\$39	\$1,506	\$9
Medicaid inpatient psychiatric facility						
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Use days per eligibility month	0.0	0.0	0.0	0.0	0.0	0.0
Payments per eligibility month	\$0	\$0	\$0	\$0	\$0	\$0
Days per user month	10.6	7.0	11.7	6.4	5.0	3.2
Payments per user month	\$13,332	\$5,219	\$13,420	\$14,860	\$24,843	\$2,875
Non-institutional services						
Dental care						
Users as % eligibles per eligibility month	2.9%	1.6%	3.7%	1.6%	6.0%	1.6%
Payments per eligibility month	\$4	\$4	\$5	\$4	\$10	\$4
Payments per user month	\$137	\$244	\$143	\$259	\$175	\$228
Behavioral health services						
Users as % eligibles per eligibility month	0.1%	1.1%	0.1%	0.7%	0.0%	0.7%
Payments per eligibility month	\$0	\$2	\$0	\$2	\$0	\$2
Payments per user month	\$45	\$234	\$105	\$276	\$110	\$310

(continued)

Table C-3 (continued)
Medicaid service use for the demonstration eligible population

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011-June 2012		July 2012-June 2013		July 2013-June 2014	
Ambulatory care						
Users as % eligibles per eligibility month	21.0%	5.0%	22.1%	4.9%	24.4%	4.9%
Payments per eligibility month	\$35	\$20	\$35	\$19	\$37	\$19
Payments per user month	\$166	\$393	\$160	\$393	\$153	\$380
Health home services						
Users as % eligibles per eligibility month	—	—	—	—	2.0%	—
Initial assessments per eligibility month	—	—	—	—	0.5%	—
High care coordination per eligibility month	—	—	—	—	1.3%	—
Low care coordination per eligibility month	—	—	—	—	0.2%	—
Payments per eligibility month	—	—	—	—	\$4	—
Payments per user month	—	—	—	—	\$185	—

ICF/IID = intermediate care facility for individuals with intellectual or developmental disabilities.

NOTE: Excludes crossover claims

SOURCE: RTI International/Urban Institute analysis of Medicaid data.

Table C-4
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 period 1	Demonstration period 2
Annual nursing facility utilization					
Number of demonstration beneficiaries	Demonstration group	18,972	17,658	16,984	20,394
New long-stay nursing facility admissions per 1,000 eligibles		24.6	27.0	36.5	20.0
Number of comparison beneficiaries	Comparison group	34,894	31,599	27,240	24,439
New long-stay nursing facility admissions per 1,000 eligibles		24.2	26.4	33.1	26.8
Number of demonstration beneficiaries	Demonstration group	22,271	20,866	18,620	22,252
Long-stay nursing facility users as % of eligibles		15.8	16.6	12.8	10.7
Number of comparison beneficiaries	Comparison group	47,098	42,771	36,172	33,305
Long-stay nursing facility users as % of eligibles		25.5	26.2	23.5	26.1
Characteristics of new long-stay nursing facility residents at admission					
Number of admitted demonstration beneficiaries	Demonstration group	467	476	620	408
Number of admitted comparison beneficiaries	Comparison group	845	834	901	654
Functional status (RUG-IV ADL scale)	Demonstration group	8.9	9.6	9.2	9.5
Functional status (RUG-IV ADL scale)	Comparison group	7.2	8.0	7.6	7.9
Percent with severe cognitive impairment	Demonstration group	31.6	28.5	27.6	27.7
Percent with severe cognitive impairment	Comparison group	38.1	40.4	33.2	36.5
Percent with low level of care need	Demonstration group	2.3	1.3	0.5	0.5
Percent with low level of care need	Comparison group	2.2	1.0	3.3	1.9

SOURCE: RTI International analysis of Minimum Data Set data.

Table C-5
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Number of demonstration beneficiaries		16,086	16,744	12,685	13,691
Number of comparison beneficiaries		31,146	29,973	30,049	24,527
Institutional setting					
Inpatient admissions	Demonstration group				
% with use		6.1	6.4	5.9	5.6
Utilization per 1,000 user months		1,106.6	1,103.5	1,105.6	1,097.2
Utilization per 1,000 eligible months		67.3	70.9	64.7	61.4
Payments per user month		12,663	13,648	14,192	14,417
Payments per eligible month		770	877	831	806
Inpatient admissions	Comparison Group				
% with use		7.4	7.4	6.8	6.9
Utilization per 1,000 user months		1,102.0	1,109.1	1,100.2	1,091.9
Utilization per 1,000 eligible months		81.2	82.2	75.1	75.3
Payments per user month		9,796	10,625	10,840	10,940
Payments per eligible month		722	787	740	755
Inpatient psychiatric	Demonstration group				
% with use		0.3	0.3	0.2	0.2
Utilization per 1,000 user months		1,112.9	1,157.7	1,122.4	1,150.2
Utilization per 1,000 eligible months		3.1	3.3	2.5	2.4
Payments per user month		10,920	11,462	12,050	11,060
Payments per eligible month		30	33	27	23

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Inpatient psychiatric	Comparison group				
% with use		0.8	0.8	0.8	0.7
Utilization per 1,000 user months		1,077.1	1,057.1	1,063.6	1,044.4
Utilization per 1,000 eligible months		8.8	8.9	8.5	7.8
Payments per user month		8,644	8,726	8,673	9,764
Payments per eligible month		71	74	70	73
Inpatient substance abuse	Demonstration group				
% with use		0.0	0.0	0.0	0.0
Utilization per 1,000 user months		1,000.0	1,031.3	1,027.8	1,064.5
Utilization per 1,000 eligible months		0.2	0.2	0.2	0.2
Payments per user month		6,502	8,866	7,711	7,076
Payments per eligible month		1	2	2	2
Inpatient substance abuse	Comparison group				
% with use		0.0	0.0	0.0	0.0
Utilization per 1,000 user months		1,000.0	1,132.3	1,068.3	1,010.0
Utilization per 1,000 eligible months		0.4	0.3	0.3	0.2
Payments per user month		4,337	5,301	6,276	5,587
Payments per eligible month		2	1	2	1
Emergency department use (non-admit)	Demonstration group				
% with use		8.4	8.5	9.2	9.4
Utilization per 1,000 user months		1,279.1	1,253.9	1,268.8	1,273.2
Utilization per 1,000 eligible months		106.9	106.8	116.6	119.9
Payments per user month		629	671	700	687
Payments per eligible month		53	57	64	65

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Emergency department use (non-admit)	Comparison group				
% with use		8.0	8.0	8.3	8.3
Utilization per 1,000 user months		1,241.7	1,229.1	1,267.4	1,228.8
Utilization per 1,000 eligible months		99.2	98.4	104.6	101.4
Payments per user month		495	537	590	593
Payments per eligible month		40	43	49	49
Emergency department use (psychiatric)	Demonstration group				
% with use		0.4	0.4	0.4	0.5
Utilization per 1,000 user months		1,190.1	1,211.5	1,231.7	1,161.5
Utilization per 1,000 eligible months		4.9	5.2	5.5	5.9
Payments per user month		509	523	545	513
Payments per eligible month		2	2	2	3
Emergency department use (psychiatric)	Comparison group				
% with use		0.3	0.3	0.3	0.3
Utilization per 1,000 user months		1,081.7	1,076.5	1,074.4	1,054.0
Utilization per 1,000 eligible months		3.7	3.2	3.6	3.5
Payments per user month		383	383	458	439
Payments per eligible month		1	1	2	1
Observation stays	Demonstration group				
% with use		1.0	1.1	1.2	1.1
Utilization per 1,000 user months		1,039.9	1,047.2	1,034.5	1,037.8
Utilization per 1,000 eligible months		10.6	11.8	12.4	11.6
Payments per user month		2,067	2,245	2,951	2,630
Payments per eligible month		21	25	35	29

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Observation stays	Comparison group				
% with use		1.1	1.2	1.4	1.3
Utilization per 1,000 user months		1,035.1	1,043.6	1,049.0	1,037.3
Utilization per 1,000 eligible months		11.0	12.8	14.4	13.8
Payments per user month		1,593	1,655	1,893	1,916
Payments per eligible month		17	20	26	25
Skilled nursing facility	Demonstration group				
% with use		2.6	2.8	2.0	1.9
Utilization per 1,000 user months		1,097.2	1,089.4	1,081.9	1,085.3
Utilization per 1,000 eligible months		28.6	30.3	21.2	20.2
Payments per user month		12,155	12,005	12,448	13,380
Payments per eligible month		317	334	244	249
Skilled nursing facility	Comparison group				
% with use		3.7	3.8	3.6	3.6
Utilization per 1,000 user months		1,099.4	1,105.5	1,080.8	1,091.2
Utilization per 1,000 eligible months		41.1	42.0	38.8	39.2
Payments per user month		9,922	9,759	10,722	10,483
Payments per eligible month		371	371	385	377
Hospice	Demonstration group				
% with use		1.4	2.4	0.9	1.1
Utilization per 1,000 user months		1,063.5	1,060.3	1,007.3	1,005.0
Utilization per 1,000 eligible months		15.4	25.1	9.2	10.6
Payments per user month		3,697	3,663	3,048	3,475
Payments per eligible month		54	87	28	37

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration Period 2
Hospice	Comparison group				
% with use		2.3	3.0	3.0	3.1
Utilization per 1,000 user months		1,060.7	1,037.1	1,012.3	1,011.5
Utilization per 1,000 eligible months		24.0	30.9	30.7	30.9
Payments per user month		3,309	3,165	3,224	3,131
Payments per eligible month		75	94	98	95
Non-institutional setting					
Specialist E&M visits	Demonstration group				
% with use		5.3	5.3	5.9	6.1
Utilization per 1,000 user months		1,070.3	1,080.6	1,081.5	1,106.4
Utilization per 1,000 eligible months		56.8	57.2	64.0	67.6
Payments per user month		103	106	105	102
Payments per eligible month		5	6	6	6
Specialist E&M visits	Comparison group				
% with use		4.4	4.5	4.7	4.4
Utilization per 1,000 user months		1,064.8	1,067.6	1,073.5	1,092.9
Utilization per 1,000 eligible months		47.2	47.8	50.9	48.0
Payments per user month		92	93	94	91
Payments per eligible month		4	4	4	4
Primary care E&M visits	Demonstration group				
% with use		63.5	63.5	64.2	63.4
Utilization per 1,000 user months		1,765.6	1,833.2	1,886.8	1,918.8
Utilization per 1,000 eligible months		1,121.4	1,164.2	1,211.2	1,216.9
Payments per user month		122	129	137	125
Payments per eligible month		77	82	88	79

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Primary care E&M visits	Comparison group				
% with use		73.2	72.9	73.7	73.7
Utilization per 1,000 user months		1,832.7	1,879.7	1,953.6	1,854.0
Utilization per 1,000 eligible months		1,341.8	1,370.5	1,440.0	1,366.8
Payments per user month		105	106	116	102
Payments per eligible month		77	78	86	75
Behavioral health visits	Demonstration group				
% with use		5.3	4.7	3.6	3.5
Utilization per 1,000 user months		1,587.0	2,373.8	3,003.3	2,860.9
Utilization per 1,000 eligible months		83.6	112.4	109.3	100.7
Payments per user month		67	109	181	488
Payments per eligible month		4	5	7	17
Behavioral health visits	Comparison group				
% with use		4.5	4.5	4.8	6.3
Utilization per 1,000 user months		1,335.5	1,827.8	2,565.7	2,619.7
Utilization per 1,000 eligible months		60.3	83.0	122.8	165.2
Payments per user month		61	80	131	251
Payments per eligible month		3	4	6	16
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		8.4	8.1	6.8	6.9
Utilization per 1,000 user months		15,347.4	14,104.3	15,003.5	14,414.0
Utilization per 1,000 eligible months		1,284.4	1,147.0	1,014.2	989.4
Payments per user month		580	526	425	414
Payments per eligible month		49	43	29	28

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		10.3	10.7	11.8	13.6
Utilization per 1,000 user months		23,812.8	22,871.4	28,121.0	27,396.1
Utilization per 1,000 eligible months		2,451.1	2,445.1	3,323.8	3,728.5
Payments per user month		790	733	757	751
Payments per eligible month		81	78	89	102
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		1.8	1.8	2.1	2.4
Utilization per 1,000 user months		7,990.3	7,458.3	8,512.2	9,152.9
Utilization per 1,000 eligible months		146.6	134.0	179.0	216.7
Payments per user month		265	239	227	225
Payments per eligible month		5	4	5	5
Independent therapy (PT, OT, ST)	Comparison group				
% with use		0.9	0.7	0.7	0.6
Utilization per 1,000 user months		9,559.3	8,907.2	11,625.7	11,054.5
Utilization per 1,000 eligible months		81.5	58.8	77.0	62.1
Payments per user month		316	275	311	276
Payments per eligible month		3	2	2	2
Home health episodes	Demonstration group				
% with use		3.6	3.7	3.6	3.4
Utilization per 1,000 user months		1,005.5	1,004.4	1,001.5	1,002.6
Utilization per 1,000 eligible months		36.3	36.9	35.7	34.5
Payments per user month		2,810	2,771	2,706	2,840
Payments per eligible month		101	102	96	98

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Home health episodes	Comparison group				
% with use		4.2	4.0	4.3	3.6
Utilization per 1,000 user months		1,012.1	1,006.5	1,001.8	1,003.8
Utilization per 1,000 eligible months		42.8	40.4	43.1	36.4
Payments per user month		2,486	2,416	2,491	2,457
Payments per eligible month		105	97	107	89
Durable medical equipment	Demonstration group				
% with use		34.3	32.6	33.5	34.7
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		283	276	250	259
Payments per eligible month		97	90	84	90
Durable medical equipment	Comparison group				
% with use		26.9	25.6	24.4	24.2
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		316	309	342	330
Payments per eligible month		85	79	83	80
Other hospital outpatient services	Demonstration group				
% with use		41.1	41.1	44.9	44.0
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		622	622	663	671
Payments per eligible month		255	256	298	295

(continued)

Table C-5 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, LTSS population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Other hospital outpatient services	Comparison group				
% with use		36.5	35.5	37.1	37.1
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		482	498	530	465
Payments per eligible month		176	177	197	172

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

Table C-6
Quality of care and care coordination outcomes for eligible beneficiaries with LTSS use for the Washington demonstration

Quality and care coordination measures	Group	Baseline year 1	Baseline year 2	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Demonstration group	19.5	19.1	19.3	20.4
	Comparison group	23.1	23.9	21.3	21.0
Preventable ER visits per eligible months	Demonstration group	0.0471	0.0472	0.0531	0.0546
	Comparison group	0.0424	0.0434	0.0461	0.0423
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	34.7	37.3	36.1	28.7
	Comparison group	41.5	37.3	39.1	34.8
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Demonstration group	0.0145	0.0144	0.0127	0.0111
	Comparison group	0.0216	0.0197	0.0167	0.0155
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Demonstration group	0.0081	0.0080	0.0077	0.0064
	Comparison group	0.0111	0.0097	0.0086	0.0075
Pneumococcal vaccination for patients age 65 and older per eligible months	Demonstration group	0.0015	0.0105	0.0249	0.0036
	Comparison group	0.0007	0.0023	0.0047	0.0061
Screening for clinical depression per eligible months	Demonstration group	<0.0001	0.0002	0.0012	0.0016
	Comparison group	0.0007	0.0005	0.0012	0.0020

Table C-7
Medicaid service use for Washington demonstration eligible beneficiaries with LTSS use

Measures by setting	Baseline Period 1		Baseline Period 2		Demonstration Period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Person-months of eligibility	157,480	298,227	155,080	271,361	89,868	181,422
Full year equivalent	13,123	24,852	12,923	22,613	7,489	15,119
Total Medicaid spending per beneficiary per month (excluding Rx)	\$2,316	\$2,571	\$2,358	\$2,789	\$2,144	\$3,018
Home and community-based services (HCBS)						
Personal Care (waiver and non-waiver)						
Users as % of eligibles per eligibility month	44.3%	12.7%	43.8%	12.9%	38.9%	14.1%
Payments per eligibility month	\$676	\$186	\$675	\$261	\$685	\$311
Payments per user month	\$1,527	\$1,461	\$1,539	\$2,021	\$1,760	\$2,201
Home health services						
Users as % of eligibles per eligibility month	0.1%	0.6%	0.1%	0.6%	0.0%	0.5%
Payments per eligibility month	\$0.38	\$2.20	\$0.52	\$2.06	\$0.42	\$1.95
Payments per user month	\$625	\$374	\$850	\$349	\$982	\$358
Any HCBS service						
Users as % of eligibles per eligibility month	60.5%	35.4%	60.8%	33.0%	50.4%	31.0%
Payments per eligibility month	\$1,190	\$675	\$1,219	\$678	\$1,175	\$696
Payments per user month	\$1,966	\$1,908	\$2,005	\$2,058	\$2,333	\$2,249

(continued)

Table C-7 (continued)
Medicaid service use for Washington demonstration eligible beneficiaries with LTSS use

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Institutional services						
Medicaid long-stay nursing						
Users as % eligibles per eligibility month	22.7%	36.8%	23.4%	40.5%	17.2%	43.9%
Use days per eligibility month	6.3	10.2	6.5	11.0	4.8	11.7
Payments per eligibility month	\$921	\$1,564	\$941	\$1,743	\$731	\$1,901
Days per user month	27.9	27.7	27.8	27.0	27.8	26.7
Payments per user month	\$4,066	\$4,252	\$4,027	\$4,303	\$4,255	\$4,334
Medicaid ICF/IID						
Users as % eligibles per eligibility month	0.0%	0.5%	0.0%	0.4%	0.0%	0.7%
Use days per eligibility month	0.0	0.1	0.0	0.1	0.0	0.2
Payments per eligibility month	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Days per user month	25.8	28.2	26.3	28.0	27.8	29.1
Payments per user month	\$1,124	\$0	\$0	\$0	\$0	\$0
Medicaid inpatient psychiatric facility						
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Use days per eligibility month	0.0	—	—	—	—	—
Payments per eligibility month	\$0	\$0	\$0	\$0	\$0	\$0
Days per user month	13.7	NA	NA	NA	NA	NA
Payments per user month	\$23,975	NA	NA	NA	NA	NA

(continued)

Table C-7 (continued)
Medicaid service use for Washington demonstration eligible beneficiaries with LTSS use

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Non-institutional services						
Dental care						
Users as % eligibles per eligibility month	3.5%	1.1%	4.4%	1.1%	6.6%	1.1%
Payments per eligibility month	\$5	\$3	\$7	\$3	\$11	\$3
Payments per user month	\$141	\$230	\$154	\$274	\$170	\$222
Behavioral health services						
Users as % eligibles per eligibility month	0.1%	0.6%	0.1%	0.3%	0.0%	0.3%
Payments per eligibility month	\$0	\$1	\$0	\$1	\$0	\$1
Payments per user month	\$51	\$176	\$134	\$208	\$127	\$193
Ambulatory care						
Users as % eligibles per eligibility month	27.4%	3.2%	28.2%	2.9%	31.0%	3.3%
Payments per eligibility month	\$46	\$7	\$46	\$8	\$46	\$7
Payments per user month	\$170	\$231	\$163	\$256	\$149	\$206
Health home services						
Users as % eligibles per eligibility month	—	—	—	—	1.9%	—
Initial assessments per eligibility month	—	—	—	—	0.6%	—
High care coordination per eligibility month	—	—	—	—	1.2%	—
Low care coordination per eligibility month	—	—	—	—	0.2%	—
Payments per eligibility month	—	—	—	—	\$4	—
Payments per user month	—	—	—	—	\$188	—

ICF/IID = intermediate care facility for individuals with intellectual or developmental disabilities; NA = not applicable.

NOTE: Excludes crossover claims.

SOURCE: RTI International/Urban Institute analysis of Medicaid data.

Table C-8
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Number of demonstration beneficiaries		8,077	7,921	6,688	9,413
Number of comparison beneficiaries		16,495	16,273	17,008	19,178
Institutional setting					
Inpatient admissions ¹	Demonstration group				
% with use		5.9	6.0	5.3	5.7
Utilization per 1,000 user months		1,128.5	1,119.6	1,116.1	1,104.0
Utilization per 1,000 eligible months		66.3	67.7	58.7	62.9
Payments per user month		12,367	13,662	13,518	14,149
Payments per eligible month		727	826	712	807
Inpatient admissions ¹	Comparison group				
% with use		6.7	6.9	6.1	6.2
Utilization per 1,000 user months		1,134.6	1,121.2	1,109.6	1,100.7
Utilization per 1,000 eligible months		75.8	77.4	68.0	67.7
Payments per user month		9,584	10,460	10,434	10,813
Payments per eligible month		640	722	640	665
Inpatient psychiatric	Demonstration group				
% with use		1.0	1.0	0.7	0.6
Utilization per 1,000 user months		1,210.2	1,191.0	1,174.7	1,201.9
Utilization per 1,000 eligible months		12.2	12.3	8.5	6.9
Payments per user month		10,338	10,319	11,338	10,325
Payments per eligible month		105	107	82	59

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Inpatient psychiatric	Comparison group				
% with use		2.3	2.2	2.1	1.8
Utilization per 1,000 user months		1,130.7	1,101.9	1,101.6	1,096.5
Utilization per 1,000 eligible months		25.8	24.2	23.5	20.0
Payments per user month		7,615	7,615	7,501	8,185
Payments per eligible month		174	167	160	149
Inpatient substance abuse	Demonstration group				
% with use		0.1	0.1	0.1	0.1
Utilization per 1,000 user months		1,126.3	1,101.0	1,054.1	1,064.1
Utilization per 1,000 eligible months		1.4	1.5	1.0	0.9
Payments per user month		5,774	6,692	6,909	7,784
Payments per eligible month		7	9	6	7
Inpatient substance abuse	Comparison group				
% with use		0.2	0.2	0.2	0.2
Utilization per 1,000 user months		1,036.0	1,131.4	1,128.5	1,042.1
Utilization per 1,000 eligible months		2.0	1.9	1.7	1.7
Payments per user month		3,968	5,309	6,051	5,278
Payments per eligible month		8	9	9	9
Emergency department use (non-admit)	Demonstration group				
% with use		13.3	13.1	12.8	12.6
Utilization per 1,000 user months		1,513.5	1,436.3	1,442.6	1,390.3
Utilization per 1,000 eligible months		202.0	187.6	185.1	175.2
Payments per user month		594	621	674	681
Payments per eligible month		79	81	86	86

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Emergency department use (non-admit)	Comparison group				
% with use		13.0	13.1	13.2	12.3
Utilization per 1,000 user months		1,446.3	1,423.4	1,443.4	1,387.1
Utilization per 1,000 eligible months		188.4	185.8	190.9	170.3
Payments per user month		489	515	581	566
Payments per eligible month		64	67	77	69
Emergency department use (psychiatric)	Demonstration group				
% with use		1.6	1.5	1.3	1.2
Utilization per 1,000 user months		1,341.8	1,249.6	1,347.6	1,269.1
Utilization per 1,000 eligible months		21.8	19.3	18.1	15.0
Payments per user month		487	458	536	514
Payments per eligible month		8	7	7	6
Emergency department use (psychiatric)	Comparison group				
% with use		1.1	0.9	0.9	0.9
Utilization per 1,000 user months		1,160.1	1,179.2	1,122.7	1,095.3
Utilization per 1,000 eligible months		12.6	11.0	10.4	10.1
Payments per user month		364	394	389	391
Payments per eligible month		4	4	4	4
Observation stays	Demonstration group				
% with use		1.2	1.2	1.2	1.2
Utilization per 1,000 user months		1,054.9	1,068.4	1,044.1	1,047.6
Utilization per 1,000 eligible months		12.1	13.3	13.0	12.5
Payments per user month		1,944	2,137	2,877	2,578
Payments per eligible month		22	27	36	31

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Observation stays	Comparison group				
% with use		1.5	1.6	1.8	1.6
Utilization per 1,000 user months		1,045.5	1,063.7	1,067.9	1,051.1
Utilization per 1,000 eligible months		15.4	16.6	19.5	16.6
Payments per user month		1,565	1,727	1,879	1,965
Payments per eligible month		23	27	34	31
Skilled nursing facility	Demonstration group				
% with use		1.8	1.9	1.4	1.6
Utilization per 1,000 user months		1,114.0	1,097.0	1,090.2	1,078.6
Utilization per 1,000 eligible months		19.8	20.7	14.9	17.2
Payments per user month		12,889	12,191	12,024	14,020
Payments per eligible month		229	231	165	223
Skilled nursing facility	Comparison group				
% with use		2.3	2.5	2.1	2.3
Utilization per 1,000 user months		1,114.0	1,113.4	1,072.4	1,083.3
Utilization per 1,000 eligible months		25.6	28.1	23.0	25.2
Payments per user month		9,456	9,370	10,867	10,709
Payments per eligible month		218	237	233	249
Hospice	Demonstration group				
% with use		0.6	1.1	0.5	0.5
Utilization per 1,000 user months		1,057.5	1,036.8	1,005.4	1,008.6
Utilization per 1,000 eligible months		6.2	11.2	4.7	5.1
Payments per user month		3,644	3,646	3,281	3,424
Payments per eligible month		21	39	15	17

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Hospice					
	Comparison group				
% with use		1.0	1.3	1.3	1.2
Utilization per 1,000 user months		1,064.5	1,047.8	1,018.3	1,012.5
Utilization per 1,000 eligible months		10.6	13.1	13.5	11.8
Payments per user month		3,312	3,143	3,446	3,065
Payments per eligible month		33	39	46	36
Non-institutional setting					
Specialist E&M visits					
	Demonstration group				
% with use		6.7	6.8	6.6	6.7
Utilization per 1,000 user months		1,080.5	1,089.8	1,082.9	1,109.2
Utilization per 1,000 eligible months		72.2	73.6	71.4	74.8
Payments per user month		104	105	106	102
Payments per eligible month		7	7	7	7
	Comparison group				
Specialist E&M visits					
% with use		6.2	6.4	6.5	6.2
Utilization per 1,000 user months		1,081.8	1,094.2	1,088.9	1,115.4
Utilization per 1,000 eligible months		66.8	70.2	70.8	69.1
Payments per user month		98	97	98	93
Payments per eligible month		6	6	6	6
Primary care E&M Visits					
	Demonstration group				
% with use		63.8	65.4	66.5	66.4
Utilization per 1,000 user months		1,864.8	1,952.4	1,987.1	2,005.2
Utilization per 1,000 eligible months		1,189.6	1,276.0	1,321.1	1,330.5
Payments per user month		129	136	142	126
Payments per eligible month		83	89	94	84

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Primary care E&M visits	Comparison group				
% with use		68.1	69.9	71.4	71.4
Utilization per 1,000 user months		1,904.2	1,945.7	1,995.1	1,919.2
Utilization per 1,000 eligible months		1,297.2	1,360.1	1,423.6	1,369.9
Payments per user month		114	113	121	107
Payments per eligible month		77	79	87	76
Behavioral health visits	Demonstration group				
% with use		17.4	12.2	6.8	6.4
Utilization per 1,000 user months		1,520.3	1,900.3	2,583.7	2,561.0
Utilization per 1,000 eligible months		264.5	232.1	176.7	165.0
Payments per user month		58	84	159	398
Payments per eligible month		10	10	11	26
Behavioral health visits	Comparison group				
% with use		17.8	13.2	10.0	10.1
Utilization per 1,000 user months		1,481.0	1,729.2	2,261.6	2,369.8
Utilization per 1,000 eligible months		263.9	228.3	225.7	239.6
Payments per user month		57	72	113	219
Payments per eligible month		10	10	11	22
Outpatient therapy (PT, OT, ST)	Demonstration group				
% with use		6.1	6.0	5.5	5.7
Utilization per 1,000 user months		14,954.8	12,422.3	13,569.3	14,162.0
Utilization per 1,000 eligible months		916.4	750.0	739.7	804.5
Payments per user month		561	465	384	405
Payments per eligible month		34	28	21	23

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Outpatient therapy (PT, OT, ST)	Comparison group				
% with use		6.4	6.5	7.0	8.4
Utilization per 1,000 user months		23,035.1	22,600.4	26,739.4	26,412.2
Utilization per 1,000 eligible months		1,468.8	1,476.5	1,859.2	2,214.1
Payments per user month		753	741	717	719
Payments per eligible month		48	48	50	60
Independent therapy (PT, OT, ST)	Demonstration group				
% with use		2.4	2.3	2.6	2.7
Utilization per 1,000 user months		7,646.4	7,702.9	8,278.7	8,632.9
Utilization per 1,000 eligible months		185.1	179.6	213.8	231.7
Payments per user month		244	236	223	212
Payments per eligible month		6	6	6	6
Independent therapy (PT, OT, ST)	Comparison group				
% with use		1.4	1.2	1.1	1.0
Utilization per 1,000 user months		9,128.7	8,867.4	10,469.9	10,477.8
Utilization per 1,000 eligible months		125.3	102.8	110.6	106.0
Payments per user month		276	258	260	239
Payments per eligible month		4	3	3	2
Home health episodes	Demonstration group				
% with use		2.2	2.1	2.1	2.7
Utilization per 1,000 user months		1,006.6	1,005.8	1,001.8	1,003.2
Utilization per 1,000 eligible months		21.7	21.4	21.4	27.0
Payments per user month		2,943	2,833	2,798	2,832
Payments per eligible month		63	60	60	76

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Home health episodes	Comparison group				
% with use		2.7	2.9	2.8	2.6
Utilization per 1,000 user months		1,009.6	1,008.7	1,004.9	1,005.5
Utilization per 1,000 eligible months		26.8	29.5	27.8	26.3
Payments per user month		2,408	2,258	2,385	2,379
Payments per eligible month		64	66	66	62
Durable medical equipment	Demonstration group				
% with use		27.9	27.1	27.0	28.9
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		259	253	232	230
Payments per eligible month		72	69	63	66
Durable medical equipment	Comparison group				
% with use		26.4	25.5	24.0	22.5
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		280	299	270	265
Payments per eligible month		74	76	65	60
Other hospital outpatient services	Demonstration group				
% with use		41.7	41.6	43.6	44.1
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		547	538	579	617
Payments per eligible month		228	224	253	272

(continued)

Table C-8 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the Washington demonstration and comparison groups, SPMI population

Measures by setting	Group	Baseline year 1	Baseline year 2	Demonstration period 1	Demonstration period 2
Other hospital outpatient services	Comparison group				
% with use		35.7	34.7	35.8	34.9
Utilization per 1,000 user months		—	—	—	—
Utilization per 1,000 eligible months		—	—	—	—
Payments per user month		473	512	513	488
Payments per eligible month		169	178	184	170

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

Table C-9
Quality of care and care coordination outcomes for eligible beneficiaries with SPMI for the Washington demonstration

Quality and care coordination measures	Group	Baseline year 1	Baseline year 2	Demonstration year 1	Demonstration year 2
30-day all-cause risk-standardized readmission rate (%)	Demonstration group	19.1	18.7	18.2	20.1
	Comparison group	22.9	22.3	19.3	20.0
Preventable ER visits per eligible months	Demonstration group	0.0904	0.0839	0.0853	0.0808
	Comparison group	0.0873	0.0903	0.0933	0.0816
Rate of 30-day follow up after hospitalization for mental illness (%)	Demonstration group	37.6	39.4	36.9	30.4
	Comparison group	42.4	39.0	41.1	41.8
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Demonstration group	0.0123	0.0120	0.0111	0.0104
	Comparison group	0.0188	0.0158	0.0127	0.0131
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Demonstration group	0.0077	0.0074	0.0068	0.0064
	Comparison group	0.0119	0.0094	0.0078	0.0072
Pneumococcal vaccination for patients age 65 and older per eligible months	Demonstration group	0.0019	0.0111	0.0277	0.0042
	Comparison group	0.0009	0.0023	0.0051	0.0067
Screening for clinical depression per eligible months	Demonstration group	<0.0001	0.0002	0.0013	0.0020
	Comparison group	0.0008	0.0007	0.0020	0.0026

Table C-10
Medicaid service use for the eligible population with SPMI

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Person-months of eligibility	77,551	182,904	72,944	174,910	47,216	132,859
Full year equivalent	6,463	15,242	6,079	14,576	3,935	11,072
Total Medicaid spending per beneficiary per month (excluding Rx)	\$1,491	\$1,713	\$1,581	\$1,798	\$1,502	\$1,845
Home and community-based services (HCBS)						
Personal care (waiver and non-waiver)						
Users as % of eligibles per eligibility month	27.9%	9.0%	27.6%	9.6%	24.6%	9.5%
Payments per eligibility month	\$373	\$154	\$375	\$225	\$372	\$226
Payments per user month	\$1,337	\$1,703	\$1,358	\$2,356	\$1,513	\$2,371
Home health services						
Users as % of eligibles per eligibility month	0.0%	0.2%	0.1%	0.3%	0.1%	0.2%
Payments per eligibility month	\$0.38	\$0.99	\$0.94	\$1.12	\$0.51	\$1.00
Payments per user month	\$897	\$401	\$1,269	\$391	\$773	\$420
Any HCBS service						
Users as % of eligibles per eligibility month	33.0%	19.9%	34.5%	17.9%	29.5%	15.8%
Payments per eligibility month	\$735	\$538	\$786	\$521	\$741	\$503
Payments per user month	\$2,226	\$2,711	\$2,279	\$2,911	\$2,514	\$3,173

(continued)

Table C-10 (continued)
Medicaid service use for the eligible population with SPMI

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Institutional services						
Medicaid long-stay nursing						
Users as % eligibles per eligibility month	12.2%	18.8%	13.5%	20.8%	11.2%	21.7%
Use days per eligibility month	3.4	5.1	3.7	5.5	3.1	5.8
Payments per eligibility month	\$504	\$814	\$558	\$900	\$491	\$945
Days per user month	27.6	27.4	27.6	26.6	27.9	26.5
Payments per user month	\$4,128	\$4,334	\$4,144	\$4,329	\$4,371	\$4,347
Medicaid ICF/IID						
Users as % eligibles per eligibility month	0.0%	0.6%	0.0%	0.5%	0.1%	0.6%
Use days per eligibility month	0.0	0.2	0.0	0.2	0.0	0.2
Payments per eligibility month	\$1.38	\$0.01	\$1.29	\$0.46	\$0.20	\$0.14
Days per user month	25.5	28.6	26.3	29.8	27.8	29.3
Payments per user month	\$3,232	\$1	\$3,131	\$87	\$290	\$23
Medicaid inpatient psychiatric facility						
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Use days per eligibility month	0.0	0.0	0.0	0.0	0.0	0.0
Payments per eligibility month	\$1	\$0	\$1	\$0	\$0	\$0
Days per user month	10.6	7.0	11.7	6.4	10.0	3.2
Payments per user month	\$13,332	\$5,219	\$13,420	\$14,860	\$9,270	\$2,875

(continued)

Table C-10 (continued)
Medicaid service use for the eligible population with SPMI

Measures by setting	Baseline period 1		Baseline period 2		Demonstration period 1	
	Washington	Comparison group	Washington	Comparison group	Washington	Comparison group
	July 2011–June 2012		July 2012–June 2013		July 2013–June 2014	
Non-institutional services						
Dental care						
Users as % eligibles per eligibility month	3.7%	2.2%	4.7%	2.1%	7.4%	2.0%
Payments per eligibility month	\$5	\$6	\$7	\$6	\$13	\$4
Payments per user month	\$144	\$258	\$149	\$265	\$174	\$214
Behavioral health services						
Users as % eligibles per eligibility month	0.5%	2.8%	0.2%	1.8%	0.1%	1.8%
Payments per eligibility month	\$0	\$7	\$0	\$5	\$0	\$6
Payments per user month	\$45	\$242	\$97	\$286	\$121	\$333
Ambulatory care						
Users as % eligibles per eligibility month	21.2%	10.9%	21.6%	9.7%	23.1%	9.6%
Payments per eligibility month	\$37	\$48	\$37	\$40	\$40	\$39
Payments per user month	\$174	\$440	\$173	\$413	\$171	\$406
Health home services						
Users as % eligibles per eligibility month	—	—	—	—	2.1%	—
Initial assessments per eligibility month	—	—	—	—	0.6%	—
High care coordination per eligibility month	—	—	—	—	1.3%	—
Low care coordination per eligibility month	—	—	—	—	0.2%	—
Payments per eligibility month	—	—	—	—	\$4	—
Payments per user month	—	—	—	—	\$185	—

ICF/IID = intermediate care facility for individuals with intellectual or developmental disabilities.

NOTE: Excludes crossover claims

SOURCE: RTI International/Urban Institute analysis of Medicaid data

Table C-11
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Number of health home users		1,371	2,981
Number of non-health home users		19,844	21,887
Institutional setting			
Inpatient admissions ¹	Health home users		
% with use		5.4	5.9
Utilization per 1,000 user months		1,124.6	1,106.0
Utilization per 1,000 eligible months		60.5	64.9
Payments per user month		13,783	13,665
Payments per eligible month		742	802
Inpatient admissions ¹	Non-health home users		
% with use		4.9	4.5
Utilization per 1,000 user months		1,102.4	1,092.6
Utilization per 1,000 eligible months		54.5	49.5
Payments per user month		14,100	14,301
Payments per eligible month		697	647
Inpatient psychiatric	Health home users		
% with use		0.2	0.2
Utilization per 1,000 user months		1,200.0	1,043.5
Utilization per 1,000 eligible months		2.1	2.6
Payments per user month		6,532	6,598
Payments per eligible month		12	16
Inpatient psychiatric	Non-health home users		
% with use		0.3	0.3
Utilization per 1,000 user months		1,152.3	1,191.9
Utilization per 1,000 eligible months		3.2	3.1
Payments per user month		11,511	10,284
Payments per eligible month		32	26
Inpatient substance abuse	Health home users		
% with use		0.0	0.1
Utilization per 1,000 user months		1,000.0	1,000.0
Utilization per 1,000 eligible months		0.4	0.6
Payments per user month		5,013	4,052
Payments per eligible month		2	2

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Inpatient substance abuse	Non-health home users		
% with use		0.0	0.0
Utilization per 1,000 user months		1,058.1	1,075.0
Utilization per 1,000 eligible months		0.4	0.4
Payments per user month		6,864	7,669
Payments per eligible month		3	3
Emergency department use (non-admit)	Health home users		
% with use		12.1	12.2
Utilization per 1,000 user months		1,342.1	1,347.2
Utilization per 1,000 eligible months		162.0	164.2
Payments per user month		738	731
Payments per eligible month		89	89
Emergency department use (non-admit)	Non-health home users		
% with use		9.5	9.3
Utilization per 1,000 user months		1,309.3	1,304.2
Utilization per 1,000 eligible months		125.0	121.6
Payments per user month		669	654
Payments per eligible month		64	61
Emergency department use (psychiatric)	Health home users		
% with use		0.5	0.5
Utilization per 1,000 user months		1,100.0	1,089.9
Utilization per 1,000 eligible months		5.8	5.2
Payments per user month		601	498
Payments per eligible month		3	2
Emergency department use (psychiatric)	Non-health home users		
% with use		0.6	0.6
Utilization per 1,000 user months		1,311.8	1,248.7
Utilization per 1,000 eligible months		7.5	7.2
Payments per user month		540	509
Payments per eligible month		3	3

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Observation stays	Health home users		
% with use		1.5	1.6
Utilization per 1,000 user months		1,059.5	1,033.8
Utilization per 1,000 eligible months		15.7	16.6
Payments per user month		2,024	2,421
Payments per eligible month		30	39
Observation stays	Non-health home users		
% with use		1.1	0.9
Utilization per 1,000 user months		1,032.9	1,041.6
Utilization per 1,000 eligible months		11.3	9.8
Payments per user month		2,118	2,283
Payments per eligible month		23	22
Skilled nursing facility	Health home users		
% with use		1.1	1.4
Utilization per 1,000 user months		1,050.0	1,072.2
Utilization per 1,000 eligible months		11.1	15.3
Payments per user month		13,374	13,826
Payments per eligible month		142	197
Skilled nursing facility	Non-health home users		
% with use		1.3	1.1
Utilization per 1,000 user months		1,080.4	1,080.4
Utilization per 1,000 eligible months		14.1	12.1
Payments per user month		12,174	13,331
Payments per eligible month		159	150
Hospice	Health home users		
% with use		0.4	0.4
Utilization per 1,000 user months		1,000.0	1,000.0
Utilization per 1,000 eligible months		3.7	4.2
Payments per user month		3,697	3,478
Payments per eligible month		14	15

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Hospice	Non-health home users		
% with use		0.7	0.8
Utilization per 1,000 user months		1,007.5	1,008.1
Utilization per 1,000 eligible months		7.0	8.0
Payments per user month		3,014	3,477
Payments per eligible month		21	27
Non-institutional setting			
Specialist E&M visits	Health home users		
% with use		7.3	8.2
Utilization per 1,000 user months		1,087.4	1,112.9
Utilization per 1,000 eligible months		79.1	90.7
Payments per user month		103	102
Payments per eligible month		7	8
Specialist E&M visits	Non-health home users		
% with use		5.9	5.8
Utilization per 1,000 user months		1,080.3	1,102.4
Utilization per 1,000 eligible months		63.2	64.2
Payments per user month		105	101
Payments per eligible month		6	6
Primary care E&M visits	Health home users		
% with use		69.9	70.7
Utilization per 1,000 user months		1,974.0	2,045.4
Utilization per 1,000 eligible months		1,380.8	1,446.1
Payments per user month		154	137
Payments per eligible month		108	97
Primary care E&M visits	Non-health home users		
% with use		61.3	59.3
Utilization per 1,000 user months		1,835.2	1,836.3
Utilization per 1,000 eligible months		1,125.2	1,089.2
Payments per user month		134	117
Payments per eligible month		82	69

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Behavioral health visits	Health home users		
% with use		3.9	4.7
Utilization per 1,000 user months		2,832.6	2,349.4
Utilization per 1,000 eligible months		110.5	110.6
Payments per user month		195	319
Payments per eligible month		8	15
Behavioral health visits	Non-health home users		
% with use		2.8	2.6
Utilization per 1,000 user months		2,701.6	2,630.8
Utilization per 1,000 eligible months		77.0	67.5
Payments per user month		164	434
Payments per eligible month		5	11
Outpatient therapy (PT, OT, ST)	Health home users		
% with use		5.9	6.3
Utilization per 1,000 user months		9,370.5	12,092.5
Utilization per 1,000 eligible months		549.0	757.2
Payments per user month		266	346
Payments per eligible month		16	22
Outpatient therapy (PT, OT, ST)	Non-health home users		
% with use		4.8	4.5
Utilization per 1,000 user months		13,959.3	13,350.7
Utilization per 1,000 eligible months		673.4	599.0
Payments per user month		395	383
Payments per eligible month		19	17
Independent therapy (PT, OT, ST)	Health home users		
% with use		3.7	3.8
Utilization per 1,000 user months		8,750.0	9,094.8
Utilization per 1,000 eligible months		327.3	342.6
Payments per user month		258	227
Payments per eligible month		10	9

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Independent therapy (PT, OT, ST)	Non-health home users		
% with use		2.1	2.3
Utilization per 1,000 user months		8,736.8	9,330.0
Utilization per 1,000 eligible months		184.1	211.1
Payments per user month		221	223
Payments per eligible month		5	5
Home health episodes	Health home users		
% with use		3.6	3.9
Utilization per 1,000 user months		1,000.0	1,001.4
Utilization per 1,000 eligible months		36.0	39.3
Payments per user month		2,859	2,719
Payments per eligible month		103	107
Home health episodes	Non-health home users		
% with use		2.4	2.1
Utilization per 1,000 user months		1,001.5	1,003.1
Utilization per 1,000 eligible months		23.8	20.7
Payments per user month		2,646	2,821
Payments per eligible month		63	58
Durable medical equipment	Health home users		
% with use		42.7	43.3
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Payments per user month		254	250
Payments per eligible month		108	108
Durable medical equipment	Non-health home users		
% with use		29.1	28.4
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Payments per user month		239	240
Payments per eligible month		70	68

(continued)

Table C-11 (continued)
Proportion, utilization, and payments for institutional and non-institutional services for the
Washington demonstration health home users

Measures by setting	Group	Demonstration period 1 7/1/2013– 12/31/2014	Demonstration period 2 01/1/2015– 12/31/2015
Other hospital outpatient services	Health home users		
% with use		58.3	56.1
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Payments per user month		757	753
Payments per eligible month		441	422
Other hospital outpatient services	Non-health home users		
% with use		43.0	41.1
Utilization per 1,000 user months		—	—
Utilization per 1,000 eligible months		—	—
Payments per user month		689	688
Payments per eligible month		296	283

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

Table C-12
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
30-day all-cause risk-standardized readmission rate (%)	Health home users	19.0	21.3
	Non-health home users	18.9	20.0
Preventable emergency room visits per eligible months	Health home users	0.0809	0.0815
	Non-health home users	0.0590	0.0596
Rate of 30-day follow up after hospitalization for mental illness (%)	Health home users	66.7	20.0
	Non-health home users	35.8	30.7
Ambulatory care sensitive condition admissions per eligible months—overall composite (AHRQ PQI # 90)	Health home users	0.0145	0.0137
	Non-health home users	0.0101	0.0090
Ambulatory care sensitive condition admissions per eligible months—chronic composite (AHRQ PQI # 92)	Health home users	0.0110	0.0081
	Non-health home users	0.0063	0.0057
Pneumococcal vaccination for patients age 65 and older per eligible months	Health home users	0.0224	0.0048
	Non-health home users	0.0243	0.0042
Screening for clinical depression per eligible months	Health home users	0.0014	0.0020
	Non-health home users	0.0007	0.0011

Table C-13
Medicaid service use for health home users

Measures	Demonstration period 1		Demonstration period 1	
	Health home users	Non-health home users	Health home users	Non-health home users
	July 2013–June 2014 with 9 months of claims runout		July 2013–December 2014 with less than 9 months of claims runout	
Person-months of eligibility	12,412	136,328	20,147	226,646
Full year equivalent	1,034	11,361	1,119	18,887
Total Medicaid spending per beneficiary per month (excluding Rx)	\$1,376	\$1,438	\$1,472	\$1,487
Home and community-based services (HCBS)				
Personal care (waiver and non-waiver)				
Users as % of eligibles per eligibility month	39.7%	28.3%	42.4%	30.0%
Payments per eligibility month	\$702	\$486	\$768	\$530
Payments per user month	\$1,768	\$1,717	\$1,812	\$1,770
Home health services				
Users as % of eligibles per eligibility month	0.0%	0.1%	0.0%	0.0%
Payments per eligibility month	\$0.53	\$0.38	\$0.34	\$0.29
Payments per user month	\$1,103	\$715	\$973	\$643
Any HCBS service				
Users as % of eligibles per eligibility month	39.7%	30.0%	42.4%	31.8%
Payments per eligibility month	\$794	\$708	\$865	\$772
Payments per user month	\$1,997	\$2,361	\$2,040	\$2,431
Institutional services				
Medicaid long-stay nursing				
Users as % eligibles per eligibility month	6.0%	10.8%	6.0%	10.3%
Use days per eligibility month	1.6	3.0	1.6	2.9
Payments per eligibility month	\$249	\$462	\$258	\$453
Days per user month	27.0	27.9	27.2	27.9
Payments per user month	\$4,139	\$4,260	\$4,333	\$4,383
Medicaid ICF/IID				
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%
Use days per eligibility month	—	0.0	—	0.0
Payments per eligibility month	\$0.00	\$0.07	\$0.00	\$0.22
Days per user month	NA	27.8	NA	27.7
Payments per user month	NA	\$290	NA	\$1,080

(continued)

Table C-13 (continued)
Medicaid service use for health home users

Measures	Demonstration period 1		Demonstration period 1	
	Health home users	Non-health home users	Health home users	Non-health home users
	July 2013–June 2014 with 9 months of claims runout		July 2013–December 2014 with less than 9 months of claims runout	
Medicaid inpatient psychiatric facility				
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%
Use days per eligibility month	—	0.0	—	0.0
Payments per eligibility month	\$0	\$0	\$0	\$0
Days per user month	NA	10.0	NA	5.0
Payments per user month	NA	\$9,270	NA	\$24,843
Non-institutional services				
Dental care				
Users as % eligibles per eligibility month	6.7%	5.7%	6.8%	5.9%
Payments per eligibility month	\$13	\$10	\$13	\$10
Payments per user month	\$188	\$172	\$193	\$176
Behavioral health services				
Users as % eligibles per eligibility month	0.0%	0.0%	0.0%	0.0%
Payments per eligibility month	\$0	\$0	\$0	\$0
Payments per user month	NA	\$111	NA	\$109
Ambulatory care				
Users as % eligibles per eligibility month	28.6%	24.0%	27.6%	23.3%
Payments per eligibility month	\$38	\$37	\$36	\$36
Payments per user month	\$133	\$155	\$130	\$152
Health home services				
Users as % eligibles per eligibility month	19.5%	—	29.5%	—
Initial assessments per eligibility month	5.8%	—	5.6%	—
High care coordination per eligibility month	12.0%	—	21.5%	—
Low care coordination per eligibility month	1.7%	—	2.3%	—
Payments per eligibility month	\$37	—	\$54	—
Payments per user month	\$2,094	—	\$2,337	—

ICF/IID = intermediate care facility for individuals with intellectual or developmental disabilities.

NOTE: Excludes crossover claims.

SOURCE: RTI International/Urban Institute analysis of Medicaid data.

Table C-14
Utilization of health care services during demonstration year 2 for Washington demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category			Gender		Race			
	Less than 65	65–74	75-plus	Male	Female	White	Black	Hispanic	Asian
Number of demonstration beneficiaries	11,943	6,790	7,081	9,411	16,403	20,344	1,030	1,237	1,340
Institutional setting									
Inpatient admissions ¹									
% with use	4.4	5.0	4.8	4.8	4.6	4.7	5.4	4.9	4.0
Utilization per 1,000 user months	1,103.5	1,096.5	1,085.4	1,105.3	1,091.4	1,094.1	1,107.0	1,091.4	1,100.2
Utilization per 1,000 eligible months	48.1	55.3	52.0	52.8	50.1	51.0	59.8	53.2	43.6
Payments per user month	15,008	14,472	12,808	15,562	13,489	13,998	16,604	13,463	15,280
Payments per eligible month	654	730	613	743	619	652	896	656	606
Inpatient psychiatric									
% with use	0.4	0.2	0.1	0.3	0.2	0.3	0.2	0.1	0.1
Utilization per 1,000 user months	1,193.8	1,125.0	1,157.9	1,236.5	1,140.2	1,182.5	1,227.3	1,000.0	1,000.0
Utilization per 1,000 eligible months	4.8	2.1	0.7	3.5	2.7	3.3	2.8	0.8	0.7
Payments per user month	9,543	11,409	13,821	10,104	10,220	10,211	10,078	8,427	9,773
Payments per eligible month	38	21	8	28	24	29	23	7	7
Inpatient substance abuse									
% with use	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	1,064.9	1,058.8	1,000.0	1,078.9	1,051.7	1,069.8	1,000.0	1,000.0	—
Utilization per 1,000 eligible months	0.7	0.3	0.0	0.5	0.4	0.5	0.3	0.2	0.0
Payments per user month	7,609	6,595	8,594	8,262	6,917	7,630	8,201	3,349	—
Payments per eligible month	5	2	0	4	3	3	3	1	0

(continued)

Table C-14 (continued)
Utilization of health care services during demonstration year 2 for Washington demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category			Gender		Race			
	Less than 65	65-74	75-plus	Male	Female	White	Black	Hispanic	Asian
Emergency department use (non-admit)									
% with use	11.8	8.4	6.8	9.0	9.9	9.7	11.0	11.0	5.4
Utilization per 1,000 user months	1,379.7	1,250.7	1,184.1	1,345.4	1,295.5	1,318.7	1,261.7	1,268.2	1,158.0
Utilization per 1,000 eligible months	163.1	104.7	81.0	121.0	128.0	127.4	138.7	139.5	62.8
Payments per user month	638	708	711	673	666	669	626	641	659
Payments per eligible month	75	59	49	61	66	65	69	70	36
Emergency department use (psychiatric)									
% with use	0.9	0.3	0.2	0.7	0.5	0.6	0.5	0.3	0.2
Utilization per 1,000 user months	1,291.1	1,114.7	1,007.6	1,306.6	1,180.2	1,225.1	1,300.0	1,150.0	1,050.0
Utilization per 1,000 eligible months	11.7	3.8	2.0	9.2	5.8	7.5	6.8	3.8	1.6
Payments per user month	503	531	528	492	523	514	512	358	499
Payments per eligible month	5	2	1	3	3	3	3	1	1
Observation stays									
% with use	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.2	0.7
Utilization per 1,000 user months	1,047.9	1,028.1	1,030.8	1,050.4	1,031.0	1,036.3	1,021.3	1,093.3	1,022.2
Utilization per 1,000 eligible months	10.0	11.5	10.2	10.2	10.6	10.4	10.1	13.5	7.0
Payments per user month	2,683	2,945	2,437	2,944	2,564	2,713	2,772	2,376	2,826
Payments per eligible month	26	33	24	28	26	27	27	29	19
Skilled nursing facility									
% with use	0.6	1.5	1.7	1.1	1.2	1.2	1.2	0.7	0.7
Utilization per 1,000 user months	1,082.0	1,092.3	1,071.7	1,080.3	1,082.1	1,077.6	1,093.2	1,122.2	1,100.0
Utilization per 1,000 eligible months	7.0	16.3	17.9	11.9	12.7	13.2	13.5	8.3	7.6
Payments per user month	14,636	13,473	12,432	13,932	13,076	13,315	14,308	15,279	10,469
Payments per eligible month	94	201	208	153	153	163	177	113	72

(continued)

Table C-14 (continued)
Utilization of health care services during demonstration year 2 for Washington demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category			Gender		Race			
	Less than 65	65–74	75-plus	Male	Female	White	Black	Hispanic	Asian
Hospice									
% with use	0.2	0.6	1.7	0.8	0.7	0.8	0.5	0.5	0.8
Utilization per 1,000 user months	1,021.3	1,002.5	1,005.5	1,006.1	1,008.0	1,006.9	1,000.0	1,000.0	1,009.9
Utilization per 1,000 eligible months	2.5	6.4	16.7	7.7	7.2	7.6	5.0	5.0	7.8
Payments per user month	3,348	3,486	3,510	3,575	3,423	3,477	3,882	2,716	3,697
Payments per eligible month	8	22	58	27	25	26	20	14	29
Non-institutional setting									
Specialist E&M visits									
% with use	6.6	6.5	4.5	5.3	6.4	6.1	6.4	6.0	4.8
Utilization per 1,000 user months	1,107.6	1,107.4	1,083.8	1,101.2	1,103.4	1,105.5	1,117.5	1,090.5	1,060.6
Utilization per 1,000 eligible months	73.4	71.9	48.9	58.8	70.5	68.0	71.9	65.5	50.8
Payments per user month	100	104	98	101	101	101	104	99	102
Payments per eligible month	7	7	4	5	6	6	7	6	5
Primary care E&M visits									
% with use	59.8	61.4	57.7	55.7	61.8	60.3	58.7	58.1	57.1
Utilization per 1,000 user months	1,909.8	1,888.2	1,765.2	1,817.6	1,890.1	1,877.4	1,940.8	1,834.4	1,766.2
Utilization per 1,000 eligible months	1,142.2	1,159.0	1,017.8	1,012.5	1,168.2	1,131.8	1,139.4	1,065.4	1,008.1
Payments per user month	118	125	115	114	122	121	122	115	110
Payments per eligible month	71	77	66	64	75	73	71	67	63
Behavioral health visits									
% with use	3.4	2.5	2.1	2.0	3.2	3.2	2.4	0.8	0.6
Utilization per 1,000 user months	2,232.6	2,842.6	3,206.9	2,482.5	2,599.9	2,574.1	2,412.3	2,039.2	1,722.2
Utilization per 1,000 eligible months	76.2	71.5	66.4	50.3	84.4	83.1	57.8	17.1	9.5
Payments per user month	327	500	540	418	408	411	270	374	169
Payments per eligible month	11	13	11	8	13	13	6	3	1

(continued)

Table C-14 (continued)
Utilization of health care services during demonstration year 2 for Washington demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category			Gender		Race			
	Less than 65	65–74	75-plus	Male	Female	White	Black	Hispanic	Asian
Outpatient therapy (PT, OT, ST)									
% with use	3.7	5.1	5.7	4.4	4.7	5.0	4.7	2.8	2.4
Utilization per 1,000 user months	10,225.5	13,480.6	16,086.6	13,165.4	13,132.5	13,181.0	14,031.6	11,193.5	14,194.8
Utilization per 1,000 eligible months	373.8	689.4	914.3	582.2	614.4	655.8	652.8	310.0	334.2
Payments per user month	292	392	455	382	373	376	423	313	401
Payments per eligible month	11	20	26	17	17	19	20	9	9
Independent therapy (PT, OT, ST)									
% with use	2.9	2.4	1.5	1.8	2.7	2.4	2.8	3.0	1.7
Utilization per 1,000 user months	8,824.9	9,470.6	10,793.7	9,104.0	9,400.2	8,917.1	9,683.0	11,038.8	12,330.4
Utilization per 1,000 eligible months	256.1	229.5	156.6	162.4	255.1	210.0	269.5	328.5	214.0
Payments per user month	218	221	243	232	219	217	249	251	251
Payments per eligible month	6	5	4	4	6	5	7	7	4
Home health episodes									
% with use	1.8	2.4	2.9	2.2	2.3	2.4	2.0	1.6	1.4
Utilization per 1,000 user months	1,003.4	1,001.9	1,003.7	1,003.2	1,003.0	1,003.7	1,000.0	1,000.0	1,000.0
Utilization per 1,000 eligible months	18.2	24.3	29.2	21.8	23.3	24.3	20.0	15.7	13.6
Payments per user month	2,662	2,821	2,931	2,683	2,860	2,780	3,276	2,428	3,271
Payments per eligible month	48	68	85	58	66	67	65	38	45
Durable medical equipment									
% with use	29.0	32.8	27.7	28.6	30.2	30.5	26.2	32.2	23.5
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—
Payments per user month	318	203	153	288	219	243	247	242	224
Payments per eligible month	92	66	42	82	66	74	65	78	53

(continued)

Table C-14 (continued)
Utilization of health care services during demonstration year 2 for Washington demonstration eligible beneficiaries,
by demographic group

Measures by setting	Age category			Gender		Race			
	Less than 65	65–74	75-plus	Male	Female	White	Black	Hispanic	Asian
Other hospital outpatient services									
% with use	43.4	44.0	38.3	39.9	43.4	42.0	44.7	54.6	33.2
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—
Payments per user month	832	649	493	813	641	627	1128	971	961
Payments per eligible month	361	285	189	324	279	263	505	530	319

OT = occupational therapy; PT = physical therapy; ST = speech therapy.