FINANCIAL ALIGNMENT INITIATIVE

Virginia Commonwealth Coordinated Care Evaluation Report

Spring 2021

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FINANCIAL ALIGNMENT INITIATIVE
VIRGINIA COMMONWEALTH COORDINATED CARE
EVALUATION REPORT

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Glossary of Acronyms

AAA	Area Agency on Aging
ADL	Activities of daily living
APM	Alternative payment model
BHH	Behavioral Health Home
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CCC	Commonwealth Coordinated Care
CCC Plus	Commonwealth Coordinated Care Plus
CIL	Center for Independent Living
CMS	Centers for Medicare & Medicaid Services
CMT	Contract Management Team
CSB	Community Service Board, local safety net provider for behavioral health
CTM	Complaint Tracking Module
DinD	Difference-in-differences
DMAS	Virginia Department of Medical Assistance Services
D-SNP	Dual Eligible Special Needs Plan
EDCD	Elderly or Disabled with Consumer Direction 1915(c) waiver
EQRO	External Quality Review Organization
FAI	Financial Alignment Initiative
GMU	George Mason University, Virginia's internal evaluation contractor for CCC
HCBS	Home and community-based services
HEDIS	Healthcare Effectiveness Data and Information Set
HRA	Health risk assessment
ICT	Interdisciplinary Care Team

IRE	Medicare Independent Review Entity
ITT	Intent-to-treat
LTSS	Long-term services and supports
MARx	Medicare Advantage Prescription Drug System
MAXIMUS	The enrollment broker for CCC
MDS	Minimum Data Set
MFFS	Managed fee-for-service
MFP	Money Follows the Person
MMCO	Medicare-Medicaid Coordination Office
MMP	Medicare-Medicaid Plan
MOU	Memorandum of Understanding
NF	Nursing facility
PACE	Program of All-Inclusive Care for the Elderly
PCP	Primary care physician or provider
PMPM	Per member per month
POC	Plan of care
SDRS	State Data Reporting System
SPA	State Plan Amendment

Executive Summary

The Medicare-Medicaid Coordination Office and the Innovation Center at the Centers for Medicare & Medicaid Services (CMS) have created the Medicare-Medicaid Financial Alignment Initiative to test, in partnerships with States, integrated care models for Medicare-Medicaid enrollees. Virginia and CMS launched the Commonwealth Coordinated Care (CCC) demonstration in April 2014 to integrate care for Medicare-Medicaid beneficiaries. The Commonwealth competitively selected three health plans to operate Medicare-Medicaid Plans (MMPs). MMPs received capitated payments from CMS and the Commonwealth to finance all Medicare and Medicaid services. MMPs also provided care coordination and flexible benefits that varied by MMP.

The eligible population consisted of Medicare-Medicaid enrollees aged 21 or older who resided in the five demonstration areas: Central Virginia, Tidewater, Northern Virginia, Roanoke, and Western/Charlottesville. Eligible individuals also included beneficiaries enrolled in the Elderly or Disabled with Consumer Direction (EDCD) 1915(c) waiver and individuals in nursing facilities in the demonstration areas.

The Virginia CCC demonstration ended as anticipated on December 31, 2017, and two of the three health CCC plans continued as participants in Commonwealth Coordinated Care Plus, the State's new Medicaid managed care program.

CMS contracted with RTI International to evaluate the impact of the demonstration on beneficiary experience, quality, utilization, and cost. The evaluation includes individual State-specific evaluation reports. This sole Evaluation Report for the CCC demonstration describes its implementation and analysis of the demonstration's impacts. We also provide information about where this demonstration fits into Virginia's long-range plans. We include findings from qualitative data collected between April 2014 and the end of the demonstration on December 31, 2017, and quantitative results for September 2014 to December 2017. Data sources include key informant interviews, beneficiary focus groups, the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results, Medicare claims data, and other demonstration data.

Highlights

- CCC aligned well with the Commonwealth's long-range plan, initiated in 2006 (and revisited in 2011), to implement managed care for Medicaid beneficiaries in Virginia. Many stakeholders perceived that the demonstration, implemented in April 2014, was a valuable experience that was needed in order to move Virginia's dually eligible population into Medicaid managed care. The new program, called Commonwealth Coordinated Care Plus, or CCC Plus, began in 2018.

Integration of Medicare and Medicaid

- The Department of Medical Assistance Services (DMAS, the Commonwealth's lead agency for the demonstration), all MMPs, and CMS consistently described positive collaborative relationships and activities with one another throughout the demonstration. Such collaboration helped them to work through multiple challenges efficiently and effectively, and to achieve successes together.

Enrollment

- With the exception of the final year of the demonstration, when passive and opt-in enrollment ended approximately midway through the year, the percentage of eligible beneficiaries enrolled in the demonstration remained at or close to 40 percent. Some Commonwealth, MMP, and advocate representatives cited the opt-out provision as a "fatal flaw" of the demonstration that created significant system and operational challenges for the Commonwealth and MMPs. However, at the end of the demonstration, the Commonwealth expressed satisfaction that enrollees tended to remain in the demonstration unless they opted out immediately.

Care Management

- Many stakeholders deemed care management, the core function of CCC, as successful, and stated that it had often made notable differences in individual enrollees' health and well-being. However, care managers described challenges meeting the demonstration's requirements for care management, e.g., required timeframes and processes for reaching enrollees, and engaging enrollees and providers in assessments, plans of care, and interdisciplinary care teams.

Beneficiary Experience

- In 2017, the final year of the demonstration, 62 percent of CAHPS respondents ranked their overall satisfaction with MMPs in Virginia as a 9 or 10 (with 10 being the best health plan possible); this percentage was slightly below the national averages for Medicare Advantage (MA) plans and MMPs nationally.

- Focus group participants' familiarity with care managers improved over the course of the demonstration, and most participants reported being connected to the health care system, either through their primary care physician, specialist, or home health aide. Throughout the demonstration, focus group participants expressed complaints with the quality of transportation services, although these are not demonstration-specific services, but rather, Medicaid services. Data on overall complaints showed decreases during the demonstration.

Cost Savings and Service Utilization

- The results of Medicare cost analyses using a difference-in-differences regression approach indicate increased costs in the demonstration group relative to the comparison group for all three demonstration years (see ***Section 10, Cost Savings Calculation, Table 16***). This is based on Medicare Parts A and B expenditures and does not include Medicare Part D or Medicaid data.

- RTI did not conduct a service utilization impact analysis for this demonstration. Therefore, no service utilization results based on encounter and claims data are included.

SECTION 1

Demonstration and Evaluation Overview

1.1 Demonstration Description and Goals

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

The goals of the Virginia demonstration were to "improve the entire beneficiary care experience through the principles of independent living, wellness promotion and cultural competence. By engaging beneficiaries in their care and allowing them to self-direct services as appropriate, the demonstration will address beneficiaries' health and functional needs in order to better equip individuals to live independently in their communities" (MOU, 2013, p. 3). Virginia stated that "improving the beneficiary experience can then lead to system-wide benefits such as better quality, improved transitions between care settings, fewer health disparities, reduced costs for both payers and the elimination of cost shifting between Medicare and Medicaid" (MOU, 2013, p. 4).

The key objective of the Virginia model was to contract with Medicare-Medicaid Plans (MMPs) that would "provide integrated benefits to Medicare-Medicaid enrollees in the targeted geographic areas" (MOU, 2013, p. 3). The Commonwealth and CMS contracted with three MMPs, Anthem HealthKeepers, Humana, and Virginia Premier. All parties anticipated the integration of Medicare and Medicaid benefits, together with care coordination, to be the main drivers of improved quality of care and improved health, and the main sources of cost savings. See ***Appendix C*** for a summary of predemonstration and demonstration design features.

Period of demonstration. CCC began on April 1, 2014 and ended December 31, 2017. At the demonstration's end, CCC enrollees transitioned into Commonwealth Coordinated Care Plus (CCC Plus), Virginia's mandatory Medicaid managed care program that includes LTSS (see ***Section 2.2, Overview of State Context***).

Financial model. MMPs were paid on a capitated basis for all covered Medicare and Medicaid services, including care management and supplemental benefits offered by the MMPs. Medicare Parts A and B payments were risk adjusted based on the risk profile of each enrollee, using the Hierarchical Condition Category (HCC) Model (Virginia three-way contract, 2016, pp. 154–55). Medicare Part D payments were risk adjusted using the Part D Prescription Drug HCC Model (Virginia three-way contract, 2016, p. 150) (see ***Section 8, Financing and Payment***).

Eligible population. The eligible population consisted of Medicare-Medicaid enrollees aged 21 or older who resided in the five demonstration areas: Central Virginia, Tidewater, Northern Virginia, Roanoke, and Western/Charlottesville (MOU, 2013; Virginia three-way contract, 2016). Eligible individuals also included beneficiaries enrolled in the Elderly or

Disabled with Consumer Direction (EDCD) 1915(c) waiver and individuals in nursing facilities in the demonstration areas (see ***Section 4.2.1, Eligibility***).

Commonwealth Coordinated Care plans. The Commonwealth and CMS contracted with three MMPs, Anthem HealthKeepers, Humana, and Virginia Premier. Humana Health Plan and Anthem HealthKeepers are national for-profit entities that had some experience in Medicare and Medicaid, whereas Virginia Premier is a nonprofit that operates exclusively in Virginia and primarily serves Medicaid enrollees. None of the MMPs had experience with integrating Medicaid and Medicare in Virginia prior to the demonstration.

Care management. Care management was a new benefit for Medicare-Medicaid enrollees and a central feature of the demonstration. Care managers were employees of MMPs who were responsible for initially contacting enrollees to determine health care and social service needs. Care managers were tasked with contacting enrollees regularly during the demonstration to assess needs and coordinate services (see ***Section 5, Care Management***).

Benefits. Virginia and CMS contracted with CCC MMPs to provide all Medicare benefits, service coordination, case management activities, and most Medicaid benefits to specific groups of Medicare-Medicaid enrollees aged 21 or older in the demonstration area (see ***Appendix C***). Benefits covered under capitation to the MMPs included all Medicare-covered Parts A and B, and Part D services and all Medicaid primary care, behavioral health, and LTSS. Services that were excluded from the capitation rate, and paid for through fee-for-service (FFS), include dental care in limited cases, targeted case management for individuals with intellectual disabilities, and case management services for participants of Auxiliary Grants (although not widely used, this service is included as part of the annual reassessment screening process for assisted living recipients and provided under FFS) (MOU, 2013, p. 73). The three MMPs each also offered supplemental or enhanced services not required by the demonstration. These services, offered on a per-plan basis, may have included vision, dental, podiatry, wellness, disease prevention, respite care, transportation, and other services.

New service delivery models. The implementation of Behavioral Health Homes (BHHs) was a relatively new initiative within CCC. In July 2015, BHHs began managing the care of some enrollees who had both chronic medical and behavioral health conditions. BHHs were offered by Community Service Boards (CSBs), local safety net providers for behavioral health. The MMPs contracted with CSBs who offered BHHs. Although the Commonwealth received positive feedback about BHHs, the number of enrollees being served by BHHs remained small throughout the demonstration (see ***Section 3.2.3, Provider Arrangements***, for additional discussion).

Stakeholder engagement. DMAS formed a Stakeholder Advisory Committee, which was appointed by the Secretary of Health and Human Services. The committee consisted of 15 members, including representatives from provider and beneficiary groups, a self-advocate (an individual who has a disability and serves as an advocate but is not part of an advocacy group), and the Office of the State Long-Term Care Ombudsman. The committee met quarterly during the design phase to discuss policy development and oversight and continued to meet less regularly throughout the demonstration (see ***Section 7.2.2, Stakeholder Committees***).

1.2 Purpose of this Report

CMS contracted with RTI International to monitor the implementation of all the demonstrations under the Financial Alignment Initiative and to evaluate their impact on beneficiary experience, quality, utilization, and cost. The Financial Alignment Initiative (FAI) evaluation includes individual State-specific evaluation reports.

The goals of the Virginia evaluation are to monitor demonstration implementation, evaluate the impact of the demonstration on the beneficiary experience, monitor unintended consequences, and monitor and evaluate the demonstration's impact on costs for the eligible population as a whole and for enrollees. To achieve these goals, RTI collected qualitative and quantitative data from Virginia each quarter; analyzed Medicare and Medicaid enrollment, claims, and capitation data; conducted site visits, beneficiary focus groups, and key informant interviews; and incorporated relevant findings from beneficiary surveys conducted by other entities.

In this report, we analyze implementation of the CCC demonstration from its initiation on April 1, 2014 through its completion on December 31, 2017. This is the sole Evaluation Report for the CCC demonstration. For this reporting period, we include qualitative data through December 2017 and quantitative data based on Medicare claims for 2014 through 2017. See ***Section 1.3, Data Sources,*** for additional detail. We describe the Virginia CCC demonstration key design features; examine the extent to which the demonstration was implemented as planned; identify any modifications to the design; and discuss the challenges, successes, and unintended consequences encountered during the period covered by this report. We also include data on the beneficiaries eligible and enrolled, geographic areas covered, status of the participating Medicare-Medicaid Plans (hereafter referred to as CCC plans or MMPs), care coordination, the beneficiary experience, stakeholder engagement activities, and a summary of preliminary findings related to Medicare savings results in the 3 demonstration years. Finally, in ***Section 2.2, Overview of State Context***, and ***Section 11, Demonstration End and Transition to CCC Plus, Medicaid Managed Care***, we discuss the end of the demonstration and Virginia's transition to CCC Plus, the Commonwealth's mandatory Medicaid managed care program that includes LTSS.

1.3 Data Sources

We used a wide variety of data sources to prepare this report, including the following:

Key informant interviews. The RTI evaluation team conducted in-person or virtual site visits in Virginia in September 2014, November 2015, November 2016, and November 2017. The team interviewed the following types of individuals: Commonwealth policy makers and agency staff, CMS and Commonwealth contract management team (CMT) members, ombudsman program officials, MMP officials, MMP care coordinators, hospital and LTSS providers, advocates, and other stakeholders.

Focus groups. The RTI evaluation team conducted a total of 12 focus groups in Virginia between November 2015 and May 2017, with groups in Norfolk, Richmond, Arlington, and Roanoke. A total of 42 enrollees and 7 proxies participated in the RTI focus groups. Participants

were assigned to groups based on their LTSS and behavioral health services use, race, ethnicity, and primary language. Focus groups were not conducted with beneficiaries who opted out of the demonstration or who disenrolled. All focus groups were conducted in English.

Surveys. Medicare requires all Medicare Advantage (MA) plans, including CCC plans, to conduct an annual assessment of the experiences of beneficiaries using the Medicare Advantage and Prescription Drug Plan Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey instrument. The 2015, 2016 and 2017 CAHPS surveys for CCC were conducted in the first half of 2015, 2016, and 2017, respectively, and included the core Medicare CAHPS questions and 10 supplemental questions added by the RTI evaluation team. Survey results for a subset of 2015, 2016, and 2017 survey questions are incorporated into this report. Findings are available at the CCC plan level. The frequency count for some survey questions is suppressed because too few enrollees responded to the question. Comparisons with findings from all MA plans are available for core CAHPS survey questions.

State-sponsored/supported surveys. The Department of Medical Assistance Services (DMAS) contracted with George Mason University (GMU) to assist with the Commonwealth's internal evaluation of CCC (see ***Section 9.2.1, State, CMS and MMP Quality Management Structures and Activities)***. As part of this evaluation, GMU administered and analyzed data from a beneficiary survey, administered in late 2014, that targeted dual eligible beneficiaries who received EDCD waiver services and who participated in CCC. GMU contacted 996 beneficiaries with working phone numbers, and 52 percent responded to the survey questions. Relevant findings from GMU's summary presentation to DMAS (GMU, 2015) are included in ***Section 6, Beneficiary Experience***.

Demonstration data. The RTI evaluation team reviewed data provided quarterly by Virginia through the State Data Reporting System (SDRS). These data included eligibility, enrollment, and information reported by Virginia on its stakeholder engagement process, accomplishments on the integration of services and systems, any changes made in policies and procedures, and a summary of successes and challenges. This Evaluation Report also uses data for quality measures reported by CCC plans and submitted to CMS' implementation contractor, NORC.[1,2] Data reported to NORC include core quality measures that all MMPs are required to report, as well as State-specific measures that CCC plans were required to report. Due to reporting inconsistencies, plans occasionally resubmit data for prior demonstration years; therefore, the data included in this report are considered preliminary.

Demonstration policies, contracts, and other materials. This report uses several data sources, including the Memorandum of Understanding (MOU) between the State and Centers for Medicare & Medicaid Services (CMS) (CMS and State of Virginia, 2013; hereafter, MOU, 2013); the three-way contract (CMS and State of Virginia, 2016; hereafter, Virginia three-way

[1] Data are reported for April 2014 through December 2017.

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

contract, 2016);[3] and State-specific or demonstration-specific documents, such as stakeholder updates and public presentations previously available on the Virginia CCC website;[4] data reported through the SDRS, and documents on the CMS Medicare-Medicaid Coordination website (CMS, 2016a).

Conversations with CMS and Virginia DMAS officials. To monitor demonstration progress, the RTI evaluation team engaged in periodic phone conversations with the Virginia DMAS and CMS. These included discussions about new policy clarifications designed to improve plan performance, quality improvement work group activities, and CMT actions.

Complaints and appeals data. Complaint (also referred to as grievance) data are from three separate sources: (1) complaints from beneficiaries reported by CCC plans to DMAS, and separately to CMS' implementation contractor, NORC, through Core Measure 4.2; (2) complaints received by the DMAS or 1-800-Medicare and entered into the CMS electronic Complaint Tracking Module (CTM);[5] and (3) qualitative data obtained by RTI on complaints. Appeals data are based on data reported by MMPs to DMAS and NORC, for Core Measure 4.2, and the Medicare Independent Review Entity (IRE). Data on critical incidents and abuse reported to the DMAS and CMS' implementation contractor, NORC, by CCC plans are also included in this report. This report also draws from data compiled and received by the Medicare IRE, MAXIMUS, for April 2014 through December 2017.

Although a discussion of Virginia MMPs is included, this report presents information primarily at the CCC demonstration level. It is not intended to assess individual plan performance, but individual plan information is provided where plan-level data are the only data available, or where plan-level data provide additional context.

Service utilization data. We did not analyze any service utilization data for this report.

Cost savings data. Two primary data sources were used to support the savings analyses, capitation payments and Medicare claims. Medicare capitation payments paid to MMPs during the demonstration period were obtained for all demonstration enrollees from CMS Medicare Advantage and Part D Inquiry System (MARx) data. The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (July 2020). Quality withholds were applied to the capitation payments (quality withholds are not reflected in the MARx data), as well as quality withhold repayments provided by CMS. FFS Medicare claims and MA capitation payments were used to calculate expenditures for all comparison group beneficiaries, demonstration beneficiaries in the baseline period, and

[3] The original three-way contracts, one for each MMP, were executed in 2013. These documents are no longer available on CMS' website. CMS, Virginia, and the MMPs amended and re-executed a single contract for all MMPs in April 2016. We primarily cite this contract as the most up-to-date contract. CMS also issued a contract amendment (but did not formally amend or issue an updated contract) in May 2017. Summaries of the 2016 and 2017 amendments can be found here: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Virginia.html.

[4] The CCC website is no longer operational. Materials related to the demonstration's end and transition to CCC PLUS are posted on https://www.dmas.virginia.gov/#/cccplus.

[5] Data are presented for the time period April 2014 through December 2017.

demonstration eligible beneficiaries who were not enrolled during the demonstration period. FFS claims included all Medicare Parts A and B services.

SECTION 2

Demonstration Design and State Context

2.1 Changes in Demonstration Design

The overall demonstration design did not change following its implementation in April 2014.

2.2 Overview of State Context

In this section, we discuss Virginia's experience with managed care for its Medicare-Medicaid beneficiaries prior to the demonstration as well as assistance with demonstration design and next steps with Medicaid managed care. See ***Appendix C*** for a summary of predemonstration and demonstration design features for Medicare and Medicaid enrollees in Virginia.

Prior to the demonstration, Virginia had long recognized the need for an integrated system for its Medicare-Medicaid enrollees. In 2006, legislation was enacted "which directed DMAS, in consultation with the appropriate stakeholders, to develop a long-range blueprint for the development and implementation of an integrated system. DMAS was directed to move forward with two different models for the integration of acute care services and LTSS: a community model and a regional model" (DMAS, 2012a, p. 7). The community model was the implementation of the Commonwealth's PACE program. As of December 2013, just prior to the start of the demonstration, there were 12 PACE sites in Virginia (DMAS, 2013a).

In 2007, DMAS implemented the Acute and Long-Term Care Medicaid managed care program as a regional model for the Medicaid-only aged, blind, and disabled populations that were not enrolled in Medicare. (Medicare-Medicaid enrollees and nursing facility residents were not eligible to enroll in Medicaid managed care.) "Under this program, individuals enrolled in an MCO [managed care organization] remain[ed] in the MCO for their primary and acute medical services after they are approved for HCBS [home and community-based services] LTSS" (DMAS, 2012a, p. 7). HCBS waiver services continue to be provided under the FFS program. According to Virginia's demonstration proposal, DMAS worked on developing a full-risk capitated model integrating Medicaid-covered primary medical services, acute care services, and LTSS but faced barriers to implementation (e.g., savings accruing to Medicare and not Medicaid, lack of budget neutrality, challenges between requirements for 1915(b) and 1915(c) waivers, exclusion of nursing facility residents) (DMAS, 2012a).

2.2.1 Additional Medicare Managed Care Options for Medicare-Medicaid Beneficiaries

In 2017, approximately 241,530 beneficiaries, or about one-fifth of Virginia's Medicare beneficiaries, received care through MA plans. UnitedHealth Group, Humana, and Kaiser Foundation Health plan accounted for 85 percent of the coverage. Medicare-Medicaid beneficiaries also were able to enroll in one of the eight Dual Eligible Special Needs Plans (D-SNPs) operating in Virginia. In 2017, approximately 2,340 individuals received care through D-SNPs (Kaiser Family Foundation, 2017). As of December 2018, eight PACE plans were available in the Commonwealth (versus 12 available at the end of December 2013); enrollment in those plans was 377 at that time.

2.2.2 New Authorities Requested and Adopted: State Plan Amendments

To establish CCC, the Commonwealth amended its Medicaid State Plan through a State Plan Amendment (SPA). CMS approved the SPA (VA SPA 13-03) on June 12, 2013, with an effective date of January 1, 2014 (RTI SDRS, 2014). This SPA allowed the Commonwealth to contract with MCOs to provide services to Medicare-Medicaid enrollees under a capitated rate. The SPA further described which populations were eligible for CCC, the demonstration areas, the enrollment process, and covered services.

2.2.3 Assistance with Demonstration Design

DMAS leadership acknowledged assistance received from external sources to design its demonstration and prepare its proposal and contract materials. Most of this support was provided through the Robert Wood Johnson Foundation (RWJF). During the design phase of the demonstration, Virginia was already working with RWJF as one of 10 States receiving technical assistance for Medicaid expansion. Also, at that time, a high-level DMAS official was nominated to participate in RWJF's Medicaid Leadership Institute, a leadership program for Medicaid directors designed to develop skills needed to resolve health care challenges facing their States and the United States generally. By participating in this program, Virginia received technical assistance from the Center for Health Care Strategies (CHCS), an RWJF subcontractor, to design and implement CCC.

As part of its proposal, the Commonwealth outlined a role for the Office of the State Long-Term Care Ombudsman that built on the ombudsman's traditional role within the Commonwealth as an advocate for those in nursing facilities and assisted living facilities and for those receiving community-based LTSS. The Commonwealth received funding ($924,237 over 3 years) from CMS for the Office of the State Long-Term Care Ombudsman to adapt its role and to serve the demonstration.

Commonwealth Coordinated Care Plus. In 2011, DMAS worked with the Virginia General Assembly to continue planning Medicaid reform in the Commonwealth. All of the demonstrations under the FAI were initially designed with a three-year timeframe. The remainder of the Virginia Medicaid population that was not yet in managed care transitioned in stages, one of which included CCC. Roughly midway through the demonstration, the Commonwealth reported that it began planning to transition its CCC enrollees into Medicaid managed care beginning in January 2018. CMS reported that although CMS offered the Commonwealth the opportunity to extend the demonstration, the Commonwealth declined. Hence, CCC was a 3-year demonstration, which was followed immediately by Virginia's Medicaid managed care program with LTSS, Commonwealth Coordinated Care Plus.

SECTION 3

Integration of Medicare and Medicaid

Highlights

- DMAS, MMPs, and CMS members of the CMT consistently applauded and gave examples of steadfast collaboration among and between themselves throughout the demonstration.
- Three MMPs participated for the duration of the CCC demonstration, and two of them continued on to CCC Plus.
- MMPs faced integration challenges primarily related to lack of experience with LTSS, and a learning curve to understand and adapt to Medicare-Medicaid systems and policies.
- Some providers resisted participating in the demonstration, particularly early in the demonstration, and it was believed that some of them had encouraged enrollees to opt out.
- MMPs' most innovative arrangements with providers centered around the coordination of community-based behavioral health care with medical care for targeted enrollees.

In this section, we provide an overview of the management structure that was created to oversee the implementation of the demonstration and discusses in greater detail the organization, geographic coverage areas, and enrollment experience of the CCC MMPs. We also provide a general description of the other functions that the DMAS, CMS, and the MMPs coordinated or integrated as part of the implementation of the demonstration. In later sections, we discuss in-depth implementation successes and challenges associated with the integration of these functions.

3.1 Joint Management of Demonstration

The CMS-Commonwealth CMT was a key component of the CCC demonstration. The CMT was responsible for contract monitoring in general, and oversaw issues related to enrollment and disenrollment, grievances and appeals, and MMPs' compliance with specific deliverables such as plans of care (POCs) and health risk assessments (HRAs). The CMT included representatives from CMS and DMAS. CMS members of the CMT included the State Lead from the MMCO, and representatives from the Consortium for Medicaid and Children's Health Operations and from the Consortium for Medicare Health Plans Operations. DMAS members included individuals with experience in LTSS and behavioral health, as well as staff responsible for quality management and stakeholder education and outreach.

The CMT met weekly early in the demonstration, and also individually with each of the three MMPs. This schedule shifted to monthly over time. These meetings included MMP participation. DMAS noted that in CMT meetings with each MMP, participants reviewed marketing materials, MMP staffing, provider training and feedback, network development, and a dashboard that displayed the following types of data from the MMPs in a spreadsheet format: frequency and accuracy of HRAs, POCs, authorizations, grievances and appeals, and claims. The

dashboard was used to identify issues for discussion and resolution. DMAS later considered feedback from the plans on the dashboard's usability, and adapted it accordingly[6].

Early in the demonstration, DMAS members of the CMT noted that coverage and delivery of consumer-directed services and options, as well as the broader area of LTSS, were areas that presented a "huge learning curve for plans" (see ***Section 3.2.2, MMP Experience with Delivery of Integrated Services***) and thus, were areas in which particular issues arose for consideration by the CMT. To resolve these issues and systemic issues such as frequent opt-outs and inadequate contact information for enrollees (see ***Section 4.2.5, Reaching Enrollees***), DMAS team members of the CMT described taking a "root cause analysis" approach. CMT members identified a key member of the DMAS quality management team as being particularly helpful in providing guidance with this approach.

All members of the CMT described particular challenges in negotiating and integrating Medicare and Medicaid policy. Some of these issues were resolved during the three-way contract negotiation stage. State officials highlighted, for example, that they worked with CMS to modify the three-way contract to require BHH for enrollees with serious mental illness (SMI), emphasize transitions between settings of care, waive the Skilled Medicare hospital stay, follow the Medicaid rules for telehealth, and require MMPs to describe how they would reimburse nursing facilities (CHCS, 2014). To resolve other Medicare-Medicaid integration issues, CMT members described an overall approach that entailed the team working together, with the team member(s) with the most relevant expertise informing and leading resolution of a particular issue. For example, CMT members with Medicare expertise led resolution of issues related to Medicare policy or eligibility and enrollment requirements, Part D notices, and Medicare encounter data submission. Similarly, those with Medicaid expertise led resolution of Medicaid issues--for example, those related to continuity of care, MMPs' completion of HRAs and POCs, and Medicaid encounter data submission.

CMT members spoke positively about the role and effectiveness of the CMT. One CMT member described the CMT as a "single voice," and DMAS and CMS acknowledged that they worked well together.[7] CMS attributed this collaboration to the relatively small size of the DMAS CCC team and to DMAS being open, cooperative, and flexible. DMAS said that it "[could] not speak highly enough of our CMS CMT members; they are very supportive, and we pretty much end up on the same page." Still, CMT members noted that their experience of participating on the CMT was novel and unique, and CMT members from both CMS and DMAS acknowledged that it took time to become comfortable with one another. In general, CMT members described being on this team as a learning experience because everyone was "outside of [their] comfort zone," depending on their area of expertise.

The CMT noted that it also provided some technical assistance to the MMPs. The degree and scope of technical assistance varied depending on the particular MMP's needs and past experience with Medicare and Medicaid. Both DMAS and CMS team members framed their approach to technical assistance as being one of helping MMPs interpret policies and guidance

[6] According to CMS, DMAS refined and continued the dashboard into CCC+.

[7] In 2020 CMS said that DMAS and CMS continue to meet regularly after the end of CCC, to help maximize integration in CCC+ using D-SNPs.

but encouraging the MMPs to develop their own solution to the challenge (i.e., a less prescriptive approach).

3.2 Overview of Integrated Delivery System

3.2.1 Commonwealth Coordinated Care MMPs

To participate in the demonstration, MMPs had to meet the Commonwealth's requirements set forth in the Virginia Request for Proposals for the Medicare-Medicaid Alignment Demonstration (DMAS, 2013) and CMS requirements outlined in the Capitated Financial Alignment Model Plan guidance (CMS, 2014), as well as pass a joint CMS/Commonwealth readiness review. Eight MMPs submitted proposals to participate in the demonstration; the Commonwealth and CMS selected and contracted with three MMPs. Humana Health Plan and Anthem HealthKeepers are national for-profit entities with some experience in Medicare and Medicaid, whereas Virginia Premier is a nonprofit organization that operates exclusively in Virginia and primarily serves Medicaid enrollees. All three MMPs were required to serve the demonstration service area (i.e., all five regions).

At the start of the demonstration, all three MMPs noted a strong commitment to the demonstration and to the population of Medicare-Medicaid enrollees as reasons for seeking to participate in the demonstration. One MMP also noted participation in the demonstration as an opportunity to shape relevant policy and solutions to gaps in care for this population. See ***Section 11, Demonstration End and Transition to CCC Plus, Medicaid Managed Care,*** for further discussion of the MMPs' decisions to continue with CCC Plus.

During each site visit, representatives from DMAS, the MMPs, advocacy groups, and the CMS CMT members noted an unprecedented level of collaboration among the MMPs participating in the demonstration. The MMPs often worked together—instead of in isolation or competition—to ease some of the challenges they faced in implementing CCC, as discussed further throughout this report (in particular, see ***Section 3.2.2, MMP Experience with Delivery of Integrated Services)***. For example, early in the demonstration all three MMPs attended stakeholder town halls as one unified "plan" presence. As one Commonwealth official described in 2014, "[The MMPs] actually talk openly [in public forums] about things that you would've never heard them talk about before" (e.g., proprietary ideas or plans). One MMP (a national company) noted that it did not expect this level of collaboration, and in fact, this collaboration was different than its experience with the FAI demonstration in other markets or States. Another MMP highlighted the fact that the MMPs all belonged to and worked together under the Virginia Association of Health Plans as helping the MMPs feel "like a demo[nstration] family."

During each site visit, MMPs and DMAS provided numerous examples of the MMPs working together, often in concert with DMAS as well. For example, to reduce administrative burden and enhance efficiency, the MMPs developed standardized forms and materials for enrollees and providers, and combined provider and care manager trainings. The MMPs also hired an attorney to advise on legal issues related to their collaborative efforts. And midway through the demonstration, the MMPs worked with DMAS to adjust the timing of the MMPs' required annual member satisfaction survey so that it would not overlap with other member survey efforts such as CAHPS.

DMAS also expressed appreciation for the collegial working culture with the MMPs, and added (early in the demonstration) that collaboration was essential if the demonstration—and future Medicaid managed care efforts—were to work. More broadly, Commonwealth officials, MMPs, and CMS consistently described positive working relationships with one another, and overall, continued growth in those relationships over the course of the demonstration. Relationships remained strong and stable despite transitions in points of contact at each agency or MMP.

3.2.2 MMP Experience with Delivery of Integrated Services

Because none of the MMPs had experience with integrating Medicaid and Medicare in Virginia, DMAS staff and the three MMPs acknowledged challenges as the MMPs adjusted to a "new way of doing business" under the demonstration. Challenges primarily related to lack of MMP experience with LTSS; and MMPs' understanding and adaptation of systems and policies related to Medicare-Medicaid integration.

Lack of experience with LTSS. During the Fall 2014 and 2015 site visits, in particular, the MMPs reported facing steep learning curves in providing LTSS. The CMT and DMAS confirmed this as a challenge for the MMPs, noting that the extent of the learning curve varied depending on each MMP's past experience with Medicare and Medicaid, and past experience with LTSS. For example, DMAS noted that most MMP care managers previously worked with medical providers or institutions and did not work in LTSS settings. The MMPs acknowledged challenges recruiting staff with demonstration-specific skill sets.

At the start of the demonstration, some advocates also expressed concern about MMPs' lack of experience with LTSS. They believed that MMPs were not familiar with the functions of Area Agencies on Aging (AAAs) or community-based organizations that traditionally provided LTSS. The advocates believed that care coordination services provided by LTSS and by MMP care managers overlapped. They suggested that MMPs were generally unfamiliar with the provider capacity across regions included in the demonstration, so they believed MMPs did not have an on-the-ground awareness of what services were already available.

Despite the challenges they encountered in learning about LTSS, MMPs' extensive experience in managed care eased some of the implementation challenges that other demonstration participants faced because of their lack of experience. For example, MMPs noted that LTSS providers' lack of experience with managed care created challenges because the MMPs had to educate these LTSS providers on several key aspects of the demonstration such as managed care claims, authorization, and utilization management.

Challenges integrating Medicare and Medicaid. Much of the complexity of integrating Medicare and Medicaid systems and policies was absorbed at the MMP level, although the Commonwealth shared this burden. The MMPs (and DMAS) described challenges with understanding new requirements and adapting systems and processes to meet those requirements. Early in the demonstration, they described needing to move forward with implementation before they had complete information on mandated demonstration requirements. This "moving target" made implementation difficult and costlier than expected. Sometimes difficulties with retrofitting systems required labor-intensive manual or ad hoc correction of some processes. In addition,

data exchange between each MMP and DMAS was challenging given different vocabularies, file structures, and institutional cultures for each MMP. Finally, because CCC was a demonstration, MMPs and DMAS noted that they had to maintain their existing systems to support non-demonstration work while also creating new systems for the demonstration, which duplicated efforts and hindered innovation.

Throughout the demonstration, MMPs continued to voice concern over the administrative aspect of the demonstration; although it eased somewhat as their experience grew and adaptations became less frequent, they felt that it took away from the care and attention they sought to provide to their enrollees. Later in the demonstration, however, the two MMPs who continued forward into CCC Plus appreciated the investments they had made into demonstration infrastructure and resources, as those could be leveraged for CCC Plus. Specific integration challenges are discussed throughout this report.

3.2.3 Provider Arrangements

The MMPs were required to provide integrated care and Medicare-Medicaid benefits to enrollees through a person-centered care management approach. To ensure that this requirement was met, MMPs contracted with a range of acute care and LTSS provider types, and managed or coordinated care as described in ***Section 5, Care Management***.

Provider resistance. The MMPs and DMAS were surprised by the amount of resistance from some providers—including some large provider networks/hospital systems, nursing facility providers, and personal care/services facilitators—to engage or contract with the MMPs for the demonstration. Early in the demonstration, some providers refused to contract with MMPs. The reasons varied and included not wanting to be a part of managed care or having negative previous experiences with managed care plans. Other reasons were based on misinformation and included fear of not being compensated, fear that MMPs would deny care for beneficiaries, and for some providers, a general belief that CCC did not offer much value for enrollees.

Other providers, such as nursing facilities, attempted to opt out their resident populations without the residents' input or evidence of their input (see ***Section 4.2.5, Factors Influencing Enrollee Decisions***). Some providers did not understand or were not even aware of CCC. Stakeholder advocates also noted concerns regarding the capacity of LTSS providers, who were already overextended, to effectively serve "large" numbers of CCC enrollees. DMAS used several strategies to address these challenges, including leveraging positive relationships with leaders of certain provider associations to gain access and goodwill among those providers, allowing single-case agreements to permit enrollees to continue with their current provider for 180 days, and engaging providers in multiple settings and methods for outreach and engagement.

Later in the demonstration (in 2016 and 2017), MMPs noted stable or improved relationships with providers. In particular, they noted less resistance to participate in the demonstration, and fewer purported efforts by providers to encourage enrollees to opt out of the demonstration. Some MMP staff speculated that this may have been due to the upcoming move to Medicaid MLTSS (CCC Plus) in which providers would need to participate. Other MMP staff credited less resistance to the simple fact that providers better understood how the demonstration

worked, and in some cases, identified specific outreach and education efforts their MMP had made to improve provider engagement and understanding.

Innovative arrangements with providers. The MMPs were encouraged to use creative or innovative means of identifying demonstration partners. For example, one MMP described one of its pilot programs whereby it contracted with AAAs in one demonstration region to provide LTSS and care management to enrollees. These AAA employees had subcontracts with and acted as staff of the MMPs.

One particularly innovative provider initiative within CCC was the implementation of BHHs. As previewed in ***Section 1.1, Demonstration Description and Goals***, in July 2015, BHHs began managing the care of some enrollees who had both chronic medical and behavioral health conditions. BHHs entailed physical co-location of behavioral and physical/medical health services at CSB sites. The MMPs contracted with CSBs who offered BHHs; the number of BHHs per MMP varied. Although this was a promising model for managing the care of enrollees with chronic and behavioral health conditions, initial enrollment was low, ranging from 18 to 170 enrollees in each MMP's BHHs. MMPs and DMAS attributed this to the requirement that participating enrollees must have had a chronic medical condition and a behavioral health diagnosis; challenges engaging and building relationships with enrollees who had serious mental illnesses; and a lack of awareness or understanding of BHHs among enrollees, and among providers and their staff who could refer enrollees to BHHs. During the final two site visits (2016 and 2017), DMAS and two MMPs noted that they were generally proud of this initiative, even though enrollment remained low—the Commonwealth estimated total enrollment in each MMP's BHHs at between 0 and 200.

MMPs also offered a related service toward the end of the demonstration whereby they partnered with CSBs and select community behavioral health practices to provide enhanced care coordination to any CCC enrollee with SMI who was receiving targeted care management and had one or more chronic conditions. MMP care managers worked with the CSB case managers to manage care and services for these enrollees.

In 2016, MMPs noted that they were exploring alternative payment methods (APMs) or value-based arrangements with small subsets of providers, but identified several challenges in this area. One MMP noted that the announcement of the upcoming end of the demonstration in fall 2015 had halted "creative contracting opportunities" with interested hospitals and a large primary care clinic. Another MMP noted that it would have needed more demonstration enrollees in "any concentrated area" to pursue APMs. Yet another MMP surmised that providers resisted value-based payment approaches because of the voluntary opt-in/out provision of the demonstration, which resulted in discontinuous member enrollment that could have, among other challenges, affected a provider's metrics (for payment). This MMP noted, however, that the move toward Medicaid managed care (with mandatory enrollment for the dually eligible population) could create a more stable membership, and providers may then be more open to APMs.

3.2.4 Training and Support for Plans and Providers

DMAS began training MMPs before the demonstration was implemented. DMAS reported that in early 2014, MMPs were required to present vignettes to DMAS demonstrating how care coordination would work to address health and social concerns for individuals using LTSS and for beneficiaries with behavioral health needs. MMPs received feedback on their interventions.

Once the demonstration began, DMAS provided diverse training to MMPs and providers; similarly, MMPs' training targeted diverse provider types. Provider training focused on enhancing provider awareness and understanding of the demonstration, particularly because some providers continued to encourage beneficiaries to stay in FFS and to not enroll (or to disenroll) from CCC, and nursing facilities opted out their residents via powers of attorney. For efficiency, DMAS and the MMPs often offered their provider education (of any type) together instead of requiring providers to attend three separate trainings (one for each MMP). Although these trainings may have been well-attended, DMAS learned that education did not necessarily trickle down to the "end user." For example, if education was conducted at a provider association, individual providers who did not attend the meeting may not have learned about the demonstration. This remained a challenge throughout the demonstration. Some individual trainings were also offered; for example, DMAS partnered with the Office of the State Long-Term Care Ombudsman to provide on-site education and outreach to a few primary care provider (PCP) offices.

Each of the MMPs also provided training to providers in their networks. For example, the MMPs hosted web-based training modules for providers that covered a variety of topics, including service authorizations, claims, and care coordination. MMPs also conducted provider education through weekly phone calls with individual providers or provider groups of specific types, such as adult day services; personal care, home health, and services facilitators; nursing facilities; hospitals and medical practices; and behavioral health. For example, a call for services facilitators might have focused on service authorizations. DMAS described these calls as an opportunity for providers to voice concerns and ask questions, as well as an opportunity for CCC staff to learn about implementation successes and challenges. A question and answer (Q&A) log was generated from each call and e-mailed to participants.

DMAS and MMPs offered extensive initial and ongoing training for care managers. We discuss training for care managers in ***Section 5.1.2, Care Planning Process***.

3.3 Major Areas of Integration

CCC built on Virginia's plan to transition additional populations and services into Medicaid managed care. CCC implementation required integration of new policies, protocols, and procedures, and adaptation of many existing policies, protocols, and procedures. Although there were challenges related to integration, as discussed throughout this report, DMAS, the MMPs and most stakeholders considered CCC to be a successful initiative. As one CMS CMT member noted at the close of the demonstration:

> *Three [MMPs] entered and continued over the course of the demo. More than that, the fact [is] that we were able to get 20,000-plus people enrolled in a viable*

integrated product. Without the demonstration, they would've been in fee-for-service. [CCC] was a remarkable feat in pushing for more integrated care, which include[d] assessments and care plans and overall care coordination. Enrollees never would have had access to these services if not for the demo. To me, that is a really, really big success.

3.3.1 Integrated Benefits and Enrollment

As discussed in ***Section 1.1, Demonstration Description and Goals***, CCC enrollees received all Medicare-covered Parts A and B, and Part D services, and all Medicaid primary care, behavioral health, and LTSS. All MMPs were required to provide person-centered care coordination for all enrollees. Each of the three MMPs also offered supplemental or enhanced services not required by the demonstration. These services, offered on a per-plan basis, included vision, dental, podiatry, wellness, disease prevention, respite care, and transportation, among other services. The demonstration integrated Medicare and Medicaid managed care enrollment through the State's Medicaid managed care enrollment broker, as described in ***Section 4, Eligibility and Enrollment***.

3.3.2 Integrated Care Management and Care Planning

Care coordination by the MMPs integrated medical care, behavioral health, and LTSS for demonstration enrollees. Interdisciplinary care teams (ICTs) led by care managers were responsible for developing and implementing POCs to address each enrollee's needs (see ***Section 5, Care Management***).

3.3.3 Integrated Quality Management

As discussed in ***Section 9, Quality of Care***, the demonstration's quality management framework included quality measurement and reporting; joint compliance monitoring by the Commonwealth and CMS; ongoing Commonwealth oversight; MMPs' internal quality management activities; and independent quality management structures and activities in place or conducted by an external quality review organization.

3.3.4 Integrated Financing

CCC plans were paid a blended, risk-adjusted capitated rate covering all Medicare and Medicaid services. Medicare Parts A and B and Medicaid payments reflected the application of savings percentages and quality withholds (**see *Section 8, Financing and Payment***).

SECTION 4

Eligibility and Enrollment

Highlights

- With the exception of the final year of the demonstration—when new enrollment into CCC began to be phased out—the percentage of eligible beneficiaries enrolled remained relatively consistent, at or close to 40 percent.
- DMAS and the MMPs reported encountering steep learning curves with passive enrollment (the primary mechanism for attaining enrollees), and they worked hard to educate and build trust with enrollees, advocates and providers, many of whom were confused about or resisted participating in the demonstration.
- Members' ability to enroll, disenroll, or re-enroll monthly caused significant difficulties with MMIS programming, transitions of care and the MMPs' ability to make a positive impact on enrollees as a result of care coordination.
- DMAS and MMPs reported challenges, albeit with some improvement, throughout the demonstration in obtaining sufficient Medicare claims history and encounter data from CMS. These challenges made it difficult to reach and ensure continuity of care for new CCC enrollees.

4.1 Introduction

In this section, we provide an overview of the enrollment process for CCC. We discuss eligibility for the demonstration, enrollment phases, and the passive enrollment process. We present enrollment and opt-out data, and discuss factors influencing enrollment decisions and enrollment strategies.

4.2 Enrollment Process

4.2.1 Eligibility

MMPs were contracted to provide all benefits to specific groups of Medicare-Medicaid enrollees aged 21 or older in the five demonstration areas: Central Virginia, Tidewater, Northern Virginia, Roanoke, and Western/Charlottesville (MOU, 2013; Virginia three-way contract, 2016). Eligible individuals also included beneficiaries enrolled in the EDCD 1915(c) waiver[8],

[8] As of July 1, 2017, the Elderly or Disabled with Consumer Direction (EDCD) Medicaid Waiver and another waiver, the Technology Assisted Medicaid Waiver, were merged and became the Commonwealth Coordinated Care (CCC) Plus Medicaid Waiver. The Virginia EDCD waiver provides community-based care services to nursing home eligible seniors who choose to live in their own homes or with family members. Under the waiver, participants can choose who they want to provide their personal care. Even some family members can be hired and compensated for their work. The program provides a variety of assistance options including personal care, fall monitoring or personal emergency response services, and adult day care (see https://www.payingforseniorcare.com/virginia/medicaid-waivers/elderly-or-disabled-with-consumer-direction#Waiver-Description).

and individuals in nursing facilities in the demonstration areas. The majority of dually eligible individuals over age 21 were included in the demonstration.

The following groups of individuals were not eligible to enroll in the demonstration:

- Medicare-Medicaid enrollees younger than 21 years old
- Individuals who are required to "spend down" income to meet Medicaid eligibility requirements
- Non-full-benefit Medicaid beneficiaries
- Individuals who are inpatients in Commonwealth mental hospitals
- Individuals who are residents of Commonwealth hospitals, intermediate care facilities for persons with intellectual disabilities, residential treatment facilities, and long-stay hospitals
- Individuals who are participating in Federal waiver programs for home and community-based Medicaid coverage other than the EDCD waiver
- Individuals enrolled in a hospice program
- Individuals receiving the end-stage renal disease Medicare benefit at the time of enrollment into the demonstration
- Individuals with other comprehensive group or individual health insurance coverage, other than full-benefit Medicare; insurance provided to military dependents; and any other insurance purchased through the Health Insurance Premium Payment program
- Individuals who have a Medicaid eligibility period that is shorter than 3 months
- Individuals who have a Medicaid eligibility period that is only retroactive
- Individuals enrolled in the Virginia Birth-Related Neurological Injury Compensation Program established pursuant to Chapter 50 (§38.2-5000 et seq.) of Title 38.2 of the Code of Virginia
- Individuals enrolled in a Program of All-Inclusive Care for the Elderly (PACE) plan
- Individuals participating in the Money Follows the Person and Independence at Home demonstrations

4.2.2 Phases of Enrollment

Virginia initially implemented CCC in two phases by region. Each phase included opt-in enrollment, whereby an eligible individual could select an MMP, and passive enrollment, in

which DMAS assigned eligible individuals to an MMP with the option to choose another plan or opt out of the demonstration. The enrollment process was initially scheduled to begin in January 2014. However, there were delays to allow more time for DMAS's and the MMPs' information technology (IT) departments to test systems, more time to prepare marketing and outreach materials, and more time to allow providers and health systems to negotiate participation in the demonstration.

Active enrollment began in April 2014 in the Tidewater and Central Virginia regions, which included the city of Richmond, and in June 2014 in the Roanoke, Western/Charlottesville, and Northern Virginia regions. In 2016, the demonstration extended to four additional localities. These localities had already been approved as part of the demonstration service area but had not been able to meet network adequacy requirements before that time. Initially, with only one MMP approved in each locality, only opt-in enrollment was implemented. As soon as at least two MMPs achieved network adequacy in the localities, passive enrollment was permitted. ***Table 1*** shows the opt-in and passive enrollment schedule.

Table 1
Commonwealth Coordinated Care enrollment schedule

	Coverage of services/ supports began for opt-in enrollees	Coverage of services/supports began for passively enrolled
Tidewater	April 1, 2014	July 1, 2015
Central Virginia/City of Richmond	April 1, 2014	September 1, 2015
Roanoke and Western/Charlottesville	June 1, 2014	October 1, 2015
Northern Virginia	June 1, 2014	November 1, 2015, and July 1, 2016

SOURCE: Communication with DMAS, March 2015; and with CMS, February 2021.

As outlined in the three-way contract (Virginia three-way contract, 2016), DMAS applied an intelligent methodology to assign eligible beneficiaries to an MMP. The algorithm considered enrollees' previous Medicare managed care enrollment and historic utilization of certain provider types. For example, enrollees were assigned to an MMP based on their nursing facilities' and adult day health care providers' MMP network participation.

DMAS described changes in enrollment leading up to the transition to CCC Plus that began in 2017. To comply with the CMS rule that the Commonwealth must cease all passive assignments at least 6 months prior to the end of the demonstration, DMAS ended monthly passive assignments for CCC effective May 1, 2017. During this time, DMAS allowed MMP transfers and confirmed monthly eligibility of active CCC enrollees. As of July 1, 2017, DMAS successfully ended all new enrollments to CCC. Active CCC members were still able to switch plans and opt out at any time. From July through December 2017, when the Commonwealth began assigning enrollees to plans in CCC Plus by geographic region, if a dually eligible enrollee was actively enrolled in CCC, they were excluded from being assigned to health plans in CCC Plus.

At the end of the CCC demonstration, for Medicaid coverage, members who were enrolled in a CCC health plan that had also contracted with the Commonwealth as a CCC Plus health plan (i.e., Anthem HealthKeepers or Virginia Premier) transitioned from the CCC plan to the CCC Plus plan without a break in service. In September 2017, DMAS sent an initial notice informing members about the transition from CCC to CCC Plus. In late November 2017, DMAS sent members a letter with their initial assignment into a CCC Plus plan. DMAS also provided information about other available health plans and resources for members to learn more about CCC Plus. In late December 2017, DMAS sent a final notice confirming CCC Plus health plan enrollment. Enrollment in CCC Plus health plans became effective on January 1, 2018.

For Medicaid coverage, CCC members who were enrolled in Humana, the CCC health plan that did not contract with the Commonwealth as a CCC Plus health plan, were assigned to a CCC Plus health plan using an intelligent assignment algorithm. This algorithm was designed to minimize the disruption of services as much as possible by assigning members to MCOs contracted with the members 'priority' provider(s). These members were notified of the transition and their ability to select a different CCC Plus health plan 30 days prior to this transition (December 1, 2017). They had an additional 90 days (until March 31, 2018) from the start of their CCC Plus coverage to select a different CCC Plus health plan. These members had their first open enrollment period October 1, 2018.

For Medicare coverage, CCC enrollees had the option to enroll in a managed care plan under MA or to elect Medicare fee-for-service and a standalone Part D Prescription Drug Plan. As part of CCC Plus, participating plans were required within 2 years to operate an MA Dual-Eligible Special Needs Plan (D-SNP), thereby offering an opportunity for dual eligible members to receive care coordination with a corresponding CCC Plus plan. Enrollees were encouraged to enroll in their CCC Plus health plan's companion D-SNP to maximize coordination (DMAS, n.d.).

4.2.3 Passive Enrollment Experience

Early in the demonstration, MMPs reported a steep learning curve related to passive enrollment because it was a new concept and way of doing business. DMAS and MMPs also indicated that some beneficiaries began to distrust them because of passive enrollment into the demonstration. They said that beneficiaries were confused by passive enrollment into a demonstration of which they were not aware or did not fully understand. Many beneficiaries believed that they would lose benefits to which they were accustomed or lose the services of providers with whom they had longstanding relationships. Focus group participants confirmed these statements from DMAS and the MMPs.

DMAS and the MMPs invested substantial time trying to rebuild relationships with beneficiaries and their providers as CCC began (***see Section 7, Stakeholder Engagement***). This included educating beneficiaries and providers about the benefits offered under the demonstration, and of the 180-day continuity of care provision that allowed enrollees to access their predemonstration services and providers during a transition period of 180 days even if their providers had not contracted with the MMP. DMAS noted that its "first goal was to do no harm" to passively enrolled beneficiaries, and it had done a "tremendous amount of work" to ensure

that passively enrolled beneficiaries could "see the same providers, [get] the same level of services, [have] their providers paid" during this period.

4.2.4 Integration of Medicare and Medicaid Enrollment Systems

DMAS used MAXIMUS as the demonstration's enrollment broker. MAXIMUS sent beneficiaries correspondence regarding eligibility and enrollment and provided customer service and enrollment assistance by telephone.

Each month during the demonstration, DMAS gave MAXIMUS an eligibility file. MAXIMUS used the contact information in the file to generate initial letters to beneficiaries indicating that they were eligible for the demonstration. The initial letter contained information about the demonstration and a comparison chart of the three MMPs. The letter also included contact information for MAXIMUS and instructions for the beneficiary to contact MAXIMUS regarding enrollment options. If the beneficiary chose to enroll, MAXIMUS assisted with the enrollment process. If the beneficiary had questions regarding plan choice, he or she was referred to the MMPs or the Virginia Insurance Counseling and Assistance Program (VICAP, the Virginia State Health Insurance Program [SHIP]). If the beneficiary chose to opt out, he or she remained in FFS Medicare and Medicaid, unless he or she enrolled in PACE.

If beneficiaries chose to opt out of CCC, they could do so in many ways. However, the different ways to opt out caused data issues early in the demonstration. There was no interface for the Federal systems to inform the Commonwealth that beneficiaries had opted out. Consequently, the Commonwealth's systems mistakenly regarded beneficiaries who opted out of CCC through these Federal systems as eligible for passive enrollment and enrolled them. In 2014 and 2016, DMAS reported that it had worked with MAXIMUS to resolve discrepancies in a timely manner so that this issue no longer disrupted enrollment processes. Around this time, DMAS also began to receive transactions directly from one of the Federal systems, and was then able to update its system with the information.

If the beneficiary did not contact MAXIMUS to enroll or opt out, MAXIMUS followed up with a second, and, if necessary, a third letter. MAXIMUS mailed the third letter approximately 30 days before passive enrollment took effect, indicating that the beneficiary would be automatically enrolled if he or she did not contact MAXIMUS.

DMAS noted that beneficiary choice was emphasized throughout each letter: a beneficiary could have chosen to either enroll in the demonstration or opt out of the demonstration. If the beneficiary chose to enroll in the demonstration, he or she might have had a choice of up to three MMPs, depending on county of residence.

MMPs received eligibility data from DMAS monthly and used the data for enrollment information. MMPs assigned beneficiaries into one of four demonstration groups for risk stratification (described in ***Section 5.1.1, Assessment)***, and a care manager was assigned. At the same time, the MMPs mailed beneficiaries welcome packets containing MMP-specific information and a member handbook. The beneficiary also received a welcome call from the plan within 30 days of enrollment; one MMP suggested that this welcome call could sometimes lead a beneficiary to remain in the demonstration. The purpose of the call was to describe the

demonstration and answer any questions about the enrollment process or managed care. HRAs might also have been done at this time if the enrollee had been deemed "community well."

As the demonstration matured, DMAS reported some improvement in challenges related to the integration of Medicare and Medicaid enrollment systems.[9] Fewer work-arounds were needed as systems became more automated, and requirements and processes stabilized. However, throughout the demonstration, MMPs and DMAS continued to highlight challenges in this area. In particular, the challenges related to (in DMAS' words) the lack of "one source of truth" with the Medicare and Medicaid systems—each system ultimately remained separate, and neither was the gold standard to which DMAS or MMPs could turn to for definitive data.

4.2.5 Reaching Enrollees

At the start of the demonstration, DMAS, MMPs, and advocates emphasized the difficulty of reaching beneficiaries as a significant challenge. The only contact information DMAS had at that time was from the Department of Social Services (DSS). The data were frequently outdated or inaccurate. Per an agreement between DMAS and local DSS agencies, DMAS would forward all returned mail regarding CCC to local DSS agencies for help reaching individuals. The volume of mail sent to local DSS offices was overwhelming, and the DSS staff asked DMAS to stop forwarding. Local DSS staff not only had to locate beneficiaries, but DSS staff ultimately assisted beneficiaries with answering questions and completing applications. This created a significant burden on the staff. MMPs also expressed frustration that there was no process in place to access Medicare data; they believed the data would provide more accurate contact information for the CCC enrollees.

In the second year of the demonstration, DMAS and the MMPs said they were still unable to reach a large number of beneficiaries due to insufficient data (e.g., more detailed information on enrollees that could help the MMPs contact enrollees, including addresses and phone numbers, as well as a more complete enrollee medical history). CMS noted that the State had a DUA for historical and ongoing Medicare Parts A and B data beginning in 2012, and CMS put a process in place for MMPs to access Medicare Parts A and B data for their enrollees starting in 2014. However, despite Medicare data availability, as well as access to Medicaid data, State challenges to analyzing Medicare data and integrating into State systems remained. One strategy that DMAS used to address these challenges was manually correcting systems on an as-needed, emergency basis, while simultaneously attempting to make appropriate system-level changes. However, these manual corrections were time consuming. This situation improved in the final year of the demonstration when DMAS was able to obtain and use more Medicare data.

Table 2 shows that the percentage of enrollees that Virginia MMPs were unable to reach within 90 days of enrollment generally varied over the course of demonstration, with the highest percentage of enrollees who were unable to be reached at 37.3 percent in quarter 4 of 2014. In the last 2 years of the demonstration, MMPs were unable to reach approximately one-third of their enrollees.

[9] In 2016, Virginia, with three other FAI demonstration States, received technical assistance from CMS' Medicare-Medicaid Data Integration (MMDI) Team (CMS, n.d.-a).

Table 2
Percentage of members that Virginia plans were unable to reach following three attempts, within 90 days of enrollment, 2014–2017

Quarter	Calendar year 2014	Calendar year 2015	Calendar year 2016	Calendar year 2017
Q1	N/A	24.8	31.9	30.7
Q2	11.4	17.9	31.2	32.4
Q3	30.9	22.8	34.6	28.2
Q4	37.3	23.2	35.0	33.0

N/A = not applicable; Q = quarter.

NOTES: Because the Virginia demonstration began in March 2014, data are not applicable for quarter 1, 2014. 2014 data for Anthem HealthKeepers were not included as the MMP failed the performance measure validation for this measure.

SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of July 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

4.2.6 Factors Influencing Enrollment Decisions

DMAS, MMPs, and advocates indicated that the primary reason beneficiaries chose to opt out of the demonstration was that they were satisfied with the care and services that they received at the time. They also reported that provider influence played a role in beneficiaries' choosing to opt out of the demonstration. Some beneficiaries opted out because their providers (including influential services facilitators) were not contracted with the MMPs, did not plan to contract with MMPs, or encouraged them not to enroll.[10]

In addition to provider influence, DMAS and MMPs expressed concern about the volume of information that beneficiaries received about the demonstration, including information from MAXIMUS (e.g., eligibility information, confirmation letters with any changes in enrollment status or MMP choice) and information from the MMPs (e.g., member handbooks, enrollment information). They believed that this was a lot of information for this population to understand, and could have been one reason that beneficiaries opted out of the demonstration. One MMP created a simple pamphlet to accompany the mailings in order to streamline information; however, some staff at DMAS and the MMPs reported that they would have preferred to have been able to make information to the beneficiaries more consumer friendly and pertinent to the Virginia population, but they were not allowed to edit certain Medicare-required materials. MMPs also expressed concern about mailings regarding Medicare and Part D open enrollment (i.e., additional mail related to health coverage) which could also overwhelm and confuse beneficiaries.

[10] One nursing facility attempted to opt out all of its residents without their input or evidence of their input. Because this is against Federal regulations and is a violation of beneficiary choice, the facility could not do so, but this is an example of provider opposition to CCC and/or managed care.

DMAS and MMPs struggled with the challenge of beneficiaries' enrolling and then opting out of the demonstration multiple times, sometimes within the same day, which was exacerbated by challenges with communication across the Federal and Commonwealth systems. According to DMAS, this caused problems within the IT systems because they were programmed to automatically generate enrollment letters and opt-out letters. The letters that were generated may have crossed in the mail or may not have arrived at their destination. This had downstream effects because beneficiaries may not have been assigned to an MMP or provider, or they may not have received services in a timely manner, thus affecting their continuity of care.

Some stakeholders considered the opt-out provision to be a "fatal flaw" of CCC. MMPs indicated that beneficiaries opted out before the MMPs even had a chance to contact them and explain the demonstration and care coordination. Being able to opt in and out of the CCC at any time (e.g., even on the same day of enrolling) also created confusion among the beneficiaries themselves and their providers due to differences in MMPs and benefits. Uncertainty around member enrollment created administrative, care delivery, and budget development and management challenges for the MMPs. Stakeholders suggested that it should have been more difficult for beneficiaries to disenroll or opt out from the CCC in order to give MMPs (and CCC) an opportunity to make a difference. One suggestion was to have an organization, such as the VICAP, determine whether an enrollee could leave the demonstration. At the final site visit, DMAS highlighted the CCC opt-out provision as a key lesson learned, and a provision that is not being carried forward to CCC Plus.[11] See ***Section 4.3, Summary Data***, for data and additional discussion on opt-outs.

4.3 Summary Data

As of the end of the demonstration on December 31, 2017, almost 21,500 beneficiaries were enrolled in CCC, representing about 37 percent of the eligible population (see ***Table 3***). Enrollment and the percentage of eligible beneficiaries enrolled remained relatively consistent for the first 3 years of the demonstration. Enrollment likely decreased in the final demonstration year for two reasons: monthly passive enrollment ended May 1, 2017 and new (opt-in/voluntary) enrollments ended July 1, 2017. DMAS noted that it did not have an enrollment target.

[11] The ability to opt out monthly was a CMS mandated protection for all dual eligible beneficiaries in the FAI because they have this right under Medicare Advantage. Because CCC Plus is a Medicaid managed care program and is not subject to Medicare Advantage regulations, it is not required to allow beneficiaries to opt out on a monthly basis on the Medicaid side.

Table 3
Demonstration enrollment

	As of December 2014[1]	As of December 2015	As of December 2016	As of December 2017
Eligibility				
Beneficiaries eligible to participate in the demonstration as of the end of the month	66,702	68,488	71,562	57,937
Enrollment				
Beneficiaries enrolled in the demonstration at the end of the month	26,649	26,458	28,700	21,408
Percentage enrolled				
Percentage of eligible beneficiaries enrolled in the demonstration at the end of the month	39.95%	38.63%	40.11%	36.95%

[1] Virginia Commonwealth Coordinated Care began operating in April 2014. Enrollment indicators are for the operating period of April to December 2014.

SOURCE: RTI International: State Data Reporting System (SDRS) 2014–2017.

As discussed in ***Section 4.2.6, Factors Influencing Enrollment Decisions***, the opt-out provision presented many challenges for DMAS, the MMPs, providers, and other stakeholders. As shown in ***Table 4***, opt-outs were very high at the start of the demonstration, although they decreased and remained low throughout the remainder of the demonstration.

Table 4
Demonstration opt-out and voluntarily disenrollment

	Total number of beneficiaries			
Enrollment indicator	**April–December 2014[1]**	**January–December 2015**	**January–December 2016**	**January–December 2017**
Opt-outs Beneficiaries who were never enrolled and opted out or made an affirmative choice not to enroll in the demonstration in the given month	19,012[2]	4,177	2,589	1,258
Voluntary disenrollments Beneficiaries who made a choice to disenroll from the demonstration	6,420	10,344	6,844	2,977

[1] Virginia Commonwealth Coordinated Care began operating in April 2014. Enrollment indicators are for the operating period of April through December 2014.

[2] Opt-outs for July through September 2014 (demonstration quarter 2) were not reported. Thus, actual opt-outs for April through December 2014 are under-reported, and, given the high numbers of opt-outs in other months of that year, likely substantially under-reported.

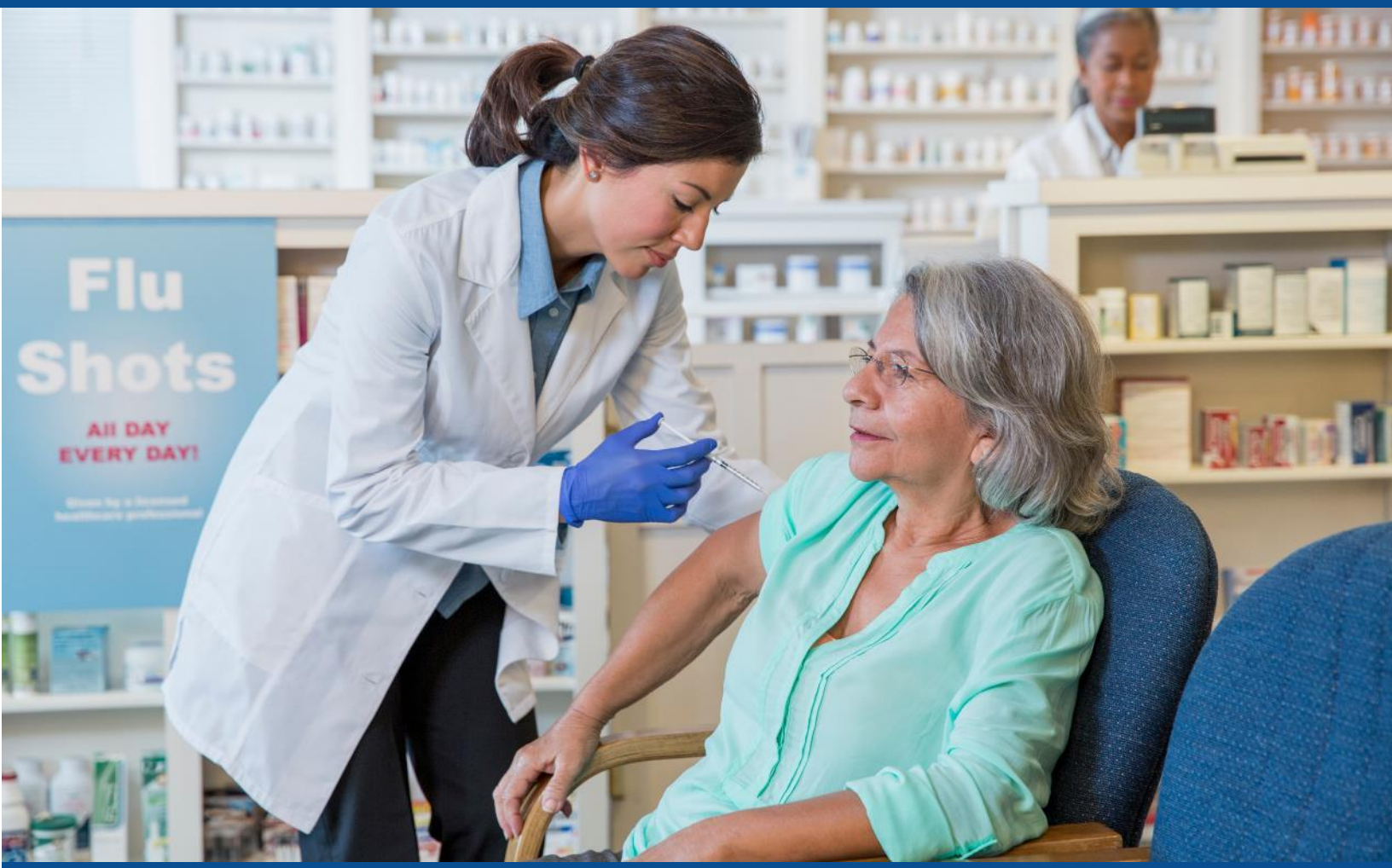
SOURCE: RTI International: State Data Reporting System (SDRS) 2014–2017.

At the demonstration's end (late 2017), despite the challenges with opt-outs, DMAS identified the number of enrollees who remained in the demonstration as an indication of success:

> *As of last year … almost … half of active members, maybe 25,000, [had] been in the demonstration for 18 months. When they were in, they stayed in. If they left, they left in the beginning [shortly after enrolling]… I have to say that in a program that you can move out of at any month, [at] any time and [for any] reason, members choosing to stay tells me that we were doing something right. Members were getting something they didn't have in a traditional service or delivery system.*

SECTION 5

Care Management



Highlights

- The State deemed bringing care management to dually eligible populations as one of the main demonstration successes. Stakeholders, MMP leadership and care managers also saw care management as successful, although there were challenges implementing the care management requirements such as reaching and engaging members and providers in required assessments, plans of care, and interdisciplinary care teams.
- DMAS, MMP leadership and care managers, and advocates offered evidence of successful care management through scores of individual beneficiary stories that described how enrollees' access to or quality of care or quality of life had been improved through the demonstration's care management services. These anecdotes included descriptions of care managers offering referrals to health and supportive services, and patient-centered, tailored, and direct accommodation of other supplemental needs.
- Stakeholders described two types of situations where CCC care managers' roles were sometimes unclear or potentially duplicative with those of other care managers. Enrollees with behavioral health needs may have had up to three care or case managers across an MMP, a CSB, and a BHH. The lines between the roles of care managers and services facilitators (individuals employed by beneficiaries receiving consumer-directed services, or employed by their families or caregivers) also seemed, by service facilitators, to be blurred and overlapping.

5.1 Care Management Model

Care management was one of the centerpieces of CCC. Early in the demonstration, many stakeholders, including DMAS and MMPs, expressed optimism about the ability of care management to improve health care for Medicare-Medicaid enrollees in Virginia while also decreasing health care costs. Some hoped that care coordination would also lead to improved provider satisfaction, an increase in the amount of time physicians could spend with patients, and a decrease in administrative burden related to Medicare and Medicaid.

At the end of the demonstration, DMAS highlighted bringing care management to the dual eligible population as one of the main successes of CCC[12]. Care management was a new service for many Medicare-Medicaid enrollees in the demonstration. As DMAS described, "[Virginia] had pseudo, semi care coordination for years in very different forms within our HCBS service array." DMAS, MMPs, and advocates noted that for the beneficiary, the aim of the Commonwealth and MMPs was to create a single point of contact for all care and services. This would have been achieved through "one card" and one relationship with an MMP and a care manager. However, despite acknowledging that care management was a vital and impactful part of the demonstration, it was not without its challenges. DMAS reported that the care

[12] According to CMS, care management continues to be provided to the dually eligible population in CCC+ and has expanded to include additional populations as well.

management model was not implemented by MMPs as envisioned by DMAS. DMAS had envisioned more of a hands-on, interactive, engaging, ongoing relationship between care managers and enrollees; the MMPs' approach (per DMAS) may have been more of a "check the box" approach, at least for the community well population. The MMPs seemed to share this perspective at least partially. They reported that care coordination successes were possibly attributed mostly to a "fresh pair of eyes" determining the needs of these vulnerable enrollees and connecting them to needed services, but expressed disappointment with the demonstration's substantial reporting and administrative requirements that they believed took away time and resources from care management and enrollee engagement.

In the remainder of this section, we provide an overview of the demonstration requirements related to the care management function, including assessment processes; use of ICTs and the development of POCs; delivery of care coordination services; and the role of care coordinators. We include the MMP experiences with care management, and discuss coordination of LTSS and behavioral health services, and data exchange.

5.1.1 Assessment

According to DMAS, the MMPs, and the enrollment broker, when the MMPs received data on their enrollments from DMAS, the information was entered into the MMPs' computer systems and various care management systems (depending on the MMP). Using plan-specific algorithms or information from the data, enrollees were determined to be in one of three groups: community well, EDCD Waiver enrollees, or nursing facility residents. "Vulnerable Subpopulation" was an additional stratification within the community well. Care managers were then assigned based on the group to which the beneficiary was assigned.

If telephone contact information was available, a care manager contacted the member for an introductory call. During the call, the care manager may have tried to complete an HRA for beneficiaries defined as community well. The care managers completed HRAs later, in person, for the Vulnerable Subpopulation within the community, EDCD waiver enrollees, and nursing facility residents. If appropriate for the enrollee, MMPs may have also incorporated a behavioral health screener into the HRA or used a longer assessment for the LTSS population.

HRAs were conducted within 60 days of enrollment for vulnerable subpopulations residing in the community, EDCD waiver enrollees, and nursing facility residents, and within 90 days for the community well. According to the three-way contract, "HRAs…encompass[ed] social, functional, medical, behavioral, cognitive, LTSS, wellness and prevention domains, as well as the Enrollees' strengths and goals, need for any specialists and the plan for Care Management and coordination" (Virginia three-way contract, 2016, p. 44).

As discussed in ***Section 4.2.5, Reaching Enrollees,*** because of inadequate or inaccurate contact information, the MMPs had difficulty reaching beneficiaries who were passively enrolled. MMPs indicated that, in addition to incomplete administrative data (e.g., incomplete Medicare data early in the demonstration), many of the contact data they had were incomplete or outdated and were sometimes inaccurate in terms of residence, sex, and date of birth. MMPs had to devote an unexpected amount of time and resources to locating enrollees. This issue was reported as a particular challenge because of the time requirements for completing HRAs and

POCs. This challenge was sometimes significant; in 2016, for example, one MMP estimated that one-half of all new enrollees each month had poor contact information. That same year, another MMP said that it had reliable contact information for only 20 percent of its enrollees in the four newly-added counties (see ***Section 4.2.2, Phases of Enrollment***).

Table 5 shows that in each quarter of the demonstration, the percentage of all enrollees whose assessment was completed within 90 days of enrollment varied; this percentage was close to 50 percent or greater of all enrollees in each quarter. Among enrollees who were willing to participate and could be reached, this percentage was at least 70 percent for all quarters, with the highest percentage being 100 percent in quarter 2 of 2014.

Table 5
Members whose assessments were completed within 90 days of enrollment, 2014–2017

Quarter	Total number of members whose 90th day of enrollment occurred within the reporting period	Percentage of assessments completed within 90 days of enrollment	
		All members	All members willing to participate and who could be reached
2014			
Q1	N/A	N/A	N/A
Q2	502	87.5	100.0
Q3	4,742	64.0	95.5
Q4	10,093	56.8	94.2
2015			
Q1	4,733	59.5	81.3
Q2	2,267	71.4	88.9
Q3	4,393	53.7	72.2
Q4	2,509	61.3	82.5
2016			
Q1	2,714	55.2	90.2
Q2	2,683	59.4	95.1
Q3	2,802	56.2	92.4
Q4	3,880	57.4	95.1
2017			
Q1	2,901	52.6	79.7
Q2	2,592	60.8	94.0
Q3	765	66.0	93.7
Q4	97	48.5	73.4

N/A = not applicable; Q = quarter.

NOTES: Because the Virginia demonstration began in March 2014, data are not applicable for quarter 1, 2014.

2014 data for HealthKeepers were not included as the MMP failed the performance measure validation for this measure.

SOURCE: RTI analysis of MMP-reported data for Core Measure 2.1 as of July 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

5.1.2 Care Planning Process

Plans of care. The HRA informed the POC, which was tailored to the "Enrollee's needs and preferences" (Virginia three-way contract, 2016, p. 47) and ranged from a schedule of preventive screenings for a community well member to various therapies and specialists for a more intensive-need member. Timeframes for POC completion were as follows:

- For 2014 and 2015, all member types were required to have a POC within 90 days of enrollment.
- As of 2016, community well members had to get a POC within 90 days, EDCD members within 30 days, NF members within 60 days, and all other vulnerable subpopulations within 60 days.

Care managers were also required to adhere to demonstration requirements outlined in the three-way contract and MOU for reassessments and POC reviews or revisions. Initially, the enrollee or their representative was required to review and sign the initial POC and all subsequent revisions. During site visits, care managers said that they often had to follow up multiple times to get enrollees to sign POCs. Care managers often used creative strategies to attain enrollee signatures, such as accompanying or meeting enrollees at their providers' offices before or after appointments. One MMP equipped its care managers with portable printers so that they could get signatures immediately from enrollees when the POC was completed at the member's home. In 2017, the three-way contract was amended to streamline signature requirements for completing an enrollee's initial POC (CMS, 2017).

Table 6 shows that, for all enrollees, the percentage of enrollees with a POC completed within the required timeframe varied throughout the demonstration, ranging from a low of 13 percent in quarter 3 of 2015 to a high of 55 percent in quarter 2 of 2014. For enrollees not documented as unwilling to complete a POC or unreachable, this percentage also varied across the quarters, ranging from 22 percent in quarter 3 of 2015 to 74 percent in quarter 3 of 2017. Challenges reaching enrollees, as discussed in previous sections, likely contributed to any lower results.

Table 6
Members with plan of care completed within the required timeframe, 2014–2017

Quarter	Total number of members whose POC was due within the required timeframe	Percentage of POC completed within the required timeframe	
		All members	All members not documented as unwilling to complete a POC or unreachable
2014			
Q1	N/A	N/A	N/A
Q2	1,117	54.7	64.9
Q3	8,712	38.3	60.4
Q4	16,996	38.2	63.6

(continued)

Table 6 (continued)
Members with plan of care completed within the required timeframe, 2014–2017

Quarter	Total number of members whose POC was due within the required timeframe	Percentage of POC completed within the required timeframe	
		All members	All members not documented as unwilling to complete a POC or unreachable
2015			
Q1	5,012	17.5	25.4
Q2	2,378	18.4	25.2
Q3	4,500	12.8	21.7
Q4	2,610	14.4	23.3
2016			
Q1	3,257	14.2	26.8
Q2	2,700	18.1	31.3
Q3	3,190	20.8	36.0
Q4	4,363	27.6	51.4
2017			
Q1	3,466	21.0	40.3
Q2	2,464	24.6	48.6
Q3	500	36.0	74.1
Q4	103	13.6	21.9

MMP = Medicare-Medicaid Plan; N/A = not applicable; POC = plan of care; Q = quarter.

NOTES: Because the Virginia demonstration began in March 2014, data are not applicable for quarter 1, 2014. Required timeframes for POC completion changed during the demonstration and RTI calculated rates for this measure accordingly. For 2014 and 2015, all member types were required to have a POC within 90 days of enrollment. As of 2016, the VA2.1 measure specifications were revised to comport with demonstration policy. Community well members had to get a POC within 90 days, EDCD members within 30 days, NF members within 60 days, and all other vulnerable subpopulations within 60 days.

SOURCE: RTI analysis of MMP-reported data for State-Specific Measure VA 2.1 as of July 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Virginia-Specific Reporting Requirements document.

The Interdisciplinary Care Team (ICT). To ensure integrated, coordinated, and person-centered care, MMPs were required to put into place an ICT for each enrollee, led by the care manager. The three-way contract required participation of specific providers such as PCPs and behavioral health clinicians, and enrollees helped identify additional providers such as nurses and specialists. informal caregivers. The ICT focused on enrollees' treatment goals and progress indicators.

DMAS, the MMPs and care managers noted initial difficulty in gaining provider participation in ICTs, ostensibly due to lack of time and full schedules. However, at the end of the demonstration, one MMP claimed that there had been "marked improvement in physicians'/providers' attempts to communicate with and be involved in the team."

With the enrollee or the enrollee's designated representative, the ICT was required to participate in development of a POC (discussed above) that included treatment goals (medical, functional, and social) and measured progress and success in meeting those goals. ***Table 7*** shows that, among enrollees with a POC, the percentage with at least one documented discussion of care goals remained at or above 80 percent over the course of the demonstration. This percentage peaked in quarter 4, 2017, at 100 percent.

Table 7
Members with documented discussion of care goals, 2014–2017

Quarter	Total number of members with an initial POC completed	Percentage of members with at least one documented discussion of care goals in the initial POC
2014		
Q1	N/A	N/A
Q2	1,071	79.6
Q3	4,869	89.9
Q4	6,591	92.5
2015		
Q1	1,516	93.9
Q2	1,106	95.8
Q3	997	96.1
Q4	894	93.4
2016		
Q1	865	91.9
Q2	822	93.1
Q3	998	90.0
Q4	2,587	83.0
2017		
Q1	1,421	93.0
Q2	860	98.4
Q3	306	98.0
Q4	95	100.0

N/A = not applicable; POC= plan of care; Q = quarter.

NOTE: Because the Virginia demonstration began in March 2014, data are not applicable for quarter 1, 2014.

SOURCE: RTI analysis of MMP-reported data for State-Specific Measure VA 2.2 as of July 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Virginia-specific Reporting Requirements.

Care management at the plan level. At the first site visit, MMPs reported that, as CCC implementation began, they attempted to use care managers already on staff for the demonstration, particularly those with Medicare and/or Medicaid experience. However, as CCC enrollment increased, the MMPs began to hire new care managers and sometimes contract with outside vendors for some care management activities.

The three-way contract required care managers to, at a minimum, have a bachelor's degree or be a registered nurse (RN) licensed in Virginia with at least 1 year of experience working as an RN (Virginia three-way contract, 2016). DMAS, the MMPs, and others conducted significant training for care managers throughout the demonstration. At an early site visit, DMAS and MMPs noted that care manager training was conducted either in person or online, and ranged from 40 to 160 hours a year. Training topics varied throughout the demonstration, from those that focused on basic processes and requirements such as completing HRAs and POCs, to those that focused on more in-depth or specialized topics. For example, MMPs worked with the Virginia Centers for Independent Living (CILs)—organizations specializing in supporting competency and advocacy for individuals with disabilities to live independently in the community—to develop curriculum for care management staff on competencies necessary to advocate for and work with individuals in the community that may be living with disabilities. DMAS offered special training sessions on LTSS-related topics (e.g., waiver services provider relations, person-centered care planning, and contract requirements) and care transition strategies. DMAS also held twice monthly Q&A conference calls for care managers where it shared educational resources and addressed questions. In addition, care managers from all three MMPs participated in team-building exercises with CSB case managers; these trainings were conducted by the CSB Association.

Care managers described successful and challenging aspects of their experiences during the demonstration. In several site visit interviews with small groups of care managers, the care managers seemed passionate about their role in helping enrollees with their health and social needs. Among the types of services care managers provided were inpatient and skilled nursing facility discharge planning, medication reconciliation, transportation to physician offices, and personal care services. Care managers also addressed social determinants of health; they linked enrollees to various social services, including housing, food delivery, and pest control. Care managers and MMPs described providing non-medical transportation services for enrollees (e.g., to church, to a baseball game with family members), if that would help integrate enrollees back into the community.

The care managers (as well as MMP management) considered integration of enrollees into the community to be a steppingstone to building trust with enrollees and helping them with their health care needs. According to the care managers, it took time to educate enrollees about the demonstration services and for enrollees to feel comfortable with the care managers. They indicated that once beneficiaries experienced care management, they usually enjoyed and appreciated it. However, not all enrollees chose to be assigned a care manager because they believed they were healthy enough to coordinate their own care. Care managers and MMP staff or leadership indicated that the number of enrollees who chose not to have a care manager was small, but they could not quantify it. These enrollees were reminded annually about their right to a care manager and were also contacted by care managers after any health event such as a hospitalization.

Behavioral health management provided additional opportunities and challenges. Although the MMPs assigned each enrollee a care manager, enrollees with behavioral health needs may have had up to three care or case managers across organizations. Enrollees with behavioral health needs who used services at CSBs had a case manager; if the CSB was part of the BHH network, the enrollee may have had yet another case manager. The intention of the MMPs and DMAS was that the enrollee would have one primary care or case manager, and this person was the one most familiar with the enrollee. The three care or case managers then coordinated the enrollees' care "in the background" to ensure seamless care and prevent confusion over care/case manager roles.

At the first site visit, LTSS provider association leaders identified a similar situation related to overlapping care management roles. Early in the demonstration, when various key players were learning about the demonstration and how to work together in new or different ways, some stakeholders noted that the lines between the roles of care managers and services facilitators[13] seemed to be blurred and overlapping. They indicated that services facilitators were anxious because they believed that the MMP care managers were eliminating their jobs. This concern was not raised again in later interviews.

Table 8 reports the number of care managers, turnover rate, and caseloads by year. Plans are required to report these data to CMS' Implementation Contractor (NORC). The total number of care managers decreased each year of the demonstration. DMAS and MMPs acknowledged regular turnover among care managers. During small group interviews with care managers throughout the demonstration, although the care managers generally expressed satisfaction with their roles and responsibilities, they expressed some frustrations as well. For example, "everything"—such as authorizations and referrals—required multiple follow-ups with providers, and as discussed above, it was often difficult to reach enrollees to engage them in their care.

The average caseload across all CCC MMPs increased each of the first three demonstration years and then declined in the final year. The number of care managers decreased each year of the demonstration and care manager turnover noticeably increased from 2014 to 2017. Care managers' perspectives varied on whether caseloads were reasonable or overwhelming, and care managers across and within the three MMPs reported widely varying caseloads. These self-reported caseloads ranged from being consistent with the averages in ***Table 8***, to much higher caseloads, at two to four times greater than the averages in ***Table 8***. However, the self-reported caseloads sometimes depended on the acuity of the enrollee's needs (for example, a care manager was expected to handle more lower acuity cases than higher acuity cases).

[13] A services facilitator is responsible for supporting the waiver individual and the individual's family/caregiver or employer of record (EOR) (person responsible for directing the care of the individual), as appropriate, by ensuring the development and monitoring of the consumer directed services POC, providing employee management training, and completing ongoing review activities as required for consumer directed personal care and respite services (Virginia three-way contract, 2016).

Table 8
Care coordination staffing, 2014–2017

Calendar year	Total number of care coordinators (FTE)	Percentage of care coordinators assigned to care management and conducting assessments	Member load per care coordinator assigned to care management and conducting assessments	Turnover rate (%)
2014	245	93.9	115.6	10.6
2015	233	85.2	135.6	29.5
2016	209	97.1	143.1	24.3
2017	176	100.0	127.7	43.0

FTE = full time equivalent.

NOTE: Data for 2014 do not include quarter 1 because the Virginia demonstration began in March 2014.

SOURCE: RTI analysis of MMP-reported data for Core Measure 5.1 as of July 2020. The technical specifications for this measure are in the Medicare-Medicaid Capitated Financial Alignment Model Core Reporting Requirements document.

5.2 Information Exchange

Although DMAS and CMS did not specifically detail system requirements or capabilities for facilitating information exchange to support care management, in its FAI demonstration proposal to CMS (DMAS, 2012), DMAS set forth relatively high expectations for MMP IT capacity. This capacity included a clinical information system (e.g., secure, web-based portal) to track referrals, service authorizations, services delivered, provider/enrollee communication, individual profiles (e.g., goals, service plan adherence, service delivery, lab results), and inbound and outbound contact, among other things. It also included capabilities to ensure health record privacy and access; and capabilities to support the use of telemedicine and electronic health records or a secure, web-based application.

During site visit interviews, the MMPs described information portals of varying capacities and uses. For example, one MMP described a sophisticated electronic portal that centralized all information in real-time in one place, and from which appropriate subsets of information could be accessed by care managers, enrollees, and providers. In 2016, provider adoption of the tool was less than MMP management expected, and the MMP continued to educate providers about it. At that time, member uptake was also slow but improving. Also in 2016, another MMP described similar experiences with uptake of its provider and member portals, again, despite its championing of and education on the portals. This MMP surmised that most of its providers would have preferred that all information they needed would have been included in the providers' own electronic medical record. The MMP considered this approach but found it to be cost-prohibitive.

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SECTION 6

Beneficiary Experience

Highlights

- In 2017, 62 percent of CAHPS respondents ranked their overall satisfaction with MMPs in Virginia as a 9 or 10 (with 10 being the best plan possible); this was slightly below the national averages for Medicare Advantage (MA) plans and MMPs nationally.
- Beneficiaries' familiarity with care managers improved over the course of the demonstration.
- Most beneficiaries reported being connected to the healthcare system, either through their primary care physician, specialist or home health aide.
- The quality of transportation services remained a common complaint throughout the demonstration.

6.1 Introduction

Improving the experience of beneficiaries who access Medicare- and Medicaid-covered services was one of the main goals of the demonstrations under the FAI. Many aspects of CCC were designed expressly with this goal in mind, including emphases on working closely with beneficiaries to develop person-centered care plans, delivering all Medicare and Medicaid services through a single plan, providing access to new and flexible services, and aligning Medicare and Medicaid processes.

In this section, we highlight findings from various sources that indicate the levels of beneficiary satisfaction with CCC overall; we also describe beneficiary experience with new or expanded CCC benefits, medical and specialty services, care management services, access to and quality of care, person-centered care, and quality of life. We draw on findings from the CAHPS survey, RTI focus groups, stakeholder interviews, and survey results from George Mason University (GMU, 2015). Please see ***Section 1.3***, ***Data Sources,*** for details about each data source. We also provide information on beneficiary protections, and data related to complaints, appeals, and critical incident and abuse reports. We include information, where available, on the experience of special populations.

6.2 Impact of the Demonstration on Beneficiaries

In this section, we summarize findings from focus groups and stakeholder interviews reflecting beneficiary experiences with service delivery and quality of life under CCC. Beneficiary experiences related to the early enrollment process, including experiences of beneficiaries who chose to opt in, opt out, or who were passively enrolled, are discussed in ***Section 4.2.6, Factors Influencing Enrollment Decisions***.

6.2.1 Overall Satisfaction with Commonwealth Coordinated Care

Focus group participants in 2015, 2016, and 2017 were mixed in their overall satisfaction with CCC. Some participants were less satisfied with their MMPs because of co-payments or difficulty accessing specialty services.

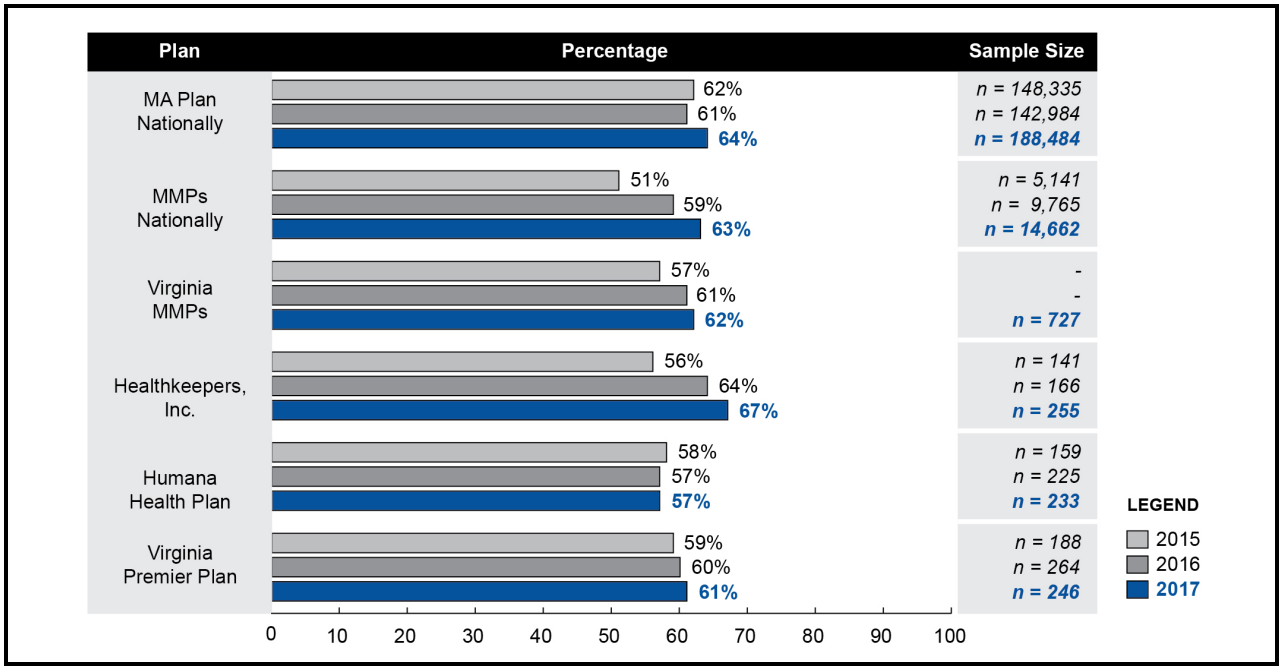
> *[The demonstration is] a good thing, a blessing because [I] don't have to worry about [my] medicine as much. I don't work. I'm on disability. … So right now, any little hand I can get in an honest way, I'm for it.*

> *I just have a problem with some of the things that you have to pay [for] yourself. And if you don't have the money, then you're messed up.*

Figures 1–3 present CAHPS results for 2015–2017, nationally for MA plans and MMPs, Commonwealth-wide for MMPs, and individually by CCC MMPs.[14] In 2017, 62 percent of beneficiaries ranked their overall satisfaction with MMPs in Virginia as a 9 or 10. This was similar to the national averages for MA plans and MMPs (***Figure 1***). Overall satisfaction varied across the individual MMPs in Virginia.

[14] We provide national CAHPS benchmarks from MA plans, where available, understanding that there are differences in the populations served by the CCC demonstration and the MA population, including health and socioeconomic characteristics that must be considered in the comparison of the demonstration to the national MA contracts.

Figure 1
Beneficiary overall satisfaction, 2015–2017:
Percentage of beneficiaries rating their health plan as a 9 or a 10

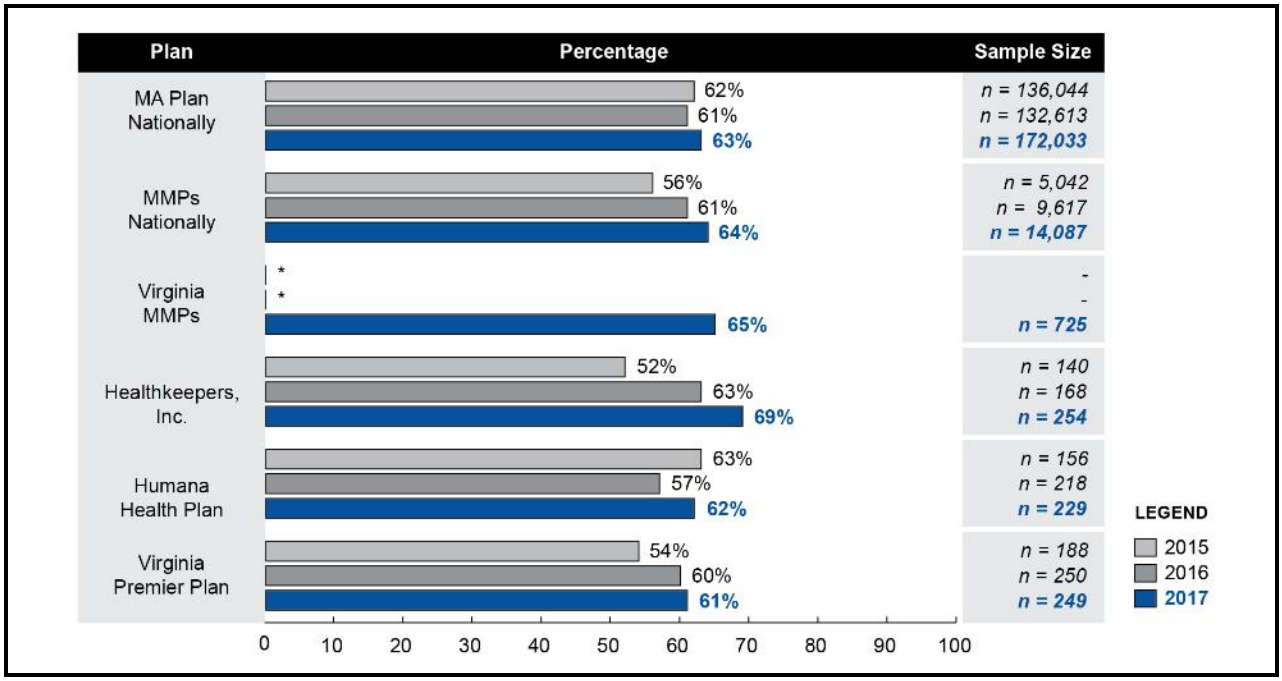


- = data not available; – = sample size data not available; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

SOURCE: CAHPS data for 2015–2017. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?"

In 2017, 65 percent of CCC enrollees ranked their overall satisfaction with their prescription drug plan either a 9 or a 10 (***Figure 2***). This was slightly higher than MMPs nationally (64 percent) and MA plans nationally (63 percent). Individually, MMPs in Virginia differed. Two MMPs showed increases from 2015 to 2017.However, the percentage of enrollees who expressed satisfaction in the third MMP's prescription drug plan showed variation over the years.

Figure 2
Beneficiary overall satisfaction, 2015–2017:
Percentage of beneficiaries rating their prescription drug plan as a 9 or a 10



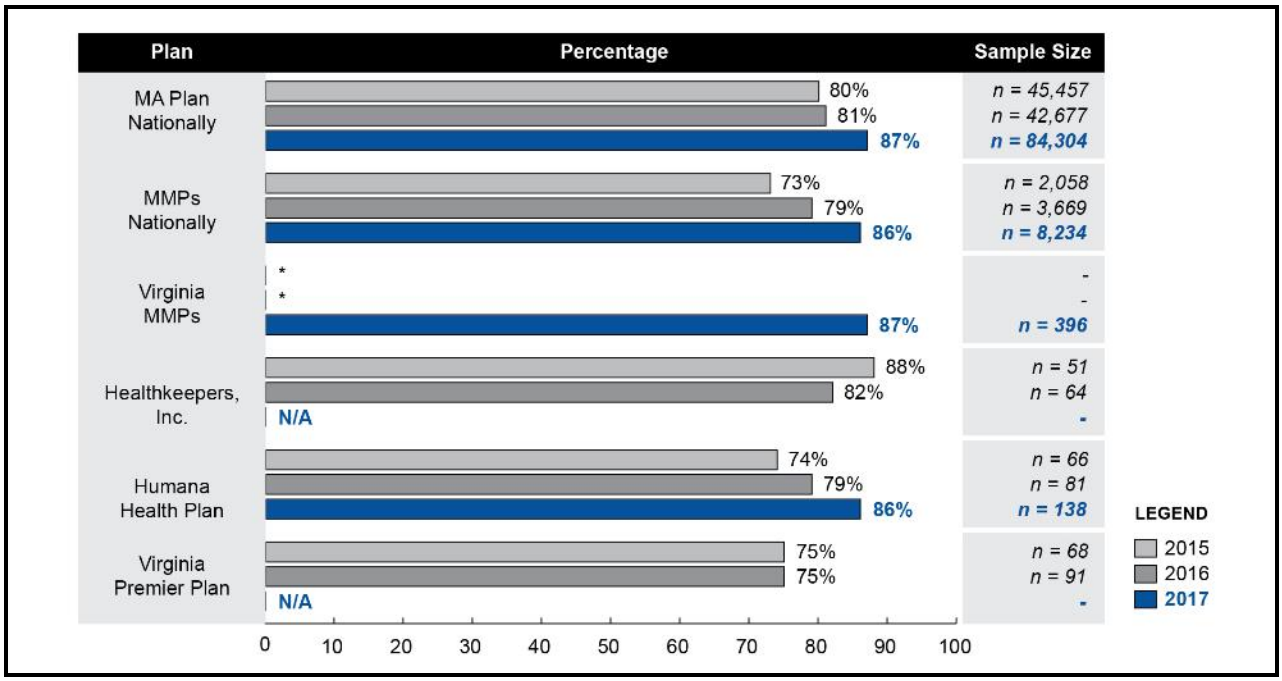
* = data not available; – = sample size data not available; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

SOURCE: CAHPS data for 2015–2017. This item was case mix adjusted. The CAHPS question used for this item was: "Using any number from 0 to 10, where 0 is the worst prescription drug plan possible and 10 is the best prescription drug plan possible, what number would you use to rate your prescription drug plan?"

In 2017, 87 percent of enrollees in Virginia's MMPs reported that their health plan either usually or always gave them information (***Figure 3***). This percentage was similar to MMPs nationally (86 percent) and MA plans nationally (87 percent). Of the three MMPs, only one was able to report this data, and the percentage was similar (86 percent) to MMPs and MA plans nationally. When focus group participants were asked about information received from MMPs, they described the handbooks and brochures as difficult to understand, dense, and repetitive.

It's like, you really expect me to read all this?

Figure 3
Beneficiary experience with care coordination, 2015–2017:
Percentage of beneficiaries reporting that their health plan usually or always gave them information they needed



* = data not available; – = sample size data not available; N/A = either there were too few beneficiaries who responded to the question to allow reporting, or the score had low reliability. MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

SOURCE: CAHPS data for 2015–2017. This item was case mix adjusted. The CAHPS question used for this item was: "In the last 6 months, how often did your health plan's customer service give you the information or help you needed?"

6.2.2 Beneficiary Experience with New or Expanded Benefits

The Commonwealth was pleased with the opportunity the demonstration afforded to offer enhanced benefits to Medicare-Medicaid enrollees. Among the enhanced benefits were dental, vision, over-the-counter benefits with a $25–$35/month allowance, and a fitness center membership program called "Silver Sneakers." Most participants were satisfied with the extra benefits, although some were disappointed in the restrictions of the benefits. According to the focus group participants, they were able to have their teeth cleaned annually with their dental benefit; however, tooth extractions, x-rays, and root canals were not covered. Although participants were able to have their vision checked, they said they still needed to pay for their eyewear.

> *[T]he new company, they don't cover eyeglasses. The eye doctor appointment, the exam, they cover. But getting glasses, it's like I have to go out and buy my own glasses, at like $300 or $400 just for one pair of glasses.*

The one benefit the majority of focus group participants had an opinion on was transportation. The majority of participants who used transportation were dissatisfied with the system.[15] They indicated that they needed to call well in advance to schedule rides, and the drivers were unreliable. As one participant said, "When you call for them, they might get there on time. Then again, they might not. They might not even show up." On the other hand, during the site visits, MMPs described successfully providing non-medical transportation services (e.g., to church, to a baseball game with family members) for enrollees as well to help them socially.

Individual MMPs provided services that went beyond what was medically necessary, or what was strictly health care. They linked enrollees to all types of social services, including housing, food delivery, and pest control. One MMP said:

> *People laugh at our pest control benefits, but for an individual who has chronic illnesses, imagine living in a pest infested environment. They don't have a healthy outcome. We've done that to help our members have a better outcome.*

6.2.3 Beneficiary Experience with Medical and Specialty Services

Focus group participants had varying opinions about their primary care doctors across all years and focus groups. Some participants received care from the same provider for many years, whereas others had to find new providers when enrolling in the demonstration.

> *Those three [long-time doctors], no matter what insurance I have, [I] have to have those three. I would not switch them for anything. I listen to them and they give me good advice and they listen to me.*

> *[My mother] has been there for quite some time … this has been her permanent doctor for maybe 10 or 12 years.*

According to GMU's survey (2014), nearly all respondents reported having a primary care doctor who met their needs very well or somewhat well. According to RTI focus group participants in 2016, dissatisfaction with providers stemmed from participants' feelings that their needs were not being met and that they were not heard by their doctors.

> *I just get really discouraged when I can't get my needs [met] as far as my health. Coming from [another State], I'm so used to getting the needs [met].*

In terms of specialty care, participants spoke about not being able to access providers or services. Participants had particular difficulty accessing psychiatry and indicated that it was because psychiatrists were not accepting new patients or were not in the MMP's network. However, many participants indicated that they did have a mental health benefit within their MMP, so they knew they could get mental health services. Participants also spoke about being

[15] In all capitated model States under the FAI demonstration, including Virginia, plans supplement basic transportation benefits covered through the State Medicaid benefits package with additional nonmedical transportation assistance. Transportation challenges are common even outside of the demonstrations.

denied for dermatology, chiropractic services, and acupuncture. It was generally their opinion that referrals to specialists via PCPs and MMPs took a long time.[16]

> *I kind of feel that it's hard to get doctors to accept Medicaid and stuff sometimes. They don't usually gravitate towards that as well as they should. So sometimes it's not easy to get top-notch primary care doctors, and the pool is kind of small sometimes. That's been my experience.*

6.2.4 Beneficiary Experience with Care Management Services[17]

Beneficiaries' experience with care management changed over time. Early in the demonstration, some focus group participants did not recognize who their care managers were, and they had difficulty recalling whether they had been contacted by the MMPs about their health care needs and services.

> *I didn't know we had case managers. I want to find out how to even get [one]. I mean, what process do you go through?*

However, by the last round of focus groups in 2017, participants were more familiar with the terminology and who their care managers were. Many recalled being contacted by a care manager, although participants described them as nurses, either by phone or in person. When asked whether the title care manager meant anything to the group, one participant responded, "[He] calls once a month faithfully." More than two-thirds of GMU survey respondents indicated they were highly satisfied with their care managers.

Many participants expressed that their providers were communicating with one another about the care and services that participants were receiving. A few participants, however, indicated that their care was not coordinated, and they did not know or believe that their doctors communicated with each other.

During the final (2017) site visit, an advocate described a specific population for which care management appeared to have improved over time. Initially, the level of support that assisted living residents who were enrolled in CCC and classified as community well was "limited or non-existent." The advocate's staff worked with MMP care managers to address this issue. The situation then improved so much that one assisted living facility told the advocate that once care managers were in fact supporting these enrollees, it "took two staff members 6 hours" to develop the POCs with the enrollees. As the advocate said, "At least we know they are doing [care management now]."

DMAS and MMPs firmly believed that care coordination improved demonstration enrollees' lives based on anecdotal evidence.

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[16] Access issues are common outside of the demonstration as well. In CCC, access issues may have been perceived as particularly difficult because managed care for the dually eligible population was new for the MMPs, enrollees and providers.

[17] Note that RTI cannot report CAHPS data on beneficiary experience with care coordination because either too few beneficiaries answered the question to permit reporting or the score had very low reliability. Data reported in this section come from site visits and focus groups.

I know care coordination, when a member is able to call a care coordinator about an issue and talk it through, that just didn't exist before, I have to believe that has resulted in improved access to care.

6.2.5 Beneficiary Access to Care and Quality of Services

In site visits, DMAS and MMPs indicated that they believed access to care for demonstration enrollees had truly improved.

You have an entire population of vulnerable individuals who had very little access to care, or people who didn't know what they could have, and a whole new world opened up to them when a care coordinator could open their eyes to the realization that there was somebody out there who could help them in the system. Things that burdened them for years could now be addressed.

However, focus group participants reported mixed opinions about access and quality of care improving. Most RTI focus group participants indicated having a primary care physician or specialty physician and felt connected to the health care system. Yet, access to physicians seemed to differ by region within the Commonwealth. Participants in the 2016 focus groups, particularly those in Arlington, indicated that they had difficulty finding physicians who were part of the demonstration.

If that's not a network doctor, you're stuck with a really big bill. You might say, 'I was referred by my primary physician.' But once you get there, they'll say, 'Oh yes, we take [the MMP]'… but [then they might say] 'we don't take [the MMP].'

The doctor's office said, 'We are in [the MMP].' So, on the phone [the representative and I] managed to find the doctor in the system. But when the representative tried to assign him to my grandfather, the system said [the choice of provider was] invalid.

Conversations about quality of care with focus group participants centered mainly around home health aides. Most LTSS participants reported using home health aides, but their opinions about the quality of the services provided by the aides varied widely. Some participants were quite comfortable with their aides, considering them practically members of the family, whereas others expressed that their home health aides were unreliable.

6.2.6 Person-centered Care and Patient Engagement

Participants reported mixed experiences with involvement in their care decisions. Some participants identified themselves as self-advocates who made certain that their voices, goals, and preferences were heard and considered; however other participants did not believe their providers listened to or shared information with them in a way that they could understand.

I do [feel like I'm part of the decision making process, in determining what procedures I'm going to have, what medications I'm going to take]… I sit and I talk to my doctor about this and that and the other…

When [my provider] explains stuff, I don't understand it. She uses the big terms instead of [language that is] more to my level for me to understand.

Most participants indicated that their care managers or physicians asked about their physical and mental health goals. These conversations happened at different intervals. Some participants reported that the conversations occurred monthly, others annually. Most participant goals were about improved mobility, weight loss, and better nutrition.

6.2.7 Personal Health Outcomes and Quality of Life

The majority of focus group participants in each year indicated that their health was either the same or had improved since enrolling in the demonstration. Participants attributed their health status to benefits of the demonstration, such as durable medical equipment, home modifications, or enhanced benefits, because these made a positive difference in their physical and mental health. Some indicated that their health had not changed, but they were thankful it had not become worse.

[This program] has really helped me as far as my health is concerned, and they do care about me. They check on me. I see one of my doctors at least every month.

[The quality of my health] is betwixt between better or worse. Because it's better one-half because of the [prescription] regimen [that I'm on… but] the knees are worse.

Most 2016 focus group participants who were proxies for a family member saw little if any difference in their or their family members' quality of health or life since enrollment in the demonstration. In 2017, nearly the same number of participants indicated that their quality of life had improved as indicated that their quality of life had decreased.

I don't [see a difference for my mother], but then maybe… I don't know everything that is available to her. That could be the difference.

I would say we're just thankful that [my grandfather's health] stayed the same.

Some 2016 proxy participants noted that their own quality of life had decreased since their family member enrolled in the demonstration. They described the considerable time and energy they had spent learning to navigate the demonstration on behalf of their family members as well as increases in caregiving responsibilities due to decreases in services.

[My grandfather's quality of life is] better because he was blissfully ignorant of the frustration I'm going through [trying to find a primary care physician, understanding the demonstration].

[My quality of life is] worse. [My father doesn't get the services that he used to get.] He doesn't get anything.

6.2.8 Experience of Special Populations

Focus group participants were selected to represent a range of enrollees with LTSS or behavioral health needs, and to reflect racial diversity. The majority of focus group participants were non-white, and many needed assistance with Activities of Daily Living (ADLs) or had chronic conditions. Thus, many findings already discussed describe the demonstration experience of these subpopulations. No RTI focus groups for the CCC demonstration were conducted for Spanish-speaking or other linguistic minorities.

Much of the Commonwealth of Virginia is rural. Some stakeholders expressed concern that the demonstration may not have been working as well in rural areas as it was in more urban and suburban areas of the Commonwealth. According to DMAS, MMPs, and advocates, this was likely due to the lack of providers (both primary care and specialists), longer travel distances, and lack of transportation in rural areas. However, stakeholders pointed out that the issues in rural areas under CCC were not a fault of the demonstration, but a fact common to rural areas that the demonstration had not been able to address.

6.2.9 Beneficiary Protections

Following is a summary of grievance (complaint) and appeals data received from (1) data reported by MMPs on complaints made directly to them;[18] (2) data reported on the CTM for complaints received by DMAS and 1-800-Medicare[19]; (3) information received on-site visits[20]; (4) data reported by the IRE, which is a second-level review of appeals[21]; and (5) qualitative information collected by the evaluation team. Reporting periods vary across these sources.

Grievances or complaints. Enrollees have the right to file a grievance with their MMP at any time. A grievance is a complaint or a dispute expressing dissatisfaction with the MMP or a provider, regardless of whether the enrollee is requesting a remedial action. Grievances are resolved at the MMP level. A grievance is also called a complaint.

The number of MMP-reported grievances per 1,000 enrollees increased but remained relatively low overall through the course of the demonstration. In the first year of the demonstration, the number of grievances , ranged between 5.0 to 7.5 grievances per 1,000 enrollees; this number increased later in the demonstration with a high of 19.6 grievances per 1,000 enrollees in quarter 3 of 2017.[22] However, the number of complaints received by 1-800-Medicare decreased during the demonstration. In the first and the second demonstration years, the number of complaints was twice that of the third demonstration year (January 2017–December 2017).[23, 24]

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[18] MMP Reported Data provided to RTI by CMS.
[19] Data obtained from the Complaints Tracking Module (CTM) within HPMS by RTI.
[20] Information obtained by RTI during site visits.
[21] Data provided to RTI by CMS.
[22] Grievance data obtained from beneficiaries reported by Virginia MMPs to CMS' implementation contractor, NORC.
[23] Complaint data (and categories) obtained from the Complaints Tracking Module (CTM) within HPMS by RTI.
[24] CMS suggested that the 800-Medicare complaints may have pertained more to concerns or questions about enrollment, which eased by year 3 as enrollment processes got smoother.

MMPs had dedicated staff for enrollees to file complaints or grievances, but the structure of the team varied across MMPs. The teams may have consisted of program managers, registered nurses, and medical directors. Enrollees were able to file a complaint with the MMP by phone, fax, or mail, or in person. MMPs classified complaints as either expedited or standard. Expedited complaints were resolved within 72 hours and standard complaints were resolved within 30 days.

All information about complaints was forwarded to DMAS. The number and types of grievances were added to the MMPs' computerized dashboards, along with the number and status of appeals. As indicated in ***Section 3.1, Joint Management of Demonstration***, the CMT reviewed each MMP's dashboard during its calls with the MMPs.

Appeals. Over the course of the demonstration, there was an inconsistent trend in the number of plan-reported appeals per 1,000 enrollees. Quarter 4 of 2016 saw the highest number of plan-reported appeals, at 17.6 appeals per 1,000 enrollees. A majority of plan-reported appeals (ranging from 60.5 percent to 97 percent) of plan-reported appeals in each quarter resulted in fully favorable outcomes for the beneficiary. The number of appeals reported to the IRE increased during second demonstration year but then decreased during the third demonstration year, from 36 in the first demonstration year (April 2014–December 2015), to 90 appeals in 2016, and 61 appeals in 2017. In the second and third demonstration years, a majority of appeals at the IRE were upheld; less than 5 percent were overturned in favor of beneficiaries. The most common category of appeals referred to the IRE was for practitioner services.

Virginia required MMPs to report on critical incidents and abuse for members receiving LTSS. [25] In the first 9 months of the demonstration (April 2014-December 2014), the number of critical incidents and abuse ranged from 0.0 to 4.6 per 1,000 members. In 2015, 2016, and 2017, this number ranged from 0.0 to 2.1 per 1,000 members.

The process by which enrollees and providers could appeal decisions was outlined in the three-way contract (Virginia three-way contract, 2016, pp. 100-110). Two of the MMPs indicated that they tried to make the appeals process easier for enrollees to navigate by having the care manager work with them through the process. One of these MMPs also called their appeals policy "no wrong door," such that whichever department (e.g., Member Services) or person (e.g., care manager) an enrollee spoke with about an appeal, the appeal process would begin. From the MMPs' perspective, most appeals centered on providers not in-network and pharmacy benefits.

Role of Ombudsman. The Office of the State Long-Term Care Ombudsman was involved with the startup and implementation of CCC. The Commonwealth's demonstration proposal outlined a role for the ombudsman that built on the ombudsman's traditional role within the Commonwealth as an advocate for those in nursing facilities and assisted living facilities and for those receiving community-based LTSS. The Commonwealth subsequently received funding from CMS for the ombudsman to adapt to serve the demonstration. CMS awarded $924,237 for ombudsman funding (for 3 years).[26] The Office of the State Long-Term Care Ombudsman

[25] CMS' reporting requirements for Virginia MMPs, which would include the definition of critical incidents and abuse, are no longer available or accessible because the demonstration ended on December 31, 2017.

[26] CMS noted that DMAS decided the ombudsman program was valuable enough to continue funding it with State funds as part of CCC Plus.

initially intended to dedicate one ombudsman to each of the five regions. Eventually, only three ombudsmen were hired to handle all CCC queries and either did so in person or over the telephone.

The ombudsman was a member of the CCC Stakeholder Advisory Committee (discussed in ***Section 7.2.2, Stakeholder Committees***), which allowed for ongoing communication between the ombudsman, DMAS, and the MMPs. The ombudsman had been active in conducting outreach for CCC at town halls and various forums and participated in calls with DMAS and the MMPs during the demonstration startup.

Among all focus group participants, the ombudsman program had very little recognition. When participants were asked to whom they would go if they needed an advocate or had a complaint about the demonstration, most named their provider, nurse, care manager, or representative from the MMP. In response to this lack of recognition, the ombudsman program conducted additional outreach about its program and attended additional town halls and meetings with community groups. The ombudsman also tried to mail enrollees directly, but this proved challenging due to the permissions surrounding release of information and addresses, as well as lack of agreement of wording and content of the mailing. The ombudsman eventually mailed a bright yellow postcard to enrollees and received a lot of contact from enrollees because of it. Common issues for which enrollees contacted the ombudsman included authorizations, payments to providers, and care coordination. CMS reported that the ombudsman was helpful in conducting outreach and providing enrollment decision assistance to nursing facility residents.

SECTION 7

Stakeholder Engagement

Highlights

- Intensive, adaptive efforts helped ease some initial tension among stakeholders during demonstration design and early implementation, as stakeholders began to learn about CCC and more broadly, managed care. DMAS and others remained committed to transparency and inclusivity throughout the demonstration.
- DMAS and MMPs reported scores of stakeholder engagement activities that varied in mechanism, target audience, frequency and focus, and evolved throughout the demonstration to meet stakeholders' needs for education, as well as DMAS' and MMPs' needs to get real-time information on stakeholders' experience with the demonstration.
- The demonstration's two formal stakeholder engagement mechanisms, the DMAS-led Stakeholder Advisory Committee and the MMPs' Enrollee Advisory Committees, functioned as required and complemented the more numerous and extensive informal efforts.

7.1 Overview

The Commonwealth and MMPs were wholly committed to stakeholder engagement during the design and implementation of the demonstration. They applied lessons learned from early efforts to improve later approaches and activities, and continuously adapted efforts and communication to changing stakeholder needs.

In this section, we describe the approach taken by Virginia to engage stakeholders, the mechanisms to solicit stakeholder feedback, and the impact of those efforts on the demonstration.

7.2 Organization and Support

7.2.1 Commonwealth Role and Approach

Although many DMAS staff participated in outreach and education activities, DMAS also had dedicated outreach and education staff. The type of outreach conducted varied over the course of the demonstration. Initially, staff conducted town halls, which included two sessions: one for providers and one for beneficiaries. The town halls were a combination of presentations and Q&A sessions. DMAS also gave presentations by request to provider associations, social services agencies, and advocacy groups. In addition, DMAS and the MMPs held weekly calls for Q&A with beneficiaries and their advocates, and a similar weekly call for providers. DMAS saw both of these types of calls as "opportunities for reciprocal information sharing by phone" (i.e., DMAS and the MMPs were also able to learn about stakeholders' real-time concerns, needs and experiences). This reciprocity gave DMAS and the MMPs the chance to respond quickly to concerns and supplement information about the demonstration where it was most needed. DMAS reported that in late 2014, it realized that providers could benefit from more individualized

information; therefore, the duration and frequency were changed from one 60-minute call each week to five 30-minute calls each week, separated for unique provider types.

In addition to working with the MMPs on outreach and education, DMAS also supported other stakeholders who did outreach and education, such as the VICAP (Virginia's State Health Insurance Program [SHIP]), in this area. CMS provided a 3-year grant of $793,462 to VICAP to support outreach, education, and counseling efforts. One year into the demonstration (spring 2015), DMAS reported, for example, that VICAP continued to conduct community presentations throughout the Commonwealth to beneficiaries and their family members in nursing facilities, assisted living facilities, and independent living senior housing complexes. For example, VICAP conducted 15 such presentations in quarter 2 of 2015, and nine in quarter 3.

Once the demonstration was fully underway, DMAS and the MMPs reported that the need for town halls and stakeholder calls decreased. DMAS decided to conduct town halls only upon request, and MMPs conducted additional town halls on an ad hoc basis (on their own). The frequency of teleconferences also changed with the reduced need. Target audiences shifted from enrollees to providers. For example, although provider calls were still held in summer of 2015, beneficiary/advocate calls had been discontinued by that time due to a noticeable decrease in participation and demand. Toward the end of the demonstration, the focus of education and outreach efforts shifted to the Medicaid managed LTSS/CCC Plus transition.

In addition to town halls and stakeholder calls, DMAS offered education and sought feedback through its CCC website.[27] Materials posted on the website included updates (such as regular "Stakeholder Updates"), meeting minutes, PowerPoint presentations, educational materials, and background materials and links to other resources. The website also offered a link to a CCC electronic "mailbox," where beneficiaries, providers, and other stakeholders could submit questions, concerns, and complaints. By the second site visit in November 2015, DMAS had reported a "dramatic decrease" in submissions to this mailbox. Whereas DMAS used to receive many emails a day, they then only received a few each week. DMAS credited plans' efforts to engage providers, in particular, as improving this situation. DMAS maintained the mailbox throughout the demonstration. Toward the end of the demonstration, the mailbox primarily received questions regarding the transition to CCC Plus, and at the end of the demonstration, the mailbox formally transitioned to a CCC Plus mailbox (with a link to it on the CCC Plus website).

MMPs, advocates, and CMS commended DMAS' commitment to stakeholder engagement throughout the demonstration. During the design and early implementation phases, many stakeholders expressed fear and frustration in learning about and understanding the demonstration. Another early challenge was that, even though the Commonwealth and the MMPs reported that they tried to create a single recognizable brand for CCC by using the CCC logo on all enrollee and outreach materials, the MMPs also branded their specific CCC plan with their own plan-related name. Understandably, this led to some confusion among providers and beneficiaries. To address these and other issues, DMAS strove to make its education inclusive and transparent. As one DMAS leader asserted, "there is no such thing as too much

[27] This website was no longer operational after the demonstration ended and its materials were not archived in an accessible new webpage.

communication." Other DMAS staff and leadership echoed this theme, and it was supported by the sheer volume, frequency, and variety of stakeholder engagement forums and vehicles for sharing information and for soliciting feedback from stakeholders. Limited buy-in among some provider types persisted but improved somewhat over time (see ***Section 3.2.3, Provider Arrangements),*** with increased knowledge and understanding of the demonstration. The MMPs, CMS CMT members, and most stakeholder advocates expressed overall satisfaction with the commitment to stakeholder engagement.

7.2.2 Stakeholder Committees

Stakeholder advisory committee. During the design phase of the demonstration, DMAS formed a Stakeholder Advisory Committee, which was appointed by the Secretary of Health and Human Services. The committee consisted of 15 members, including representatives from provider and beneficiary groups such as the Medical Society of Virginia and the Virginia Hospital and Health Care Association, a self-advocate (an individual who has a disability and serves as an advocate but is not part of an advocacy group), and the Office of the State Long-Term Care Ombudsman. The committee met quarterly during the design phase to discuss policy development and oversight, and it continued to meet quarterly throughout the demonstration. The committee was an opportunity for the parties to address and attempt to resolve issues. It was also an opportunity for DMAS and others to share various types of information. For example, one meeting agenda in spring 2016 included national and CCC-specific updates on the FAI demonstration; an enrollment broker update on new technologies; MMP highlights; and a review of the 2015 audit results from the CCC's external quality review organization (EQRO). According to DMAS, at the end of 2017, the CCC Stakeholder Advisory Committee transitioned to the CCC Plus Advisory Committee and the majority of members had agreed to continue their service.

MMP enrollee advisory committees. The three-way contract required each MMP to establish an enrollee advisory committee, composed of enrollees and their caregivers or family members, to solicit meaningful beneficiary input on issues. The committee was required to meet at least quarterly throughout the demonstration, beginning with the second quarter of calendar year 2014. The MMPs engaged these committees—labeled differently as member advisory councils or committees, or consumer advisory groups—throughout the demonstration to hear their concerns about the demonstration and to solicit feedback on policy refinements. For example, one MMP reported that its consumer advisory group members provided feedback on services offered or not offered by MMPs (e.g., dental and eye care); information on challenges with transportation services; ideas for activities MMPs could offer such as health fairs or flu clinics; and feedback on accessing resources (e.g., for someone who was legally blind). This MMP's consumer advisory group met via video conferencing, so that "all members in all geographic regions [were] represented and [saw] and [heard] the same thing."

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SECTION 8

Financing and Payment

Highlights

- MMP officials reported that costs increased at first, which they anticipated, and that they expected costs would subsequently level off or decrease as the demonstration matured. They also suggested that costs did decrease after the initial start-up period, but some voiced concern that the demonstration may have been too short-lived to produce savings.
- CMS and DMAS applied a savings percentage to MMP capitation payments, because savings were anticipated while paying participating plans adequate rates. For demonstration year 2, the percentage decreased from 2 percent to 1 percent, and in demonstration year 3 it decreased from 4 percent to 2 percent. This was the only change in financial structure and was made in response to MMPs reporting significant losses associated with the demonstration.
- Quality withhold targets for demonstration year 2 were not set until late in that demonstration year, which created some financial uncertainty for MMPs.
- Medical loss ratios (MLRs) decreased from demonstration year 1 to year 2 among all three Virginia MMP plans, and decreased for two plans between years 2 and 3. However, all three MMP plans had sufficiently high MLRs during all three demonstration years such that no corrective action was taken.
- MMPs faced two major challenges related to quality withhold payment metrics: incomplete or inaccurate beneficiary contact information created an obstacle to completing Health Risk Assessments within the required timeframe, and significant resources were needed to address changing encounter data reporting requirements.
- MMP officials cited challenges in recruiting providers to participate in value-based payment models, including beneficiaries' ability to voluntarily opt out at any time, and the official announcement of the demonstration's end. They also underscored challenges related to the geographic dispersion of beneficiaries.

8.1 Rate Methodology

All Medicare services and Medicaid-covered services were financed by capitated payments to the MMPs. The Medicare and Medicaid contributions represented baseline spending, or the estimated costs if the demonstration had not been implemented. Capitation payments paid to MMPs were risk adjusted. MMPs received three monthly payments, based on three separate methodologies for Medicare Parts A and B, Medicare Part D, and the Medicaid components of the rate. The demonstration savings rate was applied to baseline spending.

In this section, we describe the demonstration's rate methodology and findings relevant to implementation.

8.1.1 Rating Categories and Risk Adjustments

The Medicare Parts A and B component of the rate was risk adjusted using the existing MA CMS-HCC and the CMS-HCC end-stage renal disease (ESRD) risk-adjustment methodology (Virginia three-way contract, 2016, pp 167–8). In 2014 and 2015, CMS calculated and applied a coding intensity adjustment in proportion to enrollees with prior MA experience (Virginia three-way contract, 2016, pp 173–4). CMS did not make this adjustment in 2016 or 2017.

The Medicare Part D component included the Medicare Part D direct subsidy set at the Part D national average monthly bid amount for the calendar year, as well as the CMS estimated average monthly prospective payment amount for the low-income cost-sharing subsidy and Federal reinsurance amounts. The Medicare Part D component was adjusted using the Prescription Drug Hierarchical Condition Categories (RxHCC) risk score assigned to each enrollee. CMS estimates an average monthly prospective payment for the Part D low-income cost subsidy and Federal reinsurance amounts; they are not risk adjusted. These payments were reconciled after the end of each payment year in the same manner as for all Part D sponsors (Virginia three-way contract, 2016, p. 172).

The Medicaid component of the rate was based on two distinct populations. The first was the "community well" level of care group, defined as those who did not meet the nursing facility level of care standard, or those who did meet the standard but were in a nursing facility for less than 20 days. The second group included the remaining nursing facility level of care population, including those in a nursing facility for 20 days or more, and those enrollees in the EDCD waiver. For the nursing facility level of care group, there was an additional member enrollment mix risk adjustment (MEMA) (Virginia three-way contract, 2016, pp. 169–70). Finally, both populations were risk adjusted by age (21 to 64, and 65 or older) and region (five total).

8.1.2 Savings Percentage

Aggregate savings percentages were applied equally to the Medicare Parts A and B and Medicaid spending components of the capitated rate, based on the expectation that reasonable savings could be achieved while paying participating plans adequate rates (MOU, 2013, p. 45). The savings percentage was 1 percent for demonstration years 1 and 2, and 2 percent for demonstration year 3. Savings percentages were not applied to the Part D component.

8.1.3 Quality Withholds

A percentage of the capitated rates was withheld by CMS and DMAS to incentivize plans to meet quality thresholds (Virginia three-way contract, 2016, p. 181). The withheld amounts were repaid to plans based on performance compared to benchmarks for the quality withhold measures established in the three-way contract, by demonstration year (Virginia three-way contract, 2016, pp. 182–5). The quality withhold rates were 1 percent in demonstration year 1, 2 percent in demonstration year 2, and 3 percent in year 3. Medicare Part D rates were not subject to the quality withhold, nor the savings percentages (MOU, 2013, pp. 48–49; Virginia three-way contract, 2016, p. 173).

8.1.4 Medical Loss Ratio

MLRs provide one perspective on plans' financial experience. MLRs were calculated once per demonstration year for each CCC MMP, per the three-way contract (Virginia three-way contract, 2016). The numerator for each MLR equals the sum of the plan's expenditures on medical claims and activities that improve the quality of care, and the denominator equals the plan's revenues. Therefore, lower values reflect proportionally less revenue spent directly on health care, and higher values indicate relatively greater revenue spent on care. If a plan's MLR ranged between 85 and 90 percent , CMS and DMAS had the option to require a corrective action plan or plan remittance. If a plan's MLR was below 85 percent, the plan would have paid a remittance (Virginia three-way contract, 2016, p. 175–76).

For all MMPs, MLRs were highest in demonstration year 1, when they ranged from 94.7 percent to 108.3 percent. In demonstration year 2, they ranged from 88.9 percent to 97.1 percent, and in demonstration year 3, from 90.1 percent to 92.2 percent. This suggests that plans may have become more efficient in providing care over time. MLRs may have also decreased over time because the increase in the savings percentage (all else being equal) would have lowered revenue. For the one plan whose MLR exceeded 100 percent during demonstration year 1, payments for health care and quality improvement activities exceeded total revenues. No corrective action was taken (via corrective action plans or remittances) based on any of the MLR results.

8.2 Financial Impact

Medicaid capitation rates were updated over time, as planned through the MEMA, yet DMAS officials said that the MEMA changed the overall rates only in "minor" ways. The MEMA did not reflect a change in the financial structure.

There was one change to the financial structure with respect to the original three-way contract. Starting in demonstration year 2 the savings percentages were lowered. Specifically, for demonstration year two, the savings percentage was lowered from 2 percent to 1 percent; and in demonstration year three, it was lowered from 4 percent to 2 percent. DMAS officials indicated that the decision to reduce savings percentages in demonstration years 2 and 3 was based on significant losses faced by plans, or overall plan financial performance.

Plan officials cited ambiguity in the quality withhold target levels until late into the second demonstration year as a challenge. That is, despite knowing what quality measures the MMP plans were evaluated on, plan officials claimed they were not informed about the scores required on a given measure to receive a full or partial quality withhold payment until well into that demonstration year. Consequently, one plan cited the need to devise their own internal targets.

As also discussed in ***Section 4.2.5, Reaching Enrollees***, multiple MMP officials discussed incomplete or inaccurate contact information for beneficiaries as a major problem that required significant resources to address. Contacting new beneficiaries was important for plans to meet the demonstration's objectives as well as cost targets. For example, HRAs were required to be completed within a short timeframe, and completion of these was an outcome on which plans were graded for quality withhold payments. One MMP official explained: "only 20 percent

of our new members had contact information. For [those enrolled in the] EDCD [waiver], we had only 30 days to locate and assess the members." An official from another plan stated:

> *By the time [beneficiaries] enroll, CMS's contact numbers may not be active and working. Trying to catch up with [enrollees] through other means to complete assessments—that's the biggest challenge. … We'd like to highlight that this challenge creates [a] situation where we spent an incredible amount of time finding individuals. Some individuals, we never find. Having more up-to-date contact information for members would be very helpful. … I don't have specific numbers, but if we have 200 new members per month, half usually do not have a contact number.*

Plan officials also cited as challenges encounter data requirements and changes to the reporting process over time. They noted that significant resources were required to address these challenges. One plan official explained:

> *Encounters have been a major challenge in each one of our markets. When [the] demo began, we believed that we'd be able to submit all encounters and that would be acceptable. Over time, we learned they needed to be submitted by origins of original benefit—Medicare versus Medicaid encounter. We developed our software product as an integrated one. Every claim comes in, based on adjudication rules, it's decided if it's the Medicaid or Medicare product. Then it passes through on one fee schedule. But we've had to reverse engineer on our system. We have [had] to go in midstream to look at adjudication—to look at whether it's Medicare or Medicaid. We're continuously challenged on it. Working on it as best as we can.*

On the cost side, plan officials suggested that costs increased at first, but that this was anticipated until costs would eventually level off and/or decrease as the demonstration matured. They also expressed that the length of the demonstration may have been too short to produce savings. One plan official explained:

> *I think in general, the first year of the demonstration there was the huge challenge from FFS to managed care. There were certainly higher costs. Any managed care that goes into a market that is moving, the costs are higher. You don't get to see those costs level out until the end of 3 years of the program. Having that experience, we anticipated that our costs would be high. Even as we talked about supplemental benefits. From a cost perspective, we certainly had experienced that kind of trend that you typically see when you go into a new market knowing that you are going to experience high costs. It didn't get fully where we wanted it to be, but we are certainly on that path.*

Officials from another plan explained:

> *Anecdotally, we have seen costs go up. You've taken a very vulnerable population who had not been seeking services and now you're connecting them to routine services. That will certainly have an uptick in the cost initially. I think 3 years is*

too short of a timeframe to see the long-term impact to see if we are bending the cost curve.

Plan officials also cited challenges related to attracting providers to participate in alternative payment models (see additional discussion in ***Section 3.2.3, Provider Arrangements***). For example, one plan official underscored how beneficiaries could opt out voluntarily at any time, and how this created a disincentive for providers. That is, if a provider makes investments in beneficiaries, as incentivized by the value-based model, and beneficiaries opt out, providers do not capture the (full) return on investment. An official from another plan suggested that a value-based system was challenging to implement in this context due to the small number of geographically dispersed enrollees served by individual providers. Finally, plan officials noted that the official announcement of the demonstration's upcoming end "put a stop to" creative contracting opportunities, including ongoing discussions with hospitals and clinics.

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SECTION 9

Quality of Care

Highlights

- The Contract Management Team (CMT) composed of CMS and DMAS staff took an active role in monitoring MMP quality, working with the MMPs on Quality Improvement Plans, and providing technical assistance.
- The impact on quality was mixed. There was substantial variation in the HEDIS measure results across the MMPs. The three MMPs also experienced varying results on their quality measures and the percentage of withhold payments returned to plans.

9.1 Quality Measures

The CCC demonstration required that CCC plans report standardized quality measures. These measures included:

- A set of core measures specific to all capitated model demonstrations under the FAI that address domains of access, assessment, care coordination, enrollee protection, organization structure and staffing, performance and quality improvement, provider network, and systems and service utilization (CMS, 2014).

- A set of Commonwealth-specific measures that were selected by DMAS in consultation with CMS after considering feedback from stakeholders. These included a variety of structure, process and outcome measures spanning a range of service areas including LTSS and behavioral health.

Reporting and performance on several of these measures were used to determine what portion of the capitation rates retained by CMS and the Commonwealth as a "quality withhold" would be repaid to the MMPs. In all FAI capitated model demonstrations, including CCC, 80 percent or more of the measures must be met to receive 100 percent of the withhold. Performance on these measures for all demonstration years is now final for Virginia.

The demonstration also utilized quality measures required of MA plans, including applicable measures from the Part C and Part D Reporting Requirements such as appeals and grievances, pharmacy access, payment structures, and medication therapy management.

CCC plans were required to submit three additional measure sets as part of the MA requirement:

- A modified version of the Medicare Advantage and Prescription Drug Plan CAHPS survey that, in addition to the core survey used by MA plans, included 10 supplemental questions proposed by the RTI Evaluation Team to capture beneficiary experience specific to integration, behavioral health and LTSS (see ***Section 6, Beneficiary Experience,*** for CAHPS findings);

- The subset of Medicare Healthcare Effectiveness Data and Information Set (HEDIS) measures, a standard measurement set used extensively by managed care plans, that are required of all MA plans; and

- Selected Health Outcomes Survey measures based on a recurring survey of a random sample of Medicare beneficiaries to assess physical and mental health outcomes (Virginia three-way contract, 2016).

We report on CAHPS and HEDIS data in relevant sections of this report.

The MMPs reported that the lack of accurate contact information for enrollees was a major challenge in meeting the Health Risk Assessment completion requirements (see ***Section 8.2, Financial Impact***). The CMT worked with the MMPs to develop a plan to improve HRA completion rates. Another issue articulated by plan officials related to the quality measures included in encounter data submissions (see ***Section 8.2, Financial Impact***). The CMT noted that this improved over time as the MMPs achieved greater familiarity with the requirements, and DMAS provided more clarifications to them.

We summarize results from the quality withhold analyses covering the each of the three demonstration years (2014–15, 2016, and 2017) in ***Table 9***. Note that for demonstration years which span calendar years (2014–15), the quality withhold analysis was conducted for each calendar year separately.

For 2014, two MMPs received 100 percent of their withhold payment and the third MMP received 50 percent of its withhold. In 2015, the MMPs received 100 percent, 75 percent, and 25 percent of their withholds, respectively. During the second demonstration year, in 2016, all three plans received a partial withhold payment. Two MMPs each received 75 percent of their withhold and the third received one-half of its withhold. Finally, in 2017 one MMP received 100 percent of its withhold payment, while the other two received 75 percent of their withhold payment. Overall, there was significant variation in measures met and withhold payments returned, across plans and within plans across years.

Table 9
Virginia Commonwealth Coordinated Care quality withhold payment analysis results, by plan and demonstration period

	Demonstration period 1				Demonstration period 2		Demonstration period 3	
	Calendar year 2014		Calendar year 2015		Calendar year 2016		Calendar year 2017	
MMP	% Withhold returned	% Measures met	% Withhold returned	% Measures met	% Withhold returned	% Measures met	% Withhold returned	% Measures met
HealthKeepers	50	43	75	64	75	75	100	83
Humana Health Plan	100	100	25	36	75	67	75	67
VA Premier Health Plan	100	86	100	82	50	58	75	67

SOURCE: CMS (2018a, 2018b)

9.2 Quality Management Structures and Activities

In this section, we describe the components of the Virginia CCC quality management system, including its interface with CMS, Virginia CCC plans, and other independent entities, and describe how the quality management system worked from various perspectives. The Commonwealth had several structures in place to ensure quality management and improvement throughout the demonstration.

9.2.1 State, CMS, and MMP Quality Management Structures and Activities

The CMT played a primary role in this area by providing overall contract management oversight of the MMPs. DMAS reported having an efficient and highly committed team for quality management and data analytics but noted that this team was understaffed. Several CCC staff contributed actively to quality management activities and had primary roles in other areas of CCC implementation.

DMAS held weekly quality monitoring meetings with the MMPs. These meetings focused on monitoring plan activities, providing technical assistance and training on quality measures and quality assurance, and addressing issues and concerns raised by the MMPs. DMAS said that ensuring that quality measures were being reported consistently across MMPs was a priority. DMAS also worked with the MMPs to design and implement Quality Improvement Plans (QIPs). DMAS described development and implementation of QIPs as a slow and often redirected process (e.g., as the MMPs began implementing the QIPs, they asked to revise the QIP work plan because they were unable to track or support certain relevant quality measures). Some of the MMPs reported challenges in getting timely feedback from DMAS on their QIP submissions. Both DMAS and MMPs noted that overall, the short time period of the demonstration did not support QIP efforts. Even if QIP development and implementation had progressed more quickly, there still was not sufficient time to measure relevant baseline situations, hone the focus of the QIPs, implement changes, and measure the impacts of changes.

DMAS also designed and implemented an internal evaluation of CCC in partnership with George Mason University (GMU). According to DMAS, the evaluation used a concurrent (or parallel) mixed methods research design. DMAS staff were responsible for the qualitative evaluation activities, primarily a case study approach with several anthropological methods (e.g., interviews, observations, and document reviews). GMU staff were responsible for the quantitative activities including a statistical analysis of individual-level demographic/enrollment and program satisfaction/experience data collected through existing data sources, and a survey of a sample of MMP enrollees. The CCC Evaluation began in spring 2014 and ended on September 30, 2016. Final reports were posted on the CCC Evaluation website (the link is no longer operational). Survey results from this evaluation are incorporated into ***Section 6, Beneficiary Experience***, where appropriate.

Other types of quality management activities that DMAS facilitated or participated in included regularly adjusting the choice of indicators or the format of the dashboard used by the CMT to monitor MMP performance, clarifying reporting requirements for the MMPs, and planning member and provider satisfaction surveys.

DMAS identified the availability of thorough and accurate Medicare and Medicaid data needed as perhaps the greatest challenge in the area of quality management. DMAS (and MMPs) needed these data to support contract management, quality management and improvement, and data analytics activities. Although CMS made Medicare data available to the Commonwealth, DMAS reported the data were not always available in a complete or timely manner.[28] MMPs also consistently noted the burden of multiple demonstration-required reports.[29] For example, at the close of the demonstration, one MMP summarized:

> *Administratively, it was a very challenging contract. Just looking at the list of current reports that we have, we have 115 reports to do. We were measured on quality without knowing what we were measured on … Or [anyone] telling us what the goals were. Sometimes there were indications on what might be measured, but the benchmark on how it would be determined or the goals …that was withheld.*

CMS acknowledged that although there was initially a delay in releasing quality withhold related benchmarks, particularly for the Virginia-specific measures, this information was made available; neither the State nor CMS established formal benchmarks for other metrics reported by the plans.

9.2.2 Independent Quality Management Structures and Activities

External organizations also played important quality management roles for CCC. First, as discussed in ***Section 6.2.9, Beneficiary Protections***, the Office of the State Long-Term Care Ombudsman acted as an advocate for beneficiaries in nursing facilities and assisted living facilities and for those receiving community-based LTSS. The ombudsman also served on the CCC Stakeholder Advisory Committee (see ***Section 7.2.2, Stakeholder Committees***). To increase its visibility so that beneficiaries would know about its available services, the ombudsman also attended town halls and forums, and participated in DMAS and MMP phone calls.

Second, the three-way contract required CCC MMPs to support the EQRO with which the Commonwealth contracted to evaluate the access, timeliness, and quality of care delivered by CCC MMPs to their Medicaid enrollees (Virginia three-way contract, 2016). This included preparation for and participation in on-site as well as desktop reviews of the MMPs by the EQRO. DMAS consistently spoke highly of its contracted EQRO and commended the EQRO's activities as particularly helpful because DMAS "struggled with what it meant to monitor quality" for the demonstration. The MMPs, however, noted multiple audits (Commonwealth,

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[28] As discussed in ***Section 4.2.5, Reaching Enrollees,*** CMS noted that the State had a DUA for historical and ongoing Medicare Parts A and B data beginning in 2012, and CMS put a process in place for MMPs to access Medicare Parts A and B data for their enrollees starting in 2014. However, despite Medicare data availability, as well as access to Medicaid data, State challenges to analyzing Medicare data and integrating into State systems remained. This situation improved in the final year of the demonstration, when DMAS was able to obtain and use more Medicare data.

[29] CMS initiated burden reduction efforts across states starting with the 2018 measurement year, but Virginia was not included in that effort as CCC ended in 2017.

EQRO, NCQA, etc.) as burdensome and often duplicative. As one MMP said, mid-demonstration:

> *We have audits on the HRAs from the EQRO, audits for the same thing from DMAS. Exactly no one asks for the same dataset in the same way— [it has to be] re-run, reproduced, re-provided. Frequently, they look at the same thing. Can they come at the same time or can one accept the reports of the other? There are slight differences in reporting metrics, but are the differences different enough to report, or are we just running numbers?*

9.3 Results for Selected Quality Measures

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

Thirteen Medicare HEDIS measures for MMP enrollees are reported in ***Table 10***. RTI selected this subset of available measures identified in RTI's Aggregate Evaluation Plan as well as the available HEDIS data on these measures for completeness, reasonability, and sample size. Calendar year data for 2015–2017 were available for all three of the Virginia CCC plans. Detailed descriptions of the measures can be found in the RTI Aggregate Evaluation Plan.[30] Results reported compare the three plans, with the exception of some measures where sample size was less than 30 beneficiaries, or where national MA plan mean data were not available for comparison, as with submeasures related to care for older adults.

We provide national MA plan mean data, where available, understanding that MA enrollees and demonstration enrollees may have different health and sociographic characteristics which would affect the results. Previous studies on health plan performance reveal poorer quality ratings for plans serving a higher proportion of dual eligible beneficiaries and beneficiaries with disabilities. HEDIS measure performance, in particular, is slightly worse among plans active in areas with lower income and populations with a higher proportion of minorities (Office of the Assistant Secretary for Planning and Evaluation, 2016).

Comparisons to the national MA plan mean should be considered with that limitation in mind. Monitoring trends over time in MMP performance may be more important than the comparison to the national MA plans given the population differences. Several years of HEDIS results are likely needed to know how well MMPs perform relative to each other and whether they perform above or below any potential benchmark.

There were no measures where all three MMPs outperformed the national MA plan mean. There was, however, one measure (initiation of alcohol and other drug [AOD] dependence treatment) where two of the three MMPs outperformed the national MA plan mean. Regarding plan all-cause readmissions, there were no MMPs that outperformed the national MA plan mean,

[30] See https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/EvalPlanFullReport.pdf.

however, nearly all MMPs achieved lower than expected readmission rates across both age groups (18–64 and 65+).

For the remaining measures, most plans performed below the national MA plan mean in 2017. These measures are related to adults' access to preventive/ambulatory health service, adult BMI assessment, breast cancer screening, comprehensive diabetes care, colorectal cancer screening, and outpatient and emergency department visits. There was wide variation across MMPs on the Care for Older Adults measures, which do not have national MA plan mean data available for comparison.

Year-over-year MMP performance improved across several measures. For example, all MMPs were able to improve year-over-year performance on blood pressure control. Additionally, all MMPs reported that at least 60 percent of members had their blood pressure under control by 2017. The majority of MMPs experienced increases in the rate of members that were being effectively managed while on antidepressants, both in the acute and continuation phases.

For ambulatory care submeasures, all MMPs saw worsened year-over-year performance. Between 2015 and 2017, outpatient visits per 1,000 members fell below the national MA plan mean for all MMPs, which is undesirable if plans are working to lower more expensive institutional use. Emergency department visits per 1,000 members also remained above the respective national MA plan mean.

Table 10
Virginia Commonwealth Coordinated Care Plan performance on select HEDIS quality measures for 2015–2017 by MMP

Measure	National MA Plan Mean	HealthKeepers, Inc			Humana Health Plan, Inc			VA Premier Health Plan, Inc		
	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
Adults' access to preventive/ambulatory health services	94.9	89.3	90.6	91.4	91.3	92.1	91.4	88.2	90.3	64.7
Adult BMI assessment	94.8	N/A	79.8	88.3	98.5	96.6	93.0	N/A	86.3	87.4
Blood pressure control[1]	70.6	46.5	41.4	61.6	66.2	74.9	75.1	48.3	48.1	62.1
Breast cancer screening	72.1	N/A	57.0	54.9	71.8	63.3	64.6	N/A	50.5	47.4
Colorectal cancer screening	69.2	N/A	46.1	55.2	70.6	54.0	61.0	N/A	31.9	36.0
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	77.2	71.1	74.5	67.7	76.8	67.5	77.2	85.7	78.4	N/A
Follow-up after hospitalization for mental illness (30 days)	52.2	53.9	68.0	54.4	50.4	45.8	40.2	39.8	35.8	4.9
Antidepressant medication management										
Effective acute phase treatment[2]	69.8	48.2	50.3	58.1	68.8	58.5	60.0	61.8	58.8	72.8
Effective continuation phase treatment[3]	55.0	38.7	36.7	45.0	52.7	43.6	39.8	47.3	43.9	62.0
Care for older adults										
Advance care planning	N/A	13.0	12.7	54.3	N/A	17.3	20.0	17.4	45.4	11.0
Medication review	N/A	45.6	52.8	60.8	N/A	76.2	78.1	48.6	56.3	38.0
Functional status assessment	N/A	21.1	0.1	63.3	N/A	78.6	62.0	22.7	45.6	12.7
Pain assessment	N/A	40.5	48.6	77.4	N/A	88.8	78.1	31.3	48.8	29.4

(continued)

Table 10 (continued)
Virginia Commonwealth Coordinated Care plan performance on select HEDIS quality measures for 2015–2017 by MMP

	National MA Plan Mean	HealthKeepers, Inc			Humana Health Plan, Inc			VA Premier Health Plan, Inc		
Measure	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Comprehensive diabetes care										
Received Hemoglobin A1c (HbA1c) testing	93.6	88.6	83.3	88.3	90.8	92.2	90.1	87.4	88.6	80.0
Poor control of HbA1c level (>9.0%) (higher is worse)	26.3	43.9	48.2	37.2	29.0	23.8	22.7	48.6	36.7	43.1
Good control of HbA1c level (<8.0%)	63.7	48.7	43.5	54.3	61.1	64.0	63.0	43.8	54.4	46.7
Received eye exam (retinal)	71.5	56.3	55.3	61.3	59.9	68.6	62.2	46.1	51.4	17.0
Received medical attention for nephropathy	95.6	86.5	89.4	92.5	95.4	94.9	93.7	93.0	91.9	89.5
Blood pressure control (<140/90 mm Hg)	66.9	46.3	44.7	57.7	64.0	66.7	50.0	42.0	56.1	42.3
Initiation and engagement of AOD dependence treatment										
Initiation of AOD treatment [4]	33.6	40.6	36.9	40.9	30.6	29.5	32.3	38.3	35.7	46.4
Engagement of AOD treatment [5]	4.3	3.9	3.8	7.3	2.0	4.3	3.2	3.5	2.1	2.1
Plan all-cause readmissions (Observed-to-expected ratio[6])										
Age 18-64	0.82	1.02	0.87	0.96	0.84	0.67	0.82	0.87	0.90	1.01
Age 65+	0.79	0.95	0.80	0.87	0.87	0.79	0.81	0.71	0.85	0.96

(continued)

Table 10 (continued)
Virginia Commonwealth Coordinated Care plan performance on select HEDIS quality measures for 2015–2017 by MMP

	National MA Plan Mean	HealthKeepers, Inc			Humana Health Plan, Inc			VA Premier Health Plan, Inc		
Measure	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Ambulatory care (per 1,000 members)										
Outpatient visits (higher is better)	9,525.2	8,427.0	8,643.5	8,851.0	7,765.0	8,375.3	8,678.6	7,903.9	8,586.4	1,225.5
Emergency department visits (higher is worse)	633.1	1,248.6	1,169.5	1,185.4	1,204.3	1,183.0	1,130.8	1,328.2	1,215.6	1,178.3

— = not available, where the plan did not provide HEDIS data for this measure. AOD = alcohol and other drug; BMI = body mass index; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan; N/A = not applicable, where MA plans do not report such data, or where the number of enrollees in the demonstration for which plans provided HEDIS data for inclusion in the measure was less than 30, and therefore not reported per RTI's decision rule for addressing low sample size.

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

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

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

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

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

[6] Plan all-cause readmissions are reported as an observed-to-expected ratio. A value below 1.0 is desirable and indicates that plans had fewer readmissions than expected for their populations based on case mix.

NOTE: Detailed descriptions of HEDIS measures presented can be found in the RTI Aggregate Evaluation Plan.

SOURCE: RTI analysis of 2015 through 2017 HEDIS measures.

SECTION 10

Cost Savings Calculation

Highlights

- RTI conducted an analysis of Medicare Parts A and B costs using a difference-in-differences model to examine beneficiaries eligible for the demonstration in the Virginia demonstration area and comparison areas.
- The results show statistically significant increases in gross Medicare Parts A and B costs, relative to the comparison group. This finding holds true both for the individual demonstration years as well as cumulatively over all demonstration years from April 2014 through December 2017.

As part of the Virginia capitated model demonstration under the FAI, Virginia, CMS, and participating health plans entered into a three-way contract to provide services to Medicare-Medicaid enrollees. Participating health plans received prospective blended capitation payment to provide both Medicare and Medicaid services for enrollees. CMS and Virginia developed risk-adjusted capitation rates for Medicare Parts A, B, and D, and Medicaid services to reflect the characteristics of enrollees. The Medicare component of the payment is risk adjusted using CMS' hierarchical risk-adjustment model. The rate development process is described in greater detail in the MOU and the three-way contract, and the risk-adjusted Medicare components of the rate are described in the Final Rate Reports.

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

This section presents final Medicare Parts A and B savings calculations for the 3 years of the demonstration period using an intent-to-treat (ITT) analytic framework that includes beneficiaries eligible for the demonstration rather than only those who enrolled. Approximately 53,700 Medicare-Medicaid beneficiaries in Virginia were eligible for and over 20,700 (39 percent) were enrolled in the demonstration in December 2017.

The Medicare savings calculations presented here use the capitation rate that CMS pays to Virginia MMPs for beneficiaries enrolled in the demonstration, and not the actual payments that plans made to providers for services, so the savings are calculated from the perspective of the Medicare program. Due to data limitations, Medicaid savings were not calculated. Part D costs are also not included in the savings analysis.

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

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

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

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

RTI used a difference-in-differences (DinD) approach to evaluate the impact of the demonstration on Medicare costs, an analytic strategy whereby two groups—one affected by the demonstration and one not affected by it—are compared on an outcome of interest before and after the policy intervention. The predemonstration period included 2 years prior to the start of the Virginia demonstration (April 1, 2012–March 31, 2014), demonstration year 1 included the first 21 months of the demonstration (April 1, 2014–December 31, 2015), demonstration year 2 included calendar year 2016 (January 1, 2016–December 31, 2016), and demonstration year 3 included calendar year 2017 (January 1, 2017–December 31, 2017).

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 incorporated propensity score weighting and adjusted for clustering of observations at the county level.

The GLM model included indicators for demonstration year, an indicator for assignment to the demonstration group versus the comparison group, and an interaction term for demonstration year 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 period and is the key policy variable of interest. We ran separate models to distinguish between overall savings (predemonstration period versus demonstration period) as well as savings for each demonstration

year. Because the DinD demonstration effects were estimated using non-linear models, we used a post-estimation procedure to obtain the marginal effects, which measure changes in the outcome in meaningful units (herein, dollars, rather than raw regression coefficients). We report the average of the individual marginal effects, which represents the aggregate, net demonstration impact.

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

Additional area-based variables—such as the percentage of adults with a college degree and proximity to hospitals or nursing facilities—were used as proxies for sociodemographic indicators and local area characteristics. These variables were also used in the comparison group selection process. Individual beneficiary demographic characteristics are controlled for in the models and are also accounted for in the propensity score weights used in the analysis.

In addition to the variables noted here, the propensity score weights used in the cost savings analyses also include HCC risk score. Because HCC risk score is directly related to capitated payments, it is not included as an independent variable in the regression models predicting costs. Due to the potential for differences in diagnoses coding for enrollees compared to beneficiaries in FFS after the start of the demonstration, the HCC risk score used to calculate the weights was "frozen" to the value at the start of the demonstration period. Diagnosis codes

are the basis for risk score calculations, and by freezing the score prior to any potential impact of the demonstration, we are able to control for baseline health status using diagnosis codes available prior to the demonstration.

10.2 Medicare Expenditures: Constructing the Dependent Variable

RTI gathered predemonstration and demonstration period monthly Medicare expenditure data for both the demonstration and comparison groups from two data sources. Capitation payments paid to MA plans for Medicare Parts A and B in the predemonstration and demonstration periods and paid to Virginia plans during the demonstration period were obtained from the CMS MA and Prescription Drug system (MARx). The capitation payments were the final reconciled payments paid by the Medicare program after taking into account risk score reconciliation and any associated retroactive adjustments in the system at the time of the data pull (July 2020). Medicare claims were used to calculate Medicare Parts A and B expenditures for FFS beneficiaries. For this analysis we did not include hospice payments, nor payments to employer- or cost-based MA plans when creating the final Medicare expenditure measure. ***Table 11*** summarizes the data sources for Medicare expenditure data.

Table 11
Data sources for monthly Medicare expenditures

Group	Predemonstration (April 1, 2012–March 31, 2014)	Demonstration period (April 1, 2014–December 31, 2017)
Demonstration group	Medicare FFS	Medicare FFS for non-enrollees
	Medicare Advantage Capitation	Medicare Advantage Capitation for non-enrollees
		Virginia Capitation for enrollees
Comparison group	Medicare FFS	Medicare FFS
	Medicare Advantage Capitation	Medicare Advantage Capitation

FFS = fee-for-service.

A number of adjustments were made to the monthly Medicare expenditures to ensure that observed expenditure variations are not due to differences in Medicare payment policies in different areas of the country or the construction of the capitation rates. ***Table 12*** summarizes each adjustment and the application of the adjustments to FFS expenditures or to the capitation rate.

The capitation payments reflect the savings assumptions applied to the Medicare Part A and B components of the rate, but do not reflect the quality withhold amounts (withhold of 1 percent in the first demonstration period, 2 percent in the second demonstration period, and 3 percent in the third demonstration period). The withhold and repayment amounts are factored in by RTI during the creation of the final payment amount (***Table 12***). The results shown in this section reflect quality withhold repayments for 2014–2017.

Table 12
Adjustments to Medicare expenditures

Data source	Adjustment description	Reason for adjustment	Adjustment detail
FFS	Indirect Medical Education (IME)	Capitation rates do not include IME.	Do not include IME amount from FFS payments.
FFS	Disproportionate Share Hospital (DSH) Payments and Uncompensated Care Payments (UCP)	Capitation rates reflect DSH and UCP adjustments.	Include DSH and UCP payments in total FFS payment amounts.
FFS	Medicare Sequestration Payment Reductions	Under sequestration Medicare payments were reduced by 2% starting April 1, 2013 (reflected in the claims data). Because the predemonstration period includes months prior to April 1, 2013 it is necessary to apply the adjustment to these months of data so that any observed changes are not due to sequestration.	Reduced FFS claim payments incurred before April 2013 by 2% so all claims reflect this adjustment.
Capitation rate (MA and MMP)	Medicare Sequestration Payment Reductions	Under sequestration Medicare payments were reduced by 2% starting April 1, 2013. Sequestration is not reflected in the capitation rates.	Reduced capitation rate by 2%.
Capitation rate (MA)	Bad debt	The capitation rate includes an upward adjustment to account for bad debt. Bad debt is not part of FFS claim payment amount and therefore needs to be removed from the capitation rate for the savings analysis. (Note, "bad debt" is reflected in the hospital "pass through" payment separate from the total claim payment amount).	Reduced capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.93 for calendar year 2012, 0.91 for calendar year 2013, 0.89 for calendar year 2014, 0.89 for calendar year 2015, 0.97 for calendar year 2016, and 0.81 for calendar year 2017.

(continued)

Table 12 (continued)
Adjustments to Medicare expenditures

Data source	Adjustment description	Reason for adjustment	Adjustment detail
Capitation rate (MMP)	Bad debt	The capitation rate includes an upward adjustment to account for bad debt. Bad debt is not part of FFS claim payment amount and therefore needs to be removed from the capitation rate for the savings analysis. (Note, "bad debt" is reflected in the hospital "pass through" payment separate from the total claim payment amount).	Reduced blended capitation rate to account for bad debt load (historical bad debt baseline percentage). This is 0.93 for calendar year 2012, 0.91 for calendar year 2013, 0.89 for calendar year 2014, 0.89 for calendar year 2015, 0.97 for calendar year 2016, and 0.81 for calendar year 2017. Reduced the FFS portion of the capitation rate by an additional 1.89% for calendar year 2014, 1.71% for calendar year 2015, 1.84% for calendar year 2016, and 1.74% for calendar year 2017 to account for the disproportional share of bad debt attributable to Medicare-Medicaid enrollees in Medicare FFS.
FFS and capitation rate (MA and MMP)	Average Geographic Adjustments (AGA)	The Medicare portion of the capitation rate reflects the most current hospital wage index and physician geographic practice cost index by county. FFS claims also reflect geographic payment adjustments. In order to ensure that change over time is not related to differential change in geographic payment adjustments, both the FFS and the capitation rates were "unadjusted" using the appropriate county-specific AGA factor.	Medicare FFS expenditures were divided by the appropriate county-specific 1-year AGA factor for each year. Capitation rates were divided by the appropriate county-specific 5-year AGA factor for each year. The 5-year AGA factor was applied to the Virginia counties of Bedford City and Manassas Park City because single year–specific AGA factors are not available for these counties for all years in the analysis. Note that the AGA factor applied to the capitated rates for 2014 reflected the 50/50 blend that was applicable to the payment year.

(continued)

Table 12 (continued)
Adjustments to Medicare expenditures

Data source	Adjustment description	Reason for adjustment	Adjustment detail
Capitation rate (MA and MMP)	Education user fee	No adjustment needed.	Capitation rates in the MARx database do not reflect the education user fee adjustment (this adjustment is applied retrospectively). Education user fees are not applicable in the FFS context and do not cover specific Part A and Part B services. Although they result in a small reduction in the capitation payment received, we did not account for this reduction in the capitated rate.
Capitation rate (MMP)	Quality withhold	The capitation rate does not include quality withholds, nor repayments based on performance. The applicable quality withhold percentages for the demonstration period are: 1% for demonstration year 1, 2% for demonstration year 2, and 3% for demonstration year 3.t	Final quality withholds and repayments were incorporated into the capitation rates for the 3 demonstration years.

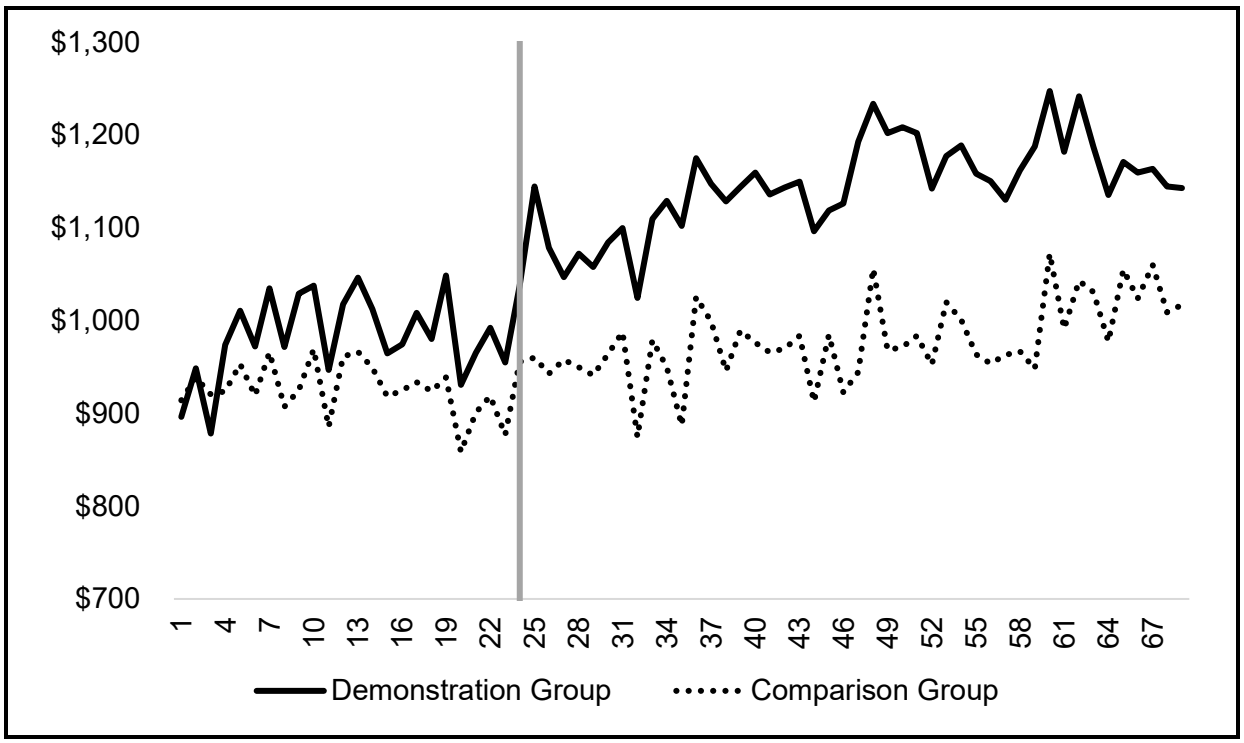
FFS = fee-for-service; MA = Medicare Advantage; MMP = Medicare-Medicaid Plan.

10.3 Descriptive Analysis Results

Two types of analyses are presented in this Cost Savings Section. The first—presented in this subsection—calculates mean expenditures for the comparison group and demonstration group in the predemonstration and demonstration periods. These four numbers are then used to calculate a descriptive DinD. The second analysis—presented in ***Section 10.4***—uses a regression technique to more accurately calculate the DinD estimate. The regression analysis provides greater accuracy as individual- and area-level characteristics are controlled for in the model. Both the descriptive analysis and the regression-based results had similar findings indicating that the demonstration did not achieve cost savings.

Figure 4 plots the weighted mean monthly Medicare Parts A and B expenditures for both the demonstration group and the comparison group. It shows the parallel trends in the two groups prior to the start of the demonstration.

Figure 4
Mean monthly Medicare expenditures (weighted) for demonstration and comparison groups, predemonstration and demonstration periods, April 2012–December 2017



NOTE: Vertical line at month 24 denotes the last month prior the start of the demonstration.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: vady3_trendfigures.log).

Tables 13-15 show the descriptive weighted means for the demonstration and comparison groups for demonstration years 1, 2, and 3, respectively. As an example, ***Table 13*** shows the weighted mean for the predemonstration period and demonstration year 1, for both the demonstration and

comparison groups. All values reported in these tables are at the per member, per month (PMPM) level. The average cost increase for the demonstration group at the end of demonstration year 1 was $126.46 PMPM, whereas for the comparison group it was $38.69 PMPM. The resulting unadjusted DinD (demonstration group difference minus the comparison group difference) for demonstration year 1 is $87.77 PMPM, suggesting that the demonstration group had a greater increase in costs than the comparison group.

The DinD value would be equal to zero if the differences between predemonstration and the demonstration year were the same for both the demonstration group and the comparison group. A negative value would indicate a relative decrease for the demonstration group, and a positive value would indicate that a relative increase in costs for the demonstration group. The unadjusted weighted results show statistically significant increased costs in the demonstration group for demonstration years 1, 2, and 3, relative to the comparison group.

Table 13
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 1, weighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 1 (April 2014–Dec 2015) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,111.47 ($1,073.38, $1,149.56)	$126.46 ($103.87, $149.04)
Comparison group	$950.08 ($920.26, $979.89)	$988.77 ($965.26, $1,012.27)	$38.69 ($17.48, $59.90)
Difference-in-differences	N/A	N/A	$87.77 ($56.90, $118.63)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).

Table 14
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 2, weighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 2 (Jan. 2016–Dec. 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,175.81 ($1,134.70, $1,216.92)	$190.79 ($161.99, $219.59)
Comparison group	$950.08 ($920.26, $979.89)	$1,016.01 ($989.54, $1,042.48)	$65.93 ($38.35, $93.52)
Difference-in-difference	N/A	N/A	$124.86 ($85.21, $164.51)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).

Table 15
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 3, weighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 3 (Jan. 2017–Dec. 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,179.05 ($1,122.25, $1,235.85)	$194.03 ($152.39, $235.67)
Comparison group	$950.08 ($920.26, $979.89)	$1,056.61 ($1,019.21, $1,094.02)	$106.54 ($69.67, $143.40)
Difference-in-difference	N/A	N/A	$87.50 ($32.15, $142.85)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).

10.4 Regression Analysis Results

Although the descriptive statistics are informative, to get a more accurate estimate of savings, RTI conducted a multivariate regression analysis to estimate savings controlling for beneficiary and area-level characteristics. In addition to the cumulative model analyzing cost savings across all demonstration years, we also ran a model specific to the year of the demonstration.

Table 16 shows the results from the DinD analysis for demonstration years 1, 2, and 3, and for the entire demonstration period. The marginal effect (adjusted DinD estimate, in dollars) is statistically significant and positive for the entire demonstration period and all three of the individual demonstration years (***Table 16***). The cumulative estimate for the entire demonstration period shows an increased cost for the demonstration group of $95.67 PMPM compared to the comparison group. The year by year results show increased costs for the demonstration group of $88.03 PMPM in year 1, $120.32 in year 2 and $82.22 in year 3 (***Table 16)***. These DinD results are consistent with those from descriptive analyses (***Tables 13***, ***14***, and ***15***).

Table 16
Demonstration effects on Medicare expenditures for eligible beneficiaries—Difference-in-difference regression results

Interaction term	Adjusted coefficient DinD ($)	*p-value*	95% Confidence interval ($)	90% Confidence interval ($)
Intervention*Cumulative (April 2014–December 2017)	95.67	<0.0001	(59.20, 132.15)	(65.06, 126.28)
Intervention *Demo Year1 (April 2014–December 2015)	88.03	<0.0001	(59.12, 116.93)	(63.77, 112.28)

(continued)

Table 16 (continued)
Demonstration effects on Medicare expenditures for eligible beneficiaries—Difference-in-difference regression results

Interaction term	Adjusted coefficient DinD ($)	*p-value*	95% Confidence interval ($)	90% Confidence interval ($)
Intervention *Demo Year2 (January 2016–December 2016)	120.32	<0.0001	(79.94, 160.71)	(86.43, 154.22)
Intervention *Demo Year3 (January 2017–December 2017)	82.22	0.0055	(24.15, 140.28)	(33.49, 130.95)

DinD = difference-in-differences.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1481_glm.log).

Table 17 shows the magnitude of the DinD estimate relative to the adjusted mean outcome value in the predemonstration and demonstration periods. The second and third columns show the adjusted mean Medicare expenditure. The adjusted means further account for underlying differences between the comparison and demonstration groups. The remaining columns show the relative percentage change of the DinD estimate compared to the adjusted mean monthly Medicare Parts A and B expenditure for the comparison group for the demonstration period. The p-value indicates statistical significance for the DinD estimate (also found in ***Table 16***).

The adjusted mean monthly expenditure for the demonstration group increased from the predemonstration period to the demonstration period. In contrast, the adjusted mean monthly expenditure for the comparison group decreased from the predemonstration period to the demonstration period. The DinD estimate of $95.67, which represents a relative difference of 9.43 percent of the adjusted mean monthly expenditure for the comparison group in the demonstration period ($1,014.71), is statistically significant at the 0.05 level.

Table 17
Adjusted means and overall impact estimate for eligible beneficiaries over the entire demonstration period

Group	Adjusted mean for predemonstration period	Adjusted mean for demonstration period	Relative difference (%)	Adjusted DinD estimate ($)	*p*-value
Demonstration group	$1,063.20	$1,138.77	9.43%	95.67*	<0.0001
Comparison group	$1,032.58	$1,014.71			

CI = confidence interval; DinD = difference-in-differences

NOTES: * 95 percent CI: (59.20, 132.15) and 90 percent CI: (65.06, 126.28). Even though the comparison group was carefully developed to have similar characteristics to the demonstration group, there are always slight differences in demographic, health, and area characteristics between the demonstration and comparison groups. The two types of results reported in this table take these differences into account, but use different statistical methods to do so.

Before calculating the mean values reported in the second and third columns in this table, RTI adjusted the composition of the demonstration's baseline and demonstration period groups and the comparison baseline period group to match the characteristics of the comparison group in the demonstration period so that the means do not reflect any differences in the groups' characteristics. The regression DinD approach, results reported in the fifth column of this table, controls for these differences automatically, without changing the underlying characteristics of the demonstration and comparison groups.

Because of these differing methods, the DinD results obtained from the regression may differ slightly from a similar calculation using the results in the adjusted mean columns. The relative percentage difference in the fourth column is calculated by dividing the DinD value in column 5 by the value for the comparison group in the demonstration period in column 3.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1491_pct_tables.log).

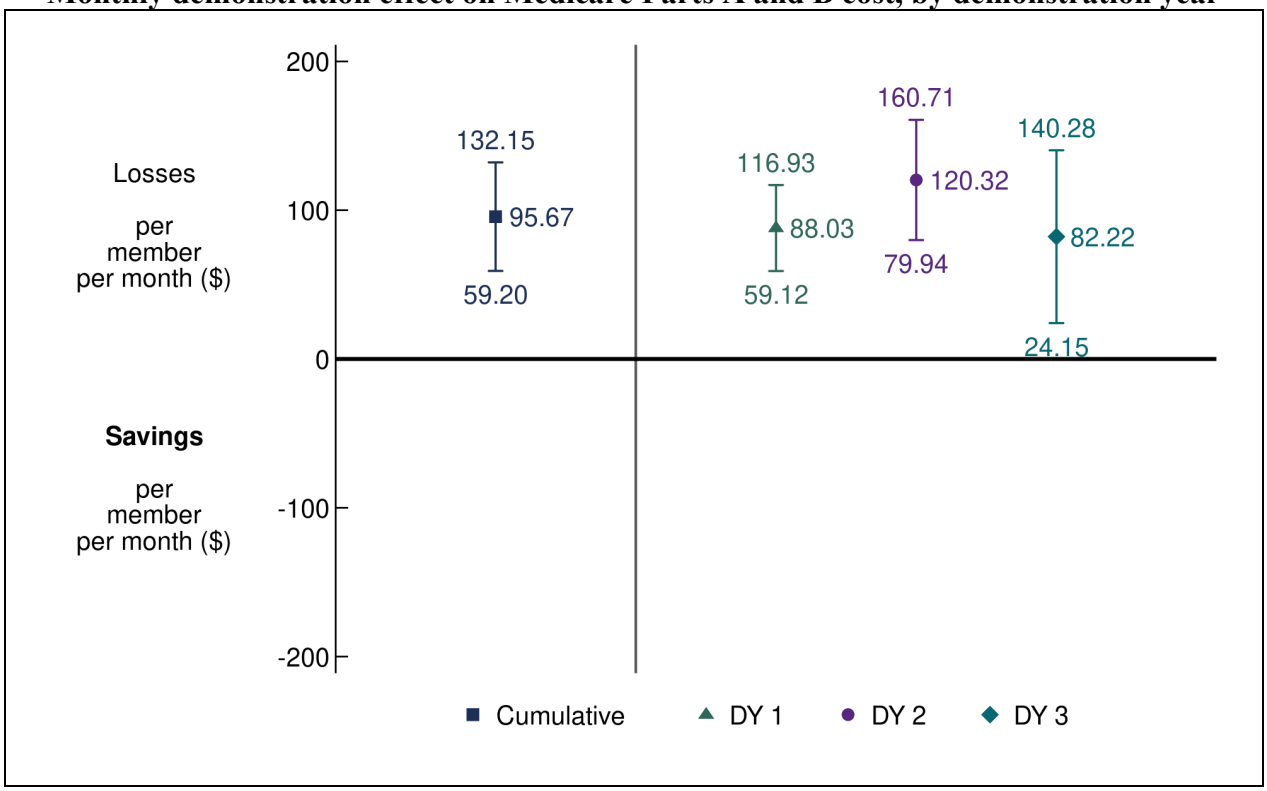
10.5 Discussion

Figure 5 presents the cost savings DinD results. The results of these analyses indicate statistically significant (as shown by the lines not crossing over $0) increased costs in the demonstration group, compared to the comparison group, in the individual demonstration years, and cumulatively—across the entire demonstration period. For example, the demonstration year 1 results show that the demonstration resulted in increased costs of $88.03 PMPM, though that is a point estimate, and the costs could have been as low as $59.12 PMPM, or as high as $116.93 PMPM. Demonstration years 2 and 3 showed cost increases for the demonstration group of $120.32 and $82.22 PMPM, respectively.

The adjusted mean monthly expenditures (in ***Table 17***) also show that the cost increased in the demonstration group while it decreased in the comparison group between the predemonstration and demonstration periods. This finding does not align with the descriptive results because it is regression based, which adjusts for beneficiary and area-level characteristics.

It is important to note that these findings are based on the ITT approach and are not limited to enrollees only. Additionally, only Medicare Parts A and B associated capitation rates (for enrollees, and those who are eligible and enrolled in MA plans) and FFS expenditures are included in the analysis. It does not include Medicaid, nor Medicare Part D components. Capitation rates also do not capture the actual payments for services incurred by the beneficiary.

Figure 5
Monthly demonstration effect on Medicare Parts A and B cost, by demonstration year



DY = demonstration year; Losses = Increased costs relative to the comparison group.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1481_glm.log)

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SECTION 11

Demonstration End and Transition to CCC Plus, Medicaid Managed Care

CCC ended on December 31, 2017, as was planned from the outset of the demonstration. See ***Section 2.2, Overview of State Context,*** for discussion of context. As of January 1, 2018, all CCC enrollees were transitioned to Virginia's Medicaid managed care program, CCC Plus.

Persons who are eligible for CCC Plus are persons with full Medicaid "who are either: 65 and older, children or adults with disabilities, nursing facility residents, or … [persons] receiving services through a home and community-based waiver" (DMAS, n.d.). Although there are six Medicaid managed care plans participating in CCC Plus, including two that have continued from CCC, Medicare beneficiaries can choose to get their Medicare benefits from a Dual Special Needs Plan (D-SNP), a MA Plan, or they may continue with Medicare FFS. Among the benefits of CCC Plus are medical, behavioral, substance use disorder, pharmacy, and transportation to non-waiver services, as well as enhanced benefits offered by Medicaid managed care plans, such as vision and hearing (DMAS, n.d.). The enhanced benefits differ by Medicaid managed care plan. Care coordination and LTSS are also components of CCC Plus.

Virginia Premier and Anthem HealthKeepers continued as managed care plans with CCC Plus, whereas Humana chose not to continue with CCC Plus. CCC enrollees transitioning to CCC Plus remained with the same parent company if they were enrolled in Virginia Premier or Anthem HealthKeepers, whereas CCC enrollees in Humana were assigned to another Medicaid managed care plan.

For the transition to CCC Plus, Virginia Premier and Anthem HealthKeepers indicated that they leveraged their experience from CCC to conduct similar education with their enrollees and providers about CCC Plus. At the final site visit, one MMP indicated that it also would be transitioning its CCC staff to CCC Plus to provide continuity of staff for enrollees. The ombudsman also assisted beneficiaries with their questions about CCC Plus and their transition into it. At the State level, DMAS established a care management unit that would be responsible for training and providing support to care managers within the CCC Plus plans that was intended to standardize the care management process across plans. And DMAS was able to remove the opt-out provision, which was so challenging in CCC, because CCC Plus is mandatory on the Medicaid side.

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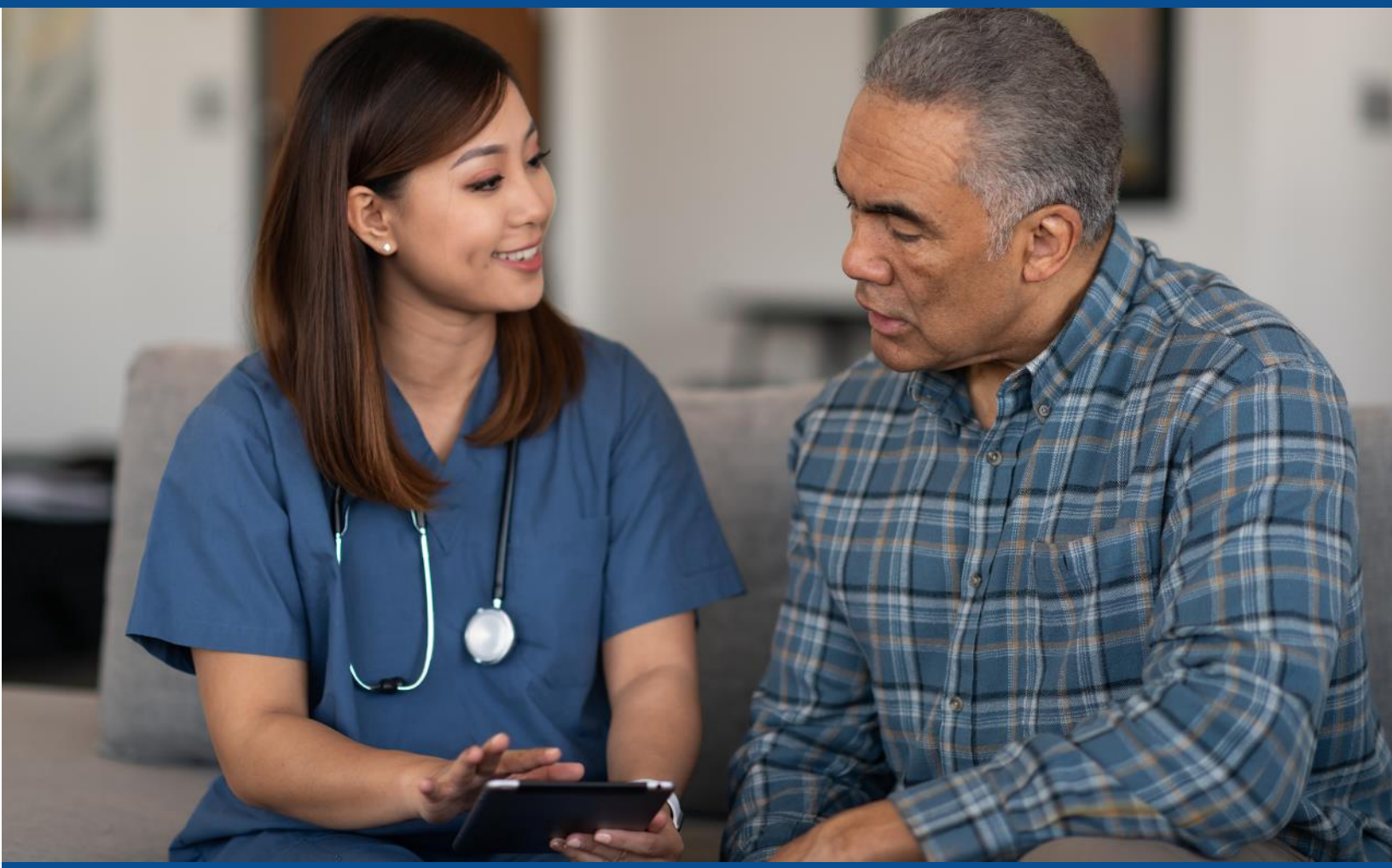
SECTION 12

Conclusions



12.1 Implementation-related Successes, Challenges, and Lessons Learned

The Commonwealth of Virginia, CMS, Virginia Premier, Anthem HealthKeepers, and Humana established a collaborative partnership under the FAI to coordinate and deliver medical services, behavioral health, and LTSS for Medicare-Medicaid beneficiaries age 21 and older. From 2014–2016 enrollment ranged between 26,000 and 28,000 enrollees, which was approximately 40 percent of the eligible population. (This does not include enrollment data from 2017, because the Commonwealth ceased passive enrollment and any new enrollment at various points during the year.)

In 2014, managed care for Medicare-Medicaid beneficiaries was new in Virginia. Although the Commonwealth had some experience with offering managed care to Medicare beneficiaries and to Medicaid beneficiaries separately, they had little experience with offering it to dually eligible beneficiaries. The learning curve was steep for all involved: DMAS, MMPs, providers, beneficiaries, and advocates. DMAS and MMPs often conducted outreach and educational sessions—some were tailored for specific audiences (e.g., beneficiaries, nursing facilities, specialists), whereas others were more general. This was done quite frequently at the beginning of the demonstration and continued steadily throughout, providing evidence of DMAS' commitment to CCC. DMAS, CMS, and the three MMPs viewed the amount of collaboration between each entity, as well as among the three MMPs themselves, as a major success of the demonstration. In addition, the collaboration between CMS and DMAS on the CMT was deemed successful, because members of the CMT worked together to integrate Medicare and Medicaid policy and resolve issues related to enrollment and disenrollment, grievances and appeals, marketing, and MMP compliance.

Care management was a centerpiece of CCC, although the model functioned somewhat differently across MMPs. Most stakeholders from DMAS and MMPs considered care management for Medicare-Medicaid beneficiaries a success under CCC, and care managers felt they reached most of their enrollees. However, some advocates expressed concern about a low level of care coordination in assisted living facilities early in the demonstration, although this improved later. In addition, it took at least into year 2 of the demonstration for focus group participants to begin to recognize the terms "care coordination" or "care management." Eventually, most focus group participants recalled being assisted by someone who would help with coordinating health care or social services, though many could not remember precisely who that person was. Although DMAS, the MMPs, and care managers extolled the value of care coordination, it is not clear whether beneficiaries understood or appreciated its value. In addition, because each MMP could implement care coordination in its own way, the care management model lacked standardization across MMPs.

Beneficiary satisfaction with CCC was mixed. In 2017, 62 percent of beneficiaries responding to CAHPS ranked their overall satisfaction with MMPs in Virginia as a 9 or 10, which was similar to the national average. Focus group participants appreciated the benefits and extended benefits offered but expressed complaints about the lack of generosity of the package (e.g., participants appreciated annual dental visits but were disappointed that services like x-rays and tooth extractions were not covered). Transportation service quality for beneficiaries remained a constant challenge throughout the demonstration.

CCC faced many challenges, some of which remained throughout the course of the demonstration. The disenrollment provision that allowed enrollees to opt out of CCC at will created a major challenge for both DMAS and the MMPs. This provision was compounded by the continuity of care provision that allowed MMP enrollees to retain benefits and services for 180 days after enrolling in an MMP. The consequence of both provisions was that, although MMPs were able to contact and assess enrollees, MMPs were not immediately able to affect enrollees' managed care experience and enrollees might disenroll prior to experiencing the benefits of managed care. In other words, there was not enough time for MMPs to provide health services and care management and for enrollees to experience them, nor enough time for the MMPs to see their enrollees' health change.

Both DMAS and MMPs faced system challenges at the beginning of the demonstration, the intensity of which seemed to lessen by the end of the demonstration. These included delays in receiving enrollment data, difficulties in balancing enrollments across Medicare and Medicaid, difficulties developing systems to handle this, and challenges in having correct contact information for reaching beneficiaries. MMPs also felt burdened by reporting requirements, such as measures that were required to be reported that MMPs may not have otherwise collected, and changes to definitions of measurements during the reporting periods. With data and reporting challenges, DMAS and MMPs spoke of having to develop manual work-arounds with their systems in order to deliver the requested information, which required time and resources. By the end of the demonstration, DMAS and MMPs seemed to have found ways to address most of these issues.

CCC provided managed care experience for the dually eligible population and lessons learned for, among others, DMAS, the MMPs, and providers, that the Commonwealth hoped could be carried forward into CCC Plus. For example, DMAS established a care management unit that would be responsible for training and providing support to care managers within the CCC Plus plans intended to standardize the care management process across plans. Because CCC Plus is mandatory on the Medicaid side, the opt-out provision that was so challenging in CCC is no longer an issue. Enrollees are prohibited from opting out of Medicaid managed care in CCC Plus at any time; this provides the plans with budget predictability, as well as the opportunity and time to influence enrollees' care. DMAS, MMPs, and other stakeholders expected that these examples, and the experience of enrolling and caring for a vulnerable population in a managed care environment, would be valuable as they participate in CCC Plus.

12.2 Demonstration Impact on Costs

The results of the multivariate cost savings analyses presented here indicate statistically significant increases in Medicare expenditures during the Virginia demonstration. The results calculated here are based on capitation rates paid by CMS to the MMPs for enrollees, and the FFS expenditures and MA capitation rates for eligible beneficiaries that did not enroll in the demonstration. The estimates do not take into account actual payments for services incurred by enrollees and paid by the MMPs. It also does not include Medicaid expenditure due to data limitations.

12.3 Next Steps

As previously noted, the demonstration ended on December 31, 2017. This is the sole Evaluation Report for the CCC demonstration.

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Appendix A

Comparison Group Methodology for Virginia

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. This appendix presents the comparison group selection and assessment results for the FAI demonstration in the State of Virginia. This appendix focuses primarily on all beneficiaries eligible for the demonstration, with a brief discussion of demonstration enrollees. Results for comparison group selection and assessment analyses are reported. Please refer to ***Appendix B*** for a detailed description of the comparison group identification methodology for the larger FAI evaluation.

This appendix provides the comparison group results for the third performance year for the Commonwealth Coordinated Care demonstration in Virginia (January 1, 2017–December 31, 2017). Result for prior demonstration and baseline years were similar. The first Virginia demonstration year covered seven quarters (April 1, 2014 to December 31, 2015), and the second demonstration year covered four quarters (January 1, 2016 to December 31, 2016).

A.1 Demonstration and Comparison Group Characteristics

The Virginia demonstration area consists of 67 counties that are part of eight Metropolitan Statistical Areas (MSAs) (Virginia Beach-Norfolk-Newport News; Charlottesville; Richmond; Blacksburg-Christiansburg-Radford; Roanoke; Lynchburg; Washington-Arlington-Alexandria; and Harrisonburg) and 47 counties that make up a "rest of State" area of rural parts of the State. Using the distance score methodology described in ***Appendix B***, the comparison area comprises 33 counties in 15 MSAs from 5 States, as well as 153 counties in four "rest of State" areas covering rural Alabama, West Virginia, Mississippi, and Virginia. The pool of States was limited to those with timely submission of Medicaid data to CMS. All comparison areas are listed in ***Table A-1***.

Table A-1
Metropolitan statistical areas in five comparison States

Alabama MSAs
- Gadsden
- Decatur
- Anniston-Oxford-Jacksonville
- Auburn-Opelika
- Tuscaloosa
- Montgomery
- Rest of State

West Virginia MSAs
- Beckley
- Parkersburg-Vienna
- Charleston
- Rest of State

Massachusetts MSAs
- Providence-Warwick
- Pittsfield
- Barnstable Town

Mississippi MSAs
- Jackson
- Hattiesburg
- Rest of State

Virginia MSAs
- Winchester
- Rest of State

The Virginia demonstration was restricted to dual eligible beneficiaries who had not been attributed to another Federal Medicare shared savings initiative. Attribution to other savings initiatives was ascertained using the beneficiary-level version of the CMS' Master Data Management file. Beneficiaries in the demonstration group during the demonstration period were identified from quarterly finder files of participants in Virginia's program. Beneficiaries qualified for the demonstration group if they participated for at least 1 month during the demonstration period. During the two baseline periods, all beneficiaries meeting the age restriction and MSA residency requirements were selected for the demonstration and comparison

groups. Beneficiaries were omitted from further analyses if they had missing geography data; passed away before the beginning of the analysis period; had 0 months of dual eligibility; moved from the demonstration area to a comparison area during the analysis period; were in another shared savings program; or were missing Hierarchical Condition Code (HCC) risk scores during a year.

Table A-2 below shows the distribution of beneficiaries by comparison State in the first baseline year. Comparison areas within the State of Mississippi contributed the largest share of comparison beneficiaries. State shares were very similar across all analytic years. Because at least three States were included and no State contributed more than half of the total comparison beneficiaries, per RTI's comparison group selection methodology it was not necessary to do any sampling to reduce the influence of a single State (see ***Appendix B*** regarding State shares).

Table A-2
Distribution of comparison group beneficiaries for the Virginia demonstration, first baseline year, by comparison State

Comparison State	Percentage of comparison beneficiaries
Alabama	25.28
Massachusetts	15.55
Mississippi	34.40
Virginia	7.72
West Virginia	17.04
Total percentage	100
Total beneficiaries	**187,841**

The total number of demonstration group beneficiaries was comparatively stable throughout the five time periods (84,115 in baseline year 1, 86,277 in baseline year 2, and 86,700 in demonstration year 1, 79,628 in demonstration year 2, and 71,551 in demonstration year 3). The number of comparison group beneficiaries was similarly stable over the five analysis periods, ranging from 187,841 to 229,991.

A.2 Propensity Score Estimates

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

A propensity score 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 logistic regression coefficients, standard errors, and z-values for the covariates included in the propensity model for Virginia demonstration year 3

are shown in ***Table A-3***. These coefficients and the underlying data are used to generate propensity scores for each beneficiary.

Table A-3
Logistic regression estimates for Virginia propensity score model in demonstration year 3

Characteristic	Demonstration year 3		
	Coefficient	Standard error	z-score
Age (years)	.001	.000	3.26
Died during year	.192	.022	8.58
Female (0/1)	.164	.012	14.14
Black (0/1)	1.039	.013	82.28
Disability as Original Reason for Entitlement (0/1)	−.230	.015	−14.98
ESRD (0/1)	1.322	.082	16.17
HCC risk score	.061	.006	10.40
Participation in other demonstration	−.208	.014	−14.53
MSA (0/1)	1.318	.015	85.90
% of pop. living in married household	.015	.000	30.16
% of households w/member >= 60 yrs.	−.019	.001	−25.31
% of adults with college education	.030	.001	56.12
% of adults w/self-care limitation	−.201	.003	−61.89
% of households w/member < 18 yrs.	.005	.001	6.13
Distance to nearest hospital (mi.)	−.079	.001	−63.43
Distance to nearest nursing facility (mi.)	.040	.002	24.02
Intercept	−2.279	.065	−35.27

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

There were several initial differences between the demonstration and comparison groups in demonstration year 3. On individual-level measures, demonstration eligible beneficiaries were older (66.3 vs. 64.1); more likely to be Black (43.8 percent vs. 32 percent); and less likely to be disabled (47.9 percent vs. 55.9 percent) relative to their comparison group counterparts. On area-level measures, demonstration areas had a higher share of beneficiaries living in MSAs (84 percent vs.44.5 percent); a higher percentage of the population living in married households (67.6 percent vs. 64.8 percent); a lower percentage of households with members age 60 or older (37.9 percent vs 42.5 percent); a higher percentage of adults with a college degree (28.9 percent vs. 17.9 percent); a lower percentage of adults with a self-care limitation (3.2 percent vs. 4.8 percent); a higher percentage of households with members under age 18 (31.1 percent versus 29.7 percent); and had beneficiaries who lived closer, on average, to hospitals (7.1 miles vs. 11.5 miles) and nursing facilities (5.5 miles vs. 8.6 miles) relative to the areas containing comparison group beneficiaries. The magnitude of the group differences for all variables prior to propensity score weighting may also be seen in ***Table A-4***.

Table A-4
Virginia dual eligible beneficiary covariate means by group before and after weighting by propensity score and e-balance—demonstration year 3: January 1, 2017–December 31, 2017

Characteristic	Demonstration group mean	Comparison group mean	PS-weighted comparison group mean	Unweighted standardized difference	PS-weighted standardized difference	E-balance standardized difference
Age (years)	66.336	64.089	65.439	0.129	0.051	0.017
Died during year	0.066	0.057	0.069	0.040	−0.011	0.004
Female (0/1)	0.649	0.622	0.651	0.057	−0.004	0.015
Black (0/1)	0.438	0.320	0.450	0.245	−0.024	0.027
Disability as Original Reason for Entitlement (0/1)	0.479	0.559	0.511	−0.160	−0.064	−0.020
ESRD (0/1)	0.009	0.002	0.008	0.094	0.014	0.029
HCC risk score	1.218	1.147	1.231	0.077	−0.013	0.006
Participation in other demo	0.164	0.164	0.155	−0.008	0.025	−0.021
MSA (0/1)	0.840	0.445	0.813	0.905	0.073	0.010
% of pop. living in married household	67.612	64.849	67.601	0.196	0.001	0.049
% of households w/ member >= 60 yrs.	37.870	42.469	39.307	−0.524	−0.151	−0.041
% of adults with college education	28.916	17.894	26.974	0.826	0.130	0.123
% of adults w/self-care limitation	3.177	4.813	3.366	−0.586	−0.102	−0.048
% of households w/ member < 18 yrs.	31.144	29.736	30.653	0.187	0.062	0.031
Distance to nearest hospital (mi.)	7.066	11.452	7.724	−0.711	−0.118	−0.016
Distance to nearest nursing facility (mi.)	5.533	8.560	6.011	−0.592	−0.108	−0.007

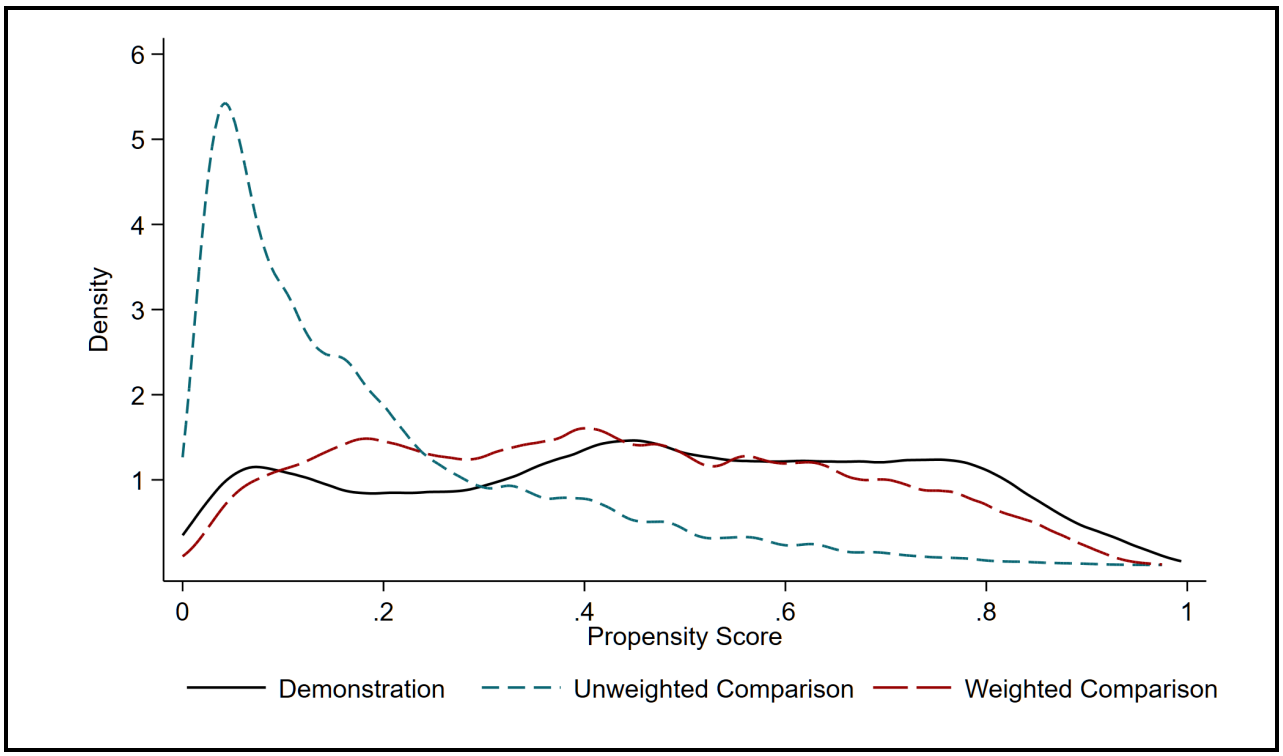
ESRD = end-stage renal disease; HCC = Hierarchical Condition Category; MSA = metropolitan statistical area. PS = propensity score.

A.3 Propensity Score Overlap

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

Any beneficiaries who have estimated propensity scores below the smallest estimated value in the demonstration group are removed from the comparison group. There were 225 beneficiaries removed from the comparison group for this reason in demonstration year 3.

Figure A-1
Distribution of beneficiary-level propensity scores in the Virginia demonstration and comparison groups, weighted and unweighted, January 1, 2017–December 31, 2017



A.4 Group Comparability

Covariate balance refers to the extent to which the characteristics used in the propensity score are similar (or "balanced") for the demonstration and comparison groups. Group differences are measured by a standardized difference (the difference in group means divided by the pooled standard deviation of the covariate). An informal standard has developed that groups

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

The group means and standardized differences for all beneficiary characteristics are shown for demonstration year 3 in ***Table A-4***. The column of unweighted standardized differences indicates that several of these variables were not balanced before running the propensity model. Six variables (percentage of beneficiaries living in MSAs; percentage of households with a member over age 60; percentage of adults with a college degree; percentage of adults with a self-care limitation; distance to nearest hospital; and distance to nearest nursing facility) all had unweighted standardized differences exceeding 0.40.

The results of propensity score weighting for Virginia demonstration year 3 are illustrated in the column second from right (propensity score-weighted standardized differences) in ***Table A-4***. Propensity weighting reduced the standardized differences below the threshold level of an absolute value of 0.1 for six of the covariates whose unweighted differences exceeded 0.1, but five covariates had propensity score-weighted standardized differences that remained greater than 0.1.

The far-right column of ***Table A-4*** displays e-balance-weighted standardized differences, which use a different weighting methodology than propensity scores. As described in our study protocol, we use e-balance to generate analysis weights in situations like this one when it clearly provides better balance than propensity score weighting. Entropy balancing differs from a propensity score approach by estimating weights directly in such a way as to minimize the difference between each reweighted covariate moment (e.g., mean, variance) in the control group and the corresponding moments in the demonstration group. Entropy balancing weighting is a more recently developed machine learning technique that uses iterative optimization algorithms to derive weights that maximize the similarity of the observed characteristics of demonstration and comparison subjects.

E-balance weighting pulled the comparison group means closer to the demonstration group means and improved the balance of the two groups. In demonstration year 3, e-balance weighting pulled almost all variables—individual and area-level—to within a standardized difference of 0.1 between the comparison group and demonstration group. With e-balancing, the number of unbalanced covariates was reduced to one (the percentage of adults with a college degree). As described in our study protocol, we use e-balance to generate analysis weights in situations like this when it clearly provides better balance than propensity score weighting.

A.5 Enrollee Results

In addition, we performed propensity score and e-balance weighting for demonstration enrollees (approximately 33 percent of the eligible demonstration population). We define the enrollee group, along with its comparison group, as follows: (1) The demonstration enrollees are those with at least 3 months of enrollment during the 3-year demonstration period as well as 3 months of eligibility during the 2-year baseline period; and (2) the corresponding comparison group beneficiaries are those with at least 3 months of eligibility in both the 3-year demonstration period and the 2-year baseline period.

Similar to the analysis of eligible beneficiaries, the enrollee results showed that the demonstration and comparison groups differed on a few individual-level variables and a host of area-level variables in demonstration year 3. On individual-level variables, the demonstration group consistently had a higher share of Black beneficiaries and a lower share of beneficiaries in other Medicare demonstrations. The two groups had unweighted standardized differences greater than 0.1 for all area-level covariates except the percentage of households with a member less than age 18. The demonstration group areas consistently had a higher share of beneficiaries in MSAs, a higher share of beneficiaries in married households, a lower share of households with members over age 60, a higher share of adults with a college degree, a lower share of adults with a self-care limitation, and had beneficiaries living closer to hospitals and nursing facilities.

Propensity score weighting substantially improved the balance in the enrollee results. In contrast to the propensity score-weighted covariates that were out of balance in the all-eligible results, propensity score weighting balanced all covariates in all analysis years in the enrollee group, with no covariates exceeding the threshold of 0.1. E-balance weighting similarly reduced all standardized differences for all covariates to below 0.1.

A.6 Summary

Our Virginia demonstration year 3 analyses revealed several unweighted differences between demonstration and comparison groups. The Virginia demonstration and comparison groups were initially distinguished by differences in individual-level variables (age, share of Black beneficiaries, share of disabled beneficiaries) and area-level variables (share of beneficiaries living in MSAs, share living in married households, share living in households with a member over age 60, share of adults with a college degree, share of adults with a self-care limitation, share living in households with a member under age 18, and distance to hospitals and nursing facilities).

Propensity score weighting reduced all of the individual-level covariate discrepancies below the threshold for standardized differences, but five area-level covariate differences greater than 0.1 persisted. E-balance weighting, however, reduced the standardized differences to less than 0.1 among almost all variables, the only exception being the percentage of adults with a college degree. As a result, the e-balance weighted Virginia groups for eligible beneficiaries are adequately balanced with respect to 15 of the 16 variables we consider for comparability. Among enrollees, both propensity score weighting and e-balance weighting removed all differences greater than 0.1 in all covariates across all years.

The e-balance weights account for observed differences between the demonstration and comparison groups when computing descriptive statistics for each Annual Report. In addition, these covariates will be incorporated in the multiple regression models used to estimate demonstration effects for key outcomes to further reduce the potential for biased estimates.

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Appendix B

Financial Alignment Initiative Evaluation: Comparison Group Selection Procedures

This appendix describes the steps used to select comparison group areas and beneficiaries for the demonstrations under the Financial Alignment Initiative (FAI). Comparison group beneficiaries, as the counterfactual for the demonstration States, will be used in descriptive and regression analyses of each State demonstration to measure demonstration effects on health care expenditures, utilization patterns, and quality of care. Impact analyses will combine Medicare and Medicaid claims data to the extent that timely Medicaid data are available from a State.

RTI, under contract with CMS to conduct the evaluation, developed a two-stage comparison group selection process. In the first stage, geographic comparison areas that are similar to the demonstration areas are identified based on area-level measures of health care market characteristics, Medicare and Medicaid spending, and Medicaid policy. In the second stage, all full-benefit dual eligible beneficiaries who meet the eligibility criteria under the State demonstration and reside in the demonstration and comparison areas are pooled to estimate a propensity score model based on beneficiary and area characteristics. A propensity score is an estimate of the probability that a beneficiary is a member of the demonstration group rather than comparison group. In outcome analyses, beneficiaries from the comparison area are reweighted based on the inverse of their propensity scores so that they more closely match the distribution of characteristics of the beneficiaries from the demonstration areas. The objective is to produce demonstration and comparison groups that are balanced in the sense that mean values for beneficiary characteristics are similar after weighting.

This process will be performed independently for each demonstration under the FAI. Comparison groups will be identified for the baseline period (for each of the 2 years prior to the start of a demonstration) and annually thereafter after the end of each demonstration year. The first demonstration period may be longer than one year in length. The same comparison beneficiaries identified in the demonstration period will be used for the actuarial financial reconciliations in managed fee-for-service (FFS) demonstrations, but the actuarial calculations will not use propensity score weighting.

B.1 Identification of Comparison Areas

Our comparison area selection procedure is designed to identify the smallest number of regions that will provide:

1. Adequate diversity by drawing beneficiaries from multiple comparison areas,
2. Recent Medicaid data,
3. Sufficient sample size for conducting outcome analyses, and
4. Equivalence to the geographic composition of the demonstration area.

Each demonstration targets Medicare-Medicaid beneficiaries (hereafter referred to as beneficiaries) in the entire State or in specified counties within a State. To delineate the universe of demonstration areas and potential comparison areas, we chose to characterize geographic areas based on MSAs, which are defined by the U.S. Census Bureau as groups of counties incorporating an urban core. Entire States were too large to use as the basis of area composition (making for crude comparisons) and individual counties were too small (requiring large numbers

of counties to obtain enough eligible beneficiaries). All counties within a State that are not part of a defined MSA were merged into a single "Rest of State" area. MSAs within FAI demonstrations that did not implement statewide were also available to serve as comparison areas. We excluded from consideration nine non-demonstration States based on timeliness of their MSIS submissions at the time of analysis (Arizona, Washington DC, Florida, Hawaii, Idaho, Kansas, Louisiana, Utah, and Vermont).

The general selection strategy is as follows:

1. Rank order potential comparison States by their MSA-weighted distance scores (as described below).

2. Remove States that have not provided Medicaid data recently.

3. Select the three remaining States with the lowest mean distance scores.

4. Test to determine whether: a) any State contains more than half of all comparison beneficiaries, and b) the total number of beneficiaries in the comparison group is smaller than the number in the demonstration group.

5. If either test above is positive, add the next State in rank order and repeat step 4.

Comparison areas were selected using the following process:

1. We computed Mahalanobis distance scores to measure the statistical distance (similarity) between each demonstration MSA/Rest of State area and every MSA/Rest of State area in the set of available comparison areas. We then ranked comparison areas from lowest distance (most similar) to highest distance (least similar). (Distance scores are described below).

2. Based on the number of full-year/full-benefit beneficiaries in each area as reported in the 2011 MSIS Annual Person Summary file, we selected areas with the lowest distance scores until the combined comparison areas contained at least as many beneficiaries as the number of beneficiaries in the demonstration area. The size of the comparison group should be at least as large as the demonstration group to increase statistical power for outcome analyses. In situations when the demonstration group is small, we will consider increasing the size of the comparison group to increase the overall statistical power of the design.

3. After aggregating preliminary comparison groups for all FAI demonstrations, we tabulated the aggregate number of beneficiaries contributed by each State to the complete set of comparison groups, and identified the 12 non-FAI States making the greatest contributions as comparison areas. These 12 States, in order of Medicare-Medicaid eligible beneficiaries contributed, were Pennsylvania, New Jersey, North Carolina, Georgia, Wisconsin, Maryland, Alabama, West Virginia, Missouri, Kentucky, Arkansas, and Mississippi. By focusing on this key group of 12 comparison States, we are able to balance the need for variety in comparison groups and efficient use of project resources.

4. Using the 247 individual areas from these 12 States and the non-demonstration counties in FAI States, we repeated steps 2 and 3 above to produce the final lists of comparison areas.

Distance Score. A distance score is a measure of the similarity between two areas. Distance scores were derived by computing the standardized difference between demonstration and comparison area values on selected health care market and Medicare- and Medicaid-related measures and combining the difference scores across measures. The smaller the total distance score, the more similar any two MSAs/rest of State areas were. We used the following 10 measures to calculate distance scores:

- Medicare spending per dual, ages 19+
- Medicare Advantage penetration rate, all enrollees
- Medicaid-to-Medicare fee index (fee-for-service), all services
- Medicaid spending per dual, ages 19+
- Fraction of dual eligible beneficiaries using nursing facilities, ages 65+
- Fraction of dual eligible beneficiaries using HCBS, ages 65+
- Fraction of dual eligible beneficiaries using personal care, ages 65+
- Fraction of dual eligible beneficiaries with Medicaid managed care, ages 19+
- Population per square mile, all ages
- Patient care physicians per 1,000 population

Geographic diversity in comparison areas. As a final step in area selection, to ensure that results were not unduly influenced by any single State, we checked that each demonstration's comparison group consisted of at least three States and that no single State will contribute more than half of the comparison group. If a State contributes the majority of beneficiaries to the comparison group, we will establish a cap on that State's contribution. Capping "over-represented" States will be achieved by drawing from the areas in that State with the lowest distance scores until the next area to be added would go over the cap, at which point we will randomly draw just enough beneficiaries from the next area to stay below a State's 50 percent limit on its contribution.

B.2 The Propensity Score Model

As noted above, we will use propensity score weighting to produce demonstration and comparison groups that have similar characteristics on a range of beneficiary and area-level characteristics. A propensity score is the predicted probability that a beneficiary is in the demonstration group conditional on a set of observed characteristics. The propensity score is

estimated using Medicare-Medicaid beneficiaries in the demonstration and comparison group areas with a logistic regression model having the following form:

$$L = a + b_j X_j + b_k X_k + e$$

where

L = the logit or log-odds of the probability of being in the demonstration group,
a = an intercept term,
b_j, b_k = vectors of regression coefficients,
X_j = a vector of j beneficiary-level characteristics,
X_k = a vector of k area-level characteristics, and
e = an error term.

The predicted probability of being in the demonstration group is then $PS = 1 / (1 + e^{-L})$.

The explanatory variables included in the model are both beneficiary- and area-level variables assembled from multiple data sources. We will use data for ZIP Code Tabulation Areas (ZCTAs) for the area measures.

Beneficiary-level characteristics. Data on the following beneficiary characteristics were used in the propensity model:

- Age categories (based on date of birth)
- Gender
- Race
- Disability status (obtained from Original Reason for Entitlement code)
- End-Stage Renal Disease (ESRD) status (obtained from Original Reason for Entitlement code)
- HCC Prospective Risk Score
- Number of months of full-benefit dual Medicare-Medicaid eligibility
- Residence in an urban area
- Died during year indicator

Except for HCC risk scores, all beneficiary-level characteristics were obtained from the Integrated Data Repository and from Medicare claims. CMS uses Medicare claims and encounter data to compute the Prospective HCC risk ratio as a measure of expenditure risk for each beneficiary. Risks scores are computed from a formula involving weighted diagnosis codes and

demographic information. HCC data are often missing for a small group of beneficiaries. In these cases, we impute values missing HCC scores using an Ordinary Least Squares regression model that controls for age, gender, disability status, ESRD status, and death in the year. We also include a dummy variable in the propensity score model to identify beneficiaries for whom the HCC variable is imputed.

Area-level characteristics. ZCTA area-level data are used as a proxy for sociodemographic indicators and local area characteristics, such as proximity to hospitals and nursing facilities. We use data from the 2009-2013 American Community Survey (ACS) representing individuals who live in the same ZCTA and are of the same gender as the beneficiary. Data on distance from the ZCTA centroid to the closest facilities were used for the proximity measures.

The ACS contains 24 variables that were potentially relevant for our models. To reduce the amount of data, we subjected these variables to an oblique exploratory factor analysis based on all 43,000 ZCTAs in the country. Rather than requiring that factors be unrelated to each other, an oblique analysis allows factors to be correlated. The oblique assumption seems more realistic for the types of overlapping social and demographic indicators that were considered.

The analysis of 19 variables found 5 correlated factors underlying the measures. The general factors and the variable with the highest loading on each factor are shown below in ***Table B-1***. Further testing showed that substituting the highest loading variable for factors scores based on all variables had little effect on propensity score estimates. As a result, we selected the highest loading variable on each factor for inclusion in the propensity score model.

Table B-1
General factors and variables with highest loadings, oblique factor analysis of 19 ACS variables for the VA Demonstration

General factor	Variable with highest factor loading
Household composition	% of population living in married households
Presence of older adults	% of households with at least one resident age 60 or older
Education and income	% of adult population with at least a college degree
Presence of children and adolescents	% of households with at least one resident under age 18
Disability as reason for Medicare entitlement	% of adult population with self-care difficulties

The FAI Aggregate Evaluation Design Report prepared by RTI calls for demonstration and comparison groups for two baseline periods and each demonstration year. This is the sole Evaluation Report for Virginia. Beneficiary characteristics will be measured at the beginning of each period or as of the first month of demonstration eligibility for those who are not eligible at the start of the period. Beneficiaries will be included in an analysis as long as they had at least one month of dual eligibility during the analysis year.

B.3 Compute Propensity Score Weights

Propensity scores are used to ameliorate group disparities by weighting by the inverse of each comparison beneficiary's estimated propensity score. The IPTW is PS/(1-PS) where PS is a beneficiary's predicted propensity score. Weights are set to 1 for all members of the demonstration group. In operationalizing the propensity score weighting, IPTWs will be capped at a value of 5 to prevent any particular beneficiary from having an outsize influence on the results. Weights will also be normalized to have a mean of 1.0 so that the weighted size of the comparison group would equal the unweighted size. This is done so that statistical tests are based on the appropriate sample size.

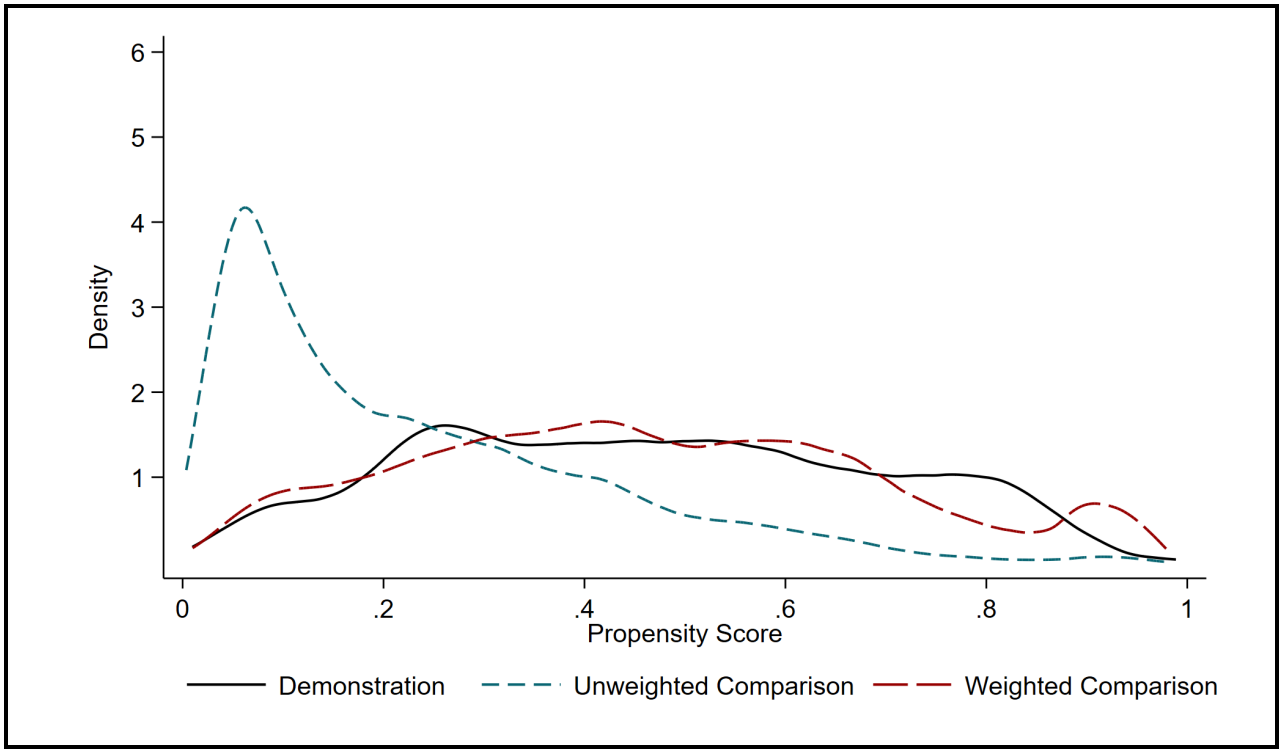
In unweighted studies, all observations are implicitly assumed to have a weight of 1. When propensity score weights are applied, some comparison beneficiaries will have weights less than 1 (and will therefore have less influence on study analyses), whereas others will have weights greater than 1 (and will therefore have more influence on study analyses). These differential IPTWs, which will produce different descriptive and multivariate results than unweighted data, are the key mechanism for creating greater equivalence between the demonstration and comparison groups and for mitigating the potential for selection bias.

B.4 Test Group Comparability

The final step of our procedures is to test the comparability or "balance" of the demonstration and comparison groups. Two types of comparisons will be performed. The first comparison examines the distribution of estimated propensity scores using "overlay" plots. A typical example is shown in ***Figure B-1***. The solid black line shows the distribution of propensity scores for the demonstration group, which covers nearly the entire 0-1 range of probabilities and has the greatest concentration of beneficiaries at propensity scores of about 0.25. The comparison group distribution, before weighting, is depicted by the dotted line. This distribution is clearly to the left of the demonstration group, indicating that it contains more beneficiaries with lower propensity scores. However, after weighting, the comparison group distribution is pulled to the right so that it nearly coincides with the demonstration group distribution. We will examine these plots in each State-specific report to ensure that the overall score distributions are similar for the two beneficiary groups.

Ideally, impact analyses should be conducted only in instances of "common support," that is, situations in which there is an overlap in the propensity scores of both demonstration and comparison groups. In each demonstration, we will identify comparison beneficiaries falling below common support, (that is, those with PSs below the smallest PS observed in the demonstration group) and remove them from further analysis.

Figure B-1
Distribution of beneficiary-level propensity scores in the demonstration and comparison groups, weighted and unweighted, illustrative example



The second comparison focuses on each of the individual variables used in the propensity score models. If the groups are balanced, then the mean values for any variable should be nearly the same in the demonstration and comparison groups. The magnitude of the difference between the groups can be expressed in the form of a standardized difference (the demonstration mean score minus comparison mean divided by the pooled standard deviation of a measure). For each State, we will prepare a table like the shell shown in ***Table B-2***. This format shows example comparison group mean scores and standardized differences both before and after propensity score weighting.

Table B-2
Illustrative table format comparing group means for selected characteristics

Characteristic	Demonstration group mean	Unweighted comparison group mean	Unweighted standardized difference	Propensity weighted comparison group mean	Weighted standardized difference
Female	0.694	0.707	0.028	0.691	0.007
White	0.780	0.784	0.009	0.782	0.005
Disabled	0.216	0.255	0.091	0.212	0.011
Age 85+	0.302	0.300	0.003	0.307	0.011
HCC Score	1.661	1.695	0.033	1.660	0.001

We will use the guideline that standardized differences should have absolute values less than 0.10 when groups are well matched (Austin, 2009). In the event that one or more characteristics do not meet the 0.10 criterion, several options will be considered. The first is to remove the characteristic from the propensity model, especially if it is a prevalence measure generating extremely high propensity scores and therefore large weights. Another option is to add additional explanatory variables to the model, potentially including other ZCTA level measures or interactions terms based on demographic characteristics and HCC score. It is important to keep in mind that the variables that are most relevant for bias reduction are those that are related to both group status and to the outcomes of interest. For this reason, we will pay special attention to balancing characteristics that are likely to influence expenditures and utilization such as HCC risk scores, ESRD status, disability status, age, and death during the year. Although we focus on propensity score weighting here, we may also prepare alternative weights based on the entropy balancing (e-balancing) weighting procedure as a backup if the propensity score method proves unworkable for any particular demonstration State. Unlike the propensity score logistic regression model, e-balancing treats covariate balance as an optimization problem by generating an optimal set of weights that minimize entropy distances. In many instances, e-balancing can produce weighted groups with identical covariate means.

Appendix C

Summary of Predemonstration and Demonstration Design Features for Medicare and Medicaid Beneficiaries in Virginia

Table C-1
Summary of predemonstration and demonstration design features for Medicare and Medicaid beneficiaries in Virginia

Key features	Predemonstration	Demonstration
Summary of covered benefits		
Medicare	Medicare Parts A, B, and D	Medicare Parts A, B, and D
Medicaid	Medicaid State Plan	Medicaid State Plan (a small number of services, such as dental care in limited cases, targeted case management for individuals with intellectual disabilities, and case management services for participants of Auxiliary Grants are still paid FFS)
Payment method (capitated/FFS/MFFS)		
Medicare	Mostly FFS, some PACE (10 PACE sites are currently in Virginia, with an estimated 15 PACE sites by 2014)	Capitated
Medicaid (capitated or FFS)		
Primary/medical	FFS, capitated if enrolled in PACE	Capitated
Behavioral health	FFS	Capitated
LTSS (excluding HCBS waiver services)	FFS, capitated if enrolled in PACE	Capitated
Non-EDCD HCBS waiver services (excluded from the demonstration)	FFS	FFS
EDCD waiver services	FFS	Capitated
Other (specify)	N/A	N/A
Care coordination/case management	N/A	MMPs provided case management and service coordination activities through ICTs.
Care coordination for medical, behavioral health, or LTSS and by whom		
Care coordination/case management for HCBS waivers and by whom	N/A	Beneficiaries enrolled in non-EDCD HCBS waivers were not eligible for the demonstration.
Targeted case management	FFS	FFS
Rehabilitation Option services	N/A	N/A
Clinical, integrated, or intensive care management	N/A	N/A

(continued)

Key features	Predemonstration	Demonstration
Enrollment/assignment		
Enrollment method	N/A	Passive enrollment with an opt-out option.
Attribution/assignment method	N/A	Medicare-Medicaid enrollees were assigned to an MMP if they did not select a plan or opt out within a prescribed time frame.
Implementation		
Geographic area	N/A	Regional
Phase-in plan	N/A	The regions were phased in during the first year of the demonstration. Enrollment began in April 2014 in Central Virginia and Tidewater regions. Enrollment began in Northern Virginia, Roanoke, and Western/Charlottesville in June 2014.
Implementation date	N/A	The first effective enrollment date was April 1, 2014.

FFS = fee-for-service; HCBS = home and community-based services; ICT = Interdisciplinary Care Team; LTSS = long-term services and supports; MFFS = managed fee-for-service; MMP = Medicare-Medicaid Plan; N/A = not applicable; PACE = Program of All-Inclusive Care for the Elderly.

SOURCES: CMS and the Commonwealth of Virginia Memorandum of Understanding (MOU, 2013); the Virginia proposal (DMAS, 2012a); personal communication with DMAS, March 2015.

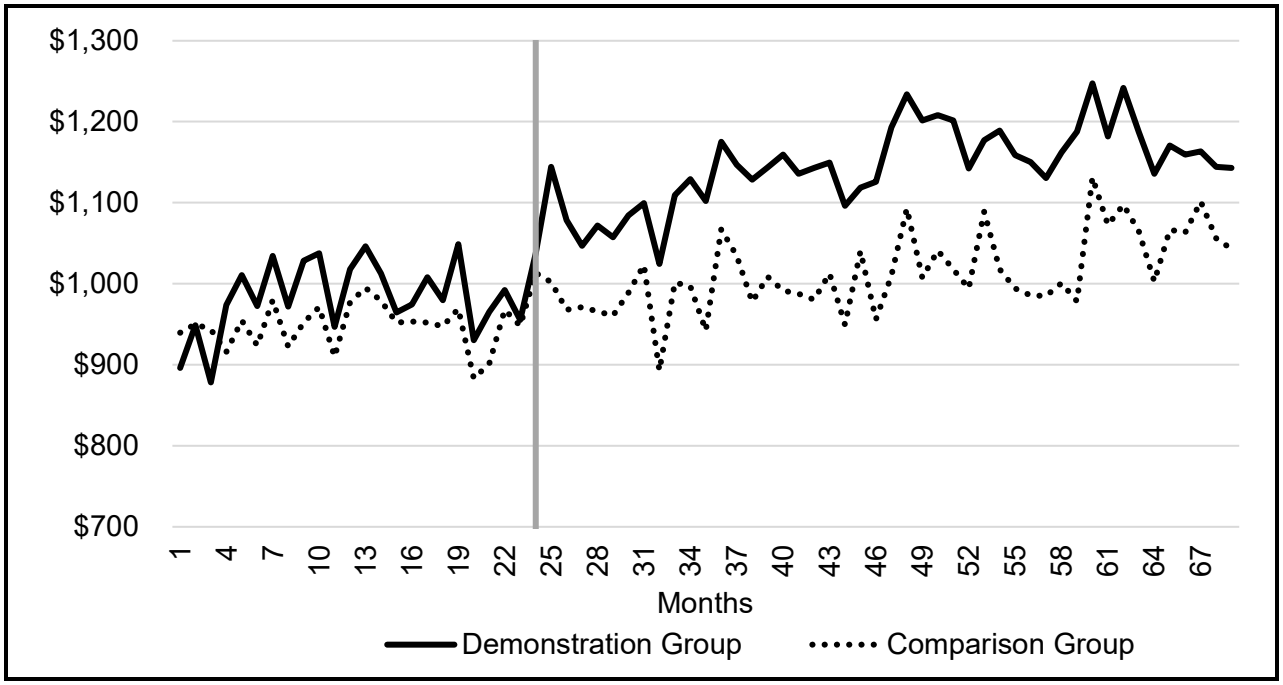
Appendix D

Cost Savings Unweighted Descriptive Analysis

D.1 Descriptive Results Utilizing Unweighted Data

RTI performed similar descriptive analysis on the unweighted data as was done on the weighted data (see ***Section 10.3, Figure 4*** and ***Tables 13–15***). This allows for a more direct comparison of the underlying data. However, the weights are created to account for differences in the demonstration and comparison groups. Therefore, these results should be used cautiously. ***Figure D-1*** indicates that the demonstration group and the comparison group had parallel trends in mean monthly expenditures during the 24-month predemonstration period, which is an important assumption to the DinD analysis.

Figure D-1
Mean monthly Medicare expenditures (unweighted) for demonstration and comparison groups, predemonstration and demonstration periods, April 2012–December 2017



NOTE: Vertical line at month 24 denotes the last month prior the start of the demonstration.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: FormatOutput_VADY3_figures.xlsx).

Tables D-1 through ***D-3*** show the mean monthly Medicare expenditures for the demonstration group and comparison group in the predemonstration and each demonstration period, unweighted. As an example, ***Table D-1*** shows the unweighted mean for the predemonstration period and demonstration year 1, for both the demonstration and comparison groups. All values reported in these tables are at the per member, per month (PMPM) level. The unweighted mean for the demonstration group during the predemonstration period was $985.02, while the comparison group had a mean of $927.01. During demonstration year 1, the demonstration group had an unweighted mean of $1,111.47. The right column shows that this is a $126.46 increase in costs for the demonstration group between the predemonstration period and demonstration year 1. By comparison, the comparison group had increased costs of $32.34 from

the predemonstration period to demonstration year 1. The resulting descriptive DinD (demonstration group difference minus the comparison group difference) for demonstration year 1 is $94.11, suggesting that the demonstration group had a greater increase in costs than the comparison group.

The DinD value would be equal to zero if the differences between predemonstration and the demonstration year were the same for both the demonstration group and the comparison group. A negative value would indicate savings for the demonstration group, and a positive value would indicate that there were increased costs for the demonstration group. The descriptive unweighted results show statistically significant increased costs in the demonstration group for demonstration years 1, 2, and 3.

Table D-1
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 1, unweighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 1 (Apr. 2014–Dec. 2015) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,111.47 ($1,073.39, $1,149.56)	$126.46 ($103.87, $149.04)
Comparison group	$927.01 ($910.69, $943.33)	$959.35 ($944.48, $974.22)	$32.34 ($23.16, $41.52)
Difference-in-difference	N/A	N/A	$94.11 ($69.89, $118.34)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).

Table D-2
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 2, unweighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 2 (Jan. 2016–Dec. 2016) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,175.81 ($1,134.70, $1,216.93)	$190.79 ($161.99, $219.59)
Comparison group	$927.01 ($910.69, $943.33)	$975.03 ($960.69, $989.36)	$48.02 ($34.29, $61.75)
Difference-in-difference	N/A	N/A	$142.78 ($111.07, $174.48)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).

Table D-3
Mean monthly Medicare expenditures for demonstration and comparison groups, predemonstration period and demonstration year 3, unweighted

Group	Predemonstration period (April 2012–March 2014) (95% confidence intervals)	Demonstration year 3 (Jan 2017–Dec 2017) (95% confidence intervals)	Difference (95% confidence intervals)
Demonstration group	$985.02 ($955.38, $1,014.66)	$1,179.05 ($1,122.25, $1,235.85)	$194.03 ($152.39, $235.67)
Comparison group	$927.01 ($910.69, $943.33)	$1,016.19 ($999.38, $1,033.00)	$89.18 ($73.06, $105.31)
Difference-in-difference	N/A	N/A	$104.85 ($60.51, $149.20)

N/A = not applicable.

SOURCE: RTI Analysis of Virginia demonstration eligible and comparison group Medicare data (program: va_dy3_1501.log).