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Evaluation of the Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration

Third Annual Report

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**Evaluation of the Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration
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LIST OF ACRONYMS

ABD	aged, blind, or disabled
ACA	Patient Protection and Affordable Care Act
ACO	accountable care organization
ACSC	ambulatory care sensitive conditions
ADK Demonstration	Adirondack Medical Home Demonstration
ADT	Admission-Discharge-Transfer
AHEC	Area Health Education Centers
AHI	Adirondack Health Institute, Inc.
AHRQ	Agency for Healthcare Research and Quality
AMI	acute myocardial infarction
APCP	advanced primary care practice
ARC	Actuarial Research Corporation
BCBS	Blue Cross Blue Shield
BCBSM	Blue Cross Blue Shield of Michigan
BCBSNC	Blue Cross Blue Shield of North Carolina
BCBSRI	Blue Cross Blue Shield of Rhode Island
BCN	Blue Care Network
BHHO	behavioral health home organizations
BMI	body mass index
BQPP	Blue Quality Physician Program
CAH	critical access hospital
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CCM	chronic care management
CCN	community care network
CCNC	Community Care of North Carolina
CCT	community care team
CHF	congestive heart failure
CHT	community health team
CMIS	Case Management Information System
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
CPT	Current Procedural Terminology
CRF	chronic renal failure
CSI	Chronic Care Sustainability Initiative
CSS	Council of Subspecialty Societies
CTC	Care Transformation Collaborative of Rhode Island
CVD	cerebrovascular disease

D-in-D	difference-in-differences
DME	durable medical equipment
DOH	Department of Health
DPW	Department of Public Welfare
DSRIP	Delivery System Reform Incentive Payment [New York]
E&M	evaluation and management
EDB	Enrollment Data Base
EHR	electronic health record
EQulP	Expansion and Quality Improvement Program
ER	emergency room
ERISA	Employee Retirement Income Security Act of 1974
ESRD	end-stage renal disease
FFS	fee-for-service
FPL	federal poverty level
FQHC	federally qualified health center
FTE	full-time equivalent
GOHCR	Governor's Office for Health Care Reform
HCC	Hierarchical Condition Category
HCDS	Health Care Delivery Systems
HCH	Health Care Homes
HCPCS	Healthcare Common Procedure Coding System
Health IT	health information technology
HEDIS	Healthcare Effectiveness Data and Information Set
HHA	home health agency
HIE	health information exchange
HIPAA	Health Insurance Privacy and Accountability Act
HIT	health information technology
HITECH	Health Information Technology for Economic and Clinical Health
Hixny	Health Information Xchange New York
HSA	health service area
ICD-9	International Classification of Diseases, Ninth Revision
IHP	Integrated Health Partnership
IMPACT	Infrastructure for Maintaining Primary Care Transformation
IT	information technology
LDL	low-density lipoprotein cholesterol
MAeHC	Massachusetts e-Health Collaborative
MAPCP	Multi-Payer Advanced Primary Care Practice
MCO	managed care organization

MiHIN	Michigan Health Information Network
MiPCT	Michigan Primary Care Transformation Project
MOU	memorandum of understanding
MU	meaningful use
MVP	Mohawk Valley Plan [Vermont]
NCH	National Claims History
NCQA	National Committee for Quality Assurance
NNEACC	Northern New England Accountable Care Collaborative
NPI	National Provider Identifier
NPES	National Plan and Provider Enumeration Systems
NYS DOH	New York State Department of Health
OHIC	Rhode Island Office of the Health Insurance Commissioner
OPD	outpatient department
ORHCC	Office of Rural Health and Community Care [North Carolina]
P4P	pay-for-performance
PAFP	Pennsylvania Academy of Family Physicians
PBPM	per beneficiary per month
PCCM	primary care case management [Maine]
PCMH	patient-centered medical home
PGIP	Physician Group Incentive Program
PGP	Physician Group Practice
PMPM	per member per month
PO	provider organization
PPC®-PCMH™	Physician Practice Connection Patient-Centered Medical Home
RHC	rural health clinic
RIQI	Rhode Island Quality Institute
SASH	Support and Services at Home
SED	serious emotional disturbance [Maine]
SIM	State Innovation Model
SMI	serious mental illness [Maine]
SNF	skilled nursing facility
SPA	State Plan Amendments
SQRMS	Statewide Quality Reporting and Measurement System
TIN	taxpayer identification number
VCCI	Vermont Chronic Care Initiative
VHCURES	Vermont Healthcare Claims Uniform Reporting and Evaluation System
VITL	Vermont Information Technology Leaders

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CHAPTER 1

MULTI-PAYER ADVANCED PRIMARY CARE PRACTICE (MAPCP) DEMONSTRATION EVALUATION THIRD ANNUAL REPORT: INTRODUCTION, ORGANIZATION, AND DATA AND METHODS

1.1 Overview of the MAPCP Demonstration and Evaluation

1.1.1 Overview of the MAPCP Demonstration

For the Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration, the Centers for Medicare & Medicaid Services (CMS) joined state-sponsored initiatives to promote the principles characterizing patient-centered medical home (PCMH) practices. After a competitive solicitation, eight states were selected for the MAPCP Demonstration: Maine, Michigan, Minnesota, New York, North Carolina, Pennsylvania, Rhode Island, and Vermont. Although the demonstration in all eight states was to start on July 1, 2011, only New York, Rhode Island, and Vermont became operational on that date. Minnesota and North Carolina became operational on October 1, 2011, and Maine, Michigan, and Pennsylvania became operational on January 1, 2012.

The MAPCP Demonstration required each participating state PCMH initiative to be implemented by a state agency as part of a state-sponsored reform initiative. Medicare joined state reform initiatives already in progress. Medicaid and major private health plan(s) are participating in all eight state initiatives. Several state programs, such as Rhode Island's, also have substantial participation among self-insured groups. Many state programs are exceeding the MAPCP Demonstration requirement for at least 50 percent private-payer participation.

In the request for applications, states were informed that the average Medicare per member per month (PMPM) payment should not exceed \$10, and that payment methods should be applied consistently by all participating payers—but not necessarily at the same dollar level—unless a compelling case for an alternative was made. Each state has its own payment levels and established its own payment methods. For example, Vermont pays practices differentially based on their National Committee for Quality Assurance (NCQA) PCMH recognition level. In contrast, Minnesota paid practices differentially based on the number of patient comorbidities.

State initiatives also were required to promote the principles of advanced primary care practice (APCP), but each state had broad flexibility to adopt its own definition of APCP for its practices. All MAPCP Demonstration states (except for Michigan and Minnesota) elected to define advanced primary care (APC) in alignment with the NCQA PCMH recognition standards. States also added expectations for practices to reflect local priorities. For this report, we use the term PCMH to refer to all practices participating in state MAPCP Demonstration initiatives, with the exception of Minnesota, where we use the term Health Care Homes (HCH), consistent with its naming convention.

Each state initiative was required to make provision for the integration of community-based resources to support APCPs. Several states (Maine, New York, North Carolina, Michigan, Rhode Island, and Vermont) are funding community health teams (CHTs), community-based practice support networks, or physician organizations for this function. Further, each state initiative was required to provide for the ongoing measurement of quality and performance and

the evaluation of the initiative's impact. Several states formed partnerships with state universities to conduct these evaluations. Finally, to provide the "prospective assurance" of budget neutrality, states were required to identify and present persuasive evidence supporting their projections that CMS participation in the state initiative would result in savings to Medicare at least equal to the amount of CMS payments to participating practices. This provided CMS with measurable outcomes for evaluation purposes.

1.1.2 Overview of the MAPCP Demonstration Evaluation

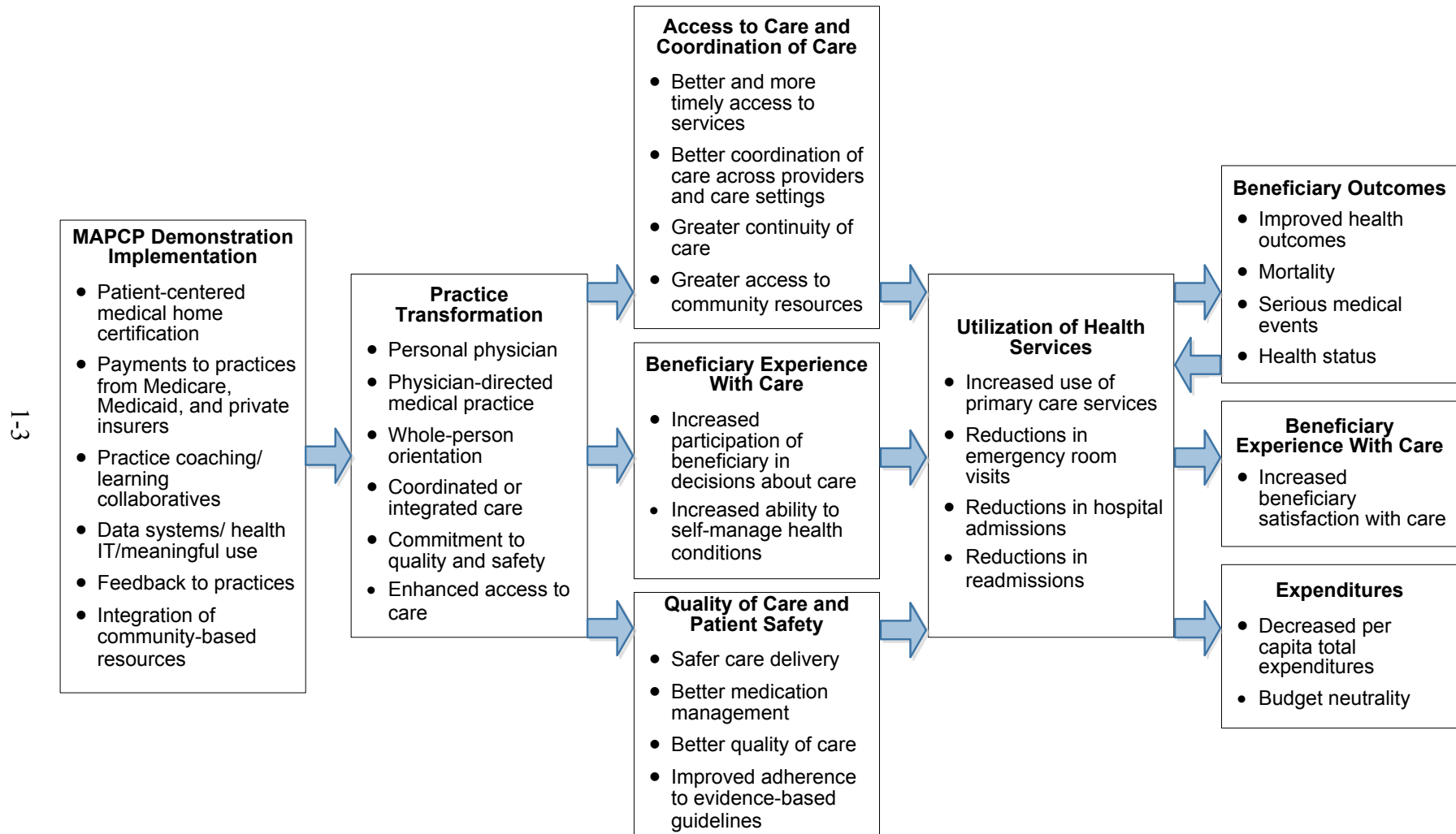
In 2011, CMS selected RTI International and its subcontractors, Urban Institute and the National Academy for State Health Policy, to evaluate the MAPCP Demonstration. The goal of the evaluation is to identify features of the state initiatives or the participating PCMH practices that are positively associated with improved outcomes. The evaluation uses a mix of qualitative and quantitative methods to capture each state's unique features and to develop an in-depth understanding of the transformative processes occurring within and across the states' health care systems and participating PCMH practices, thereby allowing us to link structural and process changes directly to outcomes.

Figure 1-1 shows the conceptual framework for the MAPCP Demonstration evaluation, organized into six major domains: State Initiative Implementation, Practice Transformation, Access to Care and Coordination of Care, Beneficiary Experience with Care, Quality of Care and Patient Safety, and Effectiveness (Utilization of Health Services and Expenditures). In our evaluation, we also consider Special Populations. Although each state initiative has unique aspects, the framework reflects common features of the initiatives and the broad areas of outcomes within our evaluation design. The framework takes into account other factors also influencing evaluation outcomes, such as individual beneficiary characteristics and the broader health care, social, political, economic, and physical environments in which the PCMH initiatives operate.

As shown in *Figure 1-1*, the state-sponsored initiatives are undertaking a range of strategies to promote the transformation of participating practices to PCMH practices. In addition to payments from the major payers to participating practices, other strategies include practice coaching and learning collaboratives; development of data systems and health information technology (IT) infrastructure to provide decision support tools, facilitate information exchange among providers, and achieve meaningful use objectives; feedback to practices on quality, utilization, and cost outcomes; and integration of community-based resources.

These strategies are intended to support the transformation of participating practices to embody the principles of the PCMH model (American Academy of Family Physicians et al., 2007). The PCMH model expands on the chronic care model developed by Wagner (1998), which identified six elements of a delivery system leading to improved care: the community, the health system, self-management support, delivery system design, decision support, and clinical information systems (Glasgow, Orleans, & Wagner, 2001; Wagner, 2002; Wagner et al., 2001). Beneficiaries in these transformed practices are expected to have better access to care and better-coordinated care; to receive safer, higher-quality care; and to be more engaged in decision making about their care and management of their health conditions.

Figure 1-1
Conceptual framework for the MAPCP Demonstration evaluation



MAPCP = Multi-Payer Advanced Primary Care Practice.

As in the chronic care model, patients and providers in PCMHs interact more productively, leading to improved functional and clinical outcomes. As a result, patients are expected to have more efficient patterns of health service utilization, thereby promoting the triple aim of improving beneficiary experience with care, improving health outcomes, and reducing per capita total expenditures (Berwick, Nolan, & Whittington, 2008). Improved health outcomes could also reduce service utilization.

To test the success of the MAPCP Demonstration, individual-, practice-, and system-level primary and secondary data are being collected and analyzed to answer research questions organized in three broad evaluation domains: State Initiative Implementation, Practice Transformation, and Outcomes. Outcomes include clinical quality of care and patient safety, access to and coordination of care, beneficiary experience with care, patterns of utilization, Medicare expenditures, budget neutrality, and special populations. The evaluation team worked collaboratively with CMS, other CMS demonstration evaluation contractors (e.g., RAND), and evaluators of non-CMS PCMH initiatives, such as the Multi-State PCMH Collaborative and the PCMH Evaluators Collaborative, to identify a core set of outcome measures and specifications for the evaluation. The evaluation team also identified additional outcome measures to evaluate across all eight states for both Medicare and Medicaid beneficiaries. Lastly, the evaluation team reviewed the states' MAPCP Demonstration applications to determine the types of utilization and expenditure reductions each state expected and developed analytic variables for these services to permit direct examination of budget neutrality annually. *Appendix A* contains a table of the evaluation research questions by each evaluation domain and summarizes the methods, outcome measures, and data sources used to answer those questions.

The evaluation uses a mixed-method design, with both quantitative and qualitative methods and data. Mixed-methods research is well suited for the goals of this evaluation because different methods yield different insights. Quantitative methods are well suited to outcome evaluation and answering a variety of questions about whether and by how much costs were reduced and quality and safety improvements achieved for various types of beneficiaries and practices. The goal of the quantitative analyses is to estimate the effect of the MAPCP Demonstration on changes in patient utilization, costs, and other outcomes. In contrast, qualitative methods are well suited for process evaluation and providing data on the historical and current context of the state initiatives, their key features and how they evolve over time, barriers and facilitators to implementation, perceived benefits and costs for practices and patients, and lessons learned. Qualitative analyses for the evaluation are intended to complement the quantitative methods.

The evaluation team is conducting multiple rounds of primary and secondary data collection. Findings from the first year of the MAPCP Demonstration were reported to CMS in the First Annual Report. The Second Annual Report included findings from the second year of the demonstration. Findings from the third year of the demonstration are included in this report. A Final Report will include results from our cross-state analyses.

With multiple rounds of quantitative and qualitative analyses, we are able to report both qualitative and quantitative findings along a continuum of state implementation and practice transformation maturation. Our principal focus is conducting eight separate within-state evaluations. Qualitative analyses of the effects of the MAPCP Demonstration are conducted

within each state three times and reported in the First, Second, and Third Annual Reports, and will be reported across the eight states in the Final Report. Medicare quantitative outcomes analyses for each state were conducted twice, for the First and Second Annual Reports, and also will be conducted for the Final Report. Medicaid quantitative outcomes analyses for each state will be conducted for the Final Report. RTI continues to work with each state to obtain Medicaid claims data directly from the states, their contractors, or managed care organizations providing health care insurance for Medicaid beneficiaries. Finally, a smaller set of three quantitative analyses related to budget neutrality, utilization, and expenditures will be conducted across the eight states and reported in the First, Second, and Final Report, allowing us to examine features of the state initiatives or the participating PCMH practices associated with positive outcomes.

This Third Annual Report contains findings from the third round of site visits, which occurred in October and November 2014, to all eight MAPCP Demonstration states. We also describe the demographic and health status characteristics of Medicare beneficiaries participating in the demonstration, as well as characteristics of participating demonstration practices.

To allow sufficient time for Medicare claims to be submitted and processed, we restrict our descriptive analyses of participating MAPCP Demonstration practices and sociodemographic and health status characteristics of demonstration beneficiaries to Medicare beneficiaries assigned to practices participating in New York, Rhode Island, and Vermont state initiatives from July 1, 2011, through June 30, 2014; in the North Carolina and Minnesota state initiatives from October 1, 2011, through September 30, 2014; and in the Maine, Michigan, and Pennsylvania initiatives from January 1, 2012, through December 31, 2014. Thus, we evaluated the third year of the MAPCP Demonstration for all eight states.

1.1.3 Organization of the Third Annual Report

The Third Annual Report contains the qualitative and a limited set of quantitative findings from the third year of evaluation. The remainder of this chapter (*Section 1.2*) provides an overview of the MAPCP Demonstration evaluation design and qualitative and quantitative data and methods used in this report.

Chapter 2 provides a summary of qualitative findings across the eight MAPCP Demonstration states and across the key evaluation domains of State Initiative Implementation, Practice Transformation, and Outcomes (clinical quality of care, patient safety and health outcomes, access to and coordination of care, beneficiary experience with care, effectiveness [utilization and expenditures], and special populations). The chapter begins with a snapshot of key features of the eight initiatives (*Section 2.1*). *Section 2.2* summarizes key themes and implementation findings from the site visits and concludes with lessons learned. *Section 2.3* provides usage data and feedback from users of the RTI Web portal. *Section 2.4* summarizes key qualitative findings related to practice transformation activities during the third year of the demonstration. *Section 2.5* provides a cross-state summary for five outcomes. *Section 2.6* provides an overall summary of the implications of the findings for states, CMS, and evaluators.

Chapters 3 through 10 provide detailed qualitative findings for all eight MAPCP Demonstration states and descriptive information on the characteristics of participating demonstration practices and the sociodemographic characteristics of Medicare beneficiaries

attributed to them. Each chapter has seven sections: state initiative implementation; practice transformation; clinical quality of care, patient safety, and health outcomes; access to and coordination of care; beneficiary experience with care; effectiveness (utilization and expenditures); and special populations. Each chapter concludes with a discussion of Year Three findings and next steps for the state initiatives.

Chapter 11 highlights overarching themes and similarities across the eight state initiatives. We summarize common implementation activities new in Year Three and discuss expected outcomes. We identify common challenges that surfaced in Year Three or remained from previous years, as well as lessons learned.

1.2 Overview of Evaluation Design and Qualitative and Quantitative Data and Methods

In this section, we provide an overview of our qualitative and quantitative methods. We begin by describing the MAPCP Demonstration eligibility criteria for Medicare FFS beneficiaries to participate in each initiative and describe the method of attribution of beneficiaries to participating PCMH practices. Next, we provide an overview of qualitative data and methods. We conclude this section with an overview of quantitative data for assessment of demographic and health status characteristics.

1.2.1 Identification of Intervention Beneficiaries

Attribution to practices participating in each state multi-payer PCMH initiative occurs quarterly, using attribution methods independently developed by each MAPCP Demonstration state and implemented by Actuarial Research Corporation (ARC). Unlike participating practices in the other seven MAPCP Demonstration states, Minnesota practices are expected to self-attribute beneficiaries to practices and submit monthly claims for MAPCP Demonstration payments to Medicare on behalf of all eligible patients in a practice. The majority of certified health care home practices eligible for MAPCP Demonstration payments, however, did not submitted monthly demonstration claims to Medicare. Given the exceptionally low observed rate of practice billing in Minnesota's MAPCP Demonstration, we use an attribution developed by ARC for evaluating Minnesota (see *Appendix B* for details on attribution for each state).

To be eligible for participation in the MAPCP Demonstration, Medicare beneficiaries must meet the following eligibility criteria each quarter:

- Be alive;
- Have Medicare Parts A and B;
- Be covered by traditional Medicare FFS;
- Have Medicare as the primary payer for health care expenses;
- Reside in the state-specified geographic area for its initiative; and
- Be attributed to a MAPCP Demonstration participating practice.

All Medicare beneficiaries meeting these six eligibility criteria are eligible for inclusion in the evaluation sample. They also must be attributed to a participating PCMH for at least 3 months over the course of the relevant demonstration evaluation period (i.e., 12 months, 24 months, 36 months). We removed beneficiaries with fewer than 3 months of eligibility during the demonstration period, assuming that practices and other entities, such as the CHTs in some states, have limited opportunity to engage them and influence outcomes during the demonstration period. In removing beneficiaries with fewer than 3 months of eligibility, we minimize the potential bias to the null of our impact analysis findings.

The MAPCP Demonstration allows for a rolling entrance of practices into and out of the demonstration. Medicare beneficiaries also are allowed to flow into the evaluation on a rolling basis, and they may lose eligibility during the demonstration if the practice to which they were attributed dropped out of the state initiative. Beneficiaries also lose eligibility at the point at which they no longer meet the criteria listed above. Once beneficiaries are eligible for the MAPCP Demonstration for at least 3 months, however, they are always included in the evaluation. If beneficiaries lose Medicare eligibility at any time after they are attributed to a MAPCP Demonstration practice, their outcomes are censored during the periods of lost eligibility. Thus, we consider the MAPCP Demonstration an intent-to-treat study design.

1.2.2 Qualitative Data and Methods

To address key evaluation questions and complement the quantitative methods, we use a variety of qualitative methods and data. First, we use secondary qualitative data, such as state applications, interim reports, and notes from monthly conference calls with selected state officials responsible for implementing the program. Second, we conducted semi-structured, in-person interviews with a wide range of key informants during state site visits. In the Final Report, we will report on focus groups with beneficiaries and caregivers.

Site visits to all MAPCP Demonstration states occurred in the fall of 2014. In Year Three of the demonstration, interviews focused on changes and implementation experiences occurring since the Year Two site visits in 2013. The goal was timely identification of actionable promising practices for CMS and states and links among aspects of state initiative features, practice characteristics, and potential outcomes. Interviews were used to gather and interpret contextual information on how the multi-payer model operated in the year since we last interviewed stakeholders and practices. We also sought to understand the potential impact on implementation, practice transformation, and outcomes for Medicare and Medicaid beneficiaries and special populations. In Year Three, we also focused on the effect of Medicare's decision to participate through the end of 2016 (except in Minnesota, North Carolina, and Pennsylvania) on each state's future plans for its medical home initiative.

The evaluation team developed protocols for the interviews, designed to address the research questions, which were reviewed by CMS (see *Appendix A*). Specifically, each major research question was "translated" into a set of topics and questions tailored to specific respondent types and state programs (Kvale, 1996; Kvale & Brinkman, 2006). The evaluation team produced six generic respondent protocols and then customized them based on state-specific features, to ensure that the specific and unique features of state initiatives were captured adequately during the interviews. Respondent types included: (1) state officials; (2) physicians

and administrators of practices or health systems participating in the demonstration; (3) individuals representing CHTs and networks; (4) individuals representing payer organizations, including Medicaid; (5) individuals representing local chapters of physician and clinical professional associations; and (6) patient advocates and individuals representing Offices of Aging.

Interviews with state officials focused on the state's progress in implementing the initiative in Year Three of the demonstration and on how their multi-payer initiative, including the payment model and other efforts to support practice transformation (such as learning collaboratives), progressed since our last site visit. Interviews with staff from participating PCMH practices, including staff from CHTs (for those states using CHTs as extensions of the PCMH practices), focused on changes in Year Three made by practices in their delivery of care and use of health IT and capabilities as a result of the initiative. We also focused on their perceptions of the impact on quality and efficiency.

General respondent selection criteria were developed (e.g., to get representatives from diverse types of payers and practices), and potential respondents were identified within each respondent category primarily through review of secondary documents, input from state program officials, and MAPCP Demonstration tracking documents. We also occasionally used a "snowball" sampling technique (e.g., asking respondents who else they would recommend we speak to about a particular topic). Based on the geographic areas in each state initiative, the site visit team also targeted different areas of each state, based either on the predefined initiative areas or across urban and rural areas. The evaluation team chose the final list of interviewees, which is confidential.

Types of state officials interviewed included program staff responsible for designing or implementing the multi-payer initiative within a state and Medicaid agency staff knowledgeable about Medicaid's participation as a payer in the initiative. Respondents from participating private payers and patient advocates were selected based on their involvement in the state initiative. Provider respondents—including practice staff, representatives from provider organizations and networks/pods, and CHTs (where applicable, because some states do not have these kinds of teams or networks in their initiative)—were selected to maximize diversity (e.g., urban/rural, size, location within the state, payer mix).

Those selected for interviews were sent an initial e-mail request to participate. Those not responding to the e-mail received a follow-up phone call requesting an interview. The majority of individuals contacted agreed to be interviewed. When individuals were unable or unwilling to participate in an interview, we contacted an alternate on our respondent list. In Year Three, we relied more heavily on telephone interviews than in previous years. These took place before, during, and after the site visit for advocates, physician associations, and interviewees at more distant locations, and we conducted fewer face-to-face interviews. Interview duration ranged from 30 to 90 minutes depending on the type of respondent. A total of 198 interviews were conducted during the third round of site visits. **Table 1-1** provides a breakdown of the interviews by state and respondent type.

A team of four to six site visit staff was deployed to each state to conduct interviews. Site visit teams were composed of researchers with different types of substantive and methodological

expertise, and they were matched to interview respondent types (e.g., physician researchers interviewing physicians; researchers with expertise in state policy interviewing state officials; researchers with expertise in practice transformation interviewing practice staff, practice coaches, or collaborative staff; researchers with expertise in payment methods, cost, and quality interviewing payer staff). Interviews were recorded, and note-takers used the audio files to fill in gaps in their typed notes produced during the interview.

Interviewers and note-takers summarized key interview findings in a structured Site Visit Summary form during nightly debriefings while on-site or immediately after the site visit. Key information from different team members' preliminary notes was merged into a single Site Visit Summary form, reviewed, discussed, and collectively approved by each state team. Site Visit Summary forms then were used to draft the state chapters for this annual report, supplemented by a review of finalized, full-text interview notes from relevant interviewees (e.g., referring to interviews with state officials when writing the Implementation sections of state chapters and referring to physician interviews when writing the Practice Transformation sections of state chapters).

To manage and analyze the large volume of primary and secondary qualitative data, we used the qualitative data analysis software NVivo 9.¹ This software is designed especially for qualitative and mixed-methods research and allows integration of other data sources and comparisons within and across states over time (Bazeley & Richards, 2000; Richards, 2009; Sorensen, 2008). The site visit interview notes were loaded into NVivo after each site visit. Site visit team members ran text-based queries in NVivo to gain a better understanding of areas of agreement or disagreement among team members and to fill in details absent from the Site Visit Summary form.

In this Third Annual Report, our analysis focused on how implementation, particularly practice transformation, relationships with other providers (e.g., specialists and hospitals), and links with other community organizations, progressed and changed since the Year Two site visits. When evaluating each state MAPCP Demonstration, we mainly conducted within-state case studies, although the report includes one cross-state chapter examining major similarities and differences across demonstration states, programs, and aspects of their implementation experience to date. Our primary focus was describing implementation progress and key changes within state initiatives since Year Two site visits, state program features and their evolution over time, the extent to which implementation and practice transformation occurred as intended, perspectives of key stakeholders and lessons learned, and perspectives on the potential impact on Medicare and Medicaid beneficiaries and other special populations.

¹ <http://www.qsrinternational.com>

Table 1-1
Number of interviews by type and state in Year Three site visits for evaluation of the MAPCP Demonstration

State	State agency staff	Practices	Community health teams/ community care networks	Payers	Provider associations	Office of Aging staff/ patient advocates	Total per state
Maine	7	7	5	4	1	1	25
Michigan	6	11	—	3	6 ⁵	—	26
Minnesota	4	13	—	2	—	2	21
New York	4	8	4 ²	2	4	—	22
North Carolina	7	9	8 ³	3	2	1	30
Pennsylvania	4 ¹	15	—	4	2	1	26
Rhode Island	6 ¹	9	2	4	2	1	24
Vermont	5 ¹	7	9 ⁴	2	—	1	24
Total	43	79	28	24	17	7	198

¹ Includes contractors, staff of nonprofit organizations, public-private partnerships, and academic institutions that were involved with the state's initiative.

² In New York, this category includes "pod" coordinators, health system administrators, and care managers.

³ In North Carolina, this category includes care managers provided by CCNs.

⁴ In Vermont, this category includes community health teams and SASH staff.

⁵ In Michigan, this category includes physician organizations.

CCN = Community Care Network; MAPCP = Multi-Payer Advanced Primary Care Practice; SASH = Support and Services at Home.

1.2.3 Quantitative Data for Assessment of Demographic Characteristics

In each state chapter of this report, we describe the sociodemographic, health status, and practice characteristics of Medicare beneficiaries participating in the MAPCP Demonstration in that state. Below, we describe in more detail the Medicare data and methods used to construct these characteristics.

Medicare Data

Historical Denominator File. ARC provided a Denominator File, which contains beneficiary-level demographic characteristics and the CMS Hierarchical Condition Category (HCC) risk scores. The file covers a 2-year period before the start of each state's MAPCP Demonstration and includes all beneficiaries alive at the start of the historical period and who either (1) lived in each state's MAPCP Demonstration area at any point during the time period covered or (2) were assigned to a MAPCP Demonstration practice at the start of each state's demonstration period. This risk score was used to determine the cut points across all states for the baseline HCC score categorization.

Medicare Enrollment Data Base (EDB). We use the EDB to identify days of eligibility for the MAPCP Demonstration and provide an estimate of the fraction of the demonstration period for which beneficiaries are eligible for the demonstration. This file also provides beneficiary demographic and Medicare eligibility information for the analyses (e.g., date of birth, sex, race, date of death).

Medicare TAP files. The TAP files contain inpatient, hospital outpatient, physician, skilled nursing facility, home health agency (HHA), hospice, and durable medical equipment (DME) claims for demonstration and comparison beneficiaries from January 2010 forward. These files do not include Medicare Part D (prescription drug) or Medicare Advantage billing data, nor Medicaid claims for those dually eligible for Medicare and Medicaid. These claims are provided to ARC monthly, and ARC “nets” the claims files to identify final transaction claims on a quarterly basis, allowing for a 4-month claims run-out period at the end of each payment quarter. As of each quarter’s processing, prior quarterly netted claims files are updated with claims data processed after the prior cut-off dates for up to a 2-year run-out period, ensuring that virtually all paid claims are included.

Medicare National Claims History (NCH) files. RTI extracts data directly from the NCH files using the claim *discharge date* to obtain claims for hospital inpatient services and *through date* to obtain claims for outpatient services, physician, DME, HHA, and hospice services before 2011.² For this report, NCH claims with dates of service from January 1, 2006, through December 31, 2010, were obtained.

Analytic Variables

In this report, we summarize the sociodemographic, health status, area-level, and practice characteristics of Medicare beneficiaries participating in the MAPCP Demonstration. **Table 1-2** describes the time periods examined in this analysis for each participating state.

² RTI uses the ARC TAP data for January 2011 forward.

Table 1-2
Analysis periods used in the evaluation of the MAPCP Demonstration

Demonstration period start date	First demonstration period final end date	Third demonstration period final end date	Months of demonstration data	Pre-demonstration period start date	Pre-demonstration period end date
New York, Rhode Island, Vermont 7/1/2011	6/30/2012	6/30/2014	36	1/1/2006	6/30/2011
North Carolina 10/1/2011	9/30/2012	9/30/2014	36	1/1/2006	9/30/2011
Maine, Minnesota, Michigan, Pennsylvania 1/1/2012	12/31/2012	12/31/2014	36	1/1/2006	12/31/2011

MAPCP = Multi-Payer Advanced Primary Care Practice.

Demographic and health status characteristics are developed at the beneficiary level using common reference points of time across beneficiaries. Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary first was attributed to a PCMH after the start of the MAPCP Demonstration. Practice characteristics are calculated for the MAPCP Demonstration practice to which a beneficiary most recently was attributed. Sociodemographic percentages and means are weighted by the fraction of the year that a beneficiary met MAPCP Demonstration eligibility criteria. Additional detail on the construction of the analytic variables at the beneficiary level is provided in *Appendix C*.

Beneficiary eligibility. RTI uses the Medicare EDB to determine daily eligibility during the predemonstration and demonstration periods. Because beneficiaries may not remain eligible for the MAPCP Demonstration throughout an entire quarter in which they were attributed to a demonstration or comparison group practice, or for the predemonstration period, for each individual we calculate a quarterly eligibility fraction, defined as the number of eligible days within the quarter divided by the total number of days in that quarter. For example, a beneficiary who is MAPCP Demonstration-eligible for 30 days out of 90 has an eligibility fraction of 0.33 for that quarter. Beneficiaries with limited eligibility are down-weighted. These quarterly weights are used to create an annual weight.

Beneficiary demographic characteristics. Age, sex, race, Medicare status (aged-in versus disabled), and urban residence characteristics are created using the Medicare EDB. Age is defined as of the date the beneficiary first was assigned to a MAPCP Demonstration or comparison practice. The Medicare EDB definitions are used for sex and race, designations that do not change over time. Medicare status is constructed using the original reason for entitlement, which also does not change over time. The ZIP code of the beneficiary's most recent residence is

used to determine if a beneficiary resides in a Metropolitan Statistical Area.³ If so, then the beneficiary is classified as living in an urban area; otherwise the beneficiary is classified as living in a rural area.

Medicare and Medicaid dually eligible status. The Medicare EDB is used to identify Medicare and Medicaid dually eligible beneficiaries during the 1-year period immediately before their first assignment to a MAPCP Demonstration practice or comparison group practice. A dichotomous variable is created to reflect dually eligible status.

Baseline HCC risk score. The HCC risk adjustment model uses beneficiary demographic information (e.g., sex, age, Medicaid status, disability status) and diagnosis codes reported in Medicare claims data from the previous year to predict payments for the current year. This risk score often is used as a proxy for a beneficiary's health status (severity of illness). It is anchored on the average of all Medicare FFS beneficiaries' health risk scores, calculated using the CMS HCC risk adjustment model. The community HCC risk score is calculated for beneficiaries using claims from 1 year before their initial assignment to a MAPCP Demonstration provider, unless one or more of the following criteria were met:

- New enrollee: If the beneficiary met the MAPCP Demonstration eligibility criteria⁴ during the baseline year for fewer than 9 months (75%), a new enrollee HCC score was calculated using only the demographic characteristics.
- Institutionalized: Beneficiaries were assigned an institutional risk score if they had two or more nursing home evaluation and management (E&M) visits within 120 days.
- End-stage renal disease (ESRD): For beneficiaries with ESRD during the baseline period, the HCC community risk score was multiplied by the ESRD factor (8.937573), and they were automatically assigned to the highest HCC risk score quartile.

Beneficiaries then were assigned to one of three HCC risk score categories, created using the 2011 HCC risk scores provided in the historical Denominator File from ARC. The cut points were determined to contain 25 percent of the predicted healthiest beneficiaries in the low category, 25 percent of the predicted sickest beneficiaries in the high category, and the remaining 50 percent of beneficiaries in the medium category. The risk score categories are:

- Low: 0 to 0.48.
- Medium: Higher than 0.48 and lower than or equal to 1.25.

³ If a beneficiary's most recent ZIP code is outside the state of the MAPCP Demonstration practice the beneficiary is attributed, the most recent ZIP code on file that corresponds to the state in which the MAPCP Demonstration practice is located is used.

⁴ Beneficiaries did not have to reside in the MAPCP Demonstration area during the baseline period to be considered eligible. All other MAPCP Demonstration eligibility criteria are applicable.

- **High:** Higher than 1.25.

Health status. Two additional analytic variables were created to reflect health status during the year before the beneficiary first was assigned to a MAPCP Demonstration.

- *Charlson index.* The Charlson comorbidity index is created using claims data from the inpatient, outpatient, and physician claims files (Charlson, Pompei, Ales, & MacKenzie, 1987). Claims from hospice and DME providers were excluded from the calculation of this variable.
- *Chronic conditions.* Beneficiaries are identified as having a chronic condition if they have one inpatient claim with the clinical condition as the principal diagnosis or two or more physician or outpatient department (OPD) claims for an E&M service (Current Procedural Terminology [CPT] codes 99201–99429) with an appropriate principal or secondary diagnosis. The diagnoses on the OPD⁵ claims are captured if there is a CPT code of 99201–99429 on one of the revenue center lines. The physician or OPD E&M visits had to occur on different days. Past studies conducted by RTI identified the following as the most frequently occurring comorbid conditions: heart failure; coronary artery disease; other respiratory disease; diabetes without complications; diabetes with complications; essential hypertension; valve disorders; cardiomyopathy; acute and chronic renal disease; renal failure; peripheral vascular disease; lipid metabolism disorders; cardiac dysrhythmias and conduction disorders; dementias; strokes; chest pain; urinary tract infection; anemia; malaise and fatigue (including chronic fatigue syndrome); dizziness, syncope, and convulsions; disorders of joint; and hypothyroidism.

Practice characteristics. Select practice characteristics are described for each state.

- *Number of practices.* The total number of practices participating in the MAPCP Demonstration.
- *Number of providers.* The total number of providers participating in the MAPCP Demonstration.
- *Number of providers per practice.* The average number of providers per participating practice.
- *Practice type.* A dummy indicator was created using claims data to determine whether the beneficiary's assigned practice was office based, a federally qualified health center (FQHC), a rural health clinic (RHC), or a critical access hospital (CAH).
- *Practice location.* A dummy indicator used to determine if the practice was located in a metropolitan, micropolitan, or rural area, based on the ZIP code of the practice.

⁵ FQHC and RHC claims are included if the CPT code is contained on the revenue center line of the OPD claim.

CHAPTER 2

CROSS-STATE FINDINGS

2.1 Initiative Features

This section presents a snapshot of key features of the eight state initiatives and identifies the differences and commonalities among them. Differences in characteristics of state initiatives—such as the length of time each has been in operation, requirements for practices, the extent of community-based resources, and structure of the payment system—are of critical importance in understanding the overall changes observed during the MAPCP Demonstration. This section creates a context for understanding the findings from the overall evaluation.

2.1.1 State Environment

All state initiatives have a history of collaboration, but these previous collaborations differ in their primary partners. Before applying to participate in the MAPCP Demonstration, six states (Maine, Minnesota, New York, Pennsylvania, Rhode Island, and Vermont) already had multi-payer medical home initiatives, building on multiyear histories of broad-based collaborative efforts with payers, providers, and other stakeholders. Michigan had a similar history of collaboration through the multistakeholder Michigan Primary Care Consortium, but did not have a multi-payer initiative before the MAPCP Demonstration. North Carolina had a long history of collaboration to advance care coordination between the state and providers for Medicaid beneficiaries and, at the time of application, expanded that partnership to include commercial payers.

All state initiatives leveraged funding from sources other than participating payers to fund portions of their patient-centered medical home (PCMH) initiatives or other programs complementing their PCMH initiatives. For example, Vermont uses the proceeds from a tax on medical claims to support its health information exchange (HIE) and clinical registry. All state initiatives also participating in other relevant federal initiatives and pursue new opportunities to leverage federal resources to improve their delivery systems. There are two major changes in this area. Since the Second Annual Report, North Carolina and Vermont decided not to join the Financial Alignment Initiative, a demonstration aimed at developing new models of integrated care and promoting financial and administrative alignment between Medicare and Medicaid for dually eligible beneficiaries. Further, since the Second Annual Report, Michigan, New York, and Rhode Island received Round 2 State Innovation Model (SIM) Model Test awards, and Pennsylvania received a second Model Design award. Maine, Minnesota, and Vermont received Round 1 SIM Model Test awards in 2013. **Table 2-1** details these federal initiatives for each state.

In Year Three of the demonstration, all eight states reported stable political environments, more stable than during the first and second years of the demonstration, when two states and seven states, respectively, reported stable political environments. Seven of the eight states held gubernatorial elections in November 2014. In six of these states (Maine, Michigan, Minnesota, New York, Rhode Island, Vermont) the governor was reelected. Pennsylvania elected a new governor affiliated with a different party from his predecessor. This change did not affect the state initiative because it ended, as scheduled, at the end of 2014. Two states reported changes in administrative leadership within various health and human services agencies in 2014. North

Carolina named a new Medicaid director, and Michigan announced a new director of the Department of Community Health after the previous director retired. These two changes did not affect the demonstration.

Table 2-1
Demonstration state participation in federal initiatives to improve delivery of care as of December 31, 2014

State	New York	Rhode Island	Vermont	North Carolina	Minnesota	Maine	Michigan	Pennsylvania
SIM Round 1	Yes, Model Pretest	Yes, Model Design	Yes, Model Test	No	Yes, Model Test	Yes, Model Test	Yes, Model Design	Yes, Model Design
SIM Round 2	Yes, Model Test	Yes, Model Test	N/A	No	N/A	N/A	Yes, Model Test	Yes, Model Design
Financial Alignment Initiative	Yes, MOU signed	Yes	No	No	Yes, MOU signed	No	Yes, MOU signed	No
Health Homes (§2703)	Yes	Yes	Yes	Yes	No	Yes	No	No
Medicare 646	No	No	No	Yes	Yes	No	No	No

NOTE: For more information about these federal initiatives, please see the following:

- State Innovation Models (SIM) Initiative, <http://innovation.cms.gov/initiatives/state-innovations/>
- Financial Alignment Initiative, <http://innovation.cms.gov/initiatives/Financial-Alignment/>
- Health Homes (§2703), <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Integrating-Care/Health-Homes/Health-Homes.html>
- Medicare 646, <http://innovation.cms.gov/initiatives/Medicare-Health-Care-Quality/>

MOU = memorandum of understanding.

2.1.2 Demonstration Scope

At the end of the third year of the MAPCP Demonstration in each state (June 30, 2014, for New York, Rhode Island, and Vermont; September 30, 2014, for North Carolina and Minnesota; and December 31, 2014, for Maine, Michigan, and Pennsylvania), the eight states reported a total of 3,031,759 participants in the MAPCP Demonstration. At the end of Year Three, CMS had attributed 712,918 Medicare fee-for-service (FFS) beneficiaries to participating practices (**Table 2-2**), an increase of 217,966 total participants and 117,703 Medicare beneficiaries since the end of Year Two. The size of each state initiative varied widely. Across all 3 demonstration years, Michigan's PCMH initiative had the most participants (1,175,586), including 299,897 Medicare FFS beneficiaries, while Rhode Island had the fewest (59,251), including 12,631 Medicare FFS beneficiaries. The numbers of participating practices and providers also varied; Michigan had the largest number of practices and Minnesota had the largest number of providers. Rhode Island always had the smallest numbers of practices and providers. North Carolina reported the fewest number of payers (four), while New York reported the largest number (nine). States reporting community health teams (CHTs), or similar shared support teams, remained unchanged from Year Two; Maine, Michigan, New York, North Carolina, and Vermont reported having shared support teams in place. Rhode Island launched

pilot CHTs in two areas of the state in Year Three, but Medicare did not make payments to support the pilot and the CHTs did not serve Medicare FFS beneficiaries. However, as has been the case since the start of the MAPCP Demonstration, a hospital in Rhode Island received payments from Medicare and other payers to provide support to several small practices by employing their nurse care managers; all other participating practices in Rhode Island employed their own nurse care managers using funds from their PCMH payments.

Table 2-2
MAPCP Demonstration scope in each state as of the end of Year Three

State	Geographic scope	Participants		Practices ⁴	Providers ⁴	Payers (including Medicare) ²
		All-payer ²	Medicare FFS beneficiaries ³			
New York	Regional (4 counties)	100,033	27,707	37	181	9
Rhode Island	Statewide	59,251	12,631	16	101	5
Vermont	Statewide	271,282	78,881	125	638	5
North Carolina	Regional (7 counties)	81,925	33,154	40	161	4
Minnesota ¹	Statewide	1,050,003	159,460	208	2,698	—
Maine	Statewide	140,082	59,548	70	508	6
Michigan	Statewide	1,175,586	299,897	312	1,709	5
Pennsylvania	Regional (2 regions)	153,597	41,640	44	388	5
Total	—	3,031,759	712,918	852	6,384	—

NOTES:

- The number of all-payer participants is the point-in-time number reported by the states as of the end of the state's demonstration year.
- Demonstration practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are providers that are associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating demonstration practices for at least 3 months.

¹ Minnesota does not report individual commercial insurance plan participation in its quarterly reports to CMS.

ARC = Actuarial Research Corporation; CMS = Centers for Medicare & Medicaid Services; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice; — = not applicable.

SOURCES: ²Quarterly state progress reports to CMS; ³ARC MAPCP Demonstration Beneficiary Assignment File;

⁴ARC MAPCP Demonstration Provider File.

Across the eight states, 4,052,346 participants in total, including 783,621 Medicare beneficiaries, were estimated to be eligible to participate in the state initiatives, according to the states' applications. As a whole, the initiatives met 75 percent of that all-payer projection and 90 percent of the Medicare-only projection by the end of Year Three of the MAPCP Demonstration in each state. Actual participation was less than projected for several reasons, including an overestimation of the number of Medicare beneficiaries eligible for the demonstration; lower participation than anticipated among commercial payers; changes in patient attribution and assignment algorithms; and practices' failure to meet participation requirements or departure from the demonstration.

In the third year, two states reported that payers joined or left the demonstration. In Pennsylvania, one payer from the Southeast region withdrew from the demonstration in March 2014—continuing a trend from the previous year, when two payers withdrew. Community Health Options, a Consumer-Operated and -Oriented Plan, joined the Maine PCMH Pilot as a new payer in January 2014, an addition that brought more than 13,000 new participants into Maine’s initiative.

CMS initially extended the MAPCP Demonstration through December 31, 2014, for all eight states. In September 2014, CMS offered to extend the demonstration for 2 additional years, through December 31, 2016, for the six state initiatives using shared support teams to help practices coordinate care (Maine, Michigan, New York, North Carolina, Rhode Island, Vermont). CMS elected to extend these six demonstrations because community-based entities that provided care coordination services in these states were not eligible to use Medicare’s Chronic Care Management code, which became effective on January 1, 2015, to bill independently for care coordination services. Without a continued revenue stream, CMS was concerned that valuable infrastructure that had been put in place could break down before final evaluation results from the demonstration were available. Subsequently, commercial payers in North Carolina declined to extend their participation in the state initiative beyond December 2014, so the demonstration was terminated as originally planned. Because Minnesota and Pennsylvania practices were eligible to use the new codes to maintain an ongoing source of revenue to support care management and other infrastructure, they were not offered the opportunity to extend the demonstration. Thus, the MAPCP Demonstration ended on December 31, 2014, as planned, in these three states; the remaining five will continue through the end of 2016.

2.1.3 Practice Expectations

As previously reported, all state initiatives established standards and performance requirements that practices had to meet to maintain their participation in the demonstration and receive payment (qualification standards). These expectations assured payers that practices undertook the activities necessary to transform their practices and justify the enhanced payment. This section identifies and examines four key components of practice expectations. States reported few changes to these standards in Year Three of the demonstration, and the changes reported most often were refinements of previously established requirements.

PCMH recognition standards are the core requirements for practices to join the MAPCP Demonstration. All eight state initiatives established such standards. No state altered the base of their standards in either the second or third years of the demonstration. Six state initiatives (Maine, New York, North Carolina, Pennsylvania, Rhode Island, Vermont) base their standards largely on the National Committee for Quality Assurance (NCQA) PCMH recognition standards; these six states, however, also require practices to meet additional state-specific criteria. For example, in addition to attaining NCQA recognition, Maine requires its practices to meet its initiative’s 10 Core Expectations.

Two states (Michigan and Minnesota) do not require practices to achieve NCQA recognition as a condition of participation. Michigan allowed practices to choose to obtain recognition from NCQA or through Blue Cross Blue Shield (BCBS) of Michigan’s Physician

Group Incentive Program (PGIP). Minnesota developed its own state Health Care Home standards and, since July 2010, administered its own process for practices seeking recognition.

Although the expectations established by all eight state initiatives varied, states were likely to establish requirements addressing three aspects of performance: practice transformation, quality improvement, and data reporting. Practice expectations are summarized in greater depth in *Table 2-3* in *Section 2.5.1*.

- Four states (Maine, Michigan, Pennsylvania, Rhode Island) required practices to participate in activities designed to help them transform their practices, including learning collaboratives, practice coaching, webinars, and phone calls.
- Five states (Michigan, Minnesota, New York, North Carolina, Vermont) required practices to take specific actions to improve quality.
- Seven states (Maine, Michigan, Minnesota, New York, Pennsylvania, Rhode Island, Vermont) expected participating practices to report information to the state initiatives. Most commonly, practices were required to report on state-specified clinical, quality, or performance-based metrics.

In 2014, one state (Rhode Island) modified the requirements for practices to meet as a condition of participation. Rhode Island initially implemented its 4-year common contract, called the Developmental Contract, for all participating practices in April 2013. Starting in April 2014, Rhode Island added a fifth contract year to accommodate the original five pilot practices, which already had participated in Rhode Island's initiative for 4 years.

2.1.4 Support to Practices

The eight state initiatives implemented varying payment methodologies to compensate practices for the initial and ongoing costs of functioning as a PCMH and meeting practice transformation requirements. Payment approaches range from flat per member per month (PMPM) payments to payments based on quality, cost, or some combination of the two. In addition, Pennsylvania's project incorporated a shared savings arrangement. These payments allowed practices to invest in changes to transform the way in which they delivered care to their patients.

Only one of the eight states made changes to its payment policies in 2014, as compared to three states in 2013 and one state in 2012. In January 2014, the North Carolina State Employee Health Plan began contracting directly with Community Care of North Carolina (CCNC) to provide care management services to its members in the seven demonstration counties. The State Employee Health Plan directly paid CCNC's regional networks a \$2.50 PMPM payment, whereas previously it paid the regional network an annual lump sum to support nurse care managers only for its high-risk patients.

Since the start of the demonstration, six state initiatives (Maine, Michigan, New York, North Carolina, Rhode Island, Vermont) used shared support teams to support participating practices and patients. Maine has community care teams (CCTs); Michigan has physician

organizations (POs); New York has Pods; North Carolina had networks, and Vermont has community health teams (CHTs). In Rhode Island, support teams initially were limited to the care management services provided by South County Hospital to a few practices. Vermont also has Support and Services at Home (SASH) teams. Although these organizations vary in structure, staffing, and payment, they all are intended to augment the care coordination provided by practices and improve the links among primary care practices and community services. In some states, these organizations also are intended to support other activities, such as quality improvement, in practices.

In addition to providing financial support to practices and shared support teams, every state initiative offered technical assistance to practices, including learning collaboratives, in-person meetings, practice coaching, and distance learning, such as webinars or conference calls.

All state initiatives continue to deploy systems and reports to provide data to practices. Three states augmented the data provided to practices in the third year of the demonstration. The Michigan Data Collaborative integrated registry-reported clinical data into its provider dashboards, which already included claims and encounter data. The integration of clinical and claims data resulted in more robust data measurement and analysis. In late 2013, the Maine Health Management Coalition began providing primary care practice reports based on commercial cost and utilization data to pilot practices; it is expected to incorporate Medicaid and Medicare data into these reports in 2015. Lastly, North Carolina, in 2014, implemented a new health IT tool, Care Triage™, which assigned risk scores to patients based on pharmacy data to help care managers identify priority patients. Through this demonstration, CMS also continued to support a Web portal allowing practices to receive practice feedback reports and Medicare beneficiary utilization files; its use varies among practices.

2.2 Implementation

This section is based on primary data gathered from site visits to the eight demonstration states in the fall of 2014. It synthesizes key themes and findings from the implementation experience of state officials, other payers, and providers across the states and highlights similarities and differences among the states and the impact of Medicare's decision to extend the demonstration in five states.

2.2.1 Major Changes During the Third Year of the Demonstration

In Year Three, few state initiatives had significant changes in program size. None of the states made major changes to program policies, although a few changed their governance models. All eight initiatives continued working to strengthen care coordination. The states also addressed other gaps in care, such as behavioral health care, identified as priority issues during implementation.

Only two state initiatives had changes in payer participation in Year Three. Maine increased payer participation, adding the state's health insurance cooperative as a participating payer at the beginning of 2014. In Pennsylvania, participation decreased when a Medicaid managed care plan withdrew in March 2014. Although commercial payers in North Carolina declined to continue when the demonstration was extended, they continued to participate through the end of 2014 (3 months later than originally scheduled).

Michigan, New York, and Rhode Island modified their governance models to streamline decision making and improve their initiatives. Michigan created a new Stewardship and Performance Group, a group of thought leaders charged with assessing the program and developing recommendations for improvement. New York convened an Executive Committee within its larger Governance Committee; the Executive Committee, whose recommendations still needed approval by the larger group, allowed participating providers and plans to address issues of concern more nimbly than in past years. Finally, Rhode Island transferred governance to a newly incorporated nonprofit organization, the Care Transformation Collaborative of Rhode Island (CTC), created to carry on and expand the work started by the Chronic Care Sustainability Initiative (CSI). CTC plans to maintain much of the existing CSI committee structure within its board.

Continuing a trend from the second year of the demonstration, state initiatives focused on improving program operations, rather than on changing program structure. Many stakeholders saw care management as the intervention with the biggest potential impact on quality of care and outcomes, and they worked to strengthen care management. They implemented new methods for more efficient identification of patients most likely to benefit from care management and standardized care management processes to spread and institutionalize best practices. Michigan, for example, selected “targeting high-risk patients” as one of its four clinical focus areas for 2014. Maine Quality Counts began working closely with the state’s CCTs to standardize their care processes to serve their patients more effectively. North Carolina standardized care management procedures across all networks, including procedures for documenting care management within their statewide electronic care management system. North Carolina’s networks also developed and spread new strategies for connecting Medicare and commercially insured participants with community-based resources and services—a significant challenge at the beginning of the demonstration.

Early in the demonstration, most state initiatives identified behavioral health as a critical unmet need for many patients—one with great potential impact on cost and health outcomes. In Year Three of the demonstration, the initiatives continued to work to integrate behavioral health more fully into medical homes and to improve links among the medical homes and resources in the community. Rhode Island introduced a new requirement: participating practices had to develop a compact with behavioral health care providers. Further, one Rhode Island payer contributed \$125,000 to support behavioral health integration efforts at 15 primary care practices. In Vermont, commercial payers developed new contracts with Medication-Assisted Treatment providers, the “hubs” in the hub and spoke Medicaid health home program. Michigan selected behavioral health, particularly identifying and treating depression, as one of its four priority areas for 2014; a correlating depression screening metric also was added to its incentive metric set.

2.2.2 Major Implementation Issues During the Third Year

In Year Two of the demonstration, all eight state initiatives reported data challenges. In Year Three, almost all initiatives continued to report significant challenges related to the timeliness and quality of the data provided by the initiatives to practices. Interviewees in most states also reported payment challenges persisting from earlier years.

Practices and care managers rely on data from the state initiatives to help them identify patients most likely to benefit from care management. Practices want to get the data quickly, so that they can manage patients' care soon after they enter a medical home or have an event indicating a need for care management. The state initiatives took steps to meet these needs. Michigan, for example, expanded its admission, discharge, and transfer (ADT) notification system to provide practices with near real-time information about such events. Stakeholders in all states, except Minnesota, however, continued to report difficulties in this area (it is unclear whether Minnesota did not have similar data challenges or whether they were considered too insignificant to report). For example, Maine's Health Home Portal contains multiple lists identifying the patients who qualify for health home services from the CCTs. CCT members had difficulty sorting through these lists to identify which patients they could serve. Practices and CHT staff in Rhode Island also reported difficulties in interpreting payers' high-risk patient lists, noting that different payers used different algorithms or definitions to determine patients at risk.

Stakeholders in most states reported that practices (Michigan, Minnesota, Pennsylvania, Vermont) or shared support teams (Maine, Vermont) received payment for fewer participants than expected or found the amount paid per participant insufficient to sustain their work. In Maine, for example, CCTs saw large decreases in revenue under the new Medicaid health home payment methodology. In Pennsylvania, base payments to practices were reduced in anticipation of shared savings that did not materialize until the third year and would not be distributed until almost 1 year after the demonstration ended. This, along with fewer payments due to payer attrition, caused some practices to leave the demonstration. Finally, in Michigan and Minnesota, practices had to bill some payers for care coordination services through claims, and, in both states, providers billed for fewer services than anticipated.

Among the six states with shared support teams, four reported major challenges specific to these teams. Maine's CCTs, whose target population is the top 5 percent of high-cost, high-need patients, found it difficult to engage members of this population. As previously mentioned, they had difficulty using the Health Home Portal to identify potential patients, and about half of the potential patients identified refused the CCTs' services. Michigan dedicated significant resources to integrating care managers (often employed by the physician organization) effectively into participating practices. While many stakeholders reported improved integration, others reported less success in integrating the care managers. In Rhode Island, the state's CHT pilot was slow to get off of the ground because of challenges in staffing and identifying patients likely to benefit from its services. Lastly, in Vermont, payers expressed frustration that the CHTs did not systematically track the services they provided. According to commercial payers, this led to a lack of accountability and made it difficult to determine which of the teams' services created a return on investment.

2.2.3 External and Contextual Factors Affecting Implementation

As in past years, the most frequently mentioned external factor affecting state initiatives was stakeholder involvement in other federal reform initiatives, such as the SIM Initiative or the Medicare Shared Savings Program. Seven demonstration states (all but North Carolina) received either a SIM Model Test or SIM Model Design award. In 2014, new accountable care organizations (ACOs), 34 in total across seven of the demonstration states, began participating in the Medicare Shared Savings Program. The service areas of many of these ACOs overlap with

the areas in which the MAPCP Demonstration operates, and some providers participating in the demonstration reported also participating in an ACO. In addition to the federal reforms, practices in most state initiatives also may participate in single-payer PCMH programs or other initiatives offering care coordination resources. Many of these single-payer programs also include practices not participating in the demonstration. While stakeholders in each state noted that much of the work of these reforms is complementary to the demonstration, competing priorities can arise, and limited staff capacity at the state, payer, and provider levels created some feeling of “change fatigue.”

Parallel reforms also benefitted the state initiatives. Four states added new or refined existing data capabilities to provide practices (including those not participating in the demonstration) with additional or more comprehensive information. As part of the state’s SIM Initiative, the Maine Health Management Coalition began producing practice feedback reports with medical and pharmacy claims data for primary care practices across the state, benefitting both MAPCP Demonstration and non-demonstration practices. Stakeholders in Michigan did considerable work to push real-time ADT notifications through the state and local HIEs. In partnership with GlaxoSmithKline and the University of North Carolina Eshelman School of Pharmacy, CCNC deployed Care Triage™ to providers across the state; Care Triage™ used pharmacy claims data to assess patient risk and medication adherence. Lastly, Vermont launched a new portal enabling providers to query aggregated data from the state’s HIE.

2.2.4 Effect of Medicare’s Decision to Extend or Terminate the MAPCP Demonstration in Participating States

After the first extension to states in the first two cohorts (those launched in July and October 2011), the MAPCP Demonstration was scheduled to end in all eight states on December 31, 2014. Medicare anticipated that participating practices would be able to continue to be reimbursed for medical home services provided to Medicare beneficiaries by billing the Complex Care Management code that became effective on January 1, 2015. Shared support teams cannot bill independently using this code. CMS therefore offered payers in the six states using these teams the opportunity to extend the demonstration through 2016. Payers in five of the six states (Maine, Michigan, New York, Rhode Island, Vermont) elected to continue participation. The commercial payers in North Carolina declined. Thus, the demonstration ceased in three states (Minnesota, North Carolina, Pennsylvania) on December 31, 2014.

Stakeholders in the five states choosing to continue the demonstration universally praised Medicare’s decision. Many of these stakeholders also reported, however, that they would have found a way to sustain some aspects of their multi-payer initiative even if Medicare had withdrawn as planned. These stakeholders believed the PMPM Medicare payments greatly increased practices’ ability to afford to provide enhanced services. Many care managers in Michigan and SASH team members in Vermont reported that they were concerned about job security in early 2014 because of the uncertainty about the state initiative’s future. While some care managers in Michigan sought more secure employment, the uncertainty did not cause substantial turnover.

Stakeholders in the three states where the demonstration ended on December 31, 2014, reported that payers in their states would continue to support medical homes. In North Carolina and Pennsylvania, payers plan to continue single-payer initiatives. In Minnesota, the Health Care

Homes program, codified in state law and regulations, will continue to operate as it had before Medicare joined. The financial impact of the demonstration's end in Minnesota is mild because of the low rate of Medicare billing by most certified Health Care Homes.

At the time of the Year Three site visits, stakeholders in the three states where the demonstration was ending were considering how to use the Chronic Care Management code to replace the Medicare funding for medical home services provided by the demonstration. State officials in the five states that continued the demonstration also assessed the impact of the code on their state initiatives. Both practices participating in the demonstration and those not participating may bill for the service. But CMS will recoup the PMPM payment made through the demonstration if a second provider bills for Chronic Care Management services to a beneficiary during a month in which the beneficiary was attributed to the participating practice. Stakeholders in these states expressed concern that these billing policies could cause confusion and instability for practices. Despite these potential challenges, stakeholders in these states were excited to have the opportunity to refine and test their models further.

2.2.5 Lessons Learned

In Year Three of the demonstration, it was clear that implementing multi-payer medical home initiatives is a complex process requiring continuous attention as new focus areas (e.g., behavioral health) and best practices (e.g., how to identify high-need, high-cost patients most likely to benefit from care management) were identified. Strong leadership and meaningful partnerships across stakeholder groups proved as important in the third year as they were in the planning. As illustrated by Pennsylvania and North Carolina's experiences, maintaining voluntary participation by commercial payers was difficult. As Maine, Michigan, and New York show, however, it is not impossible.

With sufficient resources and technical assistance, small and large practices alike can transform delivery of care. Echoing the lessons that emerged in the First and Second Annual Reports, however, interviewees reported that practice transformation took significant time and energy. Interviewees especially made this point when discussing transformations extending beyond the practice, such as embedding shared care managers (e.g., Michigan) or building new links to the medical neighborhood (e.g., Maine, Rhode Island, Vermont).

The data issues that continued to challenge the state initiatives illustrate the importance of data infrastructure to program implementation. Whether an initiative relies on separate data streams from each payer or leverages a centralized source, timely and accurate data are critical to practices for identifying patients likely to benefit from—or even be eligible for—enhanced care management services.

Stakeholders in the eight MAPCP Demonstration states have a strong commitment to supporting the PCMH model to improve patients' care experience, regardless of their source of insurance. Facing Medicare's withdrawal at the end of 2014, both public and private payers continued to invest in the model, and Medicaid agencies and commercial payers will continue to do so in states where Medicare ultimately terminated their participation. These states did so not only because they seek to improve primary care, but also because they see a high-performing

medical home as an important element in other payment and delivery system reforms, such as ACOs.

2.3 RTI Web Portal and Quarterly Feedback Reports

RTI provides participating MAPCP Demonstration practices in five states (Maine, New York, Pennsylvania, Rhode Island, and Vermont) with three sets of reports and files quarterly through the RTI-managed secure Web portal: practice-level feedback reports, beneficiary utilization files, and beneficiary assignment files. Practice-level feedback reports show summary information on key expenditures, utilization, and quality of care for the most current reporting quarter, as well as for eight baseline or predemonstration quarters (for trend information). The feedback reports detail changes over time in the key measures, and they permit benchmarking to other participating practices within the state. The goal of the feedback reports is to provide participating MAPCP Demonstration practices with timely interim feedback on their performance on key claims-based measures likely to be useful to and usable by practices for quality improvement purposes. Beneficiary utilization files provide practices with beneficiary-level information on patient severity (using the Hierarchical Condition Category score), disease-specific quality of care measures, and utilization information. Beneficiary assignment files supply the names of beneficiaries assigned to practices each quarter, as well as some demographic information (e.g., date of birth, address) on each beneficiary.

A secure Web portal was developed to distribute these reports and files to the practices as well as the quarterly listing of attributed Medicare beneficiaries. Practice-, organization-, and state-level users with verified credentials log on to the Web portal and retrieve information on the Medicare FFS patients assigned to them. Users began getting credentials for the portal in April 2012. Practices in five of the eight participating states (Maine, New York, Pennsylvania, Rhode Island, Vermont) have access to the Web portal. Two states (North Carolina, Michigan) distribute similar information to practices through their own data systems, so do not use the demonstration Web portal. Minnesota also does not use the Web portal because they do not use a process for assigning Medicare beneficiaries to practices, as is done for the other states.

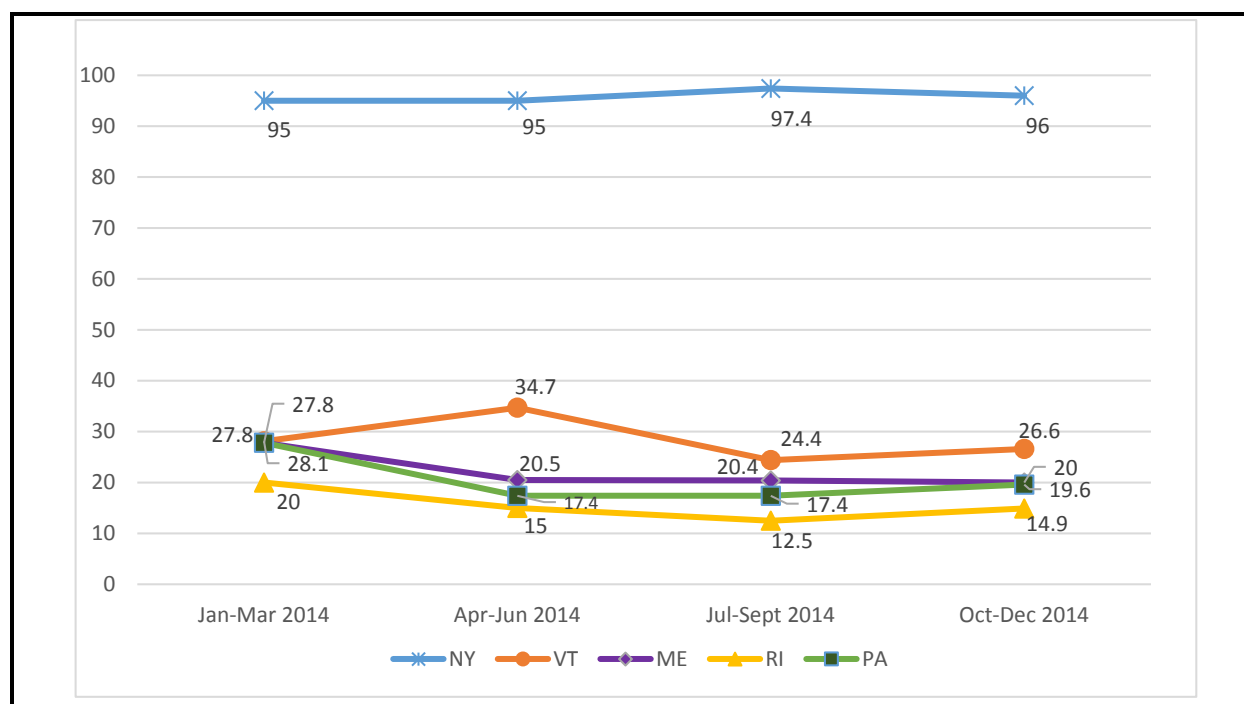
Practice feedback reports were distributed to participating practices in New York, Rhode Island, and Vermont starting in July 2012 and to Maine and Pennsylvania practices starting in October 2012. States have primary responsibility for encouraging organizations (e.g., CHTs, CCTs, Pods) and practice staff to access the files and for providing training on using the portal and information in the files. To augment state efforts, RTI and CMS staff conducted webinars to educate users about the Web portal and files. These webinars are posted on the portal for users to access at their convenience. Technical user guides also are made available on the portal, providing instructions on how to access the portal and how to read and interpret information in the reports and files, as well as details on measures in the reports and files and how they were analyzed or calculated.

2.3.1 Portal Users and Usage

As files and reports are added to the portal at least once quarterly, it is expected that every practice will have at least one user per quarter logging on to the portal to view and download any new files. There is wide variation across states in this usage measure. Web portal usage has been relatively low and tapered off over time. *Figure 2-1* shows the percentage of

practices with at least one user accessing the Web portal between the January–March 2014 quarter and the October–December 2014 quarter.

Figure 2-1
Percentage of practices logging on to the Web portal at least once within the quarter, January through December 2014



NOTE: North Carolina, Michigan, and Minnesota do not have users at the practice level and therefore are excluded from the graph.

During that time, New York had the largest percentage of its practices with at least one user accessing the Web portal (95%–97%). Usage in New York remained high after they decided to have one person (Pod Coordinator) within each of the three Pods download and disseminate reports for all practices assigned to a Pod.

The percentage of practices with at least one user accessing the portal in Pennsylvania decreased from 27.8 percent at the start of 2014 to less than 20 percent during the most recent three quarters. Pennsylvania ended participation in the demonstration in December 2014 and no longer accesses reports through the Web portal.

The percentage of practices with at least one user accessing the portal in Maine was just under 30 percent in the January–March 2014 quarter and remained steady at about 20 percent in the most recent three quarters.

In Rhode Island, the percentage of practices with at least one user accessing the portal was lowest among all states using the portal, at 20 percent or below during 2014. Usage was highest during the first quarter, when 20 percent of practices logged on, and remained between 12 and 15 percent for the rest of the year. According to state officials, there was a multiplicity of

portals available to practices in Rhode Island and therefore some hesitancy among providers to initiate log-in accounts with multiple portals.

In Vermont, the percentage of practices with at least one user accessing the Web portal remained consistent and somewhat low (around 26 percent, but peaking at 35 percent during the April–June 2014 quarter). During the site visit, we learned that, as in Rhode Island, practices do not want to log on to a separate system to look at performance reports, nor do they want to get separate reports from individual payers. The Blueprint for Health produces performance reports combining information from commercial payers with that from Medicaid and Medicare.

2.3.2 Technical Assistance

RTI provides ongoing technical assistance to users. In addition to the technical user guides and educational webinars, RTI has a toll-free phone number for users to call and an e-mail inbox for users to submit questions and comments and receive technical assistance. During Year One, the major issues encountered included reconciling incorrect e-mail addresses and other contact information for user access; enabling users to download the first set of files posted to the Web portal; and assisting primary portal contacts who had trouble adding additional users. During Year Three, most of the technical challenges for users were resolved, and the number of technical assistance requests from users decreased dramatically compared with Year One and Year Two.

2.3.3 Web Portal Feedback From the States and Lessons Learned

The technical challenges experienced during the first 2 years were, for the most part, resolved, and portal access is running smoothly. Feedback from the states and practices indicated that the beneficiary-level utilization data were the most useful because they could be used for care management purposes. The practice feedback reports reportedly were of less interest to the practices. CMS and RTI staff attempted to increase usage by explaining the value of the data available on the Web portal, making adjustments to increase the value of the files and reports, and encouraging state initiative staff to encourage their practices to use the portal. CMS provides each of the five states with a monthly file showing Web portal log-in activity to help states monitor usage and contact practices and organizations not regularly accessing the portal. It appeared that the utility of this information did not increase as more experience was gained with the demonstration and as more data accrued over time, despite attempts by CMS and RTI staff to increase usage.

2.4 Practice Transformation

In Year Three of the demonstration, practices' implementation of the PCMH model continued to evolve; practices generally were comfortable with the basics and focused on making refinements to optimize implementation of the PCMH model. The "basics" usually consisted of using full-time care managers to reach out to high-risk patients; using EHRs to identify high-risk patients and track the care and outreach provided to them; and adopting a team-based approach to care delivery, with staff working at the top of their respective licenses. (Individual states and practices adopted additional PCMH features on a more case-by-case basis.) New refinements commonly made by practices in Year Three involved refining care manager roles and better integrating them into practice activities and workflows; customizing EHRs to reflect their

practice's unique needs; and securing better exchange of data with hospitals and other providers. Some practices also shifted to monitoring and working to improve their performance on quality measures more actively and offering more patient education about common chronic conditions like diabetes and asthma (such as through group classes offered by health educators). Behavioral health was a focus in Year Three in several demonstration states, with practices screening more patients for these issues, acknowledging a lack of behavioral health resources in their communities, and wanting to hire behavioral health specialists for their practice.

Practices viewed the PCMH model very favorably and felt it had had many positive effects—improving practice staff engagement, motivation, and teamwork (even if it increased staff workloads, according to some); improving patient satisfaction; improving the quality of care; improving access to care; and generally moving practices in the right direction. Changing the way practices operated was not without challenges, and some practices commented on how time consuming it was to redesign care processes and how difficult it was to get staff and patients to do things in a new way. Practices sometimes complained about the burden of meeting documentation requirements associated with renewing their recognition as a PCMH (especially when required to renew their certification at short intervals, as in Minnesota), but practices in Michigan had no concerns about their state's approach to recertification.

Practices viewed the demonstration payments they received for PCMH practice enhancements less favorably. Although uniformly grateful for this new revenue source, practices generally felt that demonstration payments did not cover the full cost of the changes they had made, including the new staff hired. Michigan was the one exception; practices there felt that payments allowed them to break even on the demonstration. Practices also were frustrated by the requirement in some states (Minnesota, Michigan) that they submit FFS claims to receive all or part of their demonstration payments. In Minnesota, practices faced difficulty in modifying billing systems to allow FFS claims to be generated without a face-to-face visit. In Michigan, practices faced a steep learning curve to understand when and how to bill commercial payers for demonstration payments, and they were frustrated when claims were rejected for patients who became ineligible due to monthly changes in attribution. Practices in Pennsylvania also were frustrated that they did not qualify in the first 2 years for all of the shared savings payments they had expected.

In three states (Minnesota, North Carolina, Pennsylvania), the demonstration concluded at the end of 2014, shortly after our interviews, while in the other states it was extended for 2 years. Practices offered different views about the eventual conclusion of the MAPCP Demonstration, depending on whether or not they had identified a replacement source of funding for the PCMH practice enhancements adopted during the demonstration. At the time of our site visit, some practices were aware of the new monthly Chronic Care Management fee available from Medicare starting in 2015, and they felt the payment would be a suitable replacement for lost MAPCP Demonstration revenue, but most practices were not yet aware of this new payment.

Practices that had leveraged their transformation into a PCMH to enter into ACO arrangements expected shared savings or capitated payments to take the place of demonstration payments (a common response in Minnesota). To a lesser extent, value-based payment models also were cited as a possible source of funding for PCMH activities (in Michigan, North Carolina, and, to some extent, Minnesota). Meanwhile, practices that had not entered into ACO

arrangements exhibited much more concern about how they would continue to fund practice enhancements after the demonstration ended. They often expected to lay off staff hired as part of the demonstration. Solo practitioners seemed especially concerned about how they would stay financially afloat without being in an ACO or receiving demonstration payments.

2.4.1 Changes Made by Practices During Year Three

PCMH recognition and practice transformation. In addition to the formal PCMH practice certification requirements to enter the MAPCP Demonstration in Year One, all demonstration states required participating practices to recertify as a PCMH in Year Three or earlier. Most states required practices to recertify as a PCMH using NCQA's practice recognition program, though some states used state-specific or even payer-specific criteria instead of or in addition to NCQA PCMH recognition (Minnesota, Michigan, North Carolina). Most states expected practices to recertify at the same PCMH level required to enter the MAPCP Demonstration, but a few states required practices to attain more advanced certification levels by Year Three (Rhode Island, Minnesota). By Year Three, Rhode Island was the only state requiring NCQA's most advanced Level 3 PCMH recognition to maintain participation in the demonstration. New York and Michigan required Level 2 recognition, and Vermont, Maine, and Pennsylvania required Level 1 NCQA PCMH recognition (though most practices exceeded these requirements and attained Level 3). Minnesota required practices to meet increasingly advanced PCMH requirements each time they recertified, and North Carolina required practices to meet BlueCross BlueShield of North Carolina standards in Year Two, after initially requiring NCQA recognition to enter the demonstration. **Table 2-3** summarizes the PCMH recognition standards practices had to meet to enter and continue in the MAPCP Demonstration in the eight states.

Although states emphasized different aspects of the PCMH model in their practice certification requirements (see Table 2-3), some themes emerged across the states with respect to the care processes on which they focused in Year Three. Care coordinators or care managers (the terms are used interchangeably in this section, because different states used different terms for a role that was essentially the same) continued to be a central component of the PCMH model and were viewed as the most transformative and valuable part of the model. Several interviewees commented that physicians had grown to trust care managers more after seeing health improvements in patients who worked with them; others noted that it took longer for part-time care coordinators, who were only in a practice 1 or 2 days a week, to gain that same level of trust. Care coordinators' duties typically included three core tasks:

1. Proactively managing and tracking the full continuum of care received by *a small subset of high-risk patients* (e.g., patients with multiple comorbidities, high utilizers of hospital or ER services, or patients referred to care coordinators by primary care providers);
2. Mining their practice's EHR to identify *patients overdue for preventive services* and then contacting them to schedule these services (which often were the basis for quality measures used to assess practices, in some states); and
3. Managing care transitions for *patients recently seen in the hospital or ER* (by identifying and contacting them, reconciling medications prescribed by the hospital with the patient's prior drug regimen, and scheduling a follow-up appointment).

Table 2-3
PCMH recognition requirements for practices participating in the MAPCP Demonstration

State	Initial requirements			Subsequent requirements
	PCMH standards	Minimum score	Care processes emphasized (e.g., state-specific mandatory criteria not required in NCQA)	
New York	NCQA	Level 2 + state-specific mandatory criteria (within 12–18 months)	Practices have to: <ul style="list-style-type: none"> ▪ Use e-prescribing; ▪ Participate in a disease registry; ▪ Develop data reporting capabilities; ▪ Meet expanded access requirements, including 24/7 telephonic access; and ▪ Offer same-day scheduling for urgent care. ▪ P4P incentives starting in 2013, based on member satisfaction, utilization (admissions, preventable emergency room visits, readmissions), development of a practice improvement plan 	Recertify as an NCQA Level 2 PCMH within 3 years, and employ an EHR that meets MU requirements
Rhode Island	NCQA	Level 1 + state-specific “must-pass” NCQA elements (within 6 months)	Practices have to <ul style="list-style-type: none"> ▪ Employ an EHR that meets Stage 1 MU standards; ▪ Hire and train a nurse care manager; ▪ Participate in training and reporting activities, including learning collaboratives; ▪ Implement after-hours care protocol within 6 months; and ▪ Comply with best practices for care transitions. ▪ Base payment in first year; payment tied to reporting measures in second year; payment tied to performance on measures in third and fourth years for quality, patient satisfaction, and utilization; and payment in fifth year tied to same metrics plus reporting measures of nurse care manager activity around high-risk patients. 	In second year, attain NCQA Level 2 PCMH, maintain prior requirements, and establish compacts with at least four specialists; in third, fourth, and fifth years, attain and maintain NCQA Level 3 PCMH and maintain prior year requirements

(continued)

Table 2-3 (continued)
PCMH recognition requirements for practices participating in the MAPCP Demonstration

State	Initial requirements			Subsequent requirements
	PCMH standards	Minimum score	Care processes emphasized (e.g., state-specific mandatory criteria not required in NCQA)	
Vermont	NCQA	Level 1 + state-specific mandatory criteria	Practices have to: <ul style="list-style-type: none"> ▪ Designate a quality improvement team that meets at least monthly and works with the state quality improvement program, EQuIP; ▪ Enter into an agreement with the local community health team to integrate their services into the practice; and ▪ Enter into agreements with the state's health information exchange/HITECH REC and demonstrate progress toward being able to communicate with centralized state-endorsed clinical registry. 	Recertify as an NCQA Level 1 PCMH within 3 years
North Carolina	NCQA	Level 1 (by end of first year)	BCBSNC's BQPP requirements (which must be met by the end of the second year) are as follows: <ul style="list-style-type: none"> ▪ E-prescribing ▪ Electronic claims submission ▪ Cultural competency training ▪ A triage protocol for after-hours care 	BCBSNC's Blue Quality Physician Program requirements (by end of second year), described at left
Minnesota	Minnesota HCH standards	Different standards for Years One, Two, and Three	Year Three standards require practices to: <ul style="list-style-type: none"> ▪ Submit documentation showing how they systematically identify patients who would benefit from care coordination, ▪ Participate in one learning collaborative meeting, ▪ Submit patient-level data to a statewide quality reporting system to be used for benchmarking, ▪ Discuss benchmarking data with recertification team and outline action plans for any variances, ▪ Provide evidence of how variances have been resolved to ensure standards are being met, and ▪ Provide evidence of how recommendations are being addressed. 	Meet Minnesota's HCH recertification standards at 15-month intervals, show evidence of plans to address "variances" from prior certification and recertifications

(continued)

Table 2-3 (continued)
PCMH recognition requirements for practices participating in the MAPCP Demonstration

State	Initial requirements			Subsequent requirements
	PCMH standards	Minimum score	Care processes emphasized (e.g., state-specific mandatory criteria not required in NCQA)	
Maine	NCQA	Level 1 + 10 core expectations	10 core expectations of practices: <ul style="list-style-type: none"> ▪ Leadership commitment ▪ Team-based approach to care ▪ Population management ▪ Enhanced beneficiary access ▪ Integrated care management ▪ Integrated behavioral and physical health ▪ Patient and family inclusion ▪ Community connections (including public health organizations) ▪ Commitment to reduce unnecessary spending, improve cost effectiveness ▪ Integration of health IT 	Recertify as an NCQA Level 1 PCMH within 3 years
Michigan	BCBS Michigan's PGIP: PCMH designation or NCQA	BCBS Michigan PCMH designation or NCQA Level 2	Care processes emphasized in BCBS Michigan's PCMH standards (must-pass elements): <ul style="list-style-type: none"> ▪ Population management (registry functionality) ▪ Expanded access (expanded hours, 24/7 access to a clinical decision maker, and 30% open access slots) ▪ Quality measurement (performance reporting) ▪ Care management staffing (either directly or through affiliated physician organization, at a minimum mandatory staffing ratio) ▪ Referral and tracking capacity between specialists and primary care practices ▪ Affiliation with a physician organization ▪ Participation in learning activities ▪ Performance measures: utilization, clinical quality (e.g., asthma, cancer screening, diabetes, well-child visits, cardiovascular disease), capability (e.g., self-management supports available) 	Recertify as a BCBS Michigan PCMH annually or Recertify as an NCQA Level 2 PCMH within 3 years

(continued)

Table 2-3 (continued)
PCMH recognition requirements for practices participating in the MAPCP Demonstration

State	Initial requirements			Subsequent requirements
	PCMH standards	Minimum score	Care processes emphasized (e.g., state-specific mandatory criteria not required in NCQA)	
Pennsylvania	NCQA	Level 1 + state-specific must-pass NCQA elements	State-specific must-pass NCQA elements: <ul style="list-style-type: none"> ▪ For practices certified with NCQA's 2008 PCMH standards: <ul style="list-style-type: none"> – Non-physician staff perform basic care management (element 3C) – Specific care management activities (element 3D) – Patient education and self-management of conditions (element 4B) ▪ For practices certified with NCQA's 2011 PCMH standards: <ul style="list-style-type: none"> – Care planning and management (NCQA 2011 element 3C) – Quality measures used when calculating shared savings payments differ for adult and pediatric practices but cover three domains: prevention; management of chronic conditions; and clinical care management – Practices must demonstrate transformation on a state-specific self-assessment survey, and pass annual site audits to assess care management systems 	Recertify as an NCQA Level 1 PCMH within 3 years + meet a smaller number of state-specific must-pass elements

NOTES:

- Both the 2008 and 2011 NCQA PCMH standards use a three-tiered recognition approach, whereby practices are recognized as a Level 1, 2, or 3 PCMH, depending on the percentage of NCQA's standards they meet; Level 3 is the most advanced level of recognition.
- From 2008 to 2010, PCMH recognition was only available from NCQA using their 2008 standards.
- In 2011, practices could become recognized as a PCMH using NCQA's 2008 or 2011 standards.
- Starting in 2012, practices could use only NCQA's 2011 standards to obtain PCMH recognition.

BCBS [NC] = Blue Cross Blue Shield [of North Carolina]; BQPP = Blue Quality Physician Program; EHR = electronic health record; EQuIP = Expansion and Quality Improvement Program; HCH = Health Care Home; HITECH REC = Health Information Technology for Health and Clinical Health Regional Extension Center; IT = information technology; MAPCP = Multi-Payer Advanced Primary Care Practice; MU = meaningful use; NCQA = National Committee for Quality Assurance, P4P = pay-for-performance; PCMH = patient-centered medical home, PGIP = Physician Group Incentive Program.

In half of the demonstration states, many care coordinators' activities were facilitated by regular data feeds from local hospitals (in Maine, Michigan, Rhode Island, and in Minnesota through Epic's CareEverywhere Web portal). Lack of information from hospitals was a more serious problem in Pennsylvania's demonstration practices in the Southeast region, where many participating practices were small and unaffiliated with a major hospital or delivery system.

Additional activities that were a focus for demonstration practices in Year Three included health education (Pennsylvania, Michigan, Vermont, North Carolina), with health educators often providing group classes for patients with diabetes, asthma, or other common chronic conditions and/or care coordinators providing one-on-one patient education. Several states (Maine, Michigan, Pennsylvania) focused on increasing screening for behavioral health issues (i.e., mental health and substance abuse) and connecting patients with service providers in the community (or, less often, counseling these patients within their practice using behavioral health specialists). Palliative care was another target area for practices in some states (Michigan, North Carolina), with physicians and care coordinators initiating more discussions with patients about the importance of having an advanced directive specifying end-of-life care preferences. Finally, practices in three states (North Carolina, Michigan, Minnesota) focused on optimizing their team-based care—using different practice staff members, all working at the top of their licenses, to develop care plans and deliver care to a shared set of patients and to discuss these patients during regular team huddles.

Practice staffing changes. Most states already made major staffing changes in the first 2 years of the demonstration, and, in 2014, changes were more incremental. For example, practices across the states refined new and existing staff roles, especially the role of care coordinator. Specific roles for care coordinators varied across practices and states, but almost always included facilitating care transitions by following up after an ER visit or hospitalization, identifying high-risk patients and scheduling them for needed care, and being available for between-visit questions. Ultimately, practices felt that care coordinators helped patients use health services more appropriately (e.g., more preventive care, fewer unnecessary hospitalizations).

Several practices across the states mentioned that they worked on determining the ideal patient panel size for care coordinators, and opinions varied on this topic. Similarly, practices had different ideas about the ideal training and background for care coordinators. Minnesota deliberately chose not to dictate requirements for care coordinators in demonstration practices, because they wanted to allow practices the flexibility to make decisions that worked best for them. Practices in several states noted that, although RNs were more skilled and able to deliver a higher level of care, medical assistants (MAs) could be employed at significantly lower salaries and tended to be equally as competent as RNs in their nonclinical skills.

As in past years, virtually all practices in all states focused on delivering team-based care, and many used mid-level practitioners for pre-visit services. This shift in responsibilities allowed practice staff to work at the top of their licenses—a concept noted by practices across all states. Over the course of the demonstration, more practices hired completely new staff, including pharmacists, social workers, and dietitians. In Rhode Island and some other states, there was a focus in Year Three on staffing to support behavioral health services, and many practices achieved this either through hiring behavioral health specialists or contracting with community organizations to deliver services.

Overall, many practices across all states reported that new staff became progressively more integrated in practice activities. For example, in Year One, some practices in some states were unsure how best to utilize a care coordinator, but, by Year Three, most practices reported that care coordinators worked fairly seamlessly within the practice.

Health information technology. Practices' use of health IT continued to evolve in Year Three. The vast majority of practices had EHRs before the demonstration, or at least by Year Three, but their utilization of these systems changed. Practices across all states not only used their EHRs to record basic patient information and diagnostic data, but also to create registries, support patient education (by printing after-visit summaries or educational materials about diagnoses for patients), calculate quality measures, and generate population-based reports. Practices tended to be optimistic about their EHRs, acknowledging that they supported better patient care, even if they required considerable start-up costs and workflow adjustments.

Compared to Year One and Year Two, most practices across all states seemed more comfortable using their EHRs for a variety of functions in Year Three. Patient registries were a focus in almost all states (Maine, Michigan, Minnesota, North Carolina, Pennsylvania), and many practices used their EHRs to support a registry and, subsequently, to identify patients needing certain types of care. Some states required the use of registries, and New York provided disease registry software free to practices needing it.

Some practices also successfully used their EHRs to generate quality reports and then used these reports to help identify areas for improvement. In New York, a group of practices used their EHRs to create quarterly peer-based, provider-specific score cards allowing them to benchmark themselves among peers and averages.

Some practices in some states (including Maine, North Carolina, New York, and Rhode Island) implemented patient portals allowing patients to access their medical records online, although only a minority of practices reported that the portals were used regularly. That said, some practices believed that the concept was catching on, and that patient portals would be more widely used by patients in coming years.

Practices continued to struggle to share records with hospitals and other practices outside their own system. Interoperable systems seemed more common in some states than in others, but, in many cases, practices still used fax and telephone to share medical records with other community providers.

Across the states, there was a definite secular trend toward developing health IT capabilities, and, almost universally, practices agreed that health IT and especially EHRs had the potential to improve the quality of patient care.

2.4.2 Technical Assistance

As in Year One and Year Two, states provided technical assistance to practices participating in the demonstration in Year Three. Most technical assistance took the form of shared learning, practice coaching, or quality data reports. Shared learning opportunities (sometimes called learning collaboratives) were a cornerstone of several states' (Maine, Michigan, Minnesota, Pennsylvania) technical assistance strategies. As in past years, practices

generally reported finding these learning sessions helpful, and they especially appreciated the opportunity to network with peer practices and other community providers. Some practices in some states disagreed, finding the learning collaboratives repetitive or inappropriate for their practice's level of medical home sophistication. Some states complemented the in-person sessions with virtual shared learning opportunities, such as webinars. The content of these in-person and virtual meetings included clinical and logistical topics, such as how to bill effectively for reimbursement for care coordination services.

Practice coaching was a feature of all states' technical assistance, and, in some cases, practice coaches worked with practices as frequently as weekly (Maine). Coaches helped practices meet medical home certification standards and implement quality improvement strategies (for example, using data to identify areas for improvement, testing small-scale changes, and then integrating changes into practice workflow).

All states also provided quality measure and/or utilization data to practices. As in past years, however, practices across the states complained that data were not timely, preventing them from making real-time adjustments to improve quality. In Michigan, practices received patient risk scores, and many practices used these to help prioritize patients for care management. Because of the time lag, however, practices felt that the risk scores did not always reflect up-to-date reality. RTI also provides Practice Feedback reports to participating practices across the states, and there apparently was more awareness of these reports in Year Three compared to earlier years.

2.4.3 Payment Supports

Demonstration payment designs and generosity varied widely by state, but were generally modest, compared to the Comprehensive Primary Care Initiative and Medicare's new Chronic Care Management fee, which support similar medical home services for patients. **Table 2-4** details MAPCP Demonstration payments to practices in the eight states.

Table 2-4
Payments PMPM to MAPCP Demonstration practices¹

State	Medicare	Medicaid	Private payers
New York	\$7.00 ² (includes \$0.50 for P4P incentive pool and varying amounts for support organizations)		
Rhode Island	Same payment methodology as Medicaid and private payers, except Medicare payment is capped at \$6.00 ³	<u>Developmental contract startup (1st) year:</u> \$3.00 +\$2.50 ³ (for nurse care manager) <u>Developmental contract transition (2nd) year:</u> \$5.50 ³ +\$0.50 if quality measurement/reporting requirement met <u>Developmental contract performance Year One (3rd) year:</u> \$5.50 ³ +\$0.50 for each quality, patient experience, or utilization performance target met (up to a maximum of \$2.00) (Up to a maximum of \$7.50) <u>Developmental contract Performance Year Two (4th) year:</u> \$5.50 ³ +\$0.50 for achieving 4 out of 7 quality performance targets OR +\$0.75 for meeting 6 out of 7 quality performance targets +\$0.50 for achieving 2 out of 3 patient experience performance targets +\$1.25 for achieving inpatient admissions reduction targets +\$0.75 for achieving ER visit reduction target (Up to a maximum of \$8.75) <u>Developmental contract Performance Year Two A (5th) year:</u> \$5.50 ³ +\$0.50 for achieving 5 out of 7 quality performance targets and testing new measures +\$0.50 for achieving 4 out of 6 patient experience performance targets +\$0.50 for achieving inpatient admissions reduction targets +\$0.50 for achieving ER visit reduction target +\$1.25 for managing high-risk patients and reporting on transitions of care, nurse care manager metrics (Up to a maximum of \$8.75)	
Rhode Island	<u>Original 2-year contract:</u> \$3.00 +\$1.16 (for nurse care manager) ³ <u>Year One renewal:</u> \$5.50 ³ <u>Year Two+ renewals:</u> \$5.00 ³ (0–1 performance targets met)/\$5.50 (utilization target and 1 other target met)/\$6.00 (all targets met)		
Vermont	\$1.20 to \$2.39 (depending on NCQA 2008 score)/\$1.36 to \$2.39 (depending on NCQA 2011 score)		

(continued)

Table 2-4 (continued)
Payments PMPM to MAPCP Demonstration practices¹

State	Medicare	Medicaid	Private payers
North Carolina	\$2.50/\$3.00/\$3.50 (NCQA Level 1/2/3)	\$5.00/\$2.50 (ABD patients/non-ABD patients)	BCBSNC: Enhanced fee schedule equivalent to a minimum of \$1.50 State Employee Health Plan: inclusive with BCBSNC enhanced fee schedule above
Minnesota ⁴	\$10.14 (1–3 conditions)/ \$20.27 (4–6 conditions)/ \$30.00 (7–9 conditions)/ \$45.00 (10+ conditions) +15% for mental illness +15% for patients who speak English as a second language	\$10.14 (1–3 conditions)/ \$20.27 (4–6 conditions)/ \$40.54 (7–9 conditions)/ \$60.81 (10+ conditions) +15% for mental illness +15% for patients who speak English as a second language	State is allowing any payment methodology consistent with Medicaid’s MAPCP Demonstration payment rates
Maine	\$6.95	\$12.00	\$3.00
Michigan	\$2.00 +\$4.50 (if have a care manager ⁵) +P4P incentives	\$1.50 +\$3.00 (if have a care manager ⁵) +P4P incentives	Payment methodology that is actuarially equivalent to \$1.50 +\$3.00 (if have a care manager ⁵) +P4P incentives
	(Public payers contribute \$3.00 PBPM to an incentive pool ⁶)		(Private payers pay incentives equivalent to \$3.00 PMPM ⁶)

(continued)

Table 2-4 (continued)
Payments PMPM to MAPCP Demonstration practices¹

State	Medicare	Medicaid	Private payers
Pennsylvania	<u>Year One:</u> \$1.50 +\$0.60 (age 1–18) / \$1.50 (age 19–64) / \$5.00 (age 65–74) / \$7.00 (age 75+) +Up to 40% of the net savings they generate for a payer, based on cost and quality performance <u>Year Two:</u> \$1.28 +\$0.51 (age 1–18)/\$1.28 (age 19–64)/\$4.25 (age 65–74)/\$5.95 (age 75+) +Up to 45% of the net savings they generate for a payer, based on cost and quality performance <u>Year Three:</u> \$1.08 +\$0.43 (age 1–18)/\$1.08 (age 19–64)/\$3.61 (age 65–74)/\$5.06 (age 75+) +Up to 50% of the net savings they generate for a payer, based on cost and quality performance		

NOTES:

- ¹ Medicare amounts do not reflect sequestration, which reduced payments by 2 percent starting in April 2013.
- ² In New York, practices are paid \$7.00 PBPM. From this amount, practices are required to contribute \$0.50 to a P4P incentive pool administered by the AHI, \$0.10 to AHI to administer this P4P incentive pool, and \$0.50 to AHI for vendor management, a data warehouse, and other centralized activities. The remaining \$5.90 for practices supports care management and other centralized services, such as quality improvement and reporting activities in Pods 2 and 3, and enhanced physician salaries in Pod 2. As an alternative to paying practices \$7.00 PMPM, private payers can increase payment rates for evaluation and management visits in a manner that is actuarially equivalent to \$7.00 PMPM.
- ³ For practices that used a care manager employed by South County Hospital, this amount was reduced by \$1.16 under the original 2-year contract, by \$1.50 under the renewal contracts, and by \$2.50 under the Developmental Contract.
- ⁴ Minnesota gave 37 practices \$5,000 mini-grants in 2010, and funded technical assistance for four safety net clinics in 2011.
- ⁵ Paid to practice if practice funds care manager salary; otherwise paid to physician organization (see Table 2-3).
- ⁶ Incentive payment goes to physician organization, which pays at least 80 percent to practices.

ABD = aged, blind, or disabled; AHI = Adirondack Health Institute; BCBSNC = Blue Cross Blue Shield of North Carolina; ER = emergency room; MAPCP = Multi-Payer Advanced Primary Care Practice; NCQA = National Committee for Quality Assurance; P4P = Pay-for-performance; PBPM = per beneficiary per month; PMPM = per member per month.

In five states (Maine, Vermont, Michigan, New York, North Carolina), MAPCP Demonstration payments were available not only for practices, but also for other supporting organizations. These payments are described in **Table 2-5**.

Table 2-5
Payments PMPM to MAPCP Demonstration supporting organizations in five states

State	Medicare ¹	Medicaid	Private payers
New York ²	Pods (physician practice support organizations): Dollar amounts vary by Pod (for care management and other centralized services) AHI: \$0.50 (for vendor management, data warehouse, and other activities) \$0.10 (administration fee for P4P incentive pool) \$0.50 (contribution to P4P incentive pool, which is then reallocated to practices)		

(continued)

Table 2-5 (continued)
Payments PMPM to MAPCP Demonstration supporting organizations in five states

State	Medicare ¹	Medicaid	Private payers
Vermont	CHTs: \$1.64 SASH program: \$5.21	CHTs ³ : \$84,770	CHTs ³ : BCBS of Vermont \$84,770; Cigna \$63,770; Mohawk Valley Plan \$38,920
North Carolina	Community Care Networks: \$6.50	Community Care Networks: \$13.72 (ABD patients) \$3.72 (non-ABD patients)	Community Care Networks: \$2.50 (paid by BCBSNC) Annual lump sum based on a 1:40 ratio of 1 full-time equivalent nurse care manager to 40 high-risk members (paid by the State Employee Health Plan)
Maine	CCTs: \$2.95	CCTs: \$129.50 for high-risk Medicaid beneficiaries who enroll in practices certified as Health Homes ⁴	CCTs: \$0.30 from most participating commercial payers + an initial \$25 from Maine Community Health Options if team provides outreach to a patient at least 3 times +\$150 PBPM if patient enrolls in demonstration
Michigan ⁵	Physician organizations: \$4.50 (if employ a care manager) + up to 20% of P4P incentives MAPCP Demonstration program management: \$0.26	Physician organizations: \$3.00 (if employ a care manager) + up to 20% of P4P incentives MAPCP Demonstration program management: \$0.26	Physician organizations: \$3.00 (if employ a care manager) MAPCP Demonstration program management: \$0.26

NOTES:

¹ Medicare amounts do not reflect sequestration, which reduced payments by 2 percent starting in April 2013.

² In New York, practices are paid \$7.00 PBPM. From this amount, practices are required to contribute \$0.50 to a P4P incentive pool administered by the AHI; \$0.10 to AHI to administer this P4P incentive pool; and \$0.50 to AHI for vendor management, a data warehouse, and other centralized activities. The remaining \$5.90 for practices supports care management and other centralized services, such as quality improvement and reporting activities in Pods 2 and 3 and enhanced physician salaries in Pod 2. As an alternative to paying practices \$7.00 PMPM, private payers can increase payment rates for E&M visits in a manner that is actuarially equivalent to \$7.00 PMPM.

³ In Vermont, Medicaid and commercial payers are responsible for a percentage of the total cost of the CHTs, rather than a PMPM.

⁴ In Maine, only two demonstration practices are not certified as Health Homes by the state's Medicaid program. Payments are made only for patients who are provided with services by CCTs.

⁵ In Michigan, all payers fund program management, evaluation, data analytics, and learning activities through a PMPM administrative support fee.

ABD = aged, blind, or disabled; AHI = Adirondack Health Institute; BCBS = Blue Cross Blue Shield; CCT = community care team; CHT= community health team; E&M = evaluation and management; MAPCP: Multi-Payer Advanced Primary Care Practice; P4P = Pay-for-performance; PBPM = per beneficiary per month; PMPM = per member per month.

Despite the variation in payment amounts and approaches, interviewees' views about payments were quite similar across all eight MAPCP Demonstration states. Practices were grateful to receive them, but, in most states, felt that payment amounts were insufficient to cover the cost of all of the enhancements made to their practice. Michigan was the one exception, with practices feeling that payments allowed them to break even on the demonstration. Demonstration payments usually were used directly to offset the cost of new care coordinators' salaries or the cost of buying or upgrading EHRs. Payments also went directly to large health care systems and were used to fund resources shared across practices, such as diabetes health educators or dietitians. To a lesser extent, practices sometimes used demonstration payments to hire staff specializing in health IT, data management, or quality monitoring.

Other concerns about demonstration payments were more state specific and driven by billing logistics and payment methodologies:

- In Michigan, practices faced a steep learning curve for understanding when and how to bill commercial payers to receive MAPCP Demonstration payments, and they were often frustrated when claims were rejected for patients who became ineligible for the demonstration.
- In Minnesota, many practices chose not to submit claims for monthly payments once they realized the cost of modifying their billing systems to generate claims without a face-to-face visit would exceed the revenues earned from submitting these claims. A major reason was that many practices had very few FFS Medicaid and Medicare patients. Minnesota had the highest penetration of Medicare Advantage plans in the country (51%), and an even higher percentage of Medicaid beneficiaries were in managed care (66%). This was less of an issue for Medicaid managed care patients and privately insured patients, because plans built payments for health care home services into the payments they made to practices. (Medicare Advantage did not participate in Minnesota's demonstration.) Minnesota practices also complained about tying payment amounts to beneficiaries' number of chronic conditions, since patients could have few chronic conditions, but still be quite complex. Minnesota practices also were displeased about needing to spend time convincing patients to opt in to the program, as required by the state.
- In Pennsylvania, most practices agreed to reductions in per beneficiary per month (PBPM) demonstration payments in Years Two and Three in exchange for the chance to earn a higher percentage of shared savings payments than was available in Year One, but they then were quite frustrated when they failed to generate enough savings to qualify for these bonuses.⁶ Practices generally felt that Medicare's requirement that practices generate more savings than a comparison group of medical home practices (rather than a comparison group of non-medical-home practices) was inappropriate.

⁶ Practices will earn shared savings from Medicare for Year 3, although they did not learn about this until 9 months after the demonstration ended, and actual distribution of payments will lag further.

2.5 Outcomes

2.5.1 Quality of Care, Patient Safety, and Health Outcomes

The goal of quality measurement and quality improvement initiatives is to improve the health outcomes for Medicare beneficiaries. Four of the eight MAPCP Demonstration states (New York, Rhode Island, North Carolina, Michigan) explicitly listed “improving patient outcomes” as a key objective for their PCMH initiative; others implied this in addition to other goals, such as reducing acute events (e.g., hospital or ER admissions).

To improve outcomes, each state implemented several practice transformation activities, including using health IT for patient registries, quality measurement, and patient follow-up, especially after an acute event. Five MAPCP Demonstration states mentioned some form of pay-for-performance (P4P) arrangements based on their quality reporting. In Year Three, at least three states updated the quality metrics used. These updates were implemented because clinical guidelines had changed; practices moved to a more population-based clinical care that prioritized preventive services; or new measures were adopted by the state’s incentive payment programs. Even with these changes, the majority of practices found increased value in receiving quality measurement feedback. Practices used the reports to identify gaps in care and then used this information for improvement purposes, in the forms of provider feedback and patient outreach. A minority of providers, however, voiced concern about the accuracy of the quality measurements generated through their EHRs, and others thought that the measurements did not align with their work on patients with multiple chronic diseases and disabilities and that this detracted from the work done by care managers.

The adoption, use, and appreciation of health IT increased in Year Three. At least one state (New York) cited its priority to maintain CMS Stage 2 EHR meaningful use recognition. In general, practices became more sophisticated in health IT use and adopted additional EHR functionalities. Some examples included creating and using EHR-facilitated alerts; using the EHR to identify patients for follow-up (including preventive care, annual wellness checkups, and post-discharge care); using registries to identify gaps in care; developing care protocols for specific clinical conditions and integrating these protocols into the EHR; and using the EHR to automate dissemination of health education materials to relevant patients. Practices also continued to use their EHRs to ensure patient safety, particularly to avoid prescription drug interactions and to conduct medication reconciliation.

Care managers or coordinators continued to be an integral part of the medical home models in Year Three, with their roles becoming more established within the health care setting and appreciated by physicians. Care managers continued to manage chronically ill patients and identified patients with the greatest health care needs. In some cases, the care management process broadened from an initial focus on treating symptoms associated with specific diseases (diabetes, heart disease, etc.) to better care for the whole patient and attention to all health care needs. Practices in Vermont, for example, cited increased immunizations and other preventive services, better patient nutrition, and reductions in falls. In Pennsylvania, care management also included mental health screening and follow-up.

2.5.2 Access to Care and Coordination of Care

Improving access to care and coordination of care was a central focus of all eight state initiatives. In all states, participating practices had to meet expectations related to care access and coordination, through requirements to achieve some form of PCMH recognition (most commonly NCQA PCMH recognition) and, in some states, additional requirements. Every state incorporated nurse care managers or other care coordinators in its initiative. States varied in whether practices were required to hire the nurse care manager/care coordinator (Maine, Minnesota, Pennsylvania, Rhode Island) or whether they had the option of using shared care managers/care coordinators employed by an external organization (Michigan, New York, North Carolina). Maine also incorporated CCTs, which provided additional care management support to practices' most complex patients. Instead of using care managers, Vermont practices were required to enter into an agreement with their regional CHT, which offered care coordination and community resources; in addition, the SASH program provided care coordination to Medicare beneficiaries living in subsidized housing and nearby communities.

Over the 3 years of the MAPCP Demonstration, practices described initiatives to expand patient access, including open access scheduling, expanded hours, better after-hours coverage, improved telephone access, and Web-based patient portals. In some cases, these initiatives preceded the demonstration. During Year Three, practices mostly described continuing efforts to improve access initiated in earlier years, although some practices undertook new initiatives or refined their activities, for example, by systematically assessing the optimal number of appointment slots to leave available for same-day appointments. A few practices reported that they cut evening and weekend hours because patient demand was insufficient. Practices in several states (Minnesota, North Carolina, Rhode Island) described the ongoing need to educate patients about expanded hours, the availability of same-day appointments, 24/7 access, and the importance of contacting the practice before going to the ER. Staffing extended hours was generally not a problem, but practices in New York, Pennsylvania, and Vermont reported difficulties. Access to behavioral health services continued to be a challenge in several states, although practices in Maine described progress in integrating physical and behavioral health services.

Care coordination, including targeting high-risk patients and patients discharged from the hospital, remained a priority during Year Three, as it was previously. Practices continued refining the roles of nurse care managers and other staff, including defining staff roles and responsibilities more clearly. Practices in New York and Vermont, where care managers were employed by an external organization, reported increased engagement and interaction with care management resources. In Year Two, many practices reported that lack of timely data undermined their ability to manage care transitions from the hospital to the community. During Year Three, practices and external care management organizations described improvements in information exchange with hospitals and other providers and more sophisticated data analytic capacity to identify patients needing care management. Practices in several states noted more frequent real-time notification of patient discharges and better communication with ERs.

2.5.3 Beneficiary Experience With Care

A topic discussed again during the Year Three site visits was perceptions of beneficiary experience with care. The third site visit interviews focused on three areas: (1) the MAPCP

Demonstration processes and activities most visible to patients; (2) patient engagement in shared decision making; and (3) patient education to improve self-management. Changes in these areas since last year's interviews also were summarized.

In nearly all states, the most visible aspects of the MAPCP Demonstration were care coordinators and care teams, since these were the face of the program for most beneficiaries. These staff were valued for providing one-on-one contacts. Another highly visible activity was chronic disease education sessions (for diabetes, obesity, chronic obstructive pulmonary disease, and other conditions) and workshops, since those were the next most common method of interacting with MAPCP Demonstration staff.

The site visit revealed several other types of visible activities. One was personalized feedback to patients, variously described as treatment plans (Maine), individualized care plans (Minnesota), self-management notebooks (North Carolina), individual patient reports (Pennsylvania), and patient-specific education materials (Rhode Island). Other activities mentioned by multiple states included patient advisory councils (Maine, Michigan, Minnesota, Rhode Island) and patient portals (North Carolina, New York, Pennsylvania).

In Year Two, there was a paucity of information about shared decision making, which apparently was viewed as difficult to implement. This persisted in Year Three. Although site visit interviews frequently referred to patient "engagement," there was little explanation of the extent to which this actually was associated with shared decision making. In Vermont, little to nothing was said about shared decision making during the interviews. Only Maine explicitly mentioned an improvement in Year Three. The general impression was that the level of shared decision making was low in the MAPCP Demonstration, and that the situation did not improve in the past year.

The MAPCP Demonstration states all were engaged in a fairly high level of self-management activities, at least for patients with chronic diseases. All states were actively involved in a variety of both patient-specific and group-level programs to promote self-management. Site visit findings suggested that the magnitude of or emphasis on these programs increased during the past year in four states (Maine, Michigan, North Carolina, Vermont) and remained about the same as the previous year in the other four.

Two states voiced concerns about the impact of the MAPCP Demonstration on beneficiary experience, as measured by surveys. Interviewees in Minnesota were concerned that patients didn't understand what practice transformation was all about, and that demonstration efforts wouldn't translate into higher scores on a survey like the Consumer Assessment of Healthcare Providers and Systems (CAHPS). As in the previous year, North Carolina said it was unlikely that demonstration beneficiaries felt that their experience had changed.

2.5.4 Effectiveness (Utilization and Expenditures)

In their applications for the MAPCP Demonstration, the states projected reductions in avoidable inpatient hospitalizations, readmissions, and avoidable ER services as a result of efforts to shift patient care from hospital to primary care settings, target and help high-risk beneficiaries navigate health care in a more personal environment, implement more proactive rather than reactive care, and augment services provided by the PCMHs.

During the Year Three site visits, most states did not describe any changes in their strategies that had the biggest impact on health care utilization and expenditures. All states identified care management or care coordination as having or potentially having a significant impact on utilization and expenditures. In five states (Maine, Michigan, North Carolina, New York, Rhode Island), interviewees mentioned that effective components of care management included identifying and reaching out to patients discharged from hospitals and/or ERs and focusing on high utilizers and high-risk patients. Some states made changes to their care management models to make them more effective. In North Carolina, communication between care managers and hospital discharge planners improved. In New York, providers became more comfortable with care managers and relied more on them. New York care managers also began to make calls about appropriate ER use and available after-hours care.

The Year Three site visits also revealed new model components that states found to have an impact on utilization and expenditures. Maine began integrating behavioral health home organizations (BHHOs) and practices. North Carolina interviewees identified its largest impact in Year Three as the extension of care management services to Medicare beneficiaries and the formation of new relationships with hospitalists. As knowledge of the SASH program grew in Vermont during Year Three, interviewees noted that it contributed to the effectiveness of the Blueprint for Health.

In New York, performance-based payments began in Year Three. New York providers received P4P bonuses and offered mixed views about whether the bonuses were large enough to be effective.

Some states reported measuring impacts on utilization and expenditures. In New York, commercial payers and Medicaid reported reductions in admissions, readmissions, and ER visits. Vermont and its payers mentioned similar results for their commercial and Medicaid patients. Other states (Michigan, North Carolina, Rhode Island), however, reported difficulty in influencing utilization and expenditures, particularly ER utilization.

2.5.5 Special Populations

With a few exceptions, MAPCP Demonstration states did not have unique interventions tailored to special populations, such as Blacks, Hispanics, inner-city residents, Medicaid or Medicare beneficiaries, or dually eligible beneficiaries. Exceptions included Vermont, which targets older people living in subsidized housing (through the SASH program), and New York, which targets people living in rural areas by virtue of where the demonstration takes place (the Adirondacks). Information on special populations receiving targeted attention in demonstration states and on whether these included other populations of policy interest is summarized in *Table 2-6*.

Table 2-6
MAPCP Demonstration special populations by state

Population	New York	Rhode Island	Vermont	North Carolina	Minnesota	Maine	Michigan	Pennsylvania
Dually eligible beneficiaries	y	y	y	x	y	y	y	y
People with disabilities	y	y	y	x	y	y	y	y
Older people in supported housing	—	—	x	—	—	—	—	—
Beneficiaries with behavioral health issues	y	y	x	y	y	y	y	y
Beneficiaries with chronic conditions/ multiple comorbidities/high risk	y	y	x	x	y	x	x	y
Beneficiaries in rural areas	y	—	y	y	y	y	y	—
Racial/ethnic groups (e.g., African Americans, Somalis, Hmong, Hispanics)	—	—	—	y	y	—	y	y
Children with asthma	y	—	y	y	y	y	y	y

NOTES:

- x = a special focus of the state with an enhanced or special intervention.
- y = not a group receiving an enhanced or special intervention, but a category of policy interest.

MAPCP = Multi-Payer Advanced Primary Care Practice; — = not applicable.

States generally argued that the goal of their PCMH initiatives is a person-centered transformation of primary care intended to meet the needs of all patients, regardless of ethnicity, race, insurance status, or rural/urban location. They believed that the special needs of specific populations would be addressed by patient-centered care. Instead of sociodemographic characteristics or program participation eligibility, most states focused on patients believed to be at high risk of unnecessary utilization and expenditures or at high risk of adverse outcomes. While states provided information about patients to participating practices, enabling them to target high-risk individuals, states did not prescribe which patients were to receive such services as care management.

At the same time, most states during the past year had some focus on high-risk populations and people with behavioral health needs. All states targeted high-risk participants to receive care management services, although methods of identifying these individuals varied widely, and no state rigidly limited care management to a predetermined type of patient. Most states provided practices with some type of claims-based risk score for each patient, although many observers found the data too old to be used effectively to target patients. In Minnesota, monthly payments to practices were based on the number of major chronic conditions a patient had. Practices received higher payments for patients with more chronic conditions, and payment multipliers applied if the patient had a serious and persistent mental illness or spoke English as a second language (although many practices did not seek payment through this initiative). Several states, including Vermont, Michigan, New York, and Maine, provided training or directed other initiatives to people with behavioral health needs.

2.6 Potential Future Issues for States, CMS, and Federal Evaluators

In Year One and Year Two, states described a variety of challenges in their efforts to implement the MAPCP Demonstration, including attrition of payers and practices; general lack of enthusiasm among practices as change fatigue increased; difficult billing procedures; practice perceptions of low enhanced primary care payments; difficulties in implementing new program components, such as CHTs; payers' concerns about lack of return on investment; and practice concerns about sustaining state initiatives beyond 2014. In Year Three, these same challenges continued. For example, practices in Michigan and Minnesota continued to report numerous challenges in billing for care management services. Maine and Vermont made changes to their care management approaches as a result of Medicaid health home implementation, and Rhode Island struggled to roll out CHTs. These challenges had the potential to cause disruptions in efficient and effective care delivery by participating practices and to influence their effectiveness in changing patterns of utilization and expenditures.

As in Year Two, in Year Three almost all states discussed a shift toward other models of payment reform, including ACOs sponsored by commercial payers, Medicare, and/or Medicaid, and delivery system reform under SIM and Delivery System Report Incentive Payment (DSRIP) grants. The extent to which these initiatives generated support for or took attention away from the MAPCP Demonstration varied by state context and practices' involvement in these alternative models.

In Year Two, Maine and Vermont expanded the scope of their demonstration and added more primary care practices to their initiatives. In Year Three, Rhode Island also expanded its

initiative to 20 additional adult practices. These practices did not receive payments from CMS for their Medicare patients, because Rhode Island had reached its maximum number of Medicare participants. Other practices received payments from all payers, except CMS, and they participated in all other aspects of Rhode Island's initiative, such as learning collaboratives. Some of the new CTC practices had been comparison group practices, and they remained comparison group practices because they did not receive any MAPCP Demonstration payments. Michigan also expanded Medicaid to adults with incomes at 133 percent of the federal poverty level in 2014, and many newly eligible individuals were eligible for the Michigan Primary Care Transformation Project (MiPCT). In Year Two, practices expressed some concern about handling an influx of new patients, but, in Year Three, practices in Michigan generally reported being able to add these new patients to their panels. One remaining concern was whether or not the state could support the enhanced medical home payments as more Medicaid enrollees received care at the MiPCT practices, and this expansion called into question the long-term sustainability of the initiative.

In Year One and Year Two, Pennsylvania struggled with retaining payers and practices in their initiative, and, in Year Three, attrition of both payers and practices continued. Enthusiasm and support for the initiative eroded as practices confronted a lack of shared savings and reduced medical home payments. Vermont also struggled with waning support, as numerous practices and CHTs expressed frustration that their enhanced payments under this initiative were small, but no practices left the demonstration.

In Year Two, some states and their participating practices expressed concern about sustainability of the medical home initiative after Medicare's participation ended in 2014. In Year Three, some practices said that staff retention was challenging because of questions about the sustainability of the medical home initiative. In September 2014, CMS offered to extend the MAPCP Demonstration through 2016 to all states except Minnesota and Pennsylvania (as described in **Section 2.2.4**); five states (Maine, Michigan, New York, Rhode Island, Vermont) chose to continue participating. North Carolina declined to continue because two payers chose not to extend their participation. In the five states continuing in the demonstration, site visit interviewees (state officials and practices) said they were pleased that their initiatives would continue for 2 more years with Medicare participation. Minnesota, North Carolina, and Pennsylvania reported that other payers would continue to support medical home payments to practices, and that the medical home model would continue, albeit through potentially different programs or initiatives.

CHAPTER 3 NEW YORK

In this chapter, we present qualitative and quantitative findings related to the implementation of the Adirondack Medical Home Demonstration (ADK Demonstration), New York's pre-existing regional multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third site visit to New York, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third site visit interviews, on November 5 and 6, 2014, two teams traveled across the Adirondack region, as well as to Albany and the surrounding metropolitan area; additional telephone interviews also were conducted in November. The interviews focused on implementation experiences and changes occurring since the last site visit in November 2013. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs), as well as provider organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, utilization, and costs after Medicare's entrance. We also spoke with key state officials and staff who administer the ADK Demonstration and the MAPCP Demonstration to learn how the payment model and other efforts to support practice transformation were progressing, and whether any changes were made to meet performance goals. We also met with payers to learn about their experiences with implementation and whether the ADK Demonstration payment model is meeting their expectations for return on investment. Finally, we reviewed reports from ADK Demonstration staff to CMS and other documents to gain additional information on how the demonstration progressed.

This chapter is organized by major evaluation domains. *Section 3.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in the ADK Demonstration. *Section 3.2* reports practice transformation activities. Subsequent sections report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 3.3*); access to care and coordination of care (*Section 3.4*); beneficiary experience with care (*Section 3.5*); effectiveness as measured by health care utilization and expenditures, (*Section 3.6*); and special populations (*Section 3.7*). The chapter concludes with a discussion of the findings (*Section 3.8*).

3.1 State Implementation

In this section, we present findings related to the implementation of the ADK Demonstration and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?

- Were any major implementation issues encountered over the past year and how were they addressed?
- What external or contextual factors are affecting implementation?

The state profile in **Section 3.1.1**, which describes the major features of the state's initiative and the context in which it operates, draws on a variety of sources, including quarterly reports submitted to CMS by ADK Demonstration project staff; monthly calls between ADK Demonstration staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in November 2014. **Section 3.1.2** presents a logic model reflecting our understanding of the links among specific elements of the ADK Demonstration and expected changes in outcomes. **Section 3.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. **Section 3.1.4** concludes the State Implementation section with lessons learned during the third year of the MAPCP Demonstration.

3.1.1 New York State Profile as of November 2014 Evaluation Site Visit

New York implemented the MAPCP Demonstration by adding Medicare as a payer to the pre-existing ADK Demonstration, a regional initiative in northeastern New York that began in 2005 as a collaboration among local practices seeking to strengthen the region's beleaguered primary care system. The collaborative has a specific focus on recruiting and retaining primary care physicians practicing in rural communities. As these efforts developed, the New York State Association of Counties convened a 2007 Adirondack Healthcare Summit, at which planning began for a structured regional demonstration program. Early project support came from an \$85,000 Rural Health Networking grant from the Health Resources and Services Administration, financial support from the National Association for Community Health Centers and the New York State Medical Society, and grant-supported practice transformation consulting from EastPoint Health. The New York legislature formally recognized the ADK Demonstration in statute in 2009, and the ADK Demonstration officially began on January 1, 2010. Medicare began participating on July 1, 2011.

State environment. The New York State Department of Health (NYS DOH) provides executive leadership for the ADK Demonstration. The state is also designated as a supervisor to provide immunity under the state action immunity doctrine, allowing payers to participate in anticompetitive practices for the purposes of the ADK Demonstration. The not-for-profit Adirondack Health Institute (AHI) provides program oversight in many roles, which include monitoring practice performance, aggregating clinical and financial data, planning for long-term sustainability, and serving as the central hub for sub-regional care management activities. A multistakeholder Governance Committee (also called the Governance Council), composed of participating payers and providers and chaired by NYS DOH, advises and guides AHI's work. In 2014, a new Executive Committee was formed from the larger stakeholder group and includes representatives from the state, AHI, providers, and payers.

In the past year, New York made several changes and updates to relevant initiatives and programs operating in the ADK Demonstration area and across the state that may influence health outcomes for participants in the MAPCP Demonstration or comparison group populations:

- In 2011, New York received approval for up to \$250 million in support from CMS to conduct a Hospital-Medical Home Demonstration Program, through which 156 residency clinics received NCQA PCMH recognition. That demonstration concluded at the end of 2014.
- In February 2013, New York received a \$1 million Model Pre-Test Award in the first round of the State Innovation Models (SIM) Initiative. The award helped the state further develop and refine its care innovation plan, in which the medical home is a central feature. During Year Three of our evaluation, New York received a \$99.9 million Model Test Award as part of its second round of SIM funding.
- In December 2013, the NYS DOH formed the North Country Health Systems Redesign Commission, a multistakeholder group of 18 members representing health systems, local businesses, and state and local government that was charged with improving the health system in New York’s North Country (a region including, but larger than, the Adirondacks). The redesign commission submitted a set of recommendations to the State Health Commissioner in March 2014, which included a call to expand the ADK Demonstration to other counties and payers.
- In January 2014, New York implemented the option under the Affordable Care Act (ACA) to expand Medicaid eligibility to all adults with incomes of up to 138 percent of the federal poverty level (FPL).⁷
- In April 2014, New York received CMS approval for its Delivery System Reform Incentive Payment (DSRIP) program as part of the state’s Medicaid Section 1115 waiver. The DSRIP program will incentivize quality improvement and provider coordination through the use of Performing Provider Systems (PPS)—a form of integrated provider network system collectively responsible for improving health outcomes for the populations they treat. Incentive payments to PPSs will be made on the basis of performance on several metrics. A key goal of New York’s DSRIP program, which was in the planning stage in 2014, is the reduction of avoidable hospitalizations by 25 percent over 5 years. AHI was selected as an Emerging PPS and received \$891,000 in project design funds. AHI’s final project application is currently under review at the time of the 2014 site visit.

Demonstration scope. The ADK Demonstration is limited to practices in Clinton, Essex, Franklin, and Hamilton counties (an area of approximately 7,000 square miles bordering Canada and Vermont) and select federally qualified health centers (FQHCs) in Saratoga, Warren, and Washington counties. The participating practices are grouped into three geographical “Pods”: Lake George, Tri-Lakes, and Northern Adirondacks. Each Pod, described as a “mini disease-management company,” supports practices in its sub-region with shared services for patient

⁷ The ACA expanded Medicaid eligibility to individuals with incomes up to 133 percent of the FPL; however, there is a 5 percent income disregard so the income limit is effectively 138 percent of the FPL.

outreach, health education, self-management, community resource integration, and care coordination.

In July 2011, with Medicare’s participation, payments began to 42 pilot practices located across the three Pods, with an expectation that each practice would undergo practice transformation, adopt health information technology (IT) tools, and work with the Pods to deliver coordinated, whole-person care. **Table 3-1** shows participation in the New York MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 39 at the end of Year One (June 30, 2012), and 37 at the end of Year Two (June 30, 2013) and Year Three (June 30, 2014)—a decrease of 5 percent overall. The number of providers at these practices increased by a net of less than one percent over this period, from 180 to 181. The cumulative number of Medicare FFS beneficiaries ever participating in the demonstration for 3 or more months was 21,441 at the end of the first year, 24,771 at the end of the second year, and 27,707 at the end of the third year—an overall increase of 13 percent.

Table 3-1
Number of practices, providers, and Medicare FFS beneficiaries participating in the New York ADK Demonstration

Participating entities	Number as of June 30, 2012	Number as of June 30, 2013	Number as of June 30, 2014
ADK Demonstration practices ¹	39	37	37
Participating providers ¹	180	189	181
Medicare FFS beneficiaries ²	21,441	24,771	27,707

NOTES:

- ADK Demonstration practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating ADK Demonstration practices and participated in the demonstration for at least 3 months.

ADK = Adirondack Medical Home; ARC = Actuarial Research Corporation; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

In terms of all-payer participants, the state originally projected that a total of 113,609 individuals would participate in the ADK Demonstration. The number of all-payer participants enrolled in the ADK Demonstration was 94,690 at the end of Year One (June 30, 2012); 100,809 at the end of Year Two (June 30, 2013); and 100,033 at the end of Year Three (June 30, 2014). This was an overall increase of 5,343, or 5.64 percent.

Nine payers are participating in the ADK Demonstration: Medicare FFS (21.30% of total participants as of June 2014), Medicaid FFS (2.26%); Fidelis (22.46%); The Empire Plan (11.68%); Excellus (24.53%); Mohawk Valley Plan (4.08%); BlueShield of Northeastern New York/Health Now (4.14%); Capital District Physicians’ Health Plan (5.86%); and Empire BlueCross BlueShield (3.69%). Fidelis is a Medicaid managed care plan, and The Empire Plan

(administered by United Healthcare) is the state and local government employee health plan. The five remaining private carriers participate on behalf of their commercial products, including some participation among administrative services-only purchasers. Due to a recent shift to mandatory managed care in the region, most New York Medicaid beneficiaries are enrolled in managed care.

Table 3-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in the ADK Demonstration as of June 30, 2014. There were 37 participating practices with an average of five providers per practice. Most were either office-based practices (60%) or FQHCs (38%); 2 percent were critical access hospitals (CAHs) and none were rural health clinics. Approximately a quarter were located in metropolitan counties (24%), just over half in micropolitan counties (54%), and about one-fifth in rural counties (22%).

Table 3-2
Characteristics of practices participating in the New York ADK Demonstration as of June 30, 2014

Characteristic	Number or percent
Number of practices (total)	37
Number of providers (total)	181
Number of providers per practice (average)	5
Practice type (%)	
Office-based practice	60
FQHC	38
CAH	2
RHC	0
Practice location type (%)	
Metropolitan	24
Micropolitan	54
Rural	22

ADK = Adirondack Medical Home; ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health clinic.

SOURCES: ARC Q12 Multi-payer Advanced Primary Care Practice (MAPCP) Demonstration Provider File. (See Chapter 1 for more detail about this file.)

In **Table 3-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating ADK Demonstration practices during the first 3 years of the MAPCP Demonstration (July 1, 2011, through June 30, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Twenty-five percent of beneficiaries were under the age of 65, 43 percent were between 65 and 75, 23 percent between 76 and 85, and 9 percent over 85. The mean age was 69. Beneficiaries were nearly all White (97%), just over one-fourth lived in urban areas (28%), and more than half were female (56%). Twenty-four percent were dually eligible for Medicare and Medicaid, and 33 percent were eligible for Medicare originally due to disability. One percent of beneficiaries had

end-stage renal disease, and less than 1 percent resided in a nursing home during the year before their assignment to an ADK Demonstration practice.

Table 3-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the New York ADK Demonstration from July 1, 2011, through June 30, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	27,707
Demographic characteristics	
Age < 65 (%)	25
Age 65–75 (%)	43
Age 76–85 (%)	23
Age > 85 (%)	9
Mean age	69
White (%)	97
Urban place of residence (%)	28
Female (%)	56
Dually eligible beneficiaries (%)	24
Disabled (%)	33
ESRD (%)	1
Institutionalized (%)	0
Health status	
<i>Mean HCC score groups</i>	1.06
Low risk (< 0.48) (%)	24
Medium risk (0.48–1.25) (%)	53
High risk (> 1.25) (%)	24
<i>Mean Charlson index score</i>	0.79
Low Charlson index score (= 0) (%)	63
Medium Charlson index score (≤ 1) (%)	18
High Charlson index score (> 1) (%)	19
<i>Chronic conditions (%)</i>	
Heart failure	4
Coronary artery disease	12
Other respiratory disease	11
Diabetes without complications	16
Diabetes with complications	3
Essential hypertension	33
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	6

(continued)

Table 3-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the New York ADK Demonstration from July 1, 2011, through June 30, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	
Renal failure	3
Peripheral vascular disease	2
Lipid metabolism disorders	20
Cardiac dysrhythmias and conduction disorders	10
Dementias	1
Strokes	1
Chest pain	5
Urinary tract infection	4
Anemia	6
Malaise and fatigue (including chronic fatigue syndrome)	2
Dizziness, syncope, and convulsions	5
Disorders of joint	6
Hypothyroidism	6

NOTES:

- Percentages and means are weighted by the fraction of the year that a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary was first attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

ADK = Adirondack Medical Home; EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

Using three different measures— Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries' health status during the year before their assignment to an ADK Demonstration practice. Beneficiaries had a mean HCC score of 1.06, meaning that Medicare beneficiaries assigned to an ADK Demonstration practice in the third year of the MAPCP Demonstration were predicted to be 6 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating ADK Demonstration practice. Beneficiaries' average score on the Charlson comorbidity index was 0.79; just under two-thirds (63%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions contained within the index in the year before their assignment to a participating ADK Demonstration practice.

The most common chronic conditions diagnosed were hypertension (33%), lipid metabolism disorders (20%), diabetes without complications (16%), coronary artery disease

(12%), other respiratory disease (11%), and cardiac dysrhythmias and conduction disorders (10%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. New York required all participating providers to obtain Level 2 or Level 3 NCQA PPC®-PCMH™ recognition within 12 months of joining the ADK Demonstration, although this deadline was extended to 18 months for some practices. Every participating practice met this requirement, and most practices have since transitioned to the 2011 PCMH standards. New York also requires practices to meet the following criteria:

- Use an electronic prescribing system within 7 months of the program's start;
- Participate in a disease registry and develop data reporting capabilities to enable reporting on access to care, clinical processes, clinical outcomes, and patient experience of care using common metrics and methods;
- Offer expanded access, including 24/7 telephonic access; and
- Provide same-day scheduling for urgent care.

Support to practices. Commercial payers, Medicaid FFS, and Medicaid managed care plans began payments to participating practices on June 1, 2010 (retroactive to January 1, 2010). Medicare FFS payments began just over 1 year later, on July 1, 2011. In total, participating payers make an additional \$84 in payments per member per year for each patient participating in the ADK Demonstration, equivalent to \$7 per member per month (PMPM).⁸ Payers have the option of making this payment through either an enhanced visit rate subject to reconciliation or through a separate recurring payment. New York gave payers the discretion to decide the frequency of any recurring payments (e.g., monthly, quarterly, semiannually).

Practices agreed to a payment arrangement in which a portion of the \$7 PMPM payment is kept by the practices and the remaining payment is split between the Pod and AHI. New York's MAPCP Demonstration application noted that, as a monthly payment, \$3 would go to the Pod and \$0.50 to AHI. Each Pod implemented the payment methodology somewhat differently to complement the structure of their Pod.⁹ In late 2012, stakeholders reached agreement to earmark \$0.50 of the \$7 PMPM for pay-for-performance (P4P) based on the following areas: member satisfaction; utilization (admission rates, preventable emergency room [ER] visits, and readmissions); and development of a practice improvement plan. The first P4P distribution was released to practices in May 2014. Between July 1, 2011, and June 30, 2014, practices received a

⁸ Medicare PMPM payment amounts do not reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

⁹ In Pod 1 (Tri-Lakes), practices receive the \$7 PMPM, pay \$0.50 PMPM to AHI, and purchase care management services from the Adirondack Medical Center. In Pod 2 (Lake George), Hudson Headwaters Health Network, which employs the providers and care managers, receives the full payment and pays \$0.50 PMPM to AHI. In Pod 3 (Plattsburgh), \$4 PMPM goes to practices, who pay \$0.50 PMPM to AHI, and \$3.50 goes to the Pod.

total of \$4,925,199 in Medicare MAPCP Demonstration payments for beneficiaries assigned to their practices during the demonstration (including portions received by AHI and the Pods).¹⁰

Pod teams, in conjunction with health plans, are working across practices in their area to administer shared services for patient outreach, education, self-management, community-based resource integration, and care coordination. Although the structure and size of each Pod team differ, all teams include an administrative director, a clinical care management leader, nurses, pharmacists, social workers, and health educators.

Multiple sources provide data to support providers and aggregate performance reporting. Hixny (New York's Health Information Exchange) worked collaboratively with the Massachusetts e-Health Collaborative (MAeHC) and the providers' seven EHR vendors to build a physical infrastructure for clinical quality data storage and sharing. Hixny uploads electronic health record (EHR) data daily, and data are held in a data warehouse (Quality Data Center) housed by MAeHC. The Quality Data Center provides dashboard functionality for providers' clinical quality of care performance data. Additionally, Treo Solutions manages the program's all-payer claims database. The database and data warehouse provide data to allow participating practices, health plans, and the Pods to identify gaps in care, manage patients' chronic diseases, and support case management.

Treo Solutions also provides feedback reports (known as the Adirondack Region Medical Home Dashboard) to practices, Pod administrators, payers, and state officials using an electronic system that aggregates utilization and expenditure data at the Pod, practice, and provider levels. The dashboard include patient survey data, utilization measures from the claims data warehouse (including Medicare FFS data provided by CMS), and expenditures taken from EHRs. Practices are able to use patient-specific data for quality improvement. In 2014, stakeholders decided to contract with a new vendor (the Northern New England Accountable Care Collaborative [NNEACC]) to administer the services previously provided by Treo and MAeHC.

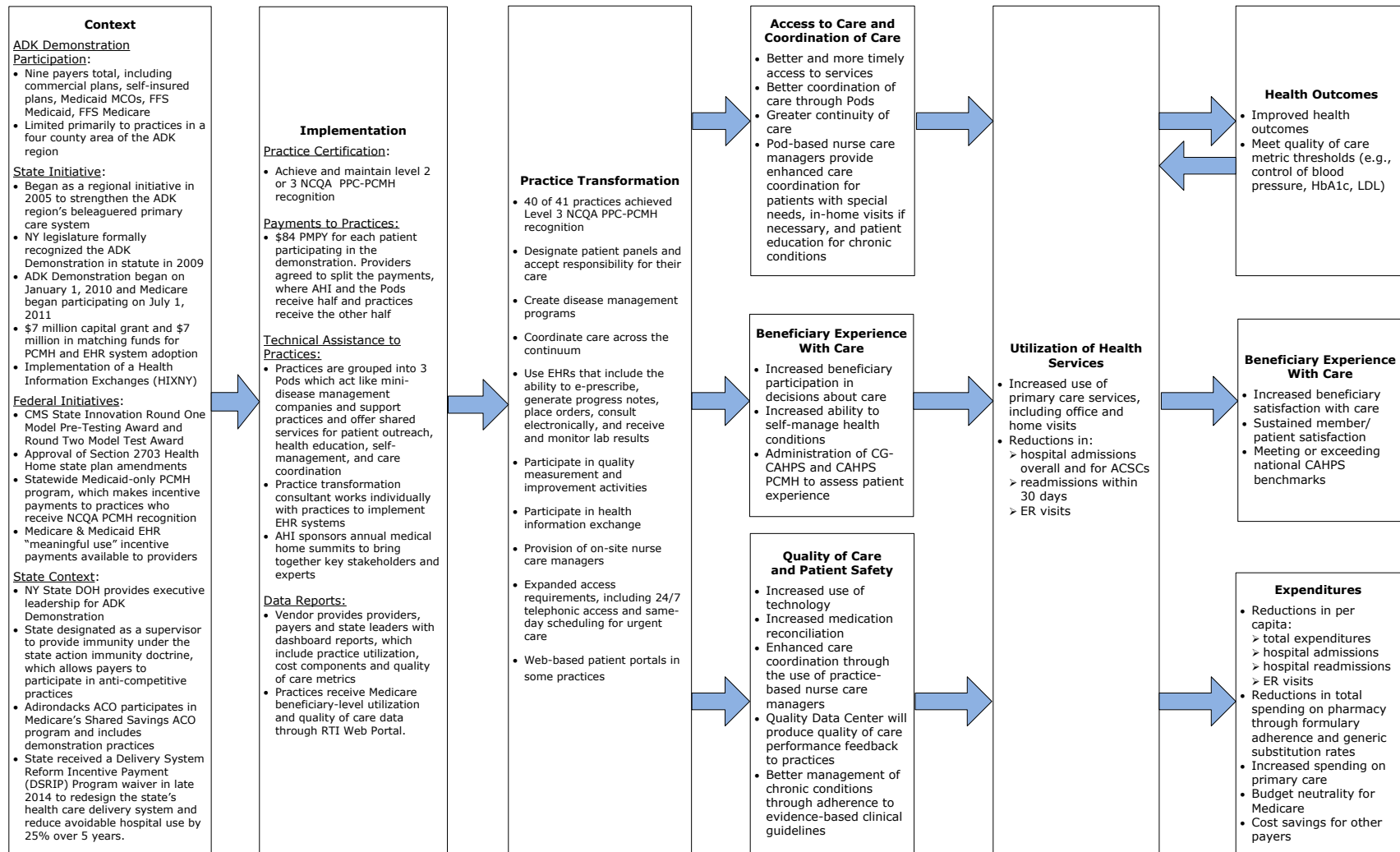
3.1.2 Logic Model

Figure 3-1 is a logic model of ADK Demonstration, updated to incorporate changes made during the third year of the MAPCP Demonstration. The first column describes the context for the demonstration, including the scope of ADK Demonstration, other state and federal initiatives that affect the state's initiative, and key features of the state context, such as the broad payer participation and various state and federal initiatives underway in New York. The demonstration context affected the implementation of the ADK Demonstration, including practice certification requirements, payments to practices, provision of technical assistance to practices, and data reports provided to practices. Implementation activities are expected to promote transformation of practices to PCMHs, reflected in care processes and activities. Beneficiaries served by these transformed practices expected to have better access to more coordinated, safer, and higher quality care, to have a better patient experience with care, and to

¹⁰ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

Figure 3-1
Logic model for New York Adirondack Medical Home Demonstration

3-10



ACSC = ambulatory care sensitive conditions; ADK Demonstration = Adirondack Medical Home Demonstration; AHI = Adirondack Health Institute; CG-CAHPS = Consumer Assessment of Healthcare Providers and Systems Clinician & Group Survey; DOH = Department of Health; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; HbA1c = hemoglobin A1c; LDL = low-density lipoprotein; MCO = managed care organization; NCQA = National Committee for Quality Assurance; PCMH = patient-centered medical home; PMPY = per member per year; PPC®-PCMH™ = Physician Practice Connection Patient-Centered Medical Home.

be more engaged in decisions about treatments and management of their conditions. These improvements promote more efficient utilization of health care services, including reductions in inpatient admissions, readmissions, and ER visits and increases in primary care visits. These changes in utilization are expected to produce further changes, including improved health outcomes, improvements in beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for the Medicare program and cost savings for other payers. Improved health outcomes, in turn, can feed back to further reduce utilization.

3.1.3 Implementation

This section uses primary data gathered from site visit interviews conducted in November 2014 and other sources and presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 3.1*.

Major Changes During the Third Year

Creation of an Executive Committee. Since our last site visit, the ADK Demonstration modified its governance structure by creating a new Executive Committee, essentially a subcommittee of the larger Governance Committee. State officials and payers noted that it was difficult to work through the minutiae in the larger governance meetings, and the Executive Committee helped streamline the process. As described by program leadership, the Executive Committee is able to “tease out the issues quickly” before bringing their findings and recommendations to the larger group for voting. State officials further praised the creation of the Executive Committee, noting that it reduced the time and resources spent by state staff, making the initiative more self-reliant and sustainable in the long run.

The consensus-based decision-making process, a hallmark of the ADK Demonstration, has not changed. State officials and other program leaders agreed that, while difficult, consensus-based decision-making strengthens participants’ connection and loyalty to the program. When asked whether any members of the larger Governance Committee felt left out, one Executive Committee member noted that Pods and payers are equally represented, and a second noted that participation was voluntary and open to all who were interested. At the time of the site visit, the Executive Committee was meeting biweekly, and their work focused mainly on what changes might be made to the program over the next 2 years.

Distribution of P4P incentive payments. Since January 1, 2013, practices set aside \$0.50 of their enhanced payments to fund a P4P incentive pool. Five quarters later, in May 2014, the first semiannual P4P redistribution payments, based on plans’ performance across quality, patient satisfaction, and utilization domains, were released. Interviewees did not report any difficulties in collecting or redistributing the payments, but one state official noted that it was difficult to get the practices to buy in: “[Providers] fundamentally hate [P4P].... The world, including us, underestimates how providers have an allergic reaction to it.” Furthermore, having built the ADK Demonstration on collaboration and a sense of community across providers, the state official felt that the P4P payments introduced competition, which created some discomfort among stakeholders. Criticisms against the first set of P4P metrics noted that the measures were outdated, not relevant, and not important to providers or patients, but state officials, program

leaders, and payers all discussed participating payers' desire to increase the proportion of payment tied to practice performance and/or savings.

AHI becomes Pod 1 coordinator. Since the previous site visit, AHI staff took on additional coordination activities in Pod 1—the fourth change in as many years. Historically, Pod 1 was less engaged than the other Pods, although demonstration leadership noted that the Pod is much smaller (four practices) and more independent than the other regions. While this change is primarily administrative and does not affect the services provided within the region, the Pod coordinator is actively working to re-engage stakeholders and increase their participation.

Major Implementation Issues During the Third Year

Data quality and timeliness. Interviewees in each stakeholder group acknowledged data challenges that continued throughout the demonstration, including data lags that reduced the utility of Treo's provider dashboards. AHI's contracts with Treo Solutions and the MAeHC expired at the end of 2014. During the site visit, state officials, program leadership, and payers all discussed an upcoming partnership with NNEACC, with hopes that NNEACC will be able to aggregate and merge claims and clinical outcome data in ways that Treo and MAeHC could not.¹¹ Furthermore, state officials and program leadership discussed issues arising from the fact that all cost data available to date were proxy priced, which will be an even larger issue if and when shared savings is introduced in the program.¹² One program leader said, "If we go to shared savings, there's no way providers can sign on until there are real prices in there." A state official expressed hope that NNEACC would be able to help the state overcome this barrier as well.

Lapses in NCQA recognition. Each participating practice originally achieved PCMH recognition under NCQA's 2008 standards. Because NCQA's recognition is valid for only 3 years, practices spent considerable time and resources over the past year renewing their recognition under the 2011 standards (before the more stringent 2014 standards became the practices' only option). While the requirement for NCQA PCMH recognition was clear, there was ambiguity about whether practices had to maintain that recognition at the end of 3 years to receive payments under the demonstration. Two participating practices let their NCQA recognition lapse at the beginning of 2014, reportedly because of the feeling that they had achieved transformation and that resources required to maintain NCQA status would better be invested in patient care. All payers continued payments to these practices. While the practices ultimately renewed their certification, program leadership noted this likely was due to requirements within the State Health Innovation Plan and DSRIP program, and not a result of pressure or incentives from ADK Demonstration payers. One payer acknowledged that NCQA certification was less important over time.

¹¹ According to New York's March–June 2015 Quarterly Progress Report, the ADK Governance Committee decided to end contract negotiations with NNEACC and was in the process of negotiating a contract extension with Treo to continue as the vendor providing cost and utilization metrics.

¹² A proxy price is a broad representation of the overall market and is typically used in the absence of actual prices of goods or services rendered.

Physician recruitment. In addition to testing payment and delivery system reforms, the original intent of the ADK Demonstration also made it a workforce development initiative. With an aging workforce and the movement of younger physicians out of the region, recruitment and retainment always was one of the initiative's primary goals. While the number of providers in the region did not grow significantly, losses were stemmed and employment levels remained steady. Physician recruitment remains a priority for all three Pods.

External and Contextual Factors Affecting Implementation

Other state health reform initiatives. As discussed in *Section 3.1.1*, the ADK Demonstration is one of many parallel health reform initiatives underway in the region and the state. AHI is at the center of many of these initiatives; in addition to its role in the ADK Demonstration, AHI also serves as a lead health home entity (Section 2703 health homes) and a Performing Provider System (DSRIP). The Adirondacks Accountable Care Organization (ACO), which participates in the Medicare Shared Savings Program, includes providers in each Pod's region. Many participating payers, including Medicaid, participate in other single- and multi-payer medical home initiatives in the region and across the state. Further, the impact of the nearly \$100 million SIM Test Award (the largest in the country) still remains to be seen. One program leader reiterated that the ADK Demonstration is aligned with other multi-payer work in the region, but acknowledged that the time involved in coordinating multiple initiatives has been an issue.

Effect of Medicare's Decision to Extend the MAPCP Demonstration in New York

Program sustainability. Stakeholders were very grateful that Medicare decided to extend its participation in the ADK Demonstration through 2016. One program leader pointed out that Medicare accounts for roughly 20 percent of practices' enhanced payments, and noted that much of the care coordination and IT infrastructure would be unsustainable at 80 cents on the dollar.

Additional time to refine and test the model. The extension allowed additional time to refine the model, in particular, payment methodologies. One state official noted that participating payers were not interested in keeping the status quo for 2 additional years: "There's an itch for payment reform." Payers are particularly interested in developing and implementing new accountable payment methodologies, including putting additional portions of the payment at risk through expanded P4P or shared savings methodologies. The extension will also allow the state to collect additional (and potentially more robust) data to evaluate quality and cost outcomes.

3.1.4 Lessons Learned

Collaboration and trust between providers and payers is key to an initiative's success. New York's ADK Demonstration has the highest reported number of participating payers of any initiative within the MAPCP Demonstration, and, despite participation being voluntary, no payer has dropped out since its inception. While payers experienced challenges and frustrations throughout the years, the stakeholder engagement and decision-making processes created by the state gave all participants an equal voice and built strong relationships that kept all parties committed and at the table.

Payment alignment is more important in some areas than others. Compared to other MAPCP Demonstration states, New York's cross-payer alignment is much stronger than most. This was important in the early years, because participants felt that they were "all in this together." While some state officials, program leaders, and even payers felt that alignment was New York's "secret sauce," other interviewees (including one state official) questioned whether providing the plans greater flexibility would detrimentally affect the demonstration. Despite the alignment across payers, New York is a case study supporting the axiom that all health care is local; despite standardization of the \$7 PMPM payments to practices, the payment flow from practices to the Pods vary across the three sub-regions.

Importance of NCQA PCMH recognition. Even though the value placed by payers on NCQA PCMH recognition waned over the past few years, stakeholders recognize that the demonstration would not have been possible without the initial push for PCMH recognition. Practice transformation is time-consuming and expensive, and small rural providers in particular are more likely to lack the resources necessary to achieve higher levels of recognition (a requirement for participation in the demonstration). While there are still some free riders (some self-insured employers and Medicare Advantage plans), the critical mass of payers providing additional resources made practice transformation a reality. As one program leader said, "I don't think there is anyone that would say that NCQA wasn't an important part [of the demonstration]." The interviewee's point, however, was that having a common set of benchmarks and milestones was important to get practices moving in the same direction, rather than an endorsement of NCQA over other national or home-grown standards.

3.2 Practice Transformation

This section describes the features of the practices participating in the ADK Demonstration, identifies changes made by practices made to participate and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in late 2014, emphasizing changes occurring since the interviews in late 2013.

During the Year Three site visits, practices unanimously endorsed the value of the ADK Demonstration and felt consistently that the improvements in access, care coordination, and overall quality were perceived by their patients. Medical home transformation was not without its challenges, however, including the time burden of renewing NCQA PPC®-PCMH™ recognition, improving the functionality of EHRs, and redesigning their care processes to achieve PCMH goals.

Essentially, all of the foundational changes necessary to become a medical home were enacted by the practices several years ago as part of the entry requirements for the ADK Demonstration. In the past year, practices focused on fine-tuning their procedures, identifying ways to improve quality, and trying to accommodate the various changes in their practice environment. As in past years, there were some notable differences between the highly integrated Pod 2 and the more independent, small practices of Pods 1 and 3. All practices praised the medical home model and were grateful that the ADK Demonstration supported their transformation efforts to achieve and maintain medical home recognition. Specifically, practices felt that the demonstration had improved the clinical resources available and the quality of care

provided. Furthermore, practices believed that the medical home initiative had met the goals of stabilizing primary care in a traditionally underserved region of the state and of improving their ability to better attract and retain providers with competitive salaries.

3.2.1 Changes Made by Practices During Year Three

PCMH recognition and practice transformation. All participating ADK Demonstration practices received NCQA PPC®-PCMH™ recognition under the 2008 standards in the early years of the demonstration; at the time of our site visit, all had either completed or were in the process of completing their recertification for the 2011 standards.

Practice staffing changes. Most major staffing changes needed to support the ADK Demonstration were in place by the end of Year One and Year Two. In Year Three, practices made more incremental changes, mostly focusing on clarifying staff roles within care teams and addressing problems with turnover. For example, nurses were better equipped to triage lower risk patients calling into the practice with questions or concerns, but they scheduled appointments with the provider when that was most appropriate. One practice remarked that they spent time early in the demonstration to hire and train a mid-level provider, but she left the practice after a short time, so the practice considered it a wasted investment. Most of the staff added during Year Three were used for care coordination. In Pod 3, for example, 11 of the 16 nurses trained for the care management function were embedded as care managers within the practice setting, and the remaining five worked from a central location to serve all Pod 3 practices with mostly transitions of care needs.

Pod 3 added a nutritionist and hospital-based pharmacist during Year Three to work across multiple practices within the Pod region. Another larger practice obtained part-time support from a hospital-based pharmacist. Staff across the practice were enthusiastic about the pharmacist's value, particularly for medication reconciliation and education. As in prior years, the major staffing concerns in each practice centered on care coordination responsibilities. Practices across the demonstration felt that the role of nurses and care coordinators became more clearly defined over time, and physicians increasingly saw how care managers actually made a difference in improving care coordination for their patients. One practice in Pod 3 began with a list of about 80 complicated patients—those who were repeat ER visitors and had frequent hospitalizations, for example—and found ways for them to obtain more sophisticated, expensive drugs often not covered by insurers. The embedded care manager found ways to get coverage for those drugs. Another practice noted the value of the care manager in assisting patients with complicated transitions of care, such as those requiring anticoagulation management after hospitalization.

Several practices mentioned efforts in the past year to develop or enhance team-based care. In the words of a provider, “We’re trying—it’s always a work in progress—taking a team approach. We have different levels of staff (medical assistants, nurses) who will go through my schedule in advance [to enhance care coordination for patients identified as needing the extra intervention].” This provider also noted that front desk staff took more initiative in scheduling and working across the care teams to schedule patients at times that best accommodated everyone’s schedules. All practices continued to offer 24/7 access, and half mentioned working on new programs to open or expand same-day, open-access appointments for the most urgent

needs. Many practices made efforts to avoid situations where patients called for appointments but were told it would be a couple of weeks. Efforts were made to get patients seen right away, or within a day or two at the most, for more urgent needs. One practice remarked that staffing was still inadequate in their practice, despite adding an additional provider recently.

Health information technology. In Year Three, all practices worked to use performance data more effectively to improve quality. Many, but not all, of these initiatives were directed at the performance targets set by the ADK Demonstration. Most practices used data generated from their own EHRs to identify, for example, patients needing screening tests or attention for diabetes control. Pod 2 practices generated quarterly, provider-specific score cards on the key quality metrics, along with comparison data allowing them to benchmark themselves against both their peers and the network averages. One provider remarked that they looked at 30 measures at any given time, and they rotated these to highlight all the areas for improvement. One practice leader commented on the value of having provider-level data: “It’s really hard to change behavior if someone doesn’t take ownership over it. Going down to the practitioner level is important for feedback and impact.”

Another health IT driver for quality improvement was the incentive to meet the CMS EHR meaningful use targets. One practice, for example, used an embedded tool to document improved communication with patients through the EHR-connected patient portal. One practice embarked on quality initiatives independent of EHR meaningful use requirements and centered on making sure a list of “problem patients” was accurate, that diagnoses were adequately justified and documented, and that each patient’s medications aligned with the diagnoses and were appropriately “reconciled.” Referring to efforts to validate diagnoses, one practitioner commented, “It’s quality. If we get that right, then the next person has the (correct) info to work with.”

Not all practices were enthusiastic about the use of data to improve performance. One practitioner commented on the onerous and ever-expanding documentation requirements for quality measurement: “From our perspective, a lot of the stuff that has been pushed, we were already doing and we’re just documenting it now.” Another provider lamented that the focus on a small set of discrete measures seemed to be based on whatever was convenient to measure, not on major factors determining quality of care.

All ADK Demonstration practices had functioning EHRs, and some practice staff were delighted with their health IT functionality, especially in Pod 2, where all practices used the same EHR as the central hospital and shared data. Several practices launched electronic patient portals with secure communication functionality. Despite these positive experiences with EHRs and health IT in general, some negative perceptions also were noted. Many providers cited various problems trying to access Hixny or get it to function properly. One overarching theme was that the database was very cumbersome and the information often too difficult to retrieve, due either to problems with connectivity or the presentation of the information.

Targeting high risk and transition patients. ADK Demonstration practices and other stakeholders told us that in the past year, practices paid more attention to patients recently discharged from the hospital. “The [hospital] discharge planners are on the floors. They talk to our [practice] nurses who coordinate care in our office.” Many ADK Demonstration practices

received lists of patients recently discharged and assigned their embedded care coordination staff to ensuring appropriate follow-up. One practice described an effective working relationship that coordinated care between the hospital and the practice for discharged patients: “The transitional care nurse in the hospital and the embedded nurse in our practice coordinate discharges, so we do follow-up visits within a week. We get all the info before the visit. That’s a manual flow of info through nurses talking to each other. Transitional care nurses let us know about a discharge within 3 to 4 days, and our embedded nurse puts a stack of papers on my desk when the visit comes up. That’s working.” Medicare payment for transition care apparently was one factor that increased the attention paid to transition patients.

A few practices used utilization reports to prioritize their high-risk patients, such as the Medicare beneficiary utilization files provided through the RTI practice feedback Web portal, whereas other practices did not, or they were unaware of these reports. Most practices complained that the external utilization and quality data were too old or out of date by the time they received it. A third practice had similar feelings: “We don’t have enough timely data yet, we need a lot more to really make some changes. Treo data is too old. We’re moving away from that.”

3.2.2 Technical Assistance

To the extent that they participated, practices were positive about the various types of technical support associated with their participation in the ADK Demonstration. The annual demonstration-wide summit was considered valuable, as were various webinars sponsored throughout the year, some assistance from their local Pods, and technical support from their EHR vendors. Comments generally paralleled those from past years.

3.2.3 Payment Support

As in prior years, the ADK Demonstration practices universally credited payment support as the key factor enabling them to transition to the medical home model, particularly for purchasing new EHRs and establishing enhanced access and care coordination. Although there was widespread support for the payments, some providers did not think the portion of the \$7 PMPM payments they received (after the Pod and AHI received their allotted portions) was sufficient to support all the transformation investments made by practices since the beginning of the ADK Demonstration.

Perceptions of the ADK Demonstration P4P criteria also were mixed. Acknowledging that the incentives were “enough to get people’s attention,” providers noted that several elements important in meeting the criteria actually fell outside of their direct control, such as readmissions. Another practitioner commented that the incentives focused on the wrong things: “We don’t really measure utilization. How many MRIs ordered for back pain, we don’t measure test ordering, how many times you see a patient for the same diagnosis.” One practice decided that incentives were better spent on practice “citizenship,” such as attending staff meetings, allowing providers in the team to cross-cover for patient appointments, and mentoring for nurse practitioners, for example, because quality data were unavailable to providers at the individual level. One provider said that measures related to patient satisfaction were inappropriate for incentives, and that he didn’t want to be encouraged to spend his time “chasing patient satisfaction scores.”

3.2.4 Summary

Practices participating in the ADK Demonstration made progress in practice transformation improvements over the past year, particularly in their care management processes. Providers and other stakeholders generally felt positive about the progress of implementation, but a few providers did not feel that their input was consistently being heard or valued across the demonstration. Another concern was the many requirements and reporting needs for various state and federal initiatives, which made it difficult for practices to keep up with it all and still have adequate time for direct patient care. Finally, as in 2013, we continued to hear that practices, and the region as a whole, needed additional resources to support behavioral health.

Health IT continued to play an increasingly important role in practices over the past year. Many practices refined their EHRs to become more efficient and customized to their patients' needs. As in 2013, the payments practices received through the ADK Demonstration were appreciated and considered vital, but most practices agreed that the payments did not fully support the services expected of them to function as PCMHs. Given that a portion of the PMPM went to the Pods and AHI, practices did not think that all their investments in practice transformation were covered by the PMPM portion they received.

With respect to practice transformation and PCMH sustainability after the demonstration ended, stakeholders remarked that the ADK Demonstration had several unintended benefits. One was preparing practices to attest to meaningful use, and another was transitioning practices to participate in ACO structures. Practices in Pod 1 were almost all members of the new ACO in that region, and the ACO in the Pod 2 area was well established. Most practitioners felt that the jury was still out on the ACO's ultimate impact, but several identified the ACO as a likely successor to the ADK Demonstration when it comes to an end. Some practices in Pod 3 not participating in an ACO were more uncertain about the future and anticipated layoffs if or when the demonstration funds ceased.

3.3 Quality of Care, Patient Safety, and Health Outcomes

In the past year, the care management process across all three Pods continued to broaden from an initial focus on treating symptoms associated with specific diseases (e.g., diabetes, heart disease) to treating all health care needs for the whole patient. While care managers still worked closely with providers to identify patients with specific conditions, their care approach wasn't just disease-specific. Care management plans were developed to address all issues facing the patient, including those outside the traditional medical care domain (e.g., social needs, behavioral health needs, transportation).

Care management teams, typically staffed by advanced care nurses, were a critical component of efforts to improve the quality of care among participating practices in New York. As in the previous 2 years, care managers across all Pods provided intense care support and education to patients and assisted in coordinating care across multiple providers and settings. While these major roles of the care managers continued, in the past year some changes were made to their processes. For example, Pod 3 practices moved more to a staff model with a dedicated care manager embedded within each practice site, instead of assigning a single care manager to multiple practice locations. According to interviewees from the Pod, physicians all

were very supportive of this change and felt that having a dedicated care manager improved their ability to identify patients needing care management more effectively. Care managers based in Pod 1 continued to cover several practice locations because of the more limited resources among practices in the North Country region, but providers believed that they became more effective by using the services care managers provided. Pod 2 practices both incorporated embedded care managers within each practice and staffed a network-wide team of nurse educators and community support staff (e.g., social workers) who worked closely with providers in all practices.

An important function for care managers across all Pods during Years Two and Three was monitoring patient quality of care data and ensuring that practices met targets for key quality of care metrics. To do so, providers and other practice staff worked closely with care managers to reach out to patients and coordinate receipt of any needed tests or treatments. Practices often implemented condition-specific projects to improve metrics; for example, Pod 3 reported during the 2014 site visit that they recently started a project for patients with chronic obstructive pulmonary disease and developed care plans according to guideline-based care for the condition.

Another initiative undertaken by all ADK Demonstration practices in the past year was fulfilling requirements to maintain CMS Stage 2 EHR meaningful use recognition. While this requirement was not directly related to participation in the ADK Demonstration, all providers felt strongly that these meaningful use requirements improved their performance on quality of care measures and ultimately improved their patients' health outcomes. Some Pod and practice respondents noted that encouraging patient use of portals to meet meaningful use requirements may be a challenge in the future because of varying degrees of computer literacy among patients.

The availability of quality clinical data also promoted greater use of preventive care. Providers in Pods 1 and 2 discussed how nurses and office staff focused significantly on preventive health issues before office appointments. One Pod 1 provider described a process in which office staff worked closely with nurses on scheduling and reminders for patients needing tests or educational resources before their appointments. These additional steps aimed at improving patient self-management helped providers to be better prepared to care for the patient during the visit.

Lastly, medication safety was a central strategy for improving overall patient safety within the ADK Demonstration. Through their EHR systems, providers easily found medication and formulary information and generated alerts of potential drug interactions and medication adherence details for patients. Practices across all three Pods expressed strong support for the clinical pharmacist to be embedded within their practice care teams in the future to provide services such as reviewing patients' charts for medication reconciliation and consulting patients on medication use and adherence. By Year Three, all practices had access to a clinical pharmacist through the Pod and/or through a local hospital system if the practice was affiliated with a hospital. Pod 3 providers, in particular, were enthusiastically supportive of the clinical pharmacist who provided medication education or reconciliation for their patients during hospital stays and rotated to see patients in the office or outpatient setting.

3.4 Access to Care and Coordination of Care

In the past year, a variety of new protocols and processes were established to enhance patient access to care in the demonstration practices. Practices across all Pods maintained protocols to provide blocked-out time for same-day appointments, and some also developed algorithms to determine the optimal number of appointment times to leave open. Practices in Pods 2 and 3 offered extended access through an after-hours telephonic triage service allowing patients to seek advice from a qualified nurse. Providers in several practices rotated after-hours on-call duty. Some practices also noted that they considered expanding access by offering weekend hours over the next year. One Pod 1 health center offered weekend hours before the demonstration period, but was unable to sustain the extended access because of loss of providers. Several Pod 2 health centers already offered weekend hours before participating in the ADK Demonstration.

During the 2013 site visit, many practices noted that they had space constraints, with no additional room to add providers or embedded care managers. In 2014, Pods and some practices underwent expansion to increase access and care coordination capacity. Pod 2 was in a major phase of growth in 2014, building a new health center to add providers and more space across practices to embed care managers. Practices from all Pods hired mid-level providers in 2014 to expand access during the demonstration and provide team-based care to a patient panel. The expansion of Pod-level care management staff across the demonstration and increased use of this service by providers was associated with improved patient access to care and other resources.

Practices and Pods reported increased physician interaction with care managers, particularly in the past year, and said that physicians were more engaged overall in care management activities than in past years. Pod 2 embedded all care managers in practices at the time of the 2014 site visit, and Pod 3 had done the same with nearly all of their practice locations. Care managers had their own practice space for private consults with patients, often held before or after the patients' appointments with their physician. Pod staff noted that providers requested more time from care managers, who typically split their time across practices.

The greater availability of data for care managers and providers through Pod-level activities increased capacity for care coordination. Pod 2 established a large data analytics team over the past 3 years; in Year Three, the Pod heavily invested in an EHR component able to generate real-time claims data feedback for providers. Pod 3 reported transitioning from heavy reliance on providers' care management referrals to using data pulled from EHRs to identify patients needing care management.

Across all Pods, care managers further integrated community resources and nontraditional care into their activities in Year Three. Pods 2 and 3 sought to reach out to and coordinate with more specialized resources, such as home health services and local behavioral health providers, both severely lacking in the region despite a high demand for these services. As in 2012 and 2013, there did not appear to be a coordinated approach demonstration-wide in 2014 to measure access in the ADK Demonstration practices, or any expectation that practices themselves would measure access. Similarly, there was no process for assessing care coordination, although its impact may be indirectly inferred from available data on adherence to quality and utilization measures.

3.5 Beneficiary Experience With Care

Several features of the New York's ADK Demonstration are expected to improve patient experience with care. These features include:

- Better access to and coordination of care;
- Adequate time and guidance from providers;
- Assistance with self-management to empower patients to manage their health;
- Enhancement of patient-provider communication through the use of patient portals, which was a focus during Year Three;
- Support for prevention and wellness activities; and
- Help with transitions of care between care settings and multiple providers.

Stakeholders further developed these features during Year Three. Care managers played a major role in patient engagement and teaching patients self-management. In Years Two and Three, care managers from all Pods received ongoing training in effective patient engagement methods, such as motivational interviewing. Year Three practice transformation activities described in other sections of this chapter also were expected to improve beneficiary experience in the demonstration.

Health IT also played a more important role in improving beneficiary experience with care in Year Three. Many practices activated patient portal software through their EHRs in Year Two and Year Three to provide patients with access to their medical information and secure messaging with their provider. Patient portals also offered educational materials for specific diseases/conditions, lab results, and imaging results. Providers were excited about the new medium for provider-patient communication and noted that some of their patients were using the portals.

In late 2014, the demonstration Governance Committee elected to use DocInsight as the ADK Demonstration's survey vendor. Part of the state's medical home initiative included providing practices with patient satisfaction data on an ongoing basis throughout the demonstration. The survey would enable practices to receive real-time feedback on patient satisfaction. Standard questions (taken from the Clinician & Group version of the Consumer Assessment of Healthcare Providers and Systems, or CG-CAHPS) were part of the survey. Survey results were made available to providers within a 30-day period after a patient visit. Several practices across the ADK Demonstration region piloted the survey, and full implementation was planned for 2015.

3.6 Effectiveness (Utilization and Expenditures)

New York's MAPCP Demonstration application assumed that the ADK Medical Home Pilot would achieve budget neutrality for the MAPCP Demonstration through a 10 percent reduction each in hospital admissions for ambulatory care-sensitive conditions, readmissions,

and ER visits, producing gross savings to Medicare over 3 years of \$11.5 million and \$3.7 million net of payments to practices. During the 2014 site visit, Pods and practices felt that a key feature of the ADK Demonstration that would ultimately help achieve these goals was continuing efforts to reduce ER visits or avoidable hospitalizations through rigorous care management services, open-access scheduling and extended hours, and care transition programs for beneficiaries leaving the hospital. These initiatives were implemented with the expressed goal of altering patterns of acute-care and ER utilization and expenditures.

Although ADK Demonstration stakeholders did not report any new initiatives over the past year to lower utilization or expenditures, many practices tweaked some processes to ensure that they were effectively reaching patients needing additional care management services (e.g., high utilizers of the ER). As previously discussed, Pods 2 and 3 moved to a staff model for care management that embedded a dedicated care manager within each practice location. Providers became more comfortable and referred patients to care managers as part of their everyday routine when it was determined that they were high utilizers of acute or emergency care. Care managers worked closely with their local hospitals to obtain and then review daily or monthly ER visit reports. Care managers then made calls to these patients to provide education on proper use of the ER and the availability of the after-hours care.

Over the past year, New York made its first payouts for the P4P component of the PMPM expected to have a potential impact on utilization and expenditures. Providers had mixed views on the impact of the P4P bonuses, with some claiming that the amounts were too small to motivate any meaningful change. Other stakeholders, namely state officials, viewed the experience thus far as a starting point to move reimbursement more toward a value-based model and potentially reduce utilization and expenditures for acute-care or ER services. Discussions took place late in 2014 among Governance Committee members about adding a shared savings component to the PMPM in 2015.

Other payers outside Medicare shared data with Pods and practices, suggesting that there had been a decrease in hospital admissions, readmissions, and ER visits among their patients in the ADK Demonstration. For example, one provider mentioned that a payer reported to participating practices that their data over the past 1–2 years showed utilization slowing and total PMPM costs decreasing. The payer believed that this was due in part to reduced acute-care utilization. Other providers didn't know whether to attribute reduced hospital admissions and ER visits to the medical home, but they acknowledged that aggressive care management targeting sicker patients or high utilizers likely was a major contributor to the positive outcomes. Other sources of utilization data were used by practices for targeted care management (although not consistently across all ADK Demonstration practices), including RTI's Medicare beneficiary utilization files and EHR data for some practices that were integrated with other providers throughout their system.

3.7 Special Populations

As during the first 2 years of the MAPCP Demonstration, New York did not specify any special populations to be targeted at the state level. In the past year, however, Pods focused on certain subgroups within their respective regions. During Year One, Pods focused mostly on beneficiaries with chronic conditions or specific diagnoses, such as diabetes, chronic obstructive

pulmonary disease, and congestive heart failure. Beginning in Year Two and increasingly in the past year, in addition to focusing care management activities on patients with chronic conditions or specific diagnoses, practices also identified subgroups at high risk of developing these chronic conditions. Pod representatives and practices cited a renewed focus on population health improvement, and they recognized that a focus on any particular subgroups should not only include patients with chronic conditions, but also patients at a higher risk of developing these conditions later without better prevention and healthier behaviors.

Pod 2 practices targeted care management resources based upon complications from chronic conditions and psychosocial issues (including behavioral health), instead of just basing care management on diagnosis of a chronic condition. Care managers usually identified psychosocial or behavioral health needs during initial appointments with patients.

Pod 2 used risk scores provided in RTI's Beneficiary Utilization Reports and other payer-specific reports to identify high-risk beneficiaries. Pods 1 and 3 focused on high utilizers of hospital services, including inpatient admissions and ER visits. As described in **Section 3.3**, Pod 3 also used RTI's Beneficiary Utilization Reports to identify patients with certain chronic conditions (e.g., chronic obstructive pulmonary disease) who needed care management. Practices in Pods 1 and 3 worked closely with local hospitals to identify these high-utilizer patients and coordinated care closely with hospital discharge planners for appropriate care transitions.

All practices in the past year directed more care management services to patients with behavioral health needs. This increased attention through care management created a surge in demand for behavioral health services, but the region was unable to meet this demand because of the low volume of behavioral health clinics and providers throughout the Adirondack region. Some providers argued that lack of access to behavioral health services had become the top concern for the region and the demonstration. This sentiment pervaded all the Pod regions.

3.8 Discussion

ADK Demonstration leaders made some changes in structure and payment methodology in Year Three. One key change in the governance structure was the creation of the Executive Committee to help streamline the process for quicker decisions across the three Pod regions and to engage key stakeholders. Another key change was adding a P4P component to the PMPM paid to practices. Interviewees did not report any difficulties in collecting or redistributing the payments, but noted that the state faced some early difficulty in getting practices to buy in to the concept of rewards for performance improvements in quality of care, utilization, and cost. A final change in structure was providing Pod 1 with a dedicated Pod coordinator. This was done to re-engage stakeholders and increase their participation in the smallest region of the three Pods, which had a larger share of small, independent practices not part of a provider system network.

Interviewees in each stakeholder group acknowledged data challenges that continued throughout the demonstration, including data lags that reduced the utility of one vendor's provider dashboards. State officials, program leaders, and payers all discussed an upcoming partnership with the NNEACC, with hopes that NNEACC could aggregate and merge claims and clinical outcome data in a more timely way. State officials and program leaders discussed issues arising from the fact that all cost data available to date was proxy priced, which would be an

even larger issue if and when shared savings were introduced in the program. A state official expressed hope that NNEACC would be able to help the state overcome this barrier as well.

New York's ADK Demonstration had the highest reported number of participating payers of any initiative within the MAPCP Demonstration, despite being a voluntary program, and no payer dropped out since its inception. While payers experienced challenges and frustrations over the years, the stakeholder engagement and decision-making processes created by the state gave all participants an equal voice and built strong relationships that kept all parties committed and at the table. Compared to other MAPCP Demonstration states, New York's cross-payer alignment was much stronger than most. This was important in the early years, because participants felt that they were "all in this together." While some state officials, program leaders, and even payers felt that alignment was New York's "secret sauce," other interviewees (including one state official) questioned whether giving the plans greater flexibility would have a detrimental effect on the demonstration. Despite the alignment across payers, New York was a case study supporting the axiom that all health care is local; despite standardization of the \$7 PMPM payments to practices, the payment flow from the practices to the Pods varied across the three subregions.

Practices participating in the ADK Demonstration made progress in practice transformation improvements over the past year, particularly in their care management processes. Providers and other stakeholders generally felt positive about how implementation proceeded, but a few providers did not feel that their input was consistently being heard or valued across the demonstration. Another concern was that the many requirements and reporting needs for various state and federal initiatives hindered practices' ability to keep up with it all and still have adequate time for direct patient care. Finally, as in 2013, we continued to hear that practices, and the region as a whole, needed additional resources to support behavioral health.

Health IT played an increasingly important role in practices over the past year. Many practices spent the past year refining their EHRs to become more efficient and customized to their patients' needs. The payments received by practices through the ADK Demonstration were both appreciated and considered vital, but most practices agreed that the payments did not fully support the services expected of them to function as PCMHs. Given that a portion of the PMPM went to supporting the Pods and AHI, practices did not think all their investments in practice transformation were covered by the PMPM portion they received.

In terms of practice transformation and sustainability of the practices continuing as PCMHs after the demonstration ends, stakeholders remarked that the ADK Demonstration had several unintended benefits. One was in preparing practices to attest to meaningful use, and another was transitioning the practices to participate in ACO structures. Practices in Pod 1 were now almost all members of the new ACO in that region, and the ACO in the Pod 2 area was now well established. Most practitioners felt that the jury was still out on the ACO's ultimate impact, but several identified the ACO as a likely successor to the ADK Demonstration when it comes to an end. Some practices in Pod 3 not participating in an ACO were more uncertain about the future and were anticipating layoffs if or when the demonstration funds end.

CHAPTER 4

RHODE ISLAND

In this chapter, we present qualitative and quantitative findings related to the implementation of the Chronic Care Sustainability Initiative (CSI), Rhode Island's preexisting multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third of three annual site visits to Rhode Island, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third round of site visit interviews, which occurred October 23 and 24, 2014, two teams traveled across the state; we also conducted some telephone interviews in October and November. The interviews focused on implementation experiences and changes occurring since the last site visit in October 2013. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs), as well as provider organizations and community health team (CHT) leaders, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We also spoke with key state officials and staff who administered CSI and the MAPCP Demonstration to learn how the implementation of CSI progressed, including the addition of CHTs and the increased focus on high-risk patients. We met with payers to learn about their experiences with implementation and whether CSI's payment model met their expectations for return on investment. Finally, we reviewed reports from CSI staff to CMS and other documents for additional information on how the demonstration was progressing.

This chapter is organized by major evaluation domains. *Section 4.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in CSI. *Section 4.2* reports practice transformation activities. Subsequent sections report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 4.3*); access to care and coordination of care (*Section 4.4*); beneficiary experience with care (*Section 4.5*); effectiveness as measured by health care utilization and expenditures (*Section 4.6*); and special populations (*Section 4.7*). The chapter concludes with a discussion of the findings (*Section 4.8*).

4.1 State Implementation

In this section, we present findings related to the implementation of CSI and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We focus on providing information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?
- Were any major implementation issues encountered over the past year and how were they addressed?

- What external or contextual factors are affecting implementation?

The state profile in **Section 4.1.1**, which describes major features of the state’s initiative and the context in which it operated, draws on a variety of sources, including quarterly reports submitted to CMS by CSI project staff; monthly calls between CSI staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in October and November of 2014. **Section 4.1.2** presents a logic model reflecting our understanding of the links among specific elements of CSI and expected changes in outcomes. **Section 4.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 4.1.4**, the state implementation section concludes with lessons learned during the third year of the MAPCP Demonstration.

4.1.1 Rhode Island State Profile as of November 2014 Evaluation Site Visit

The overarching mission of CSI is improving health outcomes—especially for those with chronic illnesses—by transforming primary care. The project began with a grant from the Center for Health Care Strategies in 2006 that enabled the Rhode Island Office of the Health Insurance Commissioner (OHIC) to convene stakeholders to conceptualize the project. Stakeholders agreed that a multi-payer PCMH model was ideally suited for advancing common goals around quality, access, and cost. CSI was launched in 2008, backed by nearly universal commercial and Medicaid managed care plan participation. Payers offer enhanced payment and other support in exchange for practices’ meeting National Committee for Quality Assurance (NCQA) Physician Practice Connections (PPC®) PCMH™ standards, quality improvement goals, and cost reduction goals. Rhode Island’s participation in the MAPCP Demonstration, and corresponding Medicare payments to CSI practices, began in July 2011; in Year Three, CSI practices participating in the MAPCP Demonstration had PCMH payment support for nearly all insured patients.

State environment. OHIC first convened CSI in June 2006. OHIC led the initiative, offered antitrust protection for payers to collaborate, and promoted a sense of common purpose among a diverse array of stakeholders. Stakeholders, including primary care providers, payers and purchasers, state agencies, and independent experts, helped OHIC plan, design, and implement CSI. In 2009, OHIC used its leverage to establish four “Affordability Standards” for commercial health insurers. The standards went into effect in 2010, 2 years after the launch of CSI; OHIC proposed updates to the Affordability Standards in 2014 to reflect changes in the health care market while maintaining the standards’ original intent. These updated standards were adopted through regulation in February 2015. The first standard is known as the primary care spend standard. The original requirement, in effect from 2010 through 2014, directed carriers to increase the proportion of their total health care expenditures on primary care by 1 percentage point per calendar year; carriers exceeded this goal, on average. According to the revised primary care spend standard, carriers are required to maintain the minimum proportion of medical spending on primary care at 10.7 percent, just above the projected 2014 level. The standard emphasizes innovative payment models and infrastructure investment, rather than FFS primary care rate increases. CSI is one mechanism by which insurers increased spending on primary care toward fulfilling this requirement. The other components of the original Affordability Standards were requirements to (1) participate in CSI; (2) contribute financial support to CurrentCare, Rhode Island’s health information exchange (HIE); and (3) participate in

state payment reform efforts. These standards were also updated to expand the definition of the support carriers are expected to provide for primary care transformation and payment reform. Targets were set for the percentage of contracted primary care practices that are PCMHs (e.g., 80% by 2019); for the percentage of insured lives attributed to shared savings, risk sharing, or global capitation contracts (e.g., 30% by 2015; 40% by 2016); and for the decreased use of FFS payment methods in favor of alternatives, both in hospitals and in other settings.

Elected officials have been broadly supportive of CSI. In 2011, Rhode Island enacted the Rhode Island All-Payer Patient Centered Medical Home Act to codify much of CSI's work. The legislation also required the future participation of state-regulated health insurers. In addition, the Medical Home Act elevated the Rhode Island Executive Office of Health and Human Services to the position of co-convenor of CSI.

Several relevant programs operating in the state may have influenced outcomes for participants in CSI and the comparison group population:

- Medicaid FFS operates a primary care case management program, Connect Care Choice, for beneficiaries with chronic illnesses; nine CSI practices participate. Connect Care Choice is closely aligned with CSI criteria.
- The Rhode Island Quality Institute (RIQI) operates Rhode Island's Regional Extension Center, which supports Rhode Island providers in adopting health information technology (IT). RIQI also operates CurrentCare. CSI contracts with RIQI to provide data analytics for CSI practices. This service was provided originally under RIQI's \$15.9 million Beacon Community grant, which ran from July 2010 through March 2013. The goals of the Beacon Community grant were closely aligned with those of CSI; grant funding was used to provide support and technical assistance to all CSI practices and to convene joint committees and work groups to harmonize quality measures and enhance coordination. Beacon also provided significant data collection (including creation of an interim data warehouse until construction of an all-payer claims database was completed), analysis, and reporting support to CSI, as well as practice transformation support to CSI and Beacon practices. Since the end of the Beacon Community grant, RIQI continues its work related to CurrentCare and data analytics, which are funded by \$1 per member per month (PMPM) payments from commercial payers, state Medicaid, state government (for state employees), and self-funded employers.
- Rhode Island received approval for three Section 2703 Health Homes State Plan Amendments (SPAs). The target population for the first SPA, approved in November 2011, is children with special health care needs; target providers are Rhode Island's Comprehensive Evaluation, Diagnosis, Assessment, Referral, and Re-evaluation (CEDARR) Family Centers. The target population for the second SPA, also approved in November 2011, is individuals with serious and persistent mental illnesses; target providers were community mental health centers. Rhode Island's enhanced federal match for health home services through these two SPAs ended on October 1, 2013. A third SPA, approved in November 2013, targets patients receiving

medication-assisted treatment for opioid dependence; target providers are community behavioral health agencies.

- Coastal Medical, a large group practice with four practice sites participating in CSI, was selected to participate in the Medicare Shared Savings Program in July 2012.
- In February 2013, Rhode Island was awarded a \$1.6 million State Innovation Models (SIM) Initiative Model Design grant from the Center for Medicare and Medicaid Innovation (CMMI) to develop a State Health Care Innovation Plan.¹³ In December 2014, the state was awarded a SIM Model Test grant for up to \$20 million to implement and test its State Health Care Innovation Plan, which has a core focus on integrating primary care and behavioral health.¹⁴ CSI leadership participated throughout the planning process for the initial SIM grant and in the planning and award process for the Model Test grant.
- Blue Cross Blue Shield of Rhode Island (BCBSRI) operated an independent PCMH program. With the expansion of CSI practices (see **Section 4.1.3**), BCBSRI phased out its PCMH program, ending it in 2014. BCBSRI also provided grants to some practices to support the implementation of electronic health records (EHRs). In addition, under contract to CSI, BCBSRI provided practice transformation support to some CSI practices, replacing transformation support previously provided by TransforMED (a subsidiary of the American Academy of Family Physicians) through the Beacon program.
- The Brown University Primary Care Transformation Initiative developed a practice transformation support team through a Title VII grant from the federal Health Resources and Services Administration (HRSA). In 2013, CSI began contracting with Memorial Hospital of Rhode Island for Brown to provide practice facilitation to CSI practices; like BCBSRI, Brown's services replaced some practice transformation support activities previously provided by TransforMED.
- In January 2014, Rhode Island implemented the option under the Affordable Care Act (ACA) to expand Medicaid eligibility to all adults with incomes of up to 138 percent of the federal poverty level (FPL).¹⁵

Demonstration scope. In 2008, CSI began payments to five pilot practices located throughout the state, with an expectation that each practice would focus primarily on improving

¹³ The full text of Rhode Island's State Health Care Innovation Plan was available online at the time of our initial review.

¹⁴ The Rhode Island SIM Grant Model Design Application Project Narrative is available online: https://www.statereform.org/sites/default/files/ri_sim_project_narrative.pdf.

¹⁵ The ACA expanded Medicaid eligibility to individuals with incomes up to 133 percent of the FPL; however, there is a 5 percent income disregard so the income limit is effectively 138 percent of the FPL.

care for adults with chronic conditions. CSI practice participation in the MAPCP Demonstration expanded twice, in April 2010 and October 2012, both through competitive application processes.

Table 4-1 shows participation in the Rhode Island MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 16 at the end of Year One (June 30, 2012); 18 at the end of Year Two (June 30, 2013); and 16 at the end of Year Three (June 30, 2014). Although no practices terminated their participation in the demonstration, three practices that originally participated as individual sites consolidated with another participating practice, and one practice closed because of retirement. The number of providers at the participating practices increased by 103 percent over this period, from 73 to 148. The cumulative number of Medicare FFS beneficiaries who had ever participated in the demonstration for 3 or more months was 7,912 at the end of the first year, 10,658 at the end of the second year, and 12,631 at the end of the third year—an overall increase of 60 percent.

Table 4-1
Number of practices, providers, and Medicare FFS beneficiaries participating in the Rhode Island CSI

Participating entities	Number as of June 30, 2012	Number as of June 30, 2013	Number as of June 30, 2014
CSI practices ¹	16	18	16
Participating providers ¹	73	99	101
Medicare FFS beneficiaries ²	7,912	10,658	12,631

NOTES:

- CSI practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices. The number of practices reflects the net change after the addition of new practices, consolidation of existing practices, and practice closure due to retirement.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating CSI practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; CSI = Chronic Care Sustainability Initiative; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

The number of all-payer participants enrolled in CSI was 46,212 at the end of Year One (June 30, 2012); 53,946 at the end of Year Two (June 30, 2013); and 59,251 at the end of Year Three (June 30, 2014). This was an overall increase of 13,089, or 28 percent. Participating practices received payments for patients age 19 or older.

The five payers participating in CSI as of June 2014 included all commercial payers in Rhode Island: Medicare FFS (16% of total participants), Neighborhood Health Plan of Rhode Island (24%), BCBSRI (38%), Tufts Health Plan (1%), and United Healthcare (21%). Neighborhood Health Plan is a Medicaid managed care plan, and the latter three payers participate on behalf of all of their business lines. BCBSRI and Tufts both have commercial and Medicare Advantage products; United has commercial, Medicare Advantage, and Medicaid

managed care products. Rhode Island has relatively few self-insured employers; but 100 percent of the state’s administrative services-only purchasers participate in CSI, including the state employee health plan. Most Rhode Island Medicaid beneficiaries are enrolled in managed care. Medicaid required in July 2010 that new contracts with managed care plans include participation in CSI; these new contracts were effective in September 2010. Medicaid FFS did not participate in CSI.

Table 4-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in CSI as of June 30, 2014. There were 16 participating practices with an average of six providers per practice. All practices were either office-based practices (75%) or federally qualified health centers (FQHCs) (25%)—there were no critical access hospitals (CAHs) or rural health clinics (RHCs). All practices were located in metropolitan counties.

Table 4-2
Characteristics of practices participating in the Rhode Island CSI as of June 30, 2014

Characteristic	Number or percent
Number of practices (total)	16
Number of providers (total)	101
Number of providers per practice (average)	6
Practice type (%)	
Office-based practice	75
FQHC	25
CAH	0
RHC	0
Practice location type (%)	
Metropolitan	100
Micropolitan	0
Rural	0

ARC = Actuarial Research Corporation; CAH = critical access hospital; CSI = Chronic Care Sustainability Initiative; FQHC = Federally Qualified Health Center; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health center.

SOURCE: ARC Q12 MAPCP Demonstration Provider File. (See Chapter 1 for more detail about this file.)

In **Table 4-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating CSI practices during the first 3 years of the MAPCP Demonstration (July 1, 2011, through June 30, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Thirty-three percent of beneficiaries assigned to CSI practices during the first 3 years of the MAPCP Demonstration were under the age of 65, 41 percent were age 65–75, 18 percent were age 76–85, and 8 percent were over age 85. The mean age was 66. Beneficiaries were mostly White (86%), all lived in urban areas (100%), and more than half (59%) were female. Thirty-two percent of beneficiaries were dually eligible for Medicare and Medicaid, and 39 percent were eligible for Medicare originally because of disability. One percent of beneficiaries had end-stage renal

disease, and 1 percent resided in a nursing home during the year before their assignment to a CSI practice.

Using three different measures—Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries’ health status during the year before their assignment to a CSI practice. Beneficiaries had a mean HCC score of 1.04, meaning that Medicare beneficiaries assigned to a CSI practice through the third year of the MAPCP Demonstration were predicted to be 4 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating CSI practice. Beneficiaries’ average score on the Charlson comorbidity index was 0.73; just under two-thirds (65%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before their assignment to a participating CSI practice.

Table 4-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Rhode Island CSI from July 1, 2011, through June 30, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	12,631
Demographic characteristics	
Age < 65 (%)	33
Age 65–75 (%)	41
Age 76–85 (%)	18
Age > 85 (%)	8
Mean age	66
White (%)	86
Urban place of residence (%)	100
Female (%)	59
Dually eligible beneficiaries (%)	32
Disabled (%)	39
ESRD (%)	1
Institutionalized (%)	1
Health status	
<i>HCC score groups</i>	1.04
Low risk (< 0.48) (%)	24
Medium risk (0.48–1.25) (%)	52
High risk (> 1.25) (%)	24
<i>Mean Charlson index score</i>	0.73
Low Charlson index score (= 0) (%)	65
Medium Charlson index score (≤ 1) (%)	19
High Charlson index score (> 1) (%)	17
<i>Chronic conditions (%)</i>	
Heart failure	3
Coronary artery disease	10
Other respiratory disease	12
Diabetes without complications	16
Diabetes with complications	4

(continued)

Table 4-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Rhode Island CSI from July 1, 2011, through June 30, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	
Essential hypertension	32
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	4
Renal failure	3
Peripheral vascular disease	1
Lipid metabolism disorders	17
Cardiac dysrhythmias and conduction disorders	8
Dementias	0
Strokes	1
Chest pain	5
Urinary tract infection	4
Anemia	5
Malaise and fatigue (including chronic fatigue syndrome)	2
Dizziness, syncope, and convulsions	6
Disorders of joint	6
Hypothyroidism	4

NOTES:

- Percentages and means are weighted by the fraction of the year for which a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary was first attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

CSI = Chronic Care Sustainability Initiative; EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

The most common chronic conditions diagnosed were hypertension (32%), lipid metabolism disorders (17%), diabetes without complications (16%), other respiratory disease (12%), and coronary artery disease (10%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. Practice expectations, which evolved over the course of CSI, were specified in a common contract used by all payers. Initial contracts required CSI practices to meet NCQA PPC®-PCMH™ Level 1 recognition standards within 6 months of execution of their initial contract, and Level 3 recognition by the end of the initial 2-year contract period. Practices also were required to satisfy additional program criteria, including providing nurse care manager services, participating in 1 year of practice transformation training, and using an electronic registry. After the expiration of their initial 2-year contract, CSI practices were subject to the conditions of a “renewal contract” that included requirements to reduce acute-care

utilization and to demonstrate performance on key quality metrics. Additional renewal contract requirements included:

- Regular generation of quality reports;
- Measurement of patient satisfaction;
- Achievement of specified utilization changes;
- Expanded access to care outside normal business hours;
- Adoption of “best practices” for care transitions between hospital and outpatient settings; and
- Establishment of compacts with at least four specialists, including at least one hospitalist.¹⁶

The first two cohorts of CSI practices (five pilot practices and eight expansion practices) transitioned to the renewal contract when their original contracts expired in April 2011 and April 2012, respectively.

In April 2013, CSI initiated a new common contract for all participating practices to replace the initial and renewal contracts. The new contract, known as the developmental contract, was designed to support practices at various stages of PCMH transformation. It defined 4 contract years (Start-Up Year, Transition Year, Performance Year One, and Performance Year Two) with stage-appropriate practice requirements, performance targets, and payments. Starting in April 2014, CSI added a fifth contract year (Performance Year Two-A) to accommodate the original five pilot practices, which already had completed Performance Year Two.

Under the developmental contract, all CSI practices were required to:

- Employ an EHR that met Stage 1 meaningful use standards;
- Hire and train a nurse care manager;
- Participate in CSI training and reporting activities, including learning collaboratives; and
- Advance to a new transformation level and associated contract year annually. If practices failed to advance, the CSI Executive Committee reviewed the case and decided whether or not the practice would continue to participate in the initiative.

Additional expectations for practices in each contract year are described below.

¹⁶ Compacts were modeled on the Colorado Systems of Care/Patient Centered Medical Home Initiative (2011) and similar recommendations from the American College of Physicians Council of Subspecialty Societies (CSS) PCMH Workgroup (American College of Physicians, 2013).

Start-Up Year Practices

- Achieve and maintain Level 1 NCQA PPC®-PCMH™ recognition by the end of the first contract year.
- Submit an after-hours protocol detailing how and where patients can access care outside of the emergency room (ER) on evenings, weekends, and holidays, and implement the approved protocol within 6 months of the contract start date.
- Comply with the best practices set by Healthcentric Advisors (the state's Quality Improvement Organization) for care transitions between hospital and outpatient settings by the end of the start-up year.

Transition Year Practices

- Maintain compliance with the basic developmental contract and Start-Up Year requirements described above.
- Achieve and maintain Level 2 NCQA PPC®-PCMH™ recognition.
- Establish compacts with at least four specialists, including at least one hospitalist, within 9 months of the transition year start date.

Performance Year One, Two, and Two-A Practices

- Maintain compliance with the requirements for the basic developmental contract, Start-Up Year, and Transition Year described above.
- Achieve and maintain Level 3 NCQA PPC®-PCMH™ recognition.

Support to practices. From July 1, 2011, through June 30, 2014, Medicare MAPCP Demonstration payments were \$1,545,276, including payments to demonstration practices; payments to South County Hospital, which employed the nurse care manager for some practices; and payments for CSI program management.¹⁷

Payments to practices, specified in the common contract, were uniform across payers, with the exception of Medicare payments, which were capped at the amount originally approved by the Office of Management and Budget (OMB). Under the contract structure in place before April 2013, before the developmental contract, payments to practices changed when the practice moved from an initial contract to a renewal contract. Under the *initial* CSI contract, practices received \$3 PMPM as a base payment for PCMH services, plus \$1.16 PMPM earmarked for nurse care management. The enhanced reimbursement methodology changed with the implementation of the *renewal* CSI contract in April 2011 (five pilot practices) and April 2012 (first expansion practices), increasing the base payment to \$5.50 PMPM, including nurse care manager support. Renewal CSI contracts also incorporated performance-related adjustments to the base payment of \$5.50 PMPM. These adjustments resulted in payment increases for practices

¹⁷ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

achieving more performance targets, or payment reductions for those failing to meet a minimum standard. Depending on performance, the potential PMPM payments were either reduced by \$0.50, to \$5.00 PMPM, if none or one of the three specified performance targets was achieved; maintained at \$5.50 PMPM if the CSI-wide utilization performance target and one other performance target were both achieved; or increased by \$0.50, to \$6.00 PMPM, if all three specified performance targets were achieved. The utilization target was based on hospital admissions and ER visits; the quality target was based on seven clinical quality indicators;¹⁸ and the member satisfaction target was based on the results of a member satisfaction survey.

Under the *developmental* contract implemented in April 2013, practices received a base payment of \$5.50, including \$2.50 earmarked for nurse care management. Practices were eligible for additional PMPM performance payments based on achievement of performance targets and their developmental stage, up to a maximum of \$6.00–\$8.75, depending on implementation year (**Table 4-4**). Because the developmental contract was negotiated after the MAPCP Demonstration began, Medicare payments were capped at the originally approved maximum rate of \$6.00. As a result, in some cases, actual payments for Medicare patients may have been less than the rate paid for commercial or Medicaid patients. Medicare payments were reduced by 2 percent as a result of sequestration, which began in April 2013. In addition to the practice payments, an additional \$0.30 was paid for CSI program management; this payment from Medicare was also reduced by 2 percent due to sequestration.

Table 4-4
PMPM payment rates to CSI practices under April 2013 and April 2014
developmental contracts

Developmental stage, targets	PMPM payments
Start-up Year <i>Target 1:</i> Achieve NCQA PPC®-PCMH™ Level 1 recognition, engage in practice transformation activities, and achieve required structural changes (hire nurse care manager, establish four compacts with specialists, and create and implement After Hours Protocol). <i>Target 2:</i> Establish quality data reporting for required measures. <i>Target 3:</i> Implement interventions to reduce ER visits and inpatient admissions.	Maximum: \$5.50 Base: \$5.50
Transition Year <i>Target 1:</i> Achieve NCQA PPC®-PCMH™ Level 2 recognition; maintain required structural changes. <i>Target 2:</i> Establish quality data baseline and begin work to achieve targets. <i>Target 3:</i> Continue interventions to reduce ER visits and inpatient admissions.	Maximum: \$6.00 Base: \$5.50 <i>Target 2:</i> +\$0.50 to measure and report
Performance Year One <i>Target 1:</i> Achieve NCQA PPC®-PCMH™ Level 3 recognition; maintain required structural changes. <i>Target 2a:</i> Achieve four (of seven) quality targets. <i>Target 2b:</i> Achieve two (of three) patient experience targets. <i>Target 3a:</i> Achieve inpatient admissions reduction targets. <i>Target 3b:</i> Achieve ER visit reduction targets.	Maximum: \$7.50 (capped at \$6.00 for Medicare FFS) Base: \$5.50 <i>Target 2a:</i> +\$0.50 <i>Target 2b:</i> +\$0.50 <i>Target 3a:</i> +\$0.50 <i>Target 3b:</i> +\$0.50

(continued)

¹⁸ Practices originally reported six quality indicators. The number of indicators and the specific indicators reported changed in 2012 with the adoption of measures aligned with the Beacon Community initiative.

Table 4-4 (continued)
PMPM payment rates to CSI practices under April 2013 and April 2014
developmental contracts

Developmental stage, targets	PMPM payments
Performance Year Two <i>Target 1:</i> Achieve NCQA PPC®-PCMH™ Level 3 recognition; maintain required structural changes. <i>Target 2a:</i> Achieve at least four (of seven) quality targets, or Achieve at least six (of seven) quality targets. <i>Target 2b:</i> Achieve two (of three) patient experience targets. <i>Target 3a:</i> Achieve inpatient admissions reduction targets. <i>Target 3b:</i> Achieve ER visit reduction targets.	Maximum: \$8.75 (capped at \$6.00 for Medicare FFS) Base: \$5.50 <i>Target 2a:</i> If min. four of seven +\$0.50, If min. six of seven, +\$0.75 <i>Target 2b:</i> +\$0.50 <i>Target 3a:</i> +\$1.25 <i>Target 3b:</i> +\$0.75
Performance Year Two-A <i>Target 1:</i> Maintain NCQA PPC®-PCMH™ Level 3 recognition; maintain required structural changes. <i>Target 2a:</i> Achieve at least five (of seven) clinical quality measures and testing of any new measures. <i>Target 2b:</i> Achieve four (of six) patient experience targets. <i>Target 3a:</i> Achieve inpatient admissions reduction targets. <i>Target 3b:</i> Achieve ER visit reduction targets. <i>Target 4:</i> Manage high-risk patients and report on transitions of care and nurse care manager metrics.	Maximum: \$8.75 (capped at \$6.00 for Medicare FFS) Base: \$5.50 <i>Target 2a:</i> +\$0.50 <i>Target 2b:</i> +\$0.50 <i>Target 3a:</i> +\$0.50 <i>Target 3b:</i> +\$0.50 <i>Target 4:</i> +\$1.25

NOTE: The PMPM payment amounts do not reflect the 2 percent reduction in Medicare payments that began in April 2013 as a result of sequestration.

CSI = Chronic Care Sustainability Initiative; ER = emergency room; FFS = fee-for-service; NCQA = National Committee for Quality Assurance; PMPM = per member per month; PPC®-PCMH™ = Physician Practice Connection Patient-Centered Medical Home.

SOURCE: Rhode Island CSI Agreement, Attachment H: Per-Member-Per-Month Payment Grid, Amended April 2014.

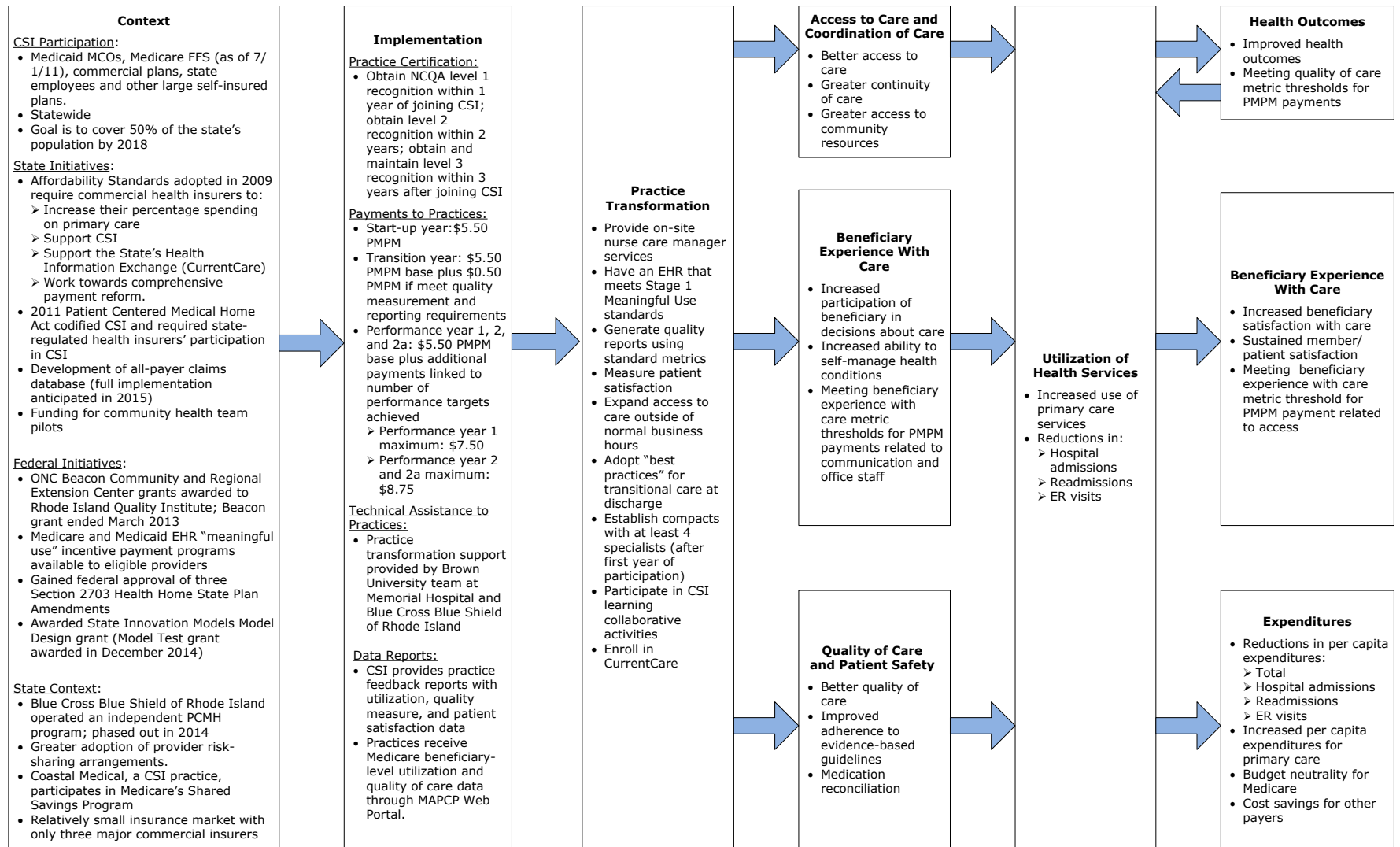
To enhance the ability of practices to capitalize on these resources, CSI offered individualized technical assistance, called practice facilitation, through the Brown University Primary Care Transformation Initiative team at Memorial Hospital of Rhode Island and BCBSRI, hosted in-person training, and convened key practice staff for monthly videoconferences.

CSI also provided participating practices with performance feedback reports for quality improvement purposes. In the absence of a statewide all-payer claims database, RIQI created data infrastructure to collect and aggregate claims data and calculate all-payer utilization; this information was used for practice-level quality improvement and calculating performance payments. CSI technical assistance in data submission and data analysis supported this effort. In addition, all participating practices enrolled in CurrentCare (the HIE) to share timely admission, discharge, and transfer (ADT) and (in some cases) clinical information with hospitals.

4.1.2 Logic Model

Figure 4-1 is a logic model of CSI, updated to incorporate changes made during the third year of the MAPCP Demonstration. The first column describes the context for the

Figure 4-1
Logic model for the Rhode Island Chronic Care Sustainability Initiative (CSI)



CMS = Centers for Medicare & Medicaid Services; CSI = Chronic Care Sustainability Initiative; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice; MCOs = managed care organizations; NCQA = National Committee for Quality Assurance; ONC = Office of the National Coordinator for Health Information Technology; PCMH = patient-centered medical home; PMPM = per member per month.

demonstration, including the scope of CSI, other state and federal initiatives affecting the initiative, and the key features of the state context affecting the demonstration. The demonstration context affected the implementation of CSI. Implementation activities were expected to promote transformation of practices to PCMHs, reflected in care processes and other activities.

Beneficiaries served by these transformed practices were expected to have better access to more coordinated, safer, and higher quality care, as well as to have a better experience with care and to be more engaged in decisions about treatments and management of their conditions. These improvements were expected to promote more efficient utilization of health care services. These changes in utilization were expected to produce further changes, including improved health outcomes, improvements in beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for the Medicare program and cost savings for other payers. Improved health outcomes, in turn, were expected to reduce utilization further.

4.1.3 Implementation

This section uses primary data gathered from Rhode Island interviews conducted in October and November 2014 and other sources, and it presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 4.1*.

Major Changes During the Third Year

Implementation of community health teams. During the 2013 site visit, CSI program leaders reported that funding for CHTs had been approved, and efforts to launch two pilot projects were under way. CSI received funding from a payer needing to invest more in primary care activities to meet primary care spending targets under OHIC's Affordability Standards and directed that funding to the CHTs. The CHTs offered a way to extend the work of the nurse care manager and to provide more intensive support to high-risk patients. Preparation for launching the CHTs continued during the third year of the MAPCP Demonstration. By the 2014 site visit, the CHTs in Pawtucket and the South County region had hired staff, implemented electronic care management tracking tools, and worked with health plans and practices to refine lists of high-risk patients eligible for CHT services and prioritize patients for first contacts. The CHTs also worked to identify community partners to whom they could refer patients for patient navigation, behavioral health services, and addiction disorder services. Finally, CHTs worked to develop consistent scripts and approaches to engaging patients across both sites. Medicare FFS did not participate in this pilot project, and the teams did not serve Medicare FFS patients, although CSI planned to expand to other populations after the pilot project.

Greater focus on high-risk and high-cost patients. During the 2014 site visit, CSI leaders, payers, and practices described a greater focus on identifying high-risk and high-cost patients. This shift was evident in several areas, including a heightened focus on these patients by nurse care managers and CHTs. To support the work of nurse care managers and CHTs, payers identified high-risk and high-cost patients to target their efforts. Each payer used its own algorithm to identify these patients, incorporating factors such as ER utilization and the results of predictive modeling. In addition, CSI developed new reporting requirements, applicable to practices in Performance Year Two-A, for each nurse case manager contact with these high-risk patients, to track results from nurse care managers' active outreach to them. The increased focus on high-risk and high-cost populations was driven in part by payers' desire to see larger

utilization and cost effects than achieved by the start of Year Three, and by the belief that this goal could be accomplished by targeting populations with the greatest opportunities for savings. This shift toward addressing high-risk and high-cost patients and away from chronic disease and population health management led to some tension between payers and providers about the fundamental purpose and expectations of CSI.

Behavioral health integration. Program leaders worked to increase CSI's focus on integrating behavioral health, recognizing that many high-risk and high-cost patients had health needs in this area. In 2013, CSI formed a new Behavioral Health Integration Workgroup with members representing behavioral health experts from CSI practices, hospitals, the state, and other organizations. In 2014, practices were required to develop a compact with behavioral health care providers. Further, Tufts contributed \$125,000 to behavioral health integration activities focused on integrated behavioral health practice facilitation coaching in 15 primary care practices, development of a centralized behavioral health directory, and development of a program to increase patient self-care management.

Initiative expansion. CSI underwent a significant expansion as part of a 5-year strategic plan approved by the CSI Executive Committee in 2013. Program leaders intended to continue expanding to approximately 20 new practices annually for the next 5 years. They estimated that half of the state's population would be covered by participating practices at the end of the 5-year expansion. As a result of a 20-practice expansion in October 2013, program leaders reported that nearly 25 percent of Rhode Islanders were patients at CSI practices. An additional 25 practices selected in October 2014 were expected to increase enrollment by 50,000 to 100,000 people. New practices, beginning with those added in October 2013, were not included in the MAPCP Demonstration and did not receive PMPM payments on behalf of Medicare patients. The Executive Office of Health and Human Services also convened a parallel initiative, known as PCMH Kids, to spread the model to pediatric practices; applications for the first round of 10 participating practices were due on December 1, 2014, and 10 practices were selected, with the first payment year to start on January 1, 2016.

Creation of new CSI governance structure. During the third year of the MAPCP Demonstration, CSI began planning for the transition to a new governance structure as a 501(c)(3) nonprofit organization to help ensure sustainability and longevity of the initiative and the work begun under CSI. The transition was completed in October 2014, and CSI was renamed the Care Transformation Collaborative of Rhode Island. The new organization planned to maintain much of the CSI committee structure within its new board.

Major Implementation Issues During the Third Year

CHT implementation challenges. CHTs were slow to get off the ground because of difficulties hiring staff with appropriate qualifications, such as training in counseling and addressing behavioral issues, or with skills as an effective "peer supporter" to check in with patients multiple times weekly to help them manage their own conditions. More time than originally anticipated was needed to set up consistent outreach protocols and data collection protocols across the two CHT pilot sites. In addition to challenges in identifying patients appropriate for CHT intervention from the initial payer-generated lists (see below), CHT staff had challenges in integrating with practice staff's workflow to ensure "warm hand-offs" and

smooth coordination to reduce, rather than add to, practice staff workload. They also encountered a lack of interest in follow-up for CHT services from some patients.

Difficulty interpreting payer-specific lists of high-risk patients. Both CHTs and practices reported challenges with interpreting and using payer-specific lists of high-risk patients. The prioritization of high-risk patients for follow-up by CHTs and nurse care managers was time intensive because of the size of patient lists and variation in the algorithms used by payers to identify high-risk patients. CHTs and practices described the limitations of the lists provided, noting that sometimes they identified patients inappropriate for intervention. For example, one CHT reported receiving a patient list that included infants. In other cases, patients deemed high risk by practices did not appear on payers' lists. One state official described the challenges for practices this way: "Payers send ridiculous amounts of information to practices overall. They'll send reports, lists of patients, high-risk lists, but they haven't been willing to come to alignment about what's a high-risk patient. So practices get lists of high-risk patients based on an algorithm or definition that's true for one payer, but not necessarily true for another. From a practice perspective, they have to find a way to deal with those high-risk patients and deliver services. If you don't know what the underlying criteria [are] and how they all map, it's hard to deliver services in a way that makes sense and will be impactful."

Health information exchange challenges. As in 2013, stakeholders expressed frustration with slow practice and patient adoption of CurrentCare. CurrentCare offered hospital ADT notifications, laboratory results, and information about which prescriptions patients obtained from the pharmacy—all data elements that CSI had expected would help practices with care coordination to meet utilization reduction goals. Practices identified the system's "opt-in" enrollment model, which required patients to consent to have their health information included in CurrentCare, as a barrier that stymied efforts to engage patients. Slow patient enrollment limited the usefulness of CurrentCare for providers, who were reluctant to use a system without a critical mass of patients. More providers reported using CurrentCare in 2014, however, than in 2013.

Failure to launch patient advisory group. In 2014, CSI attempted to establish a patient advisory group to increase patient engagement and guide CSI and practices on implementing PCMH. Efforts to establish the patient advisory group were unsuccessful, however, something state officials attributed to a lack of patient incentives for participation. In its place, CSI conducted a focus group of approximately 15 patients and patient caregivers to obtain consumer input on elements of CSI, including communication with primary care physicians and office staff, through use of patient portals and other means; access to providers; care coordination; and perceptions about the medical home. CSI leadership felt the focus group information was very useful and underscored the need for consumer engagement in the work of CSI and at the practice level.

External and Contextual Factors Affecting Implementation

Emergence of provider risk-sharing arrangements. Since the 2013 site visit, the Rhode Island health care market saw an increase in provider risk-sharing arrangements such as accountable care organizations (ACOs). Site visit interviewees noted that CSI helped practices develop capabilities that prepared them to participate in risk-sharing arrangements, and that the growth in provider risk-sharing would not have been possible without CSI. While some practices were interested in joining an ACO, others were not prepared to accept risk sharing.

Practices increasingly began to work as part of ACOs or hospital networks. These organizations had the capacity to offer support that an individual practice may have lacked, but could help them meet CSI expectations: access to professional staff, especially mental health specialists, social workers, discharge planners, and pharmacists; improved communication with hospitals regarding hospital admissions and discharges and ER use; and assistance in monitoring quality and utilization.

Effect of Medicare's Decision to Extend the MAPCP Demonstration in Rhode Island

Rhode Island planned to continue CSI regardless of whether or not the MAPCP Demonstration continued. CSI was supported by payers in the state and helped the payers meet OHIC's Affordability Standards. Nonetheless, stakeholders were pleased with the decision to extend the demonstration and to have Medicare's continued participation, because it was considered fair to all payers and validated CSI and its role in broader health reforms in the state.

4.1.4 Lessons Learned

Behavioral health integration must be a priority. State officials, providers, and payers noted the importance of behavioral health care in addressing chronic care needs and targets for reduced utilization and expenditure. They indicated that considerable progress had occurred in how practices addressed behavioral health care in primary care. State officials generally, however, wished that there had been a stronger focus on behavioral health integration when CSI initially was created. As one state official noted, "I think for us the challenge is the silos in the system. A lot of the sickest members receive their behavioral health services from community mental health organizations, and those aren't well integrated functionally with the rest of the system. We're working hard to try to break down those barriers and improve communication. We're also working on hospital discharges for behavioral health, making sure discharge information is being communicated back to the medical home, and that someone is involved in follow-up."

The interests of payers and practices must be balanced, particularly in the area of high-utilization patients. Commercial health plans and Medicaid called for a greater focus in CSI on high-cost, high-utilization patients, which they believed would generate more cost savings than had been achieved by the start of Year Three. On the other hand, several care managers advocated for maintaining a focus on reducing costs by preventing high-cost episodes in the first place, which they believed could be achieved by continuing interventions with patients with chronic disease and through population health management. In addition, they believed that efforts to focus on patients at high risk for high utilization were not as effective as possible because patient lists generated by payers were not as up-to-date or accurate as their own clinical knowledge of the patients.

CSI's future role in broader health care transformation initiatives in Rhode Island must be clarified. As in 2013, many stakeholders identified PCMH generally, and CSI specifically, as a necessary foundation for further health system transformation and payment reform. CSI's future within a transformed delivery system, however, remained unclear, given the significant focus on SIM, the need for payment reform, and the lack of hospital participation. CSI recently incorporated as a 501(c)(3) organization, thus helping to ensure its sustainability, but its role within larger health reform initiatives, including SIM, still was unfolding as of the

third site visit. As one state official described, “There’s recognition that SIM will be a big initiative for the state and that there’s a real need to align—to make sure what’s in SIM and required by SIM is consistent with what’s required by CSI since there will be a lot of overlap. SIM is dependent in a lot of ways on the success of CSI and other PCMH initiatives in the state. I have a lot of concerns around putting so many expectations on initiatives like CSI to transform the health care system. They are primary care practices. I and many people believe they are a foundation for the health care system, but it’s an unrealistic expectation without other fundamental reforms in place.”

Engaging “medical neighborhood” providers remained a priority. As in 2013, although OHIC made hospital engagement a major priority, the lack of engagement of providers from the broader “medical neighborhood,” including hospitals and behavioral health providers and specialists, was viewed as hindering the program’s ability to affect care delivery outside of primary care settings. Stakeholders viewed the business incentives for hospitals—particularly those located in the larger urban areas where they competed for patients—as continuing to favor filling beds and increasing ER utilization over the overall goals of CSI.

The PCMH model alone may not meet payers’ expectations for health care delivery system reform. State officials continued attempts to balance the many and often varied interests of stakeholders involved in a PCMH initiative. From the perspective of primary care practices, receiving payers’ support to become a PCMH was critical in strengthening the role of primary care in the health care delivery system, which they considered an essential component of overall health system reform. Once a stronger primary care infrastructure was established, however, some payers sought to try other mechanisms, instead of PMPM payments to PCMHs, for meeting delivery system reform goals—for example, through increased efforts to implement shared savings contracts. As one state official noted: “We should have been more aggressive in contracting to go to shared savings rather than [sticking] with PMPM incentives.”

4.2 Practice Transformation

This section describes the features of the CSI practices participating in the MAPCP Demonstration, identifies the changes made by practices to take part in the demonstration and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in late 2014, emphasizing changes that occurred since our previous interviews in late 2013.

Rhode Island practices continued to evolve in the way they provided PCMH services. In particular, practices noted that they continued to refine the role of the nurse care managers and their integration with other staff members, including new staff, such as assistants to the nurse care manager. These changes seemed to be driven by both the desire of CSI and its sponsors to show a positive impact on health care costs and practices’ increasing involvement with their local hospitals (and, in some cases, their affiliation with an ACO).

As in past years, all practices appreciated the opportunity to participate in an initiative allowing them to provide primary care services in ways that promote high-quality care and improves satisfaction for both patients and providers. Although this analysis focuses on practice

changes since the 2013 site visit, the practices noted how far they had come since joining CSI, especially in coordinating care and using data to improve quality, and how their practices differed from other practices in the community not participating in CSI.

4.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes made by CSI practices since the prior site visit and new practice improvement projects that were adopted. Most of the changes represented the natural evolution of efforts to improve implementation of the PCMH model. Other changes, specifically the near-universal focus on high-risk patients, seemed to reflect payer interests in seeing that CSI actually achieved cost savings.

PCMH recognition and practice transformation. By 2014, the last CSI practice in the MAPCP Demonstration achieved 2011 NCQA PCMH Level 3 recognition; all others had achieved recognition by 2013. Some practices mentioned that they were coming up for renewal, but, with a few exceptions, most practices did not seem daunted by renewing their NCQA PCMH recognition status. Although not a change from Year Two, it was notable how different the Year Three perceptions were from those in the early days of CSI, when practices uniformly complained about how burdensome and time consuming it was to meet the initial NCQA expectations and application requirements.

The most dramatic change that emerged from the 2014 practice interviews was the increased emphasis in all practices on ensuring that nurse care managers had the necessary information to identify and prioritize high-risk patients. Although the use of data to guide practice improvement priorities was well under way in Year Two, the focus was mainly on ensuring that patients met quality-of-care metrics, such as achieving their goals for prevention measures or blood pressure or glycemic control. In Year Three, the focus was clearly on identifying patients with frequent admissions or frequent visits to the ER, using lists provided by the various payers and, where possible, near-real-time reports from hospitals on patients seen in the ER or just discharged. In some areas of the state, CSI practices began to collaborate with new pilot CHTs to address the needs of high-risk patients.

Practices pointed out challenges in trying to identify high-risk patients and to understand their needs from payer-generated lists based on older data. They received multiple lists (one from each payer), which complicated the process. Practices had to reconcile the various lists and triage the patients. One practice developed a software application to merge and manage these lists. The focus on high-risk patients diverted attention from other quality-focused activities. For example, one practice abandoned its diabetes group class because the nurse care manager was “working the lists.” Another practice noted that the emphasis on high-risk patients left insufficient time to offer chronic disease education for the rest of its patient population.

Nearly every practice also mentioned increased attention to patients transitioning out of the hospital. Compared with past years, practices were notably more proactive in ensuring that they knew which patients were recently discharged and in calling them or arranging visits within days of discharge to improve care coordination. Several practices noted improved communication with hospitals about patients who had been discharged or were approaching discharge. One practice implemented a unique program in which each discharged patient stopped

at the practice on the way home. For patients using special transportation, the practice paid for the ambulance or ambulette to make the extra stop at the practice before taking the patient home.

Some practices noted that the time required to attend to patients in transition from the hospital was burdensome, but might be offset by saving some time at the next visit. As noted in one interview: “Hospital follow-up calls... on average... take about 50 minutes a call—that’s a lot of time, and then charting it afterwards. Even though it might not be a crisis situation, a lot does come out, and they’re very appreciated [by the patient]. I think they make a better impact and more complete story when the patient does come for the hospital follow-up visit, because visits are so short. That’s one of the bigger problems. [Primary care] visits are 10 minutes. How do you ask about the hospital in those 10 minutes?”

Practices repeatedly mentioned challenges in determining who should have primary responsibility for managing patients’ transition from the hospital. Practices described the many parties potentially involved, including their own resources (the practice’s nurse care manager), hospital resources (discharge nurse coordinators and social workers), and community resources (including CHT resources for practices working with CHTs).

Two practices mentioned new projects focused on their hospitalized patients. These practices provided a member of the practice staff, on either a fixed or rotating basis, to oversee the inpatient care of the practice’s patients. These programs reflected the practices’ belief that this was superior to the hospitalist model, standard in the area, for enhancing care coordination and controlling utilization and costs.

With regard to quality, as in the 2013 site visit, practices focused on coordinating care for their patients and met these needs predominantly by using in-house nurse care managers and, in some practices, their assistants (see *Section 4.2.4*). Similarly, as in Year Two, practices focused on meeting quality metrics by using both internally generated and externally provided data, comparing these data with benchmarks. Practices continued to track patients who did not meet quality metrics and to address gaps in preventive care through pre-visit team huddles and proactive efforts by the medical assistants. For example, they identified diabetic patients who had missed their periodic retinal examinations.

Few practices mentioned any changes in their office hours, noting that they already had achieved near-constant access through referral relationships (including with urgent care centers) or by having hours at other practice sites and open-access appointments. One practice noted that it could view patient records, regardless of which practice site the patient visited, using a common EHR.

Practice staffing changes. Practices evolved with respect to the types of staff they employed or colocated on-site, and they extended their teams beyond the typical arrangement of nurse care manager, medical assistant, and physician. Staffing for behavioral health integration received increased attention. Some practices had staff colocated on-site, such as a psychologist; one hospital-based practice offered on-site walk-in (open access) behavioral health appointments. This increased the volume of patients seen, compared with the previous system of scheduling appointments, because it avoided holding appointment slots for no-shows. In 2014, the local hospital coordinating nurse care managers for CSI practices in the South County region

of Rhode Island hired an advanced practice nurse in behavioral health to manage consultations in the ER and inpatient settings for patients with behavioral conditions. The hospital also tried to hire a behavioral health care manager with Rhode Island Foundation grant funding, but had difficulty finding the right person. One practice noted that the CSI payments were inadequate for hiring new staff to provide behavioral health services or contracting out these services, and that needs for behavioral health services exceeded available resources. Perhaps because of the constrained resources, most practices interviewed during the 2014 site visit emphasized colocation rather than having a dedicated behavioral health specialist as part of the practice care team.

Practices reported several other staffing changes. To allow nurse care managers to work at the top of their licenses, at least two practices had added staff to assist the nurse care manager with scheduling, making telephone calls, and tracking quality data. As during the 2013 site visit, practices mentioned the value of medical assistants in ensuring coordination and preventive care delivery. One practice added a patient engagement coordinator, whose responsibilities included signing up patients to use their patient portal. Several practices noted the usefulness of having clinical pharmacists on-site, at least part time, for patient visits and as part of the care team. These pharmacists helped patients review their medications.

Health information technology. During the 2013 site visit, several practices mentioned challenges in using their EHRs, such as needing to enter laboratory values manually, having difficulty running quality reports, or re-entering data when EHR systems switched. During the 2014 site visit, most practices were more comfortable with their EHRs; only one interviewee noted challenges similar to those reported in 2013. Several mentioned that their systems were upgraded recently with new features that were often helpful, but sometimes confusing. One practice purchased a new, comprehensive upgrade for patient education that allowed content to be printed out or forwarded through the practice's patient portal. One large group practice used its EHR to increase collaboration with specialists by allowing virtual consults. A nephrologist, for example, was able to review the records of patients with elevated creatinine to see if appropriate measures for treating chronic kidney disease were in place.

All practices had opinions, albeit mixed, on CurrentCare and its utility. Several practices mentioned that patient enrollment increased from 2013 through 2014; one practice estimated its patient enrollment to be in the range of 70 percent. One practice mentioned using CurrentCare frequently, particularly the ADT feed, which allowed the practice to learn which of its patients had been admitted to a hospital. Others considered it less helpful, and one staff member commented that it required extra steps to access data, including a separate log-in in addition to the log-in to his EHR. The practice was working to establish a system for single sign-in.

As during the 2013 site visit, CSI practices reported exchanging health information with specialists, hospitals, and other providers predominantly by fax. When practices received information electronically, for example, through the Direct functionality facilitated by CurrentCare (using nationally accepted Direct Project standards to exchange secure clinical information between two entities), this service was not always considered efficient. One provider commented, "There's one paragraph, buried in 12 pages, that comes from the hospital's EHR, about what actually happened... with no clarity on the most relevant pieces of information." One primary care practice took an alternative approach and worked with a software developer to

implement another method for exchanging information with the local ER through a real-time smartphone text messaging system.

4.2.2 Technical Assistance

Technical assistance to CSI practices was offered through on-site support by practice transformation coaches and through CSI's committee structure (the Nurse Care Manager Best Practice Sharing Sessions and the Practice Transformation Committee). In general, practices related mixed feelings about the technical assistance provided through CSI. CSI began providing on-site support through BCBSRI and the Brown University Primary Care Transformation Initiative at Memorial Hospital of Rhode Island in 2013, but few practices reported taking advantage of the one-on-one coaching offered. More practices mentioned learning opportunities provided during committee meetings. One nurse care coordinator noted that the Best Practice Sharing Sessions and committee meetings were helpful, mentioning discussions about motivational interviewing and the roles of medical assistants. A practice director was less enthusiastic: "CSI does not provide enough technical assistance to practices. Practices need help with all the little details of tracking quality and performance measures, helping support care coordination, etc."

All practices actively used both quality-related and utilization data to monitor their performance and identify areas needing improvement. All practices seemed to value the practice-specific CSI quarterly dashboard reports, accessed through a portal on the CSI Web site, above other sources. Performance feedback reports from the CSI Web site were available to practices approximately 5 weeks after the end of the reporting quarter. Although they also closely reviewed data provided by payers, the practices frequently mentioned that these data sources also created problems, because they typically were not current and required both review and integration of multiple sources. As in prior years, most practices either were unaware of the Web portal with Medicare patient data, or they were aware, but did not take advantage of, this resource. Given the problems associated with using external data sources, practices consistently used internally generated data from their EHRs either to supplement or replace the external data. Practitioners said that their internal data were more current, more reliable, and easier to use. Practices also expressed frustration about the number of different portals, each with a separate log-in, required to access patient and practice feedback data.

4.2.3 Payment Support

As during the 2013 site visit, practices used payment support in 2014 most consistently for two purposes. First, practices used the funds to hire and support their nurse care managers. Second, funds were used for staff (e.g., medical assistants, assistants to the nurse care manager) to help meet the many expectations for data and quality management activities.

As noted in 2013, some practices offered individual financial incentives to align provider behavior with the goals of the CSI program. One practice affiliated with a larger organization allocated incentive awards in three distinct performance categories: one-third each for meeting one's own target, the practice target, and the organizational targets. The incentives, however, were perceived as too small to have much impact.

As in previous years, practices viewed the CSI funding as both valuable and essential, but insufficient for the ideal operation of a PCMH. Interviewees at practices lamented the need for additional support for staff to provide care coordination, data management, quality monitoring, and behavioral health care. As one interviewee said, “Most of our money goes to buying nurse care managers, but we need a lot more nurse care managers than we have.”

By the beginning of 2014, 33 CSI practices, including eight MAPCP Demonstration practices, received funding under CSI’s Partners in Best Practice program, which offered practices \$500 to apply toward an activity that would help the practice meet a CSI- or PCMH-related practice goal. Practices often used these funds for continuing staff education—for example, nurse care managers attended a certification program; medical assistants received training on medication reconciliation or attended a “boot camp;” and front-line office staff received customer service training. Others used the funds to partner with existing CSI sites to learn how they used their EHR to build clinical quality reports or to distribute patient education materials in their waiting rooms.

4.2.4 Summary

As in the past 2 years, the participating practices were universally enthusiastic about CSI and felt that their participation in the initiative advanced their ability to provide high-quality, patient-centered, team-based care. The practices were pleased with their growth and how far they had come: “[CSI’s] mission and existence has been a great thing for Rhode Island. I’m very proud of it, and our participation.” Another practice noted, “There’s high value in participating, because of the collaboration. When all parties have open communication, [the] same goal—a lot more can get done.” A physician said, “Patients know they are getting a lot more than traditional care in a fee-for-service environment. We listen, we care, we educate them, we make it easy for them to communicate with us, empower them, make it easier for them to manage themselves. So that piece is good for everybody.” With regard to the continued refinement of team roles in the PCMH, including integrating the nurse care manager, one physician said, “We all know our roles and try to do them to better take care of patients. I think we’ve been doing a lot of it before, but [now] a lot of it is codified, standard, and we keep records about it—those are the biggest changes over the past 5 to 6 years.”

Moreover, the practices viewed their CSI participation less as a finished accomplishment and more as a work in progress: “We’re always learning new lessons, it never stops.” One of the most useful aspects of participation in CSI for practices was that transformation to a PCMH prepared them to engage with local hospitals and ACOs under new payment models with local payers.

The increased focus on high-risk patients was the overriding theme and concern during the 2014 site visit. Practices often expressed frustration and disbelief that they were not having a greater impact on ER and inpatient utilization. One nurse care manager noted that the lists of high-risk patients often reflected past utilization that practices cannot change and the focus on these patients might cause the practice to miss opportunities for longer-term prevention of avoidable utilization among other chronically ill patients.

Another concern was what would happen if PCMH payments ended. None of the practices had a clear idea of how they would continue to support nurse care managers and other investments in practice transformation, and all expressed a fervent wish that the funding would continue. Participating in CSI had shown them how the PCMH experience benefited both their patients and their own practice and going backward seemed inconceivable: “Through the project, we’ve learned how to measure quality. Accurately measuring, actively improving, and making the whole interaction more rewarding for patients and providers has been key. If we slip back to fee-for-service without accountability for quality, we’ll go back to where we were before.”

4.3 Quality of Care, Patient Safety, and Health Outcomes

During the third year of the MAPCP Demonstration, CSI practices reported on a set of quality measures derived from their EHRs, as they had done since the program started in 2008. In addition to providing feedback to practices on their performance on these measures relative to other CSI practices, performance on a subset of the reported quality measures was one criterion for performance-based payments to CSI practices specified in the developmental contract. The CSI Steering Committee revised the required quality measure list several times since the initiative began. For the contract year beginning in 2014, they retired four measures (including one that had been a contractual performance metric, low-density lipoprotein (LDL) controlled at less than 100 in diabetic patients)¹⁹ and added two new measures for reporting. CSI also updated one contractual performance measure, blood pressure control in hypertensive patients, to align with 2015 Healthcare Effectiveness Data and Information Set (HEDIS) specifications that changed the definition of control for patients age 60–85 without a diagnosis of diabetes.

Quality-related performance payments were based on meeting performance target thresholds in the final quarter of the previous contract year. For example, quality-based payments for the contract year beginning in April 2014 were based on performance in the first quarter of 2014. To receive performance payments for quality, practices had to (1) meet or exceed the target threshold or (2) reduce the distance between their baseline performance and the threshold by at least 50 percent and a minimum of 2.5 percentage points. As in past years, the thresholds for each quality measure for the contract year beginning in 2014 (used to set performance-based payments for the 2015 contract year) increased from the prior contract year to encourage continuous improvement (see *Table 4-5*). Because one of the performance metrics used in previous years was retired, to receive the portion of CSI payments based on quality achieved in the contract year beginning in 2014, sites with Performance Year One contracts had to achieve at least four of six (rather than seven) quality measures, and sites with Performance Year Two or Two-A contracts were eligible for an additional incentive payment if they achieved all six measures shown in Table 4-5.

¹⁹ Two measures related to LDL in diabetic patients—having a result and showing good control—were retired because they are no longer considered clinically valid. The other measures were retired to remove the reporting requirement for measures with average performance levels close to 100 percent. Practices may still track them internally for quality improvement purposes if needed.

Table 4-5
Performance thresholds for quality metrics, 2014–2015, Rhode Island

Measure	CSI threshold for receiving payments in 2014 (% of patients satisfying)	CSI threshold for receiving payments in 2015 (% of patients satisfying)
BMI assessment in adults 18–64 years of age	57	70
BMI assessment in adults 65 years or older	69	75
HbA1c control of 8.0% or less in diabetic patients	69	70
Blood pressure control (< 140/90) in diabetic patients	76	78
LDL control (< 100) in diabetic patients	50	n/a
Tobacco cessation intervention	85	90
Blood pressure control in hypertensive patients (< 140/90) ¹	72	76

¹ In 2014, the definition of control for patients age 60–85 without a diagnosis of diabetes was changed to < 150/90 mm Hg to align with 2015 HEDIS specifications.

BMI = body mass index; CSI = Chronic Care Sustainability Initiative; HbA1c = hemoglobin A1c; HEDIS = Healthcare Effectiveness Data and Information Set; LDL = low-density lipoprotein.

As in past years, RIQI compiled quality metric data reported by each practice and shared data on comparative performance with practices through a Web portal. In mid-2014, RIQI revised the display of quality data received by each practice to include trends in scores over time, practice-specific data, and ranges of performance across all CSI practices and for CSI practices in different stages of the developmental contract.

During the 2014 site visit, most practices reported that they produced their own quality measure data in addition to the data required by CSI. Some practices reviewed quality measure data in staff meetings, including performance aggregated for all patients of an individual physician, for all patients at a practice site, and for all patients at multiple sites in a provider organization. One practice had a physician champion who consulted one-on-one with physicians whose quality measures results were low. As during the 2013 site visit, practices said they generated reports showing patients missing recommended preventive services to identify those who would benefit from either additional outreach to schedule an office visit or education at their next in-person appointment.

Practices reported holding group visits or classes for patients with diabetes, or nutrition classes, as they did during the 2012 and 2013 site visits. These were the primary activities targeted at improving performance in delivery of preventive and chronic care. As noted in **Section 4.2**, however, in 2014, some interviewees suggested that the focus on identifying and reaching out to patients with high risk or high utilization may have detracted from nurse care managers' ability to engage with other patients about managing their chronic conditions and to improve quality of care.

To address patient safety issues, as described in **Section 4.2**, practices noted a more intense focus on following up with patients admitted to the hospital for the purposes of conducting medication reconciliation, or with patients who had laboratory tests, than in prior

years. As one physician said, “We’ve always been a practice that calls patients back with lab reads, we follow up on things, we follow up after hospital visits, and now it’s just more organized and someone’s role.” In some practices, physicians conducted rounds with their admitted patients; in other practices, as in past years, the nurse care manager followed up with a telephone call after a patient’s discharge from the hospital. Some practices noted the benefit of working with pharmacists, often available through a larger physician group, for medication review and reconciliation; one physician noted that it would have been helpful to have more time from the pharmacist on his care team, a lesson learned from his experience with CSI.

4.4 Access to Care and Coordination of Care

CSI continued to promote access to care and coordination of care through contractual requirements for CSI practices; most practices and stakeholders reported increasing access and coordination of care activities in 2014. The CSI developmental contract required that, by the end of the Start-Up Year, practices had a nurse care manager on staff, created and implemented after-hours protocols, obtained at least NCQA PCMH Level 1 recognition, and complied with best practices for care transitions. In the contract year beginning in 2014, practices in Performance Years One, Two, and Two-A must have met these requirements, obtained NCQA PCMH Level 3 recognition, achieved a minimum score on the “Access” domain of the PCMH Consumer Assessment of Healthcare Providers and Systems (CAHPS, described in **Section 4.5**), and developed compacts with high-volume specialists. In support of care coordination, practices in Performance Year Two-A also were required to manage high-risk patients and to report on care transitions and nurse care manager metrics as defined by the CSI Data and Evaluation Committee.

Most practices had office hours during evenings and weekends at the time of the first site visit in late 2012, and, in 2013, a few practices added additional hours. As described in **Section 4.2**, practices had made a variety of after-hours arrangements, including staffing extended hours at their practice site, offering hours at other practice sites, and providing after-hours care through relationships with urgent care centers. During the 2014 site visit, some nonpractice stakeholders perceived that CSI practices had more accessible office visits than in the previous year and did more to increase patient awareness of the availability of the around-the-clock answering service and evening and weekend office hours. Practice staff, however, offered a mixed assessment of whether patient access had increased since 2013. One practice said that they had expanded to Sunday and evening hours, but they discontinued these because of the low volume of patients seeking services at those times. Another practice reported getting many after-hours calls and having high patient volume on Saturdays. One stakeholder noted that community health centers had expanded their evening and weekend hours before the MAPCP Demonstration, and another practice said that it could not expand office hours beyond the evening and weekend hours already offered. In contrast to the 2013 site visit, in 2014 practices did not report difficulty in scheduling providers to work on weekends and evenings.

Most practices felt that they needed to offer more patient education to encourage patients to call them first rather than visiting the ER. In the 2014 site visit, practices described continuing and enhancing efforts to direct patients to call their primary care physicians before going to the ER. One practice used posters and videos in the waiting room to convey a “call us first” message.

As in previous years, some practices reported in 2014 that they offered on-site visits with other types of providers, such as pharmacists, psychologists, podiatrists, and nutritionists. During the 2012 and 2013 site visits, many practices noted problems with access to and coordination with behavioral health providers. As described in **Section 4.2**, during the 2014 site visit, several practices described efforts to increase access to behavioral health providers, such as referral relationships and colocation. Other practices had relationships with off-site providers to give referred patients more immediate access to appointments. In two pilot areas of the state, CHTs were reaching out to patients to offer connections to support services, such as social workers and peer navigators, to help meet social and behavioral health needs. CHT staff reported, however, that some PCMH patients whom they contacted refused additional assistance.

Several practices mentioned new or increased use of patient portals since the 2013 site visit, and this was generally well-received by both patients and providers. Patients used online patient portals for scheduling appointments or securely messaging their physicians. In one practice, the portal was accessible through a smartphone app that included several novel health-related tools—for example, tracking weight or exercise levels and tracking mood for patients with depression. Compared with the 2013 site visit, fewer practices noted challenges to encouraging patients to use the portal in 2014.

All practices had an embedded nurse care manager who served as the main care coordinator. As described in **Section 4.2**, since the 2013 site visit, these nurse care managers increased the amount of time and effort they spent following up with patients after discharge from the hospital, especially when practices received more real-time ADT communication from hospitals. Practices reported taking additional steps beyond the nurse care manager's work to increase coordination of care, especially with hospitals. Among the new initiatives described were real-time messaging between a practice's physicians and ER physicians through smartphone technology; a nurse care manager from an ACO with multiple CSI practices embedded in two hospitals to track and monitor the ACO's admitted patients; and a practice physician dedicated to being a full-time hospitalist. In contrast to the views expressed in 2012 and 2013, during the 2014 site visit, practices did not mention concerns about poor communication with local ERs, and at least one practice noted that it was rare for them to be unaware of a patient's hospital visit.

Communication also increased between CSI practices and other entities for the purposes of care coordination. During the 2014 site visit, one health center reported developing a portal to be used by specialists to access patient records in its EHR. Providers noted that compacts with specialists improved communication between specialists and primary care providers. One payer said that its disease management staff were more careful about coordinating with the nurse care manager at a patient's practice before reaching out to the patient.

4.5 Beneficiary Experience With Care

CSI did not require participating PCMHs to undertake specific interventions to improve beneficiary experiences with care, but CSI funded an annual PCMH CAHPS survey and required participation from all practices. In 2014, several practices reported that they used CAHPS survey results to guide improvements in key domains affecting beneficiary experience with care, such as office staff communication. CSI practices in Performance Years One, Two, or Two-A of the

developmental contract were eligible for an additional PMPM payment of \$0.50 over the base amount if they achieved target values on selected composite measures from the PCMH CAHPS.

In the PCMH CAHPS fielded in February 2014, nine of the 16 MAPCP Demonstration practices achieved scores exceeding target values for the patient experience performance metrics and thereby qualified for additional PMPM payments for the contract year beginning in 2014. (Eight practices qualified for additional payments during the 2013 contract year.) The target values used to determine eligibility for the additional PMPM payment were the median practice result for the percentage of patients responding “always” for selected composite measures in the survey conducted in the previous year. The target values for the 2014 CAHPS results were 57 percent responding “always” on the Access domain, and either 82 percent responding “always” on the Communication domain or 73 percent responding “always” on the Office Staff domain. Practices failing to meet these benchmarks still could satisfy the metric by improving their performance and reducing the gap between their score and the benchmark by 50 percent and at least 2.5 percentage points. The target values were set to increase in the next contract year, based on performance in the 2014 CAHPS survey, to 60 percent, 84 percent, and 76 percent, respectively.

During the 2014 site visit, several participating practices indicated that they maintained or expanded their efforts to improve beneficiaries’ experiences with care, including those aspects measured in the CAHPS survey. For example, practices responded to their CAHPS scores in the Office Staff domain by addressing patients’ experience with front desk staff; one practice provided customer-service training for staff working the front desk. With regard to the Communication domain, practices continued to use medical assistants to facilitate patient education and communication. One practice initiated a new patient advisory council to get feedback on the degree to which patients experienced improvements in their care and to request input on future initiatives. With regard to the Access domain, at one practice, patients with chronic conditions could see the nurse care manager on a walk-in basis, rather than waiting for an appointment with a physician.

Consistent with findings from the 2013 site visit, practices in 2014 reported an emphasis on helping patients identify and address disease management goals. One nurse care manager reported collaborating with medical assistants to promote management of chronic obstructive pulmonary disease. One patient advocate reported noticeable positive changes at practices with respect to patient follow-up and communication about health topics such as smoking cessation and chronic disease management.

Additionally, practices reported that health IT tools complemented their efforts to engage patients. For example, practice staff noted that their greater understanding of and comfort with health IT and EHRs led to more effective integration of the electronic resources into patient care, such as printing and distributing patient-specific education materials housed in a patient’s EHR. One interviewee noted, however, that the emphasis on using the EHR detracted from his ability to interact and engage with the patient.

4.6 Effectiveness (Utilization and Expenditures)

Rhode Island's MAPCP Demonstration application assumed that CSI would reduce hospital admissions related to the respiratory system, circulatory system, and endocrine system, as well as ER visits. Reductions in these services would be consistent with CSI's focus on selected chronic conditions (diabetes, coronary artery disease, and depression). Rhode Island noted in its MAPCP Demonstration application that it was taking a conservative approach to estimating savings for budget neutrality by assuming reductions in only a few categories of service, suggesting that savings might be achieved in a broader set of services.

Different effects were assumed for pilot and expansion practices because of the varying maturity of these PCMHs. Over the 3-year demonstration, admissions related to the respiratory system, circulatory system, and endocrine system were projected to decrease by 12 percent in the pilot practices and by 8 percent among the expansion practices. ER services were expected to decline by 15 percent in pilot practices and 8 percent in expansion practices. The MAPCP Demonstration also was projected to increase office-based evaluation and management (E&M) visits by 6 percent in pilot practices and 5.5 percent in expansion practices, whereas hospital E&M visits would decrease by 9 percent and 6 percent and emergency E&M visits would decrease by 15 percent and 8 percent in pilot and expansion practices, respectively. Rhode Island estimated that Medicare would realize savings of \$1,573,143 over the course of the demonstration and \$27,577 net of payments to practices.

CSI determined practices' eligibility for utilization performance-based payments for the contract year starting in 2014, based on claims data reported through Quarter Two 2014. The utilization metrics were calculated using data from Medicare Advantage plans, Medicaid managed care plans, and the four commercial insurers participating in CSI, but the calculations did not include Medicare FFS or Medicaid FFS patients.

Each practice's performance was determined by comparing its cohort of CSI practices with a group of similar non-PCMH practices. Practices fell into different cohorts based largely on their tenure in CSI. Performance payments for the contract year beginning in 2014 were based on whether the cohort achieved a 5 percent greater reduction in all-cause hospital admissions, and a 5 percent greater reduction in all-cause ER visits, than the comparison group. The ER reduction targets were decreased several times after the start of the MAPCP Demonstration because they were judged too ambitious. They began at 10 percent and then decreased to 7.5 percent in the 2013 contract year and to 5 percent in the 2014 contract year. Before the introduction of the developmental contract, practices had to meet both the inpatient and ER utilization reduction targets to receive the performance payment. Practices in Performance Year One of the developmental contract could qualify for a \$0.50 PMPM performance payment for each of the two targets related to utilization reductions. In Performance Year Two, the additional PMPM payments for reductions were \$1.25 and \$0.75 for all-cause inpatient admissions and ER visits, respectively. In Performance Year Two-A, the additional PMPM payments for reductions were \$0.50 and \$1.25 for all-cause inpatient admissions and ER visits, respectively. CSI discussed developing a total cost of care metric for practice performance, but had not implemented this metric by the time of the 2014 site visit.

Stakeholders reported continued implementation of two main strategies to reduce utilization in 2014: (1) using data reports on hospitalized patients to manage care at the hospital or after discharge and (2) increasing the involvement of the practice nurse care manager or physicians with patients at risk for high utilization. The latter strategy was enhanced by the introduction of CHTs in two pilot areas in 2014.

During the 2012 and 2013 site visits, practices reported that the utilization data received from insurers, hospitals, and CSI were not timely and not as usable as they would have liked. During the 2014 site visit, the timeliness of claims-based utilization data received from payers was still a concern, but practices also reported improvements in data exchange with hospitals. They more frequently received real-time utilization data directly from hospitals, either through the ADT feeds available through CurrentCare (only for patients enrolled in CurrentCare) or through formal arrangements with hospital staff. Nonetheless, practices still noted that limited hospital involvement in CSI impeded their ability to affect utilization.

Interviewees commented on the difficulty of meeting utilization performance metrics, particularly for ER use, and noted that several large hospitals still had an incentive to fill their beds and actively recruited patients with large, welcoming ERs. As one physician said, “As far as shared responsibility when patients leave hospital, we’ve put things in place to ensure a smooth landing, but we don’t sense too much that the hospital is invested in their share of that.” The hospital in South County did work more collaboratively with local practices for which it coordinated nurse care manager services, sharing data easily and offering its resources as an extension of the primary care practice. This hospital also led an initiative to decrease readmissions for patients with congestive heart failure.

With regard to the second strategy to address utilization, the focus on high-risk patients, during the 2014 site visits interviewees noted a marked increase in efforts to reach these patients compared with previous years. For example, one practice monitored patients on the high-risk list and followed up with those who canceled appointments or had not recently visited the office. One physician noted that the time frame for realizing savings from interventions with high-risk patients with chronic disease was likely to be from 5 to 10 years, longer than the MAPCP Demonstration. At the time of the site visit, the CHTs had not operated long enough for stakeholders to have an opinion about whether they would help reduce utilization and expenditures as expected.

4.7 Special Populations

As during the first and second years of the MAPCP Demonstration, CSI did not target any subpopulation for special treatment. CSI aimed at comprehensive practice transformation. Although not explicitly identified as target populations, however, two subpopulations emerged for increasing attention from both the administration of the CSI initiative and individual practices: (1) people with behavioral health problems and (2) people identified by payers and practices as being at high risk for unnecessary cost and utilization.

Since the 2013 site visit, the CSI administration undertook two new initiatives aimed at improving care for people with behavioral health problems. First, as noted in **Section 4.1.3**, CSI piloted CHTs in two areas of the state. Although the CHTs had difficulty hiring staff to fill

positions dedicated to behavioral health care management, the outreach provided by peer navigators and social workers in the CHTs was intended to address both social and behavioral health care needs. Second, CSI established a committee to develop recommendations for integrating behavioral health care into the PCMH, and one payer (Tufts) approved funds for implementing some of the committee's proposed activities, including coaching for practices on integrating behavioral health, enhancing a Web-based referral system, and piloting use of Web-based applications for patients' use in accessing virtual behavioral health support. Although other behavioral health initiatives occurred in Rhode Island—such as the Health Home SPA, which focused on people with severe and persistent mental illness—there was no cross-fertilization between these efforts and CSI at the time of the 2014 site visit.

As described in **Section 4.2**, during the 2014 site visit, all practices noted the enhanced attention to patients appearing on payers' lists of those at high risk for utilization by contacting them between visits and, in some areas, coordinating with the local CHT for outreach and home visits. Nurse care managers in practices in Performance Year Two-A of the developmental contract formally identified high-risk patients who had not interacted with a nurse care manager, actively reaching out to those patients and tracking results of that outreach.

In 2014, CSI continued providing support through its monthly Nurse Care Manager Best Practice Sharing Sessions. Areas of focus in the past year were caring for subpopulations with behavioral health needs and those at high risk for unnecessary utilization. One session in 2014 discussed models for providing services to people with behavioral health needs, and another session showcased examples of how a practice identified high-risk patients.

4.8 Discussion

The key features offered by CSI to primary care practices were: (1) funds to hire practice-based nurse care managers (and, in some cases, their assistants); (2) support for ongoing professional development and best-practice sharing for physicians, nurse care managers, and medical assistants; and (3) in some parts of the state, establishment of a CHT pilot to extend nurse care managers' efforts to link the hardest-to-reach populations to services. As in past years, practices reported the benefits for all patients associated with the ongoing support from CSI for the PCMH model—for example, by providing quality measure data for practices to use to monitor performance and guide improvements. Some practices used additional revenue from CSI as incentives for individual physicians or office staff.

Stakeholders governing CSI continued to refine the initiative, with regard to the type of patients on which it focused, elements of payment reform, and involvement of providers outside of primary care. For example, in 2014, payers and CSI sought to revise the nurse care manager role, concluding that providing patient education and disease management support to a broad set of patients with chronic disease was insufficient to meet CSI's utilization reduction and cost-saving goals. Stakeholders, particularly payers and state officials, noted their belief that the PCMH infrastructure, once in place, needed to focus more on the 5 to 10 percent of the patient population that was most complex and had the greatest needs. At the time of the 2014 site visit, nurse care managers, along with CHTs in pilot sites, were expected to focus on patients who had high utilization and were at high risk for future hospitalization. Practices also strengthened their efforts on patient engagement and increased their ability to follow up when patients transitioned

between care settings. Some aspects of this new focus did not work as intended. The roll-out of CHTs and payer-generated high-risk patient lists was not smooth. The launch of the CHTs was delayed because of difficulty in hiring CHT staff and a longer-than-expected time frame for making decisions about protocols for CHT outreach to patients. Both practices and CHTs found the process of triaging patients from the high-risk lists very time-intensive. In addition, practice stakeholders expressed concern that this impeded their ability to undertake broader patient education and population health improvement activities that might prevent patients from becoming high utilizers in the future.

Another change evident during the 2014 site visit was payers' increased interest in moving primary care providers toward ACOs and other risk-sharing arrangements. Several interviewees noted that CSI prepared primary care providers in the state for these other types of system redesign. Different types of stakeholders had different perspectives, however, on whether a shift to risk-sharing agreements would be a positive outcome. Payers indicated that they viewed PCMH transformation as a stepping stone to provider risk sharing, which they considered the next phase in the evolution of health system reform. There was discussion about whether practices should "graduate" from CSI and no longer receive payments. While practices contended that the CSI PMPM payments were essential to continuing practice transformation efforts, payers believed they could be supported through shared savings arrangements. At the time of the 2014 site visit, payers agreed to continue making PMPM payments through CSI, even to the mature PCMHs in the initial pilot cohort, by extending Performance Year Two to Performance Year Two-A.

A third change evident during the 2014 site visit was that more practices initiated formal relationships with hospitals, specialists, and behavioral health care providers, beyond the compacts required for CSI participation, assuming that the absence of strong secondary and tertiary care involvement in CSI hindered the ability of primary care practices to change utilization patterns. Nonetheless, work still remained to integrate hospitals and specialists with CSI.

When asked what they would do differently, knowing what they currently knew as a result of CSI, one state official summarized lessons that seemed to be the key drivers of change in the third year of the MAPCP Demonstration. She said that she would "focus on the high-cost, high-utilizer, complex members right out of the starting gate—we didn't do that. Measure total cost of care right out of the starting gate—we didn't do that. And have a glide path to shared savings and/or risk right out of the starting gate. What we have now is a situation where we have practices receiving a PMPM for years who use it, rely on it for PCMH infrastructure, but don't have a path to getting to accountability from a contractual standpoint. If I knew in 2006 what I know now, we would say, here's a 3- to 5-year strategy for primary care practice. Year One: Pay for measurement. Year Two: Pay for improvement. Year Three: Implement shared savings, upside only. Years 4 and 5: Take on downside. It can't be that neat, but what we still don't have is practices saying, 'We know what the future needs to look like, I know what I need to be in 5 years, and here's the support to help me get there so I can function in an accountable system.' I think that last one implies bringing in specialists and hospitals."

State officials, payers, and providers believed that CSI was, and continued to be, an important mechanism for strengthening primary care infrastructure in Rhode Island. All

stakeholders (including commercial payers) remained enthusiastic about the primary care practice transformation achieved by CSI. For the first time, CSI practices subject to performance-based payments met the target for reducing inpatient utilization, although they did not meet the ER utilization target.

Contextual factors also contributed to the perceived successes of CSI. One factor that influenced the continued support for CSI was Rhode Island's Affordability Standards for commercial health insurers, which counted payers' investment in CSI toward the required percentage of their total health care spending on primary care. Another factor supporting primary care practices in PCMH implementation, above and beyond CSI, was the formation of ACOs, which lent their own administrative support for health IT and quality measurement. Finally, several physicians noted that the Medicare penalty for hospital readmission encouraged hospitals to collaborate more with them.

Other contextual factors may have limited CSI's impact on utilization and costs. First, until the recent emergence of more risk-sharing arrangements (and Medicare penalties), the larger hospital systems in Rhode Island had little incentive to collaborate with CSI practices on improved coordination of patient discharges or care during an inpatient stay. Stakeholders noted that, in fact, hospitals built and advertised bigger ERs to consumers. Second, utilization may have been driven as much by behavioral health care problems as by physical health conditions. Barriers to patient access to behavioral health care specialists likely persisted because of both a limited supply of professionals overall and an even more restricted set of providers accepting Medicare and Medicaid patients.

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CHAPTER 5

VERMONT

In this chapter, we present qualitative and quantitative findings related to the implementation of the Blueprint for Health, Vermont's pre-existing multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third annual site visit to Vermont, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third site visit interviews, which occurred from November 18 through 20, 2014, two teams traveled across the state; we also conducted some telephone interviews in November. The interviews focused on implementation experiences and changes occurring since the last site visit in November 2013. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs), as well as community health team (CHT) and Support and Services at Home (SASH) program staff and provider organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We spoke with key state officials and staff who administered the Blueprint for Health and the MAPCP Demonstration to learn how the implementation of the payment model and efforts to support practice transformation progressed. We met with payers to learn about their experiences with implementation and whether the Blueprint for Health payment model is meeting their expectations for return on investment. In addition, we reviewed reports from Blueprint for Health staff to CMS and other documents to gain additional information on how the demonstration was progressing.

This chapter is organized by major evaluation domains. *Section 5.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in the Blueprint for Health. *Section 5.2* reports practice transformation activities. Subsequent sections report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 5.3*); access to care and coordination of care (*Section 5.4*); beneficiary experience with care (*Section 5.5*); effectiveness as measured by health care utilization and expenditures (*Section 5.6*); and special populations (*Section 5.7*). The chapter concludes with a discussion of the findings (*Section 5.8*).

5.1 State Implementation

In this section, we present findings related to the implementation of Vermont's Blueprint for Health and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?
- Were any major implementation issues encountered over the past year and how were they addressed?

- What external or contextual factors are affecting implementation?

The state profile in **Section 5.1.1**, which describes major features of the state’s initiative and the context in which it operates, draws on a variety of sources, including quarterly reports submitted to CMS by Blueprint for Health project staff; monthly calls among Blueprint for Health staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in November 2014. **Section 5.1.2** presents a logic model reflecting our understanding of the links among specific elements of the Blueprint for Health and expected changes in outcomes. **Section 5.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 5.1.4**, the State Implementation section concludes with lessons learned during the third year of the MAPCP Demonstration.

5.1.1 Vermont State Profile as of the November 2014 Evaluation Site Visit

The Vermont Blueprint for Health was launched in 2003 by Governor Jim Douglas to provide better management of chronic illness and to control costs. The initiative was codified in statute in 2006 as part of the state’s health reform legislation. Since that time, the state legislature expanded the initiative’s shape and reach. In 2007, the legislature directed the Vermont Blueprint for Health state office to launch a pilot of PCMHs supported by CHTs in three regions of the state. In 2010, the Blueprint for Health office was directed to expand to include at least two PCMHs in each health service area (HSA) by July 2011 and to include any practice in the state that wanted to participate by October 2013. Primary care practices throughout the state are steadily transforming to become National Committee for Quality Assurance (NCQA)-recognized PCMHs, and CHTs are in place to support them in all 14 of the state’s HSAs. CHT extender staff members have been added in all HSAs to focus solely on care for the elderly in the community through the Blueprint for Health SASH Program.

Since 2008, all major payers, both commercial and public, have been required to participate financially in the Blueprint for Health. Self-insured employers are not required to participate, although some have chosen to do so. The state made payments to practices for Medicare beneficiaries, in addition to Medicaid, until Medicare joined the Blueprint for Health as a payer in July 2011. The Blueprint for Health office continues to oversee payer participation, including Medicare and the MAPCP Demonstration.

State environment. Vermont has been on a path toward universal coverage since the passage of Act 191 in 2006. As a preparatory step, the state obtained a Section 1115 Medicaid waiver in 2005, which has since been renewed through 2016. This waiver made the state Medicaid agency a managed care organization, allowed its Medicaid program to cover residents with incomes of up to 300 percent of the federal poverty level, and established sliding-scale premiums for some beneficiaries. In 2005, Vermont also received a waiver for its long-term care population, called Choices for Care, which aims to increase this population’s access to care in their communities through home- and community-based services rather than institutional services. The waiver also set a cap on federal government expenditures on long-term care services (Crowley & O’Malley, 2008). In 2011, the legislature directed state agencies to move toward a “universal and unified health system,” using the health benefit exchange authorized by the Affordable Care Act as a base. This legislation created the Green Mountain Care Board and

charged it with expanding health care payment and delivery systems reforms, building on the Blueprint for Health. In December 2014, however, Governor Peter Shumlin announced that Vermont no longer would pursue universal health coverage because of the anticipated financial burden on Vermonters.

The three major commercial insurers in the state are Blue Cross Blue Shield of Vermont, Cigna, and the Mohawk Valley Plan (MVP) Vermont. Health care providers operate primarily in a FFS environment, although payment reform is planned and accountable care organizations (ACOs) are operating in the state. An ACO linking roughly 100 independent physicians (Accountable Care Coalition of the Green Mountains, LLC) started in 2012. Another ACO (OneCare Vermont Accountable Care Organization, LLC) that incorporates all but one of the state's 14 community hospitals began in 2013. A third ACO, Community Health Accountable Care, LLC, is a group of federally qualified health centers (FQHCs) that began in 2014. Medicare Advantage has had very low penetration in Vermont, covering only 8,368 lives in 2014.

Vermont has several programs that may influence outcomes for participants in the Blueprint for Health or the comparison population. Building on the PCMH and CHT infrastructure, the initiatives include the following:

- The Vermont Chronic Care Initiative (VCCI) is providing targeted case management to particularly high-risk Medicaid beneficiaries. VCCI case managers operate in coordination with CHT staff for patients receiving services from both programs.
- The SASH program makes CHT extender staff for care coordination available to all Medicare beneficiaries within its catchment areas through creation of SASH panels in subsidized housing complexes. The SASH model officially rolled out in July 2011 at one housing site. In October 2011, the program expanded to other affordable housing providers throughout Vermont. Since then, new sites have been added every quarter.
- Recognizing the need to integrate behavioral health services for Medicaid beneficiaries more effectively, Vermont implemented a Section 2703 Medicaid Health Home program targeting Medicaid beneficiaries with substance abuse disorders. This approach uses a “hub and spoke” model²⁰ for integrating Medication-Assisted Treatment services for substance abuse issues and co-occurring mental health disorders into the Blueprint for Health. Vermont Medicaid began implementing the model in January 2013. The state is operating the program under two State Plan Amendments (SPAs), each covering a different region of the state. The first SPA became effective July 1, 2013, and the second on January 1, 2014.

²⁰ The Blueprint for Health operates five “hubs,” in which a regional treatment center is responsible for coordinating across systems of care for people with complex addictions and mental health conditions. Hubs are supported by a network of “spokes” consisting of the prescribing physician and associated mental health and addictions professionals. Prescribing physicians provide and monitor Medication-Assisted Treatment, while the mental health and addictions professionals provide counseling and case management services.

- Vermont received a Model Testing award in early 2013 under the State Innovation Models (SIM) initiative. The state is testing a variety of shared savings ACO models, bundled payment models, and pay-for-performance models to improve care coordination and collaboration in the state and to improve performance at both population and provider levels. This work builds on the Blueprint for Health infrastructure by expanding the number of practice facilitators assisting practices with multiple facets of practice transformation. Additionally, it more closely connects Blueprint for Health primary care practices to specialty providers and expands the use of health information technology (IT) to develop a learning health system for continuous improvement. As part of the SIM work, Vermont Medicaid launched a Medicaid Shared Savings Program at the beginning of 2014. Two organizations are participating: the OneCare ACO and Community Health Accountable Care.
- In January 2014, Vermont implemented the option under the Affordable Care Act (ACA) to expand Medicaid eligibility to all adults with incomes of up to 138 percent of the federal poverty level (FPL).²¹

Demonstration scope. The Blueprint for Health has expanded steadily throughout the state. The first pilot area in the St. Johnsbury HSA launched in July 2008, followed by the Burlington HSA in October 2008 and the Barre HSA in January 2010. In 2010, the Blueprint for Health office was directed to expand to include at least two PCMHs in each HSA by July 2011. In 2011, as part of the MAPCP Demonstration, the Blueprint for Health began making payments to 63 practices across the state.

Table 5-1 shows participation in the Vermont MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The state's goal was to have 220 NCQA Physician Practice Connections (PPC[®]) PCMH[™]-recognized practices by October 1, 2013, although participation by individual practices remains voluntary. The number of participating practices with attributed Medicare FFS beneficiaries was 86 at the end of Year One (June 30, 2012); 118 at the end of Year Two (June 30, 2013); and 125 at the end of Year Three (June 30, 2014)—an increase of 45 percent overall. The number of providers at these practices increased by 48 percent over this period, from 430 to 638. The cumulative number of Medicare FFS beneficiaries who had ever participated in the demonstration for 3 or more months was 48,848 at the end of the first year, 65,896 at the end of the second year, and 78,881 at the end of the third year—an overall increase of 61 percent.

²¹ The ACA expanded Medicaid eligibility to individuals with incomes up to 133 percent of the FPL; however, there is a 5 percent income disregard so the income limit is effectively 138 percent of the FPL.

Table 5-1
Number of practices, providers, and Medicare FFS beneficiaries participating in
the Vermont Blueprint for Health

Participating entities	Number as of June 30, 2012	Number as of June 30, 2013	Number as of June 30, 2014
Blueprint for Health practices ¹	86	118	125
Participating providers ¹	430	607	638
Medicare FFS beneficiaries ²	48,848	65,896	78,881

NOTES:

- Blueprint for Health practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries that had ever been assigned to participating Blueprint for Health practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

In terms of all-payer participants, the state's goal was to have its entire population, approximately 637,130 people, in PCMH practices by October 1, 2013. The state was not successful in attaining this goal. At the end of Year Three (June 30, 2014), 271,282 all-payer participants were enrolled in the Blueprint for Health, an overall increase of 81,115, or 43 percent, since the end of Year One.

Participation by commercial and public payers is comprehensive. Medicaid, the state employee health insurance plan, and all major commercial plans (Blue Cross Blue Shield of Vermont, Cigna, and MVP Health Care) are required to participate. As of September 2014, Medicare FFS covered 24.2 percent of patients in the demonstration, whereas Medicaid FFS covered 34.7 percent, Blue Cross Blue Shield of Vermont covered 36 percent, MVP covered 4.6 percent, and Cigna covered 0.5 percent. Vermonters with incomes over 133 percent of the federal poverty level, previously covered by Medicaid under the state's Section 1115 waiver, transitioned to qualified health plans with financial help in Vermont's state-based insurance marketplace; they also participate in the Blueprint for Health. Participation by self-insured employers is voluntary, and some major employers (e.g., Fletcher Allen Health Care, an academic medical center) do not participate.

Table 5-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in the Blueprint for Health as of June 30, 2014. There were 125 participating practices, with an average of six providers per practice. Most were either office-based practices (59%) or FQHCs (22%); 10 percent were critical access hospitals (CAHs) and 9 percent were rural health clinics (RHCs). Practices were located in a mix of metropolitan (35%), micropolitan (36%), and rural (29%) counties.

Table 5-2
Characteristics of practices participating in the Vermont Blueprint for Health as of June 30, 2014

Characteristic	Number or percent
Number of practices (total)	125
Number of providers (total)	638
Number of providers per practice (average)	5
Practice type (%)	
Office-based practice	59
FQHC	22
CAH	10
RHC	9
Practice location type (%)	
Metropolitan	35
Micropolitan	36
Rural	29

ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health clinic.

SOURCE: ARC Q12 MAPCP Demonstration Provider File. (See Chapter 1 for more detail about this file.)

In **Table 5-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating Blueprint for Health practices during the 3 years of the MAPCP Demonstration (July 1, 2011, through June 30, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Nineteen percent of the beneficiaries assigned to Blueprint for Health practices during the first 3 years of the MAPCP Demonstration were under the age of 65, 48 percent were 65 to 75, 23 percent were 76 to 85, and 9 percent were older than 85. The mean age was 70. Beneficiaries were almost all White (97%). Less than one-third lived in urban areas (31%), and more than half were female (57%). Twenty-seven percent of beneficiaries were dually eligible for Medicare and Medicaid, and 26 percent were eligible for Medicare originally because of disability. Less than 1 percent of beneficiaries had end-stage renal disease, and less than 1 percent resided in a nursing home during the year before their assignment to a Blueprint for Health practice.

Table 5-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating
in the Vermont Blueprint for Health from July 1, 2011, through
June 30, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	78,881
Demographic characteristics	
Age < 65 (%)	19
Age 65–75 (%)	48
Age 76–85 (%)	23
Age > 85 (%)	9
Mean age	70
White (%)	97
Urban place of residence (%)	31
Female (%)	57
Dually eligible beneficiaries (%)	27
Disabled (%)	26
ESRD (%)	0
Institutionalized (%)	0
Health status	
<i>Mean HCC score groups</i>	0.97
Low risk (< 0.48) (%)	27
Medium risk (0.48–1.25) (%)	52
High risk (> 1.25) (%)	21
<i>Mean Charlson index score</i>	0.68
Low Charlson index score (= 0) (%)	67
Medium Charlson index score (≤ 1) (%)	17
High Charlson index score (> 1) (%)	16
<i>Chronic conditions (%)</i>	
Heart failure	3
Coronary artery disease	9
Other respiratory disease	9
Diabetes without complications	15
Diabetes with complications	3
Essential hypertension	32
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	5
Renal failure	2

(continued)

Table 5-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating
in the Vermont Blueprint for Health from July 1, 2011, through
June 30, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	
Peripheral vascular disease	1
Lipid metabolism disorders	19
Cardiac dysrhythmias and conduction disorders	9
Dementias	1
Strokes	1
Chest pain	4
Urinary tract infection	3
Anemia	5
Malaise and fatigue (including chronic fatigue syndrome)	3
Dizziness, syncope, and convulsions	5
Disorders of joint	7
Hypothyroidism	5

NOTES:

- Percentages and means are weighted by the fraction of the year for which a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary's first being attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

Using three different measures— Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries' health status during the year before their assignment to a Blueprint for Health practice. Beneficiaries had a mean HCC score of 0.97, meaning that Medicare beneficiaries assigned to a Blueprint for Health practice in the third year of the MAPCP Demonstration were predicted to be 3 percent less costly than an average Medicare FFS beneficiary in the year before their assignment to a participating Blueprint for Health practice. Beneficiaries' average score on the Charlson comorbidity index was 0.68; two-thirds (67%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before their assignment to a participating Blueprint for Health practice.

The most common chronic conditions diagnosed were hypertension (32%), lipid metabolism disorders (19%), and diabetes without complications (15%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. Practices that joined the initiative before January 1, 2012, were required to reach at least Level 1 PCMH recognition based on 2008 NCQA PPC®-PCMH™ standards. Practices becoming recognized as PCMHs after January 1, 2012, had to attain at least Level 1 PCMH recognition, based on 2011 NCQA PCMH standards. NCQA PCMH recognition is valid for 3 years, after which practices must reapply for recognition; the Vermont Child Health Improvement Program assesses practices for the Blueprint for Health every 3 years, scoring them in preparation for submission of their information to NCQA. In addition, Vermont requires practices to do the following:

- Designate a quality improvement team that meets at least monthly and works with the state quality improvement program, EQUIP (Expansion and Quality Improvement Program);
- Have an agreement with their local CHT and integrate the CHT services into their practice; and
- Enter into an agreement with Vermont Information Technology Leaders (VITL), which provides assistance to practices adopting electronic health record (EHR) systems. Practices must also demonstrate progress toward being able to communicate with the statewide clinical registry, DocSite. DocSite aggregates patient-level data from providers and allows providers to run reports that facilitate panel management.

The state also provides learning collaboratives for Blueprint for Health physician leaders, nurses, officer managers, and other staff.

Support to practices. Private and public payers pay PCMHs on a scale ranging from \$1.20 to \$2.39 (for those with 2008 NCQA recognition) or \$1.36 to \$2.39 (for those with 2011 recognition) per member per month (PMPM) based on their NCQA PCMH recognition score.²² From July 1, 2011, through June 30, 2014, demonstration practices received a total of \$14,405,420 in Medicare MAPCP Demonstration payments.²³

Each CHT receives \$350,000 annually to support a general patient population of 20,000, which covers approximately five full-time positions in multiple disciplines within the core CHT. Each payer (with the exception of Medicare) contributes a percentage of the total CHT budget based on insurer market share. Changes in insurer market shares resulted in the renegotiation of these percentages in 2013. The contributions of Blue Cross Blue Shield of Vermont and Vermont Medicaid increased from 22 percent to 24.22 percent of the total cost of the CHT, while the proportion contributed by Cigna decreased from 22 percent to 18.22 percent. Mohawk Valley plan, a small health plan, contributes 11.22 percent, a small increase from the 11 percent contributed before 2013. Medicare continues to support the CHTs on a PMPM basis based on

²² The PMPM payment amounts do not reflect the 2 percent reduction in Medicare payments that began in April 2013 as a result of sequestration.

²³ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

actual enrollment of Medicare beneficiaries. Additionally, under the MAPCP Demonstration, the Medicare program made a \$5.21 PMPM payment to support the SASH program.

The composition and skills of the CHT staff are decided locally on the basis of local needs. CHTs coordinate care, services, referrals, transitions, and social services; provide self-management support and counseling to individuals with chronic illness; and incorporate extenders, including the SASH program staff and the VCCI care coordinators. CHTs are providing motivational interview training to providers and holding Healthier Living self-management workshops. They have also implemented shared decision-making.

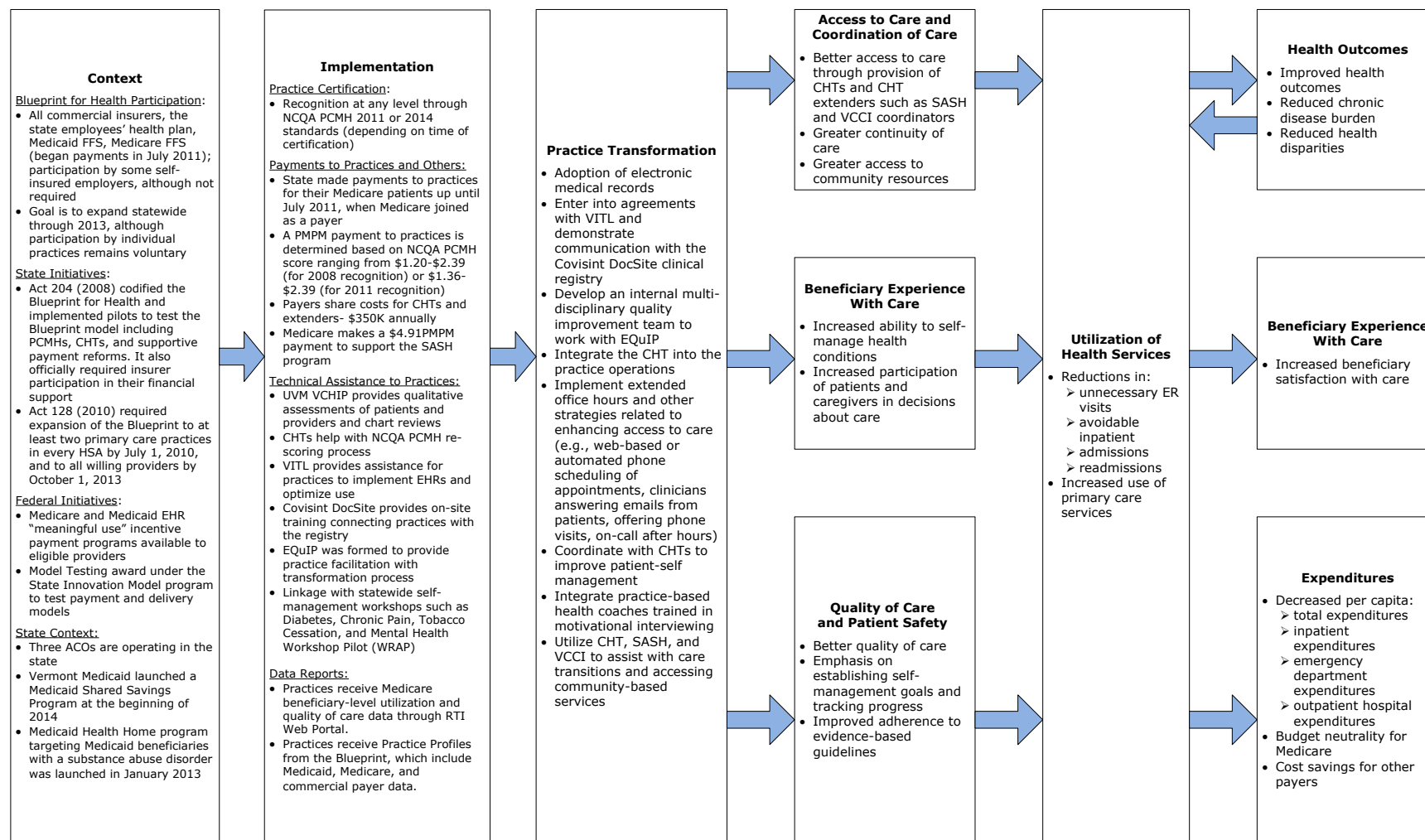
The Vermont Blueprint for Health has invested significantly in practice transformation assistance, funding EQuIP to provide practice facilitation. EQuIP facilitators teach the primary care practices change theory; assist with practice team development, NCQA application preparation, implementation of EHRs, and rapid change cycle projects focused on patient-centered care; and coordinate with CHTs and other practice support resources. According to the Vermont Child Health Improvement Program EQuIP Facilitators' Reports on Encounters with Primary Care Practices (Krulewitz & Adams, 2013), facilitators reported spending, on average, 6–10 hours over the course of a month with practices preparing for NCQA recognition. CHTs now work with practices, particularly small practices, 6 months before NCQA scoring to assist them in meeting the more stringent 2011 NCQA PPC[®]-PCMH[™] requirements. A memorandum of understanding allowing the “front-loading” of CHT payments to facilitate this work is in place for commercial payers and Vermont Medicaid, but not for Medicare.

In addition, the Blueprint for Health registry vendor (Covisint) provides on-site help connecting practices with the DocSite registry and on-site training enabling practices to generate their own reports. Blueprint for Health leaders have begun thinking about transitioning DocSite to a new registry system because Covisint is planning to alter its business model, shifting away from health care. Blueprint for Health staff has collaborated with IT partners to provide more intensive health IT support to practices through a “sprint” process, with the goal of establishing accurate, timely, and reliable data reporting. In 2014, VITL launched a new provider portal, called VITL Access, which allows providers to search and retrieve a variety of records, including clinical summaries, medication histories, laboratory results, and hospital discharge summaries.

5.1.2 Logic Model

Figure 5-1 is a logic model of the Blueprint for Health, updated to incorporate changes made during the third year of the MAPCP Demonstration. The first column describes the context for the demonstration, including the scope of the Blueprint for Health, other state and federal initiatives affecting the state initiative, and key features of the state context affecting the demonstration, such as three ACOs operating in the state, as well as two ongoing Medicaid initiatives. The demonstration context impacts the implementation of the Blueprint for Health, including practice certification requirements and the provision of payments, technical assistance, and data reports to practices. Implementation activities are expected to promote transformation of practices to PCMHs, reflected in care processes and activities. Beneficiaries served by these transformed practices are expected to have better access to more coordinated, safer, and higher quality care, to have a better patient experience with care, and to be more engaged in decisions about treatments and management of their conditions. These improvements promote more

Figure 5-1
Logic model for Vermont's Blueprint for Health



ACA = Affordable Care Act; ACOs = accountable care organizations; CHTs = community health teams; EHR = electronic health record; EQuIP = Expansion & Quality Improvement Program; ER = emergency room; FFS = fee-for-service; NCQA = National Committee for Quality Assurance; PCMH = patient-centered medical home; PMPM = per member per month; SASH = Support and Services at Home; UVM VCHIP = University of Vermont, Vermont Child Health Improvement Program; VCCI = Vermont Chronic Care Initiative; VITL = Vermont Information Technology Leaders.

efficient utilization of health care services, including reductions in inpatient admissions, readmissions, and emergency room (ER) visits and increases in primary care visits. These changes in utilization are expected to produce further changes, including improved health outcomes, improvements in beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for Medicare and cost savings for other payers. Improved health outcomes, in turn, are expected to reduce utilization further.

5.1.3 Implementation

This section uses primary data gathered from interviews conducted in November 2014 and other sources and presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 5.1*.

Major Changes During the Third Year

Continued rollout of hub and spoke model. In the third year of the demonstration, Vermont continued to roll out the hub and spoke model, under the authority of Section 2703 (Health Homes) of the Affordable Care Act (see *Section 5.1.1*). Although Vermont began implementing the model in January 2013, it did not receive the 90 percent federal match funding until its two SPAs took effect in July 2013 and January 2014, respectively. One state official said that the federal match funding “helps bring the program closer to being cost neutral” for the state. She added that she was hopeful, as the program became established, that “it can lead to lower costs in other areas and make the program sustainable after bridge funding ends.”

In 2014, the hub and spoke model expanded to serve commercially insured patients. Commercial payers developed contracts with each of the five hubs, regional treatment centers responsible for coordinating care for people seeking opioid addiction treatment. The Blueprint for Health began running data through Vermont’s all-payer claims database, Vermont Health Care Uniform Reporting and Evaluation System (VHCURES), to identify commercially insured patients who sought care for opioid addiction to try to recruit them into the program.

New health information technology platforms. Vermont built additional health IT infrastructure by introducing two new tools: VITL Access and the Blueprint for Health Web Portal. VITL Access is a secure portal allowing practices to query aggregated patient information from various providers and health systems obtained through the Vermont Health Information Exchange. The Blueprint for Health Web Portal is another provider portal allowing practices and CHTs to upload information, for example, to attest to patient demographics in their panel and to update information on their providers and staff. One state official thought the Portal “has the potential to help capture workforce data,” a process previously done manually by state staff.

Major Implementation Issues During the Third Year

Payments insufficient to support practices and CHTs. Stakeholders broadly agreed that the Blueprint for Health payments no longer are sufficient to support operational costs and cost of living wage increases for practice and CHT staff. Payment amounts had not changed since 2008. State officials hear that some practices were considering dropping out of the Blueprint for Health, saying that the supplemental payments are “not worth it” compared to the resources necessary to maintain PCMH infrastructure and the costs associated with achieving NCQA recognition. Practices did, however, widely value the CHTs as a referral resource for care

coordination and other services. One state official felt that “the CHTs may have been a bigger selling point [to practices] than the PMPM.”

Further, CHT funding did not keep pace with the number and type of staff, especially behavioral health professionals, necessary to serve patients adequately. CHT administrative entities continued to subsidize CHT operation. Blueprint for Health leaders began considering options to help mitigate funding challenges faced by practices and CHTs. They submitted a report to the legislature to propose a plan for increased payments, although they also considered developing a new payment methodology that added a quality-based payment either instead of or in addition to the PMPM payment.

Lack of CHT accountability. CHTs are not required to track specific interactions with patients. This continued to frustrate commercial payers in Year Three because it inhibited them from getting data to determine the proportion of their beneficiaries served by CHTs or to analyze return on investment. One payer said he wanted to see encounter data from CHTs to be “more precise in knowing what interventions influence which changes and outcomes and which services are most beneficial to certain populations.” Another payer noted that support for CHTs was weak among self-insured purchasers because “we [payers] can’t show employer-groups what is happening.”

External and Contextual Factors Affecting Implementation

ACO growth in the state. ACOs have had an increasingly large presence in Vermont, especially a third ACO launched in 2014. One state official reported, “Virtually all Blueprint practices have enrolled in an ACO.” On January 1, 2014, Medicaid launched its ACO Shared Savings Program Pilot, which awards financial incentives in the form of shared savings to ACOs that improve quality of care and reduce costs for Medicaid beneficiaries. All three ACOs in the state entered into performance-based contracts with multiple payers—Blue Cross Blue Shield of Vermont, Medicaid, Medicare, or a combination of these. Over the past year, Blueprint for Health leaders and other stakeholders put much effort into aligning quality metrics across the Blueprint for Health and individual ACO shared savings programs. Interviewees remained uncertain about what role CHTs would play in ACOs. One state official suggested that CHTs could provide ACOs with staff for care management for high-need patients. One CHT interviewee remained hopeful that the Blueprint for Health and ACOs could merge to “build one aligned infrastructure.”

Other health reform initiatives. Interviewees agreed that the Blueprint for Health paved the way for Vermont’s other delivery system reform initiatives. Vermont’s SIM award is testing a variety of payment models, including shared savings ACOs, to improve integration and coordination of care across providers. SIM aims to align with and build upon existing Blueprint for Health primary care infrastructure, including expanding CHT capacity to identify and target support services to high-need patients. The SIM award is also providing funding to develop a statewide, robust health IT infrastructure, an added resource to Blueprint for Health practices that struggle with health IT challenges throughout the demonstration.

Vermont also was developing a single-payer health care system, but, after the site visit, Governor Peter Shumlin announced the suspension of this effort because of budgetary constraints. It is not certain how this will affect the Blueprint.

Effect of Medicare's Decision to Extend the MAPCP Demonstration in Vermont

Sustaining funding levels for CHTs and the SASH program. Before the CMS decision to extend the MAPCP Demonstration through 2016, the uncertainty about Medicare's continued participation in the Blueprint for Health posed implementation issues for CHTs and SASH teams. Because Medicare supports CHTs through PMPM payments based on actual enrollment of Medicare beneficiaries, losing that portion of funding was expected to limit the size and scope of CHTs. One state official lamented that, if Medicare exited the demonstration, it did not seem feasible for Vermont to make payments on behalf of Medicare as it had done previously. Additionally, state officials agreed that, without Medicare, the SASH program would no longer be financially viable because it serves almost entirely Medicare beneficiaries. One state official reported that the uncertainty about SASH makes it "an increasingly harder sell to new housing organizations, because the program might be time-limited." SASH interviewees similarly reported slowed momentum in participant enrollment and difficulties recruiting and retaining staff. While state officials were relieved about the extension, they recognized that this was, once again, a time-limited extension, and they planned to use the time to develop a plan for sustainability.

5.1.4 Lessons Learned

Several key lessons emerged during the third site visits.

Multi-payer participation benefits practices. State officials underscored that practices need an aligned payment model supported by multiple payers to be able to manage population health effectively. Practices participating in the Blueprint for Health transformed their whole practice to align with PCMH core tenets and provided the same level of care to patients regardless of payer. One state official emphasized that an initiative "needs a critical mass of payers to make [practice transformation] financially viable" for practices. One payer felt that, with multiple payers, even a "modest investment can incentivize change."

Payment methodology should be updated to meet participants' needs. Blueprint for Health leaders recognized that the initiative's payment structure no longer adequately supports practices' PCMH infrastructure and CHTs' operational costs. Because payments hadn't changed since 2008, they did not account for inflation and cost of living wage increases for staff. One payer stated, "There should have been a more gradual change" in payment amounts over the years, but conceded that "would have been hard to do while Blueprint was still proving its value."

Providers should be engaged as partners. Providers are crucial partners for the state in driving practice transformation and culture change. One payer verified this observation: "[To] make this [initiative] work, you really have to invest in and partner with practices on the ground. The Blueprint staff definitely has demonstrated that it takes a lot of time to build relationships with practices."

5.2 Practice Transformation

This section describes the features of the practices participating in Vermont's Blueprint for Health, identifies changes made by practices to take part in the demonstration and meet

ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in late 2014, emphasizing changes that occurred since our interviews in late 2013.

Since the 2013 site visit, Vermont practices evolved and adopted changes to their care coordination services, their staffing, and their use of data and health IT resources. Many or most of these changes were related to their efforts to refine and improve the services provided, and some were related to the changing environment, specifically the affiliation of some practices with an ACO. The relationship between practices and CHTs strengthened throughout 2014 and was critical for expanding practices' service capabilities. The CHTs also played an increasingly significant role in helping practices recertify with NCQA.

Most interviewees felt that the Blueprint for Health was beneficial for expanding care coordination and targeting care to certain groups of higher-risk individuals. Diabetic and asthma patients were a greater focus, with numerous practices stating that they had educators come in to the practice about once a month. During the 2013 site visit, practices were concerned about the sustainability of the Blueprint for Health when funding from the MAPCP Demonstration was scheduled to end in June 2014. During the 2014 site visit, all practices were relieved that demonstration funding would continue to support the Blueprint for Health. Although many providers noted a great deal of pressure to fulfill the expected requirements, most agreed that support from the Blueprint for Health was invaluable.

5.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes made by Blueprint for Health practices since the prior site visit and new practice improvement projects that had been adopted. These changes often arose from practices' desire to improve their performance as PCMHs, rather than in response to specific Blueprint for Health requirements.

PCMH recognition and practice transformation. Practices made changes to their primary care delivery system related to NCQA PPC®-PCMH™ recognition, care management processes, staffing, and health IT to participate in the Blueprint for Health.

The Blueprint for Health requires that participating practices obtain NCQA PPC®-PCMH™ recognition. Early entrants in the Blueprint for Health qualified under NCQA's 2008 PPC®-PCMH™ standards, while later entrants were required to qualify under the 2011 standards, perceived as being stricter. Practices moved to the more updated standards (2008 to 2011, and 2011 to 2014 for new practices.) None of the practices hinted at dropping out of the Blueprint for Health because of NCQA challenges, but a state official was concerned that some providers might withdraw if the new standards didn't bring payment increases.

A CHT leader explained that practices in her HSA worked on recertifying with NCQA under the new 2014 standards. So far, two of her practices had submitted their applications and were awaiting the outcome. The other four practices in this HSA also planned to recertify under the 2014 standards. The CHT leader thought that it would be difficult to provide the documentation required for the 2014 standards and retain Level 3 recognition. It would also be increasingly difficult for her CHT to assist practices with rescoring because of inadequate funds to support staff. Aside from the challenges associated with obtaining NCQA 2014 recognition,

the CHT mentioned that going through the process to obtain this recognition helped improve care coordination between specialty and primary care practices. The CHT said that this improved care coordination is necessary for cost savings and allocating resources more efficiently for patients.

Many practices reported initially being overwhelmed by the 2014 standards, but said that it became easier and more useful with time. One practice said that keeping up with the NCQA standards was a challenge in the short run, but that, once implemented and used every day, these standards were beneficial in the long run. At first, this practice did not use their social worker, but started using her and her services increasingly throughout 2014. Since embracing these standards, the social worker helped the practice improve their care planning process and provided increased connection to health services, such as helping patients schedule physicals.

One CHT representative discussed NCQA's standards for health IT, noting that EHRs had not kept pace with NCQA requirements, which was a burden for providers. NCQA 2014 asked providers to create a log of EHR customization, which practices had to pay for themselves. Pediatric practices mentioned that it was difficult to customize their EHR because the Blueprint for Health lacked many specific measures related to children.

Numerous practices mentioned the early difficulties in finding the time to incorporate CHTs into their workflow for NCQA recognition. They made an increased effort in 2014 to work with CHTs, and the logistical issues were resolved. Most practices viewed the increasing NCQA standards as a challenge, but said this was valuable in keeping the practices moving forward.

Practice staffing changes. Throughout 2014, staffing at the practices largely remained the same since our site visit in 2013. The most significant changes were an increase in CHT staff such as care coordinators, social workers, dieticians, asthma educators, and psychiatrists. One practice mentioned that they planned to merge with another local practice and would be able to offer shared services, such as asthma education and diabetes education. This practice was expanding to five full-time providers.

During our 2014 site visits, practices overwhelmingly agreed that they had better care coordination and access to social workers. One pediatric practice mentioned that their care coordinator attended more care conferences, engaged families in quality meetings, and spoke at local schools, child protection meetings, and Vermont Department for Children and Families meetings. In a previous site visit, this pediatric practice lacked the funding for their care coordinator to interact with the community, so substantial improvements were made over the past year. The care coordinator said, "If everyone in the family is getting heard, if their needs are being met, then we will be better positioned to meet the children's needs."

Another practice mentioned that, throughout 2014, they increased their use of CHT staff for diabetes education. The focus on diabetics was this practice's biggest initiative over the past year. They worked with endocrine specialists to develop a diabetic care pathway, and, as part of that work, they realized it would be helpful to have a certified diabetes educator on the CHT seeing patients at the sites. Data from the Blueprint for Health practice profiles highlighted diabetes as an important focus for this practice. Numerous other practices also hired a diabetes educator within the past year. One rural practice had a new dietician who visited their clinic twice a month, and an asthma educator who came once a month. One practice mentioned that

their institution allowed them to have a consulting psychiatrist at each clinic site one half-day a week. The practice said that having embedded behavioral health specialists in the practice greatly benefitted patients with depression. Overall, practices cited increased access to and use of care coordination as the most significant staffing improvement. The new staff lightened physicians' workload, so they could devote maximum time to patient care.

Provider attrition was an issue during the 2014 site visit. One rural practice had a staffing crunch in early 2014, when multiple doctors left or retired at the same time. They had a nurse practitioner who offered weekend hours, but, since her retirement, this practice no longer operated on Saturdays. This practice was more aggressive in recruiting doctors and physicians assistants in 2014 to make up for their loss, but said that recruiting was difficult in rural areas. They also mentioned that it was difficult for patients, especially those who had seen a specific doctor for their whole life and had built a lasting relationship.

Health information technology. Since the 2013 site visit, practices made enhancements in their use of health IT. Although VITL Access was a new platform for aggregating EHR information into one secure portal statewide, none of the providers mentioned using the system. Overall, most practices already using EHRs reported that they felt more comfortable with the electronic system. Providers made revisions to make it more patient friendly and transformed it into a better patient tracking device. One practice stated, "The EHR was misery for the first year, then it becomes invaluable and routine. That learning curve is very difficult." That practice felt that the EHR has been sufficiently standardized to enable them to find needed information about patients more easily.

Before EHRs, practices mostly relied on paper or DocSite. DocSite is a Web-based clinical registry system that is accessible by providers statewide. It is provided by the Blueprint registry vendor Covisint, which offers on-site training to help practices generate their own reports. Some of its features include creation of individualized visit planners for health maintenance and chronic disease, sophisticated reporting for population management, and electronic prescribing. During our 2013 site visits, practices stated that DocSite was unreliable for reporting and had many data accuracy issues. Our 2014 site visits yielded similar findings; as one provider said, "I'd rather chew glass than have to work in DocSite."

Throughout 2014, numerous practices mentioned their shift from DocSite to EHRs offered by VITL. This transition resulted partly from frustration with the interoperability between DocSite and other HIE systems offered by VITL. Practices worried about the accuracy of the claims data provided by DocSite because they saw large differences from their internal charts. Another reason for the noticeable shift was that DocSite would vanish within the next few years, as Covisint left the health care sector. Users will transition to a new EHR system.

Other practices, who previously did not use EHRs, said that they saw a huge shift from paper to electronic records within the past year. These practices noted that that they had care plans included in the EHR and health literacy built into the notes. They appreciated getting the information they needed straight from the medical records.

In 2013, EHRs weren't very informative, but throughout 2014, the electronic systems were much more open, which promoted their greater acceptance. With increased standardization,

practices found that they were able to track how many patients were controlled diabetics, for example.

5.2.2 Technical Assistance

Practices reported receiving a variety of technical assistance in 2014. This included receiving practice profiles from the Blueprint for Health, as well as IT help, training, and support from the CHTs. The CHTs helped practices with the rescoring process with NCQA. Some CHT resources were used for reaching patients, a self-management requirement for NCQA.

One provider participated in a Blueprint for Health-sponsored screening collaborative, provided for several clinics, about prevention and found it extremely helpful; discussions focused on colonoscopy, breast cancer, and cervical cancer screenings. The provider said that the collaborative motivated him to track his patients better.

Practices and one CHT said that they found the practice profiles provided by Blueprint for Health to be very helpful. The practice profiles are being produced by the Blueprint for Health using the VHCURES data (i.e., data from the all-payer database). The profiles helped a practice to compare their performance to other practices throughout the region and state. They also helped practices to plan quality improvement initiatives and care coordination and supported collaboration among practices. At the 2013 site visit, only one practice had seen the profiles. During our 2014 site visit, more practices reported having seen the practice profiles and commented on their usefulness.

The CHT mentioned that they hoped the profiles would link to clinical quality measures in the future; at the time, the profiles were based only on claims. Another CHT said, “I think they have a lot of promise.” A state official also felt that practices found the profiles helpful, stating that they felt that they were getting meaningful data. Providers felt that these profiles were motivational and helped practitioners feel that they weren’t outliers. One provider still noted frustration with the data lag, and said that reports weren’t received frequently enough. This provider mentioned that the data lag was expected to improve as the Blueprint for Health began creating the reports every 6 months starting in 2015. Two practices said that internal data were more useful than what was provided to them externally.

In general, practices and CHTs were not familiar with the RTI reports provided through the Web portal. Specific interviewees perhaps were not the right person to question, but one staff member, who wasn’t computer savvy, described difficulty accessing the reports through the portal. One practice remembered seeing the reports in the past, but said that these reports had fallen off their radar. One CHT member was familiar with RTI’s Web portal, and she looked at the Practice Feedback Reports, utilization, cost, and quality data. She thought the data were old compared with data she got from her EHR. She said, “RTI’s Web portal is not helpful to us compared to everything else we get.”

5.2.3 Payment Support

Over the past year, funds from the Blueprint for Health initiative were used for hiring additional staff or enhancing the use of current staff. Some providers were unaware of how medical home payments were spent, while others said they wanted additional funds for

expansion or increasing their focus on such critical areas as behavioral health. The overall impression from practices and CHTs was that the payments were insufficient to support this model, which relies on a combination of the CHT plus the practice to provide care for patients.

A practice described the funding situation as a negative aspect of participating in the Blueprint for Health initiative. Payment levels made practices feel stretched, and the burdens of meeting NCQA standards were resource intensive. One practice said that the payments were not enough to cover the costs of transformation and infrastructure. They had to bear the financial burden and hire extra staff to help with meeting NCQA standards.

Many practices used their MAPCP Demonstration payments on increased care coordination. A pediatric practice used their payments to fund their care coordinator and provide greater opportunities for the coordinator to go to care conferences and do community outreach. Another practice said that they were unsure about how their MAPCP Demonstration payments were spent. They were not sure if payments to support medical home infrastructure covered NCQA PCMH requirements, and they said that it was hard to know because payments flowed into accounts in different ways.

CHT administrators continued to subsidize CHTs in cases where \$350,000 was not sufficient for the region. While the Blueprint for Health PMPM payments went to practices, the CHT funds went to the overall region intended serve a population of 20,000. One CHT member explained that it was a delicate act to balance the funds for her CHT, especially because they had about 22,000 patients during 2014. A portion of the CHT funds were used to help practices achieve NCQA goals; however, even achieving a high score for NCQA brought the practices only a small PMPM amount.

Overall, practices felt that the funds they received were insufficient. Payments averaged \$2.00–\$2.50. One practice said that payments needed to be close to \$6–\$8 PMPM to support services. For example, some practices noted that behavioral health was massively underfunded. Opioid and other substance abuse treatment was targeted through Vermont's hub and spoke program, but providers said that they desperately needed support for improved general behavioral health integrated within their practices. Practices wanted to embed psychiatrists and therapists to offer services, such as depression assistance. One practice piloted behavioral health specialists in their office, but it was not financially viable and did not last. They wanted greater financial resources to embed behavioral health specialists within their practice. That was the biggest area this practice lacked and where they believed they would benefit from additional funds.

A pediatric practice reiterated that shifting statewide attention to prevention and identifying children's and families' needs from the beginning would save a lot of money. The pediatric provider mentioned that behavioral health for children would have a quick turnaround time. They wanted to assess families and allocate resources to encourage children to stay in school and adopt healthy eating habits to prevent future diabetes. A major barrier to getting these needed funds was state politics. The pediatric provider said that politicians in office for only 8 years did not see the turnaround that children's health care provided.

One CHT said that it had no increase in funds from commercial payers since 2008. Its team members were excited to hear that the MAPCP Demonstration is continuing, because its termination would have been a significant loss in their HSA. This CHT thought that the Blueprint for Health was working hard to change payments, and that change was needed to finance the CHT successfully.

5.2.4 Summary

Practices participating in the Blueprint for Health made improvements to their care management processes and health IT over the past year and generally felt positive about how implementation progressed. Practices increased their use of care coordination and provided additional services through the support of their CHT. As in the 2013 site visit, we heard that practices needed additional resources to support behavioral health, specifically for patients with substance abuse and mental health issues.

Staffing remained similar to that of last year among the practices. The exception was a rural practice that lost multiple doctors and a nurse practitioner to retirement in early 2014. The practice found this difficult because of its geographic isolation from new talent and the termination of patient-doctor bonds formed over decades. Other practices increased their use of CHT staff to focus on diabetic education, nutrition, and asthma.

Health IT played an increasingly important role in practices over the past year. Many practices transitioned from paper records to an EHR, and many discovered ways to make their EHR more efficient and customized to their patients' needs. Most providers felt that the EHR initially was confusing, but, after learning the system, they found it very useful. We heard criticism from a pediatric practice about being unable to customize their EHR for the needs of children. This practice often said that a major drawback to participating was "that the Blueprint for Health is not a blueprint for kids."

Technical assistance was provided by the Blueprint for Health through the learning collaboratives, training, and practice profiles. Most practices made favorable comments about the technical assistance they received during 2014. The main criticism was that RTI's Web portal was either not useful or not used by a majority of practices.

As in the 2013 site visit, the payments received by practices through the Blueprint for Health were appreciated, but most practices agreed that the payments did not fully support the services expected of them to function as PCMHs. Most of the payments went to the CHTs and care coordination, which in turn supported the practices. Most practices mentioned that, with additional funds, they wanted the CHT's to expand their services, specifically to fill the gaps in behavioral health care.

5.3 Quality of Care, Patient Safety, and Health Outcomes

During the past year, practices engaged in many activities focused on improving quality of care and patient health outcomes. Activities included increasing the use of preventive care services and developing transition policies.

Several practices reported the implementation and, in some cases, continuation of weekly staff meetings aimed at improving the quality of patient care. These meetings were used to discuss more complex cases and ensure that patient needs were met. One practice reported the duration of these meetings to be 1 hour and 30 minutes. These meetings not only increased quality of care, but also offered an opportunity for team building within the medical home.

Increasing the use of preventive care to improve health outcomes was a focus for some practices during Year Three. One practice reported an initiative aimed at increasing the use of primary care for preventive services, instead of waiting until the patient became sick and used the ER. This practice used EHR reports to flag patients in need of preventive care services for chronic diseases such as diabetes. For example, if a patient with diabetes did not have an HbA1c test done within the past 6 months, the patient was flagged and contacted to come in for a visit. This practice also coached their physicians to encourage patients to get physical exams to increase prevention. The number of physicals increased, and the practice saw an increase in patient visits. One area of improvement reported by the practice was encouraging patients age 20–30 to come to the physician even when healthy. This age group mainly saw a physician when they were sick, so the practice wanted to increase this group's preventive care. Even though there was an improvement in the use of preventive services during the past year, one practice reported that there were differences in coverage between Medicaid and Medicare. Medicaid covers lipid testing every year, but this testing is covered only every 5 years for Medicare patients. This variance in coverage made it difficult to implement preventive services among all patients, although this practice still reported an increase in screenings and physicals.

To increase the use of preventive services for older populations, one practice reported reviewing registries to identify patients in need of a preventive service or chronic disease control. Once a patient was identified, the practice contacted the patient to schedule a visit or make a referral. Another practice also reported conducting more follow-up with high-risk populations, which the practice defined as patients with A1c levels greater than 9 and patients with greater risk of ER use. Upon follow-up, patients were given tools to help manage their conditions.

Regarding other improvements in quality measures, one SASH program staff member reported an increase in the number of participants with a recognized primary care provider. DocSite flagged SASH participants without a primary care provider, and the SASH program subsequently connected the participant to a provider. This SASH staff member reported a higher number of participants receiving immunizations and an increase in nutrition scores, reflecting improvement in the quality of care received by the participants. The SASH staff member also reported a significant reduction in falls, a continuation of a trend seen in previous years. One new focus this year for SASH was on medication reconciliation. One SASH staff member reported that, upon enrollment in the SASH program, patients were seen immediately in a doctor's office, and the nurses advised patients on their medications.

Over the past year, a pediatric practice focused on developing a transition policy in which patients age 12–13 were transitioned from a pediatric to an adult physician. This policy was intended to encourage pre-teen and teen patients to become more independent and have a better understanding of their medical treatment. Through this policy, the pediatrician interacted solely with the patient and then relied on the patient to relay their medical information to their parent.

5.4 Access to Care and Coordination of Care

During the past year, there were positive changes in access to care through the expansion of practice business hours. One practice added early lab hours, opening at 6:00 a.m. instead of 8:00 a.m. on certain weekdays. This same practice advertised having urgent care capabilities due to their extended office hours. While practices continued to expand office hours, barriers still existed. For example, one practice reported expanding their hours during the week, but they were unable to offer weekend hours because staff were unavailable. Transportation was another barrier to access. To address this barrier, the care coordinator at one practice helped patients in arranging transportation.

During the 2014 site visit, practices reported an increased use of CHTs to coordinate care for patients more effectively. Many practices reported meeting with the CHT to discuss patients with complex medical needs, with the goal of connecting patients with resources in the community to meet both the patient's and family's needs.

One practice reported a positive change in increasing coordination with the CHT. Previously, finding time to meet regularly basis with the CHT was difficult. The practice hired a new staff person in charge of planning meetings with the CHT, and working with the CHT became more routine in the workflow. EHRs helped this practice to coordinate better with the CHT because of its ability to send and receive notes from the CHT.

Practice coordination with SASH program staff was an area that improved during the past year. Practices reported increased recognition of the SASH program among patients, and SASH was viewed as a reliable resource within the community. One SASH staff member reported that, while their program was generally well known and respected, some practices and hospitals were still unaware of the program. When this occurred, the SASH staff member mentioned that the SASH program was related to the Blueprint for Health, and then SASH was "immediately respected."

Another SASH staff member reported an integrated relationship with community practices that did not exist previously. As part of this integrated relationship, SASH program staff met with practices monthly by phone to discuss patients in need of community resources. For example, a patient with a broken leg required the coordination of resources, and the SASH team arranged for physical therapy and medical equipment not covered by the patient's insurance. Many of the SASH teams had success in coordinating with both practices and CHTs, which the SASH team believed was because they were viewed as a permanent presence that could be relied upon.

5.5 Beneficiary Experience With Care

Some features expected to improve beneficiary experience with care are described in previous sections, such as improved access to care, coordination of care, and quality of care. This section focuses specifically on features intended to improve patient engagement and self-management.

One Blueprint for Health strategy to support patients in managing their own health is conducting Healthier Living Workshops, also referred to as Self-Management Workshops. These

began in Year One and continued in Years Two and Three. Implementation of the Self-Management Workshops and Leadership Training was transitioned to the Greater Burlington YMCA in Quarter 3 of 2014. Similar to last year, most providers said that they referred patients to the Healthier Living Workshops. Providers at a pediatric practice again noted that the topics were not very relevant for their pediatric patient population, and so they did not refer patients to participate. Four out of the six SASH program staff interviewed reported unsuccessful attempts at hosting Healthier Living Workshops for SASH participants. The main reasons cited were difficulty in getting people to commit to attending and unmet transportation needs.

In Year Three, similar strategies and tools were used as during Year Two to help patients better manage their health, though apparently there was greater focus on self-management in Year Three. CHTs and practices increasingly used panel management to identify targeted groups of patients for whom to provide care. CHTs and practices used the five high-risk categories in the more stringent 2014 NCQA standards as the basis for targeting high-risk patients and reached out to those patients to create care plans. Anecdotal evidence suggested that patients who agreed to the care plans had very positive outcomes. Staff from one practice mentioned using panel management to focus their outreach to patients with gaps in care or barriers to care. They believed that this focused outreach led to improved quality of care and experience with care for their patients.

A registered nurse at a practice also mentioned a focus on care planning and follow-up, specifically with patients with HbA1c's greater than 9, patients with greater risk of ER use, and other vulnerable populations. A provider explained how the CHT coordinator checked in weekly with patients following self-management or care plans. Another nurse mentioned that she focused more on improving patient self-management skills and engaging in care planning than she did in the past. She talked to her patients about smoking cessation and spent a lot more time teaching patients how to use their durable medical equipment. She also did medication reconciliation, especially for her older patients: "It's a lot better helping them [patients] go through this [the medications] than having them end up in ERs."

As in past years, the SASH coordinators and wellness nurses have played a critical role in terms of patient engagement and self-management for SASH participants. They actively taught self-management by talking with participants about good diets to boost the immune system, teaching them how to use blood pressure cuffs to manage high blood pressure, teaching diabetes self-management strategies, and encouraging participation in smoking cessation classes. SASH program staff also were trained in leading evidence-based programs, such as chronic disease self-management and arthritis care.

By and large, the CHTs were considered the PCMH feature most visible to patients over the past year. The CHTs referred patients to Healthier Living Workshops and tobacco cessation programs, followed up and encouraged patients to schedule preventive care appointments, coordinated patient care between primary care practices and other providers or facilities, and followed up with patients after discharge from the ER. Practices appreciated having these resources available for their patients and agreed that the education provided by the CHTs was helping with patient self-management.

With respect to findings from patient satisfaction surveys, two practices noted that their overall scores increased since they joined the Blueprint for Health. One of these practices noted, however, that it had a lot of doctors come and go, which may have been associated with decreased patient satisfaction on some survey metrics. The other practice attributed its improvements to shorter wait times and to specific staff members whose patients felt they had gone above and beyond: “They [patients] feel like they’re part of our medical home family.” Another practice considered possibly changing their phone system based on feedback from a patient satisfaction survey. This same practice also had a patient suggestion box in their lobby, which they monitored for feedback and suggestions.

In 2013, practices were unclear about exactly what shared decision making was, or they were not convinced that it was necessarily useful. In 2014, almost nothing was said about shared decision making as a strategy to enhance patient engagement.

5.6 Effectiveness (Utilization and Expenditures)

In its application for the MAPCP Demonstration, Vermont expected the Blueprint for Health to have a significant impact on utilization and expenditures. Their application predicted significant reductions in inpatient stays, ER visits, hospital-based care and readmissions for ambulatory care-sensitive conditions, advanced imaging services, major orthopedic procedures, ambulance services, nursing home use, skilled nursing facility stays, long-term care services, and rehabilitation services. Vermont also forecast an increase in outpatient services, pharmaceutical use, laboratory services, and home-based care. With these reductions and increases, Vermont expected to achieve Medicare budget neutrality for the Blueprint for Health with a gross savings of over \$51 million (almost \$28.5 million net of payments to practices) over the 3-year demonstration period.

During the third year of the demonstration, interviewees believed that they finally had reliable data of sufficient quality and quantity to produce estimates of the demonstration’s effectiveness. One payer mentioned that they were able to include quantitative outcomes in their annual report on the evaluation of the Blueprint for Health.

The outcomes observed with data available during the third year of the demonstration were more favorable than those from data during the second year. During the interviews, one payer reported that analyses from a year ago did not show any improvements for Blueprint for Health practices over non-Blueprint-for-Health practices with respect to total cost of care or the use of pharmaceutical, specialty, and ER services. The analyses of another payer during the third year found that the Blueprint for Health had significant effects on the Medicaid and commercial consumer populations. Among their Medicaid consumers, their evaluation revealed a significant decrease in the overall cost of care. While there were reductions in acute-care services, the Medicaid consumers had an increase in nonmedical support services. These findings aligned with the expectations in Vermont’s application. The payer’s findings for their commercial beneficiaries were similar, except that there was no increase in nonmedical support services in this population.

Other interviewees also described the Blueprint for Health as having a beneficial impact. Vermont conducted effectiveness analyses for Medicaid and commercial consumers. During the

interviews, state officials reported that their analyses of commercial consumers found that the Blueprint for Health resulted in statistically significant lower per capita expenditures, fewer inpatient days (i.e., shorter lengths of stay), lower rates of specialty surgeries, decreases in ER and pharmaceutical use, and increases in primary care visits. The results for Medicaid consumers were similar, except that their ER use grew during the demonstration. Further, as predicted in Vermont's application, the use of nonmedical support services, such as transportation and home-based care, grew during the demonstration. One unexpected finding was an increase in rehabilitation services by Medicaid consumers; in its application, Vermont had predicted a 5 to 10 percent decrease in these services.

A SASH interviewee also reported beneficial effects of the Blueprint for Health. In their data from the second year of the program, SASH observed significant reductions in the number of falls. As "falls are the number one reason for hospital admissions," the interviewee expected the reduction in falls to lead to significant reductions in Medicare expenditures.

As in past years, most interviewees believed that the CHTs played a major role in the positive impact of the Blueprint for Health. CHTs helped practices with their population health management and patients' chronic disease management and added a breadth of services practices were unable to provide on their own. A state official mentioned hearing consistent praise and appreciation for CHTs, even from larger health care systems.

SASH also was mentioned as a contributor to the effectiveness of the Blueprint for Health with Medicare consumers. One payer also referred to the NCQA standards as a reason for the Blueprint for Health's effectiveness with Medicaid consumers by changing the way practices delivered care.

The overall value of the Blueprint for Health depended on whose perspective was sought. A payer indicated that, from their perspective, it was a worthwhile investment. The lower total costs of care outweighed any new cost necessary to support the Blueprint for Health. The payer also heard from providers that the investments made by practices for NCQA recognition exceeded the Blueprint for Health payment received from payers.

5.7 Special Populations

As during the first 2 years of the MAPCP Demonstration, Vermont focused initiatives on four subpopulations within the state, including:

- Medicaid beneficiaries with one or more chronic conditions, through VCCI;
- Individuals (other than Medicaid beneficiaries) with chronic conditions, multiple comorbidities, or high risk;
- Individuals with behavioral health issues, through the hub and spoke initiative; and
- Medicare beneficiaries in subsidized housing, through the SASH program.

No changes to the VCCI over the past year were identified during the site visit; they continued to provide and coordinate health services for Medicaid beneficiaries with chronic

conditions. Similarly, no changes were mentioned regarding interventions for individuals with chronic conditions. As described earlier, the hub and spoke initiative continued in its second year of implementation to address the needs of individuals with behavioral health issues and opioid addictions.

The SASH program expanded over the past year and, as of November 1, 2014, included 4,019 total participants, of which 1,096 were community participants living in single-family homes or apartments, rather than in congregate housing sites. This increase represented approximately 43 percent growth over the past year, despite a slowdown in enrollment due uncertainty about continued funding from the MAPCP Demonstration (scheduled to end June 30, 2014, but later extended to December 31, 2014, and again through December 31, 2016). In terms of the future, the SASH program is planning to use the next 2 years as a time to reflect and make improvements to the model, so that they can seek permanent funding in January 2017.

During the 2013 site visits, SASH program staff felt they had problems with name recognition. During the 2014 site visits, SASH program staff said that the program was better known, mainly due to the large growth in participation. There was more saturation of participants and more SASH teams touching more partner staff throughout the state. One interviewee commented that they went from “knocking on people’s doors” to tell people about SASH, to people coming to them for information. “I feel like now, in the third year, other partners and policy makers... recognize the importance [of SASH],” she explained. Another interviewee remarked, “There [are] fewer [people] who don’t know about SASH than those who do.”

The SASH program made several improvements over the past year to improve their name recognition. They worked on an internal communication system, including a newsletter for SASH staff and another newsletter sent to community partners, with a more focused message and better quality. Additionally, a new SASH Web site was created that was user-friendly and had a simple, clean design. Included in the Web site was an interactive map that permitted views of the different SASH panels by clicking on a county. SASH referral forms were submitted electronically through their Web site. Another section of the Web site, called “SASH Forum,” was for information sharing among partners of SASH and SASH program staff.

Despite the rapid growth and progress over the past year, some challenges remained. Similar to last year, we heard that resources allocated for wellness nurses, 0.25 full-time equivalent per SASH panel, were insufficient to meet the needs of SASH participants, especially those in the rural areas of the state, where nurses drive 45 minutes to an hour or more each way to meet with participants. Because the SASH program is not able to increase revenue, one approach under discussion is to decrease the volume of work for the nurses by decreasing the panel size from 100 to 70 participants in rural areas and 80 participants in other areas. This would allow the nurses to provide more focused care and services for a smaller pool of SASH participants.

Though Medicare increased the PMPM payments each year, SASH program staff explained that the amount each panel receives has remained stagnant at \$70,000 per panel since the beginning of the MAPCP Demonstration in July 2011. With the 2 percent federal sequestration, they actually saw a reduction in payments for the same work. This was a concern because the payments do not cover certain costs in rural areas, such as mileage and

administrative overhead. There was no opportunity to provide raises to SASH coordinators, so some experienced SASH coordinators looked for other jobs with higher pay.

Another challenge faced by the SASH program is the eventual discontinuation of DocSite as the program's EHR. Covisint, which owns DocSite, is exiting the health care industry, so over the next year the Blueprint for Health will decide how to replace DocSite. The SASH program will need to find a way to continue to utilize DocSite through a different platform or find or build an equally powerful alternative.

5.8 Discussion

The ability to provide adequate care to patients with behavioral health and substance abuse conditions have been a concern of primary care providers in Vermont. In January 2013, Vermont implemented the hub and spoke program to address the needs of Medicaid beneficiaries with behavioral health issues and opioid addictions. The state's second SPA became effective in January 2014 and it was believed that this would enable the hub and spoke program to become budget neutral, to reduce costs in other areas, and to make the program sustainable after bridge funding ends. During the third year of the program, Vermont also expanded its hub and spoke to commercially insured patients. Despite the progress of the hub and spoke model in Year Three, the effectiveness of the model is uncertain, as practices had difficulties sharing drug and alcohol patient data protected under 42 CFR Part 2 federal regulation.

During Year Three, the insufficiency of payments to maintain the Blueprint for Health requirements and services became more apparent. Without an increase in their PMPM since the start of the Blueprint for Health, practices and CHTs offered negative feedback about their payment rates. Because of the low payments, some practices are considering leaving the Blueprint for Health. To combat insufficient payments for the SASH program, consideration was given to decreasing the current panel size of 100 to 70 for rural areas and 80 in other areas. A state official mentioned, however, that a new CHT payment plan with larger PMPM rates was proposed to the legislature. Further, a payment methodology containing a quality-based payment is being considered for Blueprint for Health practices.

After the expansion of CHTs to all 14 Vermont HSAs during Year Two, Year Three saw better integration of and engagement by the CHTs in the Blueprint for Health practices. The CHTs were seen as a very valuable Blueprint for Health component by practices. Their presence resulted in better care coordination, access to social workers, and patient engagement. The CHTs met with patients and families with complex needs and with practice providers to discuss care management and care plans. They also helped practices achieve NCQA recognition. Payers, however, expressed concern about the CHTs' lack of accountability. Payers remarked that, without knowing patients with whom CHTs interacted and the subsequent encounter data, it was impossible for them to determine the impact and cost effectiveness of CHTs.

Similarly, there was also greater coordination and integration of SASH into Blueprint for Health practices during Year Three. This was believed to be the result of significantly increased recognition of SASH in the community because of its success with its patients during its early years. SASH enrollment increased by 43 percent during Year Three.

To increase access to care and care coordination during Year Three, providers implemented several strategies. Many practices expanded their hours during the week, but they had problems offering weekend hours due to staffing issues. CHTs started to focus on panel management, which targeted certain groups of patients, such as diabetic, asthmatic, and high ER use patients. The targets were guided by the 2014 NCQA standards, and practices reported that the patient experience with this panel management approach was positive.

Because stakeholders felt that appropriate quantity and quality of data were finally available for assessing the effectiveness of Blueprint for Health, several evaluations occurred during Year Three. Data analyses by payers and the state found associations between the Blueprint for Health and improved care for Medicaid and commercial patients.

Although state stakeholders did not have the data to assess Medicare beneficiaries, SASH interviewees noted fewer falls by Medicare patients. Overall, payers described the Blueprint for Health as a worthwhile investment. The lower total costs of care outweighed any new costs necessary to support the initiative. For providers, however, the investments made by practices for NCQA recognition exceeded the stagnant Blueprint for Health payments received from payers. Similarly, CHTs and SASH found the payments from payers insufficient to cover the costs of the services they provided.

CHAPTER 6

NORTH CAROLINA

In this chapter, we present qualitative and quantitative findings related to the implementation of North Carolina's multi-payer initiative, which simultaneously added Medicare and Blue Cross Blue Shield of North Carolina (BCBSNC) as payers to a pre-existing Medicaid program to implement the MAPCP Demonstration. We report qualitative findings from our third annual site visit to North Carolina, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third site visit interviews, which occurred in October and November of 2014, two teams consisting of an interviewer and a note-taker conducted in-person site visits or telephone interviews. These interviews focused on implementation experiences and changes occurring since the last site visit in 2013. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs) in both participating regions (Asheville/Boone area and Bladen/Columbus counties), as well as provider organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We also spoke with key state officials and staff who administered Community Care of North Carolina (CCNC) and the MAPCP Demonstration to learn if demonstration participation was expected to affect services offered by practices in the future. We also met with payers to learn about their experiences with implementation and whether the MAPCP Demonstration's payment model met their expectations for return on investment. In addition, we reviewed reports from CCNC staff to CMS and other documents to gain additional information on how the demonstration was progressing.

This chapter is organized by major evaluation domains. *Section 6.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in the North Carolina MAPCP Demonstration. *Section 6.2* reports practice transformation activities. Subsequent sections report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 6.3*); access to care and coordination of care (*Section 6.4*); beneficiary experience with care (*Section 6.5*); effectiveness as measured by health care utilization and expenditures, (*Section 6.6*); and special populations (*Section 6.7*). The chapter concludes with a discussion of the findings (*Section 6.8*).

6.1 State Implementation

In this section, we present findings related to the implementation of the North Carolina MAPCP Demonstration and changes made by the state, practices, and payers in the third year. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?
- Were any major implementation issues encountered over the past year and how were they addressed?

- What external or contextual factors affected implementation?

The state profile in **Section 6.1.1**, which describes the major features of the state's initiative and the context in which it operates, draws on a variety of sources, including quarterly reports submitted to CMS by the North Carolina MAPCP Demonstration project staff; monthly calls between North Carolina MAPCP Demonstration staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in October and November 2014. **Section 6.1.2** presents a logic model reflecting our understanding of the links among specific elements of the North Carolina MAPCP Demonstration and expected changes in outcomes. **Section 6.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 6.1.4**, we conclude the State Implementation section with lessons learned during the third year of the MAPCP Demonstration.

6.1.1 North Carolina State Profile as of October/November 2014 Evaluation Site Visit

North Carolina built on its regional Community Care Networks and Medicaid PCMH program to implement the MAPCP Demonstration. These regional networks evolved from earlier Medicaid programs designed to support primary care practices through per member per month (PMPM) fees paid to networks and practices that agreed to coordinate care and support population health efforts. North Carolina's primary care case management programs began in 1983, when the North Carolina Foundation for Advanced Health Programs partnered with the state to create the Wilson County Health Plan. In 1991, North Carolina received a Medicaid 1915(b) waiver to expand the model statewide, creating a primary care case management program (Carolina Access), which led to the current CCNC program.

In partnership with the state, a central organization (CCNC) served as the organization overseeing operations for 14 nonprofit, community-based networks, four of which served the participating MAPCP Demonstration counties. Characteristics of the four CCNC networks participating in MAPCP Demonstration are shown in **Table 6-1**. These networks sought to improve quality and promote appropriate utilization of resources to manage health care costs. CCNC supported primary care practices and hospitals through care coordination, disease and care management, and clinical pharmacy and quality improvement resources. A particular emphasis was placed on managing transitions across care settings and analyzing data to identify patients who would benefit most from care management efforts. It also included interventions specifically targeting individuals with chronic conditions (e.g., diabetes, asthma, hypertension, and congestive heart failure).

Table 6-1
Characteristics of CCNC Networks Participating in the North Carolina MAPCP Demonstration

Networks	Network 1: AccessCare	Network 2: Community Care of Western NC	Network 3: Community Care of the Lower Cape Fear	Network 4: Northern Piedmont Community Care
Year established*	1998	1998	2003	Not available
Number of counties covered*	23	8	6	6
List of counties with practices enrolled in MAPCP Demonstration	Avery Ashe Watauga	Transylvania	Bladen Columbus	Granville
Number of practices	280	82	154	55
Number of practices ever enrolled in MAPCP Demonstration as of Sept. 30, 2013*	20	4	26	6
Number of hospitals*	29	9	7	10
Number of care managers*	89.8	49.3	38	32
Ratio of care managers to practices in Network	0.32	0.60	0.25	0.58

CCNC = Community Care of North Carolina; MAPCP = Multi-Payer Advanced Primary Care Practice.

*Data from 2013.

SOURCE: Community Care of North Carolina <https://www.communitycarenc.org/our-networks/> accessed 7/24/2015.

As part of the MAPCP Demonstration, North Carolina established a multi-payer initiative that included Medicaid, Medicare, the State Employee Health Plan, and BCBSNC. North Carolina's initiative launched in October 2011, when BCBSNC and Medicare joined Medicaid in making additional payments to primary care practices in seven rural counties across the state and four regional CCNC networks. The State Employee Health Plan, administered by BCBSNC, began making payments in January 2012. Both BCBSNC and the State Employee Health Plan terminated their participation after the third year of the demonstration.

State environment. North Carolina's initiative was a public/private partnership between the North Carolina Department of Health and Human Service Office of Rural Health and Community Care, which provided executive leadership, and CCNC, which provided day-to-day operations management. CCNC implemented the state initiative through a memorandum of agreement with the state agency. A multistakeholder steering committee facilitated decision making among the participants.

North Carolina participated in one other initiative that may have affected outcomes for participants in the MAPCP Demonstration or the comparison group population. In May 2012, North Carolina received approval of a Section 2703 Health Home State Plan Amendment (SPA), effective retroactively to October 1, 2011. The health home program relied on the CCNC infrastructure to deliver enhanced care to eligible Medicaid enrollees with chronic physical

health conditions. Although the state's enhanced federal match expired on October 1, 2013, the SPA remained in effect.

North Carolina also experienced major political changes at the beginning of 2013 with a new governor, the first Republican in 20 years. That change resulted in significant staff changes at both cabinet and department levels, but did not have an apparent effect on the demonstration. State leadership was more stable in 2014, although a new Medicaid Director was appointed in April 2014.

Demonstration scope. The North Carolina MAPCP Demonstration was limited to seven rural counties across the state: Ashe, Avery, Bladen, Columbus, Granville, Transylvania, and Watauga. In 2011, the North Carolina MAPCP Demonstration began payments to 40 pilot practices with an expectation that each practice would achieve National Committee for Quality Assurance (NCQA) Physician Practice Connections (PPC®) PCMH™ recognition within 12 months of joining the demonstration and be accepted into the BCBSNC Blue Quality Physician Program (BQPP) by the end of September 2013. Although the number of participating practices stayed roughly the same throughout the demonstration, the number of payers increased from three to four with the addition of the State Employee Health Plan in January 2012.

Table 6-2 shows participation in the North Carolina MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 43 at the end of Year One (September 30, 2012); 42 at the end of Year Two (September 30, 2013); and 40 at the end of Year Three (September 30, 2014)—a decrease of 7 percent overall. The number of providers at these practices increased by 17 percent over this period, from 138 to 161. In Year Three, the majority of these practices were medium-sized, with an average of around four full-time equivalent (FTE) providers.

Table 6-2
Number of practices, providers, and Medicare FFS beneficiaries participating in the North Carolina MAPCP Demonstration

Participating entities	Number as of September 30, 2012	Number as of September 30, 2013	Number as of September 30, 2014
North Carolina MAPCP Demonstration practices ¹	43	42	40
Participating providers ¹	138	150	161
Medicare FFS beneficiaries ²	26,438	30,482	33,154

NOTES:

- North Carolina MAPCP Demonstration practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating North Carolina MAPCP Demonstration practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment (See Chapter 1 for more detail about these files.)

The cumulative number of Medicare FFS beneficiaries ever receiving care in demonstration practices for 3 or more months was 26,438 at the end of the first year, 30,482 at the end of the second year, and 33,154 at the end of the third year—an overall increase of 25 percent.

In terms of all-payer participants, the state originally projected that a total of 125,106 individuals would participate in the North Carolina MAPCP Demonstration. The state reported that the number of all-payer participants linked to a participating PCMH practice (for the Medicaid population) or assigned to a participating PCMH practice via an attribution algorithm (for other payers) was 84,860 at the end of Year One (September 30, 2012); 83,301 at the end of Year Two (September 30, 2013); and 81,925 at the end of Year Three (September 30, 2014). This was an overall decrease of 2,936, or 3.5 percent.

Four payers participated in the North Carolina MAPCP Demonstration: Medicare FFS (24% of total participants as of September 2014), Medicaid (50%), BCBSNC (13%), and the State Employee Health Plan (13%). BCBSNC participated for its commercial line of business only, and the State Employee Health Plan, which was administered by BCBSNC, participated as a self-insured purchaser.

Table 6-3 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in the North Carolina MAPCP Demonstration as of September 30, 2014. There were 40 participating practices with an average of four providers per practice. These practices were primarily office based (70%) or rural health clinics (RHCs) (20%); an additional 10 percent were critical access hospitals (CAHs). All practices were located in either rural (68%) or micropolitan (32%) counties.

Table 6-3
Characteristics of practices participating in the North Carolina MAPCP Demonstration as of September 30, 2014

Characteristic	Number or percent
Number of practices (total)	40
Number of providers (total)	161
Number of providers per practice (average)	4
Practice type (%)	
Office-based practice	70
FQHC	0
CAH	10
RHC	20
Practice location type (%)	
Metropolitan	0
Micropolitan	32
Rural	68

ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health clinic.

SOURCE: ARC Q13 MAPCP Provider File. (See Chapter 1 for more details about this file.)

In **Table 6-4**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating North Carolina MAPCP Demonstration practices during the first 3 years of the demonstration (October 1, 2011, through September 30, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Twenty percent of beneficiaries assigned to North Carolina MAPCP Demonstration practices during the first 3 years of the demonstration were under age 65, 50 percent were age 65–75, 23 percent were age 76–85, and 7 percent were over age 85. The mean age was 70. Beneficiaries were mostly White (81%), very few lived in urban areas (2%), and 58 percent were female. Twenty-six percent were dually eligible for Medicare and Medicaid, and 30 percent of beneficiaries were eligible for Medicare originally due to disability. One percent of beneficiaries had end-stage renal disease, and 2 percent resided in a nursing home during the year before their assignment to a North Carolina MAPCP Demonstration practice.

Table 6-4
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the North Carolina MAPCP Demonstration from October 1, 2011, through September 30, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	33,154
Demographic characteristics	
Age < 65 (%)	20
Age 65–75 (%)	50
Age 76–85 (%)	23
Age > 85 (%)	7
Mean age	70
White (%)	81
Urban place of residence (%)	2
Female (%)	58
Dually eligible beneficiaries (%)	26
Disabled (%)	30
ESRD (%)	1
Institutionalized (%)	0
Health status	
<i>Mean HCC score groups</i>	1.07
Low risk (< 0.48) (%)	26
Medium risk (0.48–1.25) (%)	52
High risk (> 1.25) (%)	23
<i>Mean Charlson index score</i>	0.79
Low Charlson index score (= 0) (%)	63
Medium Charlson index score (≤ 1) (%)	19
High Charlson index score (> 1) (%)	18

(continued)

Table 6-4 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating
in the North Carolina MAPCP Demonstration from October 1, 2011, through
September 30, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%)</i>	
Heart failure	5
Coronary artery disease	11
Other respiratory disease	10
Diabetes without complications	18
Diabetes with complications	3
Essential hypertension	38
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	7
Renal failure	3
Peripheral vascular disease	2
Lipid metabolism disorders	20
Cardiac dysrhythmias and conduction disorders	10
Dementias	1
Strokes	1
Chest pain	5
Urinary tract infection	5
Anemia	7
Malaise and fatigue (including chronic fatigue syndrome)	4
Dizziness, syncope, and convulsions	5
Disorders of joint	8
Hypothyroidism	6

NOTES:

- Percentages and means are weighted by the fraction of the year for which a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary was first attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.
- EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

Using three different measures—Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries’ health status during the year before their assignment to a North Carolina MAPCP Demonstration practice. Beneficiaries had a mean HCC score of 1.07, meaning that Medicare beneficiaries assigned to a North Carolina MAPCP Demonstration practice in the third year of the demonstration were predicted to be 7 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating demonstration practice. Beneficiaries’ average score on the Charlson comorbidity index was 0.79; just under two-thirds (63%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before their assignment to a participating North Carolina MAPCP Demonstration practice.

The most common chronic conditions diagnosed were hypertension (38%), lipid metabolism disorders (20%), diabetes without complications (18%), coronary artery disease (11%), and other respiratory disease (10%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. North Carolina required participating practices to achieve NCQA Physician Practice Connections (PPC®) PCMH™ recognition within 12 months of joining the demonstration, a standard not required by CCNC before the start of the MAPCP Demonstration. Participating practices also had to be accepted into the BQPP by the end of September 2013 with BQPP reimbursement Level II or III scores. The BQPP, which is BCBSNC’s PCMH program, required practices to achieve 2008 NCQA PPC®-PCMH™ or 2011 NCQA PCMH™ recognition, use electronic prescribing, file claims electronically, complete cultural competency training, and provide expanded access to care. Achieving a higher BQPP level signified increased practice competency in these medical home activities.

In February 2013, BCBSNC removed some of the BQPP requirements for providers in practices affiliated with large hospital systems, independent practice associations, or academic medical centers. These providers then were able to focus on educational elements of the BQPP, such as completing the BQPP Physician Cultural Competency and Motivational Interviewing education modules. Because those practices’ existing contractual agreements with BCBSNC already gave them a fee schedule similar to or above that of BQPP reimbursement Level III, these practices were precluded from receiving enhanced reimbursement upon achieving BQPP recognition.

By December 31, 2013, all participating practices achieved NCQA recognition and were accepted into the BQPP. Most practices met both expectations by the original deadline of September 30, 2013. Those not meeting the September deadline were granted extensions by all payers, because NCQA was unable to process their applications in time. This was a significant achievement, considering that only one practice had NCQA recognition at the start of the demonstration in October 2011.

Support to practices. North Carolina's PCMH initiative used a multifaceted payment system. Payments varied by payer, practice, and enrollee. Medicare and Medicaid made PMPM payments to participating practices and regional networks, while BCBSNC made enhanced FFS payments to providers and PMPM payments to the regional networks. BCBSNC also made

enhanced FFS payments to providers on behalf of State Employee Health Plan members. As of January 1, 2014, the State Employee Health Plan contracted directly with CCNC to provide care management services to its members in the seven counties; thus, the State Employee Health Plan made PMPM payments to regional networks. Before January 1, 2014, it contracted with CCNC through its population health vendor and paid regional networks an annual lump sum based on a 1:40 ratio of FTE nurse care managers to high-risk members. See **Table 6-5** for specific payment information.

The Medicaid PMPM payment varied by the beneficiary's eligibility category, with higher payments for aged, blind, or disabled beneficiaries. Medicaid continued making payments for dually eligible beneficiaries attributed to a primary care provider in a participating practice, as it did before the MAPCP Demonstration. Medicare did not make payments for aged, blind, or disabled beneficiaries. Medicare's PMPM practice payment varied by level of NCQA PPC®-PCMHT™ recognition, from \$2.50 PMPM for Level 1 to \$3.50 PMPM for Level 3.²⁴ From October 1, 2011, through September 30, 2014, demonstration practices received a total of \$6,139,786 in Medicare MAPCP Demonstration payments.²⁵

The exact amount of the enhanced fees paid by BCBSNC was negotiated with each practice and was proprietary. According to BCBSNC, the fee enhancement was equivalent to a minimum of \$1.50 PMPM. A BCBSNC representative met with providers every 6 months to demonstrate the PMPM equivalent of the enhanced fees paid.

Table 6-5
North Carolina MAPCP Demonstration payments

Payer	Practice PMPM payment	Network PMPM payment
Medicaid	\$2.50—non-ABD \$5.00—ABD	\$3.72—non-ABD \$13.72—ABD
Medicare	\$2.50—Level 1 NCQA \$3.00—Level 2 NCQA \$3.50—Level 3 NCQA	\$6.50
BCBSNC	\$1.50 minimum ¹	\$2.50 ¹
State Employee Health Plan	\$1.50 minimum ¹	\$2.50 ¹

NOTES:

• The Medicare PMPM payment amounts do not reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

¹ PMPM equivalent of enhanced fee schedule as estimated by BCBSNC, which also makes payments on behalf of the State Employee Health Plan.

ABD = aged, blind, or disabled; BCBSNC = Blue Cross Blue Shield of North Carolina; MAPCP = Multi-Payer Advanced Primary Care Practice; NCQA = National Committee for Quality Assurance; PMPM = per member per month.

²⁴ The Medicare PMPM payment amounts do not reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

²⁵ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

North Carolina primary care practices benefited from a strong provider support system, most notably with services provided through the regional CCNC networks. The participating networks identified high-risk Medicare, Medicaid, and State Employee Health Plan patients from CCNC Informatics Center reports and the CCNC Care Triage tool. BCBSNC developed protocols for their own nurse care managers to refer their high-risk patients to CCNC as necessary and appropriate. The CCNC networks also provided care management and care coordination services for primary care practices within the network's service area; CCNC network staff (including their nurse care managers and clinical pharmacists) offered education, medication reconciliation, quality improvement consultation, and care coordination. While data systems, care management, and clinical pharmacy were consistent across the regional networks, the networks also had flexibility in localizing statewide CCNC initiatives related to the demonstration and pilot local projects that included demonstration beneficiaries, such as the palliative care initiatives described below.

Primary care practices also received individualized support from quality improvement consultants employed by Area Health Education Centers (AHECs), entities affiliated with the state's medical schools that also served as federally designated Regional Extension Centers to promote the adoption of health information technology (IT). The AHECs received a mix of federal, state, and grant/contract funding to support their work.

CCNC provided extensive data support for all practices, nurse care managers, and clinical pharmacists, including those participating in the MAPCP Demonstration. CCNC delivered this support through three data systems in place since the beginning of the demonstration: the Informatics Center reports site, the Case Management Information System (CMIS), and Pharmacy Home data system. The Informatics Center contained a warehouse for claims and hospital discharge data. Several reports were available from the claims data, including care gap alerts identifying patients who had not received recommended services, such as immunizations or screening tests. The Informatics Center also provided real-time hospital admission, discharge, and transfer (ADT) data for Medicaid-enrolled patients and feedback reports on those utilization data aggregated at the patient, practice, county, and network levels. Some of these data were accessed by practice staff through an interface called the Provider Portal, although utilization of this portal varied across practices. Real-time Medicare data upload to the Informatics Center was not possible because Medicare claims were delivered on a monthly basis to CCNC. Every CCNC practice had a set of reports available for Medicaid, and those participating in the MAPCP Demonstration had access to multi-payer patient data (i.e., Medicaid, BCBSNC, and Medicare) in the Provider Portal since January 2013.

CMIS was an electronic system populated with all-payer claims data and clinical information submitted by nurse care managers. Although CMIS was in place before the demonstration, CCNC integrated Medicare and BCBSNC claims data into the CMIS in January 2013 to support the demonstration. Throughout 2014, CCNC focused on standardizing care management procedures, including those for documenting activities in the CMIS. Although these procedures applied to all CMIS users, their development was critical to CCNC's ability to document care management activity for MAPCP Demonstration payers.

The Pharmacy Home data system served all primary care providers and networks' clinical pharmacists and care managers by recording and aggregating patient information on drug use. It provided patient-level information on pharmacy claims and medication history for point-

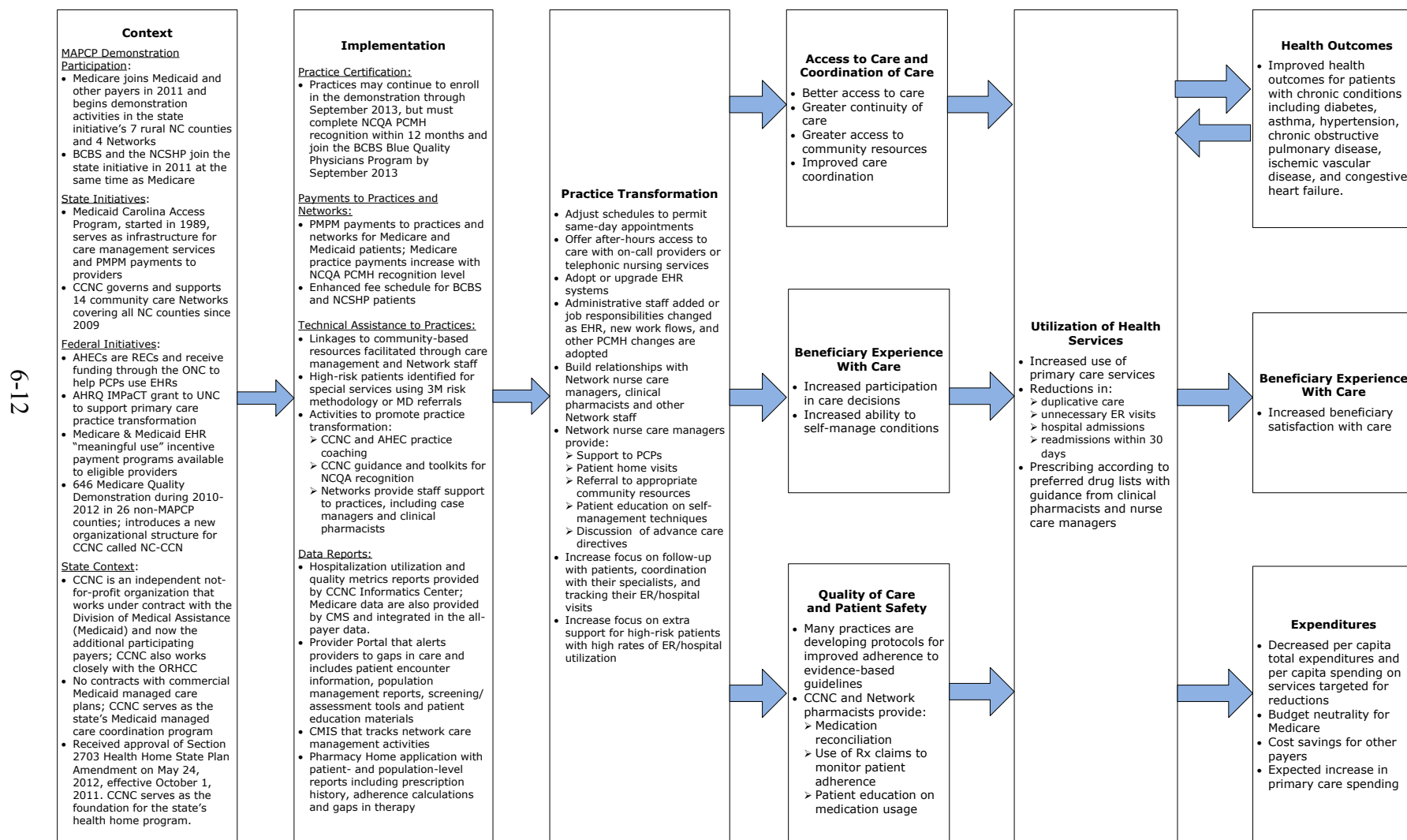
of-care activities and generated population-based reports to identify patients who may benefit from clinical pharmacy and care management services. The database included descriptions of clinical pharmacists' activities and findings (identified drug interactions, expired medications, reconciled medications, suggested formulary alternatives, or recommendations for changes to lower-cost medication).

In 2014, CCNC deployed a new health IT tool called Care Triage for all practices, including those participating in the MAPCP Demonstration. Care Triage used pharmacy data to assign risk scores to individual patients. The scores indicated the patient's likelihood of requiring hospitalization in the future. Care managers used the scores to help identify priority patients for their services.

6.1.2 Logic Model

Figure 6-1 is a logic model of North Carolina's MAPCP Demonstration. The first column in the figure shows the context for the MAPCP Demonstration, including its scope, other state and federal initiatives affecting the demonstration, and key features of the state context affecting the demonstration. The next two columns describe the implementation of the MAPCP Demonstration, which incorporated several strategies to promote transformation of practices to PCMHs. The state initiative employed strategies to: (1) improve access to and coordination of care with CCNC support; (2) increase quality of care and patient safety through care management and clinical pharmacy services; and (3) link patients with nurse care managers to improve patient engagement, self-management, and communication with their providers. These efforts were intended to promote more efficient utilization patterns, including increased use of primary care services and reductions in emergency room (ER) visits, avoidable inpatient admissions, and readmissions. Changes in utilization patterns were expected to produce improved health outcomes (which could, in turn, reduce utilization), greater beneficiary satisfaction with care, changes in expenditures consistent with utilization changes, and reductions in total per capita expenditures, resulting in budget neutrality for the Medicare program and cost savings for Medicaid, BCBSNC, and the State Employee Health Plan.

Figure 6-1
Logic model for North Carolina MAPCP Demonstration



AHEC = area health education centers; AHRQ = Agency for Healthcare Research and Quality; BCBS = Blue Cross Blue Shield; CCNC = Community Care of North Carolina; CMIS = Case Management Information System; EHR = electronic health record; ER = emergency room; IMPaCT = Infrastructure for Maintaining Primary Care Transformation; NC-CCN = North Carolina Community Care Networks; NCQA = National Committee for Quality Assurance; NCSHP = North Carolina State Health Plan; ONC = Office of the National Coordinator for Health Information Technology; ORHCC = Office of Rural Health and Community Care; PCMH = patient-centered medical home; PCP = primary care provider; PMPM = per member per month; REC = regional extension centers; UNC = University of North Carolina

6.1.3 Implementation

This section uses primary data gathered from the site visit interviews conducted in October and November 2014 and other sources and presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 6.1*.

Major Changes During the Third Year

CCNC entered into a direct contract with the State Employee Health Plan. This contract, which began on January 1, 2014, gave CCNC responsibility for providing care management to all State Employee Health Plan participants in the seven demonstration counties. Previously, CCNC served these counties as a subcontractor for ActiveHealth, the State Employee Health Plan's population health vendor. As a result of this change, CCNC no longer relied on referrals from ActiveHealth to identify patients in need of care management, but it needed to modify its care management procedures to engage a commercially insured population more effectively.

Increased focus on improving services to patients. Many practice, network, and state official interviewees reported that the biggest change to the MAPCP Demonstration was a shift in focus from meeting practice participation requirements to improving delivery of services. One state official called this year "the year of innovation." For example, practices worked on improving care transitions and their use of care gap alerts, which identified patients who had not received recommended services. Additionally, palliative care was a major clinical focus for two CCNC regional networks and their practices in the western region of the state (see *Section 6.3* for more information). Increased efforts were made to identify and engage high-risk patients in care management services. As described in *Section 6.1.1*, CCNC implemented Care Triage to help identify high-risk patients and increased standardization of care management processes.

Major Implementation Issues During the Third Year

Improved ability to serve new populations. Before the MAPCP Demonstration, CCNC served mostly Medicaid beneficiaries. Under the demonstration, CCNC added Medicare and commercially insured populations. Last year, interviewees noted that commercial populations' needs and available resources differed greatly from those of the Medicaid and Medicare populations. As a result, CCNC needed to adjust its care management processes for better identification of commercially insured patients who would most benefit from care management and to engage these patients more fully in care management. This year, interviewees reported significant progress toward addressing the issue. CCNC expanded its call center services when it contracted directly with the State Employee Health Plan. Nurses and health coaches employed in the call center provided telephonic support to State Employee Health Plan members with less intensive care management needs.

Incomplete data. CCNC relied on data to identify priority populations for care management and to document results. This year, the demonstration encountered multiple challenges in receiving and using data from payers; some of these issues began in previous years. In the second year of the MAPCP Demonstration, North Carolina Medicaid implemented a new

claims payment system (NCTracks) and changed data warehouse vendors. Both the new claims system and data warehouse changes affected the demonstration's ability to obtain data. The NCTracks transition delayed Medicaid data feeds into the CCNC Informatics Center beginning in July 2013. As a result, for most of 2014, CCNC was unable to provide practices with information to help them identify priority populations for care management services or any performance feedback derived from claims data. This year, interviewees reported that most problems with NCTracks were resolved. At the time of the site visit, however, CCNC was just beginning to receive data from the new data warehouse—and the data were provided in a new format. CCNC also found that data received from BCBSNC for their internal evaluation did not contain hospital claims. As a result, some metrics, such as 30-day hospital readmissions, could not be produced for the internal evaluation of BCBSNC or State Employee Health Plan populations.

Payer withdrawals from participation. Although CMS offered to extend Medicare's participation in the MAPCP Demonstration, both BCBSNC and the State Employee Health Plan declined to continue. Without multi-payer support, the state no longer met CMS' participation requirements and the demonstration ended as originally scheduled on December 31, 2014. Payer interviewees offered multiple reasons for the withdrawals. Some indicated that they did not see sufficient return on investment to continue or had not budgeted for future payments to the networks. Others cited changes in the broader health care system, such as accountable care organizations (ACOs), and payers' desire to differentiate themselves from their competitors as competition for market share increased. As discussed later in this section, both BCBSNC and the State Employee Health Plan intended to continue their single-payer medical home and care management programs.

External and Contextual Factors Affecting Implementation

Medicaid claims processing system. During the 2013 site visit, interviewees reported substantial delays in receiving reimbursement for Medicaid services due to the implementation of NCTracks. Most of the issues were resolved in early 2014. Practice concerns about financial solvency, however, impeded their ability to focus on quality improvement for much of 2013 and early 2014. As described above, the disruption in the flow of Medicaid data to CCNC resulting from this change also negatively affected the demonstration by limiting practices' ability to identify patients needing case management services in a timely manner and to conduct internal evaluations of their efforts.

Development of ACOs and possible conversion to Medicaid managed care. Many entities in the state pursued ACOs through Medicare and other payers. State leadership also contemplated implementing ACOs in Medicaid or increasing the use of managed care. According to one state official, this made the data sharing and community-wide collaboration needed to sustain an aligned multi-payer initiative challenging, as these pending changes in the marketplace increased competition among payers. In preparation for becoming an ACO or negotiating with managed care organizations, large hospitals and health systems were acquiring smaller CAHs and primary care practices.

Landscape After the MAPCP Demonstration in North Carolina

Patient care management varied by source of coverage. After the MAPCP Demonstration ended, patients' access to care management services depended on their source of coverage. All patients were able to continue to receive primary care from the same PCMH practices, and Medicaid beneficiaries continued to receive care management services from CCNC and the networks. BCBSNC and State Health Plan Employee members were transitioned to their respective statewide, single-payer care management programs. At the time of the site visit, CCNC care managers were engaged in planning to cease serving Medicare beneficiaries and trying, where possible, to connect them to community-based resources.

PCMH payments continued to flow to practices, but largely ceased to CCNC networks. Medicaid, BCBSNC, and the State Employee Health Plan continued to make PCMH payments to practices through their statewide, single-payer programs. Only Medicaid, however, continued making PMPM payments to CCNC and the regional networks after the termination of the MAPCP Demonstration. Interviewees were optimistic that practices would continue to provide care management services to Medicare beneficiaries through Medicare's new chronic care management codes.

Several demonstration initiatives continued. Some innovations tested as part of the MAPCP Demonstration continued after the demonstration ended. For example, the Appalachian State University health management student program, developed to support demonstration practices in the western region of the state, served as a resource for practices beyond the MAPCP Demonstration. Under this program, students worked directly with practices to develop tools and resources to help them achieve PCMH recognition, improve health IT infrastructure, redesign their workflow, and implement quality improvement initiatives.

6.1.4 Lessons Learned

Clear expectations need to be established at the outset. Payers wanted more clarity on the type and format of the data they needed to provide to support the demonstration. CCNC project staff, networks, and care managers wanted a clearer understanding of payers' goals for the demonstration; their expectations about which patients were priority populations; and the anticipated relationship between their efforts and other care management services offered by participating payers. CCNC project staff wished they had been more prescriptive about care management processes. Clearer expectations would have enabled quicker implementation and reduced resources needed for program administration.

Different populations require different care management approaches. Many interviewees reflected that the differences among the needs and resources of the Medicaid, Medicare, and commercial populations were not fully taken into account during the initial planning. CCNC, which served mostly Medicaid beneficiaries before implementation, found they needed to change their processes to serve new populations more effectively, especially those with commercial insurance.

More than 3 years are needed to produce results. Many interviewees felt that 3 years was insufficient time to transform practices and produce results. For the first 2 years of the demonstration, practices focused on gaining NCQA and BQPP recognition and only in the last

year began to focus heavily on improving the delivery of services. Project staff also felt that this year they had refined care management processes to engage new populations more effectively, but they needed more time for these improvements to produce changes in cost or health outcomes.

Program design is important. Interviewees mentioned a variety of program features that might have impeded demonstration results. Some project staff wondered if they should have chosen demonstration practices with the greatest chance of achieving success, instead of those in greatest need of resources. Other stakeholders wondered if the lack of a strong, neutral convening organization hindered collaboration among the commercial payers and CCNC, which commercial payers perceived as a vendor. Some mentioned that using attribution to determine beneficiary participation in the MAPCP Demonstration hindered care managers' ability to manage the care of high-risk patients proactively.

6.2 Practice Transformation

This section describes features of the practices participating in the North Carolina MAPCP Demonstration, identifies changes made by practices to take part in the demonstration and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in October and November 2014, emphasizing changes occurring during the year since our interviews in late 2013. This section also describes the differences in activities across the regional CCNC networks, where applicable.

Since the 2013 site visit, practices improved their engagement with network-level care management and quality improvement activities and their use of data and health IT resources for better patient care. Many or most of these changes were related to their efforts to attain BQPP and NCQA PPC®-PCMH™ recognition during the demonstration.

6.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes made by MAPCP Demonstration practices since the prior site visit and new practice improvement projects that were adopted. By the third demonstration year, practices completed the BQPP and NCQA PCMH™ recognition processes and were able to focus on care coordination and quality improvement activities.

PCMH recognition and practice transformation. No changes were made to the criteria for PCMH practice recognition during the demonstration's third year. In Year Two, many practices worked to achieve BQPP and NCQA PCMH™ recognition either for the first time or to reach a higher level. During the 2013 site visit, practice staff viewed their efforts to achieve BQPP and NCQA PCMH™ recognition as documenting activities already underway before entering the demonstration. During the 2014 site visit, some practices said that the demonstration criteria for NCQA PCMH™ and BQPP recognition promoted transformation because they established a formal process for accountability, self-assessment, and identification of areas for improvement. Practices also had to learn to use their electronic health record (EHR) systems and other health IT to meet quality improvement criteria. One network interviewee noted that BQPP, in particular, "encouraged practices to continue [quality improvement] efforts" throughout the initiative.

At the 2014 site visit, most practices were contemplating future recertification as a medical home under the 2014 NCQA PCMH™ recognition criteria. One practice anticipated challenges in meeting these certification criteria, but many providers reported that their practices would continue recertification through this process after the demonstration ended. One network interviewee noted that hospital-owned practices in their region would not renew their NCQA PCMH™ certification, because of an increased emphasis by their corporate leadership on participating in programs like Meaningful Use and Physician Quality Reporting System. One network interviewee noted that practices with larger BCBSNC patient panels likely would renew their BQPP recognition. Some providers also expressed concern about a shift in focus with the new requirements for patient outcomes, which they suggested might result in turning away patients in poorer health who may have greater difficulty achieving desired health outcomes.

Few practices extended their hours since the beginning of the demonstration, as most said that they already provided some form of after-hours access before joining the demonstration. Most commonly, practices provided after-hours telephonic access to a nurse for medical advice. One CCNC network conducted a practice survey including a question about after-hours access in early 2014 to determine if the after-hours services were working and patients were aware of them. Practices used the results to adjust their policies as needed and ensure that all after-hours access phone services were working appropriately. During the past year, practices across the demonstration focused on educating patients about expanded access to prevent unnecessary ER utilization. One practice reported conducting a campaign to educate patients during consults about after-hours access and making sure they knew that a nurse was always on call to advise patients. Another practice worked to educate patients about the availability of same-day appointments.

Practice and network staff reported a much higher level of comfort with integrating care coordination activities into daily practice operations during the past year. One network hired an LPN-level care coordinator to visit practices on site and focus on transitional care activities. This role almost exclusively dealt with managing the flow of data between practices and hospitals for hospitalized Medicare and Medicare patients. One practice reported that they and their patients greatly benefited both from her services and the RN care coordinators who provided patient home visits.

Several practices in the western region of the state noted that processes for care coordination and relationships with care managers established during the first 2 demonstration years allowed them to shift their practice transformation focus to actual quality improvement in Year Three. Many of these efforts were enhanced by the Practicum in Primary Healthcare, an innovative program established in the western region during Year One, which placed local university students in practices as interns for approximately 100 hours per academic semester. These students were placed in practices in Year One to help with the PCMH recognition process, including preparing data for NCQA submissions, and to improve health care quality. A representative of one network described the importance of practices using their student interns and the student's background and interests to further their implementation progress and carry out unique projects that made significant contributions to practices' quality improvement efforts in Year Three.

Few practices initiated quality improvement activities in Year Two, as BQPP and NCQA PCMH™ recognition remained the focus of their time and resources. In the eastern part of the state, most quality improvement efforts in Year Three focused on using EHR systems to identify patients needing preventive care services (e.g., colon cancer screening, mammograms) and those with chronic diseases (e.g., diabetes, asthma). Networks also continued to work with practices on using CCNC Care Alerts for following up on care gaps. The interns of the Practicum in Primary Healthcare assisted practices in the western region with efforts to decrease Care Alerts and to follow up with patients on preventive care. During the 2014 site visit, practices in the western part of the state discussed many new activities to improve care quality and patient outcomes, including improving patient and provider communication, conducting diabetes management training with staff and patients, sending letters to patients for scheduling preventive care services (e.g., diabetes care management, vaccination, colon cancer screening, mammograms, Medicare annual wellness visits), and creating care teams within a practice to treat certain patients with chronic conditions.

During Year Three, several practices hired care managers whose activities complemented those of the CCNC network-employed care managers. One practice reported that their care manager regularly coordinated with network care managers regarding patient needs. The practice care manager's activities included contacting patients, following up with them during and after hospital admissions, and ensuring they had their medications and follow-up appointments. The practice care manager contacted a network care manager to make home visits to patients, as needed, because she did not do home visits.

Networks reported that they used the CCNC suite of data analytics to identify priority patients for care management services. Network staff, care managers, and clinical pharmacists relied on an array of reports and alerts for following up with patients who had not received health care services recommended for their condition (e.g., clinical quality process measures or follow-up after hospitalization). Care managers documented their activities in CMIS, while clinical pharmacists used Pharmacy Home.

During the 2013 site visit, three networks involved in the demonstration reported working on palliative care initiatives still in the planning stages at the end of Year Two, including the Comprehensive Care Team (see **Section 6.3** for more information). In Year Three, one network's palliative care coordinator trained staff members at one practice to have early conversations with patients about their choices for palliative care. The practice identified a physician champion who began completing advanced directive documents with patients. This practice served as a pilot site for these activities, with ongoing network support. The network reported that they had additional palliative care project plans that likely would materialize after the demonstration ended.

Practice staffing changes. Few practices hired new staff to accommodate initiative activities over the past 3 years; those that did added new care coordinators or hired additional part-time providers. Some practices integrated nurse care managers directly into their practice staff instead of getting their services through the networks. Some practices reported that staff members took on new roles to assist with medical home activities, such as managing EHR data, working on a team designated to provide asthma care, or conducting pre-visit planning. The practice-employed care coordinators assisted with such activities as pre-visit planning, generating reports from the EHR, and managing referrals. One practice reported that they hired a

care manager independent of CCNC during Year Three. Another practice having difficulty with their EHR functions hired a nonpracticing physician to help flag items in EHR charts that needed to be checked during appointments.

Participating networks continued to provide care management, care coordination, and clinical pharmacy services for primary care practices within the network's service area. Networks, however, expanded their staff to support PCMH activities. One network added a clinical pharmacist and an EHR specialist in the past year. Another network hired an LPN-level care coordinator to focus primarily on transitional care and to work on-site with the practices.

Health information technology. During the 2013 site visit, practices reported many frustrations with adopting and using EHRs, but they also noted that the system could help to streamline patient care in the future. During the 2014 site visit, practices reported that, despite ongoing challenges with adopting new EHR systems, they learned to use their EHRs more effectively. They reported using the system to document care accurately and obtain timely and accurate data for population management.

Practices in one network discussed using functions in their EHRs for direct communication with patients about labs, tests, and appointments; direct communication with a clinical pharmacist regarding patient care; and generation of reports to identify patient needs. Some practices found challenges in generating disease registries in their EHR systems because of system idiosyncrasies or limitations. A network interviewee noted that the care alerts and CCNC reports helped to fill the gaps when practice-level data could not be generated from EHRs.

One network hired an EHR specialist to develop a visual dashboard using practice measures, and they taught practices how to use this system, giving them ownership of the system and control of their own quality improvement activities. One network reported that data available to practices for managing post-discharge care improved in the past year. Once providers began to use EHR data for quality improvement and observe improvements in their practice workflow with EHR prompting functions, most were excited about their EHRs.

Some practices also reported increased use of patient health record portals, as compared to the previous year. During both 2013 and 2014 site visits, many providers noted that low literacy and a lack of access to computers or an Internet connection in rural North Carolina were significant barriers to the broad use of patient portals. During the 2014 site visit, one practice reported that only a small portion of their patients used their portal, as some did not have a computer, the skills to access and use it, or a desire to use the new technology.

Most practices were limited in exchanging information with other practices or hospitals other than through such traditional methods as telephone, fax, and direct verbal hand-offs. Practices and networks reported that local health information exchange interfaces and regional ADT feeds were improving as result of newly established data use agreements and feeds.

6.2.2 Technical Assistance

Technical assistance at the network and state level was an important facilitator for practices in the initiative. CCNC and the local networks provided considerable technical

assistance to practices as they engaged in the BCBSNC BQPP and NCQA PCMH™ recognition processes in Year Two.

CCNC and its networks provided periodic, patient-level reports to practices through the Provider Portal in Year Three. On July 1, 2013, before the 2013 site visit, North Carolina transitioned from their legacy Medicaid Management Information System to NCTracks. Because of ongoing issues with NCTracks, network-level Medicaid data feeds were nonfunctioning or delayed for approximately 1 year. Thus, reports provided to practices during part of Year Three were limited to Medicare and BCBSNC data. Practices reported using the reports in Year Three to augment their EHR data for quality improvement and care coordination activities.

Practices said that network staff and CCNC practice facilitators were helpful throughout the demonstration with medical home requirements and giving advice about how other practices engaged in quality improvement activities, such as through the Practicum in Primary Healthcare which supported practice quality improvement activities over the 3 years of the demonstration.

6.2.3 Payment Support

No changes were made to practice payments during Year Three. As noted during the 2013 site visit, most practices reported applying demonstration-related payments to general practice receipts and did not allocate them to specific investments. In both 2013 and 2014, many practices noted that the payments helped with investing in, updating, or switching to a new EHR system. Overall, practices appreciated the demonstration payments.

During the 2013 site visit, networks and practices described the transition to the new Medicaid billing system (NCTracks) as “a real nightmare,” “a disaster,” “chaotic,” and “a huge waste of time.” Because of issues related to NCTracks since July 2013, providers did not receive complete Medicaid payments until March 2014. The payment lags were a distraction that diminished practices’ ability to focus on quality improvement activities and the multi-payer initiative.

During the 2013 and 2014 site visits, network and practice respondents emphasized an important difference in payment mechanisms for independent practices versus practices owned by health systems: payments to practices owned by a health system went directly to the system’s corporate-level management and not to the practice or its providers. One practice that began the demonstration as a private practice and later was purchased by a corporation received no additional funding, compared to other practices within the same corporate entity that were not participating in the demonstration. A provider from another hospital-owned practice had discussions with the corporate entity about how the enhanced payments could be used to support the providers and practices involved in the demonstration, through mechanisms like quality bonuses.

6.2.4 Summary

By the time of the 2014 site visit, practices overall were more engaged in care management and quality improvement activities, with the assistance of network staff and CCNC data analytics support. Practices also improved their use of EHRs for care coordination and quality improvement projects. The BQPP and NCQA PPC®-PCMH™ recognition processes

were cited as major facilitators of change, despite the fact that most practices noted considerable challenges in adopting and learning new health IT systems to meet recognition criteria during the 2012 and 2013 site visits.

Some interviewees emphasized that the combination of initiatives and programs going on simultaneously (e.g., the Physician Quality Reporting System, Meaningful Use Incentive Program) had made significant changes in care coordination, preventive care, and health IT possible. Some practices were concerned about sustainability after Medicare payments ended. One practice said that they were unsure of how they would continue to employ their care manager when the demonstration ended.

Practices saw the extension of CCNC care management services to the Medicare population as a major benefit of participating in the demonstration, as these services previously were limited to Medicaid patients in CCNC practices. Demonstration practices integrated network care management into their workflow over the past 3 years and reported that the services affected a large portion of their patient panels. When the MAPCP Demonstration ended, practices planned to continue seeking higher-level BQPP and NCQA PCMH™ recognition and engaging in programs like Meaningful Use to continue enhancing their medical home and health IT capabilities.

6.3 Quality of Care, Patient Safety, and Health Outcomes

During Year One and Year Two of the demonstration, quality of care and patient safety activities focused on management of chronic conditions, preventive care services, medication safety and fall prevention, and prevention of ER visits and hospital readmissions, as well as on operational interventions and such measures as outreach and patient engagement. During Year Three, care managers continued implementing many of the same quality of care and patient safety interventions on which they focused during the first 2 years. Practices shifted their focus from PCMH accreditation activities to quality improvement.

Over the past year, practices engaged in PCMH practice transformation activities for improving quality of care, patient safety, and health outcomes. Practices held diabetes management training sessions with patients and staff, used their patient portal to contact patients with follow-up needs, and reached out to patients with chronic conditions to offer education on self-management and facilitate care coordination across providers. Practices also contacted patients to schedule Medicare annual wellness and preventive care visits, developed a tracking system for referrals, and set up automated reminders for both providers and patients about upcoming visits and previous care needs. Although most of these activities were not new, the protocols and systems established as result of the MAPCP Demonstration allowed them to identify patients that they previously missed.

In western North Carolina, interviewees reported working on improving patient/provider communication, holding diabetes management training, and sending reminder letters to patients to come in for preventative care services (e.g., diabetes care, vaccination, colonoscopy, mammograms, Medicare wellness visits). Some practices created care teams to treat particular patients with chronic conditions. In eastern North Carolina, most Year Three quality improvement efforts focused on using EHR systems to identify patients needing preventative

care services (colonoscopy, mammograms) and to manage patients with chronic diseases (diabetes, asthma) more effectively.

One practice improved care for people with asthma by checking on medication refills and following up to ensure that appointments were made and kept. They also set up a special care team for children in foster care. Practices worked on improving quality through EHR-facilitated Care Alerts. One practice developed a vaccine campaign, requiring all patients to meet a minimum vaccine requirement to continue to use their practice. Another practice focused on modifying their EHR system so that they could proactively target patients needing preventive visits. A third continued a palliative care project started last year, which sought to identify patients with long-term care needs outside of the care manager domain.

Interviewees from three practices also discussed efforts to improve preventive care and encourage patients to access preventive care services. Throughout the demonstration, EHRs played an important role in this, making it possible to look up patients due for such things as a mammogram or colonoscopy, create alerts to signal providers to notify patients, or use alerts appearing when a patient is in the office, so discussions could take place during the office visit. One practice discussed the work they did to get letters out to all diabetic patients needing routine diabetic care management and women needing human papilloma virus immunization. Another practice did a similar letter campaign, focusing on mammograms and colorectal cancer screening as their key areas for improving preventive care. A pediatric practice engaged in outreach for State Employee Health Plan beneficiaries with asthma by following up with patients, making sure they had needed medication refills, and ensuring that they came in for appointments regularly. The asthma outreach was facilitated by their in-office care manager who identified any patients who had been to the ER.

One interviewee described the close relationship developed over the past year between the care managers and physicians, which allowed for better collaboration and coordination in managing patients. Others described challenges with insufficient staff or technological support for data analytics and EHRs to implement time-consuming quality improvement activities. Some practices also noted interruptions and other technical difficulties with the Care Alerts, ADT feeds, and NCTracks systems.

An interviewee at one practice said that some providers had low confidence in quality measures automatically generated by EHR extracts. For example, if the practice assessed smoking status or gave a vaccine, the EHR flagged those items as still needing to be assessed or given, even after the information had been entered. This interviewee felt that they were unable to focus on improvement activities, since quality gaps were unknown without an accurate baseline. Other interviewees expressed frustration with the CCNC Care Alerts, indicating that they were not always correct.

Two networks were piloting Comprehensive Care Team, a palliative care program for a subset of demonstration Medicare beneficiaries with advanced illnesses who were not yet ready or appropriate for hospice programs. The program focused on addressing the patients' pain, symptoms, and stress related to serious illness through services such as palliative care nursing, 24/7 access to care, in-home aides, social worker support, and chaplain services. Care managers also provided advanced directives information and helped patients complete forms. The program

served 18 Medicare beneficiaries by December 2014, and network recruitment for the program was ongoing.

Network care managers also engaged the network clinical pharmacists to review medication lists and/or consult with primary care providers about particular patients. Network clinical pharmacists reviewed all medication reconciliations for patients transitioning between care settings and patients on the CCNC Informatics high-utilizer and chronic care priority reports. Clinical pharmacists also followed up with patients directly as needed.

6.4 Access to Care and Coordination of Care

During the 2013 site visit, practices mentioned that relationships with care managers continued to develop and benefit patients as care coordination improved. During the 2014 site visit, care coordination and the role of care managers continued to be a priority for many practices in both regions. There was less emphasis on expanding access to care through extended hours in 2014, as most practices believed they had effective hours before the demonstration.

Some practices added same-day appointments, though several interviewees indicated that patients may not have been aware of such services. Most practices reported that they had not expanded access to primary care during the third year of the demonstration. Representatives of one network and one practice discussed the need to educate patients about services available to them. For example, one network interviewee indicated that generally patients were not aware that their practice had same-day appointments and office hours outside normal business hours. To address this gap in knowledge, staff at one practice conducted a “Call Us First” campaign to educate patients about their office hours and encourage them to contact the on-call doctor outside of regular hours before going to an urgent care center or the ER. Staff at one network described efforts to educate all patients about the availability of same-day appointments at network practices and empower patients to ask for them. They observed that patients often did not know that they could get an appointment the same day and, even if they did, they were unsure about when and how to ask for it. Staff from another network discussed care managers’ work over the course of the demonstration to educate patients on their options for getting primary care and providers on the needs of patients. This was done with the goal of coordinating care and improving communication between patients and providers, even when a care manager was not involved.

One practice had opened a new office that increased access to care in a nearby underserved area, and they hired a new provider in the past year to increase access for patients at their main office. Despite the positive changes made over the past 3 years to increase access, network interviewees recognized that access barriers in rural areas still were a problem, due to difficulties in hiring and retaining providers in these areas and a lack of behavioral health services that could be integrated into patient care.

During Year One, networks and some practices used supplemental payments from the demonstration, BCBSNC, and State Employee Health Plan to hire more care managers and other care coordination staff to schedule appointments with physicians, arrange patient transportation, create post-discharge patient care plans, and visit patients at home. This type of coordination continued during demonstration Years Two and Three. During the third demonstration year, care

managers and network staff continued to fine-tune their approach to care coordination, maximizing their use of all available resources to identify and follow up with patients at highest risk of avoidable health care use or with multiple chronic conditions. CCNC network care managers worked with hospital-based case managers and discharge planners to prevent transitional care gaps and facilitate referrals for hospitalized Medicare, Medicaid, State Employee Health Plan, and BCBSNC patients. Care managers also became more effective at meeting the needs of Medicare patients over the course of the demonstration, as most of their experience before the demonstration was in serving Medicaid patients.

One practice visited during the site visit, however, reported not using care managers and care coordination resources offered by their local network. One physician said that he did not find the services provided by care managers helpful; instead, this practice focused on promoting effective communication and care coordination between providers and patients through the new patient portal.

Several practice staff in the western region said that processes for care coordination and relationships with care managers established during the first 2 demonstration years allowed them to shift their practice transformation focus to quality improvement activities in Year Three. These practices continued to provide coordinated patient care, but prioritized quality improvement activities, such as closing gaps in preventative care services and creating care teams within a practice to treat patients with unique care needs (e.g., those with chronic or congenital conditions or foster children). Network and practice staff in the eastern region focused on improving care coordination and effective use of EHRs.

Several practices introduced patient portals. Use of EHR systems in conjunction with patient portals in some practices, particularly in the western region, provided patients with quicker responses, easier access to their own records, and the opportunity to communicate directly with their provider, instead of going through multiple channels, such as voicemail or a nurse.

6.5 Beneficiary Experience With Care

During the 2013 site visit, interviewees discussed network, care manager, and practice efforts to encourage self-management and engage patients in shared decision making, but observed that beneficiary experience was not notably changed by the demonstration. During the 2014 site visit, interviewees described many of the same activities, as many of their efforts to encourage self-management and shared decision making continued.

In the third demonstration year, care managers continued to provide care management services in local practices, patient homes, and by phone. These services focused on improving patients' overall experience with care. Care managers encouraged self-management and patient participation in care decisions; conducted home or hospital visits; assisted patients with transportation and appointment scheduling; provided medication reconciliation; and educated patients about resources available in the health care system and their community. During the second demonstration year, many interviewees discussed the efforts of care managers to engage patients in self-management and shared decision making through the use of self-management

notebooks and chronic disease education, one on one and in classes; these activities continued in Year Three.

Self-management was a priority in the third demonstration year. Care managers provided self-management tools that patients might not otherwise have had access to, such as scales or pill boxes. A provider from one practice discussed classes offered to their patients and staff to educate them about common chronic diseases, such as diabetes. Staff at one network described the use of forms given to patients and providers to promote shared decision making in practices. Staff of another practice discussed recent efforts to encourage patient preparedness for appointments; the practice asked patients to bring in medication bottles, medication logs, and blood sugar logs to provide a full understanding of the patient's status and foster better provider/patient communication.

In addition to these new educational materials and resources for enhancing self-management, practice transformation to PCMH also encouraged restructuring the information provided to patients to promote better communication, patient education, and self-management. One practice and one network discussed the importance of the clinical visit summaries given to patients following their appointments. These summaries detailed what was done and discussed during the appointment and gave patients a record and a starting point for asking questions about their own care. Patient portals also assisted in this by allowing patients to access their medical records and lab results online, as well as to communicate directly with providers.

Most practices noted that they thought beneficiary experience improved as result of the demonstration. Staff at one practice said that providing care through a PCMH model made it difficult to see the same number of patients as they did before practice transformation. Care under a PCMH model required longer appointment times, sometimes resulting in schedule delays and longer waiting times.

Despite the many changes noted by networks, practices, and care managers, both practice and network staff said that it was unlikely that beneficiaries noticed changes with their care during the demonstration period. Network and practice staff said that patients may not have recognized changes in their care experience or attributed such changes to the demonstration. They noted that, although patients might not have observed improvements, they likely would have noticed that specific changes, such as clinical visit summaries or care management activities, had improved their care experience. Most interviewees indicated that their practices did not collect any data to measure patient experience, so even if patients felt that their experience had changed, practice staff would not necessarily know this.

6.6 Effectiveness (Utilization and Expenditures)

According to its MAPCP Demonstration application, North Carolina estimated that Medicare would achieve savings of approximately \$37 million (\$25.2 million net of payments to practices and networks) over the course of the demonstration. The identified savings were to be generated from three key areas: (1) reduced inpatient hospital readmissions, (2) reduced inpatient admissions for potentially preventable hospitalizations, and (3) reduced unnecessary ER use. Based on a review of the literature, a reduction of 25 percent for hospital readmissions was assumed in Year One, 30 percent in Year Two, and 35 percent in Year Three, resulting in a

5.9 percent average reduction in hospital admissions across the 3 years of the demonstration. With respect to admissions for preventable hospitalizations, it was assumed that 10 percent of potentially preventable admissions would be avoided in Year One, 20 percent in Year Two, and 30 percent in Year Three. These changes were to reduce overall admissions by 3.65 percent across the 3 years of the demonstration. The demonstration was expected to reduce the number of ER users by 3.2 percent and the number of services per user by 3.3 percent over 3 years.

According to information gathered in 2013, care managers used the Provider Portal and Care Alerts to identify patients with high utilization and multiple chronic conditions, track referrals and tests, and focus on transitions from inpatient settings to reduce readmissions and ER visits. Some practices surveyed their patients with high ER use to identify gaps in their care, so that providers and care managers could work together to address the gaps and reduce patient ER utilization.

Over the past year, interviewees reported that extending care management services to Medicare beneficiaries likely had the largest impact on utilization and expenditures. Others reported that they developed new relationships with hospitalists at the local hospital, which was possibly related to utilization not attributable to the demonstration. Some discussed efforts to improve communication with care managers and discharge planners in nearby hospitals, such as having care managers coordinate with the hospital staff and contact the practice after discharges regarding medication lists and scheduling follow-up appointments.

One interviewee felt that the short time-frame of the demonstration was insufficient to show any decrease in inpatient and ER utilization or expenditures, since care management efforts were more likely to increase some types of utilization because they made it more likely that patients received needed care. Practice and network staff observed that knowing when patients had been to the ER helped with interventions. One interviewee noted that ER use declined among her patient population, and another cautioned his patients about unnecessary ER use.

6.7 Special Populations

As during Year One and Year Two of the demonstration, North Carolina's initiative did not target any special populations. Care management and clinical pharmacy services available to participating demonstration practices, however, focused on high-risk subpopulations, including people at high risk for hospital readmission, those with multiple chronic conditions and polypharmacy, patients in care transitions, and beneficiaries who were dually eligible for Medicare and Medicaid. Because dually eligible beneficiaries often had many conditions or characteristics that made them high-risk populations, nurse care managers reported that, instead of offering specific interventions, they tried to manage the whole spectrum of the patient's health care needs.

6.8 Discussion

Over the course of the demonstration period, CCNC, its networks, other payers, and the demonstration practices encountered an array of challenges in developing and operating a PCMH infrastructure. The practice transformation process and establishment of integrated health IT for serving the multi-payer patient population proved to be extremely time consuming. The efficiency and efficacy of these activities varied greatly according to local practice and network capacities.

CCNC sought to enhance PCMH transformation and patient services with a centralized informatics system and support staff. The networks, however, implemented care management, data analytics, and quality improvement activities in different ways that accommodated local priorities and relationships with regional hospitals and other health care resources. These regional differences persisted throughout the demonstration period.

During Year One and part of Year Two, the focus for networks and practices was achieving NCQA PPC[®]-PCMH[™] and BQPP recognition and establishing or upgrading an EHR. Adopting EHRs and harnessing their functions for population health management continued to challenge practices throughout the demonstration. Practices reported low utilization of CCNC data during each year's site visit. The CCNC data were used most by networks, particularly care management and clinical pharmacy staff. In Year Two, effective utilization of CCNC's health IT was impeded by Medicaid's transition to NCTracks for processing claims, which delayed Medicaid payments and data feeds. Thus the networks and practices had approximately 8 demonstration months in which they received sparse or no Medicaid payments and relied solely on practice EHRs for management of Medicaid patients.

One change evident during the 2014 site visit was that practices began implementing quality improvement activities, but they continued to struggle with maximizing use of EHRs and engaging and educating patients about PCMH resources. Many practices reported in Year One that they already offered after-hours access and/or same-day appointments, so they did not focus on those transformation activities. Practices did little to educate patients about expanded access over the course of the demonstration, so those improvements might not have been used by those they were designed to benefit. A few practices acknowledged the need for patient education about expanded access and attempted to address the issue through outreach activities in Year Three.

Another notable change evident during the 2014 site visit was that care management became integral to practices' capacity to provide patients with extra resources and services; to access, synthesize, and utilize data; to coordinate care across providers; and to close gaps in transitional care. Network care management staff increased during the demonstration period, but its reach remained limited to a fraction of the demonstration patient population because of the finite number of practices and patients that each care manager was able to assist. Furthermore, the majority of the patients they served were among the most difficult to influence, because they targeted complex patients with multiple comorbidities, significant socioeconomic constraints, and behavioral health diagnoses. The direct impact of care management on high-cost utilization for the North Carolina MAPCP Demonstration is not yet known.

Across the demonstration period, the CCNC informatics and data capture infrastructure had many technical difficulties and was not used fully by demonstration practices and providers for their PCMH activities. The lack of evidence for improved care utilization and reduced costs led key private payers participating in the demonstration to continue the payment enhancements and practice transformation activities already established, but to discontinue their participation in the initiative. Because the participation of private payers was one of the requirements for this demonstration, CMS decided to terminate North Carolina's participation in December 2014. Many practices, however, said that they would continue their medical home activities.

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CHAPTER 7 MINNESOTA

In this chapter, we present qualitative and quantitative findings related to the implementation of the Health Care Homes (HCH) initiative, Minnesota's multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third of three annual site visits to Minnesota, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third round of site visit interviews, which occurred October 21 through 23, 2014, two teams traveled to the Twin Cities metro area; we also conducted some telephone interviews in October and early November. The interviews focused on implementation experiences and changes that had occurred since the last site visit in October 2013. We interviewed providers, nurses, and administrators from participating HCHs, as well as provider organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We also spoke with key state officials and staff who administered the HCH initiative and the MAPCP Demonstration to learn how the implementation of HCH certification and the payment system was working. We also met with payers to hear about their experiences with implementation and determine whether or not the HCH initiative payment model met their expectations for return on investment. In addition, we reviewed reports from HCH initiative staff to CMS and other documents to gain additional information on how the demonstration was progressing.

This chapter is organized by major evaluation domains. *Section 7.1* reports state implementation activities, characteristics of practices and demographic and health status characteristics of Medicare FFS beneficiaries participating in the HCH initiative. *Section 7.2* reports practice transformation activities. The subsequent sections of this chapter report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 7.3*); access to care and coordination of care (*Section 7.4*); beneficiary experience with care (*Section 7.5*); effectiveness as measured by health care utilization and expenditures, (*Section 7.6*); and special populations (*Section 7.7*). The chapter concludes with a discussion of the findings (*Section 7.8*).

7.1 State Implementation

In this section, we present findings related to the implementation of Minnesota's HCH initiative and changes made by the state, practices, and payers in Year Three of the MAPCP Demonstration. We focus on providing information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?
- Were any major implementation issues encountered over the past year and how were they addressed?
- What external or contextual factors affected implementation?

The state profile in **Section 7.1.1**, which describes the major features of the state’s initiative and the context in which it operated, draws on a variety of sources, including quarterly reports submitted to CMS by Minnesota HCH initiative staff; monthly calls between HCH initiative staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in October 2014. **Section 7.1.2** presents a logic model that reflects our understanding of the link between specific elements of the HCH initiative and expected changes in outcomes. **Section 7.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during Year Three of the MAPCP Demonstration. **Section 7.1.4** concludes the State Implementation section with lessons learned during the third year of the demonstration.

7.1.1 Minnesota State Profile as of October 2014 Evaluation Site Visit

The Minnesota HCH initiative, under the auspices of the Minnesota Department of Health and the Minnesota Department of Human Services, was a cornerstone of the state’s comprehensive health reform enacted in 2008. It was intended to transform Minnesota’s primary care delivery system to improve population health, improve patients’ experience of care, and reduce the per capita costs of care. Prior legislation established HCHs intended to serve complex populations in public programs; the 2008 HCH initiative built upon the initial design by mandating the participation of Medicaid, the state employee group insurance program, and certain private insurers, and by creating multi-payer-supported, state-certified HCHs throughout the state. Medicare joined the state initiative as a payer on October 1, 2011, and ceased participating in the state initiative on December 31, 2014.

State environment. The 2008 health reform legislation required, among other changes, development of certification standards for HCHs, care coordination payments from both public and private payers, provider reporting of standardized quality measures, and use of all-payer encounter data for “provider peer grouping” to facilitate informed consumer choice. It also required the development of definitions for seven initial “baskets of care,” groupings of various health care services associated with treating specific health conditions, such as diabetes, and quality measures for each type of care basket. The Minnesota Department of Health developed certification standards for HCHs, while the Minnesota Department of Human Services was involved in developing a multitiered payment methodology (described below) for Medicaid to use to pay participating providers.

Minnesota’s primary care providers were often part of large, integrated health systems or multispecialty group practices that included nationally recognized health care leaders, such as the Mayo Clinic and HealthPartners. Only nonprofit health plans were permitted by law to sell fully insured products in the state. Self-insured employer plans, not subject to much of state law, covered roughly 40 percent of the state’s population and were not required to participate in the HCH initiative. As of 2014, data compiled by the Kaiser Family Foundation showed that the state had the highest managed care penetration rate in Medicare in the country, at 51 percent.²⁶ Medicare Advantage enrollees were not included in the MAPCP Demonstration, and providers could not receive HCH payments on their behalf.

²⁶ (<https://kaiserfamilyfoundation.files.wordpress.com/2014/05/8588-exhibits-medicare-advantage-2014-spotlight-enrollment-market-update.pdf>).

The state encouraged the adoption and use of health information technology (IT) through many policies and activities. For example, state law required all hospitals and other health care providers to have an interoperable electronic health record (EHR) system in place by 2015, and providers were required to use e-prescribing beginning in 2011. State law also required health care providers to submit data on quality measures to the Minnesota Department of Health as part of the Statewide Quality Reporting and Measurement System (SQRMS). Providers submitted SQRMS data to a contracted measure development and data collection vendor, Minnesota Community Measurement, a multi-stakeholder organization founded by health plans. Most providers submitted these data electronically. Health plans and third-party administrators also were required to submit data to a multi-payer claims database. To become certified as an HCH, practices were required to have searchable electronic registries.

Minnesota had several relevant programs operating in the demonstration area and across the state that may have affected outcomes for participants in the demonstration or in the comparison population:

- A Section 646 Medicare Health Quality Demonstration related to advanced care planning operated in four southeastern Minnesota counties. These counties were precluded from participating in the MAPCP Demonstration and were not considered for inclusion in the comparison group for this evaluation, but they were able to receive HCH payments from payers in the state other than Medicare. The demonstration began implementation in February 2010 and ended in 2014.
- A Beacon Community grant (concluded in 2014) to 11 counties in the southeast region of the state focused on connecting participating providers' EHRs.
- A 3-year Systems Integration Grant, concluded in 2014, involved the Aging Services Division of the Minnesota Department of Human Services and the regional area Agencies on Aging. The aim was to build closer connections between the HCHs and services for the aging. The Minnesota Board on Aging received the grant in September 2011.
- Beginning in 2011, five community transformation grants from the Centers for Disease Control and Prevention were awarded to communities in Minnesota. Staff supported by these grants participated in prevention tracks offered as part of HCH learning collaboratives.
- The Integrated Health Partnerships (IHP) Demonstration, formerly called the Medicaid Health Care Delivery Systems (HCDS) Demonstration, was approved by CMS in August 2012 to support voluntary shared savings accountable care organization (ACO) models in Medicaid. The demonstration rewarded groups of providers and integrated delivery systems that achieved savings for the state's Medicaid program beyond a total cost of care target without compromising quality. The demonstration implemented six initial IHP contracts in early 2013 and three more in 2014.
- In February 2013, the state received a CMS State Innovation Models (SIM) Initiative Model Testing award, which allowed the state to expand its health information exchange (HIE) and health IT infrastructure; develop a workforce of community

health workers and care coordinators; and support primary care physicians seeking to transform their practices into HCHs. Minnesota also built on the IHP Demonstration to expand ACO capacity and created 12 Accountable Communities for Health that can address a variety of community population and service needs.

- Minnesota received a planning grant from CMS to develop a Medicaid State Plan Amendment to implement Section 2703 Health Homes under the authority of the Affordable Care Act. Behavioral Health Homes coordinated care for Medicaid beneficiaries with serious mental illness, multiple chronic conditions, or both.
- Minnesota was awarded a contract through CMS's State Demonstration to Integrate Care for Dual Eligible Individuals to strengthen alignment of Medicare and Medicaid policies governing the Minnesota Senior Health Options managed care program; the state signed a Memorandum of Understanding with CMS in September 2013 establishing their demonstration, which runs through the end of December 2016.
- In January 2014, Minnesota implemented the option under the Affordable Care Act (ACA) to expand Medicaid eligibility to all adults with incomes of up to 138 percent of the federal poverty level (FPL).²⁷

Demonstration Scope

Minnesota's multi-payer HCH initiative operated statewide since 2011, and HCH practices in all but four counties were eligible to receive monthly care coordination payments from Medicare through the MAPCP Demonstration. For purposes of this evaluation, we considered practices that became certified as an HCH and were *eligible* to receive MAPCP Demonstration payments—regardless of whether they actually received MAPCP Demonstration payments—as participating in the MAPCP Demonstration. Although only a subset of eligible HCH practices chose to regularly submit claims for MAPCP Demonstration fees by the end of Year Three of the MAPCP Demonstration (September 30, 2014), both the state staff who led Minnesota's HCH initiative (who conducted in-depth site visits to all practices seeking certification) and the federal evaluators of the state initiative (who interviewed a sample of practices that were and were not receiving MAPCP Demonstration payments) believed it was accurate to consider practices as participating in the HCH initiative even if they did not receive MAPCP Demonstration payments. This was because (1) practices transformed the way they delivered care, including hiring dedicated care coordinators and offering 24/7 access to care; (2) practices usually received HCH payments from private payers that at least partially covered the cost of the practice transformations; and (3) practices tended to engage in enhanced care coordination activities for all patients, regardless of payer.

Table 7-1 shows participation in the Minnesota MAPCP Demonstration at the end of Years One, Two, and Three of the demonstration. Certification proceeded at a steady pace in the 4 years since the state began certifying practices as HCHs, but lagged somewhat behind the state's original projections. The number of participating practices with attributed Medicare FFS beneficiaries was 97 at the end of Year One (September 30, 2012); 136 at the end of Year Two (September 30, 2013); and 208 at the end of Year Three (September 30, 2014)—an increase of

²⁷ The ACA expanded Medicaid eligibility to individuals with incomes up to 133 percent of the FPL; however, there is a 5 percent income disregard so the income limit is effectively 138 percent of the FPL.

114 percent overall. The number of providers in these practices increased by 84 percent over this period, from 1,468 to 2,698. The cumulative number of Medicare FFS beneficiaries who had ever participated in the demonstration for 3 or more months was 65,612 at the end of the first year, 106,635 at the end of the second year, and 159,460 at the end of the third year—an overall increase of 143 percent.

Table 7-1
Number of practices, providers, and Medicare FFS beneficiaries participating in the Minnesota HCH initiative

Participating entities	Number as of September 30, 2012	Number as of September 30, 2013	Number as of September 30, 2014
HCH initiative practices ¹	97	136	208
Participating providers ¹	1,468	1,704	2,698
Medicare FFS beneficiaries ²	65,612	106,635	159,460

NOTES:

- HCH initiative practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating HCH practices and participated in the demonstration for at least 3 months.
- The subset of HCH practices that actually chose to submit claims to Medicare for monthly MAPCP Demonstration fees is much smaller and is not shown in this table.

ARC = Actuarial Research Corporation; FFS = fee-for-service; HCH = Health Care Homes; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

In terms of all-payer participants, the state originally projected that a total of 1,535,366 individuals would participate in the HCH initiative by the end of Year Three of the MAPCP Demonstration. The number of all-payer participants enrolled in the HCH initiative was 506,772 at the end of Year One (September 2012); 904,169 at the end of Year Two (September 2013); and 1,050,003 at the end of Year Three (September 2014). This represented an overall increase of 543,231 or, 107.2 percent since Year One, but still fell short of the original projections.

Originally, the state hoped to have 340 practices certified and receiving monthly care coordination payments through the MAPCP Demonstration. As of September 30, 2014, there were 213 practices certified as HCHs and eligible to participate in the MAPCP Demonstration. Certified HCHs were clustered in the Minneapolis-St. Paul metropolitan area, although certified HCHs existed throughout the state.

Minnesota was unique in the demonstration because, rather than using an attribution method for determining MAPCP Demonstration Medicare payments, providers were required to submit monthly claims to receive HCH payments. All 213 certified HCH practices eligible for MAPCP Demonstration payments submitted at least one claim to receive these monthly care coordination payments by the end of Year Three, though most practices did not bill Medicare consistently for payments throughout the course of the demonstration. As described in

Section 7.2.3, the state’s efforts to encourage certified HCH practices to bill for monthly HCH care coordination payments were only minimally successful.

Medicaid, the state employee group insurance program, and commercial plans not subject to the federal Employee Retirement Income Security Act (ERISA) were required by Minnesota’s 2008 health care reform legislation to make care coordination payments to certified HCHs. Seven commercial plans were in the market. Although self-insured employers were not required to make payments, the state hoped that some would choose to participate voluntarily. The state estimated that by the end of Year Three of the MAPCP Demonstration (September 30, 2014), the distribution of HCH patients by payment source was 17 percent Medicare FFS, 6 percent Medicaid FFS, 19 percent Medicaid managed care, 54 percent fully insured private insurance, and 4 percent state employee group insurance program.²⁸

Table 7-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries who participated in the HCH initiative as of September 30, 2014. There were 208 participating practices, with an average of 13 providers per practice. The majority of these were office-based practices (92%). An additional 6 percent were rural health clinics (RHCs), and 2 percent were federally qualified health centers (FQHCs). There were no critical access hospitals. Seventy-eight percent of practices were located in metropolitan counties, 13 percent in rural counties, and 9 percent in micropolitan counties.

Table 7-2
Characteristics of practices participating in the Minnesota HCH initiative as of September 30, 2014

Characteristic	Number or percent
Number of practices (total)	208
Number of providers (total)	2,698
Number of providers per practice (average)	13
Practice type (%)	
Office-based practice	92
FQHC	2
CAH	0
RHC	6
Practice location type (%)	
Metropolitan	78
Micropolitan	9
Rural	13

ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; HCH = Health Care Homes; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health clinic.
SOURCE: ARC Q13 MAPCP Demonstration Provider File. (See Chapter 1 for more details about this file.)

²⁸ As reported in Minnesota’s quarterly report to CMS for the quarter ending September 2014.

In **Table 7-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating HCH practices during the first 3 years of the MAPCP Demonstration (October 1, 2011, through September 30, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Twenty-seven percent of the beneficiaries assigned to HCH practices during the first 3 years of the MAPCP Demonstration were under the age of 65; 36 percent were age 65–75; 25 percent were age 76–85; and 12 percent were over the age of 85. The mean age was 69. Beneficiaries were mostly White (90%). Seventy-four percent lived in urban areas, and 57 percent were female. Twenty-three percent were dually eligible for Medicare and Medicaid, and 32 percent of beneficiaries were eligible for Medicare originally due to disability. One percent of beneficiaries had end-stage renal disease, and 2 percent resided in a nursing home during the year before their assignment to an HCH practice.

Table 7-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Minnesota HCH initiative from October 1, 2011, through September 30, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	159,460
Demographic characteristics	
Age < 65 (%)	27
Age 65–75 (%)	36
Age 76–85 (%)	25
Age > 85 (%)	12
Mean age	69
White (%)	90
Urban place of residence (%)	74
Female (%)	57
Dually eligible beneficiaries (%)	23
Disabled (%)	32
ESRD (%)	1
Institutionalized (%)	2
Health status	
Mean HCC score groups	1.07
Low risk (< 0.48) (%)	26
Medium risk (0.48–1.25) (%)	51
High risk (> 1.25) (%)	24
Mean Charlson index score	0.71
Low Charlson index score (= 0) (%)	68
Medium Charlson index score (≤ 1) (%)	16
High Charlson index score (> 1) (%)	16

(continued)

Table 7-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Minnesota HCH initiative from October 1, 2011, through September 30, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%)</i>	
Heart failure	4
Coronary artery disease	8
Other respiratory disease	8
Diabetes without complications	15
Diabetes with complications	4
Essential hypertension	24
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	7
Renal failure	3
Peripheral vascular disease	2
Lipid metabolism disorders	15
Cardiac dysrhythmias and conduction disorders	9
Dementias	0
Strokes	1
Chest pain	4
Urinary tract infection	4
Anemia	6
Malaise and fatigue (including chronic fatigue syndrome)	3
Dizziness, syncope, and convulsions	6
Disorders of joint	6
Hypothyroidism	5

NOTES:

- Percentages and means are weighted by the fraction of the year for which a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary was first attributed to a patient-centered medical home after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; HCH = Health Care Homes; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCE: Medicare claims files.

Using three different measures—Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries’ health status during the year before their assignment to an HCH initiative practice. Beneficiaries had a mean HCC score of 1.07, meaning that Medicare beneficiaries assigned to an HCH practice in

Year Three of the MAPCP Demonstration were predicted to be 7 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating HCH practice. Beneficiaries' average score on the Charlson comorbidity index was 0.71; just over two-thirds (68%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before their assignment to a participating HCH practice.

The most common chronic conditions diagnosed were hypertension (24%), lipid metabolism disorders (15%), and diabetes without complications (15%). Fewer than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. Minnesota developed comprehensive HCH certification and recertification standards that included the following:

- HCHs must establish a system to screen patients and offer HCH services to all who have, or are at risk for, complex or chronic conditions.
- Participants must have 24/7 access to staff through an on-call provider or telephone triage system.
- HCHs must use a searchable electronic registry to support care coordination, track patient care, and manage populations.
- HCHs must use a team that includes the primary care provider and care coordinator to develop a care plan and make regular face-to-face patient contact. Care coordination includes tracking admissions, referrals, and test results; post-discharge planning; medication reconciliation; referring patients to community-based resources; transition planning; and linking to external care plans. Patients must have the opportunity to fully engage in planning and shared decision-making.
- HCHs must have an active quality team with patient participation and a quality plan, and they must be able to measure and track change.

Practices had to prove that they had adopted all of the required HCH care processes by submitting documentation and participating in a site visit by state certifiers. Minnesota's certification process was comprehensive, including medical record reviews and patient interviews, and the certification team included both medical personnel and a consumer. If a practice did not fully meet a particular criterion, the state had the ability to certify that practice with a "variance," meaning that the practice agreed to implement a corrective action plan and to be monitored to ensure that it came into compliance with the particular HCH standard.

At the end of their first year of certification, HCHs were required to report on specific quality measures and track at least one quality indicator. By the end of the first recertification period, HCHs were required to meet state-established quality benchmarks on patient health, patient experience, and cost-effectiveness measures. In the second recertification, these benchmarks became progressively higher standards.

As part of the first recertification process, HCHs were required to demonstrate that patients were encouraged to take an active role in managing their care and had opportunities to participate in care planning and shared decision making; show evidence of procedures and workflows to identify and remedy gaps in care; and document processes and identified staff to conduct pre-visit planning, call patients to remind them about needed appointments, schedule follow-up appointments for patients with chronic conditions, and use guidelines to identify patients with gaps in services. Practices seeking recertification also were required to show evidence that a registry was actively used by the care team, and they had to demonstrate ongoing partnerships with at least one community resource (e.g., senior services, local public health, home health, assisted living, schools, behavioral health). HCHs were required to specify their comprehensive care planning processes and to designate staff to attend mandatory HCH learning collaborative meetings. Quality improvement was also a key component of the recertification process: HCHs were required to submit an annual quality plan and quality report, and they were required to submit data on one quality measure for each of three categories (improvement in patient health, quality of patient experience, and cost effectiveness). As of October 2014, according to the state, 143 HCH practices had gone through the recertification process only once.

During an HCH's second recertification, quality benchmarking became an important component. HCHs were expected to meet specific targets—developed by an HCH technical workgroup—on both improvement benchmarks and absolute performance benchmarks, using unadjusted quality measure data collected statewide. Improvement benchmarks measured a practice's gains or losses on quality measures over time, while the performance benchmark compared an HCH's absolute performance to other HCHs. HCH practices performing at 10 percentage points higher than the state average (without risk adjustment) were considered high achievers on that measure, and HCH practices performing at 10 percentage points below the state average were considered low achievers. Failure to meet a performance target did not automatically make a practice ineligible to recertify as an HCH, but may have resulted in recertification with a variance requiring them to implement a corrective action plan. As of October 2014, according to the state, 166 HCH practices had gone through recertification twice.

Support to practices. As noted previously, unlike other MAPCP Demonstration states, practices participating in the HCH initiative were required to submit claims each month to receive HCH care coordination payments from participating public and private payers. Minnesota also required patients to opt-in to receive HCH services. Some practices found this process burdensome and would have preferred a passive enrollment process. Practices were able to bill for care coordination services on a monthly basis even if the patient did not have a regular face-to-face visit in the office during that month. The care coordination payments to HCHs were tiered on the basis of a patient's number of chronic condition groups (e.g., cardiovascular, respiratory, endocrine). Payments increased if a severe and persistent mental illness was present or if English was not the patient's first language. No care coordination payment was made for those without any major (as specified by the state) chronic conditions. Private payers were permitted to pay HCH practices using other payment models, such as by increasing capitation rates to cover the cost of care coordination services. By the end of the first year of the MAPCP Demonstration, 59 practices submitted claims to Medicare for monthly care coordination payments totaling \$301,433 (with one practice receiving \$247,515 of these funds). In the second year of the demonstration, 99 practices submitted claims to Medicare totaling \$745,313 (with one practice receiving \$249,860 of these funds). In the third year of the demonstration, 213

practices submitted claims to Medicare totaling \$2,776,838 (with one practice receiving \$714,924 of these funds).²⁹ This relatively low payment volume resulted from providers' choosing not to bill for services eligible for HCH payments. We elaborate on the reasons that many providers chose not to bill in **Section 7.2.3**. Medicare and Medicaid care coordination payment rates are listed in **Table 7-4**.

Table 7-4
Medicare FFS and Medicaid care coordination payment rates

Tier	Patient complexity	Medicaid FFS PMPM	Medicare FFS PMPM
0	No major chronic condition groups	\$0.00	\$0.00
1	1–3 major chronic condition groups	\$10.14	\$10.14
2	4–6 major chronic condition groups	\$20.27	\$20.27
3	7–9 major chronic condition groups	\$40.54	\$30.00
4	10+ major chronic condition groups	\$60.81	\$45.00

NOTES:

- PMPM payments are increased by 15 percent if the patient is diagnosed with serious and persistent mental illness or if the patient's primary language is not English. If both situations occur, payments are increased by 30 percent. Private plans must be consistent with Medicaid FFS, but they can be flexible in their payment approaches.
- PMPM payment amounts do not reflect the 2 percent reduction in Medicare payments that began in April 2013 as a result of sequestration.

FFS = fee-for-service; PMPM = per member per month.

Minnesota supported practices in adopting the HCH model in a variety of ways. Regionally based nurse consultants, called planners, worked one-on-one with practices interested in adopting the HCH model to provide educational tools and resources, answer questions, and help determine where to start in their practice transformation efforts. HCH planners also participated in certification and recertification site visits and wrote reports documenting what practices had done to meet HCH standards. Planners also connected less-advanced practices with more-advanced practices to facilitate peer-to-peer learning, and they helped to expand relationships with groups in the community, such as local public health, social service, and mental health organizations.

Minnesota provided technical assistance to support HCHs through a variety of meetings and webinars. "Learning Days" were in-person meetings held semiannually, which practices were required to attend to maintain HCH certification (and at which practices regularly were asked to make presentations). Between these in-person meetings, Minnesota convened semiannual virtual half-day meetings, which HCH practices could attend via video conference calls, by telephone, or in person. The state also offered monthly webinars on a variety of clinical topics; a four-part webinar series introducing the HCH model (available in a prerecorded format and delivered live a few times per year); and recorded webinars explaining how to bill for monthly HCH payments. As the demonstration evolved, topics for the technical assistance resources shifted to reflect the continued development and advancement of many HCHs. In

²⁹ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

2014, technical assistance resources placed greater emphasis on advancing care processes and improving quality, rather than on HCH operational processes, the initial focus at the start of the demonstration. Later presentation topics included behavioral health integration, population health management, and identification of patients for care management. Recognizing that new HCHs continually were joining the initiative, Minnesota also archived previous technical assistance resources on its Web site. The state's SIM Initiative Model Testing award also provided additional funds to support joint learning collaboratives, Learning Days, and webinars for participants in HCHs and SIM.

Practices also participated in “learning communities” led by contracted organizations that brought together four or five practices each over a 6-month period to learn about a clinical topic of interest to them. Topics covered in the learning communities included disease prevention and health improvement, as well as patient- and family-centered care to improve quality of care for children.

The state developed a toolkit for care coordinators, released in August 2013, designed to help with managing the care of Medicare beneficiaries and older adults with complex conditions. In 2014, the state appointed a workgroup to revise and update the toolkit based on feedback from HCH providers and care coordinators.

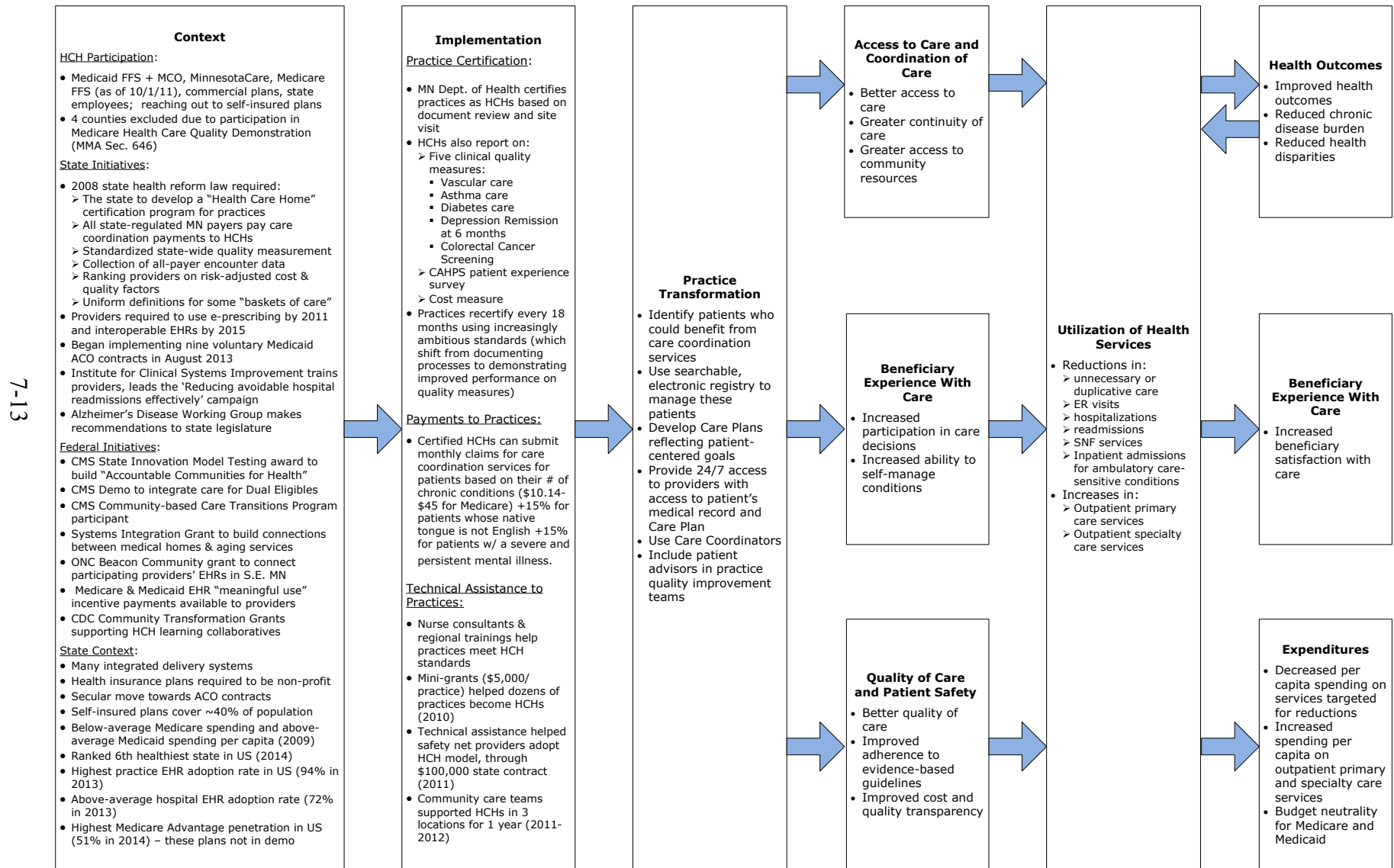
Minnesota provided practices with quality measure data aimed at helping them identify clinical areas to target for improvement. Although all practices in the state had access to a Web site showing how they performed on the various quality measures they were required by state law to report, HCH practices also had access to a more granular level of detail—showing how each of their providers performed on each of these quality measures and how their practice compared with other HCH practices—in terms of both absolute performance and changes since the prior year. These benchmarking data, which were considered when a practice applied for HCH recertification for the second time, were meant to guide practice quality improvement efforts. In addition, the results of more than 230,000 patient experience surveys (Consumer Assessment of Healthcare Providers and Systems—Clinician and Group Surveys [CG-CAHPS]) from 651 practices, including certified HCH practices, became available to the public in August 2013 on the Minnesota Community Measurement Web site for consumers (Minnesota HealthScores). The state also piloted and refined two HCH-specific quality measures: (1) a care coordination measure to assess the share of patients over age 65 with an advanced care plan on file and (2) a care transitions measure to identify the share of patients with high-risk conditions who were contacted after hospital discharge—either by telephone within 3 days or by a face-to-face visit within 7 days.

Finally, beginning in the summer of 2013, the state provided HCH practices with monthly online practice feedback reports derived from Medicaid claims, which included information on patients' utilization of health care services, diagnostic information, and risks.

7.1.2 Logic Model

Figure 7-1 is a logic model of the HCH initiative, updated to incorporate changes made during Year Three of the MAPCP Demonstration. The first column describes the context for the demonstration, including the scope of the HCH initiative, other state and federal initiatives that affected the state initiative, and key features of the state context that affected the demonstration, such as a secular move toward ACO-style arrangements and the fact that self-insured plans

Figure 7-1
Logic model for Minnesota Health Care Homes



ACO = accountable care organization; CMS = Centers for Medicare & Medicaid Services; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; HCH = Health Care Home; MCOs = managed care organization; MMA = Medicare Modernization Act; MN = Minnesota; ONC = Office of the National Coordinator for Health Information Technology; SE = Southeast; SNF = skilled nursing facility.

covered approximately 40 percent of the state population (and did not participate in the HCH initiative). The demonstration context affected the implementation of the HCH initiative. Implementation activities were expected to promote transformation of practices to patient-centered medical homes (PCMHs), reflected in care processes and other activities. Beneficiaries served by these transformed practices were expected to have better access to more coordinated, safer, and higher-quality care, as well as to have better experiences with care and to be more engaged in decisions about treatments and management of their conditions. These improvements promoted more efficient utilization of health care services. These changes in utilization were expected to produce further changes, including improved health outcomes, improved beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for the Medicare program and cost savings for other payers. Improved health outcomes, in turn, were expected to reduce utilization further.

7.1.3 Implementation

This section uses primary data gathered from Minnesota site visit interviews conducted in October 2014 and other sources and presents key findings about the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 7.1*.

Major Changes During Year Three

Piloting new care coordination measures. In Year Three of the MAPCP Demonstration, Minnesota piloted two new care coordination measures: advanced care planning for those age 65 and older and follow-up after hospital discharge (with selected clinical transitions). The advanced care planning measure was intended to assess the percentage of elderly patients with documented advanced directives in their care plan. The follow-up after hospital discharge measure assessed the percentage of adult patients discharged from the hospital who either received a telephone follow-up within 3 days after discharge or had an in-person visit with their provider within 7 days of discharge.

One state official reported that while the pilot was successful, HCH leadership wanted to “weigh the benefit of measurement with the burden [that adding additional measures] placed on clinics.” HCH leadership also solicited feedback from participating practices about their experiences with implementing these metrics. At the time of the site visit, HCH staff were having discussions about whether to include these measures as a part of Minnesota Community Measurement or to use them for quality improvement through the HCH certification and recertification processes.

Major Implementation Issues During Year Three

Ongoing billing challenges. As in previous years, in Year Three of the demonstration, practices continued to struggle with billing for monthly care coordination payments. Minnesota’s payment model required HCHs to bill for care coordination services provided to each patient and to designate where the patient fell on a complexity tiering tool. Generally, practices felt that the state was overly conservative with this tool, resulting in what practices perceived as payments that were too low for relatively complex patients. At the same time, practices worried about

being penalized for “over-tiering” a patient. Overall, practices felt that the payments did not reflect the cost of providing services or the time required to file the request for payment.

At the time of our site visit, most practices had chosen not to attempt to submit claims for these payments any longer, because, as one said: “It costs more to bill [administratively] than the revenue received.” At the end of 2013, HCH initiative leadership fielded a survey to HCHs about the payment methodology, with the goal of identifying ways to improve the payment model. One state official reported, however, that the survey “identified many issues and there was no clear direction for us [HCH leadership] to go.” The state did not make any changes to the HCH payment system as a result of this survey. At the time of our interviews, the state was still evaluating options for payment systems for other demonstrations (e.g., Behavioral Health Homes).

One Medicaid managed care plan attempted to make the billing process less burdensome for practices by allowing them to submit a monthly spreadsheet containing a list of care coordination patients, so that they didn’t need to undertake the complex billing process designed by the state. Several payers pursued total cost of care and shared savings arrangements with HCH practices, which may have reduced the incentives to collect care coordination payment revenue. Practices that were in total-cost-of-care contracts understood that payments received through the demonstration would have been counted as costs generated by their patients and thus impaired their ability to stay within spending targets that had to be met to receive shared savings bonuses.

Meeting technical assistance needs. As the HCH initiative expanded and HCH practices joined at various stages of development, state staff faced the increasingly difficult challenge of providing appropriate and effective technical assistance to practices with differing needs. For example, the technical assistance needs of an early adopter HCH practice in its third year of recertification and the needs of a newly certified HCH practice were vastly different. Additionally, HCH practices no longer were concentrated solely in the urban areas of the state, which added to the variability in the needs of and resources available to urban versus rural practices. One state official also reported that it was challenging for HCH staff and nurse planners to keep up with supporting the large proportion of HCH practices undergoing recertification each year. To address these issues, the state attempted to deliver more targeted technical assistance, including less centralized learning sessions (e.g., training opportunities outside the Twin Cities).

Risk stratification of patients. Overall, practices moved toward population-based approaches to care, and they systematically stratified their patients on the basis of risk. One integrated system described how it considered social determinants of health and other factors that might influence a patient’s ability to manage his or her health successfully. For example, at some HCHs, social workers or care coordinators flagged patients they deemed at higher risk based on social determinants of health (e.g., economic instability, lack of family support). They also used claims data provided through their integrated health plan to analyze cost patterns among their population and identify high-cost individuals. Through these strategies, the system aimed to address patient needs proactively, instead of reacting to costlier and more acute conditions later. This focus on population health and risk stratification was widespread across all the practices we contacted, and it was a defining feature of activities in 2014.

External and Contextual Factors Affecting Implementation

Impact of other health reform initiatives. Many interviewees agreed that the HCH initiative was a foundation and launching point for Minnesota's multitude of health care delivery system reform initiatives, which were largely encompassed within its SIM Initiative Model Testing award. Minnesota's SIM Initiative included its Medicaid ACO demonstration (IHP), Accountable Communities for Health, and Behavioral Health Homes. Minnesota planned to leverage the certification process and payment systems developed through HCHs to implement Behavioral Health Homes. The SIM Initiative award also was expected to provide funds to support the development of new learning collaboratives and resources that targeted a variety of delivery system models, including HCHs, to support practices. As Minnesota continued to adopt additional delivery system reform models, the outcomes of HCH practices may have been positively or negatively affected. While some HCHs already participated in IHPs, more HCHs were likely also to participate in other SIM-funded initiatives.

Few self-insured purchasers participated in the HCH initiative. State officials reported that most Minnesota self-insured purchasers did not participate in the HCH initiative. ERISA forbade Minnesota from requiring participation of these plans. One state official observed, "We [HCH leadership] underestimated how hard it would be to get them [self-insured purchasers] to come along." Despite this, state officials still worked with self-insured purchasers to encourage their participation and developed toolkits to provide them with additional resources.

Practice consolidation. Consistent with secular trends nationwide, practice consolidation also took place in Minnesota. One practice reported being purchased by a larger system in 2014, while another independent practice reported being approached to join by several systems. It is not yet known how practice consolidation affected HCH practices.

Landscape After the MAPCP Demonstration in Minnesota

The HCH initiative will continue throughout the state. State officials unanimously agreed that Medicare's departure from the demonstration did not have a major effect on the HCH initiative. One state official noted, "Having the demonstration end doesn't really change the state's plans for HCHs. The state will continue to the extent it would have even without MAPCP." Medicaid and participating commercial payers were expected to continue to make payments to practices to support HCHs. Because many practices faced challenges in billing Medicare through the demonstration, the loss of Medicare payments was not anticipated to affect most practices' financial solvency. One state official expected that HCHs that had been billing Medicare as part of the demonstration would feel "some disruption" as they transitioned to billing under Medicare's new chronic care management (CCM) codes.

7.1.4 Lessons Learned

The experience gained through primary care practice transformation should be integrated into broader health care reform initiatives. Minnesota historically was an early adopter of a variety of initiatives to improve the delivery of health care. Its multifaceted SIM Initiative expanded Medicaid ACOs, established Behavioral Health Homes, and used technology in various ways to advance reforms in health care delivery. State officials, stakeholders, and providers all commented that the HCH initiative was the foundation of these efforts.

The participation of all types of payers must be invited to support practice transformation. Because self-insured plans covered roughly 40 percent of Minnesota’s population, significant proportions of some practices’ patient panels were not included in the HCH initiative. Self-insured plans with members receiving care at HCH practices benefitted from the initiative’s emphasis on practice transformation and quality improvement without investing financially. One state official said that having the participation of more large employers and other self-insured purchasers would have “given more momentum to the program.”

Broadly diverse stakeholders should be engaged. Interviewees noted that Minnesota actively involved multiple stakeholder groups, both during the development of the initiative and throughout its implementation. Engaging such a diverse group of stakeholders, including consumers, providers, and payers, “helped us understand all perspectives,” explained one state official. Another state official felt that specifically engaging providers helped promote broad system-wide culture change and noted that “[Providers] know more than [state officials] do” about how policy decisions affected practices. This state official was encouraged that, despite challenges with the Medicare and Medicaid payment methodology, “there is still a lot of energy” among providers who participated in the initiative.

Program administrative resources need to be adequate. In Year Three of the demonstration, state officials again raised concerns that the state underestimated the resources required to implement a federal demonstration. One state official explained, “It is easy to underestimate the staff time [necessary] to take care of administrative things,” such as quarterly reports to CMS. The same state official encouraged others to consider that, when participating in a demonstration, “You spend a percentage of time getting the work done and then another percentage of time explaining it.” In addition, the state had to deal with the staffing uncertainties created by the departure of a person who had a key role during the implementation of the HCH initiative and an extended medical leave by a person in a key leadership position.

7.2 Practice Transformation

This section describes the features of the practices participating in the HCH initiative, identifies changes made by practices to take part in the demonstration and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. We also review the findings from the site visit in late 2014, emphasizing the changes that occurred during the year since our previous interviews in late 2013.

Since the 2013 site visit, Minnesota practices evolved and adopted changes to their care coordination services, their staffing structures and roles, their use of data and health IT resources, and their communication with other providers in the community. Many of these changes were related to their efforts to refine and improve services provided to patients, to satisfy HCH initiative requirements, and to keep up with state health reform activities (including such other initiatives as SIM and Behavioral Health Homes).

7.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes that HCH initiative practices made since the prior site visit, as well as new practice improvement projects that were adopted. In many

cases, practices felt that they were already doing a lot of the work required by HCH initiative certification standards, and that the HCH initiative provided a framework to prioritize and document these practice changes.

PCMH recognition and practice transformation. At the time of our 2014 site visit, practices continued to join the HCH initiative, albeit at a much slower pace than in the previous 2 years. To join the initiative, practices had to undergo an initial certification process, and, to maintain HCH certification, practices had to undergo a recertification process every 18 months (see the Practice Expectations subsection of *Section 7.1.1* for more details), so the recertification process was occurring for the first time for many of the practices we visited. Generally, practices found the recertification process burdensome and did not feel that they had made meaningful changes in their practices in response to the recertification standards. Instead, most practices explained that they already met a majority of the recertification requirements, and that the recertification process was an unnecessary administrative activity. State officials began to consider ways to make the recertification process less burdensome for providers, but interviewees acknowledged that any changes to recertification requirements would require approval from the Minnesota legislature.

In 2014, some practices fell below certain recertification benchmarks, but they did not believe the standards were achievable, given their particular patient population and the lack of risk adjustment for the targets. For example, one practice received a variance during their second recertification because they did not meet a clinical quality target related to asthma care. This practice believed, however, that the benchmarks were unreasonable because they did not account for the different challenges relevant to the low-income, high-risk population they served. Additionally, this particular practice worried that some benchmarks required a disease-specific model of care that they were trying to leave behind in favor of more comprehensive care.

Care coordination was a major focus of activities at the practices we interviewed. In contrast to our 2013 site visit, care coordinators seemed to be driving a lot of the patient care in many HCHs. In 2013, physicians seemed largely responsible for assigning tasks to care coordinators. In 2014, care coordinators acted more independently and involved a physician only when necessary. Between our second and third visits, there were some changes in the way practices used care coordinators. For example, care coordinators in several practices began to focus on panel management, defined by one practice as building infrastructure—including registries—to identify and prioritize high-utilizing patients with chronic conditions. Similar to the previous year, practices perceived great value in care coordination and identified it as the component of the HCH initiative that was most visible and transformative for patients.

In 2014, many practices increased their focus on developing processes to follow up with patients after they had visited or been admitted to an emergency room (ER). This communication depended somewhat on whether the practices and ER used the same EHR systems. Many practices and hospitals used Epic, allowing practices to use Epic's CareEverywhere portal to see when one of their patients was admitted to a hospital. However, one major limitation of this system was that patients were required to consent to the data transfer at each encounter (i.e., they could not give an overall consent), which was burdensome and sometimes prevented information sharing. Practices that did not share EHR systems with local ERs had to devise other ways to obtain information about their patients who were admitted. Some developed informal

arrangements in which the ER would fax information when a patient was admitted. To satisfy the state's requirement that HCHs provide "timely" follow-up after hospital discharge, many practices also developed, or were developing, protocols or goals for how soon to follow up with patients once they were released from the hospital. For example, at one practice, a care coordinator planned to follow up with the patient by telephone within 48 hours after a hospital stay and to set up an appointment within 1 week. Another practice planned to schedule an appointment for the patient within 3 days of discharge.

Practices had been using patient registries to some extent since their initial certification (registry use was a certification requirement), and they used them in more sophisticated ways in the year preceding our 2014 visit. For example, several practices described systematic efforts to identify individuals overdue for certain preventive services (for example, women over the age of 50 who have not had a mammogram). In 2014, more practices used care coordinators to manage the registries, produce these lists of patients, and subsequently contact the patients to arrange an appointment for the relevant service(s). In some cases, health plans or health systems provided data to individual practices to help them identify high-utilizing patients and those with specific risk factors.

There was a continued focus on team-based care and building relationships with community resources in 2014. Within a practice, multidisciplinary teams worked together to provide comprehensive care to patients. For example, several practices described instituting regular care planning meetings, at which the interdisciplinary teams would work together to build a patient's care plan. These interdisciplinary teams included practitioners such as physicians, nurse practitioners, physician assistants, and sometimes pharmacists and behavioralists. Practices increasingly built relationships with community resources to facilitate care needed by patients but unavailable from the practice. For example, one practice described working with the Senior Linkage Line, a Minnesota Board on Aging service, to connect seniors with financial, housekeeping, legal, and meal delivery assistance. Several practices described efforts by care coordinators to connect with local social service agencies, but several indicated that they still had problems connecting patients to community resources.

Practice staffing changes. All practices participating in the HCH initiative designated at least one staff person (newly hired or existing staff) to serve as a care coordinator to support practice transformation. The state did not impose specific requirements for care coordinators with respect to training or background, although most were RNs or medical assistants (MAs). This lack of requirements was intentional on the part of the state, which wanted practices to have flexibility in creating a care coordinator role that worked well for their particular needs.

Several practices told us that they were putting systems in place to ensure that all clinical staff were working at the top of their licenses. Although we had heard about this in past years, more practices described efforts along these lines at the 2014 site visit. For example, several HCHs used non-physician staff such as physician assistants and MAs to handle issues not requiring physician attention. This shift allowed more patients to receive care at an appropriate level. Practice staff agreed that this type of triage prevented unnecessary physician visits by addressing relatively minor issues early. One practice reported that they were able to increase each provider's panel size because patients had more avenues through which they could access care (i.e., through a care coordinator or a medication therapy management pharmacist).

Several practices emphasized that the culture change inherent in a medical home transformation process could be difficult for some. A notable change in 2014 was the considerable physician turnover at several practices and systems in response to the introduction of HCH standards. Practices discussed the challenges in educating remaining staff about the merits of the HCH and how and why certain changes should occur. Although practices agreed that culture change was a challenge, they believed that the HCH model was good for patients, and they were dedicated to making it work.

Health information technology. In 2007, the Minnesota legislature mandated that “by January 1, 2015, all hospitals and health care providers must have in place an interoperable EHR system within their hospital system or clinical practice setting.”³⁰ As a result, the vast majority of practices participating in the HCH initiative had a functioning EHR, but a small number still relied on paper-based systems to some degree, and some were undergoing EHR vendor transitions at the time of our 2014 site visit. Most practices had made considerable progress with their EHRs since we first spoke with them in 2012. For example, in 2012 and 2013, some practices were using workarounds (i.e., Microsoft Excel worksheets) to calculate quality measures and to create patient registries. In 2014, all but one practice seemed relatively comfortable with their EHR and its functions, including creating and using registries and calculating quality measures.

A major change reported by practices in 2014 was that those using Epic (a majority of the practices we interviewed) had made some progress in being able to communicate with other providers who also used Epic. This interoperability allowed for a more seamless transfer of patient records. As noted earlier, the function that supports this transfer, CareEverywhere, required the patient’s approval for each data transfer. Practices found this a major barrier to communicating with other providers, but they were generally optimistic about the technology.

Some practices expanded or started new health IT initiatives in 2014. This included using a patient registry to identify patients overdue for a certain service and proactively contacting these patients to set up appointments and using the EHR to host PDF or editable versions of care plans and care protocols.

7.2.2 Technical Assistance

As we learned in our 2013 site visit, practices were generally positive about the technical assistance provided by the state, especially the Learning Days meetings. These Learning Days reportedly were well attended by multidisciplinary practice teams from across the state. Topics included patient-centered care, care coordination, screening, and transitions of care. State staff reported that more than 380 individuals attended the October 2014 Learning Day. One state staff member attributed this widespread engagement and enthusiasm to Minnesota’s long history and culture of quality improvement.

State staff and participating practices noted that there was significant variation in the level of sophistication of practices attending the Learning Days. Some practices were fully functioning HCHs, while others were still early in the transformation process. This difference was viewed as a positive feature of the Learning Days by some, and negatively by others. On the

³⁰ <http://www.health.state.mn.us/e-health/hitimp/>

positive side, practices earlier in the practice transformation process had an opportunity to network with practices further along in the process. A negative aspect was that sometimes lessons weren't translatable across practice types (for example, a large urban system faced different transformation issues than did a solo practitioner in a rural area). In response to this, the state planned to have an "advanced" track and a "new clinic" track at a later Learning Day.

As in 2013, practices received several utilization and quality reports from different sources, including the state (the Department of Health and the Medicaid program), private payers, and public payers. All practices received reports from Minnesota Community Measurement that showed practice performance on specific clinical quality measures compared to benchmarks and other practices in the state. The degree to which practices found these reports helpful varied widely. Some practices found them useful and integrated them into internal quality improvement processes (for example, posting the reports on a bulletin board and discussing them at practice meetings). Others found these reports less useful. A major complaint was that the data provided through Minnesota Community Measurement (a state contractor providing data for the HCH initiative) were not risk-adjusted. For practices with especially unique patient populations (e.g., all elderly, all disabled, mostly low income), these data and the corresponding peer rankings were not meaningful. That said, most practices engaged in some type of data analysis and focused quality improvement efforts on areas where the data indicated underperformance on clinical quality measures.

In 2013, Minnesota released a care coordination toolkit that was disseminated to participating practices and published online. The toolkit featured resources for HCHs on working with individuals with complex needs and older adults. It included a guide to the components of a comprehensive patient assessment, resources, tools, and guides for engaging with community-based services. In 2014, the state worked on updating and modifying the toolkit, which also was integrated into Learning Day activities. Practices seemed aware of the toolkit, but did not provide examples of using the toolkit to change care processes.

7.2.3 Payment Support

As in 2013, a majority of certified HCHs did not bill Medicare or Medicaid for the payments for which they were eligible through the initiative, in large part because the effort required to bill was believed to be costlier than the reimbursement received. Although in 2013, some practices attempted to figure out how to bill Medicare or Medicaid for payment, by 2014, practices seemed to have fallen into two groups: those who were billing successfully and those who had decided not to bill at all. Of the practices that had received payments through the HCH initiative, most agreed that payments went toward supporting care coordination activities, although they were not sufficient to cover these expenses completely. One participating practice, which exclusively served Medicare beneficiaries, obtained significant revenue through the HCH initiative and used the funds to hire registered nurses to serve as care coordinators. However, other participating practices found the payments insufficient, either because they chose not to bill at all, or because the payments received were not substantial enough to fully support practice transformation.

Several practices said that, although they were frustrated with the HCH initiative payment system, they were not interested in pursuing strategies to overcome the challenges,

because they believed payment methods were moving away from FFS and toward more global capitation arrangements.

While payment was a significant challenge for the HCH initiative, many practices benefitted from the move toward total cost of care contracts with commercial payers. Through these arrangements, practices had incentives to provide high-quality care at lower cost because of the financial benefits available to them for meeting cost targets. If practices were successful, for example, in using care coordinators to reduce unnecessary ER visits, there was a potential financial reward. Some practices received grant support, for example, through Health Care Innovation Awards (HCIA). We first learned about these funds in 2014, and practices characterized them as helpful in supporting practice transformation. Additionally, practices believed that their status as HCHs could make them eligible for pay-for-performance arrangements in the future (i.e., such arrangements might require HCH status) and that their HCH experience prepared them to be successful in such arrangements.

In 2014, practices began to think about Medicare's CCM codes, which they could begin using in 2015. Some practices currently billing and receiving payment from Medicare for HCH services said that the CCM codes would be a reasonable substitute.

7.2.4 Summary

Overall, practices viewed their participation in the HCH initiative positively, although they remained frustrated with billing challenges. Practices felt that following the HCH model was “moving in the right direction,” but they generally disliked FFS billing, which they felt countered the trend toward population health and total cost of care payment arrangements. Compared with 2013, most practices seemed more comfortable with the HCH concept—for example, they had refined their processes for using care coordinators and had made progress in using their EHRs to produce quality data and create lists of patients overdue for specific services. Practices had made progress in fostering communication with local hospitals and within their own systems, and many had created guidelines for following up with patients who had been admitted to hospitals. Practices reported that patients appreciated the HCH approach to care, especially the care coordination, and that they planned to follow HCH standards, even in the absence of payment. Although practices believed that they had more work to do, they were optimistic that the HCH initiative had positive effects on practice transformation and patient care. Practices were unsure about the financial impact of the HCH initiative, but most believed it would eventually reduce inappropriate spending.

7.3 Quality of Care, Patient Safety, and Health Outcomes

In 2014, practices continued working to improve quality of care, patient safety, and health outcomes. Generally, practices described a shift within their staff toward population-based care. Practices emphasized individualized care plans while simultaneously viewing their patient population as a whole and delivering preventive care more systematically. For example, one representative from the state Office of Aging reported that the HCH initiative had “definitely” resulted in increased use of preventive services, including the influenza vaccine. This interviewee asserted that, overall, preventive services were provided more proactively and less reactively, and that this shift reflected success in using registries to identify those due for preventive services. While the majority of practices were comfortable using patient registries, a

handful of practices were still unable to use their EHRs to produce the type of lists necessary to identify and contact patients on the basis of need or risk.

During our site visit in 2013, we learned how practices used registries to identify patients who needed certain services and then used care coordinators or other HCH staff to contact patients and set up necessary appointments. This work continued in 2014, and it seemed that more practices were doing this more systematically and comprehensively compared to the previous year. One system held care conferences at least twice a year at each of its HCHs. During these conferences, a care team spent about 5 minutes discussing individual patients identified from the patient registry as having a gap in their care. Together, the care team reviewed the patient's record, analyzed types of services used and barriers to receiving optimal care, and collaborated to create a plan of action.

In 2014, some practices began developing care protocols for specific clinical conditions and integrating these protocols into the EHR. Care protocols were care plans that included treatment guidelines for specific conditions. One HCH system called these protocols "care packages." Providers were essential in the development of these protocols, and they were optimistic that they would increase standardization of care across providers and across HCHs within a system.

7.4 Access to Care and Coordination of Care

During the 2014 site visit, every practice discussed at length their efforts to improve access to and coordination of care. The HCH certification requirements promoted progress in both of these domains. For example, at the time of the 2013 site visit, all practices had satisfied the certification requirement of offering patients 24/7 access to a clinical staff member with access to patient records through telephone call-in lines. Practices reported, however, that patients remained largely unaware of this feature. In 2014, practices still worked to educate patients about the 24/7 availability, but reported that patients were more aware of its existence. One practice said that they initially were hesitant to advertise the 24/7 access because they worried about receiving an increased number of inappropriate calls (e.g., calls at night for situations that were not true medical emergencies). The practice was pleased that an effort to educate patients about when and why to call the HCH resulted in nighttime calls that were almost always appropriate. Another practice echoed this sentiment when they said that the number of calls received at night and on weekends was minimal, which they believed "speaks to our ability to deal with things during the day to day."

In 2014, HCHs continued to use their EHRs to give clinicians on call easy access to patient charts. One practice reported that patients appreciated the fact that they could call the HCH and have access to someone who knew their medical history. Some practices also described efforts to increase access by delivering "between-visit" care. For example, in 2014, one practice used care coordinators to conduct depression screenings over the telephone, to reach patients who did not have a visit scheduled.

As mentioned previously, practices were using care coordinators to target patients with complex needs more effectively. Universally, practices reported that the use of care coordinators improved access for those patients. Many practices described how patients who previously

struggled to use care appropriately had benefitted from having a care coordinator to call with questions and concerns. Practices believed that patients were less likely to go to the ER for conditions that could be addressed in the primary care setting because care coordinators were able to help them get an appointment in the appropriate setting.

None of the practices we spoke to made major changes to their operating hours in 2014. A small number of practices already offered evening and weekend hours, and some practices considered expanding hours to include evenings and weekends. Conversely, some practices that previously offered night and weekend hours found they were not needed and eliminated them. Several practices evaluated demand patterns systematically and considered how to staff the HCH appropriately to meet patient needs by providing more opportunities for same-day appointments.

7.5 Beneficiary Experience With Care

During our 2014 site visit, practices were optimistic that patients were aware of and appreciated the changes associated with the HCH initiative. They reported that the most visible aspect of the HCH initiative had been the introduction of care coordinators, which echoed what practices reported in 2013. Practices found that patients highly valued their relationship with their care coordinator, especially the availability of telephone or face-to-face contact with someone familiar with their medical history. Practices reported that, because of care coordinators, patients and providers felt less pressure to get all questions answered in the course of a short visit. If patients had a question that arose after an appointment, it was relatively simple for them to contact someone who could answer it.

In 2014, more practices established patient councils, tried to include patients on practice committees, or both. Several practices implemented the CG-CAHPS survey and most were pleased with the results. Practices also received data on patient satisfaction through Minnesota Community Measurement.

As part of improving patient satisfaction, practices focused on increasing patient engagement and shared decision-making (these efforts were in place in 2013 and continued in 2014). Several practices undertook efforts to train care coordinators and other staff in motivational interviewing. They reported that motivational interviewing had been critical in increasing patient engagement and that it helped HCH staff to create individualized care plans for patients. Some practices in the Twin Cities area struggled with what they characterized as “cultural barriers.” For example, one practice reported that some of their patients from Eastern Europe seemed to lack confidence in the medical establishment, and they were hesitant to seek care until it was absolutely necessary. To address this, practices worked proactively on contacting those patients to try to change patterns of care.

Many interviewees—both practice and state initiative staff—told us that most patients were not familiar with the “health care home” terminology, but many patients had noticed some differences at the practice (especially those patients who received care coordination services). Some practices, however, were using their HCH status as a marketing tool and actively educating patients about its merits—for example, through brochures in the waiting room.

7.6 Effectiveness (Utilization and Expenditures)

Minnesota's projections showed that out of pre-MAPCP Demonstration average Medicare spending (for Parts A and B) of \$575 per beneficiary per month (PBPM) in Minnesota, participation in the MAPCP Demonstration would produce average savings of \$27 PBPM. Although spending on outpatient primary care and specialty services was projected to increase slightly (by \$4 PBPM), spending on inpatient acute-care hospital services was projected to decrease substantially (\$29 PBPM). Additional smaller decreases were projected in spending on ER visits (\$1 PBPM) and skilled nursing facility services (\$1 PBPM). The state declined to estimate the impact on other categories of spending that lacked an adequate evidence base—specifically, imaging, laboratory tests, therapy services, ambulance and transportation services, home health services, durable medical equipment, and hospice care. Net of HCH payments, Minnesota estimated that Medicare would save \$15.20 PBPM.

State initiative staff and practice staff believed that ultimately the HCH model was likely to result in some cost savings. Although this was mentioned in 2013 and reiterated during our 2014 site visit, these savings had not yet been realized. Practice staff were optimistic that care coordinators were changing utilization patterns in ways that would improve health outcomes and lower spending. Specifically, practices believed that care coordinators generally had been successful in preventing unnecessary ER visits. At the same time, practices noted that, because care coordinators helped reduce unnecessary visits, the overall acuity of patients who did come in for appointments was actually higher. A state staff person pointed out that good care coordination could result in some new spending because it could mean that a patient was interacting with the system in a new way. For example, while a well-managed patient with asthma might no longer visit the ER for an asthma attack, they might instead have more regular practice visits and increased medication use.

7.7 Special Populations

As in previous years of the MAPCP Demonstration, the HCH initiative did not target any special populations. The payment methodology inherently increased the focus on patients with multiple chronic conditions, severe and persistent mental illness, a first language other than English, or a combination of these. As noted earlier, many practices did not seek payment through the HCH initiative, so they were unlikely to focus on these groups for the purposes of enhanced payment. That said, most practices indeed focused on patients with multiple chronic or complex conditions, because those patients tended to have more complex needs. Many practices used their care coordinators in more targeted ways, specifically focusing on the highest-need patients.

7.8 Discussion

Practices participating in the HCH initiative continued to develop their medical home capacity through improved comprehensive care coordination strategies. The role of the care coordinator evolved over the course of the demonstration, and, in 2014, many care coordinators focused on panel management, stratifying patients by risk and proactively getting patients to use more preventive services. Practices continued to develop their EHRs to support practice transformation and worked on improving connections between their own system and local hospitals' EHRs. Although many practices viewed it as burdensome, the HCH certification and

recertification processes provided a framework for accountability. The majority of practices improved on several indicators, even if some did not meet the state-developed benchmarks.

Payment was a major issue throughout the demonstration, and this did not change significantly by 2014. Practices seemed dedicated to meeting most HCH standards even in the absence of adequate payment through the demonstration. As the demonstration ended, it seemed likely that at least those practices billing Medicare under the demonstration would change and bill for HCH services to Medicare beneficiaries using the new CCM codes introduced in 2015.

As the demonstration concluded, the state was actively thinking about and beginning to integrate some existing activities into other reform efforts, including the SIM initiative. There was a strong secular trend in Minnesota toward shared savings payment models and ACOs among private and public payers, and some elements of the HCH initiative (e.g., targeting high-risk and high-utilizing patients, adopting a population-level approach to care) were central to those approaches. Overall, there was a clear consensus both among state staff and HCH staff that the HCH initiative served as a foundation for broader reform in Minnesota.

CHAPTER 8

MAINE

In this chapter, we present qualitative and quantitative findings related to the implementation of the Maine Patient-Centered Medical Home (PCMH) Pilot, Maine's pre-existing multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third of three annual site visits to Maine, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third site visit, which occurred November 4 through 6, 2014, two teams traveled from south of Portland north to Bangor; we also conducted some telephone interviews in the same month. The interviews focused on implementation experiences and changes occurring since the last site visit in October 2013. We interviewed providers, nurses, and administrators from participating PCMHs, as well as provider organizations, to learn about the perceived effects of the demonstration on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We also spoke with key state officials and the Quality Counts staff who administer the Maine PCMH Pilot and the MAPCP Demonstration to learn about experiences with expansion practices that joined in 2013; the impact of changes in MaineCare's (Maine's name for the Medicaid program) payments to community care teams (CCTs); and the impact of MaineCare's introduction of behavioral health home organizations (BHHOs) on care coordination. We also gathered information about efforts to support practice transformation through the Quality Counts' learning collaborative for the PCMH practices. We met with payers to learn about their experiences with implementation and whether the Maine PCMH Pilot payment model met their expectations for return on investment. In addition, we reviewed reports from PCMH Pilot project staff (referred to as Quality Counts staff) to CMS and other documents to gain additional information on the progress of the demonstration.

This chapter is organized by major evaluation domains. *Section 8.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in the Maine PCMH Pilot. *Section 8.2* reports practice transformation activities. Subsequent sections report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 8.3*); access to care and coordination of care (*Section 8.4*); beneficiary experience with care (*Section 8.5*); effectiveness as measured by health care utilization and expenditures, (*Section 8.6*); and special populations (*Section 8.7*). The chapter concludes with a discussion of the findings (*Section 8.8*).

8.1 State Implementation

In this section, we present findings related to the implementation of the Maine PCMH Pilot and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?

- Were any major implementation issues encountered over the past year and how were they addressed?
- What external or contextual factors are affecting implementation?

Section 8.1.1, the state profile, which describes major features of the state's initiative and the context in which it operates, draws on a variety of sources, including quarterly reports submitted to CMS by Maine Quality Counts staff; monthly calls among Quality Counts staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in November 2014. **Section 8.1.2** presents a logic model reflecting our understanding of the links among specific elements of the Maine PCMH Pilot and expected changes in outcomes. **Section 8.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 8.1.4**, we conclude the State Implementation section with lessons learned during the third year of the MAPCP Demonstration.

8.1.1 Maine State Profile as of November 2014 Evaluation Site Visit

The Maine PCMH Pilot began in 2008 following the recommendations of a bipartisan legislative Commission to Study Primary Care Medical Practice. The PCMH Pilot was intended to transform Maine's primary care delivery system to one that is patient-centered, effective, efficient, and accessible.

Three organizations launched the PCMH Pilot: Maine Quality Forum, Maine Quality Counts (a nonprofit collaborative of insurers, providers, and others), and the Maine Health Management Coalition (a nonprofit employer and union-led coalition).³¹ In 2009, after securing the participation of the state Medicaid program, 22 adult and four pediatric practices were chosen to participate in the PCMH Pilot. On January 1, 2010, the PCMH Pilot began with the participation of Medicaid (called MaineCare) and three major private health insurers (Anthem Blue Cross Blue Shield, Harvard Pilgrim, and Aetna). Despite a change in administration, support for the PCMH Pilot continued with an additional appropriation for Medicaid payments in the 2011 state budget. Additional financial support for implementation of the PCMH Pilot came from the Dirigo Health Agency, the Maine Health Access Foundation, and other private foundations.

Medicare began participating as a payer in the Maine PCMH Pilot on January 1, 2012, for the 22 participating adult practices. In January 2013, the Maine PCMH Pilot grew significantly with a Phase 2 expansion, adding 50 practices and two additional community care teams (CCTs).

State environment. Health care in Maine was organized primarily as an FFS system across public and private payers. As of 2012, a small percentage (16%) of Medicare beneficiaries were participating in Medicare Advantage plans. Major private insurers in the state are Anthem

³¹ The three PCMH conveners also participated in Aligning Forces for Quality, the initiative funded by the Robert Wood Johnson Foundation to encourage public reporting of quality data and provide quality improvement assistance.

Blue Cross Blue Shield; Aetna; Cigna; Harvard Pilgrim; and Maine Community Health Options, a consumer-operated and -oriented plan funded through the Affordable Care Act. All but Cigna participated in the PCMH Pilot.

MaineCare operates statewide as a primary care case management (PCCM) program. The Maine legislature approved cuts in Medicaid in the 2011–2012 legislative session, resulting in reduced benefits for approximately 8,000 beneficiaries in the Medicare Savings Program and loss of coverage for approximately 12,600 parents with incomes from 133 to 200 percent of the federal poverty level, as of March 2013. These cuts also resulted in the defunding of the Dirigo Health Agency at the end of 2013. Despite being defunded, Dirigo still housed the Maine Quality Forum—one of the PCMH Pilot’s three conveners—which became its sole function.

Maine had several relevant initiatives across the state that may have influenced health outcomes for participants in the PCMH Pilot or comparison group populations. These included the following:

- The Bangor Beacon Community project worked to leverage health information technology (IT) and practice-based care management to improve patient care and quality. Five PCMH Pilot practices (three Penobscot Community Health Center sites and two Eastern Maine Medical sites) participated in the Bangor Beacon Community initiative.
- HealthInfoNet is the nonprofit organization operating the state’s health information exchange (HIE) and serving as the Maine Regional Extension Center. Many PCMHs were part of the systems connected to the HIE. HealthInfoNet used additional funding, made available through Health Information Technology for Economic and Clinical Health (HITECH) and other sources, to increase connectivity with Maine’s other providers. Such efforts included assisting practices with implementation of electronic health record (EHR) systems. By December 2014, 34 of Maine’s 38 hospitals and many ambulatory care sites were connected to HealthInfoNet.
- A Section 2703 Health Home State Plan Amendment (SPA) was approved by CMS in 2013 to align Maine’s Medicaid health home criteria with the PCMH Pilot. The Maine PCMH Pilot’s 10 Core Expectations (described in the Practice Expectations section) were used as qualification criteria for participation in the MaineCare Health Homes initiative. Maine Quality Counts and MaineCare collaborated to produce a unified application and selection process for Phase 2 expansion PCMHs and for MaineCare Health Homes. The Maine Quality Counts management team made a site visit to each practice that applied to assess its progress in meeting the Core Expectations. Practices that were further along were selected for participation in the expansion of the PCMH Pilot; these practices were paid, however, using the Health Homes reimbursement structure. The remaining approved practices became Health Homes.³²

³² In Phase A of the state’s Health Homes initiative, Health Homes were defined as a PCMH paired with a CCT.

- Maine received a State Innovation Models (SIM) Initiative Model Testing award in 2013. Maine Quality Counts was one of the state’s three named partners and provided transformation support to more than 80 “Health Home Only” practices—practices not participating in the PCMH Pilot, but funded under the Section 2703 initiative—under an extension of the current contract to provide technical assistance to PCMH practices. The Maine Health Management Coalition provided a range of data analytic, design, and technical support for the testing strategy. HealthInfoNet provided emergency room (ER) notifications to CCTs, captured health homes’ clinical outcomes from EHRs, developed a behavioral health EHR incentive program, and created a personal health record.
- The Maine Health Management Coalition, one of the three PCMH Pilot conveners, encouraged health plan participation in the PCMH Pilot and supported data collection and reporting efforts. In 2014, the organization began producing reports for all primary care practices in the state, including PCMH Pilot practices, based on commercial cost and utilization data. Each report contained a total cost of care index, a resource use index, and data on the aspects of care accruing costs, such as pharmaceutical utilization and inpatient admissions.

Demonstration scope. In 2012, the Maine PCMH Pilot began payments to 22 adult practices located throughout the state, with an expectation that each practice would provide high-quality, patient-centered, coordinated, and accessible care. Pilot conveners decided to terminate the participation of one of these Phase 1 practices on September 30, 2012, after being notified that the practice would close by December 2012. In January 2013, 50 additional adult practices joined the MAPCP Demonstration as part of the Phase 2 PCMH Pilot expansion.

Table 8-1 shows participation in the PCMH Pilot at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 21 at the end of Year One (December 31, 2012); 71 at the end of Year Two (December 31, 2013); and 70 at the end of Year Three (December 31, 2014)—an increase of 233 percent overall. The number of providers at these practices increased by 154 percent over this period, from 200 to 508. The cumulative number of Medicare FFS beneficiaries who had ever participated in the demonstration for 3 or more months was 21,497 at the end of the first year, 52,485 at the end of the second year, and 59,548 at the end of the third year—an overall increase of 177 percent.

In terms of all-payer participants, the state originally projected that a total of 260,000 individuals would participate in the PCMH Pilot. The number of all-payer participants enrolled in the PCMH Pilot was 68,627 at the end of Year One (December 31, 2012), 125,232 at the end of Year Two (December 31, 2013), and 140,082 at the end of Year Three (December 31, 2014). This represented an overall increase of 71,455 (or 104%).

Table 8-1
Number of practices, providers, and Medicare FFS beneficiaries participating in the Maine PCMH Pilot

Participating entities	Number as of December 31, 2012	Number as of December 31, 2013	Number as of December 31, 2014
Maine PCMH Pilot practices ¹	21	71	70
Participating providers ¹	200	482	508
Medicare FFS beneficiaries ²	21,497	52,485	59,548

NOTES:

- Maine PCMH Pilot practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries that had ever been assigned to participating PCMH Pilot practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = Patient-Centered Medical Home.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

Six payers are participating in the Maine PCMH Pilot: Medicare FFS (32.5% of total participants as of December 2014), Medicaid (19%), Aetna (14.5%), Anthem (16%), Harvard Pilgrim (8%), and Maine Community Health Options (10%). MaineCare operates statewide as a PCCM program. Payments to PCMH practices on behalf of participating Medicaid beneficiaries were the result of the Section 2703 Home Health SPA. Anthem Blue Cross Blue Shield, Aetna, Harvard Pilgrim, and Maine Community Health Options all participate on behalf of their commercial lines of business only. A proportion of self-insured purchasers in the state voluntarily participate in the PCMH Pilot.

Table 8-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in the PCMH Pilot as of December 31, 2014. There were 70 participating practices with an average of seven providers per practice. More than half of the practices were office based (57%); 19 percent were federally qualified health centers (FQHCs), 13 percent were critical access hospitals (CAHs), and 11 percent were rural health clinics (RHCs). Forty-seven percent of practices were located in metropolitan counties, 20 percent in micropolitan counties, and 33 percent in rural counties.

Table 8-2
Characteristics of practices participating in the Maine PCMH Pilot as of
December 31, 2014

Characteristic	Number or percent
Number of practices (total)	70
Number of providers (total)	508
Number of providers per practice (average)	7
Practice type (%)	
Office-based practice	57
FQHC	19
CAH	13
RHC	11
Practice location type (%)	
Metropolitan	47
Micropolitan	20
Rural	33

ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = Patient-Centered Medical Home; RHC = rural health clinic.

SOURCE: ARC Q14 MAPCP Demonstration Provider File. (See Chapter 1 for more details about this file.)

In **Table 8-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating PCMH Pilot practices during the 3 years of the MAPCP Demonstration (January 1, 2012, through December 31, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Thirty-one percent of the beneficiaries assigned to PCMH Pilot practices during the 3 years of the MAPCP Demonstration were under the age of 65, 40 percent were age 65–75, 21 percent were age 76–85, and 8 percent were over age 85. The mean age was 67. Nearly all beneficiaries were White (98%), less than half lived in urban areas (41%), and more than half were female (56%). Forty-seven percent were dually eligible for Medicare and Medicaid, and 40 percent were eligible for Medicare originally due to disability. One percent of beneficiaries had end-stage renal disease, and less than 1 percent resided in a nursing home during the year before their assignment to a PCMH Pilot practice.

Table 8-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating
in the Maine PCMH Pilot from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	59,548
Demographic characteristics	
Age < 65 (%)	31
Age 65–75 (%)	40
Age 76–85 (%)	21
Age > 85 (%)	8
Mean age	67
White (%)	98
Urban place of residence (%)	41
Female (%)	56
Dually eligible beneficiaries (%)	47
Disabled (%)	40
ESRD (%)	1
Institutionalized (%)	0
Health status	
<i>Mean HCC score groups</i>	1.13
Low risk (< 0.48) (%)	22
Medium risk (0.48–1.25) (%)	51
High risk (> 1.25) (%)	27
<i>Mean Charlson index score</i>	0.87
Low Charlson index score (= 0) (%)	60
Medium Charlson index score (≤ 1) (%)	21
High Charlson index score (> 1) (%)	20
<i>Chronic conditions (%)</i>	
Heart failure	4
Coronary artery disease	12
Other respiratory disease	14
Diabetes without complications	19
Diabetes with complications	5
Essential hypertension	38
Valve disorders	3
Cardiomyopathy	1
Acute and chronic renal disease	7
Renal failure	3
Peripheral vascular disease	2

(continued)

Table 8-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Maine PCMH Pilot from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	28
Lipid metabolism disorders	
Cardiac dysrhythmias and conduction disorders	10
Dementias	1
Strokes	1
Chest pain	5
Urinary tract infection	5
Anemia	6
Malaise and fatigue (including chronic fatigue syndrome)	3
Dizziness, syncope, and convulsions	7
Disorders of joint	9
Hypothyroidism	9

NOTES:

- Percentages and means are weighted by the fraction of the year that a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary first being attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = Patient-Centered Medical Home.

SOURCE: Medicare claims files.

Using three different measures—the Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries’ health status during the year before their assignment to a PCMH Pilot practice. Beneficiaries had a mean HCC score of 1.13, meaning that Medicare beneficiaries assigned to a PCMH Pilot practice in the third year of the MAPCP Demonstration were predicted to be 13 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating PCMH Pilot practice. Beneficiaries’ average score on the Charlson comorbidity index was 0.87; just under two-thirds (60%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before their assignment to a participating PCMH Pilot practice.

The most common chronic conditions diagnosed were hypertension (38%), lipid metabolism disorders (28%), diabetes without complications (19%), other respiratory disease (14%), coronary artery disease (12%), and cardiac dysrhythmias and conduction disorders (10%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. All Phase 1 practices were required to achieve 2008 National Committee for Quality Assurance (NCQA) Physician Practice Connections (PPC®) PCMH™ Level 1 recognition within 6 months of selection for the PCMH Pilot. Phase 2 practices were required to achieve recognition under the 2011 NCQA PCMH recognition standards before participation in the PCMH Pilot. As of September 30, 2014, eight practices had achieved Level 1 recognition, 21 practices had achieved Level 2, and 45 practices had achieved Level 3.³³

Practices also are required to meet the PCMH Pilot's 10 Core Expectations. These include:

- Demonstrated leadership commitment to improving care and implementing the PCMH Pilot;
- Team-based approach to care;
- Population risk stratification and management of patients at risk for adverse outcomes;
- Enhanced beneficiary access to care;
- Practice-integrated care management;
- Behavioral and physical health integration;
- Inclusion of patients and families in implementing the PCMH model;
- Connections to the community, including the local Healthy Maine Partnership (a health promotion partnership between community partners and state and local government) and other community resources;
- Commitment to reducing unnecessary health care spending, reducing waste, and improving the cost-effective use of health care services; and
- Integration of health IT to support improved communication with and for patients.

As a leadership component, PCMH practices had to identify care management staff, establish clear roles and responsibilities for these staff, and provide care management training. To foster quality improvement and practice transformation, practices were required to participate in three learning collaborative sessions each year and regular PCMH practice leadership team webinars held by Maine Quality Counts. These requirements were expected to change in 2015, as the initial practices in the PCMH Pilot gained more experience. The PCMH Pilot also

³³ This number includes the four pediatric practices participating in the Pilot, but not in the MAPCP Demonstration.

identified 31 clinical quality measures to assess performance and gauge impact on which practices are required to report quarterly.

Support to practices. Participating practices received payments from public and private payers to support care management activities. In January 2010, Medicaid began paying practices \$7 per member per month (PMPM), half of which was the standard Medicaid PCCM payment and half of which was an additional care management fee. Starting in January 2013, Medicaid began paying practices participating in the MaineCare Health Homes initiative a total of \$12 PMPM. All but two PCMH Pilot practices served as Health Homes and received this \$12 PMPM payment. Practices received a care management fee of approximately \$3 PMPM (specific payment amounts were confidential) from commercial insurers. Medicare paid a care management fee of \$6.95 PMPM.³⁴

The Maine PCMH Pilot launched CCTs in January 2012 to provide additional care management support for participating practices' most complex patients. Initially, eight CCTs each served one or more PCMHs, providing their patients with services that included needs assessment, nurse care management, panel management (i.e., identifying high-risk patients, scheduling appointments, and referring patients to care managers and other team members), brief intervention and referral for mental health and substance abuse services, psychiatric prescribing consultation, medication review and reconciliation, transitional care, health coaching, self-management of chronic disease, and connection with community resources. Two CCTs were added in 2013 when the demonstration expanded to 50 additional practices. All participating payers supported CCT services with additional fees, as follows:

- *Commercial insurers:* CCTs received \$0.30 PMPM from all participating commercial payers, except Maine Community Health Options. CCTs received \$150 PMPM from Maine Community Health Options for patients enrolled in care management services. Maine Community Health Options also paid CCTs an initial \$25 stipend if they provided outreach to potential patients at least three times, regardless of whether patients enrolled in care management services.
- *Medicare:* CCTs received \$2.95 PMPM from Medicare.
- *MaineCare:* Before January 2013, MaineCare paid CCTs \$3 PMPM for their entire MaineCare panel. Since January 2013, CCTs received \$129.50 PMPM for beneficiaries who agreed to participate in care management services and were in the top 5 percent of high-risk Medicaid beneficiaries referred from practices participating in the MaineCare Health Homes initiative. CCTs did not, however, receive this payment for Medicaid beneficiaries from the two PCMH Pilot practices not participating in Health Homes.

³⁴ The Medicare PMPM payment amount does not reflect the 2 percent reduction due to sequestration beginning April 2013.

Between January 1, 2012, and December 31, 2014, PCMH Pilot practices and CCTs received a total of \$12,448,366 in payments from Medicare.³⁵

In addition to the learning collaborative sessions and practice leadership team webinars noted above, quality improvement practice coaching was available from the Maine Practice Improvement Network. PCMH Pilot staff also contracted with experts to provide technical assistance to practices when a subject was outside their and the coach's areas of expertise; such subjects included behavioral health integration, connecting practices with community-based support, and health IT support.

Data and analytics to support clinical care, quality improvement, practice transformation, and project evaluation came from various sources. Until summer 2012, the company Health Dialog had a contract to produce semiannual reports for practices using the Maine Health Data Organization's all-payer claims database. These reports provided practice-level feedback on various dimensions of clinical care and costs. Practices stopped receiving those reports when Health Dialog's contract ended. In late 2013, the Maine Health Management Coalition began sharing primary care practice reports based on commercial cost and utilization data; Medicaid and Medicare data were expected to be incorporated into these reports in 2015. HealthInfoNet connected practice and hospital EHRs through the HIE and provided a secure portal for accessing patient information, a centralized patient registry, and a quality reporting tool.

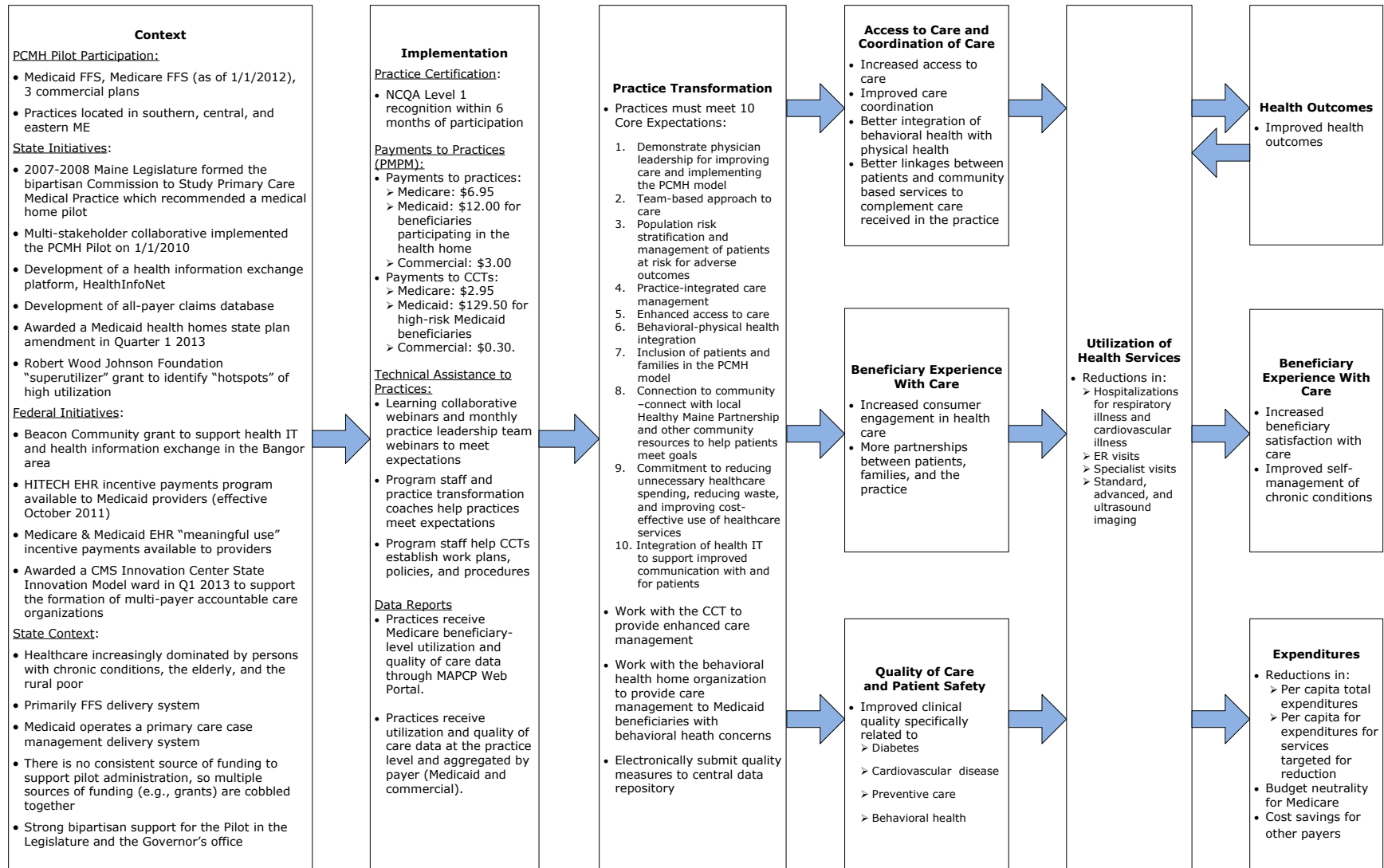
8.1.2 Logic Model

Figure 8-1 is a logic model of Maine's PCMH Pilot, updated to incorporate changes made during the third year of the MAPCP Demonstration. The first column describes the context for the demonstration, including the scope of the PCMH Pilot, other state and federal initiatives affecting the state's initiative, and key features of the state context affecting the demonstration, such as the predominantly FFS delivery system in Maine and the increasing domination of health care utilization in Maine by persons with chronic conditions, the elderly, and the rural poor. The demonstration context affects the implementation of the PCMH Pilot. Implementation activities were expected to promote transformation of practices to PCMHs, reflected in care processes and other activities. Beneficiaries served by these transformed practices were expected to have better access to more coordinated, safer, and higher quality care, as well as having a better experience with care and more engagement in decisions about treatments and management of their conditions. These improvements promoted more efficient utilization of health care services. Changes in utilization were expected to produce further changes, including improved health outcomes, improvements in beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for the Medicare program and cost savings for other payers. Improved health outcomes, in turn, could result in further reduced utilization.

³⁵ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

Figure 8-1
Logic model for Maine PCMH Pilot

8-12



CCT = community care team; CMS = Centers for Medicare & Medicaid Services; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; IT = information technology; PCMH = patient-centered medical home; MAPCP = Multi-Payer Advanced Primary Care Practice; NCQA: National Committee for Quality Assurance.

8.1.3 Implementation

This section uses primary data gathered from interviews conducted during the site visit in November 2014 and other sources and presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in **Section 8.1**.

Major Changes During the Third Year

New payer joins initiative. A sixth payer, Maine Community Health Options, joined the PCMH Pilot on January 1, 2014, at the time it began operating as a consumer-operated and -oriented plan. Because it joined after the PCMH Pilot was already underway, Maine Community Health Options opted to contract directly with practices and CCTs independent of the other commercial insurers, although their missions and goals were aligned. The organization committed to supporting the PCMH model beyond the PCMH Pilot by making supplemental PMPM payments to any contracted primary care practice with NCQA recognition. One state official described the organization's impact on the PCMH Pilot as "very positive" because they "committed upfront to paying for both medical homes and CCTs." By September 2014, Maine Community Health Options added almost 40,000 covered lives to the PCMH Pilot.³⁶

Production of primary care practice reports. After a lapse of more than a year, the Maine Health Management Coalition began producing reports for all primary care practices in the state, including PCMH Pilot practices, based on commercial cost and utilization data (as described in **Section 8.1.1**). According to one state official, "Providers think these reports yield very important information" about the downstream costs for a practice's panel, and practices agreed. The Coalition anticipated being able to add MaineCare and Medicare data in 2015.

Major Implementation Issues During the Third Year

Changes to CCT capacity and operation. The MaineCare Health Home initiative began the transition to a patient attestation model in two phases: with Phase A in 2013 for adults with chronic medical conditions, and Phase B in April 2014 for adults with serious mental illness (SMI) and children with serious emotional disturbance (SED). Patients in Phase B were served not by CCTs, but by BHHOs. During the transition, patients with SMI or SED were not included in the Health Home Portal, and CCTs did not receive payments for them if they continued providing them with services. CCTs struggled to maintain panel size because of patients with SMI and SED who received concurrent targeted case management and community integration services provided by the BHHOs. Estimates at the time of the site visit indicated that CCTs only had engaged 2.5 percent of the MaineCare population. In addition, CCTs had an average patient refusal rate for services of 42 to 47 percent. The result of the diminished panel size, despite the higher payment for MaineCare patients participating in Health Homes (described in **Section 8.1.1**), was a large decrease in revenue for many CCTs, because they received payments only for patients for whom they provided services. As one CCT said, "The change in payment

³⁶ As reported by the Maine PCMH Pilot quarterly report for the quarter ending September 2014.

methodology has negatively impacted CCTs, because it is very difficult to design a business model around an elusive potential list of patients that is constantly changing.”

Concerns also increased that CCTs were not reaching their target population—the top 5 percent of high-risk, high-need patients. Maine Quality Counts worked with CCTs and practices to standardize their processes to ensure that those very high-risk patients were more readily identifiable. One state official felt that “In reality, CCTs have probably worked with complex chronic disease patients, but not necessarily within that top 5 percent.” Maine Quality Counts and the CCTs expected standardization to help with delivery efficiency and financial sustainability.

Adjustments to technical assistance provided to practices. Maine Quality Counts began tailoring quality improvement and technical assistance resources for practices with varying levels of PCMH infrastructure and development. The initial group of practices participated in the PCMH Pilot since 2010, while the expansion practices did not join until 2013. One state official reflected. “[It has been] challenging to make resources relevant [for all practices].” Maine Quality Counts focused on practices needing additional support to meet the PCMH Pilot’s Core Expectations. In 2014, Maine Quality Counts also adjusted the financing mechanism for its educational and technical assistance programs. While practices paid a small PMPM payment for some resources and programs, the payment was reduced if their panel size decreased.

Difficulties with data exchange. Data exchange remained a challenge for the PCMH Pilot in 2014. While 90 percent of hospitals exchanged information through HealthInfoNet, primary care practice connectivity varied. Because many primary care practices have been bought by large hospitals or health systems, it was up to the hospital or system to ensure that their practices were connected. As hospitals and health systems expanded, many developed their own data systems. One payer expressed concern that “data will continue to travel along a system-proprietary path,” making it increasingly challenging to leverage statewide tools to encourage data exchange across systems and complicating data exchange with added issues of interoperability.

Practices still lacked data reports that integrated claims and clinical data in real time, which were crucial as practices continued to work on quality improvement. While many interviewees recognized the need for these resources, one state official noted that there was uncertainty “among players about whose role that is.” Multiple major data players in Maine wanted to “own” the development of integrated data resources and provide those resources to practices.

External and Contextual Factors Affecting Implementation

Impact of other health reform initiatives. The Health Home SPA and SIM grant had a direct impact on the PCMH Pilot and participating practices. MaineCare’s Health Home SPA changed how both practices and CCTs were paid and broadened the CCTs’ scope of work beyond PCMH Pilot practices. The SIM grant also provided an influx of resources to the PCMH Pilot, including the development of a more robust data infrastructure. Many state officials and payers saw Maine’s SIM grant as an opportunity to advance primary care and payment reform; one payer lauded the PCMH Pilot as being “critical in setting the stage” to advance primary care.

In addition, health systems and other entities continued to form accountable care organizations (ACOs) and enter into risk-based contracts with commercial payers and Medicare. PCMH practices that entered ACOs then were paid under the risk-based contract, rather than with demonstration payments. As noted by many interviewees, these many concurrent initiatives created a challenge to mitigate “provider fatigue.” One state official said, “At the core, fatigue comes from the perception that [providers are] doing all the work to change [their practice] and payment methodologies aren’t keeping up [to adequately support their work]”.

Impact of commercial single-payer PCMH programs. Adding to the complex health reform landscape in Maine, many commercial payers also concurrently operated their own single-payer PCMH programs or contracts. While participating commercial payers expressed continued support for the PCMH Pilot, they also noted the administrative burden associated with operating two programs. Some payers recruited PCMH Pilot practices to join their own programs. One state official praised commercial payers for “institutionalizing [enhanced] payments to practices,” both within the PCMH Pilot and beyond.

Consolidation of primary care practices. Nationally, as well as in Maine, there has been a trend toward consolidating primary care practices into larger hospital or health systems. One state official estimated that 70 percent of primary care practices in the state were owned by a larger system. Consolidation made attribution within the PCMH Pilot more challenging; both state officials and payers agreed that it was difficult to attribute a patient to a primary care provider when the provider shifted between practices or systems.

Effect of Medicare’s Decision to Extend the MAPCP Demonstration in Maine

Many interviewees called the extension of the MAPCP Demonstration in Maine a “reprieve” or a “call to action,” as the state worked on developing a plan for sustaining the PCMH Pilot. Some payers, including Anthem and Maine Community Health Options, already had shown their commitment to funding CCTs beyond the PCMH Pilot by institutionalizing payments as part of either their individual contracts or single-payer PCMH programs. Many state official and payer interviewees commented that, had the demonstration ended in 2014, it would have severely affected the financial viability of the CCTs because they served so many Medicare beneficiaries. In addition, because Medicare is the largest payer in Maine, practices with sizable Medicare panels also would have been affected financially. Generally, interviewees were excited to see the MAPCP Demonstration continue; one payer reflected, “It would have been a shame to end the demonstration in 2015 before [we] have objective results.”

8.1.4 Lessons Learned

Strong leadership was critical. Interviewees praised conveners’ efforts to bring payers, providers, and other stakeholders to the table and engage them in support of advancing primary care in Maine. The strong vision and drive among PCMH Pilot conveners was a critical factor in successfully maintaining payer commitment; one payer said, “The Pilot has value even if it hasn’t shown a value [quantitatively] yet.” More than one state official credited Lisa Letourneau, Executive Director of Maine Quality Counts, for “keeping payers at the table and never losing sight around [the] hard work of sustainability.”

Transformation takes time to show a return on investment. Repeatedly, interviewees echoed that 4 years was not enough time to show demonstrable impacts on reducing costs and improving quality, especially because the majority of PCMH Pilot practices had only participated for 2 years. One payer reflected, “Changes that are needed within practices to transition from being traditional practices to becoming team-based practices entail a long journey. We need to be realistic about the change rate.”

True payment reform is necessary to advance primary care. Several state officials and payers commented that payment methods needed to move away from FFS to sustain advanced primary care practice. One payer thought that overlaying FFS with PMPM payments sent mixed messages to providers who were “beating two canoes: fee-for-service to pay the bills and innovative payment reform to support advanced primary care.” When CCTs received PMPM payments, they could estimate their annual payments, based on the panel sizes of the practices. With the new methodology, CCTs reported a 42 to 47 percent refusal rate of services by patients and found it difficult to recruit the top 5 percent of high-utilizer patients in practices’ panels, instead recruiting approximately 2.5 percent. Without knowing the number of patients eligible for services and receiving payment only for patients who agreed to participate in care management services, their annual income was not readily predictable, and some CCTs expressed concern about their continued financial viability.

Clear expectations for practices and CCTs are important. Written expectations for practices and CCTs were critical for monitoring their progress in meeting the Core Expectations and targeting quality improvement activities to areas where they had not met expectations. PCMH Pilot conveners wanted to ensure that practices and CCTs provided the same level of quality care to all patients. As described previously, Quality Counts staff worked with CCTs on standardizing expectations for them.

Requiring practices to budget their PMPM payments would help them target improvements. In hindsight, some state officials reflected that it would have been helpful for both PCMH Pilot leadership and practices if the practices were required to create a budget showing how supplemental payments would be used. These budgets would have given stakeholders a better understanding of the cost of the transformation and maintenance of PCMH infrastructure.

8.2 Practice Transformation

This section describes the features of the practices participating in the Maine PCMH Pilot, identifies changes made by practices to take part in the demonstration and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in November 2014, emphasizing changes occurring since our previous interviews in October 2013.

Practices achieved most of their major practice transformation goals, but all were very much engaged in thinking about remaining gaps and how the medical home model could be optimized in their practice settings. The 10 Core Expectations had merged into the background for some practices, but were still a guiding light for others. As before, practices were delighted

with the PCMH model, which improved staff teamwork, the ability to focus on patients and their needs, and the quality of care provided, allowing these practices to advance population health goals. Practice staff were engaged, motivated, and working at the top of their licenses.

8.2.1 Changes Made by Practices During Year Three

PCMH recognition and practice transformation. All practices achieved NCQA PPC®-PCMH™ recognition as a condition of participation in the PCMH Pilot, and they were at various stages of renewal and upgrading. As in the previous year, the larger practices took this in stride, but a small practice was “dreading the thought.”

Over the past year, practices improved access to care, and several mentioned new programs to augment access: one extended weekend hours from a half to full day by sharing staff across two sites, and another expanded open access to additional providers. The practice also mentioned more closely monitoring their next-available appointment opportunities and using that information to determine whether to expand or close patient panels for their various providers.

A clear trend this year, evident in all interviewed practices, was an effort to focus care on patients identified as being either high risk (having multiple comorbidities), high utilizers (in the top 5 percent of ER visits and admissions), or quality-of-care outliers (overdue for prevention visits). Even the smallest practice focused on meeting the 31 quality measure goals stipulated by the PCMH Pilot. Several practices mentioned using pre-visit planning to identify these patients, taking advantage of medical assistants to research each patient’s needs and team meetings or huddles to discuss specific patients. One practice empowered their medical assistants to activate orders for tests related to cancer screening and to ensure that each patient had a follow-up visit afterwards. Another practice that participated in an academic teaching program started a project that asked the rotating residents to review high-risk patients and identify gaps in their care. The emphasis on prevention was not driven solely by the PCMH Pilot; payers emphasized this as well: “Yes, that’s just a paradigm shift. All our payers would rather pay for prevention than for treatment. They encourage us to monitor patients getting their vaccinations and cancer screenings.”

These activities also were tied to practices’ care coordination programs, especially regarding transition patients. Interviewed practices generally received real-time notices of patients’ admissions and actively worked to follow up with discharged patients in a timely manner. One practice implemented a post-discharge phone call to each recently discharged patient; the practice believed that these calls had effectively reduced the readmission rates for these patients to near zero. Another practice started writing the discharge orders for post-discharge care for their admitted patients. Similar efforts were made to follow up on patients seen in the ER, as one practice noted: “Any patient who goes to ER, we get the ER note that day.... But I usually call the patient to make sure we know all the details.”

Increased emphasis was placed during Year Three on linking behavioral health services with primary care practices. Each practice offered behavioral health services, although with differing types of staff and varying levels of sophistication. Programs appearing most successful were those in which the practice was able to link with other services, such as a mental health program coordinated by the local hospital system. One practice established a link to behavioral health services offered by Catholic Charities. Another practice discussed enhancing their services

further, for example, by implementing a controlled substances management program and better screening programs to detect drug use or depression. A practice with pediatric patients initiated screening for autism. Another practice started using a telepsychiatry service, enabling patients with active mental health problems to interact directly with an off-site psychiatrist.

One practice acknowledged the benefits of having a behavioral social worker on the local CCT, but also saw the need for additional resources, mentioning a relative paucity of behavioral health providers in the area. His practice was working to develop a list of other behavioral health resources their practice could access. Another practice also commented on the benefits of the CCT's behavioral social worker, who had "gone into the home to identify steps to success—things that would not have been found in an office visit." Several practices mentioned hurdles encountered in MaineCare's transition to providing care through BHHOs for patients with SMI rather than through CCTs. Referring to their many patients with both physical and mental health issues, one practice mentioned favoring the CCT approach because it was more effective in dealing with these multiple comorbidities. The same practice mentioned barriers to coordinating care for patients with behavioral health conditions, primarily based on regulations in the Health Insurance Privacy and Accountability Act (HIPAA) that impeded effective information sharing.

Interviewed practices had functioning patient advisory councils and valued their input. One practice invested in training to optimize the patient advisory process, "A lot of us did training to learn how to facilitate a meeting. When you focus on something and take the patient's piece in, it benefits staff as well. When you implement something, you find a way to become efficient, so the staff see the value. We have found more efficiencies within our practice." Similarly, practices focused on optimizing patient satisfaction. Some adopted either frequent or real-time surveys to supplement the annual surveys sponsored by the PCMH Pilot. One practice installed kiosks in the waiting area that asked five satisfaction-related questions, and these questions were rotated quarterly.

In the Year Three site visits, several practices started supporting the "Choosing Wisely" campaign sponsored by the American Board of Internal Medicine, using posters in the waiting areas to raise awareness about the program. One practice mentioned the program: "We've noticed that more patients ask how much things will cost and are asking more about what is really needed."

Practice staffing changes. Most major staffing changes needed to support the medical home were in place by the end of Year Two. At the 2014 site visit, practices mentioned some incremental changes, mostly focused on clearly defining roles of specific staff. Some practices discussed problems with turnover, losing staff who had been well trained for their role and having to start educating a new person. Practices uniformly used team-based models of care, typically using medical assistants to support the primary providers and care coordination processes.

One novel change identified this year in two practices was a movement away from the use of medical assistants in favor of hiring RNs. The practices mentioned several favorable effects reflecting the higher skill set of RNs with respect to improving care coordination and communication and especially in providing more effective patient education to promote self-management of patients' chronic conditions. Other practices mentioned the value of care

coordination. One practice noted that some of their more complex patients called the practice instead of going straight to the ER for a new complaint. Another cited the benefits of their care coordination program in increasing compliance with quality and screening: “Finally, for [the] first time, greater than 60 percent of diabetics have had a retinal eye exam in last 6 months.”

Two other novel programs were identified this year. One practice experimented with a scribe to transfer physicians’ notes, enabling physicians to spend more time with patients. Another provided bonuses for staff if the practice met quality goals.

Health information technology. The PCMH Pilot practices interviewed were well acclimated to their EHRs and used them not only for direct patient care, but also to support patient education and performance improvement by generating population-based reports. Most practices seemed positive about their EHRs, with some reservations: “By and large, it makes me work 30 percent harder, but makes my staff need to work 10 percent less.” Two practices mentioned upgrades that had caused crashes and slowness with their EHRs, while others commented on having to adapt to new functionalities.

Most interviewed practices actively used patient portals, and they reported that acceptance and utilization were expanding. One practice mentioned that, as their portal traffic increased, their telephone traffic correspondingly diminished. Another practice with approximately 500 patients using its portal commented that, unexpectedly, older patients seemed to be the most active users. One practice noted that one of the providers was “so excited” about the portal that he considered doing the bulk of his clinical work through the portal, in lieu of making patients come in for a visit. During the Year Two interviews, practices advocated for a payment system that would encourage doing clinical work through the portal. This year, we heard the opposite sentiment; practices were concerned that paying for clinical work provided through a portal might decrease portal utilization because patients likely would have copayments.

Practices were doing more electronically. One practice sent medical information securely to other providers, replacing use of the fax. Another noted that they had a direct log-in to the notes of their mental health consultants. One practice considered cloud-based care plans “so everyone involved can see it.” There were also improved electronic links to patient education materials: “As soon as we put in an order for a lipid panel, it automatically gives us information that we can give to the patient.”

Use of the state’s data warehouse, HealthInfoNet, seemed to be increasing among practices. Practices used these data to get alerts on their patients, notices of admissions and discharges, and progress notes from CCTs. Several problems also were identified during interviews, with one practice noting that to get alerts, the practice had to enter all patients’ information manually, and another complaining that the local hospital did not feed data into HealthInfoNet.

8.2.2 Technical Assistance

Again this year, practices were uniformly complementary of the services and guidance provided through Maine Quality Counts. Common sentiments were that “Maine Quality Counts is wonderful” and “The trainings they put on are great.” We heard many positive comments

about the webinars, conference calls, and learning collaboratives hosted by Quality Counts. The meetings were perceived as especially valuable in establishing contacts with other organizations, enabling practices to learn from each other. Several practices mentioned the value of obtaining input from the Quality Improvement Specialists provided by Maine Quality Counts. These Specialists visited each practice more than once and, in some cases, provided weekly visits for coaching and training. Practices also applauded efforts by the Maine PCMH Pilot to support quality monitoring: “Everyone has the same benchmarks now. It’s been a lot easier to gather information, put it in one place, and report it when needed.”

All of the interviewed practices commented that data provided to help monitor their quality and utilization were extremely valuable, although some practices seemed to rely most heavily on data generated from their own EHRs. Others commented favorably on the utilization reports for Medicare patients available through the RTI portal: “Yes, I love those. I have one right in front of me. Have them posted in conference room when we have staff meetings. I print off the data that we have the measures for and highlight and use gold stars to track things. [I] find it very useful.” MaineCare health home beneficiary utilization files were described as less user-friendly than RTI’s reports. One practice commented that the Maine Health Management Coalition reports contained outdated data, were difficult to read, and were less applicable to practices such as FQHCs with a relatively small commercial population.

8.2.3 Payment Support

Comments this year regarding payments were similar to those heard during the Year One and Year Two site visits. The payments received for participating in the PCMH Pilot were very much appreciated and were essential in supporting the medical home. They allowed practices to hire staff for care coordination and quality management and to purchase or maintain their advanced EHRs: “If we did not have that money coming, we would not be able to fund the level of care management we have.”

Practices again voiced concerns that PCMH payments were inadequate to support comprehensive care coordination. One practice noted that the recent change in MaineCare’s CCT payment model, from a PMPM allocation to a fixed payment, meant that CCTs could not predict payments and were potentially underfunded.

8.2.4 Summary

Echoing sentiments heard in Year One and Year Two, the Maine PCMH practices were uniformly delighted with the program and the many ways in which it enhanced their ability to improve the quality of care they provided. The program allowed the practices to become more patient centered, improve access, and increase both patient and staff satisfaction. To paraphrase a view we heard at many sites: “Our patients are getting the best quality care possible.” As a whole, the program provided a platform to share services, such as care coordination and technical support, while allowing each practice to focus on its own priorities.

The practices also acknowledged some drawbacks to PCMH work, noting the many challenges of getting the full practice team on board, the inherent resistance to change on the part of both practice staff and patients, and the extensive, and at times irritating, documentation requirements.

Although none of the practices planned to abandon the medical home model, several practices viewed the eventual end of the PCMH Pilot with great trepidation, fearing that their care coordination services in particular might be sacrificed. One commented that, “[PCMH] payments make up about 10 percent of our revenue; we wouldn’t be able to survive without those payments.” Another practice said, “We can’t sustain it with just Medicaid payments—our panel is 40 percent Medicare and, without those payments, we can’t keep it going.” And still another practice expressed the concern that, “Termination would have a huge impact. We rely on those dollars from all the payers who participate in Pilot and health home programs. Our health educator’s salary comes from those dollars.”

Other practices were optimistic, acknowledging the move toward risk sharing through their ACOs and the possibility that this approach could sustain the medical home model. One practice said, “Yes, our answer is that we will continue to do the work that we’ve been doing and continue with the initiatives that we put into place during the Pilot. Continue and grow what we are currently doing.” Another practice said, “If the Pilot stopped tomorrow, we would find a way to do it; we will still be a medical home and forge forward. They’re providing superior quality care. If incentives go away, they will still fare well compared to those who aren’t on board with the medical home concept.” One solo practitioner, however, lamented that the trend toward the ACO model as the only sustainable funding source would mean the end of his type of practice. “I’m going to be out of practice in 5 to 7 years after the model is over. No way I would be able to integrate all of this with the level of funding we had 3 years ago. My income will decline over time as I lose patients to the ACO and, long term, I suspect that you won’t be able to have an independent practice that will be profitable.”

As in past years, practices found it unfortunate that programs like the Maine PCMH Pilot were needed to sustain a medical home. Several practices considered the real solution to be national payment reform based on capitated models focused on providing comprehensive, patient-centered, primary care for a panel of patients.

8.3 Quality of Care, Patient Safety, and Health Outcomes

During the 2013 site visit, practices spoke of a variety of initiatives aimed at improving quality of care, patient safety, and health outcomes. The most frequently cited initiatives included the use and review of EHR and utilization data to guide quality improvement initiatives, patient follow-up after hospital discharge, medication reconciliation, and integration with the CCTs to identify high-risk patients in need of extensive care management. During the 2014 site visit, practices spoke of these same initiatives. Interviewed practices offered examples of using the EHR to identify gaps in care for certain populations (e.g., patient panels stratified by age, sex, or chronic condition). Practices implemented various strategies (including sending letters, calling patients, and reminding patients at the point of care) to notify patients of any gaps and encourage them to come in for the needed test, exam, or service. Notably, some CCTs also mentioned using process of care and utilization quality metrics to drive decisions about the mix of services they chose to provide to a CCT patient and the length of stay within the CCT program.

Several practices also noted improved dissemination of health education materials (such as fact sheets) embedded in the EHR, so that patients received relevant education materials at the

point of care. Several practices spoke of their efforts over the past year to generate summary reports on their performance on quality targets for distribution to internal staff (e.g., physicians, medical assistants) and external community boards. The reports were used to guide practices in planning for future quality improvement activities. Follow-up after hospital or ER discharge by staff was mentioned by several practices. Staff placed calls to recently discharged patients to discuss next steps after discharge, make appointments with their primary care physicians, and, as necessary, provide guidance on appropriate ER use. Medication reconciliation also was frequently mentioned as part of patient follow-up, with referral to a care manager for medication reconciliation when the provider deemed it necessary.

One new activity noted by several practices during the 2014 site visit was implementation of annual depression and substance abuse screening (for adults and teenagers) and developmental screening (for children), which are required to be a Medicaid health home. While some practices already did some or all of these screenings before becoming a Medicaid health home, others did not, and they expressed frustration at the process of redesigning provider workflow to ensure that these screenings were done. Another feature of quality improvement mentioned by several practices in 2014 was their collaboration with the Quality Improvement Specialist (described in **Section 8.2.2**), who helped them implement quality improvement activities.

Finally, over the past year, practices reported quarterly on 31 quality indicators related to diabetes, cardiovascular disease, and preventive care use. The quality indicator data were used by PCMH Pilot staff to determine whether practices met specific quality performance targets, and the data were provided to the state-based evaluation team at the University of Southern Maine for analysis. Although some interviewees noted that the number of quality measures they needed to report for the various initiatives they participated in (e.g., the PCMH Pilot, ACOs) was extensive and integrating the data needed to create the quality measures was burdensome, they used these quality data to identify and address gaps in care.

8.4 Access to Care and Coordination of Care

Maine's requirement for participating practices to achieve and maintain NCQA PPC®-PCMH™ accreditation demonstrated continued emphasis on compliance in Year Three with the NCQA "must-pass" elements for access during and after office hours, implementing a care management program, and tracking referrals and follow-up. During the 2013 site visit, practices described enhancing access to care and coordinating care through open access scheduling, expanding office hours, making same-day appointments available, tracking to the third-next-available appointment, increasing the percentage of visits that patients see the same provider, and ensuring phone coverage during lunch hour. Practices experimented with staffing variations and using urgent care centers to extend hours. During the 2014 site visit, practices continued those efforts and mentioned several new efforts to improve access. One practice extended weekend hours by sharing staff across two sites, while another practice offered weekend hours at a satellite location. Several practices also discussed revising their scheduling protocol to open up slots for walk-in care during the day, improve same-day access, provide lunch hour and evening appointments, and make it easier for front office staff to know whether patients needed a regular or extended visit. One practice also monitored its next available appointments and used that information to guide decisions to expand or close providers' patient panels.

During the 2013 site visit, practices discussed augmenting in-house care coordination capabilities by establishing internal care teams. Specific staff were assigned to ensure that ordered consultations and laboratory tests were done, to follow up with patients recently hospitalized or seen in the ER, and to use the EHR to create disease registries and identify patients with gaps in care needing attention. In 2014, practices interviewed continued these efforts, implementing further coordination improvements. Multiple practices described developing an infrastructure to improve care coordination that included examining staff roles and responsibilities as part of building a team model of care. Several practices hired nurses or medical assistants for panel management and care management. One practice received a grant from the state's SIM initiative to hire and train two community health workers to coordinate care for breast health and asthma. Practices also used e-faxing or direct EHR communications with specialists to send and receive patient information on a timely basis.

Participating practices are expected to meet the Core Expectation of integrating behavioral and physical health to enhance care coordination. In 2014, practices talked about the progress they had made in continuing to integrate behavioral health over the past year, including adding mental health professionals on staff and formalizing referral processes. Maine Quality Counts made technical assistance available to practices needing it. This integration was furthered by MaineCare's requirement to implement screenings for depression and substance abuse, as discussed in **Section 8.3**.

CCTs provided support and worked closely with practices for the most complex, high-risk, high-need patients, coordinating with primary care and specialty care providers, hospitals, ERs, and community resources. BHHOs were implemented this past year to coordinate resources for adults with SMI and children with SED, removing them from CCT panels. A couple of CCTs were concerned about the hand-off of patients from the CCT to the BHHO, because they had not been contacted by the BHHO to get a case history on the patient. Regular meetings were held by Quality Counts with the CCTs and BHHOs to resolve these issues and improve coordination among them.

8.5 Beneficiary Experience With Care

Over the past year, practices continued to focus on patient experience. During the 2014 site visit, practices discussed several activities undertaken to improve experience with care, such as connecting health educators and patients to discuss self-management, offering group health education classes, offering education classes for caregivers, inviting caregivers to appointments and assigning them roles in the care plan, training staff on motivational interviewing, and providing education to a patient panel on using the electronic patient portal. Some practices also mentioned giving medical assistants a more prominent role, so that patients had another member of their care team to approach with questions. Other practices discussed how they involved their patient advisory committees in either the development of these activities or the continuous monitoring of patient experience. Most of these activities were discussed in the 2013 site visit. One advocate noted that the strides taken by practices were noticeable since implementation of the PCMH Pilot. The advocate said that practices historically focused much of their attention on improving efficiency in the medical practice. Now there was a greater focus on engaging patients in their treatment plans, and practice staff increasingly embraced this shift.

During the 2014 site visit, CCTs spoke much more about patients' experience of care than they did in 2013. Interviewed CCTs unanimously said that their patients greatly improved in self-management, in shared decision making with their CCT, and in setting health goals. Some CCTs noted a key challenge that, while not new, directly influenced experience of care—the potential for numerous care managers to be involved in patient care. For example, care managers at hospitals, ERs, social service agencies, and the CCT all may reach out separately to a high-risk, high-utilizer patient, resulting in general confusion about which care manager was providing which services and when. The CCTs stressed that better coordination among entities was needed and that, if patients were in transition from one care management service to another, warm hand-offs were necessary, so that patients did not feel as though they were just being passed around.

Practices and CCTs tracked patient experience through their own surveys. CCTs conducted a quarterly five-question, phone-based patient satisfaction survey. Some practices also conducted patient experience surveys. For example, one practice did a yearly survey, one sent one patient experience question a month to its patient panel, and another asked five experience of care questions when patients checked out of the office.

8.6 Effectiveness (Utilization & Expenditures)

Through implementation of practice transformation and integration of the CCTs to target high utilizers of health services, Maine expected to achieve budget neutrality for the MAPCP Demonstration through 6 percent and 7 percent reductions in hospitalization for respiratory and cardiovascular illness, respectively, and 5 percent reductions in ER use, specialist visits, standard imaging, advanced imaging, and ultrasound imaging. With these reductions over the course of the MAPCP Demonstration, Maine projected gross savings to Medicare of \$10.13 PMPM for participating Medicare FFS beneficiaries, or \$0.23 net of \$9.90 in PMPM payments to practices and CCTs.

During the 2013 site visit, practices spoke at length of practice transformation anchored in the Core Expectations, several of which may have been associated with changes in utilization and expenditures, including practice-integrated care management; behavioral and physical health integration; enhanced access to care; population risk stratification and management of patients at risk for adverse outcomes; and a commitment to reducing unnecessary health care spending, reducing waste, and improving cost-effective use of health services. Initiatives associated with these expectations included care management of patients recently discharged from the hospital or ER; the addition of new care team staff; systematic use of EHR data to identify patients in need of care management or evidence-based care; and integration of the CCTs into the practice to identify and work with high utilizers. In general, initiatives were implemented without regard to the patient's type of health insurance coverage, but, to the extent Medicare and Medicaid beneficiaries were in poorer health or more frequent utilizers of acute and emergency care services, practices expected more significant changes in their utilization as a result of medical home activities.

During the 2014 site visit, practices discussed these same activities. Practice interviewees did not describe new or different activities. Several activities described most frequently by the practices included (1) using EHR data to perform gap analyses to identify members of their

patient panel in need of evidence-based care and to target patient outreach to eliminate gaps, particularly in preventive care; (2) developing processes for reaching out to and interacting with patients recently discharged from the hospital or ER to reduce future hospital or ER use; and (3) referring high-utilizer patients to and working with the CCTs.

The one new initiative mentioned by a few practices was working with the BHHOs. As described in **Section 8.1**, BHHO and practice integration was in the early stages of implementation, and some practices were unsure about which services their patients received from the BHHO. As a result, several practice and CCT interviewees expressed concern that high rates of health care use among BHHO patients may not decline if the correct mix of care management services was not provided by the BHHO.

8.7 Special Populations

As during the first 2 years of the MAPCP Demonstration, Maine's PCMH Pilot did not focus on any subpopulation for special treatment in 2014, but continued to target high utilizers of health services. These high utilizers were not explicitly identified as a target population by the PCMH Pilot conveners. Over the past year, CCTs collaborated on standardizing care management services and determining which patients to target to ensure that more patients were drawn from the top 5 percent of health care utilizers in PCMH Pilot practices. CCTs and practices worked together to identify patients to receive CCT services, using the guidelines set by the PCMH Pilot conveners. Many CCT patients were dually eligible for Medicare and Medicaid.

Throughout 2014, there was a particularly strong focus on patients with behavioral health and substance abuse issues. A state official reiterated the importance of behavioral health integration, but said that improved integration would require significant payment reform and enhanced collaboration between behavioral health and primary care providers. The PCMH Pilot and its practices undertook numerous activities over the past year to address the needs of these populations through Maine's Medicaid health home initiative, though they were not identified explicitly as target populations.

During the 2014 site visit, some practices, particularly those in urban areas, spoke of their work with limited English proficiency patients, although they also were not identified as a target population. Some practices mentioned using new computer translation programs or language lines. One practice reported scheduling longer visits with non-English-speaking patients to accommodate translation time.

8.8 Discussion

Key features offered by Maine's PCMH Pilot to primary care practices continued to be strong leadership and the framework provided by the 10 Core Expectations; buy-in from multiple stakeholders, including practices, payers, and state officials; a supportive environment for ongoing professional development through technical assistance to both practices and CCTs; and integration of the CCTs to provide care management for high utilizers and at-risk patients in practices. In addition to the support demonstrated by last year's expansion to 50 additional practices and two CCTs, as well as MaineCare's Health Home Initiative alignment with PCMH

Pilot criteria, a sixth payer joined the PCMH Pilot this past year (Maine Community Health Options).

Quality Counts staff refined the initiative, working on standardizing and focusing on the top 5 percent of high-risk, high-utilizer patients that are its focus, as well as standardizing CCT services. There also was a greater focus on engaging patients in their treatment plans this year, and practices used EHRs not only for direct patient care, but also to support patient education and performance improvement. Use of HealthInfoNet seemed to be increasing, and practices used the data warehouse to get alerts on their patients, notices of admissions and discharges, and progress reports from CCTs. Practices actively used patient portals and saw acceptance and utilization by patients. In addition to learning collaborative sessions and practice leadership webinars, a feature of technical assistance in 2014 was practices' work with Quality Improvement Specialists, assigned to them by Maine Quality Counts, who provided technical assistance and support to the practice.

MaineCare's change in payment methodology for CCTs was problematic for stakeholders. Initially a PMPM methodology, this was modified through the Home Health SPA to pay for specific beneficiaries in the top 5 percent of high utilizers who did not have a diagnosis of SED or SMI. Patients had to agree to CCT services for the CCT to receive payment, and those with a diagnosis of SED or SMI were referred for services to BHHOs and no longer received services through CCTs. Stakeholders were concerned about the coordination of services with BHHOs. Quality Counts held regular meetings among MaineCare, practices, CCTs, and BHHOs to work on coordination issues, but these discussions were in the early stage during our site visit. There also was a significant financial impact on CCTs. When CCTs received PMPM payments, they were able to estimate their annual payments, based on the panel sizes of practices. With the new methodology, CCTs reported a 42 to 47 percent refusal rate of services by patients and found it difficult to recruit the top 5 percent of high-utilizer patients in practices' panels, recruiting instead approximately 2.5 percent. Without knowing the number of patients eligible for services and receiving payment only for patients who agreed to participate in care management services, their annual income was not readily predictable, and some CCTs expressed concern about their continued financial viability.

Practices still lacked data reports that integrated claims and clinical data in real time. While 2014 saw the reintroduction of practice reports, they were based on commercial cost and utilization data, limiting their usefulness. While 90 percent of hospitals exchanged information through HealthInfoNet, primary care practice connectivity varied. Because many primary care practices are owned by large hospitals or systems, it was up to the hospital or system to ensure that their practices were connected.

State officials, payers, advocates, and providers strongly believe that the PCMH Pilot has been and continues to be an important mechanism for strengthening the primary care infrastructure in Maine. All stakeholders remain enthusiastic about the primary care transformation achieved by the PCMH Pilot. Contextual factors also contributed to the success of the demonstration. ACOs lent their own administrative support for health IT and quality measures. Finally, the state's SIM award provided additional technical assistance resources to PCMH practices and CCTs.

CHAPTER 9 MICHIGAN

In this chapter, we present qualitative and quantitative findings related to the implementation of the Michigan Primary Care Transformation Project (MiPCT), Michigan's multi-payer initiative, part of the MAPCP Demonstration. Medicare joined MiPCT at the time of the program's launch. We report qualitative findings from our third annual site visit to Michigan, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third site visit interviews, which occurred November 12 through 14, 2014, two teams traveled to the Detroit, Lansing, and Grand Rapids metropolitan areas; we also conducted several telephone interviews in the same month. The interviews focused on implementation experiences and changes occurring since the last site visit in October and November 2013. We spoke with key state officials and other staff who administer MiPCT and the MAPCP Demonstration to learn about progress in the implementation of key components of MiPCT, such as embedded nurse care managers, data feedback reports from the Michigan Data Collaborative, and the exchange of electronic admission, discharge, and transfer (ADT) information between hospitals and practices. We also met with payers to learn about their experiences with implementation and whether the MiPCT payment model met their expectations for return on investment. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs), and staff from physician organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. In addition, we reviewed reports MiPCT staff prepared for CMS and other documents to gain additional information on how the demonstration was progressing.

This chapter is organized by major evaluation domains. *Section 9.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in MiPCT. *Section 9.2* reports practice transformation activities. Subsequent sections of this chapter report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 9.3*); access to care and coordination of care (*Section 9.4*); beneficiary experience with care (*Section 9.5*); effectiveness as measured by health care utilization and expenditures (*Section 9.6*); and special populations (*Section 9.7*). The chapter concludes with a discussion of the findings (*Section 9.8*).

9.1 State Implementation

In this section, we present findings related to the implementation of Michigan's MiPCT project and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?

- Were any major implementation issues encountered over the past year and how were they addressed?
- What external or contextual factors are affecting implementation?

The state profile in **Section 9.1.1**, which describes the major features of the state's initiative and the context in which it operates, draws on a variety of sources, including: quarterly reports submitted to CMS by MiPCT project staff; monthly calls among MiPCT staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in November 2014. **Section 9.1.2** presents a logic model reflecting our understanding of the links among specific elements of MiPCT and expected changes in outcomes. **Section 9.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 9.1.4**, we conclude the state implementation section with lessons learned during the third year of the MAPCP Demonstration.

9.1.1 Michigan State Profile as of November 2014 Evaluation Site Visit

MiPCT was launched on January 1, 2012. Unlike other states where Medicare joined a program already in operation, Medicare joined MiPCT at project launch, although some elements of MiPCT were already in place. MiPCT is a collaboration among three private insurers (Blue Cross Blue Shield of Michigan [BCBSM], Blue Care Network [BCN], and Priority Health), the Michigan Medicaid agency in the Department of Community Health, and Medicare.

Key features of MiPCT are based on BCBSM's Physician Group Incentive Program (PGIP), which started in 2005. PGIP is a set of initiatives, including payment incentives, for primary care and specialty physicians, designed to transform care delivery and improve health care quality and health outcomes. In 2008, BCBSM began a PCMH initiative within PGIP. As of September 30, 2014, all 312 of the practices participating in MiPCT were designated as PCMHs by PGIP; a few also had National Committee for Quality Assurance (NCQA) PCMH recognition, but no participating practice had only NCQA recognition.

State environment. The Michigan Department of Community Health provides executive leadership and management for the project. A 16-member multistakeholder Steering Committee offers strategic direction and oversight, and a core leadership team directs the project. The MiPCT Steering Committee includes state government officials, physician organizations (described further in the Practice expectations and Support to practices sections), payers, and subject matter experts. A Patient Advisory Council was established in 2013 and serves as a resource to the Steering Committee.

Michigan experienced major political and administrative changes throughout program implementation, including a new governor in 2011 and new directors of the Department of Community Health in 2012 and 2014. The state also faced budget deficits in fiscal years 2011 and 2012. These events did not have any apparent effect, however, on program implementation, and political support for the initiative remained strong throughout the demonstration period.

In addition to PGIP, several other programs operating in Michigan may have influenced outcomes for MiPCT participants or the comparison group population:

- A variety of state- and community-based programs support the health of Michigan residents. The Michigan Department of Community Health works with local health departments and community agencies to assist physician organizations and practice staff in accessing public health and community services.
- Three Michigan physician hospital organizations were chosen as Pioneer accountable care organizations (ACOs), which is testing alternative payment arrangements to integrate care delivery systems to achieve better outcomes and lower costs. Two of the three later withdrew from the Pioneer ACO (the University of Michigan Health System in 2013 and Genesys in 2014) and joined the Medicare Shared Savings Program.
- BCBSM administers an ACO-like program called Organized Systems of Care. In this initiative, some specialists are eligible to receive PCMH-neighbor designation, indicating that the specialist has a partnership with primary care physicians to ensure a medical-home level of care across providers.
- In February 2013, Michigan received a \$1.6 million Model Design Award in the first round of the State Innovation Models (SIM) Initiative. The award helped the state further develop and refine its care innovation plan, in which the medical home was a central feature. In the second round of funding (December 2014), Michigan received a \$70 million Model Test Award.
- In December 2013, the U.S. Department of Health and Human Services approved Michigan's Section 1115 Demonstration waiver amendment to expand Medicaid coverage to adults with income of up to 133 percent of the federal poverty level (FPL), under the Healthy Michigan Plan.³⁷ Enrollment in the Healthy Michigan Plan began in April 2014; more than 500,000 individuals enrolled as of January 12, 2015, including some who transitioned from the Adult Benefits Waiver (Michigan Department of Community Health, 2015). Healthy Michigan Plan enrollees were eligible to participate in MiPCT.
- Michigan signed a memorandum of understanding with CMS on April 3, 2014, to participate in the CMS Financial Alignment Demonstration for beneficiaries who are dually eligible for Medicare and Medicaid. Enrollment occurred in two phases. For beneficiaries in Phase 1 counties, opt-in enrollment began in February 2015 and passive enrollment began May 1, 2015. For beneficiaries in Phase 2 counties, opt-in enrollment began April 1, 2015, and passive enrollment began July 1, 2015.

³⁷ The Affordable Care Act expanded Medicaid eligibility to individuals with incomes up to 133 percent of the FPL; however, there is a 5 percent income disregard, so the income limit is effectively 138 percent of the FPL.

Michigan's Financial Alignment Demonstration integrates Medicaid and Medicare services using capitated managed care.

- Michigan has four CMS Community-Based Care Transitions programs, all of which include partnerships with practices or health systems participating in MiPCT. These programs seek to improve care transitions from the hospital to other care settings and reduce readmissions for Medicare beneficiaries.

Demonstration scope. Michigan is by far the largest of the MAPCP Demonstration states. In January 2012, payments began to pilot practices located throughout the state, with an expectation that each practice would adopt the tenets of advanced primary care, including working with a multidisciplinary care team that included a care manager. MiPCT expanded in July 2013 with the addition of a new commercial payer, Priority Health.

Table 9-1 shows participation in the Michigan MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 331 at the end of Year One (December 31, 2012); 314 at the end of Year Two (December 31, 2013); and 312 at the end of Year Three (December 31, 2014)—a decrease of 6 percent overall. The number of providers at these practices increased by 22 percent over this period, from 1,404 to 1,709. The cumulative number of Medicare FFS beneficiaries that had ever participated in the demonstration for 3 or more months was 226,369 at the end of the first year, 267,568 at the end of the second year, and 299,897 as of December 31, 2014—an overall increase of 32 percent.

Table 9-1
Number of practices, providers, and Medicare FFS beneficiaries
participating in MiPCT

Participating entities	Number as of December 31, 2012	Number as of December 31, 2013	Number as of December 31, 2014
MiPCT practices ¹	331	314	312
Participating providers ¹	1,404	1,618	1,709
Medicare FFS beneficiaries ²	226,369	267,568	299,897

NOTES:

- MiPCT practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries that had ever been assigned to participating MiPCT practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice; MiPCT = Michigan Primary Care Transformation Project.

SOURCES: ¹ARC MAPCP Demonstration Provider File; ²ARC Beneficiary Assignment File (See Chapter 1 for more detail about these files.)

In terms of all-payer participants, the state originally projected that a total of 1,759,188 individuals would participate in MiPCT. The number of all-payer participants enrolled in MiPCT was 1,033,462 at the end of Year One (December 31, 2012); 1,151,518 at the end of Year Two

(December 31, 2013); and 1,175,586 at the end of Year Three (December 31, 2014). The 2014 figure represents an overall increase of 142,124 beneficiaries, or 14 percent, over 2012.

Five payers participated in MiPCT: Medicare FFS (16% of total participants as of September 2014), Medicaid managed care (17%), BCBSM (34%), BCN (23%), and Priority Health (10%). The state Medicaid agency makes payments on behalf of managed care plans participating in Medicaid, which are reported collectively as one participating payer. The three commercial plans (BCN is a nonprofit HMO owned by BCBSM) participated on behalf of their commercial products, including some, but not complete, participation among self-insured purchasers. Other commercial payers initially expressed their intent to participate, but later chose not to join; MiPCT staff continued to engage nonparticipating payers.

Table 9-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in MiPCT as of December 31, 2014. There were 312 participating practices with an average of five providers per practice. Nearly all practices were office-based (94%); 3 percent were federally qualified health centers (FQHCs), 3 percent were rural health clinics (RHCs), and none were critical access hospitals (CAHs). Most practices (90%) were located in metropolitan counties; 7 percent were in micropolitan counties, and 3 percent in rural counties.

Table 9-2
Characteristics of practices participating in MiPCT as of December 31, 2014

Characteristic	Number or percent
Number of practices (total)	312
Number of providers (total)	1,709
Number of providers per practice (average)	5
Practice type (%)	
Office-based practice	94
FQHC	3
CAH	0
RHC	3
Practice location type (%)	
Metropolitan	90
Micropolitan	7
Rural	3

ARC = Actuarial Research Corporation; CAH = critical access hospital; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; MiPCT = Michigan Primary Care Transformation Project; RHC = rural health clinic.

SOURCE: ARC Q14 MAPCP Demonstration Provider File. (See Chapter 1 for more details about this file.)

In **Table 9-3**, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating MiPCT practices during the 3 years of the MAPCP Demonstration (January 1, 2012, through December 31, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Twenty percent of beneficiaries assigned to MiPCT practices participating in the MAPCP

Demonstration were under the age of 65, 47 percent were age 65–75, 24 percent were age 76–85, and 9 percent were over age 85. The mean age was 70. Beneficiaries were mostly White (86%) and lived in urban areas (82%), and 58 percent were female. Sixteen percent were dually eligible for Medicare and Medicaid, and 27 percent were eligible for Medicare originally due to disability. One percent of beneficiaries had end-stage renal disease, and 1 percent resided in a nursing home during the year prior to their assignment to a MiPCT practice.

Table 9-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating in MiPCT from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	299,897
Demographic characteristics	
Age < 65 (%)	20
Age 65–75 (%)	47
Age 76–85 (%)	24
Age > 85 (%)	9
Mean age	70
White (%)	86
Urban place of residence (%)	82
Female (%)	58
Dually eligible beneficiaries (%)	16
Disabled (%)	27
ESRD (%)	1
Institutionalized (%)	1
Health status	
Mean HCC score groups	1.10
Low risk (< 0.48) (%)	25
Medium risk (0.48–1.25) (%)	52
High risk (> 1.25) (%)	24
Mean Charlson index score	0.8
Low Charlson index score (= 0) (%)	64
Medium Charlson index score (≤ 1) (%)	18
High Charlson index score (> 1) (%)	19
Chronic conditions (%)	
Heart failure	5
Coronary artery disease	12
Other respiratory disease	9
Diabetes without complications	17
Diabetes with complications	4

(continued)

Table 9-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in MiPCT from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	
Essential hypertension	33
Valve disorders	2
Cardiomyopathy	1
Acute and chronic renal disease	7
Renal failure	3
Peripheral vascular disease	2
Lipid metabolism disorders	18
Cardiac dysrhythmias and conduction disorders	9
Dementias	1
Strokes	1
Chest pain	5
Urinary tract infection	5
Anemia	7
Malaise and fatigue (including chronic fatigue syndrome)	2
Dizziness, syncope, and convulsions	6
Disorders of joint	6
Hypothyroidism	6

NOTES:

- Percentages and means are weighted by the fraction of the year that a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period prior to a Medicare beneficiary first being attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; MiPCT = Michigan Primary Care Transformation Project; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

Using three different measures—Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries' health status during the year before their assignment to a MiPCT practice. Beneficiaries had a mean HCC score of 1.10, meaning that Medicare beneficiaries assigned to a MiPCT practice in the third year of the MAPCP Demonstration were predicted to be 10 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating MiPCT practice. Beneficiaries' average score on the Charlson comorbidity index was 0.80; just under two-thirds (64%) of beneficiaries had a low (zero) score, indicating that they did not receive

medical care for any of the 18 clinical conditions in the index in the year before assignment to a participating MiPCT practice.

The most common chronic conditions diagnosed were hypertension (32%), lipid metabolism disorders (18%), diabetes without complications (17%), and coronary artery disease (12%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. Practices participating in MiPCT were expected to meet four core requirements. First, they had to attain PCMH status by July 2010 and maintain that status. Practices could secure PCMH status either through PGIP PCMH designation or NCQA PCMH Level 2 or Level 3 recognition. All participating practices were PGIP-designated; a small minority of the practices also had NCQA recognition.

First, under PGIP, a practice's PCMH score was calculated using both process and outcome measures. A primary care practice's medical home capacity was measured across 12 "domains of function" developed by BCBSM and physician organizations. These domains included individual care management, self-management support, preventive services, and coordination of care. Each domain included several specific medical home capabilities. Practices' scores also were based on performance in certain areas demonstrating successful implementation of the medical home model, such as increased use of preventive services, increased generic drug use, and decreased diagnostic imaging utilization. BCBSM and MiPCT staff believed that the PGIP standards were more rigorous than those of NCQA.

Certain domains within PGIP (registry functionality, expanded access, performance reporting, and care management staffing requirements) were "must-pass" standards for MiPCT participation (i.e., practices not meeting these requirements could not participate in MiPCT). BCBSM standards required referral and tracking capacity between specialists and primary care providers.

Second, practices had to be affiliated with a participating physician organization. Physician organizations had a long history in Michigan; originally they mainly handled managed care contracting, but they also provided substantial administrative support to practices participating in BCBSM's PGIP and the MiPCT initiative. The physician organizations simplified administration and played a critical role in the project (discussed further in Support to practices).

Third, MiPCT required either the practice or the relevant physician organization to hire care managers to provide care coordination and case management to patients. Care managers are the heart of the project and the primary mechanism for cost savings. Mandatory staffing ratios were established at the physician organization level. Originally, MiPCT expected one moderate and one complex care manager (two total) for every 5,000 patients served by a physician organization. They further anticipated that moderate care managers would work primarily with medium-risk patients, while complex care managers would work only with those patients at highest risk. Initially, care managers received patient risk scores assigned by each payer using its own method (if any). Later, the Michigan Data Collaborative used the Diagnostic Cost Group method to assign risk scores to all patients attributed to a practice, across all payers, and care managers received those reports.

Practices are not required, however, to use these data to identify patients to receive care management. Practices and physician organizations raised concerns that the staffing model did not adequately meet the needs of small practices with fewer complex patients or pediatric practices. This led to the development of a hybrid care manager—staff who could work with patients with moderate or complex needs. The staffing requirement for hybrid care managers was effectively 1:2,500 (two for every 5,000 patients). As the project evolved, the vast majority of care managers functioned as hybrids. Project staff reported that the number of care managers varied from month to month, but averaged about 420 statewide in 2014.

Fourth, physician organizations and practices sign annual participation agreements with the state requiring compliance with contractual obligations, including participation in learning activities (although there was no standard curriculum). The learning activities, designed to identify and spread best practices, included regional meetings, learning collaboratives, and webinars. Furthermore, physician organizations are allowed to develop and lead their own learning activities for their practices, which, with MiPCT approval, counted toward meeting the learning requirements. Participation in select learning activities is required for practices and physician organizations failing to meet performance expectations on MiPCT performance incentive metrics.

Support to practices. MiPCT has a complex payment system designed to provide financial incentives and rewards to practices, with payment schedules and methodologies varying by payer. Each payer financially supported the participating practices and physician organizations through three types of payments: practice transformation payments, care coordination payments, and incentive payments (*Table 9-4*):

- *Practice transformation payments:* Practices received these payments directly. The funds are intended to compensate practices for the investment in and operational costs of building medical home infrastructure, such as purchasing all-patient registry software.
- *Care coordination payments:* These payments are made to physician organizations to fund care management services. Physician organizations keep the payment for the care managers they hired and pass the care management payment on to practices hiring their own care managers. Physician organizations submit quarterly financial reports to MiPCT to ensure that care management payments are spent only on care management activities.
- *Incentive payments:* Payers make incentive payments into a pool administered by the University of Michigan Health System that is disbursed to physician organizations semiannually. The pooled funding is distributed to physician organizations based on their affiliated practices' performance on metrics chosen by the MiPCT Performance Incentive Committee. There were four performance metric sets: a 6-month set, a 12-month set, a 2013 Year Two set, and a 2014 Year Three set. Over time, the incentive metrics shifted from rewarding improvements in processes (e.g., registry functionality or care management staffing) to rewarding improvements in care outcomes (e.g., ambulatory care-sensitive hospitalizations). The first set of incentive payments was distributed in January and February 2013 and payments were then made semiannually

thereafter. Physician organizations are required to pass through at least 80 percent of the payments to their practices. MiPCT imposes no restrictions on how practices and physician organizations used their incentive payments, and there is deliberately no monitoring of how the money is spent.

Physician organizations and practices were required to have hired and trained at least 80 percent of the care managers necessary to meet program staffing requirements to receive their payments. Additionally, all payers fund program management, evaluation, data analytics, and learning activities through a per member per month (PMPM) administrative support fee.

Table 9-4
PMPM MiPCT payment amounts

Payment type	Medicare	Medicaid managed care	Commercial
Practice transformation	\$2.00	\$1.50	\$1.50 ¹
Care coordination	\$4.50	\$3.00	\$3.00 ¹
Incentive	\$3.00	\$3.00	\$3.00 ¹
Administrative	\$0.26	\$0.26	\$0.26
Total	\$9.76 ²	\$7.76	\$7.76

NOTE: At the start of the project, BCBS of Michigan calculated an amount to pay for each care coordination service that would result in a total amount paid to the physician organizations and practices through the FFS care management payments that equaled the amount paid through the PMPM care management payments. This amount was based on assumptions about how many patients would need care management services and the caseload carried by each care manager.

¹ Or equivalent.

² The Medicare PMPM payment amount does not reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

BCBS = Blue Cross Blue Shield; FFS = fee-for-service; MiPCT = Michigan Primary Care Transformation Project; PMPM = per member per month.

Medicare and Medicaid use a PMPM payment methodology for all payments. From January 1, 2012, through December 31, 2014, CMS paid a total of \$65,302,357 in MAPCP Demonstration fees for the 299,897 Medicare beneficiaries participating in MiPCT.³⁸ Medicare pays a higher amount than commercial insurers and Medicaid because a greater proportion of Medicare beneficiaries are assumed to be complex and need care management. Medicare payments were reduced by 2 percent as a result of federal sequestration, which began in April 2013.

Commercial plans made FFS payments designed to be equivalent to the PMPM payments for practice transformation, care coordination, and incentive payments. Commercial plans already making payments for nonadministrative components before joining MiPCT were not required to make additional payments to support those activities further.

³⁸ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

BCBSM and Priority Health paid practice transformation and care coordination payments on an FFS basis. Practice transformation payments were paid to practices and physician organizations using an enhanced fee schedule for certain procedure codes (i.e., HCPCS Codes G9001, G9002, G9007, G9008, and S0257 and CPT Codes 98961, 98962, 98966, 98967, 98968, 99487, and 99489). The care manager's employer (either the practice or the physician organization) bills for their services. BCBSM committed to making additional payments to providers in the event that the evaluation and management (E&M) and G-code billings were not actuarially equivalent to the payment levels agreed upon for MiPCT.

BCN, a health maintenance organization owned by BCBSM, took a hybrid approach. BCN pays practice transformation payments as a PMPM amount. This payment already was built into the payment rate for capitated practices when the project began, but it was a new payment to non-capitated practices. Like BCBSM and Priority Health, BCN paid for care coordination on an FFS basis through the use of G-codes.

Incentive programs also vary across payers. BCBSM, BCN, and Priority Health have their own incentive programs, aside from MiPCT, that pay bonuses for different PCMH capabilities and quality of care measures. Although each insurance plan maintains its own incentive program, all were required to show that they paid the actuarial equivalent of \$3 PMPM, the amount required by MiPCT, to participating practices. Medicare and Medicaid pays a PMPM amount into an incentive fund, and those incentives are divided among physician organizations and practices. Unlike BCBSM and BCN, Priority Health did not commit to making supplemental payments if their payments fell below the amounts in Table 9-4.

As discussed earlier, all MiPCT practices have to be affiliated with a participating physician organization, on which MiPCT depends to support PCMH practices. Physician organizations, unique to Michigan in the MAPCP Demonstration, have many responsibilities in the project. They collect data and submit required reports on behalf of the practices; they communicate project expectations to participating practices and help practices meet those requirements; they hire care managers to share across affiliated practices too small to sustain their own care management staff; and they distribute the MiPCT payments.

MiPCT also supports practices through several learning activities. In addition to a series of webinars and in-person summits, four waves of learning collaboratives were launched between November 2012 and June 2013. The learning collaboratives focused on the role of the care manager and how to embed care managers within practices effectively. Care managers and practice teams were trained to provide self-management support, care coordination, and links to community services. The learning collaboratives consisted of three in-person meetings, webinars, and conference calls—all funded through the \$0.26 PMPM administrative fee.

A second wave of four learning collaboratives was held between January and May 2014, and additional ad hoc collaboratives were held as necessary (e.g., an all-payer billing collaborative, a diabetes collaborative for low-performing physician organizations). Further, BCBSM funded an electronic Care Management Resource Center, designed to support practices and physician organizations in adopting and refining best practices. Available resources included tools and materials on care management, self-management support, care coordination, links to the community, and palliative care.

The Michigan Data Collaborative provides data analytic support for MiPCT by calculating risk scores for patients and supplying a data dashboard to physician organizations through a Web portal. The dashboard draws from claims, encounter, eligibility, and attribution data from multiple payers. It enables physician organizations to assess their performance compared to their peers, as well as to drill down to the practice and individual patient level. The dashboard is updated bimonthly and included data back to January 2010. The dashboard was launched in October 2012 with limited capabilities and only including Medicare and Medicaid data. The Michigan Data Collaborative added BCBSM, BCN, and Priority Health data in 2013. The Collaborative continued to add new capabilities and reports for participating physician organizations, and, in 2014, began to integrate claims data with registry-reported clinical data, resulting in more robust measurement and analysis.

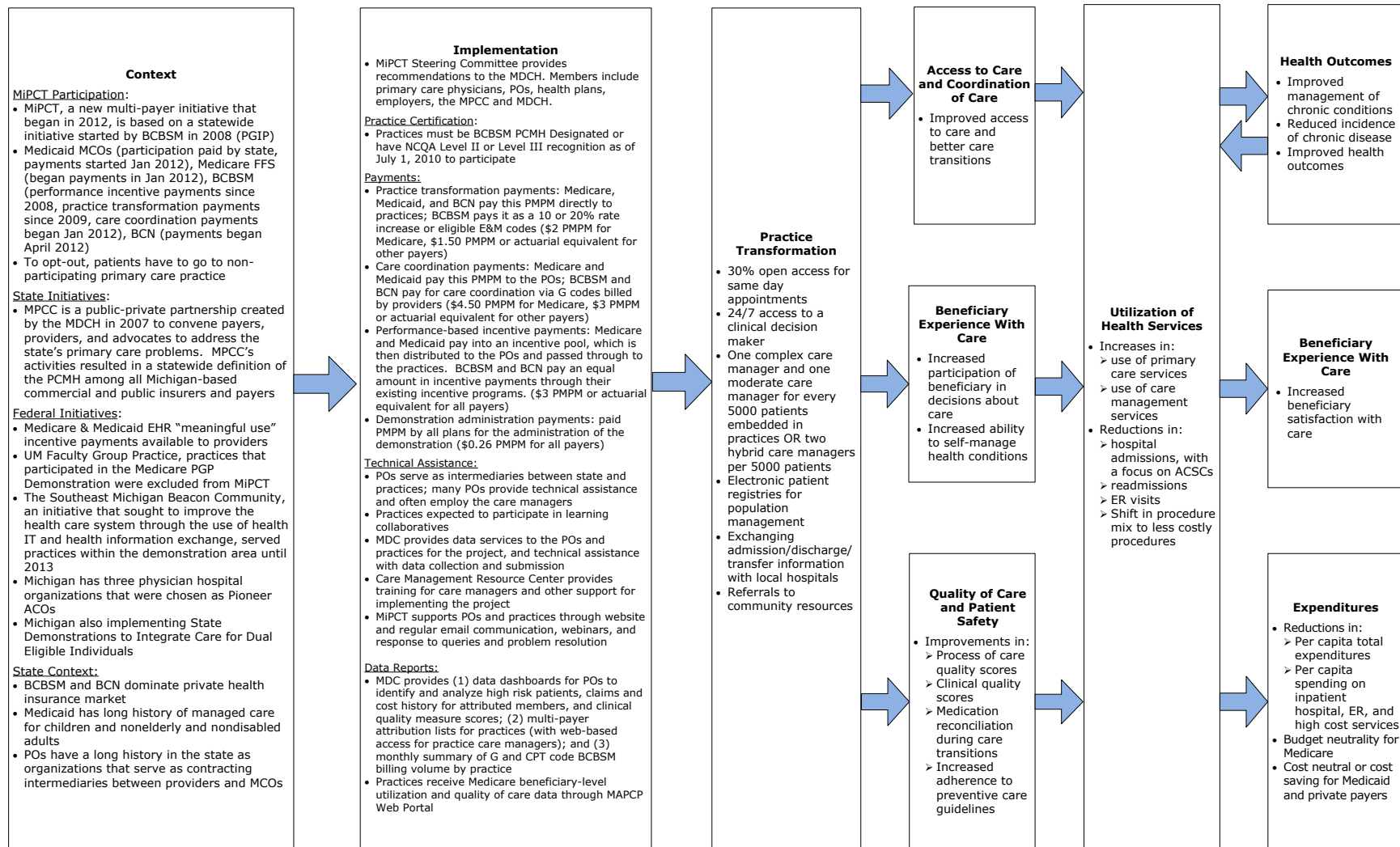
Starting in December 2012, the Michigan Data Collaborative began providing the All-Payer Patient List to participating physician organizations. This list, prepared monthly, provided physician organizations with a list of all patients eligible for MiPCT care management services and attributed to a physician organization practice. It included patients covered by any of the five payers participating in MiPCT, and supplied a variety of information about patients, including risk scores and the number of emergency room (ER) and primary care provider visits in the previous 6 months.

9.1.2 Logic Model

Figure 9-1 portrays a logic model of the MiPCT project. The left-hand column of the figure shows the context for the project, including the scope of MiPCT, other state and federal initiatives affecting the initiative, and key features of the state context affecting the demonstration, such as BCBSM's PGIP and the existence of physician organizations serving as contracting intermediaries between providers and managed care organizations. The project context informed the implementation of MiPCT, which incorporated several strategies to promote transformation of practices to PCMHs. MiPCT includes practices designated as medical homes by BCBSM or NCQA as of 2010.

Practices receive extra payments for practice transformation, care management, and meeting quality metrics. Care management is the centerpiece of the MiPCT Project. Physician organizations help with project implementation. Beneficiaries in these transformed practices are expected to have better access to care and more coordinated care; to receive safer, higher-quality care; and to be more engaged in decision making about their care and management of their health conditions. These improvements in care are intended to promote more efficient utilization patterns, including increased use of primary care services and reductions in inpatient admissions, readmissions within 30 days after discharge, and ER visits. These changes in utilization patterns are expected to produce improved health outcomes (which could, in turn, reduce utilization), greater beneficiary satisfaction with care, changes in expenditures consistent with utilization changes, and reductions in total per capita expenditures, ensuring budget neutrality for the Medicare program and cost savings for other payers.

Figure 9-1
Logic model for Michigan Primary Care Transformation (MiPCT) project



ACO = accountable care organization; ACSC = ambulatory care sensitive conditions; BCBSM = Blue Cross Blue Shield of Michigan; BCN = Blue Care Network; CMS = Centers for Medicare & Medicaid Services; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; IT = information technology; MCO = managed care organization; MDC = Michigan Data Collaborative; MDCH = Michigan Department of Community Health; MiPCT = Michigan Primary Care Transformation Project; MPCC = Michigan Primary Care Consortium; NCQA = National Committee for Quality Assurance; PCMH = patient-centered medical home; PGIP = Physician Group Incentive Program; PGP = physician group practice; PMPM = per member per month; PO = physician organization.

9.1.3 Implementation

This section uses primary data gathered from the site visit to Michigan in November 2014 and other sources, and presents key findings from the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 9.1*.

Major Changes During the Third Year

Development of a Stewardship and Performance Group. MiPCT leadership convened a Stewardship and Performance Group starting in late 2013, meeting periodically each quarter; membership included representatives from participating payers, health economists, and physician thought leaders. As one state official described it, the primary role of this committee was to examine whether MiPCT focused on the most important features of the demonstration and to determine the changes needed to the program as it progressed. As of Year Three, the committee's work focused primarily on the 2015 performance metrics and understanding whether there were better ways to assess the types of high-risk patients most likely to benefit from care management.

Clinical focus areas. MiPCT identified four clinical focus areas as priorities in 2014: behavioral health and depression, palliative care, targeting high-risk patients for care management, and improving clinical indicators for patients with diabetes. The goals set for practices were to screen, treat, and refer patients for behavioral health problems, including depression; improve palliative care, including establishing advanced directives; identify and reach high-risk patients; and improve clinical indicators for patients with diabetes. All were new clinical focus areas for the initiative, with the exception of diabetes. Targeted technical assistance events, such as the MiPCT Diabetes Learning Collaborative, were developed for lower-performing physician organizations and their practices. MiPCT also increased its use of virtual education sessions for care managers and physicians in Year Three (see *Section 9.2.2*), including sessions on palliative care.

Major Implementation Issues During the third Year

Assessing the efficacy of care managers. Care management was a centerpiece of the MiPCT program during Year Three, and, as in Year Two, debate continued about how to assess care managers' efficacy in reaching MiPCT's goals of improving quality and reducing ER utilization and cost. One payer said, "Without MiPCT, there wouldn't be a world for care managers in Michigan." Although MiPCT dedicated significant time and resources to identifying and cataloging best practices in the Care Management Resource Center, challenges remained.

For example, during the 2014 site visit, several stakeholders reported on the difficulty of quantifying the success of care management. One state official said, "I think that the care managers make a difference, but I'm not sure if the dashboards are showing it." There were few data on the extent to which care managers reached the high-risk or high-need population, even though care managers reported more robust workloads than in past years. Another state official said, "Care manager productivity is hard to define. They can spend a morning with one patient and that's one encounter, but 3 hours behind the scenes." In particular, physician organizations expressed frustration with limitations surrounding patient selection for care management services. One physician organization was concerned that not all patients needing care

management services received them under the funding model, because not all insurers participated in MiPCT. Further, some commercial payers required care managers to bill at least one G code per month for their patients to continue receiving payment; as a result, care managers had an incentive to pursue that payer's members regardless of need. During the 2014 site visit, practice staff suggested that other factors may have affected care managers' efficacy in working with a practice's patient population, such as neighborhood, rural/urban status, and mix of diseases or chronic conditions present.

Billing challenges. Although stakeholders reported fewer challenges billing commercial payers than in Year One and Year Two of MiPCT, some issues remained. Some providers still had difficulty with the G-codes. Providers also indicated that the 1-month lag in eligibility data drove some of the denied claims, because eligibility for the project varied depending on a patient's insurance status. To address billing challenges generally, BCBSM conducted training sessions, and MiPCT initiated an all-payer billing learning collaborative, which most practices viewed as helpful in improving billing practices. One payer said, "Billing and coding of care management can be challenging...but MiPCT is helping providers become competent with the billing."

Uneven use of Michigan Data Collaborative data. There were many initiatives by the Michigan Data Collaborative data in Year Three aimed at increasing use of data received by practices and physician organizations, but challenges remained. The Collaborative began integrating clinical and claims data, which allowed for more robust analysis. They also removed the cap on the number of people with access to their dashboards (previously two per physician organization), expanding access to practice staff in the process.

Stakeholders noted, however, that there were occasional interruptions in the flow of data from providers to the Michigan Data Collaborative or vice versa. Although timeliness improved over the past year, clinical stakeholders still felt that the data often were too old to be useful at the patient level. Using claims data inevitably included time lags. Many participating MiPCT payers, practices, and physician organizations did not use the risk scores provided by the Michigan Data Collaborative to identify people for care management. One payer was particularly critical of the algorithm used by the Collaborative to identify high-risk patients, noting that patients with high-cost services outside the scope of the demonstration's goals (i.e., infertility treatment) were being stratified as high risk and potentially in need of care management services.

Barriers to widespread use of electronic ADT notifications. More health systems began providing practices with real-time electronic admission, discharge, and transfer (ADT) notifications in Year Three than in Year Two, a result of pressure from payers for hospitals to have this capability and further development of the care management Web-based platform (through the Care Team Connect vendor) to deliver those notifications to care managers. While the proportion of notifications reaching the statewide health information exchange (the Michigan Health Information Network, or MiHIN) rose significantly over the past year, implementation challenges were noted during the site visit. Most notably, Care Team Connect was bought by the Advisory Board in November 2013; one payer reported that the change in ownership slowed implementation of flagging MiPCT-eligible patients in the ADT notifications received through MiHIN. The payer also reported data quality issues, noting that hospitals often submitted incomplete patient data on the notification itself or placed data in the wrong fields. During Year

Three, practices and physician organizations continued to develop and leverage existing relationships with hospitals to streamline the transmission of ADT information.

External and Contextual Factors Affecting Implementation

Uncertainty about continuation of the MAPCP Demonstration. The most significant factor affecting MiPCT in Year Three was uncertainty about whether MiPCT would continue beyond 2014. While the potential impact on individual physician organizations and providers varied, some care managers and physician organizations feared care manager attrition during the first half of the year (discussed further below). Throughout 2014, state staff held meetings with participating payers and physician organizations to discuss program sustainability with and without CMS participation.

Other health reform initiatives. As discussed in *Section 9.1.1*, MiPCT was one of many payment and delivery system reforms underway in the state. The SIM initiative conceptually is closely related to MiPCT. State officials interviewed during the Year Three site visit reiterated that the SIM initiative would not replace MiPCT, but rather build on its work. Still, the impact of the SIM initiative on MiPCT was unknown, because the SIM initiative included both participating and nonparticipating MiPCT payers and practices.

Both commercial payers interviewed reported plans to support care management activities outside the scope of MiPCT. While care management was the unique feature of MiPCT when compared to PGIP, BCBSM intended to allow non-MiPCT PGIP practices to bill the G- and CPT-codes beginning in July 2015. Priority Health, which offered members its own plan-based care management services, also opened care management billing codes and PMPM incentive payments for care management to non-MiPCT practices.

Medicaid expansion. As described in *Section 9.1.1*, enrollment in the Healthy Michigan Plan began in April 2014. One state official estimated that approximately 10 percent of the expansion population was served by MiPCT practices (approximately 38,000 patients at the time of the site visit); the interviewee believed that access to MiPCT and care management would be particularly helpful to enrollees with unmet needs who could not get services when uninsured. A second state official reported that, although MiPCT practices saw an increase in Medicaid beneficiaries, it was too soon to attribute any change in utilization patterns to participation in the demonstration. During the site visit, practices said they absorbed the expansion population without difficulty, but a state official expressed concern that the Medicaid budget may not be able to support enhanced payments if a significantly higher proportion of patients was attributed to MiPCT practices.

Effect of Medicare's Decision to Extend the MAPCP Demonstration in Michigan

Continuation of MiPCT. Interviewees in each stakeholder group were grateful that CMS decided to extend the MAPCP Demonstration in Michigan. While payers reported that they would have continued to support the practices in some manner had Medicare left MiPCT, it was unclear whether the payers would have continued to work together under the umbrella of MiPCT or support the shared care managers. Without the program extension, many smaller practices may have had difficulty providing care management services to their patients.

Additional time to test and refine the model. In addition to Medicare’s continued payment to participating practices and physician organizations, many interviewees acknowledged the benefit of having more time to fine-tune the care management and payment models. As one payer said, “These things don’t happen overnight.” The MAPCP Demonstration extension gave the MiPCT stakeholders time to continue developing and implementing best practices for incorporating care management into practices’ workflow.

Care manager job security. As noted above, the uncertainty about MiPCT’s continuation created anxiety for a variety of stakeholders, particularly care managers, whose salaries were funded through MiPCT care management payments. The continued participation of CMS alleviated these fears. While it is unknown how many care managers would have lost their jobs had the demonstration ended, some practices and care managers reported losing—or almost losing—staff and colleagues. Not all interviewees shared this sentiment. One payer acknowledged that hospitals recruited care managers away from practices and physician organizations participating in MiPCT during 2014 with the warning that funding for their role under MiPCT would end. Some physician organizations and practices expressed their commitment to continue employing care managers regardless of Medicare’s financial participation.

9.1.4 Lessons Learned

Medical home demonstrations require sufficient time to change practice patterns leading to changes in patient outcomes. Stakeholders consistently argued that the changes sought by MiPCT took more than 3 years to implement fully. One physician organization felt that “the demonstration [would have been] too short without the extension.” A payer echoed this sentiment, offering advice that “demonstrations should be at least 5 years long,” because it takes “a good year and a half [to set] things up.” One payer noted that criticisms reported during early implementation actually may have been a sign of growing pains, rather than failure.

Embedding care managers in practices takes time and resources. Successfully embedding a care manager requires the practices to change their workflow, which could be especially challenging for small practices, given their space and infrastructure limitations. “Integrating care managers is much more than plopping a person in a practice,” said one state official.

Multi-payer support is critical to program success. Medical home initiatives require significant provider investment, particularly those with a strong care management focus, as in Michigan. Sustainability and scalability relies on practices’ receiving payment for a critical mass of patients to make practice transformation viable. As one payer said, “You can’t build a care management program on one health plan.” The lack of all-payer participation is a continuing source of frustration for practices, who have to spend time identifying eligible patients and denying care management to those not eligible.

Physician organizations were instrumental in implementing MiPCT and achieving its goals. With more than 300 practices participating, the physician organizations are integral in organizing the practices and disseminating program information from MiPCT staff. As noted by

one state official, physician organizations enabled practices to spend more of their time and energy with patients, rather than on program administration.

9.2 Practice Transformation

This section describes the features of practices participating in MiPCT, identifies changes made by practices to take part in the demonstration and meet ongoing participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. In this section, we review the findings from the site visit in late 2014, emphasizing changes occurring in the year since our interviews in late 2013.

During the 2013 site visit, all practices stated that they planned to continue to participate in MiPCT, despite frustrations with FFS billing to commercial payers for care management functions, the MiPCT patient eligibility restrictions, and shifting eligibility for MiPCT patients. During the 2014 site visit, almost all practices considered their participation to be positive, noting that MiPCT provided them with funds to invest in practice transformation, as well as technical assistance and training for care managers and care teams to help improve care delivery. In particular, care managers were highly appreciated by the practices, and MiPCT funding was generally considered critical to their continuation. In the 2014 site visit, however, a few practices questioned the value of continuing participation in MiPCT. For one solo practitioner, the negative aspects of meeting documentation and administrative requirements began to outweigh the positive aspects of having a care manager; in another case, the practice perceived that more payers were offering value-based payment models that could allow them to continue PCMH implementation without having to meet MiPCT's reporting requirements.

9.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes made by MiPCT practices since the prior site visit and new practice improvement projects that were adopted. Many practices reported making changes or implementing activities to address the four clinical focus areas set by MiPCT in 2014: improve clinical indicators for patients with diabetes; identify and reach high-risk patients; screen, treat, and refer patients for behavioral health problems, including depression; and improve palliative care, including establishing advanced directives.

PCMH recognition and practice transformation. Similar to the 2013 site visit, practices did not express concerns about meeting the criteria to be designated as a PCMH for participation in MiPCT. Under MiPCT, all practices had to maintain PCMH designation under the PGIP or attain NCQA PCMH recognition. Between the end of 2013 and the end of 2014, only a few practices left the demonstration, but MiPCT leadership did not think this was due to loss of PCMH recognition.

During the 2013 site visit, practices worked on developing care managers' role in population health management through use of patient registries, in addition to managing care transitions, building individual caseloads at each practice based on practice-specific definitions of high risk, implementing team "huddles," and using ADT information for follow-up with post-hospitalization. A main concern for practices in 2013 was the ineligibility of many patients for services from the care manager, due to limited payer participation, and the elimination of formerly MiPCT-eligible patients from payer-generated lists without care managers'

understanding the reasons for the change. During the 2014 site visit, practices noted progress and expansion in each of the activities reported in 2013, though they expressed ongoing frustration with the disruption to workflow caused by having to check patients' eligibility for MiPCT.

With regard to embedding care managers into their care team's workflow, care managers noted that physicians' trust in them and their work increased since the 2013 site visit because physicians saw positive results in patients after the care manager's intervention. In one practice, the physician agreed to institute standing orders for appropriate referrals to the care manager, eliminating the need for the office manager to process individual referrals. Most practices acknowledged that it took a long time for the physician and the rest of the practice to see the care manager as part of the care team, but that embedment had improved; however, integration was slower in practices where the care manager was not in the office every day (i.e., shared among two or more practices).

In Year Three, physicians and care managers engaged patients in activities supporting care improvement in the clinical focus areas of diabetes, depression, and palliative care. One physician organization reported that, with MiPCT support, they were able to use a diabetes educator for group education programs; other care managers described individual chronic disease education they did with patients. Several care managers reported that their practice implemented a depression screening tool, usually the Patient Health Questionnaire-2 or -9. More physicians and care managers reported conversations with patients about advanced directives, during either office appointments or care management assessment visits. One practice developed a referral relationship with a local hospital department specializing in helping patients with advanced directives.

During the 2013 site visit, few care managers reported using the patient risk categories to select patients; instead, they identified patients as eligible for care management using various criteria to sort patients. During the 2014 site visit, care managers reported identifying patients with specific chronic conditions, or those flagged as high risk by one or more sources, which varied by practice: payer- or physician organization-generated data, which combined claims and clinical information; patient risk scores calculated by the Michigan Data Collaborative based on claims data, or physician referral, often based on a patient's chronic conditions and knowledge of the patient. This work complemented care managers' ongoing work following up with patients post-hospitalization. Some practice staff and other stakeholders noted frustration with the discrepancies between risk scores assigned from historical claims data and their real-time assessment of patient risk based on physicians' opinions and electronic health record (EHR) data. From the perspective of one physician organization, this led to a misallocation of care manager time in assessing patients on a high-risk list who were not actually high risk. In contrast, some physician organizations required their practices to schedule time during regular practice hours (i.e., give up a block of time otherwise spent in patient office visits) to allow physicians and care managers to meet and discuss the list of patients who should receive care management services. According to one physician organization, this was a best practice for identifying patients who could benefit from the care manager model.

In addition to reaching out to patients considered high risk, all care managers noted their commitment to following up with patients after discharge from the hospital, to schedule a follow-up visit at the primary care practice and review their medications. In some cases, this

effort may have resulted from new attention given by payers to requiring primary care follow-up. Several care managers reported that different payers had varying requirements for the timing of primary care follow-up with a patient post-discharge (e.g., within 48 hours and a specific number of times within the next month), and that they met those requirements.

During the 2013 site visit, care managers noted that one of their most important roles was linking patients to community resources for mental health services and transportation. During the 2014 site visit, physicians and care managers noted care managers' efforts in connecting patients with those support services and also to long-term care options, such as home health, respite, and adult day care—and in educating the rest of the practice about available community resources.

During the 2013 site visit, concerns were expressed by some payers, MiPCT officials, and some practices that care managers did not see enough patients to have an impact on utilization and costs. In 2014, care managers reported being very busy, but in some practices care managers were being asked to do data entry, scheduling, and other tasks that did not make good use of their care management skills.

Practice Staffing Changes

Having an embedded care manager was the feature that made participation in MiPCT distinct from participation in other PCMH initiatives in the state (e.g., BCBSM's PGIP). Since the 2013 site visit, practices refined the ways in which a full-time or part-time care manager was embedded in the care team. In contrast to some findings from the 2013 site visit, most care managers in 2014 had access to office space, phones, and computers, and they established good lines of communication with practice physicians. All practice staff noted that care managers were very busy, juggling their time between taking assessments of patients who were likely candidates for care management, offering education on chronic disease self-management to patients referred by the physician, and following up with patients after discharge from the hospital. Practice staff used terms like "overworked" and "overwhelmed" to describe care managers in 2014. Nonetheless, care managers saw fewer than 5 percent of patients, a level considered too low by at least one payer.

One physician organization representative described the challenges faced by care managers as follows:

How a care manager works and the style of the care manager varies because the work is unique to each practice. The learning curve takes a long time to master. Our care manager showed me her list of patients here yesterday [we have seven doctors here] and she was talking to me about my list of patients [about 35]. The question was which one of these should be taken off the list so she can dedicate her time to those that need it most. I took a lot of patients off the list that probably really do need care management services, but we don't have those resources. There are care managers that are incredibly adept at multitasking and working with lots of folks. Others who have computer challenges are going to do it all by hand, and those individuals are probably not going to be able to see as many folks. My sense is that we will evolve to find what the right ratio is, which will be different in different areas of the state.

As in Year Two, practices in Year Three again expanded the types of professionals on their care team. For example, at least one physician organization reported employing a pharmacist and a social worker as care managers, in addition to the nurses who traditionally filled the care manager role. One physician noted that his practice had hired new physicians or physician assistants and assigned them to provide some of the same-day visits. As in past years, additional services available within practices were being provided by dietitians, diabetes educators, social workers, pharmacists, or psychologists.

Health information Technology

During the 2013 site visit, practices described using EHRs with varying degrees of sophistication and functionality. Some practices were able to run reports about preventive care services and receive ADT information from a hospital or local health information exchange (HIE), while others used external free-standing patient registries and relied primarily on faxing to exchange information with hospitals. During the 2014 site visit, practices varied in their satisfaction with and use of EHRs to support their PCMH activities. Some practices appeared to have quite sophisticated systems. For example, some used their EHR to mine data to identify patients needing care management, or to export EHR data to a database that could be transferred easily to payers. In contrast, one practice struggled with using their EHR because it lacked a registry function and it was double work for them to create a separate registry; they felt they would change to another EHR software system if the transition were not so painful.

As in 2013, with few exceptions, practices continued to report in 2014 that patient health information from specialists and hospitals was not integrated into their EHRs. Instead, practice staff logged into other systems to get individually identified clinical information from hospitals, and sometimes even to get ADT information, when possible. Practices did not report challenges with regard to legal or regulatory barriers, such as state-based patient confidentiality laws. An increasing number of practices received ADT information from a local HIE, or from MiHIN through MiPCT's Care Team Connect system (the Web-based platform used to support care managers). Hospitals' participation in sending data to an HIE varied by region, but overall the number of participating hospitals increased. Practices using Care Team Connect to find ADT information also received a flag indicating MiPCT-eligibility in addition to the notification. In some cases, practices got the information directly from the hospital, sometimes by e-mail. One care manager had no direct access to discharge notifications received via e-mail and relied on someone else in the practice to forward them to her.

9.2.2 Technical Assistance

During the 2013 site visit, practices noted that they participated in training sessions such as webinars, learning collaboratives, and physician engagement dinners offered by MiPCT or their physician organization, and they also used data dashboards provided through the Michigan Data Collaborative. During the 2014 site visit, care managers, office managers, and physicians reported continued use of these technical assistance resources. In addition, they reported benefitting from one-on-one coaching, either through their physician organization or the Care Manager Resource Center.

In 2014, several physician organization and practice staff representatives commented on how useful in-person training was for learning what their peers in the state were doing. With

regard to the substantive topic areas most highly regarded, staff at several practices praised the MiPCT-organized palliative care training for care managers, offered at the October 2014 in-person summit and at several virtual sessions during 2014 for care managers and physicians. One nurse care manager said that all the webinars were useful, especially those on motivational interviewing and depression. According to at least one practice, the learning collaborative on billing issues offered by MiPCT was very useful. One physician organization, however, developed their own learning activities (to be approved by MiPCT), because MiPCT's learning collaboratives were too time-intensive for practice staff; in fact, many practices spoke about taking advantage of training opportunities offered by their physician organization.

In general, more practices reported in 2014 that they received the data dashboards provided by the Michigan Data Collaborative to the physician organizations. Physician organizations and practices noted continued frustration with the time lag in data reports, instead wanting more real-time data. Some practices used patient risk scores to help prioritize patients for care management, but they found discrepancies between the risk score assigned on the basis of older claims-based data and their real-time knowledge of the patient. In addition to the Michigan Data Collaborative reports, several practice and physician organization staff began viewing the Practice Feedback Reports provided by RTI, which were not yet available at the time of the 2013 site visit.

9.2.3 Payment Support

During the 2013 site visit, practices and physician organizations reported that MiPCT payments covered salaries for care managers and other support staff, training, and other infrastructure improvements. In 2014, practices and physician organizations reported similar allocations of MiPCT payments for staff, in addition to allocating some funds to provider incentives for quality and performance (see **Section 9.1.1** for more details).

Practices expressed fewer frustrations in 2014 than in past years in satisfying BCBSM requirements to bill for care management services. Most practices reported that they were breaking even or a bit better than breaking even, rather than expressing concerns that payments were inadequate. One practice, which struggled with other aspects of supporting PCMH infrastructure, noted that the payments they received were insufficient to support the staff hired for data entry and other roles needed to fulfill MiPCT requirements. One physician organization representative noted that needs for care management and behavioral health support in their practices exceeded their budget. Practices affiliated with or owned by larger systems seemed to have more resources available to patients, such as dietitians and group classes, and to be less concerned with MiPCT payments.

9.2.4 Summary

By 2014, care managers were successfully embedded in many practices, and several practices indicated that their leadership or physician organization was committed to maintaining the embedded care manager after the end of MiPCT. In 2014, physicians, care managers, and office staff reported that the care manager was more trusted and integrated into the practice care team than previously, something that had taken time to develop. As one care manager said, "When [the physicians] started to see patients' A1cs come down, they started referring people

more to me. We feel very much a part of the practice—we see amazing things happen with some of our patients, so it’s good.”

Additional financial support increasingly was available from payers other than BCBSM and MiPCT for support of care management and other PCMH activities. Practice staff noted that they were in a position to take advantage of other payers’ programs because of the workflow and infrastructure they developed with MiPCT payment and technical assistance support. More tools became available to care managers to assist in their work, such as ADT feeds from local hospitals, a local HIE, Care Team Connect, or referral relationships with community services.

Areas of concern shifted from frustrations with FFS billing, more prominent during the 2013 site visit and less prominent in 2014, to a general sense of inefficiency in restricting care manager services only to MiPCT-eligible patients. As one physician organization representative said, “The amount of churn [in MiPCT eligibility] impedes a care manager’s day.... I get e-mails asking, ‘Should I take care of this patient?’ and in that time she could have been taking care of two patients.” Some practices believed it important to maintain separate services for MiPCT-eligible patients for the benefit of the MiPCT evaluation, and they remained committed to that model, even with the extra work of checking patient eligibility from month to month. Although care managers said that they were very busy, they reached a small percentage of patients. Many stakeholders raised concerns that practices still had difficulty identifying the highest-priority patients whose engagement could have an aggregate impact on expenditures and utilization. One state official also noted that reasons for care managers’ relatively small caseload varied by practice: “Is the issue a lack of referrals or a poor use of time? Care managers complain that there is no one there to help them make appointments, do paperwork, or help with the billing process. It makes it impossible when there are no standards across practices.”

9.3 Quality of Care, Patient Safety, and Health Outcomes

During the 2013 site visit, practices reported conducting medication reconciliation and patient self-management education and monitoring disease-specific and general preventive quality of care metrics. Practices were inconsistent, however, in the degree to which they used quality of care metrics to follow up with patients to address gaps in chronic disease and preventive care. In 2014, practices continued to cite medication reconciliation as a key activity related to patient safety during care transitions, such as after hospital discharge. More practices reported conducting depression screening, added as a new MiPCT performance incentive metric in 2014. More care managers and physicians noted that someone in the practice (e.g., care manager) reviewed gaps in care, especially for patients with chronic disease, based on EHR data or data received from payers. MiPCT offered a learning collaborative focused on diabetes for physician organizations whose MiPCT practices’ clinical quality metrics for diabetes were significantly worse relative to those of other physician organizations.

MiPCT outcome measures used to calculate the incentive payment for Medicare and Medicaid included clinical quality of care metrics defined by the Healthcare Effectiveness Data and Information Set (HEDIS) and based on both registry-reported data and claims. Although many performance incentive metrics for 2014 related to utilization or process measures, such as depression screening, community referrals, or self-management support, others reflected prevention efforts to reduce tobacco use, increase cancer screening, increase well-child visits,

and maintain good blood pressure for patients with diabetes, cardiovascular disease, and hypertension. Some practices expressed relief that the quality measures were similar across payers beyond MiPCT and did not increase the number of quality measures on which they had to focus. Some physicians, physician organizations, and payers noted that the quality measures (especially primary or secondary prevention activities) tracked through MiPCT (e.g., generated in dashboards from the Michigan Data Collaborative and counted in the performance incentive payment, a portion of the MiPCT payment support described in **Section 9.1**), did not align with care managers' work with patients with multiple chronic diseases and disabilities. In the words of one physician organization staff member, "The measures are taking away from the work that care managers are doing."

At least one physician credited MiPCT with providing quality data that they lacked previously. As one care manager said, "I think [the quality measure reports] are helpful. In my other practice, we just had some scores that put us over other practices in our PO [physician organization], and so now they're really excited. It's been exciting to see them change their practices to improve these scores. It's been frustrating to see them stay the same. It's that accountability that's really helpful. These scores are what we're being held responsible for, so to see where our weak points and strong points are is helpful." Other practice staff indicated that their attention to clinical quality metrics perhaps was driven more by payer-sponsored incentive programs outside of MiPCT.

9.4 Access to Care and Coordination of Care

During past site visits, most practices already had implemented procedures to increase patients' access to their PCMH and other services and to improve coordination of care, especially upon hospital discharge. For example, practices had expanded office hours, same-day appointments, and 24/7 access to a clinical decision maker in the first year of the program. Further, care managers embedded within practices linked patients to other community resources, including transportation to appointments, Meals on Wheels, home help, support groups, and mental health services.

During the 2014 site visit, most practices did not report changes related to access to clinicians or office visits, and they continued offering office visits in the early morning (e.g., 7:00 a.m.) or late evening. Some practices noted that they hired new physicians or physician assistants and assigned them to manage same-day visits. Care managers reported a continued focus on linking patients to support services, such as transportation to health care visits, community mental health services, and visiting nurses or home help.

Similar to last year, all practices, physician organizations, and care managers identified coordination of care as a major goal and accomplishment of care managers. By 2014, care managers no longer adhered carefully to the distinction between moderate and complex care management; almost all care managers did both types of work. Care managers reported using discharge information from hospitals more frequently, something that began at the time of the 2013 site visit and clearly was more established by 2014. With the increased availability of discharge information from hospitals—either through ADT notifications through local HIEs like Great Lakes Connect, or through access to individual hospitals' EHRs or discharge lists—many care managers noted success in their efforts to contact patients within 48 hours of hospital

discharge and schedule a follow-up visit at the primary care practice. As one physician said, “Care managers are very active in patient communication upon discharge to coordinate rehab, to coordinate communication, to be sure of proper medication reconciliation and hospital medication instructions. They make sure those medications changes are appropriate from their perspective. They deal with any other outstanding issues from patients and families, as well as setting up appropriate appointments for follow-up care.”

9.5 Beneficiary Experience With Care

During the Year Three site visit, as in Year Two, care managers stated that patients’ experience of care improved as a result of their work. Practices and physician organizations reported that changes in their practices likely were visible to patients with diabetes and their families, especially newly diagnosed patients. Chronic disease education and tips for disease self-management were the main activities. In some practices, patients with congestive heart failure, hypertension, and asthma also benefited from practices’ offering more education and care management to increase use of preventive services. One care manager referred to her work in helping patients track and manage clinical metrics as “coaching,” which was her favorite part of the job. Two other practices referred to specific self-management action planning protocols used by care managers and patients. To a limited extent, physician organizations cited other examples of patient engagement, such as efforts to educate patients about the role of the care manager and the medical home. For example, one care manager told patients that the practice was their “health care hub” and that the practice wanted to be involved even when patients sought care elsewhere. They pointed to reductions in ER utilization among their patients as evidence that patients were more engaged in their care and less likely to use the ER. Finally, about eight practices participated in training to learn how to run their own patient advisory councils.

9.6 Effectiveness (Utilization and Expenditures)

Michigan expected most of the cost savings under MiPCT to come from reducing service use among high users of health care services and by reducing overall use of hospitals and ERs—especially readmissions and ambulatory care-sensitive ER visits and inpatient stays. Through quality improvement efforts, they also expected to move to a lower cost procedure mix. To achieve budget neutrality, MiPCT expected to reduce medical admissions by 3.1 percent, readmissions by 1.2 percent, and ER visits by 2.6 percent in the Medicare population. These estimates were based on BCBSM’s experience with PGIP (Michigan Department of Community Health, 2010).

Reductions in medical care use by high-utilization patients were considered low-hanging fruit. The primary tool for reducing use in this population was complex care management. Improved access to care through open access and 24/7 access to a clinical decision maker was expected to reduce ER utilization and ambulatory care-sensitive hospital admissions. Care managers also devoted significant time to tracking hospital admissions and discharges and following up with patients within 48 hours of hospital discharge to reduce readmissions. The standards for timely post-discharge follow-up seemed to be driven by individual payers in Michigan.

During earlier site visits, care managers and others reported anecdotes about their success in reducing potentially avoidable ER and hospital use for individual patients. Practices expressed

similar sentiments during the 2014 site visit, and one physician organization noted that internal data also seemed to reflect reduced utilization. One practice administrator expressed concern that she alone could not change patient behavior regarding use of ERs, which are also by some patients for routine services:

It's people who are going to the ER who should not be going to the ER. I'm out of ways to try to convince people to call him [the physician] first and talk it over. We have it in the practice brochure, on the answering machine, we talk to people about it—but people think it's okay to go to the ER for a sinus infection. We'll follow up with them—"We see you went to urgent care/ER, we didn't hear from you"—and we know they didn't even call to see if we had an appointment. That's one of the biggest frustrations we have—somehow we're supposed to be magically curing that, and we haven't figured out how.... If they were incentivized in some way—I know some people have bigger co-pays [to the ER or urgent care than for a primary care visit]—even that doesn't seem to bother them sometimes.

9.7 Special Populations

MiPCT did not target any specific population for special interventions or services. Respondents believed that the patient-centered approach of primary care medical homes made a targeted approach to particular populations unnecessary. Thus, MiPCT did not have special interventions designed for particular subgroups, such as Hispanics, African Americans, or people dually eligible for Medicare and Medicaid. Despite not designating specific subpopulations, respondents believed that the most disadvantaged populations had the most to gain from the MiPCT approach. In particular, many respondents argued that MiPCT's focus on care management was particularly beneficial to people at high risk for hospital readmission and people with multiple chronic conditions. In 2013, patients with diabetes were a special focus of many practices, with an emphasis on self-management and education; this focus continued in 2014.

9.8 Discussion

A joint initiative of Medicare, Medicaid, BCBSM, BCN, and Priority Health, the Michigan Primary Care Transformation (MiPCT) project is a comprehensive, multifaceted effort aimed at reinventing primary care in Michigan. At the time of the third site visit, the project was well established, and there was broad agreement among state officials, payers, physician organizations, and practices that a primary care model with a heavy emphasis on care management was the right approach. The 2014 site visit found the initiative to be fundamentally the same as in 2013.

The following three features of the state's multi-payer PCMH initiative were considered by interviewees to have the greatest potential to improve outcomes:

- (1) *Care management.* The centerpiece of the initiative is care management for high-risk patients, including working with patients on care transitions (including medication reconciliation) and chronic disease education. Unlike many other medical home or disease management programs underway in Michigan, MiPCT focused on embedding care managers in the practices with whom they work.

- (2) *Diabetes self-management education and preventive care.* The initiative focused heavily on these often high-cost patients, especially in the early years of the project, providing education, ongoing counseling, and tracking to make sure patients got their periodic tests done on time. Care managers helped this population to monitor insulin levels and encouraged lifestyle changes to keep the secondary effects of diabetes under control.
- (3) *ADT notifications.* MiPCT undertook several activities to ensure that participating practices received timely ADT notifications from hospitals to enhance care coordination and PCMH follow-up at care transitions. For example, MiPCT and participating payers worked closely with MiHIN to route hospital and ER transition notifications on a real-time basis to local HIEs and care managers. Moreover, ADT notification was one of the 2014 performance metrics for practices.

Three features of the initiative did not work as well as its designers had hoped:

- (1) *Multi-payer rather than all-payer.* The fact that the demonstration does not include all payers created confusion among physicians and care managers, requiring care managers to spend substantial amounts of time determining whether individual patients were eligible for services.
- (2) *Volume and targeting of care management services.* Although the volume of patients receiving care management services continually increased over the period of the demonstration, the total number of patients seen was small, raising questions about whether care managers were seeing enough patients to bend the cost and utilization curve substantially. Billing BCBSM for care management services continues to be problematic, and this may have produced an undercount for the amount of services provided. In addition, each practice has its own method of deciding which patients to target for care management, raising questions about whether they are selecting patients who would most benefit from the service.
- (3) *Claims data provided to physician organizations.* Although some participants thought that data provided by the Michigan Data Collaborative was a great achievement, helpful in managing patients and useful as a scorecard for physician organization performance, others found the data too old to be useful for managing individual patients, and some observers were critical of the algorithm used to identify high-risk patients.

At the time of the Year Three site visit, some contextual factors changed that shaped and may continue to shape the implementation of MiPCT. First, the uncertainty about Medicare's continued participation focused payers' attention on whether or not to continue supporting the initiative, and, if they did so, whether changes to the initiative would be needed. Second, the potential to receive value-based payments offered more broadly by other payers, through arrangements other than MiPCT, may influence whether or not practices continue their participation in the Demonstration.

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CHAPTER 10

PENNSYLVANIA

In this chapter, we present qualitative and quantitative findings related to the implementation of the Chronic Care Initiative (CCI), Pennsylvania's pre-existing regional multi-payer initiative, which added Medicare as a payer to implement the MAPCP Demonstration. We report qualitative findings from our third of three annual site visits to Pennsylvania, as well as quantitative findings using administrative data for Medicare fee-for-service (FFS) beneficiaries to report characteristics of beneficiaries. We also report characteristics of practices participating in the state initiative.

For the third round of site visit interviews, which occurred October 14 through 16, 2014, two teams traveled to the state capital (Harrisburg) and two regions in the MAPCP Demonstration (in the Northeast, centered around the Scranton area, and in the Southeast, Philadelphia, and the surrounding suburbs); we also conducted telephone interviews in October 2014. The interviews focused on implementation experiences and changes occurring since the last site visit in October 2013. We interviewed providers, nurses, and administrators from participating patient-centered medical homes (PCMHs), as well as provider organizations, to learn about the perceived effects of the demonstration in the past year on practice transformation, quality, patient experience with care, and effectiveness after Medicare's entrance. We also spoke with key state officials and staff who administer the CCI and the MAPCP Demonstration to learn how the implementation of CCI, including the payment model and other efforts, such as learning collaboratives, to support practice transformation had progressed and if any changes were made to meet performance goals. We also met with payers to learn about their experiences with implementation and whether the CCI payment model met their expectations for return on investment. In addition, we reviewed reports from CCI staff to CMS and other documents for additional information on the progress of the demonstration.

This chapter is organized by major evaluation domains. *Section 10.1* reports state implementation activities, characteristics of practices, and demographic and health status characteristics of Medicare FFS beneficiaries participating in the CCI. *Section 10.2* reports practice transformation activities. The subsequent sections of this chapter report qualitative findings for the five evaluation domains related to outcomes: quality of care, patient safety, and health outcomes (*Section 10.3*); access to care and coordination of care (*Section 10.4*); beneficiary experience with care (*Section 10.5*); effectiveness as measured by health care utilization and expenditures (*Section 10.6*); and special populations (*Section 10.7*). The chapter concludes with a discussion of the findings (*Section 10.8*).

10.1 State Implementation

In this section, we present findings related to the CCI implementation and changes made by the state, practices, and payers in the third year of the MAPCP Demonstration. We provide information related to the following implementation evaluation questions:

- Over the past year, what major changes were made to the overall structure of the MAPCP Demonstration?

- Were any major implementation issues encountered over the past year and how were they addressed?
- What external or contextual factors affected implementation?

The state profile in **Section 10.1.1**, which describes the major features of the state's initiative and the context in which it operated, draws on a variety of sources, including quarterly reports submitted to CMS by CCI project staff; monthly calls between CCI staff, CMS staff, and evaluation team members; news articles; state and federal Web sites; and the interviews conducted in October 2014. **Section 10.1.2** presents a logic model reflecting our understanding of the link between specific elements of the CCI and expected changes in outcomes. **Section 10.1.3** presents key findings gathered from the site visit regarding the implementation experience of state officials, payers, and providers during the third year of the MAPCP Demonstration. In **Section 10.1.4**, we conclude the state implementation section with lessons learned during the third year of the MAPCP Demonstration.

10.1.1 Pennsylvania State Profile as of October 2014 Evaluation Site Visit

Planning for CCI began in 2006 as an initiative of Pennsylvania Governor Ed Rendell's Office of Health Care Reform (GOHCR). Phase I of CCI (2008–2011) rolled out in seven regions of the state, starting with the Southeastern Pennsylvania region in May 2008. Phase I combined elements of the PCMH model and Wagner's Chronic Care Model (Wagner et al., 2001), a model for providing high-quality care to patients with chronic illnesses that emphasizes collaboration and patient self-management. The seven regions participating in Phase I featured varying program models, with different requirements for practices to obtain National Committee for Quality Assurance (NCQA) Physician Practice Connections (PPC®)-PCMH™ recognition, payments to practices, and other features.

In January 2011, the incoming governor, Tom Corbett, moved the initiative from GOHCR to the state Department of Health (DOH), which continued to administer the initiative. Phase II of CCI began on January 1, 2012, when Medicare joined as a payer in the Northeast and Southeast Pennsylvania regions. In Phase II, the Northeast and Southeast regions adopted a single payment methodology and aligned requirements and learning collaborative activities for participating practices.

State environment. The GOHCR and Phase I of CCI were established under the administration of the previous governor, Ed Rendell (in office 2003–2011), a Democrat. When the current governor, Tom Corbett, a Republican, took office in 2011, GOHCR was eliminated and the initiative moved to DOH. CCI last was located within the new DOH Center for Practice Transformation and Innovation. DOH was advised by CCI's Executive Steering Committee, which included payer and practice representatives from both participating regions. The transition in state leadership and move to DOH caused some administrative difficulties and delays in program implementation, resulting in the postponement of Medicare participation until January 2012.

CCI saw significant changes in payer participation after the end of Phase I in 2011. Phase I used a regulatory approach to compel insurer participation, requiring Medicaid managed care

organizations (MCOs) to participate as a condition of their contracts with the state Department of Public Welfare (DPW) and pressuring commercial payers to participate through an executive order from the Rendell administration. The Corbett administration instituted a more voluntary approach to payer participation in Phase II, removing participation requirements from MCO contracts and no longer compelling commercial payer participation. Since the end of Phase I, several payers declined to join Phase II or withdrew from the initiative:

- The December 2011 withdrawal of Capital Blue Cross, a dominant commercial payer in the South Central region, resulted in the region's failure to meet MAPCP Demonstration requirements and the decision by CMS not to include the South Central region in the demonstration as originally planned.
- In the Northeast, Blue Cross of Northeastern Pennsylvania, a major commercial payer in the region, withdrew from the initiative at the end of 2012. Medicaid (DPW) participation in the Northeast region also was inconsistent. DPW agreed to participate in September 2012 to comply with the state's MAPCP Demonstration participation agreement, which required Medicaid participation in each region. Medicaid FFS payments, however, for the period between January 2012 and February 2013 were not made until the first quarter of 2013. The three new Medicaid managed care plans operating in the Northeast region since March 2013 (Geisinger Health Plan, Keystone First, and Coventry Cares) declined to join the initiative.
- In the Southeast region, UnitedHealthcare and Coventry Cares declined to join Phase II in early 2012, despite previous plans to do so. Since the start of Phase II, three additional Southeast Pennsylvania payers withdrew. Health Partners, a Medicaid MCO in the Southeast region, ended participation in March 2013; Cigna withdrew in December 2013, but continued to make payments to practices; and Aetna Better Health, a Medicaid managed care plan, withdrew in March 2014.

Pennsylvania had several relevant programs operating in the Northeast and Southeast regions and across the state that may have affected health outcomes for CCI participants and the comparison population:

- Geisinger Health System, a major insurer and delivery system in Northeast Pennsylvania, participated in CCI as a commercial payer and provider and also participated in Medicare's Physician Group Practice (PGP) Transition Demonstration. Seven Geisinger-owned practices participated in both CCI and the PGP Demonstration. These practices were not eligible to receive shared savings payments from two Medicare demonstrations, so they therefore were eligible to receive shared savings payments from Medicare under the PGP Transition Demonstration, but not under the MAPCP Demonstration.
- Since 2002 and continuing through 2013, Health Quality Partners provided care management and disease management to Medicare FFS beneficiaries with chronic conditions in Southeast Pennsylvania through the Medicare Coordinated Care Demonstration.

- Renaissance Health Network, an independent practice association in the Southeast region, was selected to participate in the Center for Medicare and Medicaid Innovation's (CMMI's) Pioneer Accountable Care Organization (ACO) Model initiative in December 2011.
- Several payers in participating regions, including Blue Cross of Northeastern Pennsylvania and Geisinger, also operated their own medical home and pay-for-performance initiatives to provide incentives for efficient and high-quality care within their provider network. The extent to which CCI practices also participated in individual payers' medical home programs was not known.
- Pennsylvania received \$17 million in Health Information Technology for Economic and Clinical Health (HITECH) funds to support development of a statewide health information exchange (HIE). The state also received funding for two Regional Extension Centers. In addition, the Keystone Beacon Community, which used HITECH funding and was led by Geisinger Health System, focused on improving care coordination by using health information technology (HIT) in five Pennsylvania counties: Columbia, Montour, Northumberland, Snyder, and Union. Although the Keystone Beacon Community service area did not overlap with any regions participating in Phase II of CCI, Columbia, Montour, and Union were comparison group counties for the demonstration evaluation.
- In February 2013, Pennsylvania received a \$1.6 million State Innovation Model (SIM) Initiative Model Design grant from CMMI to develop a State Health Care Innovation Plan. Planning for the SIM initiative was based at the DOH Center for Practice Transformation and Innovation, which also housed CCI, and included a focus on building primary care infrastructure in the state. On December 15, 2014, Pennsylvania received a second SIM Initiative Model Design grant of \$3 million to refine their State Health Care Innovation Plan further; they had 12 months to submit that plan to CMS.

Other developments during Year Three that potentially affected the initiative included the following:

- The Pennsylvania Academy of Family Practice (PAFP) informed CCI program leadership in March 2014 that they wished to terminate their contract to administer CCI's practice portal as of June 30, 2014. Pennsylvania DOH and the PAFP agreed on a contract extension to continue to operate the Data Diamond through the end of the 2014 calendar year.
- Payers began to provide practice-level utilization data on hospital patients and emergency room (ER) visits and report information to the state and to practices.
- *Health Services Research* published findings from Independence Blue Cross's medical home program, which showed reduced ER utilization among patients with chronic illnesses who belonged to a medical home.

- The RAND evaluation of the first 3 years of CCI in the Northeast region was submitted to the *New England Journal of Medicine* in October 2014. The authors reported to the CCI Steering Committee that they found a favorable impact on utilization and clinical quality for the pilot in the Northeast region. The evaluation of the Southeast region, published in *The Journal of the American Medical Association* in February 2014, found that Southeast pilot practices had significantly greater improvement relative to comparison practices on one of 11 quality measures studied, but no significant changes in cost or utilization.

Demonstration scope. In 2012, Pennsylvania's MAPCP Demonstration (also known as Phase II of CCI) began when Medicare joined CCI as a payer in the Northeast and Southeast regions. Payments were available to 54 pilot practices located in the state's Northeast and Southeast regions, with an expectation that all practices would renew their NCQA PPC®-PCMH™ recognition when it expired (i.e., 3 years after award).

Table 10-1 shows participation in the Pennsylvania MAPCP Demonstration at the end of the first, second, and third years of the demonstration. The number of participating practices with attributed Medicare FFS beneficiaries was 57 in Year One, 55 in Year Two, and 44 in Year 3. At least three practices reported leaving because of insufficient financial support to make and sustain the practice changes required in the CCI participation agreement, including funding care managers. A large practice group in the Northeast left because of difficulty covering administrative costs after Medicaid MCOs and the Northeast Blue Cross plan stopped participating as payers in the initiative, inadequate funding from Medicare shared savings, and a decreased PMPM rate. Two practices left to consolidate operations at another site not participating in the MAPCP Demonstration.

Table 10-1
Number of practices, providers, and Medicare FFS beneficiaries participating in the Pennsylvania CCI

Participating entities	Number as of December 31, 2012	Number as of December 31, 2013	Number as of December 31, 2014
CCI practices ²	57	55	44
Participating providers ²	385	386	388
Medicare FFS beneficiaries ³	28,236	36,360	41,640

NOTES:

- Demonstration practices include only those practices with attributed Medicare FFS beneficiaries, and participating providers are the providers associated with those practices.
- The numbers of Medicare FFS beneficiaries are cumulative, representing the number of Medicare FFS beneficiaries who had ever been assigned to participating MAPCP Demonstration practices and participated in the demonstration for at least 3 months.

ARC = Actuarial Research Corporation; CCI = Chronic Care Initiative; FFS = fee-for-service; MAPCP = Multi-Payer Advanced Primary Care Practice.

SOURCES: ²ARC MAPCP Demonstration Provider File. ³ARC Beneficiary Assignment File. (See Chapter 1 for more detail about these files.)

The number of providers at participating practices increased by less than 1 percent between the end of Year One (December 31, 2012) and the end of Year Three (December 31, 2014), from 385 to 388. The cumulative number of Medicare FFS beneficiaries who had ever participated in the demonstration for 3 or more months was 28,236 at the end of the first year, 36,360 at the end of the second year, and 41,640 at the end of the third year—an overall increase of 47 percent.

In terms of all-payer participants, the state originally projected that a total of 298,962 individuals would participate in the demonstration in the Northeast and Southeast regions. The number of all-payer participants enrolled in the CCI was 198,733 at the end of Year One (December 31, 2012); 166,032 at the end of Year Two (December 31, 2013); and 153,597 at the end of Year Three (December 31, 2014). This represents an overall decrease of 45,136, or 23 percent.

As of September 2014, six payers participated in the demonstration: Medicare FFS (17% of total participants), Independence Blue Cross (40%), Keystone (17%), Geisinger (14%), and Aetna (12%). Cigna was included in the total payer count for September 2014, despite a planned withdrawal as of December 31, 2013, because they continued to make payments to participating practices. Aetna, Geisinger, and Independence Blue Cross operated as both commercial and Medicare Advantage payers. With the withdrawal in March 2014 of Aetna Better Health in the Northeast and the lack of participation by Medicaid managed care plans in the Northeast, the only remaining Medicaid managed care plan was Keystone First Health plan, operating in the Southeast.

Table 10-2 displays the characteristics of the practices with attributed Medicare FFS beneficiaries participating in the CCI as of December 31, 2014. There were 44 participating practices with an average of nine providers per practice. All were either office-based practices (86%) or federally qualified health centers (FQHCs) (14%); there were no critical access hospitals or rural health clinics. Nearly all practices were located in metropolitan counties (96%). Four percent were in micropolitan counties, and none were in rural counties.

Table 10-2
Characteristics of practices participating in the Pennsylvania CCI as of December 31, 2014

Characteristic	Number or percent
Number of practices (total)	44
Number of providers (total)	388
Number of providers per practice (average)	9
Practice type (%)	
Office-based practice	86
FQHC	14
CAH	0
RHC	0
Practice location type (%)	
Metropolitan	96
Micropolitan	4
Rural	0

ARC = Actuarial Research Corporation; CAH = critical access hospital; CCI = Chronic Care Initiative; FQHC = federally qualified health center; MAPCP = Multi-Payer Advanced Primary Care Practice; RHC = rural health clinic.

SOURCE: ARC Q14 MAPCP Demonstration Provider File. (See Chapter 1 for more details about this file.)

In *Table 10-3*, we report demographic and health status characteristics of Medicare FFS beneficiaries assigned to participating CCI practices during the 3 years of the MAPCP Demonstration (January 1, 2012, through December 31, 2014). Beneficiaries with fewer than 3 months of eligibility for the demonstration are not included in our evaluation or this analysis. Twenty-three percent of the beneficiaries assigned to CCI practices during the 3 years of the MAPCP Demonstration were under the age of 65, 47 percent were age 65–75, 21 percent were age 76–85, and 9 percent were over age 85. The mean age was 69. Beneficiaries were mostly White (81%). Most lived in urban areas (85%), and more than half were female (60%). Twenty-two percent were dually eligible for Medicare and Medicaid, and 29 percent were eligible for Medicare originally because of disability. One percent of beneficiaries had end-stage renal disease, and 1 percent resided in a nursing home during the year before their assignment to a CCI practice.

Table 10-3
Demographic and health status characteristics of Medicare FFS beneficiaries participating
in the Pennsylvania CCI from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
Total beneficiaries	41,640
Demographic characteristics	
Age < 65 (%)	23
Age 65–75 (%)	47
Age 76–85 (%)	21
Age > 85 (%)	9
Mean age	69
White (%)	81
Urban place of residence (%)	85
Female (%)	60
Dually eligible beneficiaries (%)	22
Disabled (%)	29
ESRD (%)	1
Institutionalized (%)	1
Health status	
<i>Mean HCC score groups</i>	1.11
Low risk (< 0.48) (%)	24
Medium risk (0.48–1.25) (%)	52
High risk (> 1.25) (%)	24
<i>Mean Charlson index score</i>	0.85
Low Charlson index score (= 0) (%)	63
Medium Charlson index score (≤ 1) (%)	18
High Charlson index score (> 1) (%)	20
<i>Chronic conditions (%)</i>	
Heart failure	4
Coronary artery disease	12
Other respiratory disease	9
Diabetes without complications	17
Diabetes with complications	5
Essential hypertension	32
Valve disorders	3
Cardiomyopathy	2
Acute and chronic renal disease	7
Renal failure	3

(continued)

Table 10-3 (continued)
Demographic and health status characteristics of Medicare FFS beneficiaries participating in the Pennsylvania CCI from January 1, 2012, through December 31, 2014

Demographic and health status characteristics	Percentage or mean
<i>Chronic conditions (%) (continued)</i>	
Peripheral vascular disease	2
Lipid metabolism disorders	15
Cardiac dysrhythmias and conduction disorders	9
Dementias	1
Strokes	1
Chest pain	4
Urinary tract infection	4
Anemia	6
Malaise and fatigue (including chronic fatigue syndrome)	1
Dizziness, syncope, and convulsions	5
Disorders of joint	7
Hypothyroidism	5

NOTES:

- Percentages and means are weighted by the fraction of the year that a beneficiary met MAPCP Demonstration eligibility criteria.
- Demographic and health status characteristics are calculated using the Medicare EDB and claims data for the 1-year period before a Medicare beneficiary was first attributed to a PCMH after the start of the MAPCP Demonstration.
- Urban place of residence is defined as those beneficiaries living in Metropolitan or Micropolitan Statistical Areas defined by the Office of Management and Budget.

CCI = Chronic Care Initiative; EDB = Enrollment Data Base; ESRD = end-stage renal disease; FFS = fee-for-service; HCC = Hierarchical Condition Category; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home.

SOURCE: Medicare claims files.

Using three different measures—Hierarchical Condition Category (HCC) score, Charlson comorbidity index, and diagnosis of 22 chronic conditions—we describe beneficiaries’ health status during the year before their assignment to a CCI practice. Beneficiaries had a mean HCC score of 1.11, meaning that Medicare beneficiaries assigned to a CCI practice in the third year of the MAPCP Demonstration were predicted to be 11 percent more costly than an average Medicare FFS beneficiary in the year before their assignment to a participating CCI practice. Beneficiaries’ average score on the Charlson comorbidity index was 0.85; just under two-thirds (63%) of beneficiaries had a low (zero) score, indicating that they did not receive medical care for any of the 18 clinical conditions in the index in the year before assignment to a participating CCI practice.

The most common chronic conditions diagnosed were hypertension (32%), diabetes without complications (17%), lipid metabolism disorders (15%), and coronary artery disease (12%). Less than 10 percent of beneficiaries were treated for any of the other chronic conditions.

Practice expectations. During Phase I, participating practices were required to achieve NCQA PPC®-PCMH™ 2008 recognition and meet additional criteria beyond those specified in the NCQA PPC®-PCMH™ program. Three optional NCQA PPC®-PCMH™ elements, covering areas such as patient engagement and self-management, care coordination and management by non-physician staff, and the development and use of care plans, were required for participating practices. In the Southeast region, practices were required to achieve NCQA PPC®-PCMH™ recognition by the end of the first year of Phase I. Per member per month (PMPM) payment rates for practices in the Southeast region also were tied to recognition level, with higher recognition levels associated with higher payments. In the Northeast region, practices were required to achieve recognition by the third year of Phase I.

To participate in Phase II of CCI, practices were required to renew their NCQA PCMH recognition when it expired (i.e., 3 years after award). Practices underwent NCQA PCMH 2011 assessment on a rolling basis and were required to satisfy additional criteria related to pre-visit preparations, individualized care plans, population management, and other care management activities. Based on September 2014 NCQA PCMH recognition information provided by the state, the practices participating in Phase II had significant medical home capacity.

In July 2012, CCI implemented a “practice performance assessment framework” as an additional tool for evaluating practice transformation and quality. Program leaders updated the framework in July 2013 to align the clinical performance measures more closely with those used to calculate shared savings. The state and private payers gathered additional information about practice transformation annually through care management audits, a practice transformation self-assessment tool, monthly practice narratives which had to be completed and submitted to the practice coach (see Support to Practices, below), and clinical data from practice registries managed by the PAFP.

The framework measured practice performance across three areas: clinical performance improvement, transformation, and engagement. Within the clinical performance improvement domain, practices had to meet annual performance targets for half of both process and outcome measures included in the program’s measure set. Practices had to demonstrate transformation by completing a self-assessment and passing site audits to assess care management systems. For example, all practices were required to use care managers to coordinate care for high-risk patients, and they were audited annually for their progress in this area. Within the engagement domain, program leadership tracked practice participation in learning collaborative activities and practices’ fulfillment of data reporting requirements. The requirement that practices achieve NCQA PCMH recognition also fell within the engagement domain. Practices that did not pass the state’s audit or assessment had to develop a 30-day corrective plan of action and were reaudited or reassessed at the end of the 30-day period.

Support to practices. From January 1, 2012, through December 31, 2014, demonstration practices received a total of \$5,296,851 in Medicare MAPCP Demonstration payments.³⁹

³⁹ Medicare MAPCP Demonstration payments reflect the 2 percent reduction that began in April 2013 as a result of sequestration.

Practices participating in Phase II of CCI received two PMPM payments from participating payers that varied by initiative year and patient age (*Table 10-4*):

- Payments for physician-coordinated care oversight services; and
- Payments that varied, based on patient age, to fund care coordinators.

Table 10-4
PMPM payments to participating practices

Service	Year One	Year Two	Year Three
Physician coordinated care oversight services	\$1.50	\$1.28	\$1.08
Coordinated care fees (vary based on patient age)			
Age ≤ 18	\$0.60	\$0.51	\$0.43
Age 19–64	\$1.50	\$1.28	\$1.08
Age 65–74	\$5.00	\$4.25	\$3.61
Age ≥ 75	\$7.00	\$5.95	\$5.06

NOTE: The PMPM payment amounts do not reflect the 2 percent reduction in Medicare payments that began in April 2013 as a result of sequestration.

PMPM = per member per month.

Practices also may have received shared savings payments from participating payers if they demonstrated savings and achieved key quality metrics. Participating commercial payers calculated net savings annually by comparing cost trends for beneficiaries assigned to the practice to cost trends across the payers' book of business. CMS calculated net savings for Medicare beneficiaries in CCI differently from other payers, comparing cost trends among CCI practices regionally to a comparison group of PCMH practices not participating in CCI. CMS calculated shared savings at the regional level because average expenditures for an individual practice's patient panel were highly variable. Total PMPM payments to the practice then were subtracted from the calculated net savings. If any savings resulted, actual payouts were determined by each practice's performance on quality and utilization metrics. During Year Three, DOH identified some variations in the way several payers were calculating shared savings and, as a result, developed a standard template for payers to use when calculating future practice savings. The shared savings methodology contained several adjustments and exclusions designed to protect practices and payers from variation in cost and quality resulting from different patient populations or chance, including risk adjustment, practice groupings, and, for some payers, exclusion of high-cost outliers. Each payer separately grouped practices, calculated savings, and distributed any shared savings to their members.

The percentage of savings in which practices were eligible to share increased each year as PMPM payments to practices dropped, with the intention that income from shared savings would balance decreases in PMPM payments over the course of the 3-year contract period. Practices were eligible to share in a maximum of 40 percent of net savings in Year One, 45 percent in Year Two, and 50 percent in Year Three. Shared savings payments also varied according to practices' achievement of quality and efficiency metrics. Required quality metrics differed for adult and

pediatric practices, but both included three domains—prevention, management of chronic conditions, and clinical care management.

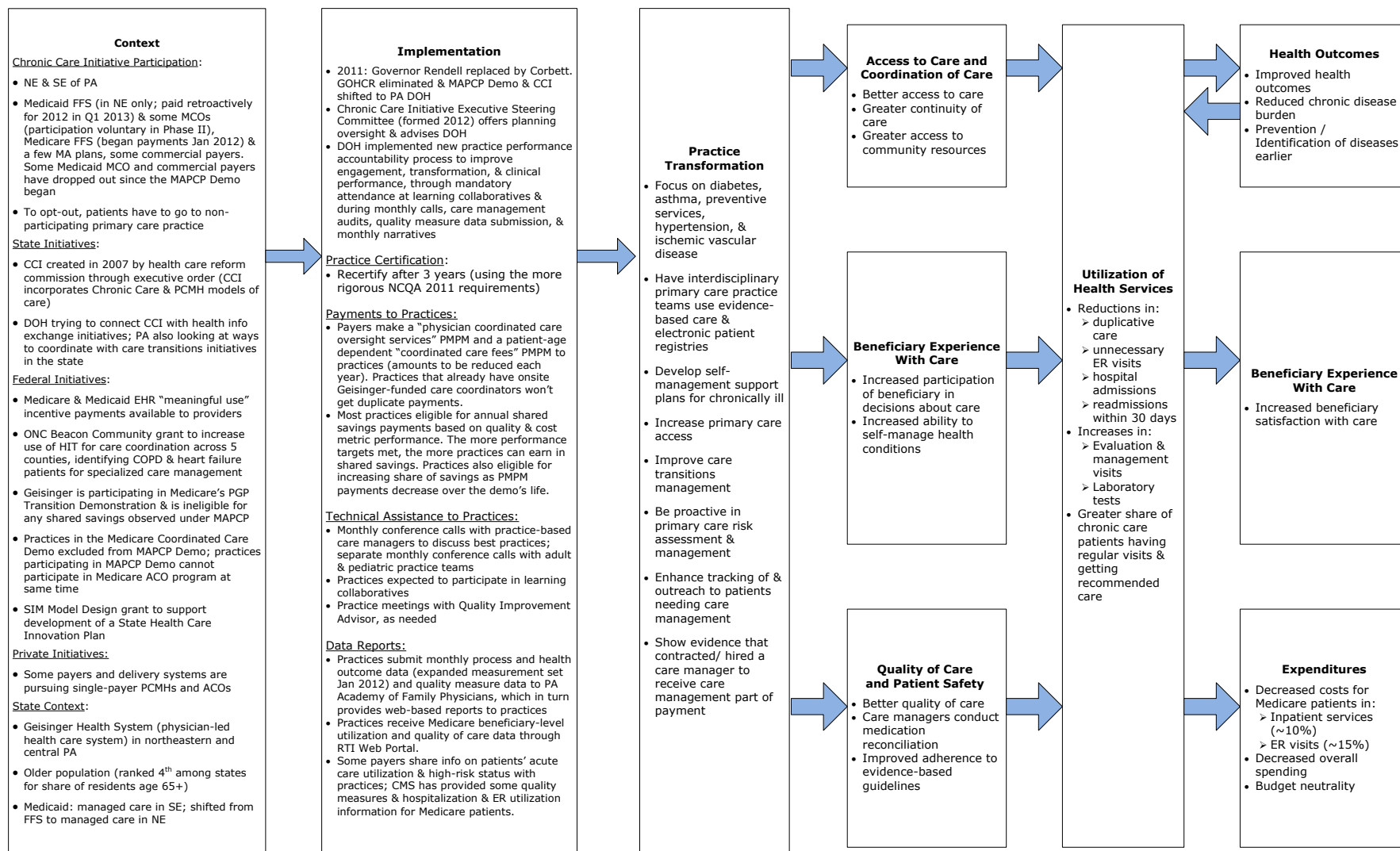
Practices in both the Northeast and Southeast will receive Medicare shared savings payments for the third performance year because the minimum savings rate was achieved in both regions. CMS calculated savings by region and found that practices in the Northeast achieved gross savings of 3.7 percent, which exceeded the minimum savings rate of 3.0 percent. In the Southeast region, practices achieved gross savings of 7.3 percent, which exceeded the minimum savings rate of 2.7 percent. Shared savings results for the second performance year were announced in October 2014. CMS calculated savings by region and found that practices in the Northeast region did not achieve savings beyond the minimum savings rate of 2.7 percent. In the Southeast region, total practice expenditures were greater than those of the comparison practices. As a result, no Medicare shared savings payments were made in either region. Other payers calculated savings at the practice level, with both Aetna and Keystone First reporting savings in the Southeast—Aetna for all practices in the Southeast and Keystone for adult practices only. Independence Blue Cross and Geisinger did not find any savings.

CCI supported practices through learning activities, including in-person learning collaborative sessions and monthly telephone calls with a practice coach tailored to the needs of adult practice teams, pediatric practice teams, and practice-based care managers. Practices also received regular performance reports on clinical quality metrics, as well as medical home transformation and engagement in CCI activities, through a Web-based portal run by the PAFP and the practice performance assessment framework process (see *Section 10.2.2* for details).

10.1.2 Logic Model

Figure 10-1 is a logic model of Phase II of CCI, updated to incorporate changes made during the third year of the MAPCP Demonstration. The first column describes the context for the demonstration, including the scope of CCI, other state and federal initiatives affecting the initiative, and key features of the state context affecting the demonstration, such as the shift in the Northeast region from Medicaid FFS to managed care. The demonstration context affected CCI implementation, including practice certification requirements, payments to practices, and the provision of technical assistance and data reports to practices. Implementation activities were expected to promote the transformation of practices to PCMHs, reflected in care processes and activities. Beneficiaries served by these transformed practices were expected to have better access to more coordinated, safer, and higher-quality care, as well as better experiences with care and greater engagement in decisions about treatments and management of their conditions. These improvements were expected to promote more efficient utilization of health care services, including reductions in inpatient admissions, readmissions, and ER visits and increases in primary care visits. These changes in utilization were expected to produce further changes, including improved health outcomes, improvements in beneficiary experience with care, and reductions in total per capita expenditures—resulting in savings or budget neutrality for the Medicare program and cost savings for other payers. Improved health outcomes, in turn, could reduce utilization further.

Figure 10-1
Logic model for Pennsylvania's Chronic Care Initiative (CCI)



ACO = accountable care organization; CCI = Chronic Care Initiative; CMS = Centers for Medicare & Medicaid Services; COPD = chronic obstructive pulmonary disease; DOH = Department of Health; EHR = electronic health record; ER = emergency room; FFS = fee-for-service; GOHCR = Governor's Office of Health Care Reform; HIT = health information technology; MA = Medicare Advantage; MCO = managed care organization; NCQA = National Committee for Quality Assurance; NE = Northeast; ONC = Office of the National Coordinator for Health Information Technology; PA = Pennsylvania; PCMH = patient-centered medical home; PGP = physician group practice; PMPM = per member per month; SE = Southeast; SIM = State Innovation Models.

10.1.3 Implementation

This section uses primary data gathered during interviews conducted in October 2014 and from other sources and presents key findings about the implementation experience of state officials, payers, and providers to address the evaluation questions described in *Section 10.1*.

Major Changes During the Third Year

Decrease in payer and practice participation. Although the number of participating Medicare beneficiaries and providers increased over the demonstration period, continued payer and practice attrition over the course of the third year was cited by interviewees as a major change and area of concern. Cigna, a commercial plan in Southeastern Pennsylvania, withdrew in December 2013. As the smallest participating payer in terms of coverage, Cigna's departure was not considered to have a significant impact on practices. The withdrawal in March 2014 of Aetna Better Health, a Medicaid managed care plan in the Southeast, largely was driven by the greater-than-expected burden of responding to the various data requests from third parties, including the MAPCP Demonstration evaluation team. CMS spoke with Aetna to clarify expectations, but did not succeed in negotiating a compromise. Following the departure of Aetna Better Health in the Southeast, the only remaining Medicaid managed care plan in the demonstration was Keystone First, accounting for approximately 16 percent of patients covered. Keystone First also planned to withdraw, but reversed its decision after meeting with four practices in the fall of 2013. Despite continued strong appeals by DOH, none of the new Medicaid MCOs in the Northeast joined the initiative during the past year.

The total number of practices participating in the MAPCP Demonstration also decreased during Year Three. At least three practices reported leaving because of insufficient financial support to make and sustain the practice changes required in the CCI participation agreement, including funding care managers. A large practice group in the Northeast left because of difficulty covering administrative costs following the loss of Medicaid MCOs and the Northeast Blue Cross plan as payers in the initiative, inadequate funding from Medicare shared savings, and a decreased PMPM rate. Two practices left to consolidate operations at another site not participating in the MAPCP Demonstration.

Decreased payments. Since last year's site visit, practice support fell, with a scheduled 15 percent PMPM decrease that began in January 2014. Anticipated shared savings payments to practices were not realized. Interviewees were unable to provide specific information on the magnitude or number of practices receiving shared savings payments. Several interviewees cited concerns about how practices, particularly smaller and solo practices, would be able to continue with decreased financial resources, given the lack of shared savings.

Major Implementation Issues During the Third Year

PAFP Data Diamond and registry issues. Several issues arose during Year Three regarding the PAFP registry product, CCI's practice portal. The PAFP Data Diamond portal provided the state and private payers with clinical data from practice registries and served as one of the sources of information for assessing practice transformation. In April 2014, PAFP informed DOH that it did not wish to support the CCI with Data Diamond beyond June 2014. State officials pointed to disagreements about the quality of the work they received from PAFP

as a source of tension between DOH and PAFP. PAFP stated that the existing agreement originally was intended to end in June 2014, and that the state had not agreed with PAFP to extend its contract through December 2014. PAFP met with state officials and, in May 2014, agreed to extend its contract through December 2014. The state and PAFP later negotiated an official closure date of January 31, 2015. While awaiting the decision, state officials worked to create a contingency plan in case the contract was not extended.

Three practices also reported significant problems, during Year Three, with the PAFP registry product being provided to them without adequate EHR capacity to support performance measurement. State officials supported practices to change their vendor and were in negotiations to have PAFP return the practices' data.

Lack of shared savings for practices. Although practices in both regions will receive Medicare shared savings payment for their performance in 2014, this information, as well as Year 3 shared savings results from other payers, was not available at the time of our third-year site visit in October 2014. Instead, practices and policymakers were focused on 2013 shared savings results, which payers announced in October 2014. CMS calculated savings by region and found that practices in the Northeast region did not achieve savings beyond the minimum savings rate of 2.7 percent. Total practice expenditures in the Southeast region were greater than those of the comparison practices. As a result, no Medicare shared savings payments were made in either region. Aetna and Keystone First both found that practices did generate savings—Aetna for all practices in the Southeast and Keystone for adult practices only. Two commercial plans, Independence Blue Cross in the Southeast and Geisinger in the Northeast did not find any savings. In interviews, state officials and practices reported frustration about the shared savings results, especially the variation in findings across payers and the lack of transparency in how payers calculated and distributed shared savings. One policymaker said that the overall results were a surprise and “shocking for us and devastating for practices.”

In the past year, CCI officials identified variations in the way some payers (including Blue Cross of Northeastern Pennsylvania, Health Partners, and Keystone First) calculated shared savings, resulting from erroneous variations from the prescribed methodology and a lack of explicit direction within the participation agreement. For example, some payers compared pediatric practices to specifically pediatric book of business trends, while others compared pediatric practices to the total book of business trend. As a result of the overall variation in calculating shared savings, CCI developed a standard template for payers to use when calculating 2013 practice savings to support “getting it right” in the future. The decision was made not to have payers recalculate earlier results.

External and Contextual Factors Affecting Implementation

Impact of other state initiatives. Pennsylvania received a SIM Model Design grant in February 2013 to support development of a State Health Care Innovation Plan. The process was led by the DOH Center for Practice Transformation and Innovation, also the home of CCI. Although CCI program leaders felt that the connection between the two programs was limited, providers felt that policymakers focused on their Round 1 SIM Model Design grant application and that they generally were not included in the state's plans. Several interviewees felt that if the state had been awarded the Round 2 SIM Model Pre-test or Model Test grant award, the SIM plan likely would have replaced CCI.

Variation in practice experience. Interviewees noted the varied experiences of different practices in the initiative. Small and rural practices with fewer resources were more likely to struggle to meet requirements, compared to larger groups that had additional support and were less financially dependent on the PMPM payments and shared savings. Academic centers were also at a disadvantage because they served a patient population with high turnover. As in 2013, interviewees noted that pediatric practices had less opportunity to reduce costs and show savings and return on investment compared to nonpediatric practices.

Private payment and delivery reform. Health system transformation continued on the private side, as several payers and delivery systems across the state pursued single-payer medical home programs and ACOs. Many CCI practices participated in other commercial medical home and ACO programs, receiving support and infrastructure assistance to ensure health system transformation. However, CCI practices were precluded from participating in other CMS programs and demonstrations with a Medicare shared savings component (e.g., the Shared Savings Program and Pioneer ACOs) because CCI included shared savings. Furthermore, as newly insured individuals entered the system over the past year, several interviewees said that the influx of newly insured patients with a backlog of unmet medical issues possibly affected practices' capacity to meet patients' needs.

Landscape After the MAPCP Demonstration in Pennsylvania

Medicare's decision to not extend the MAPCP Demonstration in Pennsylvania occurred in the last months of the demonstration and did not have a significant impact on the CCI. Interviewees anticipated that the CCI would transition to the model designed in their SIM grant and were awaiting the announcement of the state awardees.

10.1.4 Lessons Learned

Dependence on voluntary payer participation presents challenges. During Year Three, the CCI lost payers and practices, despite efforts by the state to maintain their involvement. Both the administrative cost of remaining in the initiative and the lack of evidence for a return on investment contributed to payers' decisions to withdraw. Program leaders lacked regulatory support and strong state-level leadership to compel payers to remain in the initiative or encourage the new Medicaid managed care plans to join.

Strong leadership was critical to sustaining an initiative. Strong leadership, particularly by the state and commercial plans, was critical since they designed and led the multi-payer effort CMS joined. Leadership turnover at the state level, in participating plans, or both resulted in different approaches on key issues over time, including whether or how strongly to encourage plans to continue participating throughout the demonstration and how aspects of the program were implemented, eventually weakening the demonstration.

Presenting a strong business case early in the demonstration and supporting practices in developing their business models would be beneficial. Policymakers and providers felt that the demonstration did not present a strong enough business case to engage and sustain practice and payer commitment over time. One policymaker also noted that many practices had not established their business model before being required to take on the demands of managing data and analytics and assuming high-cost investments, such as care managers.

Continued buy-in, particularly for smaller practices, also was more likely if there had been an understandable and transparent process for calculating and distributing shared savings payments and other types of financial incentives.

Practices need technical assistance to maximize the use of their data. All members of practices, especially smaller practices, needed adequate support both on the use of technology and, specifically, on how to integrate their EHR with the CCI. As one state official stated, the “initiative never got the importance of teaching practices how EHRs will become such an important part of their regular routine, and the importance of the use of data and how to use that data.”

Shared savings calculations should focus on the cost drivers practices most likely can affect. Several interviewees felt that the CCI should have placed greater emphasis on metrics that could be influenced by better care management, for example, ER use and hospitalization rates. Several cost drivers used by the CCI, such as the cost of specialty care or hospitalization, were not fully under the control of the provider.

ACOs may create more stable platforms for engaging providers in risk sharing and generating the savings needed for higher payments to practices. Several policymakers felt that a payment model based on FFS, PMPM, and pay for performance would be insufficient to generate cost savings, because it did not provide enough incentive for primary care practices and, more importantly, for hospitals, specialists, and other providers to reduce costs. For the future, policymakers said they supported the use of contractual arrangements involving risk or gain sharing for primary care providers and their provider partners in an ACO. Primary care practices were not as enthusiastic about greater risk sharing, but they wanted to know about the proposed ACO and payment models, as they were not involved in the SIM proposal.

10.2 Practice Transformation

This section describes the features of the practices participating in the CCI, identifies changes made by practices to take part in the demonstration and meet participation requirements, describes technical assistance to practices, and summarizes practice views on the program and payment model. We also review the findings from the site visit in late 2014, emphasizing the changes occurring during the year since our interviews in late 2013.

Since the 2013 site visit, Pennsylvania’s practices made marginal improvements to their medical home capabilities. During the 2014 site visit, practices reported that they had undertaken several activities consistent with the medical home model. These activities included leveraging their EHRs for disease registries and population management; using care managers to target high-risk patients more proactively; engaging in greater outreach to patients; offering more group classes and one-on-one patient education for common conditions like diabetes, asthma, and hypertension; embedding social workers in the practice to ease the workload of care managers; holding team meetings to review patients’ status; conducting more screening and providing resources for mental health (mental health was not a focus of CCI, but practices tried to address it), and creating patient portals.

10.2.1 Changes Made by Practices During Year Three

In this section, we review the types of changes made by the CCI practices since the previous site visit and new practice improvement projects that were adopted. These changes often arose from practices' desire to improve their performance as PCMHs and generate shared savings payments.

PCMH Recognition and Practice Transformation

Phase II of CCI de-emphasized NCQA PCMH recognition and placed greater emphasis on “accountability” at the practice level for transformation and quality and cost performance. All practices were required to maintain their NCQA PCMH recognition status, and they did so, with the majority of practices reaching the highest NCQA PCMH recognition level. During the 2013 site visits, practices reported general dissatisfaction with the NCQA PCMH recognition criteria because of the emphasis on infrastructure development and written policies and procedures. They felt that it was not a strong predictor of medical home performance. Some respondents—particularly some payers—believed that the practice assessment tool, the care management audits, and the requirements for reporting data to PAFP contributed to practices becoming more engaged and more accountable for standards and deadlines, as well as cost and quality performance. During the 2014 site visit, respondents generally reiterated those views. A pediatric practice also noted that the 2014 NCQA PCMH recognition requirements were more suitable for pediatric practices than the 2011 standards had been.

During the 2014 site visit, practices reported continued transformation efforts in the following major areas:

- Adding, or strengthening the role of, care managers and, in some cases, social workers (e.g., targeting high-risk patients for care management services, following up with patients discharged from the hospital, conducting medication reconciliation);
- Using their EHR for disease registries and population management, because the data they received from payers and hospitals were not adequate or timely;
- Conducting more screening and providing resources for mental health (mental health was not part of the CCI, but practices tried to address their patients' mental health needs); and
- Offering more group classes and one-on-one education activities for common conditions like diabetes, asthma, and hypertension.

Practices faced several challenges related to transformation and the medical home model. First, during the 2014 site visit, practices struggled to stay motivated to make improvements because of disappointment and concern about several issues: the lack of shared savings payments; payer attrition; uncertainty about CCI's continuation beyond 2014; and a general sense that state policymakers and other stakeholders had shifted their attention to the pending CMS decision on the state's SIM grant application.

Second, some CCI practices saw better opportunities to earn money by participating in other initiatives, such as ACOs, and they shifted their attention to other potentially more promising prospects or dropped out of the CCI completely. The prospect of involvement in the SIM grant (if CMS chose Pennsylvania as a SIM Model Test state) or another payment arrangement, such as ACOs, with the potential for greater revenue without taking on too much risk, was appealing to some practices participating in the CCI.

Third, lack of communication between primary care practices and hospitals hindered care management and care transitions, particularly in the Southeast region, where many participating practices were small and unaffiliated with a major hospital or delivery system. Many practices did not receive timely admission and discharge alerts and other useful information (e.g., discharge summaries, completed continuity of care documents) from hospitals. These delays made those data less useful. Receiving timely data would have allowed practices to manage their patients more proactively, for example, by identifying patients being discharged from the hospital more quickly, understanding what happened in the hospital and patients' post-discharge needs, and offering more appropriate, timely care management services. In addition, many practices had difficulty in getting useful information required for population health management and quality measurement from their EHR systems. They also had a negative view of payers' commitment to provide data enabling them to manage their patient population and improve quality more effectively, though they were more complimentary about RTI's Medicare data.

Fourth, practice transformation into a medical home required a change in practice culture. This culture shift was difficult and required time. Since care managers were required only at the start of Phase II of CCI in the Southeast region, many of those practices had a care manager operating in their practice for only the past 3 years. With additional time, those practices may have become more comfortable with their care managers as well as other staff added during Phase II. Further, residency practices typically have high staff turnover, making the culture shift difficult and requiring practices to spend additional resources training new staff.

Practice Staffing Changes

Care managers were a practice requirement for Phase II of CCI. During the 2013 site visit, several practices, especially in the Northeast region where care managers were a participation requirement in Phase I, noted that care managers became more integrated with the rest of the practice, and that physicians became more comfortable working with the care managers. During the 2014 site visit, practices used care managers to focus on high-risk patients and distributed the workload to others (e.g., embedded social workers) in support of the care manager. Practices in both regions reported that their care managers became more integrated in their practice and workflow compared to the previous year.

Practices had mixed views of their ability to maintain the care coordination staff hired as part of the CCI. Some practices reported having to make a business case to their leadership to keep their care managers and other staff hired after CCI ended. Other practices expressed concern that they would be unable to keep their care managers once the CCI ended.

During the 2013 site visit, some practices reported that their staff were working at the top of their licenses, particularly care managers, or taking on additional and more advanced roles. In 2014, practices reported continuing these efforts. One practice, for example, used medical

assistants to absorb work from care managers and RNs. Another practice hired a staff member to be responsible for their EHR and everyday workflow.

Health Information Technology

In Phase I of CCI, practices were required to use an electronic disease registry for the patient populations targeted (see **Section 10.7** for details on the special populations targeted during Phase I and Phase II of CCI). For practices lacking one, the state made disease registry software available free of charge and provided a one-time, lump-sum payment for entering patient data into the registry.

During the 2013 site visit, practices generally did not have software (stand-alone or via their EHR) for identifying high-risk patients and tracking their care management needs. Several practices reported that they were able to communicate electronically with providers in their practice or affiliated system, but they had less success with external providers, such as nonaffiliated hospitals.

In 2014, practices reported some new changes to the way they used disease registries and EHRs, or in their ability to share data with hospitals, specialists, or other key providers through the HIE. Practices said that they increasingly tried to extract data from their EHR system to identify high-risk patients, because the data received from payers were not timely or accurate. Some practices also used their EHRs for screening and templates. One practice, for example, used templates and alerts in its EHR for diabetes, hypertension, and other conditions to promote high-quality care, reminding staff of what care was needed when to meet or improve clinical process measures. Some practices also incorporated new EHRs or registries that improved their ability to collect, use, and report better data.

10.2.2 Technical Assistance

During the 2014 site visit, practices said that the learning collaboratives were more repetitive and less useful than reported in 2013 and needed to focus on new and different topics. The collaboratives never worked well for pediatric practices, so they had split off into their own sessions. Respondents thought that the practice coach shared among all practices, while good, was less available than in past years and had become focused on coaching non-CCI practices in other states.

During the 2014 site visit, practices still felt that payers' utilization reports were too long, had less data than the practices themselves, and were not timely. Therefore, even fewer practices were using the reports than in 2013.

10.2.3 Payment Support

During Year Three, practices spent their MAPCP Demonstration payments on attempts to maintain care managers or other staff (e.g., HIT staff) paid for with initial demonstration funds. During the 2013 site visit, practices generally thought they were not compensated for all of their activities as CCI participants, and many practices felt that the payment level and structure were flawed. Many practices felt that the reduced PMPM payments were insufficient to support care managers and other investments for practice transformation, especially since payer attrition reduced the total dollars available.

During the 2014 site visit, practices reiterated these concerns about the payment model and their ability to provide the same level of services to their patients with less money. Some practices reported having to make a business case to their leadership to keep their care managers and other staff hired as part of the CCI. One organized delivery system said that they increased their focus on patients eligible for transitional care management services when Medicare's new payment codes became available. While they wanted to maintain the care coordination staff, they were not sure they would be able to do so and were waiting to hear if some version of the demonstration or CCI would continue through the SIM grant.

Sustainability was another concern raised about the shared savings payment model. Practices felt that it was difficult to generate savings in the first few years of the demonstration, and that, even if they had done so, the probability of continuing to generate savings in the future was even lower. As one physician put it, "How can you generate savings year after year after year? For us, it feels like the old 'just work harder and harder for less and less'." He also pointed out that generating savings was even harder if the practice historically had relatively low costs.

Pediatric practices said that the payment model did not work well for them and their populations overall, and that considerable rethinking was needed about how to pay pediatric practices. They felt that pediatric practices were important to include in the demonstration, but that they were an afterthought and the payment model was developed more for adult practices than for pediatric practices. For example, although children did not have the same level or types of chronic conditions as adults, those with special health care needs or behavioral health issues were very costly, requiring far more attention than those who were relatively healthy and seeking routine preventive care. They felt that payment levels, risk-adjustment methods, and other aspects of the payment model needed to be designed with these differences in mind. They also noted that quality metrics and learning collaborative activities needed to consider the unique needs of pediatric practices and populations.

During the 2014 site visit, practices reported having trouble staying motivated to continue making medical home improvements because of their disappointment and concern about the lack of shared savings payments and payer attrition, uncertainty about the continuation of the CCI beyond 2014, and a general sense that state policymakers and other stakeholders had shifted their attention to the pending CMS decision about the state's SIM grant application.

Overall, interviewees expressed disappointment in the payment model; they had hoped shared savings would be realized and practices would share in the savings. Since shared savings were not realized by most payers and practices, the reductions in PMPM payments hit hard. The lack of Medicaid managed care plan participation in the Northeast and other payer withdrawals from CCI meant fewer payers contributing through PMPM payments. Interviewees from practices felt that these developments resulted in inadequate payments for additional investments in practice transformation and a harder look at the practice changes sustainable with declining payments and revenue.

The one positive aspect of the payment model noted by some interviewees was the movement toward shared risk. While there were few shared savings payments, payers and many practices felt that the shared savings payment model moved payers and providers from an adversarial to a more collaborative relationship that produced positive changes, such as shared

goals of improving quality and reducing cost, information sharing, and sharing tools and resources (e.g., care management).

Some interviewees (largely policymakers and payers) felt that they learned a lot from the experience, even though the outcome was not as positive as they had envisioned. They said that they learned a lot about what it took to make shared savings payments models work from a practical perspective (e.g., the aspects of information systems that needed strengthening, the processes that needed establishing, the use of risk-adjustment methods).

10.2.4 Summary

During the 2014 site visit, practices reported being disappointed and frustrated with the demonstration's progress over the past year, but they tried to remain positive about the changes they had made and possible next steps. Many believed that they had made real positive changes to their structures and processes that improved patient care, through such things as care coordinators, team-based care, better use of their EHRs and disease registers, data sharing, and measuring and monitoring utilization and quality data. Practices in the Southeast in particular felt they had made significant positive changes, while practices in the Northeast felt that improvements were incremental.

Practices in both regions struggled to understand why the quantitative data did not show sufficient improvement to warrant shared savings. Many reasons were posited—comparison to other medical homes by CMS, lack of transparency in shared savings calculations by private payers, inconsistent shared savings, risk-adjustment methods, and patient turnover. Regardless of the reasons, the lack of shared savings payments and reductions in PMPM payments resulted in significant morale issues and concerns for practices about what to do next. Many felt that they were being asked to “work harder for less,” but what kept them somewhat motivated to finish the demonstration strongly was the feeling that many of the changes were the right thing to do for patients, that it was the direction in which payment and delivery reform were headed, and that the potential for a new and different phase through a CMS SIM award was intriguing to them.

10.3 Quality of Care, Patient Safety, and Health Outcomes

During the 2013 site visit, many practices participating in Phase II engaged in multiple activities focused on improving both quality of care and patient health outcomes and reducing adverse events or medical errors. In 2014, many of these practices continued these activities, and some practices became more proactive in population management, medication reconciliation, and screening and providing resources for mental health compared to previous years.

During the 2013 site visit, several practices reported engaging in medication management and reconciliation after a hospital discharge or ER visit as part of their care management activities. In 2014, practices reported more proactive efforts in these activities. One practice reported that their EHR had a pop-up function that automatically opened up the patient's medication list (if the patient had one) when the user attempted to close out the patient's medical chart.

Screening and providing resources for mental health were not a major focus for practices in 2013, though some practices made some effort to integrate and exchange information with

behavioral health plans and providers. During the 2014 site visit, however, some practices reported recognizing that, in some instances, they could not resolve their patients' medical issues without also addressing underlying mental health issues. One practice, for example, hired a psychiatric nurse practitioner to provide support for mental health services, worked with a drug- and alcohol-abuse treatment center, and became the primary contractor for Tobacco-Free Northeast for smoking cessation activities. Another practice employed a mental health nurse (an RN), who knew when a patient was admitted to a hospital and ensured that the hospital, care manager, and physician communicated about the patient. A third practice conducted mental health screening more aggressively by building it into their EHR system and iPads.

10.4 Access to Care and Coordination of Care

During the 2013 site visit, access to care was not a major focus of CCI, beyond requiring practices to obtain NCQA PCMH recognition, which included a set of requirements for open access. Many participating practices already had expanded their office hours and offered open access or same-day scheduling for appointments. In 2014, however, some large academic practices with large Medicaid patient populations acknowledged that they still had an access problem. Those practices tried to rework their approach to scheduling (e.g., by opening up same-day appointments, adding virtual appointments over the telephone with nurses), but faculty resisted those changes because they made staff schedules less predictable.

In 2013, some practices reported reaching out to patients more proactively, particularly to manage patients at risk of ER visits and hospital or nursing home admission. In 2014, practices continued this proactive outreach to patients, particularly those recently discharged from the hospital or ER. One practice in the Northeast, for example, used college students to care for patients in their homes (students received school credit for their efforts). Practices used care managers to focus on high-risk patients and distributed the workload to others (e.g., embedded social workers) to support the care manager role.

In 2014, respondents also discussed the most appropriate level of training for care managers. Several interviewees noted that the participating payers said practices should have care managers, but care managers had different and unequal levels of training and experience. One payer felt that care managers should be certified or have more training and that guidelines should be developed for when and how care managers from health plans were consulted or involved.

During the 2013 site visit, practices reported that, although coordinating with mental health providers was not a major focus, some made efforts to integrate and exchange information with behavioral health plans and providers. In 2014, some practices reported increasing efforts to coordinate with mental health centers. One pediatric practice reported that they were informally coordinating with a Medicaid mental health provider and a commercial mental health provider in the community and seeking ways to address emergency care. An adult practice held monthly mental health meetings at nearby clinics. There was no systematic mechanism in Pennsylvania, however, to help PCMHs link with behavioral health or other social services, which were particularly important for some vulnerable subpopulations.

10.5 Beneficiary Experience With Care

During the 2013 site visit, interviewees named several PCMH care processes and activities as most visible to patients, including the patient portal, care managers, and health educators. In 2014, interviewees reported minimal additional practice activity in this area. One practice said that it made individual patient reports available to patients at every office visit. Another practice said that during Year Three they added a patient portal allowing their patients to send quick messages about nonurgent matters and physicians to respond by e-mail. It also gave their patients access to their medication and allergy lists, some blood work results, and some radiology results (clinical notes were not available).

In terms of patient education and increasing knowledge for better self-management of conditions, during the 2013 site visit, the patient portal, health educators (specifically for diabetes), and the PCMH model overall were cited as facilitating activities. In 2014, some practices reported holding group classes and one-on-one education activities for common conditions like diabetes, asthma, and hypertension. Patients continued to use patient portals where available.

10.6 Effectiveness (Utilization and Expenditures)

According to its MAPCP Demonstration application, Pennsylvania expected to see a 10 percent reduction in inpatient costs and a 15 percent reduction in ER visits. State officials also expected that Phase II of CCI would result in a 20 percent increase in evaluation and management visits, and a 54 to 59 percent increase in the use of laboratory tests. State officials expected that the following features of Phase II would contribute to reductions in inpatient care and ER utilization:

- Development of self-management support plans for patients with chronic conditions;
- Enhanced access to primary care;
- Better management of transitions in care;
- More aggressive tracking of and outreach to patients in need of medical management; and
- Care management for high-risk patients.

In 2013, interviewees repeatedly mentioned that the care management component and care coordination focus had a perceived positive effect on reducing hospital admissions and unnecessary ER visits. During the 2014 site visit, respondents reiterated the perception that practices generally were headed in the right direction with the medical home changes made over the past 3 years, particularly care management. They noted that, in the third year of the demonstration, practices still had a difficult time bending the cost curve.

Respondents cited several reasons for the failure to see significant cost and utilization reductions in the first 2 years of CCI Phase II (Year 3 results were not available at the time of our site visit). First, respondents felt that, during Phase I, many practices obtained NCQA

recognition, took the money, and did not transform into a medical home. Real practice change did not occur until Phase II of CCI. Given that this was a 3-year effort, they felt that it likely would take more time to see significant cost or utilization reductions. Second, some respondents felt that patient costs were affected by factors outside of practices' control, such as a payment system still largely based on FFS, the high cost of specialty and hospital care, and the inability to direct patients to the lowest-cost hospital or specialist. Several respondents noted that the CCI held medical home practices accountable for annual hospital and specialty cost increases for which insurers, not primary care practices, negotiated with hospitals and specialists.

10.7 Special Populations

In addition to the Phase I focus on patients with chronic conditions, particularly those with diabetes or asthma, payers and practices added new areas of focus, including:

- Preventive care (e.g., smoking status and interventions, obesity and body mass index, cancer screening and prevention, immunizations);
- Additional chronic conditions (e.g., congestive heart failure); and
- High-risk patients.

The algorithms used by payers to define high-risk patients varied. Practices used the data on high-risk patients provided by each plan, in addition to their own EHR and disease registry data, to target patients for care management in different ways. As mentioned earlier, some practices found the reports produced by payers to be very helpful for identifying a practice's high-risk patients in need of care management services. Others said that the reports were too long to be useful or that the clinical information was less accurate than data the practices had themselves; these practices preferred to use their EHR system to identify high-risk patients.

During the 2013 site visit, respondents said that there were no special interventions for Medicare, Medicaid, or dually eligible beneficiaries in Phase II. The rationale for this, as articulated by some respondents, was that practices were improving their systems of care to produce better outcomes, and all patients were treated similarly. What mattered most was not patients' insurance status, but their clinical characteristics and needs, particularly whether they needed preventive care, had chronic conditions, or were at high risk.

In 2014, some practices reported that they more proactively targeted high-risk patients, who accounted for most costs. These practices thought that they could reduce costs for some, but not all, of their high-risk patients, as some had clinical conditions and social circumstances likely to be improved, while others seemed less likely to change or respond to interventions.

10.8 Discussion

Reflecting on the demonstration, interviewees commented on the past 3 years, since it was clear that the MAPCP Demonstration and the second phase of the CCI were ending. They identified several features of the state's multi-payer PCMH initiative that they felt worked well and several features that failed to work as intended.

Regarding aspects of the MAPCP Demonstration with a positive impact and the greatest potential to improve outcomes, many interviewees noted that the multi-payer demonstration and shared savings payment model defined common goals with which everyone agreed (i.e., overall quality improvement and cost reduction); provided an approach for achieving those aims in terms of payment and delivery reform; and fostered collaborative rather than adversarial relationships. Although this may not have appeared to be a huge breakthrough, some noted that, most of the time, “diverse payers and practices are not singing from the same song sheet.” Specifically, interviewees commented that it was a major step to have public and private payers—Medicare, Medicaid, and commercial plans—collaborating and agreeing on a payment model and such data issues as utilization, quality, and risk adjustment, as well as working more collaboratively with practices. They also felt practices were collaborating more with each other. Although the value of the learning collaboratives to practices declined over time, the peer-to-peer relationships and learning were very valuable. Payers also learned a lot about the strengths and limits of their own information systems and data, as well as such other key issues as member or patient attribution models, risk-adjustment methods, and other issues related to shared savings payment calculations. Finally, interviewees felt that all parties were looking at the utilization and quality data and learning from them for the first time.

Many interviewees also felt that the PCMH model of care (or such key aspects as care coordinators) was a better model of care for themselves and their patients, when implemented correctly. Although perhaps they got involved because of the potential financial opportunity, experience with the model convinced them that this was the general direction to go and that they would not want to go back.

Despite agreement that the MAPCP Demonstration had the general direction and some features right, CCI leaders failed to foresee the challenges or successfully address them quickly enough. Specifically, some felt that many details of the payment model or its implementation needed to be rethought, including the following:

- The PMPM payment initially was too low or the reductions too quick.
- More detailed specifications for attributing patients to practices, constructing comparison groups, and using risk-adjustment methods needed to be shared among payers and practices, so that shared savings methods were consistent and transparent.
- The payment model probably did not work for some subpopulations, such as children with special needs.
- Some practices were not convinced that, even if shared savings were achieved, the model was sustainable over time, because savings might be achieved only once or early on and then would decline.

Many interviewees felt that the withdrawal of commercial payers undermined the sense of common goals and approach and that “we’re in this together.” It also effectively reduced the payments received by practices, sometimes nominally and other times significantly, depending on the payer mix.

Some practice interviewees also felt that payers did not assist them sufficiently in getting data and cooperation from hospitals, specialists, and other providers. For example, an interviewee suggested that Independence Blue Cross could have used its contracts with hospitals as leverage to ensure that the hospitals provided the primary care practices with basic admission, discharge, and transfer alerts and clinical discharge information.

Interviewees also felt that the limitations of information systems and technology, information exchange, and data analytics hampered their ability to manage patient populations better or help practices do so. Practices were frustrated with the inability to get more useful, timely data on high-risk, high-cost patients from payers or to integrate data from multiple payers. They also were frustrated that they could not always get needed data from hospitals and other providers. Finally, practices struggled to get better information from their EHRs and to maintain their own disease registries.

Nonfinancial support for practice transformation, through learning collaboratives and practice coaching, became less useful over time. Although all felt that the leader of the collaborative was very good, it was very difficult to keep materials fresh and relevant for years on end and to meet the needs of diverse practices.

Finally, the practices had no strong disincentives for patients' use of ERs or inpatient acute-care hospital services. Thus, many utilization and quality issues were outside practices' control or difficult to address.

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CHAPTER 11

CONCLUSIONS

While much of Year Three was a continuation of activities from Year One and Year Two, there were some changes or improvements common across many MAPCP Demonstration states. The most common improvements during Year Three were a greater focus on high-risk and high-cost patients (Rhode Island, New York, North Carolina, Michigan) and increased integration of behavioral health care (Rhode Island, Vermont, Maine, Michigan). States hoped that a more intensive focus and concentration of resources on high-risk and high-cost patients would result in a greater overall impact on utilization and expenditures by the MAPCP Demonstration.

To support this focus on high-risk and high-cost patients in Rhode Island, payers identified these patients to enable nurse care managers and community health teams to target their efforts. In addition, Rhode Island's Chronic Care Sustainability Initiative (CSI) developed new reporting requirements for nurse case managers to track the results of their active outreach to high-risk patients. In New York, many practices in the Adirondack Medical Home (ADK) Demonstration received lists of patients recently discharged and assigned their embedded care coordination staff to ensuring appropriate follow-up. Several ADK Demonstration practices also used utilization reports to prioritize their high-risk patients. In North Carolina, Community Care of North Carolina (CCNC) implemented Care Triage to identify high-risk patients and increase the standardized care management processes. Care Triage uses pharmacy data to assign risk scores indicating a patient's likelihood of requiring hospitalization in the future. Identifying and reaching high-risk patients was one of Michigan's four 2014 priority clinical focus areas. In the Final Report, we will examine the changes associated with this greater focus on high-risk and high-cost patients in our quantitative analysis of patients with multiple chronic conditions.

In Rhode Island, CSI practices were required to develop a compact with behavioral health care providers during 2014. Some practices had staff, such as psychologists, co-located on site. Additionally, Tufts Health Plan contributed \$125,000 to support behavioral health integration by providing practice coaching in 15 primary care practices, developing a centralized behavioral health directory, and creating a program to increase patient self-care management. While Vermont implemented its hub and spoke model previously, the program experienced significant growth in Year Three. It received 90 percent federal match funding once its two State Plan Amendments took effect in July 2013 and January 2014. In 2014, the hub and spoke model expanded to serve commercially insured patients. In Maine, links between behavioral health services and primary care practices varied across practices by types of staff and levels of sophistication. Michigan set a goal to have practices screen, treat, and refer patients for behavioral health problems, including depression, as one of its four 2014 priority clinical focus areas. In the Final Report, we will monitor the association between the MAPCP Demonstration and changes for beneficiaries with behavioral health conditions, especially in states that targeted these individuals.

As discussed earlier, many states had a special focus on high-risk patients. Practices' ability to focus on these patients often depended upon their obtaining a list identifying these patients. For several states (Rhode Island, North Carolina, Maine, Michigan) getting reliable lists was a serious challenge during Year Three. In Rhode Island, the size of patient lists and variation

in the algorithms used by payers to identify high-risk patients made prioritizing such patients very time-consuming; sometimes the lists identified patients inappropriate for intervention. In North Carolina, a new claims system and data warehouse changes affected the ability to obtain data. As a result, for most of 2014, CCNC was unable to provide practices with information to help them identify priority populations for care management services. In Maine, community care teams (CCTs) and practices had trouble identifying and, therefore, targeting the top 5 percent of high-risk, high-needs patients. Maine Quality Counts worked with CCTs and practices to standardize their processes to ensure that high-risk patients were more readily identifiable. In Michigan, there was dissatisfaction with the algorithm used by the Michigan Data Collaborative to identify high-risk patients. One interviewee noted that patients with high-cost services outside the scope of the demonstration's goals (i.e., infertility treatment) were being stratified with or above individuals needing care management services. Stakeholders also registered frustration with discrepancies they observed between risk scores assigned from historical claims data and their real-time assessment of patient risk, based on physician opinion and electronic health record (EHR) data. Some felt that this led to a misallocation of care manager time in assessing patients who appeared on a high-risk list but were not actually high risk.

In addition to concerns about their lists of high-risk patients, several states (New York, Vermont, Maine, Michigan) also continued to have other challenges with data quality. New York experienced data lags that reduced the utility of the provider dashboards, and all of its cost data available through Year Three had been proxy priced. When their current contract expired at the end of 2014, New York planned to contract with a new vendor to remedy these issues. During Year Three, Vermont practices continued to find that DocSite was unreliable for reporting and had many data accuracy issues. As a result, many practices shifted from DocSite to EHRs that were compatible with other HIE systems offered by Vermont Information Technology Leaders (VITL). Eventually, all practices will need to transition to a new EHR system, since the developer of DocSite plans to leave the health care sector. In Maine, practices still lacked data reports integrating claims and clinical data in real time. Although the problem was recognized, there has been no progress in integrating data sources because of a lack of agreement about who had responsibility for this task. In Michigan, data quality issues curtailed the usefulness of the admission, discharge, and transfer (ADT) notifications received through the Michigan Health Information Network. There was a delay in the implementation of flagging Michigan Primary Care Transformation Project-eligible patients in the ADT notifications, and hospitals often submitted incomplete patient data—or entered data in the wrong fields—on the notification itself. To help minimize this issue, during Year Three, practices and physician organizations continued to develop and leverage existing relationships with hospitals to streamline the transmission of ADT information.

During the Year Three site visits, the MAPCP Demonstration states shared some common lessons learned for increasing the likelihood of success. As during Year Two, interviewees mentioned that the demonstration had not been implemented long enough to have had meaningful effects. At the end of its participation in the MAPCP Demonstration, North Carolina project staff felt that, after focusing on gaining recognition from the National Committee for Quality Assurance and the Blue Quality Physician Program during the first 2 years, in Year Three they focused on care management processes to engage new populations more effectively. They felt they needed more time for these improvements to reduce cost or improve health outcomes. Likewise, in Maine, interviewees said that they did not have enough

time to make demonstrable impacts on reducing costs and improving quality, especially since the “changes that are needed within practices to transition from being traditional practices to becoming team-based practices entail a long journey.” Michigan was grateful for the MAPCP Demonstration extension, because it allowed more time to develop and implement best practices for incorporating care management into practices’ workflows to maximize the benefits of the medical home model.

The most common lesson learned by states during Year Three focused on the multi-payer aspect of the MAPCP Demonstration. Interviewees emphasized the importance of having all payers participate and ensuring that payment was aligned across all payers. In Minnesota, roughly 40 percent of the population was covered by self-insured plans that did not participate in the Health Care Homes (HCH) initiative, leaving significant proportions of some practices’ patient panels out of the initiative. One state official said that having more large employers’ and other self-insured purchasers’ participation would have “given more momentum to the program.” Pennsylvania interviewees lamented lacking the regulatory support and state-level leadership to compel payers to remain in the initiative or to engage new Medicaid managed care plans to join. Michigan recognized that medical home initiatives required significant provider investment. Sustainability and scalability depended on practices’ receiving payment for a critical mass of patients to make practice transformation viable. Further, the lack of all-payer participation meant that practices spent time identifying eligible patients and having to deny care management to ineligible patients. New York’s cross-payer alignment is much stronger than most. This was especially important in the early years, because participants felt that they were “all in this together.” Some state officials, program leaders, and even payers felt that alignment was New York’s “secret sauce.” Vermont state officials underscored the need for an aligned payment model supported by multiple payers to be able to effectively manage population health. Practices participating in the Blueprint for Health had the financial resources to transform their whole practice to align with the core tenets of patient-centered medical homes and to provide the same level of care to patients regardless of payer.

Other common lessons learned included gaining diverse stakeholder involvement (Minnesota, New York, Vermont), balancing the interests of payers and practices (Pennsylvania, New York, Vermont), considering the need to update payment methodology (New York, Maine), and setting clear expectations for stakeholders at the outset of the initiative (North Carolina, Maine).

Overall, in Year Three, state initiatives felt they had completed most of their transformation and refinement and that they were fully able to engage as medical homes. Thus, most felt that they were just getting started with the real work, and they were not too optimistic about having significant changes in quality of care, access to care, utilization, expenditures, and outcomes thus far. The five states in which the demonstration was extended through December 2016 felt that the additional time would allow them to demonstrate significant changes.

Participation in the MAPCP Demonstration by three states ended in December 2014 (Minnesota, North Carolina, Pennsylvania). In North Carolina, Blue Cross and Blue Shield of North Carolina and the State Employee Health Plan declined to continue in the state’s multi-payer initiative. They left because they did not see sufficient returns on their investment and because of the increasing development of accountable care organizations in the state. The

experience of North Carolina reflects the lesson learned by several states and demonstrates the crucial need to have leverage to maintain the participation of all payers, while considering their interests as well.

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APPENDIX A
MAPCP DEMONSTRATION RESEARCH QUESTIONS, METHODS, AND
DATA SOURCES

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Substantive area research questions	Methods	Data sources
<p><i>Measuring State Initiative Implementation and Evolution</i></p> <ol style="list-style-type: none"> 1. What are the features of the state initiative? 2. Which features of the state initiative (e.g., community-based resources, learning collaborative, feedback reports) are used by participating PCMHs and Medicare and Medicaid beneficiaries and to what extent? What impacts resulted from their use? Which features were most useful? What features were not as helpful or need improvement? 3. Does Medicare's participation in the state initiative have any spillover effects on states' Medicaid programs or private payers? For example, did Medicare's participation in the state initiative cause any cost shifting from one program to another? 4. What changes did payers make in order to take part in the state initiative and meet the participation requirements? What was involved in making these changes? How long did it take to implement these changes? What challenges did they face? What lessons were learned from the experience? 5. What kinds of structural and/or organizational changes were made to accommodate Medicare's participation in the state initiative and to better serve the needs of Medicare beneficiaries? How did administrative burdens and resource allocations change as a result of Medicare's participation? What new features did the states add to their initiative and what new partnerships did they establish to better serve the needs of Medicare beneficiaries? 6. What were participants' experiences with the MAPCP Demonstration? What lessons were learned from the experience? What advice do they have if the demonstration were to be extended or expanded? Participants include initiative staff and their contractors/vendors, payers. 7. How do the state agency and participating communities use the PCMH payments? For example, with the additional funds, do they increase the number of participating practices or communities, expand the size or scope of the initiative, implement additional interventions, or add staff? 	<ul style="list-style-type: none"> • Within-state qualitative data analyses using case study methods and NVivo software for data management and analysis of four domains: scope of the demonstration; requirements of participating practices; supports to improve the delivery of care; and payment model, amounts, and uses • Descriptive analyses establishing the scope of the demonstration: number and characteristics of participating practices, number and characteristics of participating Medicare and Medicaid beneficiaries, and population served (patient eligibility requirements and patient attribution process) • Development of state initiative-level variables for inclusion in within- and cross-state modeling of selected outcomes using mixed methods (see quantitative outcomes analyses and cross-state qualitative and quantitative analyses below) 	<ul style="list-style-type: none"> • Key informant interviews conducted through telephone calls and in-person site visits with state officials, MAPCP Demonstration program staff, state program evaluators, Medicaid state program officials, participating private payers, and other key informants (e.g., Office of Aging staff, patient advocates) • State- or state evaluator-provided information or data • Review of source documentation from each state's MAPCP Demonstration application and modifications • Review of state quarterly progress reports • Review of state policymakers' exchange through the National Academy for State Health Policy (NASHP) medhome-builder electronic mailing list • Scan of national reports, including daily digests and research journals, newsletters, and newspapers • Ongoing communication with state policy staff • Medicare EDB and claims data

(continued)

Substantive area research questions	Methods	Data sources
<i>Practice Transformation Evaluation</i>		
<p>8. What are the features of participating PCMHs? How do features of the participating PCMHs vary?</p> <p>9. Which features of the state initiative (e.g., community-based resources, learning collaborative, feedback reports) are used by participating PCMH practices and to what extent? What impacts resulted from their use? Which features were most useful? What features were not as helpful or need improvement?</p> <p>10. What changes did practices make in order to take part in the state initiative and meet the participation requirements? What was involved in making these changes? How long did it take to implement these changes? What challenges did they face? What lessons were learned from the experience?</p> <p>11. What kinds of structural and/or organizational changes were made to accommodate Medicare's participation in the state initiative and to better serve the needs of Medicare beneficiaries? How did administrative burdens and resource allocations change as a result of Medicare's participation?</p> <p>12. What were participants' experiences with the MAPCP Demonstration? What lessons were learned from the experience? What advice do they have if the demonstration were to be extended or expanded? Participants include community-based and practice staff.</p> <p>13. How do the participating practices use the PCMH payments?</p> <p>14. Which payment methods and payment amounts are most effective in producing positive impacts? What problems occurred in implementing the payment methodologies and how were they resolved?</p> <p>15. How much does it cost to implement and sustain the various features of a PCMH practice? What payment amount is sufficient to offset those costs? What payment methodology is best suited for financially supporting practices in their medical home transformation?</p> <p>16. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in more efficient delivery of health services to Medicare and Medicaid beneficiaries? If so, what features facilitate more efficient delivery of health care services and what outcomes result from these efficiency improvements?</p>	<ul style="list-style-type: none"> • Within-state qualitative data analyses using case study methods and NVivo software for data management and analysis of domains related to process transformation activities and the perceived effects that the state initiative's features have on their transformation and performance (see proposed additional analyses below related to patient safety, access to and coordination of care, and special populations) • Within-state qualitative analysis of process transformation activities related to efficiency • Development of practice transformation-level variables, including CHTs, for inclusion in within- and cross-state modeling of selected outcomes (see quantitative outcomes analyses and cross-state qualitative and quantitative analyses below) 	<ul style="list-style-type: none"> • Semi-structured interviews conducted through in-person site visits with participating practices, CHTs, and other relevant clinical staff • Key informant interviews conducted through telephone calls and in-person site visits with state officials and program staff • PCMH practice recognition surveys • Provider practice transformation survey • State-level variables

(continued)

Substantive area research questions	Methods	Data sources
<i>Quality of Care, Patient Safety, and Health Outcomes</i>		
17. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in:	<ul style="list-style-type: none"> • Within-state univariate, bivariate, and multivariate quantitative analyses of adherence to evidence-based measures using claims data 	<ul style="list-style-type: none"> • Information obtained from semi-structured interviews with participating practices, CHTs, and other relevant clinical staff
18. (a) Safer delivery of health services to Medicare and Medicaid beneficiaries? If so, what features facilitate safer delivery of health care services and what outcomes result from these safety improvements?	<ul style="list-style-type: none"> – To the extent that clinical data are available, analyses of achievement of control will be evaluated – To the extent that state-level reporting data are available, we will report additional non-claims-based quality of care measures 	<ul style="list-style-type: none"> • PCMH practice recognition surveys • Practice transformation questionnaire
19. (b) Better quality of care provided to Medicare and Medicaid beneficiaries? If so, what features facilitate better quality of care and what outcomes result from these quality improvements?		<ul style="list-style-type: none"> • Focus groups with beneficiaries
20. (c) Improved adherence to evidence-based guidelines? If so, what features facilitate improved compliance and what outcomes result from these improvements?		<ul style="list-style-type: none"> • State-level reporting data, as available (including clinical quality measures)
21. (d) Health outcomes of Medicare and Medicaid beneficiaries? If changes occurred, for which health outcomes were these effects seen?	<ul style="list-style-type: none"> • Within-state univariate, bivariate, and multivariate quantitative analyses of health outcomes as measured by ambulatory care sensitive conditions (or “composite prevention quality indicators”), avoidance of serious medical events, and mortality • Within-state qualitative analysis using case study methods and beneficiary focus groups and semi-structured interviews with providers to assess beneficiaries’ and providers’ perceptions of changes in care quality and patient safety • Within-state quantitative analysis of practice transformation activities from practice transformation questionnaire and PCMH recognition surveys to assess changes in quality of care and patient safety features of the practice 	<ul style="list-style-type: none"> • Practice-reported clinical data, as available • Medicare and Medicaid claims data • Medicare EDB and Medicaid eligibility files • State-level variables • Practice transformation-level variables

(continued)

Substantive area research questions	Methods	Data sources
<i>Access to Care and Coordination of Care</i>		
22. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in:	<ul style="list-style-type: none"> • Within-state qualitative analysis using case study methods, semi-structured interviews with providers, and key informant interviews to assess practice transformation activities and state initiative features (such as CHTs) designed to improve access to and coordination of care 	<ul style="list-style-type: none"> • Information obtained from semi-structured interviews with participating practices, CHTs, and other relevant clinical staff
23. (a) More timely delivery of health services to Medicare and Medicaid beneficiaries? If so, what features facilitate more timely health care delivery and what outcomes result from these improvements?	<ul style="list-style-type: none"> • Within-state qualitative analysis using case study methods and beneficiary focus groups to assess beneficiaries' perceptions of changes in access to and coordination of care 	<ul style="list-style-type: none"> • Key informant interviews conducted through telephone calls and in-person site visits with state officials and program staff
24. (b) Enhanced access to Medicare and Medicaid beneficiaries' PCMH providers? If so, what features facilitate better or enhanced access and what outcomes result from these improvements?	<ul style="list-style-type: none"> • Within-state univariate, bivariate, and multivariate quantitative analyses of beneficiary survey data 	<ul style="list-style-type: none"> • Practice transformation questionnaire
25. (c) Better coordination of care for Medicare and Medicaid beneficiaries? If so, what features make health care delivery better coordinated and what outcomes result from this better coordinated care?	<ul style="list-style-type: none"> • Within-state univariate, bivariate, and multivariate quantitative analyses of access to and coordination of care using claims data: <ul style="list-style-type: none"> – Visit rates by primary care physicians and medical and surgical specialists – Primary care visits as a percentage of total visits – Rate of ER visits not leading to hospitalizations – Hospital admission rate – Rate of follow-up visits within 14 days after hospitalization – 30-day readmission rate – Continuity of care index 	<ul style="list-style-type: none"> • State-level reporting data, as available
26. (d) Improved continuity of care for Medicare and Medicaid beneficiaries? If so, what features facilitate improvements in care continuity and what outcomes result from these continuity improvements?		<ul style="list-style-type: none"> • Focus groups with beneficiaries
		<ul style="list-style-type: none"> • Beneficiary survey data
		<ul style="list-style-type: none"> • Medicare and Medicaid claims data
		<ul style="list-style-type: none"> • Medicare EDB and Medicaid eligibility files
		<ul style="list-style-type: none"> • MAPCP Demonstration Participation files
		<ul style="list-style-type: none"> • State-level variables

(continued)

Substantive area research questions	Methods	Data sources
<i>Access to Care and Coordination of Care (continued)</i>	<ul style="list-style-type: none"> – To the extent that state-level reporting data are available, we will report additional non-claims-based access to and coordination of care measures: – Within-state quantitative analysis of practice transformation activities from practice transformation questionnaire to assess impact of practice features related to access and coordination of care on utilization and expenditures – Within-state quantitative analyses of impact of continuity of care index on utilization and expenditures – Within-state quantitative analyses of unique interventions related to access to care and continuity of care—for example, nurse care manager activities and the impact of nurse care manager activities on utilization and expenditures (North Carolina) 	<ul style="list-style-type: none"> ▪

(continued)

Substantive area research questions	Methods	Data sources
<i>Special Populations</i>		
<p>27. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in:</p> <p>28. (a) Reductions in or elimination of health care disparities among Medicare and Medicaid beneficiaries? If so, what features facilitate these reductions, which populations (e.g., racial/ethnic, socioeconomic) or geographic regions (e.g., rural, urban) are affected, and what are impacts on these populations?</p> <p>29. (b) Reductions in or elimination of variations in utilization and/or expenditure patterns which are not attributable to differences in health status? If so, what features help minimize these variations, what health services or expenditures are affected, and how are they affected?</p> <p>30. (c) What are the impacts of Medicare's participation on dually eligible beneficiaries and other key subpopulations (e.g., beneficiaries with multiple chronic conditions, beneficiaries with mental or behavioral conditions)?</p>	<ul style="list-style-type: none"> • Within-state qualitative analysis using case study methods and beneficiary focus groups, semi-structured interviews with providers, and key informant interviews to assess challenges and perceptions of changes for the special populations across a range of domains • Within-state quantitative analyses by including many of the special populations as independent or control variables (e.g., race, dually eligible beneficiaries) or analyses conducted within special population subgroups (e.g., rural, SASH). More detailed analyses will include studies of dually eligible beneficiaries, people with disabilities, people with multiple chronic illnesses, people with behavioral health problems, beneficiaries in rural areas, and children with asthma. • Within-state quantitative analyses for specific populations as determined jointly by RTI International and CMS. Likely outcomes include total costs and use and costs of total and ambulatory care sensitive condition hospitalizations and ER visits, readmissions, use of post-acute-care, use of home- and community-based services, etc. 	<ul style="list-style-type: none"> • Key informant interviews with state officials, CHTs, and other community resources that provide services to special populations • Semi-structured interviews with practices with heavy concentrations of targeted special populations • Beneficiary focus groups with special populations • Beneficiary survey data, as available in sufficient sample sizes for the targeted special populations • Medicare and Medicaid claims data, Chronic Condition Warehouse timeline, Minimum Data Set (MDS), and Outcome and Assessment Information Set (OASIS) files • Medicare EDB and Medicaid eligibility files • MAPCP Demonstration Participation files • State-level variables • Practice transformation-level variables

(continued)

Substantive area research questions	Methods	Data sources
<i>Beneficiary Experience With Care</i>		
31. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in better experiences with the health care system for Medicare and Medicaid beneficiaries and their families and caregivers? If so, what features facilitate improved care experiences and what outcomes result from these experiences?	<ul style="list-style-type: none"> • Within-state qualitative analyses of beneficiary experience with care through focus groups, with some targeting of special populations 	<ul style="list-style-type: none"> • Focus groups with beneficiaries and caregivers
32. Are Medicare and Medicaid beneficiaries, their family members, and/or their caregivers able to participate more effectively in decisions concerning their care as a result of the state initiative? How does the state initiative facilitate this and what impacts are seen as a result of this more effective participation?	<ul style="list-style-type: none"> • Within-state quantitative analyses of Medicare and Medicaid beneficiary experience with care through analysis of PCMH-CAHPS surveys mailed to Medicare and Medicaid beneficiaries. Self-reported experience for six composite scales will be compared with national data deposited in the National CAHPS Benchmarking Database. 	<ul style="list-style-type: none"> • State-level variables • Practice transformation-level variables • Medicare beneficiary survey data • Medicare EDB and Medicaid eligibility files • MAPCP Demonstration Participation files
33. Are Medicare and Medicaid beneficiaries better able to self-manage their health conditions or more likely to engage in healthy behaviors as a result of the state initiative? How does the state initiative facilitate this and what impacts are seen as a result?	<ul style="list-style-type: none"> ▪ 	
34. Which features of the state initiative (e.g., community-based resources, community health teams, SASH team) are used by participating Medicare and Medicaid beneficiaries and to what extent? What impacts resulted from their use? Which features were most useful? What features were not as helpful or need improvement?		

(continued)

Substantive area research questions	Methods	Data sources
<i>Effectiveness: Patterns of Utilization and Expenditures</i>		
<p>35. Do features of the state initiative, or features of the PCMH practices or community health teams participating in the state initiative, result in delivery of more effective health services to Medicare and Medicaid beneficiaries? If so, what features facilitate the delivery of more effective health care services and what outcomes result from these improvements?</p> <p>36. How do features of the state initiative affect utilization of services covered by Medicare and Medicaid? If changes in utilization patterns occurred, for what services were these effects seen and what features of the state initiative were most responsible for these changes?</p> <p>37. How do features of the state initiative affect expenditures for services covered by Medicare and Medicaid? If cost reductions or changes in cost patterns occurred, for which cost categories were these effects seen and what features of the state initiative were most responsible for these changes?</p>	<ul style="list-style-type: none"> Initial descriptive analysis of Medicare and Medicaid baseline beneficiary characteristics and patterns of utilization and expenditures within each state for intervention beneficiaries Within-state Medicare and Medicaid descriptive statistics and multivariate analyzing change over time in selected measures: <ul style="list-style-type: none"> Utilization and payments by major types of providers Rates of hospitalizations and ER visits Within-state testing of adequacy of 2-year baseline to capture Medicare pre-MAPCP Demonstration trends in expenditures and acute-care utilization Within-state decomposition of Medicare and Medicaid expenditures and gross savings into relative payment and utilization differences between PCMH and non-PCMH practices at baseline and changes over time by service categories (e.g., inpatient, outpatient, physician, skilled nursing facility) T-tests and incidence rate ratios (IRRs) of Medicare and Medicaid different rates of growth in both average payments per service (e.g., admission, office visit) and services per eligible beneficiary between participating PCMH and non-PCMH practices T-tests and IRRs of Medicare and Medicaid differences in baseline payments per service and utilization rates between PCMH and non-PCMH practices 	<ul style="list-style-type: none"> Medicare and Medicaid claims data Medicare EDB and Medicaid eligibility files MAPCP Demonstration Participation files State-level variables Practice transformation-level variables Key informant interviews Review of secondary documents

(continued)

Substantive area research questions	Methods	Data sources
<i>Effectiveness: Patterns of Utilization and Expenditures (cont.)</i>		
38. Is Medicare’s participation in the state initiative budget neutral? If not, why not? If so, how soon into the demonstration are cost savings seen?	<ul style="list-style-type: none">• Within-state multivariate analysis of gross savings and budget neutrality<ul style="list-style-type: none">– Demonstration fee effect– Medical home effect– Participation effect	<ul style="list-style-type: none">• Medicare claims data• Medicare EDB files• MAPCP Demonstration Participation files
<i>Cross-State Qualitative Analyses</i>		
39. What are the commonalities among the state initiatives? How do they differ from one another?	<ul style="list-style-type: none">• Cross-state qualitative analysis of state-level commonalities and differences<ul style="list-style-type: none">– Traditional comparative case-study methods– Exploration of variation across states to support qualitative comparative analysis–	<ul style="list-style-type: none">• State-level variables• Beneficiary-level outcomes data
40. What features of state initiatives are most responsible for the positive impacts seen?		▪
41. What are some commonalities among the high-performing state initiatives? For instance, do state initiatives with CHTs have better outcomes than those without CHTs? Do state initiatives with a greater state role have better outcomes than those with a lesser state role? Do state initiatives with shared savings as a component of the payment methodology have better outcomes than those that do not share savings with the practices?		
<i>Cross-State Quantitative Analyses of Outcomes</i>		
42. Does Medicare’s participation in state initiatives decrease overall utilization of, and expenditures for, services covered by Medicare and Medicaid? For what services are these reductions or increases seen?	<ul style="list-style-type: none">• Cross-state multivariate analysis of outcomes separately conducted for Medicare and Medicaid. Outcomes variables include<ul style="list-style-type: none">– Total expenditures– Expenditures for acute-care hospitals– Expenditures for hospital outpatient and physician services– Rate of all-cause hospitalizations– Rate of all-cause ER visits– Medicare budget neutrality	<ul style="list-style-type: none">• Medicare claims data• Medicare EDB eligibility files• MAPCP Demonstration Participation files
43. Is the demonstration budget neutral, that is, did any cost savings resulting from Medicare’s participation in the state initiatives exceed CMS’s total PCMH payments? What features of PCMH practices participating in the state initiative are responsible for the positive impacts?		<ul style="list-style-type: none">• State-level variables• Practice transformation-level variables

CAHPS = Consumer Assessment of Healthcare Providers and Systems; CHT = community health team; CMS = Centers for Medicare & Medicaid Services; EDB = Enrollment Data Base; ER = emergency room; MAPCP = Multi-Payer Advanced Primary Care Practice; PCMH = patient-centered medical home; SASH = Support and Services at Home.

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APPENDIX B
MAPCP DEMONSTRATION MEDICARE BENEFICIARY ASSIGNMENT
ALGORITHMS BY STATE

MAINE

1. Use a look-back period of the most recent 24 months for which claims are available.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day of the look-back period:
 - Reside in Maine.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare Fee-For-Service (FFS) Program and are not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Select all claims for beneficiaries identified in Step 2 with the following qualifying *Current Procedural Terminology* (CPT) codes in the look-back period (most recent 24 months) in which the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant, or where the provider is a federally qualified health center (FQHC).
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing National Provider Identifier (NPI) from the physician claim.
 2. **Critical access hospital (CAH) and rural health clinic (RHC) identification:** Check for the following CPT codes on the outpatient department (OPD) file where the provider is a CAH or an RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from the National Plan and Provider Enumeration Systems (NPPES) file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
4. Assign beneficiaries to the practice where they had the greatest number of qualifying claims. Identify a practice by the tax ID (physician) or provider ID (OPD).

5. If beneficiaries had an equal number of qualifying visits to more than one practice, assign them to the one with the most recent visit.
6. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes
Evaluation and Management—Office or Other Outpatient Services <ul style="list-style-type: none"> ▪ New Patient: 99201–99205 ▪ Established Patient: 99211–99215
Consultations—Office or Other Outpatient Consultations <ul style="list-style-type: none"> ▪ New or Established Patient: 99241–99245
Nursing Facility Services <ul style="list-style-type: none"> ▪ E&M New/Established Patient: 99304–99306 ▪ Subsequent Nursing Facility Care: 99307–99310
Domiciliary, Rest Home (e.g., Boarding Home), or Custodial Care Service <ul style="list-style-type: none"> ▪ Domiciliary or Rest Home Visit New Patient: 99324–99328 ▪ Domiciliary or Rest Home Visit Established Patient: 99334–99337
Home Services <ul style="list-style-type: none"> ▪ New Patient: 99341–99345 ▪ Established Patient: 99347–99350
Prolonged Services—Prolonged Physician Service With Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99354 and 99355
Prolonged Services—Prolonged Physician Service Without Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99358 and 99359
Preventive Medicine Services <ul style="list-style-type: none"> ▪ New Patient: 99381–99387 ▪ Established Patient: 99391–99397
Medicare Covered Wellness Visits <ul style="list-style-type: none"> ▪ G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) ▪ G0438—Annual Wellness Visit, First Visit ▪ G0439—Annual Wellness Visit, Subsequent Visit
Counseling Risk Factor Reduction and Behavior Change Intervention <ul style="list-style-type: none"> ▪ New or Established Patient Preventive Medicine, Individual Counseling: 99401–99404 ▪ New or Established Patient Behavior Change Interventions, Individual: 99406–99409 ▪ New or Established Patient Preventive Medicine, Group Counseling: 99411–99412
Other Preventive Medicine Services—Administration and Interpretation <ul style="list-style-type: none"> ▪ 99420
Other Preventive Medicine Services—Unlisted Preventive <ul style="list-style-type: none"> ▪ 99429
Transitional Care Management Services <ul style="list-style-type: none"> ▪ 99495 ▪ 99496
FQHC—Global Visit (billed as a revenue code on an institutional claim form) <ul style="list-style-type: none"> ▪ 0521 = Clinic Visit by Member to RHC/FQHC ▪ 0522 = Home Visit by RHC/FQHC Practitioner

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

MICHIGAN

1. Use a look-back period of up to 24 months based on the presence of claims for a given beneficiary (see tiers below under #3).
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in Michigan.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Use the following five-tier process for assigning beneficiaries to participating providers:
 - **Tier 1**—Select all claims in the most recent 12 months of the look-back period for beneficiaries identified in Step 2 with the “Base E&M Office Visit Codes” listed below, where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, or pediatrics.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or an RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don’t match specialty listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
 - a. Assign beneficiaries to the individual provider with whom they had the greatest number of qualifying claims. Identify and define a provider by the tax ID (physician) or provider ID (OPD).
 - b. If beneficiaries had an equal number of qualifying claims to more than one provider, assign them to the one with the most recent visit.

- **Tier 2**—If a beneficiary does not have any claims during the most recent 12-month period, extend the look-back period to 18 months and assign the beneficiary to the provider based on the same rules in Tier 1 above.
- **Tier 3**—If a beneficiary does not have any claims during the most recent 18-month period, extend the look-back period to 24 months and assign the beneficiary to the provider based on the same rules in Tier 1 above.
- **Tier 4**—If a beneficiary meeting the criteria in Step 2 is still not assigned to a provider, select all claims in the most recent 12 months of the look-back period for beneficiaries identified in Step 2 with, in addition to the “Base E&M Office Visit Codes” listed below, the inclusion of procedure codes for consultations, preventive counseling, and immunizations where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, or pediatrics.
- **Tier 5**—If beneficiaries meeting the criteria in Step 2 are still not assigned to a provider, select all claims meeting the criteria for Tier 4, but for the most recent 18 months of the look-back period.
- Beneficiaries not assigned after being screened through the five tiers described above will not be assigned to any provider.

4. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes	
Base E&M Office Visit Codes	99201–99205 99211–99215
Medicare Covered Wellness Visits	G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) G0438—Annual Wellness Visit, First Visit G0439—Annual Wellness Visit, Subsequent Visit
FQHC Global Visit Code (from institutional claim form)	Revenue Codes 0521 = Clinic Visit by Member to RHC/FQHC 0522 = Home Visit by RHC/FQHC Practitioner
Office Visit Preventive	99381–99387 99391–99397 99401–99404 99420 99429
Consultations	99241–99245
Immunizations	G0008, G0009, G0010
Transitional Care Management Services	▪ 99495, 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

MINNESOTA

The Minnesota Health Care Homes (HCH) initiative is located in 24 Minnesota counties from which intervention group beneficiaries are identified from participating HCHs. Comparison group beneficiaries are drawn from the same counties. Demonstration staff requested that four counties in the southeast corner of the state (Fillmore, Houston, Olmstead, and Winona) be excluded from the evaluation because they included the Gunderson health system, which was participating in another demonstration.

Minnesota is one of two Multi-payer Advanced Primary Care Practice (MAPCP) Demonstration states that does not base PCMH status on National Committee for Quality Assurance (NCQA) Physician Practice Connection Patient-Centered Medical Home PPC®-PCMH™ recognition. Instead, it relies on a state-sponsored HCH certification program. Further, Minnesota is the only MAPCP Demonstration state that does not use a claims-based attribution algorithm for beneficiary assignment and subsequent billing for MAPCP Demonstration fees. Rather, Minnesota relies upon the individual HCHs to submit a claim for HCH services each month for each eligible patient. Because few practices have been submitting claims for HCH services, RTI developed an alternative assignment algorithm for purposes of monitoring and evaluation. To be included, beneficiaries had to meet the following MAPCP Demonstration general criteria and Minnesota-specific criteria:

- Reside in Minnesota, but NOT in Fillmore, Houston, Olmstead or Winona counties, as identified by the Zip code on the submitted claim.
- Are eligible for coverage under the Medicare FFS program on the date of service billed.
- Are not deceased.
- Have both Medicare Part A & Part B.
- Have Medicare as their primary insurer.

The beneficiary assignment algorithm is similar to that used by other states, in that it uses a 24-month look-back and plurality of evaluation and management (E&M) visits. Briefly, a Medicare FFS beneficiary was determined to be loyal to a participating HCH according to the most common claims-based assignment algorithm used by the other seven MAPCP Demonstration initiatives, which is a 24-month look-back period and plurality of E&M visits to primary care providers. To operationalize this assignment algorithm, for each beneficiary we determine if the plurality of the beneficiary's E&M visits to primary care providers were billed by an actively participating HCH. When using Medicare claims data for beneficiary assignment, we use the taxpayer identification number (TIN) as the unit of assignment. Because one TIN can be used by many practices, several participating HCHs (and non-HCHs) may be grouped together under a single TIN. Thus, the number of active participating HCHs is less than the number of TINs represented in our evaluation sample. E&M codes were: 99201–99215, 99304–99350, 99381–99387, 99391–99397, 99495–99496, G0402, G0438, and G0439. FQHC/RHC revenue codes were 0521, 0522, 0524 and 0525. Medicare FFS beneficiaries and participating HCHs were added quarterly to the intervention group based upon the steps above.

NEW YORK

1. Use a look-back period of most recent 24 months for which claims were available, with the look-period shall generally ending on either June 30th or December 31st of any given year.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in New York.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Select all claims for beneficiaries identified in Step 2 with qualifying CPT Codes in the look-back period (most recent 24 months) where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant, or where the provider is an FQHC.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or a RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
4. Assign beneficiaries to the provider with whom they had the greatest number of qualifying claims. Identify and define a provider by the tax ID (physician) or provider ID (OPD).
5. If beneficiaries had an equal number of qualifying claims to more than one provider, assign them first to the one with the most preventive office visit claims and, if that is equal, to the one with the most recent visit.

6. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes	
Office/Outpatient Visit E&M	99201–99205 99211–99215 99354–99355
Office Visit Preventive	99381–99387 99391–99397 99401–99404 99420, 99429
Medicare Covered Wellness Visits	G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) G0438—Annual Wellness Visit, First Visit G0439—Annual Wellness Visit, Subsequent Visit
Consultations	99241–99245
Nursing Home and Home Care	99304–99310 99315–99316, 99318 99324–99328 99332, 99334–99350 99374–99380
Telemedicine	99444
FQHC Global Visit Code (from institutional claim form)	Revenue Codes 0521 = Clinic Visit by Member to RHC/FQHC 0522 = Home Visit by RHC/FQHC Practitioner
Transitional Care Management Services	99495, 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

NORTH CAROLINA

1. Use a look-back period of the most recent 18 months for which claims are available.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in North Carolina.
 - Not be dually eligible (i.e., not have both Medicare & Medicaid).
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Select all claims for beneficiaries identified in Step 2 with qualifying CPT Codes in the look-back period (most recent 18 months) where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant, or where the provider is an FQHC.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or a RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
4. Assign beneficiaries to the practice where they had the greatest number of qualifying claims. Define a practice by the tax ID (physician) or provider ID (OPD).
5. If beneficiaries had an equal number of qualifying claims to more than one practice, assign them to the one with the most recent visit.

6. Run this beneficiary assignment algorithm every 3 months.

	Qualifying CPT codes
Office/Outpatient Visit E&M	99201–99205 99211–99215
Medicare Covered Wellness Visits	G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) G0438—Annual Wellness Visit, First Visit G0439—Annual Wellness Visit, Subsequent Visit
FQHC—Global Visit (billed as a revenue code on an institutional claim form)	0521 = Clinic Visit by Member to RHC/FQHC 0522 = Home Visit by RHC/FQHC Practitioner
Transitional Care Management Services	99495 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

PENNSYLVANIA

1. Use a look-back period of the most recent 12–24 months for which claims are available. Use a tiered approach to beneficiary assignment.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in Pennsylvania.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Use a two-tiered approach to beneficiary assignment:
 - **Tier 1**—Select all claims for beneficiaries identified in Step 2 with the following qualifying CPT Codes in the most recent 12 months where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant, or where the provider is an FQHC.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or a RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
 - **Tier 2**—If no claims are identified for a beneficiary identified in Step 2 above, look at all claims in the past 24 months meeting the above criteria.
4. Assign beneficiaries to the practice where they had the greatest number of qualifying claims (either in the past 12 months as identified in Tier 1 or in the past 24 months as identified in

Tier 2, if the beneficiary had no claims in the most recent 12 months). Identify a practice by the tax ID (physician) or provider ID (OPD).

5. If beneficiaries had an equal number of qualifying visits to more than one practice, assign them beneficiary to the one with the most recent visit.
6. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes
E&M—Office or Other Outpatient Services <ul style="list-style-type: none"> ▪ New Patient: 99201–99205 ▪ Established Patient: 99211–99215
Consultations—Office or Other Outpatient Consultations <ul style="list-style-type: none"> ▪ New or Established Patient: 99241–99245
Home Services <ul style="list-style-type: none"> ▪ New Patient: 99341–99345 ▪ Established Patient: 99347–99350
Preventive Medicine Services <ul style="list-style-type: none"> ▪ New Patient: 99381–99387 ▪ Established Patient: 99391–99397
Medicare Covered Wellness Visits <ul style="list-style-type: none"> ▪ G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) ▪ G0438—Annual Wellness Visit, First Visit ▪ G0439—Annual Wellness Visit, Subsequent Visit
Counseling Risk Factor Reduction and Behavior Change Intervention <ul style="list-style-type: none"> ▪ New or Established Patient Preventive Medicine, Individual Counseling: 99401–99404 ▪ New or Established Patient Behavior Change Interventions, Individual: 99406–99409 ▪ New or Established Patient Preventive Medicine, Group Counseling: 99411–99412
FQHC—Global Visit (billed as a revenue code on an institutional claim form) <ul style="list-style-type: none"> ▪ 0521 = Clinic Visit by Member to RHC/FQHC ▪ 0522 = Home Visit by RHC/FQHC Practitioner
Transitional Care Management Services <ul style="list-style-type: none"> ▪ 99495 ▪ 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

RHODE ISLAND

1. Use a look-back period of the most recent 24 months for which claims are available.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in Rhode Island.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and are enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Select all claims for beneficiaries identified in Step 2 with the following qualifying CPT Codes in the look-back period (most recent 24 months) where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant, or where the provider is an FQHC.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or a RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
4. Assign beneficiaries to the practice where they had the greatest number of qualifying claims. Identify a practice by the tax ID (physician) or provider ID (OPD).
5. If beneficiaries had an equal number of qualifying visits to more than one practice, assign them to the one with the most recent visit.

6. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes
E&M—Office or Other Outpatient Services <ul style="list-style-type: none"> ▪ New Patient: 99201–99205 ▪ Established Patient: 99211–99215
Consultations—Office or Other Outpatient Consultations <ul style="list-style-type: none"> ▪ New or Established Patient: 99241–99245
Nursing Facility Services <ul style="list-style-type: none"> ▪ E&M New/Established Patient: 99304–99306 ▪ Subsequent Nursing Facility Care: 99307–99310
Domiciliary, Rest Home (e.g., Boarding Home), or Custodial Care Service <ul style="list-style-type: none"> ▪ Domiciliary or Rest Home Visit New Patient: 99324–99328 ▪ Domiciliary or Rest Home Visit Established Patient: 99334–99337
Home Services <ul style="list-style-type: none"> ▪ New Patient: 99341–99345 ▪ Established Patient: 99347–99350
Prolonged Services—Prolonged Physician Service With Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99354 and 99355
Prolonged Services—Prolonged Physician Service Without Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99358 and 99359
Preventive Medicine Services <ul style="list-style-type: none"> ▪ New Patient: 99381–99387 ▪ Established Patient: 99391–99397
Medicare Covered Wellness Visits <ul style="list-style-type: none"> ▪ G0402—Initial Preventive Physical Exam (“Welcome to Medicare” Visit) ▪ G0438—Annual Wellness Visit, First Visit ▪ G0439—Annual Wellness Visit, Subsequent Visit
Counseling Risk Factor Reduction and Behavior Change Intervention <ul style="list-style-type: none"> ▪ New or Established Patient Preventive Medicine, Individual Counseling: 99401–99404 ▪ New or Established Patient Behavior Change Interventions, Individual: 99406–99409 ▪ New or Established Patient Preventive Medicine, Group Counseling: 99411–99412
Other Preventive Medicine Services—Administration and Interpretation <ul style="list-style-type: none"> ▪ 99420
Other Preventive Medicine Services—Unlisted Preventive <ul style="list-style-type: none"> ▪ 99429
FQHC—Global Visit (billed as a revenue code on an institutional claim form) <ul style="list-style-type: none"> ▪ 0521 = Clinic Visit by Member to RHC/FQHC ▪ 0522 = Home Visit by RHC/FQHC Practitioner
Transitional Care Management Services <ul style="list-style-type: none"> ▪ 99495 ▪ 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

VERMONT

1. Use a look-back period of the most recent 24 months for which claims are available.
2. Identify all Medicare beneficiaries meeting the following criteria as of the last day in the look-back period:
 - Reside in Vermont.
 - Have both Medicare Parts A & B.
 - Are covered under the traditional Medicare FFS Program and not enrolled in a Medicare Advantage or other Medicare health plan.
 - Have Medicare as the primary payer.
3. Select all claims for beneficiaries identified in Step 2 with the following qualifying CPT Codes in the look-back period (most recent 24 months) where the provider specialty is internal medicine, general medicine, geriatric medicine, family medicine, nurse practitioner, or physician assistant or where the provider is an FQHC.
 1. Check for the CPT codes on the physician file. Keep the date of visit and performing NPI from the physician claim.
 2. **CAH/RHC identification:** Check for these CPT codes on the OPD file where the provider is a CAH or a RHC: 1300–1399, 3400–3499, 3800–3999, or 8500–8599.
 3. **FQHC:** Check revenue codes for the visit codes listed below where the provider is an FQHC (facility type 7 and service type 1, 3, or 7).
 4. Keep the date of visit, attending NPI, group NPI, and the provider ID from the OPD claim.
 5. Combine the OPD and physician claims to create one file for beneficiary assignment.
 6. Merge on specialty code from NPPES file (taxonomy code). Drop claims that don't match specialties listed above. This will remove claims from all nonspecified specialties (e.g., psychiatric FQHC providers).
4. Assign beneficiaries to the practice where they had the greatest number of qualifying claims. Identify a practice by the tax ID (physician) or provider ID (OPD).
5. If beneficiaries had an equal number of qualifying visits to more than one practice, assign them to the one with the most recent visit.

6. Run this beneficiary assignment algorithm every 3 months.

Qualifying CPT codes
E&M—Office or Other Outpatient Services <ul style="list-style-type: none"> ▪ New Patient: 99201–99205 ▪ Established Patient: 99211–99215
Consultations—Office or Other Outpatient Consultations <ul style="list-style-type: none"> ▪ New or Established Patient: 99241–99245
Nursing Facility Services <ul style="list-style-type: none"> ▪ E&M New/Established Patient: 99304–99306 ▪ Subsequent Nursing Facility Care: 99307–99310
Domiciliary, Rest Home (e.g., Boarding Home), or Custodial Care Service <ul style="list-style-type: none"> ▪ Domiciliary or Rest Home Visit New Patient: 99324–99328 ▪ Domiciliary or Rest Home Visit Established Patient: 99334–99337
Home Services <ul style="list-style-type: none"> ▪ New Patient: 99341–99345 ▪ Established Patient: 99347–99350
Prolonged Services—Prolonged Physician Service With Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99354 and 99355
Prolonged Services—Prolonged Physician Service Without Direct (Face-to-Face) Patient Contact <ul style="list-style-type: none"> ▪ 99358 and 99359
Preventive Medicine Services <ul style="list-style-type: none"> ▪ New Patient: 99381–99387 ▪ Established Patient: 99391–99397
Medicare Covered Wellness Visits <ul style="list-style-type: none"> ▪ G0402—Initial Preventive Physical Exam (“Welcome to Medicare” visit) ▪ G0438—Annual Wellness Visit, First Visit ▪ G0439—Annual Wellness Visit, Subsequent Visit
Counseling Risk Factor Reduction and Behavior Change Intervention <ul style="list-style-type: none"> ▪ New or Established Patient Preventive Medicine, Individual Counseling: 99401–99404 ▪ New or Established Patient Behavior Change Interventions, Individual: 99406–99409 ▪ New or Established Patient Preventive Medicine, Group Counseling: 99411–99412
Other Preventive Medicine Services—Administration and Interpretation <ul style="list-style-type: none"> ▪ 99420
Other Preventive Medicine Services—Unlisted Preventive <ul style="list-style-type: none"> ▪ 99429
FQHC—Global Visit (billed as a revenue code on an institutional claim form) <ul style="list-style-type: none"> ▪ 0521 = Clinic Visit by Member to RHC/FQHC ▪ 0522 = Home Visit by RHC/FQHC Practitioner
Transitional Care Management Services <ul style="list-style-type: none"> ▪ 99495 ▪ 99496

E&M = evaluation and management; FQHC = federally qualified health center; RHC = rural health clinic.

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**APPENDIX C:
DETAILED MEASURE SPECIFICATIONS FOR MEDICARE BASELINE
DEMOGRAPHIC, HEALTH STATUS, AND PRACTICE AND AREA-LEVEL
CHARACTERISTICS**

Demographic Characteristics

The following information was obtained from the Medicare Enrollment Data Base:

- Beneficiary age at the time of first assignment to an intervention or comparison group
 - Age less than 65 (%)
 - Age 65 to 75 (%)
 - Age 76 to 85 (%)
 - Age greater than 85 (%)
 - Mean age
- White (%)
- Urban place of residence (%)—based on ZIP code of residence at the time of first assignment to a Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration or comparison group practice and the U.S. Census Bureau’s definition of “urban”
- Female (%)
- Medicaid (%)—enrolled in Medicaid at any time the year before first assignment
- Disabled (%)—based on Medicare’s original reason for entitlement
- End-stage renal disease (ESRD) (%)—at any time the year before first assignment
- Institutionalized (%)—two nursing home visits (*Current Procedural Terminology* [CPT] codes 99324–99337) within 120 days using Medicare claims data for the one year before first assignment

Health Status Characteristics

Baseline Hierarchical Conditions Category (HCC) risk score. The HCC risk adjustment model uses beneficiary demographic information (e.g., gender, age, Medicaid status, disability status) and diagnosis codes reported in Medicare claims data from the previous year to predict payments for the current year. This risk score often is used as a proxy for a beneficiary’s

health status (severity of illness). It is based on the average of all Medicare fee-for-service (FFS) beneficiaries' health risk scores, which is calculated using the CMS HCC risk adjustment model.

The community HCC risk score was calculated for beneficiaries using claims one year before their initial assignment to a MAPCP Demonstration provider or a comparison group practice, unless one or more of the following criteria were met:

- New enrollee: If the beneficiary met the MAPCP Demonstration eligibility criteria⁴⁰ during the baseline year for fewer than 9 months (75%), a new enrollee HCC score was calculated using only the demographic characteristics.
- Institutionalized: Beneficiaries were assigned an institutional risk score if they had two or more nursing home evaluation and management (E&M) visits within 120 days.
- ESRD: For beneficiaries with ESRD during the baseline period, the HCC community risk score was multiplied by the ESRD factor (8.937573), and, thus, they automatically were assigned to the highest HCC risk score quartile.

Beneficiaries were then assigned to one of the following three HCC risk score categories created using the 2011 HCC risk scores provided in the historical Denominator file from Actuarial Research Corporation (ARC). The cut-off points were determined to contain 25 percent of the predicted healthiest beneficiaries in the low category; 25 percent of the predicted sickest beneficiaries in the high category; and the remaining 50 percent of beneficiaries in the medium category.

Charlson index. Claims were searched for the following diagnosis codes in the Charlson categories (Charlson, Pompei, Ales, & MacKenzie, 1987). If any were found, the category had a value of 1, everything else had a value of 0. Weighted categories were added to create Charlson score.

- AMI (acute myocardial infarction) = 410, 412
- CHF (congestive heart failure) = 428
- PVD (peripheral vascular disease) = 441, 4439, 7854, V434
- CVD (cerebrovascular disease) = 430, 431, 432, 433, 434, 435, 436, 437, 438
- Dementia = 290

⁴⁰ Beneficiaries did not have to reside in the MAPCP Demonstration area during the baseline period to be considered eligible. All other MAPCP Demonstration eligibility criteria were applicable.

- COPD (chronic obstructive pulmonary disease) = 490, 491, 492, 493, 494, 495, 496, 500, 501, 502, 503, 504, 505, or 5064
- conn_tissuedz (connective tissue disease) = 710, 714, 725
- ulcer (ulcer disease) = 531, 532, 533, 534
- liverdz_mild (mild liver disease) = 571
- Diabetes (diabetes without complications) = 249, 7915, 9623, 250, 2500, 2501, 2502, 2503, V5867, 99657
- Hemiplegia = 342, 3441
- CRF (moderate or severe chronic renal failure) = 582, 583, 585, 586, 588
- DMwcc (diabetes with complications) = 2504, 2505, 2506, 2507, 2508, 2509
- Neoplasia = 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 170, 171, 172, 174, 175, 176, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195
- Leukemia = 205, 206, 207, 208
- Lymphoma = 200, 201, 202, 203, 204
- liverdz_modsev (moderate or severe liver disease) = 5722, 5723, 5724, 5728, 4560, 4561, 4562
- cancer_mets (metastatic solid tumor) = 196, 197, 198, 199
- HIV = 042, 043, 044
- CHARL=SUM (AMI CHF PVD CVD Dementia COPD conn_tissuedz ulcer liverdz_mild Diabetes) + 2 *(Hemiplegia + CRF + DMwcc + Neoplasia + Leukemia + Lymphoma) + 3 *(liverdz_modsev) + 6 * (cancer_mets + HIV)

Chronic conditions. Beneficiaries were identified as having a chronic condition if they had one inpatient claim with the clinical condition as the primary diagnosis or two or more physician or outpatient department (OPD) claims for an E&M service (CPT codes 99201–99429) with an appropriate primary or secondary diagnosis. The physician and/or OPD claims had to occur on different days. Below is the list of International Classification of Diseases, Ninth Revision (ICD-9), diagnosis codes associated with the chronic conditions:

- Heart failure = 4280

- Coronary artery disease = 41400–41407, 41000–41092, 4142, 4143, 4148, 4149, 4110–41189, 4130–4139, 412
- Other respiratory disease = 496, 492, 493, 494, 4912
- Diabetes without complications = 2500, 2490
- Diabetes with complications = 2501–2509, 2491–2499, 7915, 9623, V5867, 99657
- Essential hypertension = 401
- Valve disorders = 404
- Cardiomyopathy= 425
- Acute and chronic renal disease = 2504, 4039, 5811, 5818, 5819, 5829, 5939, 5996, 7100, 7531, 7910, 582, 585, 58381
- Renal failure = 584, 586
- Peripheral vascular disease = 4439
- Lipid metabolism disorders = 272
- Cardiac dysrhythmias and conduction disorders = 427, 426
- Dementias = 290
- Strokes = 434, 433, 431, V1259
- Chest pain = 7865
- Urinary tract infection = 5990, 5999
- Anemia = 285
- Malaise and fatigue (including chronic fatigue syndrome) = 7807
- Dizziness, syncope, and convulsions = 78002, 78009, 78093, 78097, 78039, 7802, 7804
- Disorders of joint = 719
- Hypothyroidism = 244

Practice and Area-Level Characteristics

Practice type. A dummy indicator was created using the Provider ID on the claims data to determine if the beneficiary's assigned practice was office based, a federally qualified health center (FQHC), a rural health clinic (RHC), or a critical access hospital (CAH).

Percentage of providers in the practice who were primary care providers. This is a measure of the proportion of providers in a beneficiary's assigned practice that were primary care providers. This measure was created from the claims data, using provider specialty data for the unique providers that billed to a practice.

Size of the assigned practice. A binary variable was constructed to indicate whether a beneficiary's assigned practice had more than one provider (i.e., was or was not a solo practice). This measure was created from the claims data, using the number of unique providers that billed to a practice.

Household income. This is a measure of the median household income for the beneficiary's county of residence in 2010 in the Area Resource File.

Population density. This is a measure of the median population density for the beneficiary's county of residence in 2010 in the Area Resource File.