

# Evaluation of CMS' FQHC APCP Demonstration

## Final First Annual Report

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## Preface

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RAND is conducting an independent evaluation of the Federally Qualified Health Center (FQHC) Advanced Primary Care Practice (APCP) demonstration for CMS. The evaluation is studying the processes and challenges involved in transforming FQHCs into APCPs and assessing the effects of the APCP model on access, quality, and cost of care provided to Medicare and Medicaid beneficiaries served by FQHCs. In addition, the evaluation will assess whether the demonstration was budget-neutral and whether the goals of the demonstration were met.

This first annual report, written by RAND, describes the approach RAND is taking to its mixed-methods evaluation and results available at the time this report is written. This is the first of three planned annual reports that RAND will prepare during the course of this evaluation. The contents and format of this report are designed to address three key policy questions relevant to CMS's APCP Demonstration and its Evaluation.

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# Table of Contents

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Preface.....	i
Table of Contents.....	ii
Table of Exhibits.....	vi
Executive Summary.....	xii
Abbreviations.....	xiv
Glossary.....	xvi
I. Introduction.....	1
I.1. Overview of the Demonstration.....	1
I.2. Overview of the Annual Report.....	2
I.3. Data Sources.....	3
I.4. Introduction to the Evaluation Design: Three Key Policy Questions.....	4
I.4A. Key Policy Question 1: What Are the Effects of Interventions Designed to Stimulate APC Principles on Practice Characteristics and on NCQA Recognition Status?.....	4
I.4B. Key Policy Question 2: Do Interventions Designed to Stimulate APCP Principles Activate the Quality-of-Care Cascade Such That Changes in Structures Are Associated with Improvements in Processes and Outcomes? Do CMS’s Demonstration Interventions Do This Differently from Other Interventions Widely Disseminated Throughout the Nation?.....	5
I.4C. Key Policy Question 3: Which Practice-Site Characteristics Are Associated with Observed Changes in Structures, Including NCQA Recognition Status, Processes, and Outcomes?.....	5
II. Selection of the Demonstration and Comparison Sites and of the Study Population.....	6
II.1. Overview of the FQHCs APCP Demonstration.....	6
II.2. Eligibility and Expectations of Demonstration FQHCs.....	8
II.2A. Eligibility for Demonstration Participation.....	8
II.2B. Requirements of FQHC Participation in the APCP Demonstration.....	10
II.3. Selection of Demonstration FQHCs.....	12
II.3A. Selection of Demonstration FQHCs by CMS.....	12
II.3B. Attrition of FQHCs Since the Demonstration Was Initiated.....	15
II.4. Demonstration and Comparison FQHCs and the Beneficiaries Attributed to Them.....	18
II.4A. Attribution of Beneficiaries to Demonstration and Comparison FQHCs.....	18
II.4B. Characteristics of Participating FQHCs at Demonstration Initiation and Now.....	20
II.4C. Characteristics of Beneficiaries Attributed to Demonstration FQHCs at Demonstration Initiation and Now.....	21
II.4D. Comparison FQHCs and Beneficiaries Enrolled in Them.....	23
II.4E. Selection of the Comparison Sites and Beneficiaries Attributed to Comparison Sites .....	24
II.4F. Characteristics of Demonstration and Comparison FQHCs and Attributed Beneficiaries.....	26
II.4G. Propensity Weighting of Comparison Sites.....	29
II.5. Selection of an Additional Set of Comparison Sites and Beneficiaries Using PCCs.....	44
II.5A. Selection Bias.....	44
II.5B. Other Threats to Internal Validity.....	45

II.5C. Decision to Include PCCs as a Comparison Group .....	46
II.5D. Next Steps.....	47
III. Assessing the Structure of FQHCs .....	48
III.1. NCQA Recognition.....	48
III.1A. Overview of NCQA Recognition.....	48
III.2. Baseline NCQA Recognition at Demonstration Initiation .....	54
III.3. Progress Toward NCQA Recognition .....	55
III.4. Readiness Assessment Survey .....	56
III.4A. RAS Overview .....	56
III.4B. Progress Towards Readiness Assessment Based Upon Readiness Self-Assessment Scores for Participating.....	57
III.5A. Overview of CASE Survey.....	60
III.5B. CASE Survey Preliminary Results Regarding FQHC Quality and Efficiency.....	62
IV. Experiences of Demonstration and Comparison FQHC Site Leaders with CMS’ and Other APCP Transformation Activities .....	66
IV.1. FQHC Site Leader Interviews: Preliminary Analysis .....	66
IV.2. Methods .....	66
IV.2A. Sampling and Recruitment.....	66
IV.3. Preliminary Findings .....	70
IV.3A. Reasons for Participating in the FQHC APCP Demonstration.....	70
IV.3B. General Movement Toward PCMH.....	70
IV.3C. When FQHC Obtained or Plans to Obtain NCQA Recognition.....	77
IV.3D. Focus on Medicare or Other Types of Clients .....	78
IV.3E. Challenges with PCMH Implementation .....	80
IV.3F. Specific PCMH Component Challenges of Comparison Sites.....	93
IV.3G. Facilitators of Implementing PCMH .....	95
IV.3H. Comparison Site Facilitators with PCMH Implementation.....	99
IV.3I. Expected Visibility of PCMH Changes to Patients and Caregivers.....	100
V. Experiences of Primary Care Associations with CMS’ and Other APCP Transformation Activities .....	104
V.1. PCA Site Interviews (Activity 4) Preliminary Analysis.....	104
V.2. Methods.....	105
V.2A. Sampling and Recruitment.....	105
V.2B. Data Collection.....	105
V.2C. Analysis .....	105
V.3. Preliminary Findings.....	106
V.3A. Differences in PCA Support to Demonstration Versus Nondemonstration Sites ....	106
V.3B. Barriers to Providing Technical Assistance to Demonstration Sites.....	108
V.3C. PCA Suggestions for the Demonstration Moving Forward .....	112
VI. Interventions to Motivate Transformation to PCMH Attributes .....	116
VI.1. Overview of the Five Activities and Incentives that Comprise the CMS APCP Demonstration Intervention .....	116
VI.1A. Approach to the Analysis of Key Policy Question 1A: Intervention Exposure for Intervention and Comparison Sites .....	116
VI.2. Intervention Component #1: Quarterly Financial Incentives .....	118
VI.2A. Overview.....	118
VI.2B. Payment Variability .....	119
VI.2C. How Do the FQHCs Use Their APC Payments? (Research Question 1.1A.1) .....	120

VI.3. Intervention Component #2: Technical Assistance Delivered by NCQA.....	123
VI.3A. TA Delivered by NCQA.....	123
VI.3B. Planned Future Quantitative Analyses Pertinent to NCQA Interventions.....	126
VI.3C. CASE Survey Preliminary Results Regarding Participation in the NCQA Application and Advancement Process.....	127
VI.3D. Qualitative Analyses Pertinent to TA Delivered by NCQA.....	130
VI.4. Intervention Component #3: Technical Assistance Delivered by AIR.....	133
VI.4A. Overview of AIR TA.....	133
VI.4B. Participation in AIR Technical Assistance Webinars.....	138
VI.4C. Intervention Component #3B: Technical Assistance Offered and Delivered by State PCAs.....	154
VI.4D. CASE Survey Analyses Pertinent to AIR Technical Assistance and Transformation .....	160
VI.4E. Qualitative Analyses of Site Leader Interviews Pertinent to AIR Technical Assistance.....	167
VI.5. Intervention Component #4: Feedback Reports to Motivate Transformation.....	170
VI.5A. Overview.....	170
VI.5B. Quantitative Assessment of Site-Level Uptake of Feedback Reports.....	171
VI.5C. Clinician and Staff Experience (CASE) Analyses Pertinent to Site-Level Experiences with Feedback Reports.....	173
VI.5D. Site Leader Qualitative Interview Analyses Pertinent to Site-Level Experiences with Feedback Reports.....	177
VI.6. Intervention Component #5: Participation in Other Initiatives That Redesign Care Delivery or Provide Supplemental Funding to Support PCMH Transformation.....	178
VI.6A. Overview.....	178
VI.6B. Measures of Participation in Additional Initiatives and Demonstrations.....	179
VI.6C. Qualitative Analyses of Site Leader Interviews Report of the Use of Technical Assistance and Funding to Support APCP Transformation from Non-Demonstration Sources.....	182
VI.7. Summary of Qualitative Lessons Learned for Improving Technical Assistance.....	185
VII. Claims-Based Quantitative Measures Reported.....	187
VII.1. Claims-Based Quantitative Measure Specifications.....	187
VII.1A. Quarterly Medicare Expenditures.....	187
VII.1B. Utilization.....	189
VII.1C. Process-of-Care Measures.....	193
VII.2. Trends in Medicare Payments Per Beneficiary.....	194
VII.2A. Unadjusted Trends in Medicare Payments Per Beneficiary.....	194
VII.2B. Unadjusted Trends in Utilization.....	199
VII.2C. Regression Methodology.....	204
VII.2D. Regression Analysis Results.....	210
VII.2E. Budget Neutrality Approach and Results.....	223
VIII. Medicaid Claims Analyses.....	226
VIII.1. Approach to Medicaid Beneficiaries.....	226
VIII.1A. Overview of Medicaid Files.....	226
VIII.1B. MSIS State Selection.....	226
VIII.1C. Challenges with Medicaid Claims Data.....	230
VIII.D. Methods for Medicaid Analyses.....	232
VIII.2. Results of Medicaid Analyses.....	234

VIII.3. Next Steps for Medicaid Analyses.....	234
IX. Beneficiary Survey .....	235
IX.1. Development of the Beneficiary Survey .....	235
IX.2. Fielding the Beneficiary Survey .....	238
IX.2A. Mode of Administration.....	238
IX.2B. Population to be Surveyed .....	238
IX.3. Fielding the Baseline Survey.....	239
IX.4. Beneficiary Survey Items That Will Inform Evaluation Research Questions.....	244
IX.4A. Visits to the Attributed Provider.....	244
IX.5. Subgroup Analyses .....	299
IX.5A. Overview of Beneficiaries Attributed to Demonstration vs. Comparison Sites .....	299
IX.5B. Subgroup Comparisons .....	299
Appendix A: FQHC Site Interviews .....	316
Appendix B: PCA Interviews .....	321
Appendix C: Medicare Claims Analyses.....	323
Appendix D: Medicaid Claims Analyses.....	328

## Table of Exhibits

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Exhibit II.1: Eligibility Requirements for FQHC Applications to the FQHC APCP Demonstration.....	9
Exhibit II.2: Terms and Conditions Required by CMS for Participation in the FQHC APCP Demonstration.....	11
Exhibit II.3: FQHC Inclusion Eligibility Criteria.....	13
Exhibit II.4: Disposition of 1,558 Demonstration Applicants.....	15
Exhibit II.5: Demonstration Participation Over Time.....	17
Exhibit II.6: Characteristics of Participating FQHCs.....	21
Exhibit II.7: Characteristics of Medicare Beneficiaries Attributed to Participating FQHCs Using Plurality Rule.....	22
Exhibit II.8: Exclusions Applied in Identification of FQHC Comparison Sites.....	26
Exhibit II.9a: Beneficiary Characteristics of FQHCs by Demonstration and Comparison Group Status (November 2013).....	27
Exhibit II.9b: Site-Level Characteristics of FQHCs by Demonstration and Comparison Group Status (November 2013).....	28
Exhibit II.10a: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Beneficiary characteristics.....	33
Exhibit II.10b: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Comorbidities (derived from Hierarchical Condition Categories (HCC)) scores.....	34
Exhibit II.10c: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Interactions between comorbidities and disabled status.....	36
Exhibit II.10d: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Interactions between comorbidities.....	37
Exhibit II.10e: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Site characteristics.....	38
Exhibit II.10f: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Cost, Utilization, and Process Metrics.....	41
Exhibit II.11: Unweighted and Weighted Comparisons of Baseline Outcomes, FQHC Demonstration and FQHC Comparison Sites.....	43
Exhibit III.1: NCQA PCMH Standards and Elements.....	49
Exhibit III.2: NCQA Scoring Algorithm.....	54
Exhibit III.3: Baseline NCQA Recognition for Demonstration and Comparison Sites.....	55
Exhibit III.4: Trends in NCQA Recognition Levels Achieved by Participating FQHCs, November 2011–May 2013.....	56



Exhibit III.5: Trends in Readiness Self-Assessment Scores for Participating FQHCs, by NCQA PCMH Standard.....	58
Exhibit III.6: Trends in Readiness Self-Assessment Scores Among Participating FQHCs, by NCQA PCMH Element.....	59
Exhibit III.7: Total CASE Survey Response Rates .....	61
Exhibit III.8: Distribution of Survey Responses by Site .....	61
Exhibit III.9: CASE Survey Scale Score Summaries .....	63
Exhibit III.10: CASE Survey Responses Pertinent to Clinician and Staff Satisfaction with and Experience of their Job .....	64
Exhibit III.11: CASE Survey Responses Pertinent to Site-Level Quality and Efficiency.....	64
Exhibit III.12: CASE Survey Responses Pertinent to Clinician and Staff Experiences Obtaining Specialty Services .....	65
Exhibit IV.1: Summary of NCQA PCMH 2011 Standards .....	85
Exhibit VI.1: Specific Research Questions Associated with RAND Key Policy Question 1A, Intervention Uptake .....	117
Exhibit VI.2: Distribution of FQHC Quarterly Payments Across Seven Quarters Overall.....	119
Exhibit VI.3: Distribution of FQHC Quarterly Payments Across Seven Quarters Overall.....	120
Exhibit VI.4: Percent Participation in NCQA Webinars by Cluster.....	124
Exhibit VI.5: Number of NCQA Webinars Observed by Cluster .....	124
Exhibit VI.6: Cluster Ranking of Participation in any NCQA Webinar.....	125
Exhibit VI.7: CASE Survey Responses Pertinent to Site Awareness of Participation as a Demonstration Site.....	128
Exhibit VI.8: CASE Survey Responses Pertinent to Participation as a Demonstration Site.....	129
Exhibit VI.9: States by PCA Cluster.....	135
Exhibit VI.10: AIR Webinars .....	137
Exhibit VI.11: Cumulative Percent of Demonstration Sites Participating in at Least One AIR Webinar by Quarter by Cluster .....	139
Exhibit VI.12: Percentage of Demonstration Sites Participating in at Least One AIR Webinar by Quarter by Cluster.....	140
Exhibit VI.13: Percentage of Webinars Observed by Cluster: Health Center Practice Transformation.....	141
Exhibit VI.14: Percent of Sites Participating in the Readiness Assessment Survey Webinar by Cluster.....	142
Exhibit VI.15: Percent of Sites Participating in the RAND Evaluation Webinar by Cluster .....	142
Exhibit VI.16: Participation of Sites in PCMH Standards Webinars by Cluster.....	143
Exhibit VI.17: On-Demand Learning Available on the CMS Collaboration Site .....	144
Exhibit VI.18: Participation of Sites in Documentation Preparation Webinars by Cluster.....	145
Exhibit VI.19: Participation of Sites in Foundational Changes Webinars by Cluster .....	146
Exhibit VI.20: Participation of Sites in CMS and Partner Webinars by Cluster .....	147
Exhibit VI.21: Cluster Ranking of Participation in AIR Webinars .....	148

Exhibit VI.22: Summary Cluster Rankings of Percentage of Demonstration Sites Participating in AIR Webinars Using Three Different Criteria for Participation .....	149
Exhibit VI.23: Participation in Office Hours by Cluster .....	150
Exhibit VI.24: AIR Office Hours.....	151
Exhibit VI.25: Resource Documents Available on the CMS Collaboration Site .....	154
Exhibit VI.26: Percent of State PCAs that Report Any Training Activity, August 2013 .....	155
Exhibit VI.27: Percent of State PCAs that Report Receiving Any Training, August 2013 .....	156
Exhibit VI.28: Percent of State PCAs that Report Any Training, September 2013 .....	157
Exhibit VI.29: Percent of State PCAs that Report Receiving Any Training, September 2013 ..	158
Exhibit VI.30: Percentage Change in TA Offerings Between August and September 2013 by Cluster .....	159
Exhibit VI.31: Distribution of “Site Readiness” Categories to Demonstration FQHCs by Cluster .....	160
Exhibit VI.32: CASE Survey Responses Pertinent to Webinar Participation as a Form of Technical Assistance.....	162
Exhibit VI.33: CASE Survey Responses Pertinent to Coordination of Care .....	164
Exhibit VI.34: Percentage of Demonstration FQHCs Ever Logging into the Feedback Website to Access Reports.....	172
Exhibit VI.35: Days Since Demonstration FQHCs Last Logged Into Feedback Report Portal (%) .....	173
Exhibit VI.36: CASE Survey responses Pertinent to Quarterly Site-Level Feedback Reports on Utilization, Costs, or Quality .....	174
Exhibit VI.37: CASE Survey Responses Pertinent to Quarterly Site-Level Feedback Reports on Specific Medicare Beneficiaries .....	176
Exhibit VI.38: Counts of FQHC Participation in Other CMS, HRSA, or Other PCMH or QI Initiatives Pertinent to Transformation .....	180
Exhibit VI.39: Frequency of Participation of Demonstration and Comparison FQHCs in Specified PCMH or QI Initiatives Pertinent to Transformation .....	181
Exhibit VII.1: List of Primary Care Provider Specialty Codes .....	189
Exhibit VII.2: List of Specialty Care Provider Specialty Codes .....	189
Exhibit VII.3: List of Potentially Planned Procedures Used to Create the Yale ‘Unplanned’ Readmissions Measure.....	191
Exhibit VII.4: List of Acute Conditions and Complications of Care Used to Create the Yale "Unplanned" Readmissions Measure.....	192
Exhibit VII.5. List of Chronic Ambulatory Care Sensitive Conditions.....	193
Exhibit VII.6: Process of Care Measures.....	194
Exhibit VII.7: Unadjusted Trends in Total Average PBPM Medicare Payments, Baseline Q1– Demonstration Q6.....	195
Exhibit VII.8: Unadjusted Trends in Average PBPM Medicare Payments to Short-Stay, Acute Care Hospitals, Including Critical-Access Hospitals, Baseline Q1–Demonstration Q6 ....	196

Exhibit VII.9: Unadjusted Trends in Average PBPM Medicare Payments to Post-Acute Care Providers: Skilled Nursing Facilities, Long-Term Care Hospitals, and Rehabilitation Hospitals and Distinct-Part Units, Baseline Q1–Demonstration Q6 .....	196
Exhibit VII.10: Unadjusted Trends in Average PBPM Medicare Payments to FQHCs and Rural Health Centers, Baseline Q1–Demonstration Q6 .....	197
Exhibit VII.11: Unadjusted Trends in Average PBPM Medicare Payments to Hospital Outpatient Departments, Baseline Q1–Demonstration Q6.....	198
Exhibit VII.12: Unadjusted Trends in Average PBPM Medicare Payments to Primary Care and Specialty Providers, Baseline Q1–Demonstration Q6 .....	199
Exhibit VII.13: Unadjusted Trends in Hospitalization Rates for Medicare Beneficiaries, All Causes, Baseline Q1–Demonstration Q6.....	200
Exhibit VII.14: Unadjusted Trends in Emergency Department Visit Rates for Medicare Beneficiaries, Baseline Q1–Demonstration Q6 .....	201
Exhibit VII.15: Unadjusted Trends in 30-Day Unplanned Hospital Readmission Rates for Medicare Beneficiaries, Baseline Q1–Demonstration Q6 .....	202
Exhibit VII.16: Unadjusted Trends in Hospitalizations for Chronic ACSCs for Medicare Beneficiaries, Baseline Q1–Demonstration Q6 .....	203
Exhibit VII.17: Dependent Variables and Family, Link Function, and Eligibility Adjustment Used in Quarterly Report Regression Model Specifications .....	208
Exhibit VII.18: Summary of Recent Methodological Changes .....	210
Exhibit VII.19: Difference in Total Medicare Payments per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	212
Exhibit VII.20: Difference in Inpatient Admission Rate per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis.....	213
Exhibit VII.21: Difference in Hospitalization Rates for ACSCs per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis.....	214
Exhibit VII.22: Difference in ER Visit Rate per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	215
Exhibit VII.23: Difference in Percentage of Unplanned Readmissions within 30 Days per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis.....	216
Exhibit VII.24: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving an HbA1c Test in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis.....	217
Exhibit VII.25: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving a Retinal Eye Exam in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	218

Exhibit VII.26: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving LDL Cholesterol Testing in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	219
Exhibit VII.27: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving Nephropathy Monitoring in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	220
Exhibit VII.28: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving All Four Tests (HbA1C testing, LDL-C Testing, Eye Exams, and Nephropathy Monitoring) in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	221
Exhibit VII.29: Difference in Percentage of Medicare Beneficiaries with Ischemic Vascular Disease Receiving a Blood Lipid Profile in the Past Two Years, per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis .....	222
Exhibit VII.30: Summary of Difference-in-difference Estimates (Demonstration FQHCs—Comparison FQHCs) by Demonstration Quarter .....	223
Exhibit VII.31: Difference-in-Difference Estimates of Total Medicare Payments per Demonstration Quarter.....	225
Exhibit VIII.1: Three Criteria for Selecting Medicaid States Among States with the Highest Volumes of Demonstration and Comparison Sites, by Total Number of Sites .....	229
Exhibit IX.1: Overview of the Telephone Sample.....	240
Exhibit IX.2: Final Beneficiary Survey Status Report.....	242
Exhibit IX.3: Overview of Number of Call Attempts to Complete a Telephone Interview .....	243
Exhibit IX.4: Beneficiary Survey Section—Visits to the Attributed Provider .....	245
Exhibit IX.5: Beneficiary Survey—Personal Doctor or Nurse.....	248
Exhibit IX.6: Beneficiary Survey—Access and Timeliness at the Attributed Practice.....	250
Exhibit IX.7: Beneficiary Survey—Processes and Outcomes Associated with the Attributed Practice and Provider .....	254
Exhibit IX.8: Beneficiary Survey—Visits to and Experiences with Specialists (Access) .....	256
Exhibit IX.9: Beneficiary Survey—Quality/Evidence-Based Care.....	260
Exhibit IX.10: Beneficiary Survey Section—Coordination of Care .....	266
Exhibit IX.11: Beneficiary Survey Section—Participation in Decision Making .....	269
Exhibit IX.12: Beneficiary Survey—Ancillary Services.....	278
Exhibit IX.13: Beneficiary Survey Section—Outcomes .....	284
Exhibit IX.14: Beneficiary Survey—Observed/ Perceived Disparities or Social Stressors .....	289
Exhibit IX.15: Beneficiary Survey—Demographics .....	295
Exhibit IX.16: Beneficiary Survey—Help Completing Survey .....	297
Exhibit IX.17: Test of Significant Difference in Responses Between Key Demographic Populations.....	302
Appendix Exhibit A.1: FQHC Site Interview—Baseline Codebook.....	316
Appendix Exhibit B.1: PCA Leader Interview—Baseline Codebook.....	321

Appendix Exhibit C.1a: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes.....	323
Appendix Exhibit C.1b: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes.....	324
Appendix Exhibit C.2: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Utilization Outcomes.....	325
Appendix Exhibit C.3a: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Process Measures.....	326
Appendix Exhibit C.3b: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Process Measures.....	327
Appendix Exhibit D.1: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes.....	328
Appendix Exhibit D.2: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Utilization Outcomes.....	329

## Executive Summary

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In December 2009, President Barack Obama directed the Department of Health and Human Services to implement a three-year demonstration to support federally qualified health centers (FQHCs) with delivery of advanced primary care (APC) to Medicare beneficiaries. Under this demonstration, FQHCs are expected to obtain Level 3 recognition as a patient-centered medical home (PCMH) from the National Committee for Quality Assurance (NCQA) by the end of the demonstration. The goals of the demonstration are to improve the safety, effectiveness, efficiency, timeliness, and quality of care; patient access to care; adherence to evidence-based guidelines; care coordination and care management; and patient experiences with care. These improvements, in turn, may lead to better health outcomes and management of chronic conditions, decreased use of certain health care services (e.g., hospitalizations, emergency department visits, duplicative/unnecessary tests and procedures), increased use of other services (e.g., preventive services), and reductions in health care expenditures.

The demonstration provides five intervention components to support FQHC transformation into PCMHs and provision of APC to their Medicare fee-for-service beneficiaries. These five components, designed by the Centers for Medicare and Medicaid Services (CMS), are delivered by a network of organizations:

1. Participating FQHCs receive a quarterly care management payment from CMS of \$18 for each eligible Medicare beneficiary.
2. Participating FQHCs are offered technical assistance (TA) by the NCQA to help them obtain NCQA Level 3 PCMH recognition (based on 2011 NCQA standards). Specifically, participating FQHCs are offered assistance to help them complete biannual Readiness Assessment Surveys (RASs) and to prepare documentation for NCQA PCMH recognition.
3. Through an extensive learning system involving the Health Resources and Services Administration (HRSA), American Institutes for Research (AIR), and primary care associations (PCAs), FQHCs receive training and assistance to support and guide them in their transformation into advanced primary care practices (APCPs).
4. Participating FQHCs periodically receive feedback reports. The first and second reports are at the FQHC level; the third includes beneficiary-level data. The first allows FQHCs to track their performance on the RASs over time and to compare their performance with other demonstration sites. The second tracks FQHC performance on key cost and utilization measures over time for attributed Medicare beneficiaries.
5. Finally, participating FQHCs receive additional financial and infrastructure support from HRSA to cover the cost of applying for NCQA PCMH recognition and the start-up costs associated with transforming into an APCP.

RAND is conducting an independent evaluation of the FQHC APCP demonstration for CMS. The evaluation is studying the processes and challenges involved in transforming FQHCs into APCPs and assessing the effects of the APCP model on access, quality, and cost of care provided to Medicare and Medicaid beneficiaries served by FQHCs. In addition, the evaluation will assess whether the demonstration was budget-neutral and whether the goals of the demonstration were met.

As part of its evaluation strategy, RAND reports to CMS on intermediate evaluation findings each quarter and again annually. At the time of the writing of this annual report, we have completed seven quarters of the demonstration. The demonstration began in November 2011 and is now in its ninth quarter, which will conclude at the end of January 2014.

This annual report includes a

1. description of data sources (Section I)
2. description of demonstration and comparison sites (Section II)
3. description of FQHC structure, including NCQA recognition status, RAS scores, and preliminary clinician and staff experience (CASE) findings (Section III)
4. qualitative analysis of experiences of demonstration and comparison FQHC site leaders with CMS's and other APCP transformation activities (Section IV)
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7. report of Medicare claims-based metrics since demonstration initiation (Section VII)
8. initial report of Medicaid claims-based metrics (Section VIII)
9. description of the approach to the baseline beneficiary survey and early findings (Section IX)
10. series of appendixes, organized by report section, including additional materials pertinent to methods for conducting analyses.

This interim report is an introduction to the evaluation and a statement of our evaluation team's approaches to important methodological challenges that we have identified. As such, it includes documentation of the evaluation team's efforts up through the writing of this first annual report pertinent to conceptualizing, accessing, cleaning, and using data. Accordingly, much of this report summarizes methods. Where possible, this report includes preliminary data, though any analysis results presented here should be considered as early results. During the year that follows, many of these results may change as data sets become more complete and analyses are able to incorporate more dimensions. Despite this report being only an introduction to the evaluation of CMS's APCP Demonstration, it is filled with substantial and robust descriptions and analysis of the evaluation team's progress to date.

A second and third annual report will follow this one. We anticipate further presentation of results with each of the subsequent reports, as well as a more complete evaluation of the findings.

## Abbreviations

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AAAHC	Accreditation Association for Ambulatory Health Care
ACA	Affordable Care Act
ACSC	ambulatory care sensitive conditions
AHRQ	Agency for Healthcare Research and Quality
AIR	American Institutes for Research
APC	advanced primary care
APCP	advanced primary care practice
ARC	Actuarial Research Corporation
BMI	body mass index
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CASE	clinician and staff experience
CCS	Clinical Classification Software
CHPL	Certified HIT Products List
CMS	Centers for Medicare and Medicaid Services
CPC	Comprehensive Primary Care initiative
DQ	demonstration quarter
ED	emergency department
ER	emergency room
EFT	electronic fund transfer
EHR	electronic health record
EMR	electronic medical records
ESRD	end-stage renal disease
FFS	fee-for-service
FQHC	federally qualified health center
GEE	generalized estimating equations
GLM	generalized linear model
HCC	Hierarchical Condition Categories
HCPCS	Healthcare Common Procedure Coding System
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration



JC	Joint Commission
ICD-9	International Classification of Diseases, Ninth Revision
ISS	Interactive Survey System
IT	information technology
MAPCP	multipayer advanced primary care practice
MAX	Medicaid Analytic eXtract
ITT	intention to treat
MS-DRG	Medical Severity Diagnosis Related Group
MSIS	Medicaid Statistical Information System
NACHC	National Association of Community Health Centers
NCQA	National Committee for Quality Assurance
NGS	National Government Services
OMB	Office of Management and Budget
PBPM	per beneficiary per month
PBPQ	per beneficiary per quarter
PCA	primary care association
PCC	primary care clinic
PCMH	patient-centered medical home
PCMH-A	Patient-Centered Medical Home Assessment
PECOS	Provider Enrollment, Chain, and Ownership System
PHQ-4	Patient Health Questionnaire for Depression and Anxiety
PTAN	provider transaction access number
POC	point of contact
PQI	Prevention Quality Indicators
Q	quarter
QI	quality improvement
RAS	Readiness Assessment Survey
RHC	rural health centers
RTI	Research Triangle Institute
SF-12	12-Item Short-Form Health Survey
TA	technical assistance
TOB	type of bill
UDS	Uniform Data System

## Glossary

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**Baseline Period:** The year prior to demonstration initiation (November 1, 2010 through October 31, 2011).

**Comparison FQHCs:** FQHCs selected by RAND for comparison to the demonstration FQHCs.

**Demonstration FQHCs:** All FQHCs ever selected to participate in the FQHC ACP Demonstration (including those participating at demonstration initiation and late entrants).

**Demonstration Period:** The time period between demonstration initiation (November 1, 2011) and the latest reportable date (the demonstration is ongoing through October 31, 2014).

**Dropout FQHCs:** Demonstration FQHCs that have dropped out, including FQHCs that voluntarily discontinued enrollment and FQHCs with enrollment terminated by CMS.

**Late Entrant FQHCs:** FQHCs selected to participate in the FQHC ACP demonstration after November 1, 2011.

**Participating FQHCs:** Demonstration FQHCs that are currently participating in the demonstration as of August 26, 2013 (and have not dropped out).

# I. Introduction

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## I.1. Overview of the Demonstration

In December 2009, President Barack Obama directed the Department of Health and Human Services to implement a three-year demonstration to support federally qualified health centers (FQHCs) with delivery of advanced primary care (APC) to Medicare beneficiaries. Under this demonstration, FQHCs are expected to obtain Level 3 recognition as a patient-centered medical home (PCMH) from the National Committee for Quality Assurance (NCQA) by the end of the demonstration. The goals of the demonstration are to improve the safety, effectiveness, efficiency, timeliness, and quality of care; patient access to care; adherence to evidence-based guidelines; care coordination and care management; and patient experiences with care. These improvements, in turn, may lead to better health outcomes and management of chronic conditions, decreased use of certain health care services (e.g., hospitalizations, emergency department visits, duplicative/unnecessary tests and procedures), increased use of other services (e.g., preventive services), and reductions in health care expenditures.

The demonstration provides five intervention components to support FQHC transformation into PCMHs and provision of APC to their Medicare fee-for-service beneficiaries: The five intervention components, designed by the Centers for Medicare and Medicaid Services (CMS), are delivered by a network of organizations:

1. Participating FQHCs receive a quarterly care management payment from CMS of \$18 for each eligible Medicare beneficiary.
2. Participating FQHCs are offered technical assistance (TA) by the American Institutes for Research (AIR) to help them obtain NCQA Level 3 PCMH recognition (based on 2011 NCQA standards). Specifically, participating FQHCs are offered assistance to help them complete biannual Readiness Assessment Surveys (RASs) and to prepare documentation for NCQA PCMH recognition.
3. Through an extensive learning system involving the Health Resources and Services Administration (HRSA), AIR, and primary care associations (PCAs), FQHCs receive training and assistance to support and guide them in their transformation into advanced primary care practices (APCPs).
4. Participating FQHCs periodically receive feedback reports. The first and second reports are at the FQHC level; the third includes beneficiary-level data. The first allows FQHCs to track their performance on the RASs over time and to compare

- their performance with other demonstration sites. The second tracks FQHC performance on key cost and utilization measures over time for attributed Medicare beneficiaries.
5. Finally, participating FQHCs receive additional financial and infrastructure support from HRSA to cover the cost for applying for NCQA PCMH recognition and the start-up costs associated with transforming into an APCP.

CMS is monitoring each participating FQHC's progress toward obtaining Level 3 NCQA PCMH recognition.

## I.2. Overview of the Annual Report

RAND is conducting an independent evaluation of the FQHC APCP demonstration for CMS. The evaluation is studying the processes and challenges involved in transforming FQHCs into APCPs and assessing the effects of the APCP model on access, quality, and cost of care provided to Medicare and Medicaid beneficiaries served by FQHCs. In addition, the evaluation will assess whether the demonstration was budget-neutral and whether the goals of the demonstration were met.

As part of its evaluation strategy, RAND reports to CMS on intermediate evaluation findings each quarter and again annually. At the time of the writing of this annual report, we have completed seven quarters of the demonstration. The demonstration began in November 2011 and is now in its ninth quarter, which will conclude at the end of January 2014.

This annual report includes

- a description of data sources (Section I)
- a description of demonstration and comparison sites (Section II)
- a description of FQHC structure, including NCQA recognition status, RAS scores, and preliminary clinician and staff experience (CASE) findings (Section III)
- a qualitative analysis of experiences of demonstration and comparison FQHC site leaders with CMS's and other APCP transformation activities (Section IV)
- a qualitative analysis of experiences of primary care associations with CMS's and other APCP transformation activities (Section V)
- a summary of five demonstration implementation component activities to date (Section VI)
- a report of Medicare claims-based metrics since demonstration initiation (Section VII)

- an initial report of Medicaid claims–based metrics (Section VIII)
- a description of the approach to the baseline beneficiary survey and early findings (Section IX)
- a series of appendixes, organized by report section, including additional materials pertinent to methods for conducting analyses.

### I.3. Data Sources

The following data sources were used to create this annual report:

- *Census data*: Census tract-level characteristics were derived using five-year aggregated data from the American Community Survey (2005–2009).
- *Claims and enrollment data*: National Claims History “TAP” files consisting of quarterly extracts of Medicare Parts A and B claims and enrollment data from the Actuarial Research Corporation (ARC) for every beneficiary who has at least one visit at an FQHC. The claims data for the last reporting quarter include four months of runout, and therefore may not include all final-action claims. Other claims have been refreshed for a 12-month runout. Claims-based utilization and cost measures are available through the demonstration’s sixth quarter for the claims-based utilization and cost measures.
- *Claims and enrollment data for Medicaid files*: Quarterly Medicaid Statistical Information System (MSIS) files from the period November 2010 through January 2013 were obtained by RAND from the CMS mainframe. Claims files include both original claims and any adjustments to original claims as separate records.
- *CMS payment data*: The amount paid by CMS via each payment contractor to FQHCs participating in the demonstration.
- *RAND attrition tracking*: RAND compiles information provided by CMS on FQHCs dropping out or excluded from the demonstration, as well as late entrants.
- *Uniform Data System (UDS)*: HRSA data containing characteristics of all Section 330 grantees, including grantee-level clinical measures, patient demographics, number of user visits by diagnosis, revenue sources, staffing information, and accreditation information. The UDS began including FQHC “look-alikes” during calendar year 2012.
- *RAS*: A self-assessment completed by an FQHC that includes questions assessing each organization's progress toward becoming a PCMH. These data are available through November 2013.

- *NCQA PCMH Recognition Status*: Truven, CMS' implementation contractor, provides the NCQA PCMH Recognition level achieved by each demonstration FQHC, including the date when recognition was achieved.
- *CASE surveys*: Data analyses of demonstration site clinicians and staff.
- *Site leader interviews*: Qualitative analyses from 20 demonstration and 10 comparison FQHC site leader interviews conducted during the summer and autumn of 2013.
- *PCAs*: Qualitative interview analyses of representatives of all six PCA regions conducted during autumn, 2013.
- *Technical Assistance Participation Reports*: AIR provides information on FQHCs participating in each TA seminar.
- *Baseline beneficiary survey*: This survey is fielded on Medicare beneficiaries attributed to a demonstration or comparison FQHC during spring through autumn 2013.

#### I.4. Introduction to the Evaluation Design: Three Key Policy Questions

RAND's proposed evaluation will address three key policy questions. This first annual report does not yet answer these questions, but it does provide an overview of the methods the evaluation team is using to address them. This report also presents preliminary results that provide a picture of evaluation findings midway through the demonstration.

##### **I.4A. Key Policy Question 1: What Are the Effects of Interventions Designed to Stimulate APC Principles on Practice Characteristics and on NCQA Recognition Status?**

The first key policy question focuses on uptake of the intervention, changes in structure, and associations between the two. To address this question, RAND has tracked the five components of the interventions delivered to and utilized by FQHCs participating in the CMS demonstration. In recognition of the fact that interventions to stimulate APC principles and practices are being widely disseminated throughout the United States, RAND is also attempting to assess those measurable intervention components (including non-CMS PCMH resources, such as the Safety Net Medical Home Initiative, and HRSA grants) that are available to and adopted by intervention and comparison sites.

During the next year, using available data describing exposure to intervention components, RAND will analyze the effect of interventions on changes in structure and reports of NCQA recognition status. RAND will also evaluate whether interventions change structures differently for intervention sites from how they do so for comparison sites and whether intervention uptake is associated with changes in NCQA recognition status.

**I.4B. Key Policy Question 2: Do Interventions Designed to Stimulate ACP Principles Activate the Quality-of-Care Cascade Such That Changes in Structures Are Associated with Improvements in Processes and Outcomes? Do CMS’s Demonstration Interventions Do This Differently from Other Interventions Widely Disseminated Throughout the Nation?**

The second key policy question extends the analysis to effects on processes and outcomes. Interventions are anticipated to prompt structural changes, which are expected to facilitate APC processes to patient populations, with the resultant achievement of improved patient outcomes.

Within the next year, the evaluation will isolate intervention components, as well as structural dimensions of the FQHC, and use these features as predictors in models to test the adjusted contribution of intervention components and changes in structures toward changes in processes and in outcomes.

RAND will study whether trends in processes and outcomes associated with changes in ACP structures in intervention sites differ from trends in comparison sites.

**I.4C. Key Policy Question 3: Which Practice-Site Characteristics Are Associated with Observed Changes in Structures, Including NCQA Recognition Status, Processes, and Outcomes?**

The third key policy question examines effect modification by practice-site ACP attributes or other factors. RAND will evaluate which *specific* practice-site structural attributes are associated with advances in NCQA recognition and which changes in structures are associated with changes in processes and outcomes for beneficiaries and clinics. This assessment will attempt to isolate how these specific structure changes moderate changes in processes and outcomes. As with the first two key policy questions, this one will compare time trends in the FQHC intervention sites with time trends in comparison sites.

## II. Selection of the Demonstration and Comparison Sites and of the Study Population

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In this section, we discuss an overview of the demonstration, the selection of demonstration FQHCs, and beneficiaries attributed to demonstration sites. Next, we describe the selection of comparison FQHCs and beneficiaries enrolled in them. Finally, we describe value in selecting a second type of comparison group, primary care clinics (PCCs).

### II.1. Overview of the FQHCs APCP Demonstration

This demonstration project, operated by CMS in partnership with HRSA, will test the effectiveness of doctors and other health professionals working in teams to coordinate and improve care for up to 195,000 Medicare patients. The FQHC APCP demonstration is conducted under the authority of Section 1115A of the Social Security Act, which was added by Section 3021 of the Patient Protection and Affordable Care Act (ACA) and establishes the Center for Medicare and Medicaid Innovation.<sup>1</sup>

FQHCs use teams to provide essential primary care services to seniors, Medicare and Medicaid beneficiaries, and others in underserved communities. An APCP is a medical practice directed by a physician or nurse practitioner that provides continuous, comprehensive, coordinated, and patient-centered medical care. An APCP connects multiple points of health delivery by utilizing a team approach, with the patient at the center. It is designed to encourage doctors, hospitals, and other health care providers to work together to better coordinate care for patients.

The FQHC APCP demonstration is designed to motivate the development of the APCP model (also known as the PCMH model) and to support the evaluation of whether the model improves health or quality of care, or lowers costs of care provided to Medicare beneficiaries served by FQHCs. APCPs and PCMHs are designed to

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<sup>1</sup> Centers for Medicare and Medicaid Services, “Federally Qualified Health Center (FQHC) Advanced Primary Care Practice Demonstration,” 2010. As of November 20, 2012: <http://www.innovations.cms.gov/initiatives/FQHCs/index.html>; M.A. Neergaard, F. Oleson, et al., “Qualitative Description: The Poor Cousin of Health Research?” *BMC Medical Research Methodology*, Vol. 9, No. 52, 2009.



- give patients coordinated health care delivery
- support strong physician-patient relationships
- encourage communication
- incorporate electronic systems to improve health outcomes.

The demonstration will pay more than \$42 million over three years to 500 participating FQHCs from across the United States to coordinate care for almost 200,000 Medicare beneficiaries. The three-year demonstration began November 1, 2011, and will end October 31, 2014. All participating FQHCs agree to pursue NCQA Level 3 PCMH recognition.<sup>2</sup>

The demonstration has the support of HRSA, which has provided consulting expertise and technical assistance resources, such as educational sessions and fee waivers for FQHCs that applied for NCQA PCMH recognition. HRSA is the primary federal agency responsible for improving access to health care services for people who are uninsured, isolated, or medically vulnerable, and supports health centers in more than 7,000 delivery sites. The health centers provide a unique role in America's health care system, serving more than 20 million patients, including many of the most vulnerable. By law, HRSA-supported health centers are required to be situated in a medically underserved area, open to all regardless of ability to pay, and to have a board of directors with a community majority.<sup>3</sup>

The National Association of Community Health Centers (NACHC) also provided consulting expertise and technical assistance. The NACHC and state PCAs share information on the mission and value of health centers; provide research-based advocacy on behalf of health centers and their patients, as well as training and technical assistance to health centers and PCAs; and develop alliances with private partners and key stakeholders to foster the delivery of primary health care services to communities in need.<sup>4</sup>

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<sup>2</sup> Centers for Medicare and Medicaid Services, 2010.

<sup>3</sup> Medicare Federally Qualified Health Center Advanced Primary Care Practice Demonstration, "Consideration for Interested Practices," 2012a. As of March 14, 2012: [http://www.fqhcmedicalhome.com/docs/01\\_Considerations for Interested Practices.pdf](http://www.fqhcmedicalhome.com/docs/01_Considerations%20for%20Interested%20Practices.pdf)

<sup>4</sup> Medicare Federally Qualified Health Center Advanced Primary Care Practice Demonstration, 2012a.

## II.2. Eligibility and Expectations of Demonstration FQHCs

### **II.2A. Eligibility for Demonstration Participation**

#### ***II.2A.1. Introducing the Demonstration to Potentially Interested FQHCs***

On June 6, 2011, the press office of the U.S. Department of Health and Human Services (HHS) announced the plan for HHS's FQHC APCP demonstration. Interested FQHCs were advised through HHS News that they could find details about the demonstration and the application process on the CMS website. The website noted that that participation in the demonstration would require a commitment to transform the way they deliver medical care to patients. They also were advised that successful demonstration participation would involve development of capabilities to practice like a medical home, along with a corollary change in the culture of care delivery that would require efforts by all participants. In addition, interested FQHCs were advised that becoming an APCP meant that they would need to offer enhanced access to care through expanded hours, same-day appointments, or priority appointments to mitigate patients having to receive urgent care through more expensive means, such as an emergency department (ED). Staff would need to coordinate patient care with other medical providers or arrange for specialty care whenever necessary. Following delivery of medical care and receipt of results of studies ordered, follow-up care would become the responsibility of medical home staff.

The HHS website and follow-up press released from HHS noted that Eligible FQHCs would be identified through Medicare administrative claims data. Those that met initial eligibility criteria (served at least 200 unique, qualified Medicare beneficiaries in the previous 12 months, not specialty FQHCs, not exclusively migrant or homeless FQHCs) were sent a letter inviting them to participate and directing them to the demonstration application website where they would have access to all of the necessary information for making an informed decision and submitting an application to participate. The application period was be open from June 6, 2011, through September 9, 2011.

#### ***II.2A.2. Eligibility for Practices to Become a Demonstration Participant FQHC***

Prior to initiating the application process for the FQHC APCP demonstration, FQHCs were advised to ensure that they met the eligibility requirements noted in Exhibit II.1.

## **Exhibit II.1: Eligibility Requirements for FQHC Applications to the FQHC ACP Demonstration**

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1. The FQHC is managed by a physician or nurse practitioner, meaning the overall clinical direction is provided by a physician or a nurse practitioner.
  2. The FQHC provides primary care services (as opposed to providing only specialty services, such as dental or vision care) to a general population, and not exclusively to migrant workers or the homeless.
  3. The FQHC is an individual physical location (multiple locations will not be considered under a single application).
  4. The FQHC provides medical services to at least 200 Medicare beneficiaries (with Part A and Part B coverage, not Medicare Advantage) in the most recent 12-month period, including to those with both Medicare and Medicaid coverage (dual eligibles).
  5. The FQHC accepts the Joint Principles of a Patient-Centered Medical Home (Patient-Centered Primary Care Collaborative, undated).
  6. The FQHC has a valid provider transaction number (PTAN) from CMS.
  7. The FQHC is not under a corrective action plan for serious health and safety or financial issues with HRSA.
  8. The FQHC is listed in the Provider Enrollment, Chain, and Ownership System (PECOS) file and able to receive electronic fund transfers (EFTs) at the time of application. FQHCs that have not recently submitted an 855A form are not listed in PECOS and therefore not eligible to participate in the demonstration.
  9. The FQHC is submitting claims for payment to National Government Services (NGS) or to Noridian.

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SOURCE: Medicare Federally Qualified Health Center Advanced Primary Care Practice Demonstration, "Demonstration Partners," 2012b. As of November 20, 2012:  
<http://www.fqhcmedicalhome.com/partners.aspx>

NOTE: Rare exceptions existed where FQHCs submitting claims to Noridian were NOT eligible to participate.

### ***II.2A.3. Within Participating FQHCs, Eligibility of Medicare Beneficiaries***

Associated with these practice requirements was a set of beneficiary requirements. First, Medicare beneficiaries included in the demonstration—including dual eligibles—had to be (1) enrolled in the Medicare Part A and Part B fee-for-service (FFS) program during the most recent 12-month period, (2) not currently enrolled in hospice care, and (3) not undergoing treatment for end-stage renal disease (ESRD). Second, beneficiaries enrolled in Medicare Advantage were not eligible to participate. Third, attribution of beneficiaries to an FQHC would be based on Medicare administrative data for beneficiaries for whom CMS had a claim in the most recent 12-month period. Finally, beneficiary eligibility would be verified each quarter, prior to payments being made.

## **II.2B. Requirements of FQHC Participation in the ACP Demonstration**

In advising applicants, CMS indicated that participating FQHCs would be expected to agree to terms and conditions outlined in Exhibit II.2. Interested FQHCs were advised that CMS expected participants to agree to pursue Level 3 PCMH recognition from the NCQA by autumn 2014, the end of the three-year demonstration. To achieve this goal, FQHCs would need to commit to the provision of ACP services to Medicare beneficiaries throughout the duration of the demonstration. Specifically, participating FQHCs are expected to do the following:

- function as PCMHs
- oversee preventive care, acute treatment, and chronic-disease care
- manage medications for patients
- ensure that patients have a place to receive specialty treatment for any conditions that require specialist monitoring, and ensure that needed treatment is received as necessary outside of the FQHC
- ensure that nurses and other supporting staff working in the FQHC coordinate additional follow-up care and communicate regularly with patients about appointments and medications.

Selected FQHCs were advised that full provision of these PCMH services to all enrolled Medicare beneficiaries may require hiring additional staff, increasing office hours, or investing in additional electronic patient monitoring resources.

## **Exhibit II.2: Terms and Conditions Required by CMS for Participation in the FQHC APCP Demonstration**

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1. The FQHC agrees to pursue Level 3 PCMH recognition from NCQA by the end of the demonstration.
  2. The FQHC agrees to remain in the demonstration for the full three-year duration beginning November 1, 2011.
  3. The FQHC agrees to submit a completed application to participate by 11:59 p.m. (ET) on Friday, September 9, 2011, and to submit an initial RAS as part of the application process by 11:59 p.m. (ET) on Friday, September 16, 2011.
  4. The FQHC agrees to submit a revised RAS every six months for the duration of the demonstration.
  5. The FQHC agrees to cooperate with the organization CMS engages to evaluate the demonstration. This may include providing additional information or data.
  6. The FQHC agrees to comply with all monitoring requirements. This includes repeating the RAS every six months throughout the demonstration.
  7. The FQHC agrees to attest that it is not currently under a corrective action plan from HRSA for serious safety or financial issues.
  8. The FQHC acknowledges that CMS can terminate participation for failure to progress toward PCMH recognition based on periodic RAS scores.
  9. The FQHC acknowledges that CMS can terminate participation for commitment of Medicare fraud.
  10. The FQHC agrees to participate in learning collaboratives and other TA offered by CMS and HRSA.
  11. The FQHC acknowledges that failure to comply with all terms and conditions may result in disqualification.
  12. These terms and conditions are subject to change in the interest of improving results under the demonstration. Such changes would require the consent and approval of both parties and at least 30 days of advance notice to facilitate their implementation.
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This section describes our approach for identifying the population included in the evaluation analyses. This evaluation uses a cluster design, whereby the study population is identified by first selecting sites, then identifying individuals within each selected site.

In brief, our study population selection process is as follows. The evaluation includes an intervention group of FQHC sites and two comparison groups: FQHCs and non-FQHC PCCs. Assignment of sites to these two groups is nonrandomized. Demonstration FQHCs were enrolled using criteria designed and executed by CMS. Comparison sites are selected by RAND using available data on the sites, their patients, and the geographic areas in which they are located. Adjustments will be made for any pre-existing observable differences between comparison and demonstration sites, meaning that comparison sites will be weighted using propensity score models on the basis of their similarity to demonstration sites. Beneficiaries attributed to comparison and demonstration sites will be identified on the basis of the frequency of their utilization of primary care services by site. A subsample of beneficiaries will be selected for

administration of the beneficiary survey. At both the site level and the beneficiary level, we expect both dropouts and late entrants during the course of the demonstration. To focus on the effect of the intervention made available by CMS, our primary evaluation approach will be an intention-to-treat (ITT) analysis to minimize bias from nonrandom attrition and late entry of sites and beneficiaries, but we will also test alternative approaches.

In II.3, we discuss each of these aspects of site and beneficiary selection into the study sample in more detail. We begin with a discussion of intervention-site selection and comparison-site selection. We then discuss identification of beneficiaries in the study population.

## II.3. Selection of Demonstration FQHCs

### **II.3A. Selection of Demonstration FQHCs by CMS**

#### ***II.3A.1. Selection of Demonstration Sites by CMS***

FQHCs were defined as eligible for the demonstration if they provided primary care services to at least 200 eligible FFS Medicare beneficiaries (including dual eligibles) during calendar year 2010, were listed in the PECOS file, and were able to receive EFTs. Applicants must have agreed to attempt to achieve Level 3 NCQA PCMH recognition by the end of the demonstration and to complete an RAS every six months.<sup>5</sup> The eight eligibility requirements for the demonstration are listed in Exhibit II.3.

The original demonstration design restricted eligibility for participation to only those FQHCs whose Part A claims were processed by NGS, a Medicare fiscal intermediary paying Part A claims on behalf of 97 percent of the FQHC community. After initial work with NGS to identify eligible FQHCs—and in an effort to be more inclusive—the demonstration criteria were expanded to include FQHCs whose Part A claims were processed by Noridian.

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<sup>5</sup> The data source for this description of the history of Medicare FQHC ACP Demonstration Site Selection is a memo provided to RAND by CMS.

### Exhibit II.3: FQHC Inclusion Eligibility Criteria

Criterion	FQHC Inclusion Eligibility Criteria
1	Payment by NGS under their 450/456 workloads <sup>a</sup>
2	An active EFT/588 form on file with NGS
3	Served at least 200 qualified Medicare FFS beneficiaries (as evidenced by at least one evaluation and management Part A claim per beneficiary) in the look-back period
4	Practice led by a physician or nurse practitioner
5	Not providing <i>only</i> specialty services, such as dental, vision, psychiatry, or radiology
6	Not exclusively serving migrant workers or the homeless
7	Not identified by HRSA as currently under a corrective action plan for serious financial or safety issues
8	Not “rolling up,” i.e., not billing Medicare services from one central location or corporate office, rather than from the physical location at which the beneficiary received the Medicare service

SOURCE: CMS memo to RAND, 2011.

<sup>a</sup> Expanded to include FQHCs whose claims were processed by Noridian and FQHCs whose claims were processed by NGS under workloads other than 450/456. Subsequently expanded to include FQHCs whose claims were processed by any contractor.

NGS and Noridian identified the FQHCs that met criteria 1, 2, and 3, resulting in a list of 1,339 eligible FQHCs. A first round of invitations was mailed to these practices on June 3, 2011. This initial mailer did not take into account criteria 4 through 8. FQHCs had to self-attest to having a practice led by a physician or nurse practitioner on the application form (criterion 4). FQHCs that provided specialty services only (criterion 5) or that had solely homeless or migrant practices (criterion 6) were removed from the list “by hand” using data provided by HRSA. It was not until shortly after June 3, 2011, that CMS received from HRSA a list of eight practices that were under corrective action plans at the time of the initial mailing (criterion 7).

CMS had no precise way of determining practices that met criterion 8. However, CMS conducted an internal review of Part A claims, which identified some FQHCs that were rolling up (i.e., using a PTAN assigned to a different site when billing Medicare) and removed them from consideration. Some practices, in communication with CMS, self-identified that they were rolling up and were told they could not apply. Similarly, any practice later discovered to be a specialty practice (criterion 5) or serving solely a homeless or migrant population (criterion 6) were classified as ineligible.

In late July 2011, eligibility was again expanded to include FQHCs whose Part A claims were processed by NGS under workloads other than 450/456, and those that had met the EFT criterion after the first list was compiled and met all other eligibility criteria.

Invitations were mailed to these 168 FQHCs on July 27, 2011. Also, at this time, FQHCs who had already applied were informed via email that they would need to agree to the updated terms and conditions to remain eligible for selection.

In August 2011, eligibility criteria were further expanded to include FQHCs regardless of billing contractor (i.e., no longer limited to NGS and Noridian). Invitation letters were mailed to 44 additional FQHCs on August 19, 2011. Again, those that had already applied were informed via email that they would need to agree to the updated terms and conditions to remain eligible for selection.

The final application deadline was September 9, 2011; applicants were given an additional week to complete the RAS. HRSA was given a chance to review the list of applicants after the application deadline to identify any additional FQHCs that were on the corrective action list. These FQHCs were flagged for exclusion before the selection process. Twelve were granted additional time to complete their RASs and were considered eligible for the demonstration should it be expanded.

A total of 1,558 were invited to complete the online application. The disposition of each site is indicated in Exhibit II.4.

The size of the demonstration approved by the Office of Management and Budget (OMB) was a maximum of 500 FQHCs and up to 195,000 Medicare beneficiaries. In order to bring the scope of the demonstration within the approved OMB parameters, CMS implemented a selection protocol that was designed to select a group of FQHCs that were diverse according to the following five characteristics: U.S. region, urban or rural location, electronic medical records (EMR) status, payment for PCMH by other payers, and NCQA PCMH recognition level (according to NCQA's 2008 standards). The protocol prioritized the selection of smaller practices to optimize the inclusion of a larger number of FQHCs. Eligible FQHCs were categorized into the cells defined by the five characteristics. All those included in cells with counts of eight or less were selected; those in cells with counts of nine or greater were selected by taking the smallest FQHCs first (as measured by number of beneficiaries), until a total of 500 was reached.



### Exhibit II.4: Disposition of 1,558 Demonstration Applicants

Disposition	Number (Percentage) of Sites
Selected into the demonstration	500 (32.1)
Nonselected sites <sup>a</sup>	317 (20.4)
Excluded to enable a balanced distribution of FQHCs to obtain the most meaningful results from the demonstration	282 (18.1)
Granted additional time to complete their RASs	12 (0.8)
Mistakenly placed on HRSA corrective action list	2 (0.1)
Completed RAS but did not click "Submit"	12 (0.8)
Completed RAS but did not confirm agreement with new terms and conditions	9 (0.6)
Subsequently dropped out or found to be ineligible	197 (12.8)
Not an individual brick-and-mortar FQHC	1 (0.1)
Under a HRSA corrective action plan for serious financial or safety issues	29 (1.9)
Not a physician- or nurse practitioner–led practice	2 (0.1)
Not providing primary care services	4 (0.3)
Providing services exclusively to homeless or migrant populations	1 (0.1)
Participating in another Medicare medical home of ACP demonstration	2 (0.1)
Evidence of rolling up or other billing irregularities	11 (0.7)
Incomplete RAS	142 (9.1)
Incomplete RAS and did not confirm agreement with new terms and conditions	3 (0.2)
No longer interested in participating	1 (0.1)
Dropped out or disinvited (because of billing irregularities)	1 (0.1)
Invited but did not submit an application	544 (34.9)
<b>Total</b>	<b>1,558 (100)</b>

<sup>a</sup> Although there were 318 nonselected sites at baseline, one of these sites became a participant one month after the start of the demonstration, after one participating site was disinvited because of billing irregularities. Truven considered this site to be a demonstration site and not a "nonselected" site.

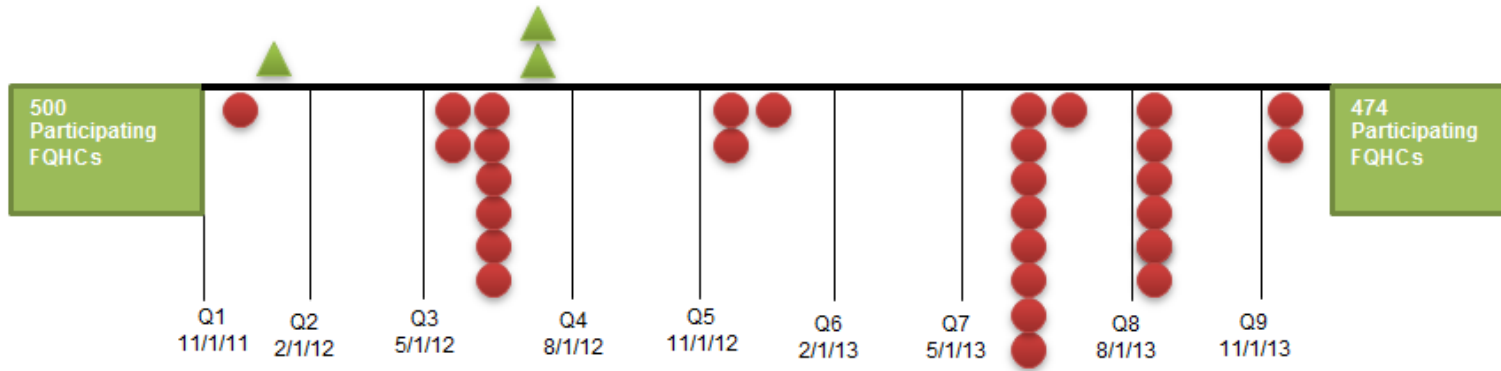
### **II.3B. Attrition of FQHCs Since the Demonstration Was Initiated**

As of the date of the fourth quarterly report (November 2013), 29 FQHCs were no longer participating in the demonstration and three have been enrolled as late entrants. The most common reason FQHCs ceased participation was disqualification by CMS for no longer meeting demonstration requirements (e.g., failure to complete the RAS; no longer operating as an independent site; below beneficiary count threshold). As of the date of the



fourth quarterly report, 18 sites had been disqualified, 11 had withdrawn, and 474 FQHCs were participating in the demonstration (Exhibit II.5).

Since the submission of the fourth quarterly report, an additional two FQHCs are no longer participating in the demonstration. Thus, the total number of participating FQHCs at the time of this annual report is 472. No additional late entrants have been enrolled or are expected to enroll. Exhibit II.5 does not display the two FQHCs that ceased participating after the submission of RAND's fourth quarterly report.

Exhibit II.5: Demonstration Participation Over Time



**Legend**

-  Dropout FQHC
-  Late Entrant FQHC

Demonstration Quarter	Number of Dropouts
1	1
2	0
3	8
4	0
5	3
6	0
7	9
8	6
9	2
<b>Total</b>	<b>29</b>

Source: RAND attrition tracking, November 5, 2013

## II.4. Demonstration and Comparison FQHCs and the Beneficiaries Attributed to Them

### **II.4A. Attribution of Beneficiaries to Demonstration and Comparison FQHCs**

Among demonstration and comparison practice sites, beneficiaries meeting three requirements are included as beneficiaries for this evaluation. First, Medicare beneficiaries included in the evaluation, including dual-eligible Medicare/Medicaid beneficiaries, had to be (1) enrolled in the Medicare Part A and Part B FFS program during the most recent 12-month period, and (2) not under treatment for ESRD. Second, beneficiaries enrolled in Medicare Advantage were not eligible to participate. Third, attribution of beneficiaries to an FQHC would be based on Medicare administrative data for beneficiaries for whom CMS had a claim in the most recent 12-month period. This set of beneficiaries defines the study's beneficiary population.

We first identified all Medicare beneficiaries with at least one FQHC visit during the study period. We then attributed beneficiaries to sites on the basis of a “plurality” attribution rule, under which beneficiaries were attributed to the FQHC or other site (e.g., rural health clinic, primary care practice) with the plurality (i.e., highest count) of qualifying services during the 12-month look-back period. In the case of a tie, the beneficiary was attributed to the site with the most recent qualifying service. This attribution rule is not the same as the rule being used by CMS to determine quarterly payment amounts to FQHCs. The reason for the difference is that the CMS rule attributes beneficiaries based on FQHC utilization only, while the RAND rule considers utilization at non-FQHC sites.

Qualifying services were defined to include common primary care services provided by FQHCs (including both participating and nonparticipating FQHCs), rural health clinics, and services provided in other settings by physicians in defined specialties. Qualifying services were identified using claims variables, including revenue codes for FQHC claims and a combination of Healthcare Common Procedure Coding System (HCPCS) codes and provider specialty codes for non-FQHC services.

We defined a list of qualifying services by applying the following criteria: (1) the service is a primary care service likely to be delivered by providers working in FQHCs and other sites that deliver similar services; (2) the service is included in attribution rules for multipayer advanced primary care practice (MAPCP) states and the Medicare Shared Savings Program; and (3) the HCPCS code for the service is valid for separate Medicare reimbursement for the period 2008–2012 (or replaced by an existing code for an included

qualifying service), to ensure to the extent possible that attribution will not change over the course of the evaluation period.

Applying these criteria, Medicare qualifying services are defined as:

- *FQHC visits*: Outpatient Institutional claim line items with date of service during the 12-month look-back period, with type of bill (TOB) code = 73x (for dates of service prior to April 1, 2010) or 77x (for dates of service on or after April 1, 2010), AND revenue code in (0521 [FQHC clinic visit], 0522 [home visit by FQHC provider]).
- *Rural health clinic visits*: Outpatient Institutional claim line item with date of service during the 12-month look-back period, with TOB code = 71x AND revenue code in (0521, 0522).
- *Other primary care services*: Carrier claim line items with date of service during the 12-month look-back period, AND with HCPCS code in (99201–99205, 99211–99215, 99241–99245, 99304–99310, 99315, 99316, 99318, 99324–99328, 99334–99337, 99341–99345, 99347–99350} AND provided by a primary care physician (as defined by National Plan and Provider Enumeration System Provider Taxonomy Code: internal medicine, general practice, family medicine, ob/gyn, nurse practitioner, physician assistant, geriatrics).

Beneficiaries who were attributed to FQHCs in the demonstration or comparison group were included in the study population; beneficiaries attributed to other sites were dropped from the analysis.

For the ITT analysis described in this report, beneficiaries were attributed based on utilization during a look-back period of one year prior to initiation of the demonstration (November 1, 2010 to October 31, 2011). Attributed beneficiaries were then tracked throughout the reporting period.

We calculated eligibility for each beneficiary using the same method described in the “Evaluation of the Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration: Quarterly State Report: Number 1”:

...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 [eligible] for 30 days out of 90 has an eligibility fraction of 0.33 for that quarter. The eligibility fraction is used to inflate expenditure and utilization data if a beneficiary does not have a full quarter of Medicare FFS eligibility.

Specifically, for measures of cost, hospitalizations, and ED visits, the denominator of the rates was weighted for eligibility, where each beneficiary was counted as  $1 \times (\text{eligibility fraction})$ .

#### **II.4B. Characteristics of Participating FQHCs at Demonstration Initiation and Now**

Exhibit II.6 shows characteristics of participating FQHCs at the time of the initiation of the demonstration (November 2011) and at the time of the most recent quarterly report (November 2013) when 29 fewer FQHCs are participating as demonstration sites. Participating FQHCs are distributed geographically among all six PCA regions. A majority are located in rural areas and treat fewer than 300 Medicare beneficiaries per year. Almost all participating FQHCs (97 percent) are part of multisite HRSA grantee organizations.

### Exhibit II.6: Characteristics of Participating FQHCs

Characteristics	Baseline (November 2011) Number (%) n=503 FQHCs	Current at the Time of Quarterly Report 4 (November 2013) Number (%) n=474 FQHCs
PCA Region: Central	127 (25.2)	120 (25.3)
Mid-Atlantic	61 (12.1)	48 (10.1)
Northeast	65 (12.9)	64 (13.5)
Southeast	76 (15.1)	75 (15.8)
West	85 (16.9)	84 (17.7)
West-Central	89 (17.7)	83 (17.5)
Urbanicity: Urban	177 (35.2)	162 (34.2)
Rural	326 (64.8)	312 (65.8)
Number of beneficiaries: < 200 beneficiaries	136 (27.2)	127 (26.8)
200–299 beneficiaries	185 (37)	177 (37.3)
300–399 beneficiaries	106 (21.2)	103 (21.7)
400–499 beneficiaries	33 (6.6)	31 (6.5)
500+ beneficiaries	40 (8.0)	36 (7.6)
Multisite grantee	489 (97.2)	460 (97.0)

SOURCE: RAND analysis of American Community Survey (2005–2009), Uniform Data System (Bureau of Primary Health Care, Health Resources and Services Administration, 2011), and Medicare claims (November 1, 2010 through October 31, 2011).

NOTES: Beneficiaries are attributed to FQHCs based on where they received the plurality of their primary care (see section II.4A for details). Table includes participating FQHCs as of November 5, 2013. None of the descriptive statistics of beneficiary characteristics incorporate weights.

#### **II.4C. Characteristics of Beneficiaries Attributed to Demonstration FQHCs at Demonstration Initiation and Now**

Almost half (45 percent) of Medicare beneficiaries attributed to participating FQHCs on the basis of where they receive the plurality of their primary care are under age 65 (Exhibit II.7).<sup>6</sup>

- Almost one-third are of nonwhite race/ethnicity.
- Half of attributed beneficiaries are dual eligibles (50 percent) and disabled (52 percent).
- One-third of attributed beneficiaries have diabetes (34 percent), 20 percent have cardiovascular disorders, 16 percent have severe mental health disorders, and 17 percent have chronic lung disorders.

<sup>6</sup> The RAND plurality attribution rule is described in the Appendix. This attribution method differs from the method CMS uses to determine per-beneficiary per-quarter payments for participating FQHCs.

**Exhibit II.7: Characteristics of Medicare Beneficiaries Attributed to Participating FQHCs  
Using Plurality Rule**

<b>Characteristic</b>	<b>Beneficiaries at Time of Demo Initiation, November 2011 n=151,466</b>	<b>Beneficiaries at Time of Quarterly Report 4, November 2013 n=142,824</b>
Age: <65 years, n (%)	68,784 (45.4)	64,766 (45.3)
65–74 years	51,750 (34.2)	48,981 (34.3)
75–84 years	23,573 (15.6)	22,214 (15.6)
≥85 years	7,359 (4.9)	6,863 (4.8)
Gender: Male, n (%)	67,289 (44.4)	63,703 (44.6)
Female	84,177 (55.6)	79,121 (55.4)
Race/Ethnicity: White, n (%)	104,744 (69.2)	99,124 (69.4)
Black	26,037 (17.2)	23,863 (16.7)
Hispanic	9,710 (6.4)	9,582 (6.7)
Asian	6,232 (4.1)	6,200 (4.3)
Other	4,299 (2.8)	3,625 (2.5)
Unknown	444 (0.3)	430 (0.3)
Disabled, n (%)	79,060 (52.2)	74,424 (52.1)
Dual eligible, n (%)	74,756 (49.4)	70,957 (49.7)
Nursing home resident, n (%)	4,044 (2.7)	3,785 (2.7)
Urbanicity: Urban, n (%)	57,580 (38.0)	52,722 (36.9)
Rural	93,886 (62.0)	90,102 (63.1)
Household poverty in census tract, mean % (SD)	21.18 (11.77)	20.83 (11.72)
Clinical conditions: Autoimmune disorders, n (%)	6,587 (4.3)	6,226 (4.4)
Cancer	12,748 (8.4)	11,978 (8.4)
Cardiovascular disorders	30,913 (20.4)	29,111 (20.4)
Chronic heart failure	15,040 (9.9)	14,186 (9.9)
Chronic lung disorders	24,942 (16.5)	23,541 (16.5)
Diabetes	51,766 (34.2)	48,889 (34.2)
HIV	1,969 (1.3)	1,915 (1.3)
Neurological disorders	17,600 (11.6)	16,636 (11.6)
Severe mental health disorders	24,280 (16.0)	22,995 (16.1)
Stroke	6,696 (4.4)	6,317 (4.4)
Substance abuse disorders	6,664 (4.4)	6,299 (4.4)
End-stage liver disease	938 (0.6)	880 (0.6)
Severe hematological disorders	1,193 (0.8)	1,137 (0.8)
CMS Hierarchical Condition Categories (HCC) score, mean (SD)	1.16 (1.03)	1.17 (1.03)

SOURCE: RAND analysis of Medicare claims (November 1, 2010 through October 31, 2011)

NOTE: Table includes participating FQHCs of November 5, 2013. HCC may be underestimated for FQHCs due to claims coding practices. Beneficiaries attributed to FQHCs based on where they received the plurality of their primary care (see section II.4A. for details). SD denotes standard deviation.



#### **II.4D. Comparison FQHCs and Beneficiaries Enrolled in Them**

This section includes information on FQHCs in comparison groups and beneficiaries attributed to those FQHCs. In this section, we discuss the selection of comparison FQHCs and beneficiaries included in the study population.

We identified three types of comparison FQHCs: 1) nonselected FQHCs, 2) “nearly eligible” FQHCs that provide services to fewer than 200 Medicare beneficiaries and thus fail to meet eligibility criterion 3, and 3) nonapplicant FQHCs. We describe each of these three types of FQHCs below.

##### ***II.4D.1. Comparison Site Type 1: Nonselected FQHCs***

A total of 318 FQHCs were eligible and applied for the FQHC ACP demonstration, but were not among the 500 sites initially selected as participants. Three of the 318 nonselected sites were later permitted to join the demonstration to replace three sites that dropped out after the first few months. We do not anticipate that the remaining 315 nonselected sites will join the demonstration to replace additional dropout sites.

The nonselected sites are disproportionately high-volume sites because the criteria used by CMS to select participants from the eligible applicants favored lower-volume sites. Thus, the smallest nonselected FQHCs are likely to be most comparable to the intervention sites in terms of size and other characteristics that are correlated with size, such as the number and specialties of clinicians providing care at the site. Because the nonselected sites met all eligibility criteria for the demonstration and agreed to all obligations required of participating sites, they are likely to be comparable to participating FQHCs on nonobservable characteristics, such as their motivation to achieve medical home recognition.

##### ***II.4D.2. Comparison Site Type 2: “Nearly Eligible” FQHCs***

We define “nearly eligible” FQHCs as those that were ineligible for the demonstration because they failed to provide medical services to 200 or more Medicare beneficiaries during 2010. We included 252 “nearly eligible” FQHCs that served between 150 and 199 Medicare beneficiaries in 2010, and an additional 385 FQHCs that served between 100 and 149 Medicare beneficiaries.

The rationale for considering these two groups is that the volume-based eligibility criterion might induce a somewhat artificial distinction between eligible and ineligible sites—particularly in the narrow range around the 200-beneficiary cutoff. For example, an FQHC that served 190 Medicare beneficiaries in 2010 is likely to be highly

comparable in terms of both observed and unobserved characteristics to a participating FQHC that treated 210 patients. While FQHCs that serve fewer than 150 Medicare beneficiaries may be viewed as less comparable to participating FQHCs, many of these sites may have total volumes (including Medicare beneficiaries and patients with other types of insurance) that are comparable to those of participating FQHCs. Thus, we have included sites with volumes of 100–149 to ensure we have an adequate number of sites that are available to serve as comparisons.

While we might assume these sites are comparable to demonstration FQHCs, we will not be able to verify that the nearly eligible FQHCs would have met all other eligibility criteria. Moreover, we do not know if these sites would have been motivated to apply had they been eligible, unlike all participating FQHCs, each of which was motivated to apply.

#### ***II.4D.3. Comparison Site Type 3: Non-Applicant FQHCs***

This group comprises the 544 FQHCs that met all eligibility criteria and were invited to apply but declined to submit an application. Information on the reasons why these FQHCs did not apply was not collected. For this reason, we cannot readily identify a subset of eligible nonapplicant FQHCs that declined to apply for reasons that would be unlikely to bias the demonstration’s primary outcomes. Thus, nonapplicant FQHCs may differ systematically from applicants for reasons that cannot be easily measured and accounted for in our analyses. On one end of the spectrum, these sites might have declined demonstration participation because they were already successfully moving toward APC practice transformation, independent of the demonstration. On the other end of the spectrum, sites may have declined demonstration participation because they were not interested or because they recognized they were not likely to achieve NCQA Level 3 recognition within the demonstration’s three-year window.

#### **II.4E. Selection of the Comparison Sites and Beneficiaries Attributed to Comparison Sites**

We analyzed claims for Medicare beneficiaries submitted by FQHCs during calendar year 2010 to identify eligible comparison FQHCs. CMS uses the PTAN to uniquely identify institutional providers, including FQHCs that are eligible for submitting claims for services rendered to Medicare beneficiaries. When an FQHC submits a claim, the FQHC’s PTAN is reported on the claim. This allows us to identify claims associated with each FQHC. While it is possible that some sites use a PTAN other than the one associated with the one on record with CMS, this phenomenon is likely to be rare, and to happen at a similar rate in comparison sites and demonstration sites.

We used the PTAN as the primary identifier of FQHCs on claims. We sought to replicate the method used by CMS to determine eligibility for the demonstration by identifying all FQHCs that submitted claims for all-inclusive visits (revenue codes 521, 522, and 525) for Medicare beneficiaries who were continuously enrolled in Part A and Part B during 2010, and who were not enrolled in Medicare Advantage, did not have ESRD, and had no hospice utilization during the year. As illustrated in Exhibit II.8, this comprised a total of 3,426 FQHCs.

To identify eligible comparison FQHCs, we first excluded 503 FQHCs that were participating at baseline or that replaced dropout sites (14.7 percent). Because exposure to the intervention among sites that are affiliated with the same parent organization could contaminate comparison sites, we excluded 823 additional sites (24.0 percent) whose parent organization had at least one site that was participating in the APCP Demonstration. Organizational relationships were identified using one of two organization-level identifiers: UDS identifications (for non-look-alikes) and Look-Alike Numbers (for look-alikes). From the remaining eligible sites, we excluded those that were not one of our three eligible FQHC practice types: nonselected FQHCs, nearly eligible FQHCs, and nonapplicant FQHCs. We then excluded 40 additional FQHCs (1.2 percent) that were participating in the MAPCP Demonstration. As of the writing of this annual report, we identified no FQHCs participating in CMS' Comprehensive Primary Care (CPC) Initiative according to the CMS MDM database.

To match the profile of participating FQHCs, we then identified and excluded 27 sites (0.8 percent) that served homeless or migrant worker populations exclusively, 33 sites (1.0 percent) that operated in special settings such as schools and correctional facilities, and three sites (0.1 percent) that were not brick-and-mortar facilities (such as mobile vans). To implement these exclusions, we used characteristics from HRSA's Electronic Handbooks Grant Management System. We were not able to crosswalk PTANs to a single, unique record in HRSA's databases for 85 sites (2.5 percent). These sites were excluded from consideration as comparison sites. We excluded two additional sites (0.1 percent) that were located outside of the 50 states (U.S. Virgin Islands in both cases) because these sites may be less comparable to those operating in the nation.

Finally, we excluded 17 sites (0.5 percent) that had no attributed beneficiaries at the beginning of the demonstration using a plurality rule.

This resulting sample included a total of 827 eligible FQHC comparison sites, of which 148 are nonselected, 314 are nearly eligible (treated 100–199 Medicare beneficiaries), and 365 are nonapplicants.

**Exhibit II.8: Exclusions Applied in Identification of FQHC Comparison Sites**

<b>Exclusion</b>	<b>Number of FQHCs (%)</b>
All FQHCs that billed Medicare for a qualifying service in 2010	3426 (100%)
RAND exclusions	
Demonstration participant	503 (14.7)
Organizational relationship with demo participant	823 (24.0)
Not a nonselected, “nearly eligible”, or nonapplicant FQHC <sup>a</sup>	1066 (31.1)
Participating in MAPCP	40 (1.2)
Serves exclusively homeless or migrant population	27 (0.8)
Operates in a special setting <sup>b</sup>	33 (1.0)
Not a brick-and-mortar site	3 (0.1)
Could not crosswalk PTAN/HRSA Site ID	85 (2.5)
Located in a U.S. territory	2 (0.1)
No qualifying beneficiaries attributed to the FQHC in demonstration quarter 1	17 (0.5)
Total number of eligible FQHC comparison sites	827

<sup>a</sup> The excluded sites include: 1) 0–100 volume sites, 2) >200 volume sites that were not invited to apply to the demonstration, and 3) invited applicants that were later found to be ineligible.

<sup>b</sup> Special settings include: hospital, school, domestic violence, correctional facility, or nursing home.

**II.4F. Characteristics of Demonstration and Comparison FQHCs and Attributed Beneficiaries**

Table II.9 shows the site characteristics for eligible demonstration and comparison FQHCs. The differences between demonstration and comparison FQHCs were small for most measured characteristics. Most differences were not statistically significant at the 95 percent confidence level. Statistically significant differences include slightly higher percentages of demonstration FQHCs with baseline NCQA recognition status according to 2008 standards; demonstration FQHCs more likely to be part of larger grantee organizations; and demonstration FQHCs more likely to receive supplemental funding from HRSA or through ACA grants.

**Exhibit II.9a: Beneficiary Characteristics of FQHCs by Demonstration and Comparison Group Status (November 2013)**

<b>Characteristics</b>	<b>Demonstration Sites (n=474)</b>	<b>FQHC Comparison Sites (n=827)</b>	<b>p-value</b>
Age: < 65 years, n (%)	64,766 (45.3)	120,749 (44.0)	
65–74 years	48,981 (34.3)	95,060 (34.7)	
75–84 years	22,214 (15.6)	44,013 (16.1)	
≥ 85 years	6,863 (4.8)	14,372 (5.2)	
Gender: Male, n (%)	63,703 (44.6)	120,574 (44.0)	
Female	79,121 (55.4)	153,620 (56.0)	
Race/Ethnicity: White, n (%)	99,124 (69.4)	191,065 (69.7)	
Black	23,863 (16.7)	50,386 (18.4)	
Hispanic	9,582 (6.7)	19,584 (7.1)	
Asian	6,200 (4.3)	5,985 (2.2)	
Other	3,625 (2.5)	6,378 (2.3)	
Unknown	430 (0.3)	795 (0.3)	
Disabled, n (%)	74,424 (52.1)	140,120 (51.1)	
Dual eligible, n (%)	70,957 (49.7)	130,621 (47.6)	
Nursing home resident, n (%)	3,785 (2.7)	8,495 (3.1)	
Clinical conditions: Autoimmune disorders, n (%)	6,226 (4.4)	12,055 (4.4)	
Cancer	11,978 (8.4)	23,548 (8.6)	
Cardiovascular disorders	29,111 (20.4)	57,988 (21.1)	
Chronic heart failure	14,186 (9.9)	28,735 (10.5)	
Chronic lung disorders	23,541 (16.5)	45,576 (16.6)	
Diabetes	48,889 (34.2)	96,760 (35.3)	
HIV	1,915 (1.3)	3,436 (1.3)	
Neurological disorders	16,636 (11.6)	32,375 (11.8)	
Severe mental health disorders	22,995 (16.1)	40,707 (14.8)	
Stroke	6,317 (4.4)	12,204 (4.5)	
Substance abuse disorders	6,299 (4.4)	10,528 (3.8)	p = 0.040
HCC score, mean (SD)	1.17 (1.03)	1.17 (1.04)	
Level 1 recognition	5 (1.1)	5 (0.6)	
Level 2 recognition	3 (0.6)	5 (0.6)	
Level 3 recognition	29 (6.1)	22 (2.7)	

SOURCE: RAND analysis of Medicare claims (November 1, 2010 through October 31, 2011), ACP Demonstration Application, American Community Survey, 2005–2009; HRSA Electronic Handbooks Grant Management System, 2012; Safety Net Medical Home Initiative website, Uniform Data Set, 2011. NOTE: p-values for statistically significant differences are noted.

**Exhibit II.9b: Site-Level Characteristics of FQHCs by Demonstration and Comparison Group Status (November 2013)**

<b>Characteristics</b>	<b>Demonstration Sites (n=474)</b>	<b>FQHC Comparison Sites (n=827)</b>	<b>p-value</b>
Location: Urban, n (%)	162 (34.2)	304 (36.8)	
Rural	312 (65.8)	523 (63.2)	
PCA region: Central, n (%)	120 (25.3)	167 (20.2)	p < 0.01
Mid-Atlantic	48 (10.1)	110 (13.3)	
Northeast	64 (13.5)	74 (8.9)	
Southeast	75 (15.8)	181 (21.9)	
West	84 (17.7)	129 (15.6)	
West-Central	83 (17.5)	166 (20.1)	
Racial composition of census tract: White, Mean % (SD)	70.1 (28.0)	67.2 (28.0)	
Black	15.8 (25.5)	18.1 (25.8)	
Asian	3.3 (8.5)	3.3 (9.0)	
American Indian	1.4 (5.5)	1.7 (7.0)	
Hispanic	18.1 (25.3)	18.2 (25.5)	
Foreign born percentage in census tract, Mean % (SD)	10.6 (13.5)	11.0 (13.9)	
Household poverty in census tract, Mean % (SD)	20.6 (11.2)	21.7 (11.5)	
FQHC age: <5 years, n (%)	67 (14.5)	133 (16.4)	
Age 5–10 years	94 (20.4)	172 (21.3)	
Age 11–20 years	130 (28.2)	200 (24.7)	
Age 21–30 years	56 (12.1)	97 (12.0)	
Age 31–40 years	88 (19.1)	155 (19.2)	
Age 40+ years	26 (5.6)	52 (6.4)	
Number of service delivery sites: 1 site, n (%)	11 (2.3)	62 (7.5)	p < 0.001
2–5 sites	117 (24.7)	276 (33.4)	
6–10 sites	145 (30.6)	270 (32.6)	
11–20 sites	116 (24.5)	157 (19.0)	
21+ sites	85 (17.9)	62 (7.5)	
Number of providers: Primary Care, mean (SD)	5.5 (5.0)	5.4 (5.6)	
Specialists	0.8 (1.9)	0.8 (2.2)	
Midlevel	2.4 (3.0)	2.5 (2.9)	
Behavioral Health/Social Service	0.3 (0.8)	0.3 (1.0)	
Dental	0 (0.3)	0 (0.2)	
Vision	0.1 (0.4)	0.1 (0.5)	
Podiatry	0.2 (0.5)	0.1 (0.5)	
Other	0.4 (0.9)	0.3 (0.9)	
Total Patients per site, Mean (SD)	3,178 (2111)	3,267 (2290)	
Medicare patients per site, Mean (SD)	272 (186)	293 (237)	

Grant revenue per site in millions, Mean (SD)	0.81 (0.65)	0.82 (0.82)	
Patient revenue per site in millions, Mean (SD)	1.28 (1.11)	1.29 (1.234)	
FQHC Look-alike, n (%)	14 (3.0)	42 (5.1)	
Safety Net Medical Home Initiative participant, n (%)	12 (2.5)	9 (1.1)	p = 0.047
Beacon supplemental funding, n (%)	45 (9.5)	73 (8.8)	
PCMH supplemental funding FY11, n (%)	444 (93.7)	560 (67.7)	p < 0.01
PCMH supplemental funding FY12, n (%)	358 (75.5)	547 (66.1)	p < 0.01
ACA-Building Capacity grantee, n (%)	95 (20.0)	117 (14.1)	p = 0.006
ACA-Immediate Facility Improvement grantee, n (%)	178 (37.6)	144 (17.4)	p < 0.001
ACA-New Access Point grantee, n (%)	70 (14.8)	122 (14.8)	
ARRA grantee, n %	300 (63.3)	587 (71.0)	p = 0.004
No NCQA recognition (2008 standards), %	437 (92.2)	795 (96.1)	p = 0.015
Level 1 recognition	5 (1.1)	5 (0.6)	
Level 2 recognition	3 (0.6)	5 (0.6)	
Level 3 recognition	29 (6.1)	22 (2.7)	

SOURCE: RAND analysis of Medicare claims (November 1, 2010 through October 31, 2011), APCP Demonstration Application, American Community Survey, 2005–2009; HRSA Electronic Handbooks Grant Management System, 2012; Safety Net Medical Home Initiative website, Uniform Data Set, 2011.

NOTE: p-values for statistically significant differences are noted.

## **II.4G. Propensity Weighting of Comparison Sites**

Some of the most important questions posed by the evaluation team relate to inferences about the impact of CMS’s FQHC APCP demonstration sites compared with comparison sites on beneficiary experiences, processes, and outcomes of care. To address these questions, we started with the empirical knowledge that CMS has already identified the demonstration sites, and that CMS selected FQHC sites using a protocol that prioritized the selection of smaller practices as demonstration sites. In order to make causal inferences from our analyses to be conducted with both claims and survey data we will collect, RAND had to examine the participating and comparison sites for differences in variables we could observe. This examination revealed substantial raw differences between demonstration and comparison sites, as shown in the unweighted-comparison columns of Exhibit II.10 (See columns 2 vs. 3 comparing demonstration and comparison FQHCs). Many of the differences were practically small but once we became aware of these differences, we needed to ensure that adjustments could be made to the participating and comparison sites so that they look similar based on *observed* site covariates. Propensity score weighting is one method to adjust for such known differences. Propensity score weighting is based on the model estimating the propensity

or probability of a beneficiary at a practice site being in a participation site according to the beneficiary and site's *observed* characteristics.

The propensity score, or probability of being assigned to a demonstration site conditional on the *observed* beneficiary and site covariates, can be computed in a regression setting (e.g., logistic regression). Although we empirically know that demonstration FQHC sites have already been selected, we also note that CMS's protocol for selecting demonstration FQHCs prioritized the selection of smaller practices, ensuring differences between participating and comparison sites. After observing how this selection protocol produced differences on some characteristics between demonstration sites and eligible comparison sites, we used propensity scores to balance comparison groups on observable characteristics, as the demonstration sites were not randomly selected. Using propensity scores allowed us to identify the probability of beneficiaries in demonstration and comparison sites participating in the demonstration if such selection had been made randomly based *only* on a stratification of the covariates available to the evaluation team.

We conceptualized a collection of beneficiary, site, region, census tract, state-level, and cohort-level variables as adequate for accounting for the factors that might explain participation in the demonstration. We included beneficiary characteristics, noting that certain sites who treat a disproportionate number of beneficiaries with unique characteristics (e.g., dual enrollees or disabled beneficiaries) might be more or less motivated to participate in the demonstration. We included claims-based beneficiary characteristics measuring demographics, (age, race/ethnicity, gender, dual insurance status, disabled insurance status, institutionalized status), and comorbidities derived from the hierarchical condition categories (also including interactions between comorbidities and disabled status, and interactions between comorbidities).

We included a variety of site characteristics that were comparably available for demonstration and comparison sites. Since NCQA recognition level using 2008 standards is the best known systematically assessed metric for an FQHC's commitment to advanced primary care practices, we included that variable. We included the number of Medicare beneficiaries attributed in the year preceding the demonstration because the Medicare beneficiaries are typically a small proportion of FQHC users. Since CMS's FQHC demonstration includes site-level payments only for Medicare beneficiaries, we believe it is important to include this measure. In an attempt to make demonstration and comparison sites as comparable as possible, we included site-level characteristics from the year prior to CMS's demonstration. This included a site's total revenue, duration of operation (in years) and the number of providers (primary care, specialists, mid-level, behavioral health/social service, dental, vision, podiatrists, other) associated with the



clinics. We conceptualized that site-level participation in outside activities that were potentially relevant to transformation would be important. Accordingly, we included site's Ambulatory Quality Accreditation, participation in HRSA PCMH Initiative or other CMS demos tracked by MDM, number of service delivery sites, and whether a site was a Health Center Controlled Network grantee. Since rurality/urbanicity is an important correlate of access to staff and engagement with transformation activities, we included a trichotomous rural-urban continuum code.

Additional site characteristics included the percentage of household poverty from census tracts as a proxy for community variables. We included state-level PCMH activity, multipayer PCMH initiative participant status, Medicaid Health Home Initiative participant status (no activity, planning grant without amendment, approved state plan amendment), and whether sites received payments linked to PCMH recognition standards. We included regional Patient Care Association involvement because, within the demonstration, TA was in large part delivered through this type of regional arrangement.

Finally, because the demonstration's evaluation will ultimately be comparing changes in demonstration sites with comparison sites in a series of process and outcome measures over time, we included in the propensity model baseline values for these cost (total cost), utilization (admissions, ED visits), and process metrics (HbA1c test use for diabetics, nephrology test use for diabetics, eye exam for diabetics, LDL-C test for diabetics, and lipid test use for patients with ischemic vascular disease, as well as participation in the denominator for the diabetes and/or ischemic vascular disease measures). With the propensity score method, we will use a function of the propensity of being selected in a demonstration site— $p/(1-p)$  where  $p$  is the propensity score—as a weight for the comparison sites (keeping the weight for the demonstration sites at 1) that allows for balance of the characteristics of the demonstration and comparison sites. This is known as the propensity score average treatment on the treated (ATT) weight and it causes participants in the comparison sites to look similar to participants in the demonstration sites based on the available covariates and mimics randomization. Exhibit II.10 shows comparisons between beneficiaries in participating FQHCs and comparison FQHCs.

While propensity score models are suitable for mitigating the effects of observable differences between demonstration and comparison sites, we also have concerns about unobservable differences. We are not able to control for these in our propensity score or outcome models. The biggest difference may be between demonstration sites and sites that were eligible to apply for the demonstration but did not. These sites compose the majority of our comparison sites. Sites with eligibility but no application to become a demonstration site could represent the site management's enthusiasm about improving

the center's performance or current involvement in other PCMH initiatives. Either of these factors could be correlated with both involvement in the demonstration and with outcomes, so they could be important confounders that we were not able to control for given the data we had.

Additionally, our variables for measuring EHR implementation and other site-level variables were limited by the data sources that were available. For example, we could not control for EHR implementation at baseline using a more refined instrument such as HIMSS (Healthcare Information and Management Systems Society) Score. Additionally, the available data source for some of the key site characteristics was limited to the APCP application (percentage uninsured, race composition, etc.). This data source was not available for all comparison sites, thus limiting our modeling. Finally, important data from HRSA were mostly limited to reporting at the grantee level and not site level (e.g., revenue, clinical staff, quality measures, NCQA/Joint Commission quality accreditation), and thus were not entirely useful for adjustment purposes. Nevertheless, although there were only small observed differences in many cases between the demonstration and comparison beneficiaries, the use of propensity score weighting allowed us to reduce further any observed difference. Optimizing the design so that observed covariates are not confounded with the demonstration enhances our ability to make valid inferences about whether the demonstration (as compared with differences in covariates between participating and comparison FQHCs) is responsible for any differences we might observe between participating and comparison FQHCs.

#### ***II.4G.1. Specific Results of Beneficiary-Level Propensity Score Weighting of Demonstration FQHC and Comparison FQHC Sites***

Exhibit II.10 shows the beneficiary and site characteristics for both demonstration FQHC and FQHC comparison sites that could be confounded with the demonstration. The beneficiary and site characteristics that were thought to be possible confounders (or proxies of confounders) were used in the propensity score analyses for the estimation of propensity score weights that allow us to improve balance, making the comparison sites look like the demonstration sites. Exhibit II.10 provides both unweighted and weighted beneficiary and site characteristics, showing the comparison between demonstration and FQHC comparison site beneficiaries before and after the application of propensity score weights.

**Exhibit II.10a: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Beneficiary characteristics**

Characteristic	Unweighted FQHC Comparison		Weighted FQHC Comparison		
	Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs	
Beneficiary age (years) as of 2010	18–44	13.44	14.39	15.57	14.39
	45–64	35.37	35.79	36.73	35.79
	65–74	32.65	31.94	31.14	31.94
	75–84	14.41	13.92	13.02	13.92
	85+	4.14	3.96	3.54	3.96
Beneficiary race	Asian	2.16	3.9	7.45	3.9
	Black	18.6	17.14	19.16	17.14
	Hispanic	7.28	6.66	6.35	6.66
	North American Native	0.85	1.27	1.42	1.27
	Other/Unknown	1.88	1.93	2.27	1.93
Beneficiary gender	Female	69.24	69.08	63.34	69.08
	Male	55.7	55.21	55.08	55.21
Beneficiary dual status	Dual eligible	44.3	44.79	44.92	44.79
	Not dual eligible	47.44	48.9	51.16	48.9
Beneficiary disabled	Disabled	52.56	51.1	48.84	51.1
	Not disabled	52.42	53.7	55.31	53.7
Beneficiary institutionalized	Institutionalized	47.58	46.3	44.69	46.3
	Not institutionalized	2.56	2.42	2.1	2.42
		97.44	97.58	97.9	97.58

**Exhibit II.10b: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Comorbidities (derived from Hierarchical Condition Categories (HCC)) scores**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Human Immuno-deficiency Virus /Acquired Immune Deficiency Syndrome = HCC 1	No	98.76	98.67	98.41	98.67
	Yes	1.24	1.33	1.59	1.33
Autoimmune disorders = HCC 38	No	95.65	95.65	95.84	95.65
	Yes	4.35	4.35	4.16	4.35
Severe hematological disorders = HCC 44 (approximate mapping)	No	99.38	99.38	99.36	99.38
	Yes	0.62	0.62	0.64	0.62
Chronic lung disorders = HCC 108	No	84.66	84.68	85.48	84.68
	Yes	15.34	15.32	14.52	15.32
Cancer (excluding pre-cancer or in-situ status) = HCCs 7-10	No	92.29	92.43	92.73	92.43
	Yes	7.71	7.57	7.27	7.57
Chronic alcohol and other drug dependence = HCCs 51-52	No	95.89	95.35	95.18	95.35
	Yes	4.11	4.65	4.82	4.65
Chronic and disabling mental health conditions = HCCs 54-55	No	84.4	83.07	82.52	83.07
	Yes	15.6	16.93	17.48	16.93
Diabetes = HCC 15-19, 119	No	66.21	67.3	67.38	67.3
	Yes	33.79	32.7	32.62	32.7
Moderate or end-stage liver disease = HCC 25-27	No	97.5	97.19	97.12	97.19
	Yes	2.5	2.81	2.88	2.81
Neurological disorders = HCC 67-74	No	88.17	88.21	88.01	88.21
	Yes	11.83	11.79	11.99	11.79
Cardiovascular disorders = HCCs 81-83, 92	No	87.25	87.88	88.61	87.88
	Yes	12.75	12.12	11.39	12.12
Neurological disorders = HCC 67-74	No	90.09	90.21	90.64	90.21
	Yes	9.91	9.79	9.36	9.79
Chronic heart failure	No	89.07	89.35	89.59	89.35

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
= HCC 79-80	Yes	10.93	10.65	10.41	10.65
Trauma	No	95.43	95.42	95.58	95.42
= HCC 154, 155, 157, 158, 161, 164, 177	Yes	4.57	4.58	4.42	4.58
Infections	No	97.94	97.88	97.99	97.88
= HCC 2, 5, 111-112	Yes	2.06	2.12	2.01	2.12
Protein-calorie malnutrition	No	98.87	98.92	98.95	98.92
= HCC 21	Yes	1.13	1.08	1.05	1.08
Renal failure	No	90.61	90.74	90.78	90.74
= HCC 130-131	Yes	9.39	9.26	9.22	9.26
Gastrointestinal disorders	No	97.76	97.75	97.78	97.75
= HCC 31, 33, 176	Yes	2.24	2.25	2.22	2.25
Pancreatic disease	No	98.67	98.64	98.66	98.64
= HCC 32	Yes	1.33	1.36	1.34	1.36
Decubitus ulcer	No	97.52	97.67	97.76	97.67
= HCC 148-149	Yes	2.48	2.33	2.24	2.33
Bone/joint/muscle infections or necrosis	No	99.13	99.14	99.14	99.14
= HCC 37	Yes	0.87	0.86	0.86	0.86
Stroke	No	96.01	95.89	96.01	95.89
= HCCs 95-96, 100-101 (approximate mapping)	Yes	3.99	4.11	3.99	4.11

**Exhibit II.10c: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Interactions between comorbidities and disabled status**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Interaction: chronic lung disorders *	No	91.21	91.19	91.54	91.19
	Yes	8.79	8.81	8.46	8.81
Interaction: cancer * disabled	No	97.03	96.97	96.91	96.97
	Yes	2.97	3.03	3.09	3.03
Interaction: chronic alcohol and other drug dependence *	No	96.42	95.95	95.75	95.95
	Yes	3.58	4.05	4.25	4.05
Interaction: chronic and disabling mental health conditions * disabled	No	86.1	84.67	84.02	84.67
	Yes	13.9	15.33	15.98	15.33
Interaction: moderate or end-stage liver disease * disabled	No	98.03	97.8	97.78	97.8
	Yes	1.97	2.2	2.22	2.2
Interaction: neurological disorders * disabled	No	91.79	91.63	91.22	91.63
	Yes	8.21	8.37	8.78	8.37
Interaction: vascular disorders * disabled	No	95.53	95.49	95.53	95.49
	Yes	4.47	4.51	4.47	4.51
Interaction: chronic heart failure * disabled	No	94.7	94.75	94.68	94.75
	Yes	5.3	5.25	5.32	5.25
Interaction: renal failure * disabled	No	95.98	95.99	95.93	95.99
	Yes	4.02	4.01	4.07	4.01
Interaction: gastrointestinal disorders * disabled	No	98.72	98.68	98.64	98.68
	Yes	1.28	1.32	1.36	1.32
Interaction: bone/joint/ muscle infections or necrosis * disabled	No	99.4	99.4	99.38	99.4
	Yes	0.6	0.6	0.62	0.6

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Interaction: stroke*disabled	No	97.78	97.7	97.68	97.7
	Yes	2.22	2.3	2.32	2.3

**Exhibit II.10d: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Interactions between comorbidities**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Interaction: chronic and disabling mental health conditions * chronic alcohol and substance abuse	No	97.89	97.58	97.47	97.58
	Yes	2.11	2.42	2.53	2.42

**Exhibit II.10e: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Site characteristics**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
NCQA recognition level (2008 standards)	Level 1	1.12	0.66	0.38	0.66
	Level 2	0.87	0.42	0.32	0.42
	Level 3	2.82	7.94	13.53	7.94
	None	95.18	90.99	85.76	90.99
Medicare beneficiaries attributed in year preceding demo	Mean (Std)	600.88 (486.88)	420.01 (361.96)	376.95 (237.31)	420.01 (361.96)
Total revenue per site (in \$ millions)	Mean (Std)	2.49 (2.19)	2.33 (1.94)	2.41 (1.51)	2.33 (1.94)
Site readmission rate, baseline	Mean (Std)	0.13 (0.05)	0.13 (0.06)	0.13 (0.05)	0.13 (0.06)
Site post-discharge followup rate, baseline	Mean (Std)	0.55 (0.09)	0.56 (0.09)	0.55 (0.08)	0.56 (0.09)
Years in operation (10-year categories)	1–10 years	32.89	33.71	35.61	33.71
	10–20 years	23.14	26.59	27.41	26.59
	20–30 years	13.58	10.4	10.69	10.4
	30–40 years	23.01	21.31	17.34	21.31
	40+ years	7.37	7.99	8.95	7.99
Number of primary care physicians	Mean (Std)	7.79 (8.53)	6.63 (6.46)	6.33 (4.20)	6.63 (6.46)
Number of specialists	Mean (Std)	1.15 (2.73)	1.07 (2.44)	1.00 (1.96)	1.07 (2.44)
Number of mid-level providers	Mean (Std)	3.23 (3.33)	2.73 (3.46)	2.55 (2.08)	2.73 (3.46)
Number of behavioral health/social service providers	Mean (Std)	0.47 (1.22)	0.35 (0.89)	0.31 (0.60)	0.35 (0.89)
Number of dental providers	Mean (Std)	0.05 (0.28)	0.05 (0.33)	0.05 (0.20)	0.05 (0.33)
Number of vision providers	Mean (Std)	0.12 (0.59)	0.13 (0.44)	0.11 (0.36)	0.13 (0.44)
Number of podiatrists	Mean (Std)	0.18 (0.53)	0.18 (0.46)	0.20 (0.45)	0.18 (0.46)



		Unweighted FQHC Comparison		Weighted FQHC Comparison	
Characteristic		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Number of other providers	Mean (Std)	0.43 (1.01)	0.51 (1.40)	0.59 (0.97)	0.51 (1.40)
Ambulatory Quality Accreditation	No	71.04	63.87	66.61	63.87
	Yes	28.96	36.13	33.39	36.13
HRSA PCMH Initiative participant	No	61.98	41.38	41.26	41.38
	Yes	38.02	58.62	58.74	58.62
Participation in other CMS demo tracked by MDM	No	84.2	78.67	83.83	78.67
	Yes	15.8	21.33	16.17	21.33
Number of service delivery sites (3 categories)	1 site	7.96	2.4	2.75	2.4
	11+ sites	24.74	40.29	37.36	40.29
	2-10 sites	67.31	57.3	59.89	57.3
Health Center Controlled Network grantee	No	46.38	43.18	39.71	43.18
	Yes	53.62	56.82	60.29	56.82
Rural-Urban Continuum Code (trichotomized)	Metro	65.12	70.17	74.36	70.17
	Nonmetro-Rural	15	11.82	11.48	11.82
	Nonmetro-Urban	19.88	18.01	14.15	18.01
PCA region	Central	20.99	26.2	28.07	26.2
	Mid-Atlantic	14	9.85	8.54	9.85
	Northeast	11.41	15.27	14.92	15.27
	Southeast	18.28	12.62	9.68	12.62
	West	14.99	16.87	18.81	16.87
	West-Central	20.33	19.18	19.99	19.18
Percent household poverty in census tract	Mean (Std)	23.06 (12.43)	21.17 (11.80)	21.02 (8.92)	21.17 (11.80)
State-level PCMH activity	Medical home activity but no payments to medical homes	34.59	32.65	31.95	32.65
	No Activity	11.17	7.56	7.05	7.56
	Payments to medical homes underway	54.24	59.78	61	59.78
State-level multipayer PCMH Initiatives (2 categories)	Multi-payer payments to medical homes under way	36	39.97	39.93	39.97

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
	No Activity	64	60.03	60.07	60.03
Medicaid Health Home Initiatives (3 categories)	No activity	47.95	44.38	47.01	44.38
	State has planning grant, no amendment	32.22	32.62	31.06	32.62
	State has an approved state plan amendment	19.82	23.01	21.93	23.01
Payments linked to PCMH recognition standards	No	51.03	45.17	43.97	45.17
	Yes	48.97	54.83	56.03	54.83

**Exhibit II.10f: Unweighted and Weighted Comparisons of FQHC Demonstration and FQHC Comparison Sites: Cost, Utilization, and Process Metrics**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
		Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Total cost, baseline period, eligibility-adjusted	Mean (Std)	6917.80 (19698.68)	6804.32 (16739.68)	6706.48 (12007.43)	6804.32 (16739.68)
Admissions, baseline period, eligibility-adjusted	Mean (Std)	0.25 (0.77)	0.25 (0.78)	0.24 (0.60)	0.25 (0.78)
ED visits, baseline period, eligibility-adjusted	Mean (Std)	0.97 (2.48)	0.99 (2.64)	1.01 (2.12)	0.99 (2.64)
In diabetes measures denominator, baseline period	No	79.44	80.03	80.08	80.03
	Yes	20.56	19.97	19.92	19.97
Hba1c test for diabetics, baseline period	No	82.61	83.11	83.56	83.11
	Yes	17.39	16.89	16.44	16.89
Nephrology test for diabetics, baseline period	No	89.07	88.56	88.26	88.56
	Yes	10.93	11.44	11.74	11.44
Eye exam for diabetics, baseline period	No	91.45	91.6	91.7	91.6
	Yes	8.55	8.4	8.3	8.4
LDL-C test for diabetics, baseline period	No	83.93	84.33	84.52	84.33
	Yes	16.07	15.67	15.48	15.67
In IVD measure denominator, baseline period	No	87.92	88.47	88.99	88.47
	Yes	12.08	11.53	11.01	11.53
Lipid test for IVD, baseline period	No	90.85	91.31	91.83	91.31
	Yes	9.15	8.69	8.17	8.69

After propensity score weighting, only two components of the total HCC scores (liver-disease HCC and substance-abuse HCC) remain as statistically significant differences on measured characteristics between demonstration FQHCs and comparison site ones. This indicates that, using propensity score weights, we are able to achieve adequate balance between demonstration and comparison groups of FQHCs on measured characteristics. We expect to replicate similar balances at the beneficiary level when

beneficiary-level propensity score weights will be computed for use in all analyses to be used for inference.

**Exhibit II.11: Unweighted and Weighted Comparisons of Baseline Outcomes, FQHC Demonstration and FQHC Comparison Sites**

Characteristic		Unweighted FQHC Comparison		Weighted FQHC Comparison	
Description	Levels	Comparison FQHCs	Demo FQHCs	Comparison FQHCs	Demo FQHCs
Total Medicare payments, mean (SD)	Baseline Q1	1,856 (6,622)	1,798 (6,555)	1,764 (4,692)	1,798 (6,555)
	Baseline Q2	2,002 (7,724)	1,928 (6,769)	1,936 (5,115)	1,928 (6,769)
	Baseline Q3	1,969 (7,279)	1,936 (6,918)	1,949 (5,111)	1,936 (6,918)
	Baseline Q4	2,139 (9,055)	2,104 (7,655)	2,080 (5,798)	2,104 (7,655)
Inpatient Admissions per beneficiary, # (SD)	Baseline Q1	0.07 (0.30)	0.06 (0.30)	0.06 (0.23)	0.06 (0.30)
	Baseline Q2	0.07 (0.31)	0.07 (0.32)	0.07 (0.24)	0.07 (0.32)
	Baseline Q3	0.07 (0.31)	0.07 (0.32)	0.07 (0.25)	0.07 (0.32)
	Baseline Q4	0.07 (0.32)	0.07 (0.32)	0.07 (0.25)	0.07 (0.32)
Preventable Admissions per beneficiary, # (SD)	Baseline Q1	0.01 (0.11)	0.01 (0.11)	0.01 (0.08)	0.01 (0.11)
	Baseline Q2	0.01 (0.12)	0.01 (0.11)	0.01 (0.08)	0.01 (0.11)
	Baseline Q3	0.01 (0.11)	0.01 (0.11)	0.01 (0.08)	0.01 (0.11)
	Baseline Q4	0.01 (0.11)	0.01 (0.12)	0.01 (0.08)	0.01 (0.12)
Emergency Room visits per beneficiary, # (SD)	Baseline Q1	0.24 (0.77)	0.24 (0.82)	0.25 (0.64)	0.24 (0.82)
	Baseline Q2	0.25 (0.77)	0.25 (0.83)	0.26 (0.66)	0.25 (0.83)
	Baseline Q3	0.25 (0.79)	0.26 (0.83)	0.26 (0.68)	0.26 (0.83)
	Baseline Q4	0.25 (0.81)	0.26 (0.82)	0.26 (0.68)	0.26 (0.82)
Hospital Readmissions per beneficiary, # (SD)	Baseline Q1	0.01 (0.12)	0.01 (0.13)	0.01 (0.09)	0.01 (0.13)
	Baseline Q2	0.01 (0.13)	0.01 (0.13)	0.01 (0.10)	0.01 (0.13)
	Baseline Q3	0.01 (0.13)	0.01 (0.13)	0.01 (0.10)	0.01 (0.13)
	Baseline Q4	0.01 (0.13)	0.01 (0.13)	0.01 (0.10)	0.01 (0.13)
Diabetes patient (%)	Baseline year	23.42	22.83	22.98	22.83
Hba1c Test (%)	Baseline year	19.97	19.58	19.16	19.58
LCL-C Test (%)	Baseline year	18.46	18.15	18.03	18.15
Eye Exam (%)	Baseline year	9.74	9.65	9.67	9.65
Nephropathy Test (%)	Baseline year	12.62	13.38	13.84	13.38
Ischemic vascular disease patient (%)	Baseline year	13.58	12.99	12.45	12.99
Lipid Test (%)	Baseline year	10.38	9.94	9.35	9.94

## II.5. Selection of an Additional Set of Comparison Sites and Beneficiaries Using PCCs

In addition to the categories of comparison FQHCs already discussed, RAND (with CMS) has elected to include PCCs as comparison sites. Comparison of demonstration FQHCs with nondemonstration FQHCs addresses the question: “How does the demonstration affect changes in structure, process, and outcome in FQHCs participating in the demonstration in comparison with similar nonparticipating FQHCs?” In contrast, comparison of demonstration FQHCs with PCCs addresses the question: “How does the demonstration affect changes in structure, process, and outcome in FQHCs participating in the demonstration in comparison with PCCs that are most likely to resemble FQHCs on observable factors?”

We will summarize the pros and cons of including PCCs as comparison sites, and conclude the chapter with the final recommendation adopted by RAND with CMS.

### **II.5A. Selection Bias**

#### ***II.5A.1. Pros of Including PCCs as Comparison Sites in Addition to FQHC Comparison Sites***

The major advantage of including comparison PCCs is that they address selection bias. FQHCs were selected for the demonstration using a nonrandom process developed by CMS, and therefore nonparticipating FQHCs may differ from participants systematically. PCCs may also differ from demonstration FQHCs systematically, but the nature of the bias will likely be different. If the selection biases from comparison FQHCs and PCCs differ in direction—for example, if comparison FQHCs were *less* motivated to apply for the demonstration as demonstration FQHCs, whereas comparison PCCs are *equally* motivated to pursue primary care transformation (whether or not they actually did so), the use of the PCC comparison group would reduce the chance that inferences about the effectiveness of the intervention suffer from selection bias (as compared with the FQHC comparison group). However, the direction and extent of bias associated with comparison FQHCs vs. comparison PCCs is unknown.

#### ***II.5A.2. Cons of Including PCCs as Comparison Sites in Addition to FQHC Comparison Sites***

The major disadvantage of including PCCs is that PCC comparison groups themselves may increase some types of selection bias. PCCs differ from FQHCs on observed and possibly unobserved factors, and propensity score models do not adequately control for

either of these differences. Differences on time-varying characteristics are of particular concern. The absence of access to key variables to describe whether PCCs are similar to demonstration FQHCs limits our ability to identify PCCs as comparison sites that are comparable to demonstration FQHCs. Selection bias may lead to differences in the underlying rate of PCMH transformation between PCCs and demo FQHCs, which can be confounded with the effect of the intervention.

## **II.5B. Other Threats to Internal Validity**

### ***II.5B.1. Pros of Including PCCs as Comparison Sites in Addition to FQHC Comparison Sites***

The major advantage of including PCCs is that their inclusion decreases the threat to internal validity from contamination. FQHC comparison sites may be exposed to the TA components of the demonstration interventions. FQHC comparison sites are also likely to be exposed to a number of similar programs during the intervention period. Some of these aim to achieve PCMH recognition, and others aim to otherwise transform practice structure. This would bias our estimate of the effect of the intervention toward null. Because exposure to these programs (“contamination”) would likely occur during the same time period as the intervention, it will be particularly difficult to differentiate the effects of the intervention from the effects of contamination. While PCCs may also be exposed to similar programs, we estimate that the scale of these programs is insufficient to reach every PCC, which differs notably from similar FQHC programs where PCMH transformation efforts are more highly coordinated. Therefore, we expect exposure to be less likely for comparison PCCs than comparison FQHCs, although we have limited data sources that provide information on exposure for comparison PCCs.

### ***II.5B.2. Cons of Including PCCs as Comparison Sites in Addition to FQHC Comparison Sites***

The major disadvantage of including PCCs is they have potential to increase the threat to internal validity from misclassification bias. Many measures used as independent and dependent variables are missing or may be measured inaccurately in PCCs due to differences in claims coding vis-à-vis FQHCs and to the use of imperfect practice identifiers for PCCs.

## **II.5C. Decision to Include PCCs as a Comparison Group**

Both FQHCs and PCCs have key limitations as comparison groups. Our main evaluation approach is to compare demonstration FQHCs with comparison FQHCs. However, a central challenge with this approach is that efforts to achieve advanced primary care and PCMH recognition are pervasive among FQHCs. Some elements of the ACP intervention itself are likely to be delivered to comparison FQHCs and some elements of nondemonstration site FQHC interventions (e.g., from HRSA) are likely to be delivered to demonstration sites (beyond those delivered by the ACP demonstration itself). Therefore, it is extremely plausible that a comparison of demonstration FQHCs and comparison FQHCs will produce a null result—i.e., demonstration participation is not associated with trends in structure, process, and outcomes. A null finding could reflect either the absence of an effective ACP intervention, or the delivery of a comparably effective intervention to comparison sites during the same time as the ACP intervention is delivered to demonstration sites. Either case would show no difference in effect for demonstration compared with comparison FQHCs with time.

Including PCCs as a secondary comparison group provides additional information that could add to the robustness of the evaluation in light of shortcomings of comparison FQHCs. The most important advantage of a PCC comparison group is that it would be absent of contamination by CMS's ACP intervention. However, the comparison of demonstration FQHCs and PCCs may be biased by measured and unmeasured differences between the two that are associated with study outcomes. The most important confounders are those that are time-varying and that occur or change at the same time as the main demonstration exposure.

After considering the pros and cons of supplementing the comparison FQHCs with comparison PCCs, RAND decided in conjunction with CMS that there would be value in including comparison PCCs. Their inclusion is expected to be helpful because many comparison FQHCs are likely to be exposed to structural transformation programs. We can partially mitigate contamination bias through measurement of exposure to these programs when observable. Because the potential for bias is greatest when exposure occurs at the same time as the ACP demonstration itself, contamination of comparison FQHCs by the demonstration intervention (i.e., ACP technical assistance) is a very serious threat to evaluation validity. While we do not have the ability to measure contamination among PCCs, we expect that the risk of contamination is lower for PCCs relative FQHCs. This is the main advantage of including PCCs as a comparison group.

Under the scenario of a null finding in the comparison between FQHCs, the PCC comparison could provide either confirmation that this is likely the true effect, or



alternatively could provide information to suggest that the FQHC comparison result could be the result of contamination (rather than true ineffectiveness of the ACP intervention). This could potentially counter criticism that the evaluation findings are the result of the use of a flawed comparison group of FQHCs.

#### **II.5D. Next Steps**

As of October 2013, RAND and CMS have made the decision to analyze PCC comparison groups. However, funding for these activities was first awarded in September, 2013. Accordingly, at the time of completion of this first annual report, RAND does not yet have output to present on this topic. Generation of such output will be presented in future reports. We included discussion of the inclusion of PCC comparison groups in this annual report because an important component of RAND's work this last year was the determination of the value of PCCs as a second comparison group. During the next year, RAND will develop an analysis plan for PCCs as a complement to the comparison FQHCs. This will be applicable to both claims data and the beneficiary survey.

## III. Assessing the Structure of FQHCs

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This section includes a brief description of, and data associated with, three measures of structure describing FQHCs that are participating as demonstration or comparison sites. We include discussion of NCQA Recognitions, the RAS, and RAND's CASE Survey.

### III.1. NCQA Recognition

#### **III.1A. Overview of NCQA Recognition**

NCQA PCMH recognition is based on scoring according to six standards, each of which comprises multiple elements (Exhibit III.1). Recognized sites achieve Level 1, 2, or 3 recognition based on their total number of points scored across elements and on the number of points scored on must-pass elements (Exhibit III.2). Of 27 total elements, six are must-pass and considered essential to the functioning of PCMHs; these are required for practices at all recognition levels. Each of these six elements maps to a distinct PCMH standard. Practices must achieve a score of 50 percent or higher on must-pass elements.

As a condition of the demonstration, all participating FQHCs are required to complete the RAS every six months. Each site uses NCQA's web-based survey tool to complete the survey. "Preliminary" scores are then calculated that allow each site to understand its likely score if they were to apply to NCQA for formal PCMH recognition.

### Exhibit III.1: NCQA PCMH Standards and Elements

<b>PCMH Standard 1: Enhance Access and Continuity (20 points)</b>
<b>A — Access during office hours (4 points)*</b>
Same-day appointments
Timely clinical advice by phone during office hours
Clinical advice by secure electronic system during office hours (monitor)
Document clinical advice in medical record
<b>B — After-hours access (4 points)</b>
Provide access to routine and urgent care after office hours
Provide continuity of medical information after office hours
Provide timely clinical advice by telephone after office hours
Clinical advice by secure electronic system after office hours
Document after-hours clinical advice in clinical records
<b>C — Electronic access (2 points)</b>
More than 50 percent of patients who request EMR receive it in three business days
At least 10 percent of patients have electronic access to current health information
Clinical summaries of office visits for 50 percent of office visits within three business days
Two-way communication between patients/families and the practice
Requests for appointments or prescription refills
Requests for referrals or test results
<b>D — Continuity (2 points)</b>
Patients/families encouraged to select a personal physician
Patients'/families' choices of clinicians are documented
Percentage of patient's visits with selected team is monitored
<b>E — Medical home responsibilities (2 points)</b>
Practice is responsible for coordinating patient care across multiple settings
Practice has instructions on obtaining care during and outside of office hours
Patient/family give complete medical history and care outside practice
Care team provides patient/family access to evidence-based care and self-management support
<b>F — Culturally appropriate services (2 points)</b>
Assesses the racial and ethnic diversity of the population
Assesses the language needs of the population
Provides interpretation/bilingual service to meet needs of population
Provides printed materials in all appropriate languages for population

**PCMH Standard 1: Enhance Access and Continuity (20 points)**

**G — The practice team (4 points)**

Defines role for clinical and nonclinical members

Has regular team meetings and communication processes

Uses standing orders for services

Trains and assigns care teams to coordinate care for individual patients

Teams trained to support patients/families with self-care, self-efficacy, behavior change

Training and assigning care teams for population management

Training and designating team members in communication skills

Involving care team staff in practice performance evaluation and quality improvement

**PCMH 2: Identify and Manage Patient Populations (16 points)**

**A — Patient information (3 points)**

Date of birth included in electronic data system

Gender included in electronic data system

Race included in electronic data system

Ethnicity included in electronic data system

Preferred language included in electronic data system

Telephone numbers included in the electronic data system

Email address included in electronic data system

Dates of prior visits included in electronic data system

**A — Patient information (3 points)**

Legal guardian/health proxy included in electronic data system

Primary caregiver included in electronic data system

Advance directive included in electronic data system

Health insurance information included in electronic data system

**B — Clinical data (4 points)**

Up-to-date problem list with current and active diagnoses for more than 80 percent of patients

Allergies for more than 80 percent of patients

Blood pressure for more than 80 percent of patients

Height for more than 50 percent of patients

Weight for more than 50 percent of patients

BMI for more than 50 percent of adult patients

Length/height, weight, head size (< 2 years), BMI (> 2) plotted over time for pediatric patients

Status of tobacco use for 50 percent of patients over age 13

List of prescription patients with date of updates for 80 percent of patients

## PCMH 2: Identify and Manage Patient Populations (16 points)

### C — Comprehensive health assessment (4 points)

Documentation of age- and gender-appropriate immunizations and screenings

Family/social/cultural characteristics

Communication needs

Medical history of patient and family

Advance care planning (NA for pediatric practice)

Behaviors affecting health

Patient and family mental health/substance abuse

Developmental screening

Depression screening for adults and teens

### D — Use data for population management (5 points)\*

Use data to proactively inform about preventive care services (3 or more)

Use data to proactively inform about chronic care services (3 or more)

Use data to proactively inform about patients not seen by service

Use data to proactively inform about specific medications

## PCMH 3: Plan and Manage Care (17 points)

### A — Implement evidence-based guidelines (3 points)

First important condition is identified

Second most important condition is identified

Third condition identified, related to unhealthy behavior or alcohol/drug use

### B — Identify high-risk patients (4 points)

Practice has systematic process to identify high-risk/complex patients

Practice determines the percentage of high-risk or complex patients in population

### C — Care management (4 points)\*

Conducts previsit preparations

Collaborates with patient/family to develop individual care plan

Give patient/family a written care plan

Identifies/addresses barriers when patient treatment goals not met

Gives patient/family a clinical summary at each visit

Identifies patient/families who might benefit from additional support

Follows up with patients/families who have missed appointments

### D — Medication management (3 points)

Review/reconcile medications with patients/families for more than 50 percent of transitions

Review/reconcile medications with patients/families for more than 80 percent of transitions

Provide information about new prescriptions to more than 80 percent of patients/families

Assess patient/family understanding of medication for more than 50 percent of patients

Assess patient response/barriers to adherence for more than 50 percent of patients

Document over-the-counter (OTC) prescriptions, herbal therapy, and supplements for more than 50 percent of patients

**PCMH 3: Plan and Manage Care (17 points)**

**E — Use electronic prescribing (4 points)**

Generate/transmit at least 40 percent of prescriptions to pharmacies

Generates at least 75 percent of eligible prescriptions

Integrates with patient medical records

Performs patient-specific checks for drug-drug and drug-allergy interactions

Alerts prescribers to generic alternatives

Alerts prescribers to formulary status

**PCMH 4: Provide Self-Care Support and Community Resources (9 points)**

**A — Support self-care process (6 points)\***

Provides self-care educational resources or referrals for 50 percent of patients/families

Use electronic health record (EHR) to identify patient-specific educational resources for more than 10 percent of patients

Develops and documents self-management plans/goal with more than 50 percent of patients/families

Documents self-management abilities for at least 50 percent of patients/families

Provides self-management tools to at least 50 percent of patients/families

Counsels at least 50 percent of patients/families to adopt healthy lifestyles

**B — Referrals to community resources (3 points)**

Maintains a current resource list on five topics important to community

Tracks referrals provided to patients/families

Arranges or provides treatment for mental health/substance abuse disorders

Offers opportunities for health education and peer support

**PCMH 5: Track and Coordinate Care (18 points)**

**A — Test tracking and follow-up (6 points)**

Tracks lab tests until results are available

Tracks imaging tests until results are available

Flags abnormal lab results, alerts clinician

**A — Test tracking and follow-up (6 points)**

Flags abnormal imaging results, alerts clinician

Notifies patients/families of abnormal/normal lab and imaging test results

Follows up with inpatient facilities on newborn hearing and blood-spot screening

Electronically communicates with labs to order test/retrieve results

Electronically communicates with facilities to order/retrieve imaging results

Electronically incorporates at least 40 percent of lab results into structured EMR

Electronically incorporates imaging tests into medical records

**PCMH 5: Track and Coordinate Care (18 points)**

**B — Referral tracking and follow-up (6 points)\***

Referrals to consultant/specialist include reason for referral and relevant clinical info

Track status of referrals, including timing for receiving a specialist's report

Referrals are followed up to obtain a specialist's report

Referrals include documented agreements where comanagement is needed

Ask patients/families about self-referrals and request reports from clinicians

Has capacity for electronic exchange of key clinical information between clinicians

Provides an electronic summary of care record for more than 50 percent of referrals

**C — Coordinate with facilities/transitions (6 points)**

Has process to identify inpatient and ED admissions

Has process for sharing clinical information with ED/admitting hospital

Has process for obtaining discharge summaries from hospitals/other facilities

Has process for contacting patients about follow-up care following discharge

Has process for exchanging clinical information during hospitalization

Collaborates with patients/families to develop written transition plan (pediatrics to adult)

Is capable of electronic exchange of key clinical information with facilities

Provides electronic summary of care to another facility for more than 50 percent of transitions

**PCMH 6: Measure and Improve Performance (20 points)**

**A — Measure performance (4 points)**

Receives data on at least three preventive measures

Receives data on at least three chronic or acute care clinical measures

Receives data on at least two utilization measures that drive costs

Receives performance data stratified to identify disparities with vulnerable populations

**B — Measure patient/family experience (4 points)**

The practice surveys patients/families regarding three domains of care

The practice uses Consumer Assessment of Healthcare Providers and Systems (CAHPS) as a survey instrument

The practice obtains feedback on experience of vulnerable populations

The practice obtains qualitative feedback from patient/families

**C — Implement continuous quality improvement (QI) (4 points)\***

QI goals for at least three measures from Element A

QI goals for at least one measure from Element B

QI goals for care for vulnerable population/address disparities

Involve patients/families in QI teams

**D — Demonstrate continuous QI (3 points)**

QI results tracked over time

Assess effect of QI actions

Achieve improved performance on one QI measure

Achieve improved performance on second QI measure

**PCMH 6: Measure and Improve Performance (20 points)**

<b>E — Report performance (3 points)</b>
Clinician-level performance data from Element A and B shared within practice
Practice-level performance data from Element A and B shared within practice
Performance data from Element A and B shared outside practice
<b>F — Report data externally (2 points)</b>
Practice reports ambulatory clinical results to CMS
Practice reports immunizations to registries or systems
Practice gives data to immunization registries or systems
Practice reports syndromic surveillance data to public health agencies
<b>G — External Reporting</b>
Practice uses an EHR system that has been certified and issued an Certified HIT Products List (CHPL) number
Practice conducts security risk analyses of EHR system

\* Must-pass elements

The NCQA scoring algorithm is presented in Exhibit III.2.

**Exhibit III.2: NCQA Scoring Algorithm**

<b>Recognition Level</b>	<b>Required Points</b>
Level 1	35–59 points
Level 2	60–84 points
Level 3	85–100 points

NOTE: Must Pass Elements--6 of 6 elements are required for each level; Score for each must-pass element must be > –50%

### III.2. Baseline NCQA Recognition at Demonstration Initiation

Exhibit III.3 presents the distribution of NCQA recognition levels using NCQA 2008 standards for all demonstration and comparison FQHCs. These data were received by RAND from NCQA. At the time of the initiation of the demonstration, 92.6 percent of demonstration sites and 96.1 percent of comparison sites had not received any NCQA recognition.



### Exhibit III.3: Baseline NCQA Recognition for Demonstration and Comparison Sites

NCQA Recognition Level (2008 standards)	Demonstration Sites		Comparison FQHC Sites	
	N	Percentage	N	Percentage
None	466	92.6	795	96.1
Level 1	5	1	5	0.6
Level 2	3	0.6	5	0.6
Level 3	29	5.8	22	2.7
Total	503	100	827	100

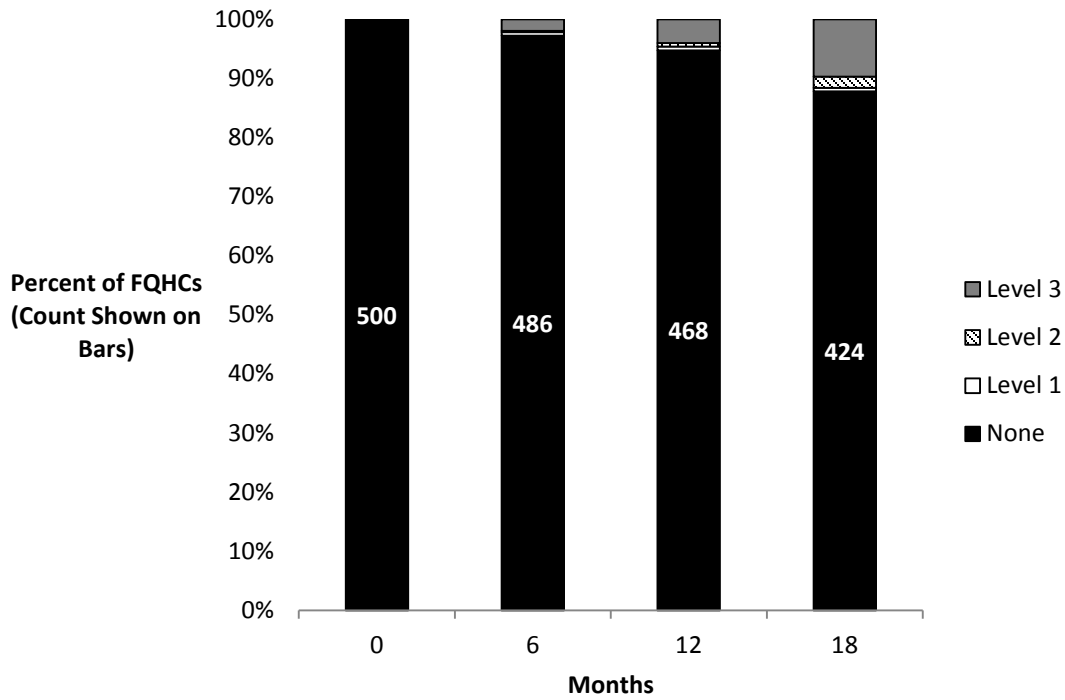
As noted above, RAND will receive biannual NCQA reports from Truven for demonstration sites. However, RAND will not receive another report of NCQA recognition levels for all demonstration and comparison sites from NCQA until the final year of the evaluation.

### III.3. Progress Toward NCQA Recognition

Our most recent data report from Truven covers the periods from December 2012 through May 2013. The following summary from these data were included with RAND's third quarterly report. The next data report will be available November 2013.

By May 2013, 47 participating FQHCs (10 percent) had achieved Level 3 NCQA PCMH recognition (Exhibit III.4). The number of recognized FQHCs has been increasing over time. However, the majority of participating FQHCs (424, 88 percent) did not achieve any level of NCQA recognition by May 2013.

**Exhibit III.4: Trends in NCQA Recognition Levels Achieved by Participating FQHCs, November 2011–May 2013**



SOURCE: RAND analysis of Truven NCQA PCMH Recognition Status Data.

NOTE: 2011 NCQA PCMH recognition standards. Of the 500 original participant FQHCs, 53 had achieved NCQA recognition by 2008 standards before the initiation of the demonstration.

### III.4. Readiness Assessment Survey

#### **III.4A. RAS Overview**

The RAS is an NCQA web-based survey of readiness for NCQA PCMH recognition that FQHCs submitted as part of their application to the CMS FQHC APCP Demonstration. Like NCQA PCMH recognition, the survey scoring is based on six standards (Enhance Access and Continuity, Identify and Manage Patient Populations, Plan and Manage Care, Provide Self-Care Support and Community Resources, Track and Coordinate Care, and Measure and Improve Performance), each of which comprises multiple elements.<sup>7</sup>

<sup>7</sup> National Committee for Quality Assurance, 2011.

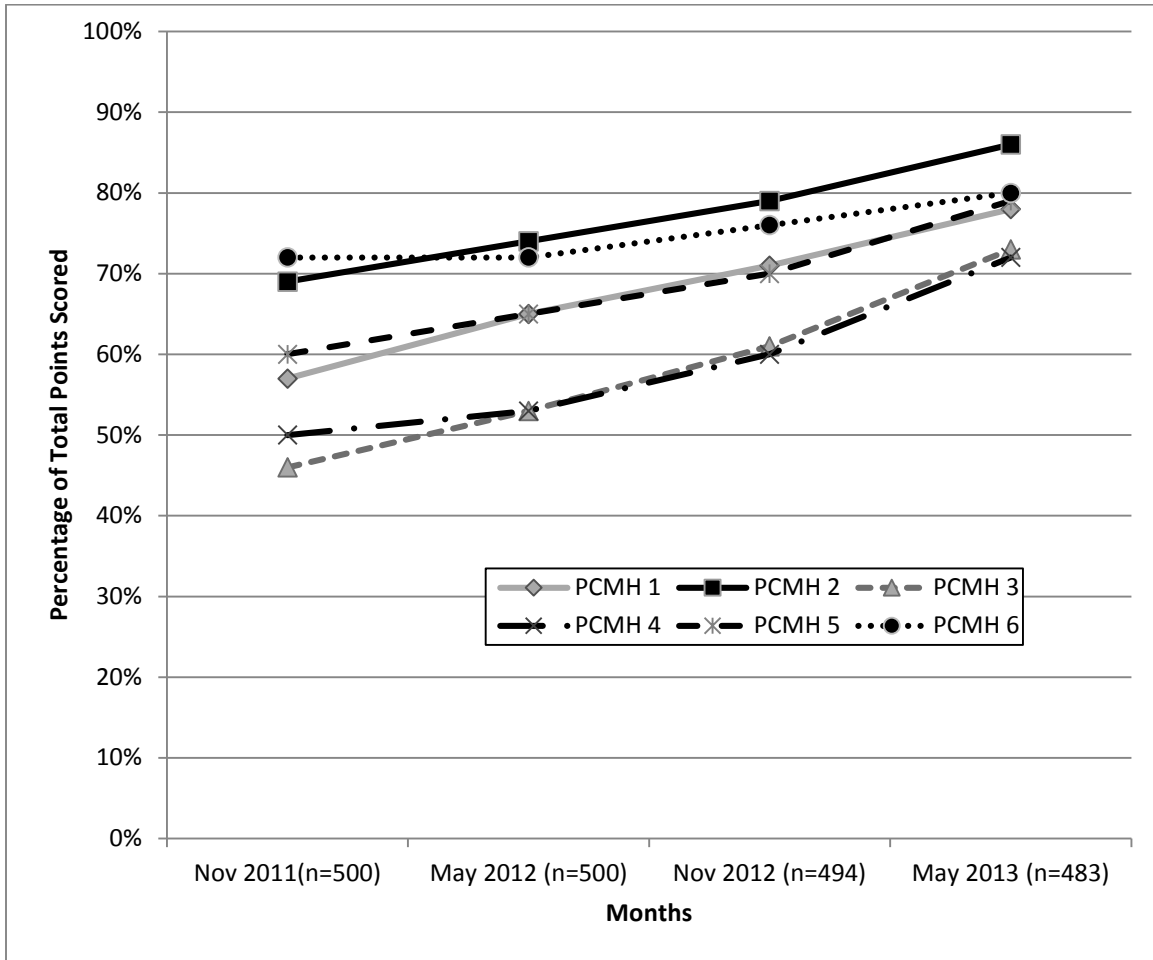
Demonstration FQHCs complete RAS scores biannually as a condition of their participation in the demonstration.

### **III.4B. Progress Towards Readiness Assessment Based Upon Readiness Self-Assessment Scores for Participating**

The readiness of participating FQHCs to achieve NCQA recognition, as measured by their self report, has been increasing over time (Exhibit III.5). The rate of increase has been approximately the same for all six NCQA PCMH recognition standards.

- **PCMH 1:** Enhance Access and Continuity (20 points max)
- **PCMH 2:** Identify and Manage Patient Populations (16 points max)
- **PCMH 3:** Plan and Manage Care (17 points max)
- **PCMH 4:** Provide Self-Care Support and Community Resources (9 points max)
- **PCMH 5:** Track and Coordinate Care (18 points max)
- **PCMH 6:** Measure and Improve Performance (20 points max)

**Exhibit III.5: Trends in Readiness Self-Assessment Scores for Participating FQHCs, by NCQA PCMH Standard**



SOURCE: RAND analysis of Truven NCQA PCMH Recognition Status Data

Exhibit III.6 shows trends in Readiness Self-Assessment Scores among participating FQHCs, listed by NCQA PCMH element across 18 months since the beginning of the demonstration. The column on the far right calls attention to the trend in RAS scores across the demonstration cohort.

**Exhibit III.6: Trends in Readiness Self-Assessment Scores Among Participating FQHCs, by NCQA PCMH Element**

Element		Month 0	Month 6	Month 12	Month 18	Trend
PCMH 1: Enhance Access and Continuity	A — Access during office hours	60	69	78	82	↑
	B — After-hours access	51	61	68	75	↑
	C — Electronic access	21	29	40	49	↑
	D — Continuity	62	73	81	88	↑
	E — Medical home responsibilities	61	68	76	85	↑
	F — Culturally appropriate services	94	97	97	98	↗
	G — The practice team	54	59	64	73	↑
PCMH 2: Identify and Manage Patient Populations	A — Patient information	95	97	95	95	X
	B — Clinical data	64	73	80	88	↑
	C — Comprehensive health assessment	85	87	89	92	↗
	D — Use data for population management	44	50	60	73	↑
PCMH 3: Plan and Manage Care	A — Implement evidence-based guidelines	51	57	65	79	↑
	B — Identify high risk patients	30	39	45	53	↑
	C — Care management	35	41	50	65	↑
	D — Medication management	59	65	72	82	↑
	E — Use electronic prescribing	56	64	75	86	↑
PCMH 4: Provide Self-Care Support and Community Resources	A — Support self-care process	37	40	49	65	↑
	B — Referrals to community resources	78	78	80	85	↑
PCMH 5: Track and Coordinate Care	A — Test tracking and follow-up	54	62	67	76	↑
	B — Referral tracking and follow-up	70	72	76	85	↑
	C — Coordinate with facilities/transitions	56	60	67	75	↑
PCMH 6: Measure and Improve Performance	A — Measure performance	72	74	78	83	↑
	B — Measure patient/family experience	62	61	67	67	↗
	C — Implement continuous QI	76	75	77	85	↑
	D — Demonstrate continuous QI	84	80	82	85	↗
	E — Report performance	70	68	73	77	↑
	F — Report data externally	73	77	78	83	↑
	G — External reporting	52	62	69	77	↑

↗ Increase of 2 to 10 percent; ↑ Increase of 10 percent or greater; X Less than 2 percent increase; percentage increase between November 2011 and May 2013.

SOURCE: RAND analysis of Readiness Assessment Survey

NOTE: Decreases in scores over time may be due to sites self-correcting their reported scores as they become more familiar with NCQA standards, receive RAS audit results, or submit for NCQA recognition.

## III.5. Clinician and Staff Experience (CASE) Survey

### **III.5A. Overview of CASE Survey**

#### ***III.5A.1. Approach to CASE Survey***

We used versions of the CASE survey instruments assembled by the PCMH Evaluators' Collaborative: Measurement Workgroup on Clinician and Staff Experience.<sup>8</sup> One version of the survey was intended for respondents who were physicians, nurse practitioners, or physician assistants, and the other version was for other clinic staff (including both clinical and nonclinical staff). Both were paper-based surveys primarily containing items with discrete choice response categories.

#### ***III.5A.2. CASE Fielding Protocol***

We randomly selected six respondents (three clinicians, three staff) from each of the originally selected 500 participating FQHC sites. The only exclusion was those initially selected FQHCs who were replaced within 30 days of being selected; for these sites, we will include the replacement sites. Because some FQHC sites had fewer than six eligible respondents, we applied any "freed up" surveys (e.g., a site with only four eligible respondents would "free up" two surveys) to other sites, so that in some sites we fielded the survey to seven eligible respondents. We fielded the CASE survey from April to September 2013.

#### ***III.5A.3. CASE Participation Rates***

Exhibit III.7 shows that across the 500 participating FQHCs, we surveyed 3,011 eligible respondents, receiving responses from 1,340 (44.5 percent overall response rate). Site clinicians and staff did not play any role in motivating respondents to complete the survey, though they did help RAND to identify the sampling frame. Clinicians and staff were asked to provide consent to release their contact information to RAND through a passive consent process. To protect the privacy of sites' clinicians and staff, RAND did not share with any clinic personnel the identity of those who were selected for the survey or of those who completed the survey.

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<sup>8</sup> The Commonwealth Fund website, 2011.  
<http://www.commonwealthfund.org/Publications/Other/2010/PCMH-Evaluators-Collaborative.aspx>

**Exhibit III.7: Total CASE Survey Response Rates**

<b>Staff</b>	<b>Total Surveyed</b>	<b>Response Rate (%)</b>
Physicians, nurse practitioners, and physician assistants	1496	37.7
Other staff	1515	51.3
<b>Total</b>	<b>3011</b>	<b>44.5</b>

Using the FQHC site as the unit of analysis, Exhibit III.8 shows there were 70 sites with no surveys returned at all. The remaining sites had one or more returned surveys.

**Exhibit III.8: Distribution of Survey Responses by Site**

<b>Number of Surveys Returned</b>	<b>Number of Sites</b>		
	<b>Type of Survey: All</b>	<b>Type of Surveys: Physician/ Nurse Practitioner/ Physician Assistant</b>	<b>Type of Survey: Other Staff</b>
0	70	170	159
1	86	179	108
2	98	101	110
3	87	40	81
4	84	11	36
5	42	0	6
6	26	1	2
7	9	0	0

### **III.5B. CASE Survey Preliminary Results Regarding FQHC Quality and Efficiency**

The CASE survey addresses multiples aspects of site-level transformation to APCPs but also documents specific aspects of demonstration site experiences with components of CMS’s FQHC intervention.

#### ***III.5B.1 CASE Survey Preliminary Results Regarding FQHC Quality and Efficiency***

This section provides examples of types of data that will be analyzed from the CASE survey. Some of these survey items will serve as dependent variables for understanding predictors of transformation. Other aspects of these data will serve as predictors for understanding progress with RAS scores, NCQA level, and changes in beneficiary-level process and outcomes.

This section provides examples for how CASE survey data will be used by focusing on two research questions:

- “Do FQHCs participating in the demonstration provide different quality and efficiency (various domains)?
  - If so, what features facilitate these effects?” (Surveyed domains may be important “facilitators” of multiple effects.)
- “What are some commonalities among the high-performing FQHCs?
  - Among the low-performing FQHCs?” (Surveyed domains may constitute some of the requested “commonalities.”)

Exhibits III.9–III.12 present clinician and staff reports that will inform our understanding of these questions. Exhibit III.9 shows scale scores related to key constructs pertinent to attributes of advanced primary care practices such as stress, work control, and communication. Scores range from 1 to 5 with a higher score endorsing respondents indicating they experience more of the attribute in their clinic. As noted, there is some variability across domains for responses from clinicians (i.e., physicians, nurse practitioners, and physicians assistances) compared with other staff.



**Exhibit III.9: CASE Survey Scale Score Summaries**

<b>Scale Score</b>	<b>Mean Score Among All CASE Respondents</b>	<b>Mean Score Among Physicians, Nurse Practitioners, Physician Assistants</b>	<b>Mean Score Among Other Staff</b>
Stress	3.34	3.58	3.16
Work control	2.02	1.96	2.06
Communication openness	3.56	3.57	3.56
Organizational learning	2.78	3.37	2.35
Team structure	2.57	3.54	1.87
Situation monitoring	3.46	3.42	3.49
Mutual support	3.65	3.58	3.70
Relationship infrastructure	3.55	3.49	3.59
Facilitative leadership	3.46	3.34	3.55
Sense making	3.61	3.48	3.71
Teamwork	3.48	3.52	3.45
Work environment	3.42	3.34	3.47
Culture of learning	3.35	3.28	3.39
Adaptive reserve	3.49	3.43	3.54
Values alignment with leadership	2.02	2.13	NA

Exhibit III.10 presents clinician and staff data pertinent to satisfaction with and experience of the working environment of the FQHC.

**Exhibit III.10: CASE Survey Responses Pertinent to Clinician and Staff Satisfaction with and Experience of their Job**

<b>Survey Questions</b>	<b>% of all CASE Respondents</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>	<b>% of Other Staff</b>
Q5: Overall, I am satisfied with my current job. (agree or strongly agree)	78.9	76.2	80.9
Q8: What is the likelihood that you will leave your current practice within TWO YEARS? (moderate or great)	29.5	32.9	27.1
Q10: Which best describes the atmosphere in your practice? (somewhat chaotic to hectic/chaotic)	35.6	41.0	31.7
Q7: Burned out	26.9	36.7	19.8

Exhibit III.11 shows CASE data pertinent to clinician and staff experiences caring for patients in an FQHC following hospital discharge.

**Exhibit III.11: CASE Survey Responses Pertinent to Site-Level Quality and Efficiency**

<b>Survey Question 25: If a patient is admitted to the hospital or emergency department, how often does the following happen:</b>	<b>% of all CASE Respondents</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>	<b>% of Other Staff</b>
A: Hospital notifies you that your patient has been admitted? (usually or often; 50–100 percent of the time)	46.1	46.1	NA
B: One of the doctors or nurses from your practice visits the patient in the hospital? (usually or often; 50–100 percent of the time)	22.2	22.2	NA
C: Emergency department notifies you that your patient has had an Emergency Room visit? (usually or often; 50–100 percent of the time)	36.8	36.8	NA
D: Your clinic receives a discharge summary or report from the hospital to which your patients are usually admitted? (usually or often; 50–100 percent of the time)	60.5	60.5	NA

Exhibit III.12 shows CASE data pertinent to clinician and staff experiences caring for patients in an FQHC following hospital discharge.

**Exhibit III.12: CASE Survey Responses Pertinent to Clinician and Staff Experiences  
Obtaining Specialty Services**

<b>Survey Question 26: How difficult is it for providers in your practice to obtain:</b>	<b>% of all CASE Respondents Reporting Easy Access to Specialists</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants Reporting Easy Access to Specialists</b>	<b>% of Other Staff Reporting Easy Access to Specialists</b>
A: Timely new patient office visits with specialists or subspecialists outside your practice? (easy)	20.6	20.6	NA
B: Timely follow-up office visits with specialists or subspecialists outside your practice? (easy)	30.1	30.1	NA
C: Timely procedures with specialists or subspecialists outside your practice? (easy)	22.5	22.5	NA
D: High-quality mental health services? (easy)	18.8	18.8	NA

***III.5B.2 CASE Survey Preliminary Results Regarding Site-Level Uptake of Components of CMS’s FQHC Intervention***

Additional examples of CASE survey data preliminary and planned analyses are presented in Sections VI.2 through VI.6. These analyses are embedded in the discussion of site-level exposure to and uptake of components of CMS’s FQHC interventions. Section VI.3C documents CASE data pertinent to TA delivered by NCQA, Section VI.4D documents CASE data regarding TA update associated with AIR, and Section VI.5.C. documents CASE data regarding feedback reports.

## IV. Experiences of Demonstration and Comparison FQHC Site Leaders with CMS' and Other APCP Transformation Activities

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### IV.1. FQHC Site Leader Interviews: Preliminary Analysis

As planned in RAND's Evaluation Design Report, we conducted a set of baseline site interviews with leaders responsible for PCMH implementation and/or practice transformation in 20 demonstration FQHCs and ten comparison FQHCs, between May and September 2013. The purpose of the interviews with demonstration sites was to understand the context, intervention, and implementation process of participating FQHCs with PCMH transformation and recognition. The purpose of the interviews with the comparison sites was to help identify potential unique drivers of change in intervention sites and to improve generalizability of demonstration site findings to the wider population of FQHCs beyond the APCP Demonstration.

Topics for the baseline site interviews included an overview of clinic context and characteristics, such as engagement with other initiatives (organized by CMS or other bodies); perspectives on the PCMH model, recognition, and effects on patient and family experiences of care; practice change and PCMH implementation issues; and (for demonstration sites) experiences with the demonstration, including use and perceived utility of the TA, enhanced PCMH payments and quarterly feedback reports, and the effect of the FQHC APCP Demonstration on clinic operations.

Here we present summaries of the interview methods and preliminary results of the baseline site interviews.

### IV.2. Methods

#### **IV.2A. Sampling and Recruitment**

Per our initial sampling plan described in the Evaluation Design Report, we purposely selected 20 sites from the participating FQHC sample and ten from the comparison FQHC sample using a trifold stratification method. We first selected the 20 intervention sites using the following three stratification criteria: one *state* within each of the six PCA clusters (the same states selected in the Integrated Sampling plan for the PCA interviews,

focus groups, and other data-collection activities); *RAS score trajectory* (three categories: Low baseline–Low year 1, High baseline–High year 1, and Change  $\geq 15$  RAS scores between baseline and year 1); and *urbanicity* (two categories: rural and urban, based on U.S. Census indicators for geocoded addresses of each FQHC). Low RAS scores are defined as those within the bottom tertile for all demonstration sites, and high RAS scores as those within the top tertile.

*From Site to Grantee-Level Sampling.* After several initial demonstration site leader interviews, we learned that for the majority of sites, the individuals primarily responsible for PCMH change efforts and participation in the FQHC ACP Demonstration were located at the FQHC *grantee level*, rather than being limited to the single site selected by RAND for the baseline interview. Thus, we moved from a site-level to an FQHC grantee-level sampling strategy. We examined the characteristics of the selected demonstration sites and determined that the original sample of sites provided a diverse sample along three grantee-level characteristics that RAND considered to be most important: (1) number of service delivery sites operated by the grantee, (2) percentage of sites located in rural areas, and (3) percentage of sites participating in the HRSA PCMH Initiative. Sampled demonstration grantees that declined to participate or failed to respond to our invitations (n=11) were replaced by other demonstration grantees whose profile matched the original according to these three characteristics. No demonstration FQHCs from one state were included in the sample.

Similarly, the ten comparison grantees we selected for baseline site interviews were those that had the closest match to ten of the 20 demonstration FQHC grantee organizations. Sampled comparison FQHCs that declined to participate or failed to respond to our invitations were replaced by others that had the next closest match to ten of the 20 demonstration FQHC grantee organizations.

*Recruitment.* For each site selected, RAND contacted the designated FQHC ACP Demonstration contact (or for comparison FQHCs, the main contact listed by HRSA) to identify the most appropriate leader familiar with PCMH change and/or practice transformation to invite for an interview. The main interviewee identified by this process frequently invited one or two other individuals within their organization also involved in PCMH change efforts. Interview respondents from demonstration FQHCs did not receive any payment for participating in the interview. Comparison FQHCs received an incentive payment of \$25 per person for up to two persons per interview.

### **IV.2A.2. Data Collection**

The demonstration site interviews were conducted between May and September 2013 and the comparison site interviews between July and August 2013. All interviews were conducted by telephone by a lead investigator (Dr. Friedberg or Dr. Mendel), with a research assistant taking notes. The interviews were digitally audiorecorded and transcribed, except for one comparison FQHC in which the respondent only gave permission for manual notes; in that case, detailed manual notes were used for the analysis.

### **IV.2A.3. Analysis**

We used a variation of content analysis to develop a coding scheme for performing a qualitative description of the themes discussed by the FQHC leaders.<sup>9</sup> In this approach, we first developed an initial codebook based on the items in the interview protocol. Three evaluation team members led by Dr. Mendel independently test coded the same two transcripts (conducted by separate interviewers) for all major themes in the codebook using the NVivo qualitative software package. Inter-rater reliability across all codes ranged from 72 to 89 percent agreement. Discrepancies were resolved by consensus in discussion among the three coders, which also resulted in additions or modifications to 13 codes. The interviews were then coded from scratch in a two-stage process: first coding text to all major themes in the revised codebook, then coding these categories for subthemes (e.g., identifying types of challenges and facilitators to PCMH implementation). Team members worked in pairs on the analysis, identifying subthemes and writing summaries of the qualitative findings.

The revised codebook is shown in Appendix A. Due to time constraints, this preliminary analysis focused on the priority themes listed below. Note that themes marked with an asterisk include analysis of comparison site interviews as well demonstration site interviews. These comparisons allow the analyses to identify similarities and differences between demonstration and comparison FQHCs.

- reasons for participating in the FQHC ACP Demonstration
- when FQHC obtained or plans to obtain PCMH recognition
- focus of any changes on Medicare or other types of clients
- challenges with PCMH implementation\*
- facilitators of PCMH implementation\*

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<sup>9</sup> Pope, Ziebland, et al., 2000.

- expected visibility of PCMH changes to patients and caregivers
- FQHC perspectives on the five intervention components offered by the CMS demonstration.\*

Results from the site interviews for the last theme have been incorporated in Section VI of the report with results from our other data sources on the technical assistance provided to demonstration sites. Analysis will continue on the other themes in the codebook.

*Qualitative Inference and Interpretation* The qualitative sampling was designed to maximize variation of experience according to our sampling criteria (geographic region, urbanicity, and self-reported PCMH readiness) and thus reported themes provide a range of possible themes rather than the most common or representative themes within the FQHC ACP Demonstration or our sample of comparison FQHCs. We present all themes identified by interview respondents for a particular topic, organized by major themes with discussion of sub-themes within those major categories.

The ten comparison sites were selected to match the characteristics of ten of the demonstration sites in the baseline interview sample across the three sampling criteria to provide a similar range of possible themes (rather than most common or representative) for FQHCs outside of the ACP Demonstration. As with the demonstration sites, we present all themes identified by interview respondents for a particular topic, organized by major themes, with discussion of subthemes within those major categories. Identification of common themes reported by the demonstration and comparison sites is used to help identify issues that are generalizable beyond the ACP Demonstration. Identification of differences in themes reported by the demonstration and comparison sites is used to help identify unique drivers and challenges faced by sites in the ACP Demonstration, although we differentiate differences that appear related to participation in the ACP Demonstration (e.g., challenges creating automated reports related to areas of the NCQA PCMH recognition standards), with others that appear more idiosyncratic to specific sites (e.g., linguistic challenges reported by a comparison site related to finding specialists for patients that speak neither English nor Spanish or to needing CAHPS surveys translated for patients).

## IV.3. Preliminary Findings

### **IV.3A. Reasons for Participating in the FQHC ACP Demonstration**

Reasons fell into several themes, with most demonstration respondents mentioning at least two to three. These reasons included:

- general movement towards PCMH, both as care model and for reimbursement
- opportunity to obtain NCQA recognition
- opportunity for quality improvement and practice transformation
- demonstration enhanced payments
- demonstration technical assistance
- implementation structure and accountability
- orientation toward early adoption.

### **IV.3B. General Movement Toward PCMH**

One of the most common reasons for participating that was discussed in various ways was the general movement toward the PCMH model in primary care as well as in the FQHC environment in particular.

There was a general sense that the PCMH model was the “wave of the future” for improving and delivering care, with PCMH measures and recognition beginning to be built into systems of accountability and reimbursement. Even though explicit mandates have not yet occurred, many respondents thought there was “no choice” and best to be “ahead of the curve.”

“We had heard that patient-centered medical home would be a focus and a priority moving forward. There had not been any mandates or anything, and there’s not now yet. But we certainly try to get ahead of that curve versus waiting and finding out that, okay, now you got to do it.”

“Well, certainly we knew that this was a feeling within the health care environment that this was an expectation on a national level. Health care plans as well as some motivations within the FQHC system.”

“I’m going to be very blunt with you, though, and let you know that really what motivated the clinic to start moving toward PCMH and some of the other requirements for this demonstration project was that they finally realized that there was no choice. They had been putting it off for a long time and finally realized that there was accountability coming down the road, and they needed to do this.”

“I think mostly to stimulate us and get us going in the direction that we’re probably all going to be headed anyway . . . So it kind of made sense to, if this



is the avenue that and the initiatives that are going to be happening around us, that we should join and get going from the beginning.”

“Well, I think that’s the future . . . I think the patient-centered medical home is . . . looking at primary care, preventive care, looking at the team approach, and I think that’s the wave of the future. All centers, all offices, I think, are going to have to go that way.”

#### ***IV.3B.1. Opportunity to Obtain NCQA Recognition***

Many FQHCs were motivated by the general movement toward PCMH recognition in particular. A common sentiment was that as FQHCs, sites were “already doing” many aspects of the PCMH model, and obtaining recognition is a method to document and demonstrate that to patients, funders, and the wider health care community.

“Well, I think our clinic has been doing a lot of the stuff that are required already. So it’s good to have the recognition. I mean, it’s an achievement that we can show to our patients that we’re actually doing all those requirements of the medical home.”

“We had a CEO who always thought that [our FQHC] was already doing a lot of the pieces of the patient-centered medical home. . . . And he always felt like we already did all of that for the patients. It’s just kind of how we document and show them we do that. “

In addition to aims of attracting patients or enhancing an internal “pride in quality,” a number of demonstration respondents focused on the expectations of payers and expected changes in reimbursement related to PCMH recognition:

“We pride ourselves on our quality, and opportunities to demonstrate it and confirm it are attractive to us. Additional funding is also always helpful for a FQHC. So, I’m not going to say that the small funding we get from the [state] Medicaid for being a medical home is not significant to us.”

“Oh, accountability in terms of a lot of our budget is grants, as it is with lots of FQHCs . . . [N]ow, people want to see what results are you getting from this grant money. Also in terms of reimbursement down the road. We do see that the payers in our community are starting to look at quality measures . . . and starting to offer us a per member per month [PMPM] based on quality measures . . . And every single one of them is also saying, ‘We want you to apply for patient-Centered Medical Home.’”

The NCQA recognition was especially attractive for both the content of its model and its “widely endorsed” nature among payers and others in the health care community. The attraction of NCQA recognition was evident even among FQHCs that had already attained PCMH recognition from other accrediting bodies.

“I did an analysis to see other ones. I mean for us, the driving factor was not necessarily popularity, but what seemed to be more recognized by the industry. NCQA has been endorsed on so many different levels. You also see the payers going with NCQA as a choice for patient-centered medical home. So, I mean, that kind of led us to believe that NCQA was the more-accepted recognition out there. AAAHC has one, as well as URAC, I believe, but we wanted to go NCQA.”

“We’re far along with the . . . patient-centered or the primary care medical home under the Joint Commission. But we also decided to go after the Level 3 NCQA patient-centered medical home designation. That’s the one that the CMS and the commercial insurance companies have approved as their model for maybe increased reimbursement in the near future. And we already have the designation under Joint Commission.”

“[W]e were Joint Commissioned before and we went to the board and said, you know, Joint Commission seems to be more hospital-focused . . . we’re not quite sure if that really serves our needs. And so our Medical director did research, and came across NCQA.”

#### ***IV.3B.2. Opportunity for Quality Improvement and Practice Transformation***

For a significant number of other FQHCs, the draw of the demonstration was as much or more centered on the opportunity to engage in serious practice change, quality improvement, and better service to clients as it was for greater external recognition or reimbursement. These sites were interested in using the demonstration as an opportunity for “real” and “big picture” practice transformation, motivated by a “belief in the concept,” even if they were not aware of all that the PCMH model would entail at the outset of the initiative or placed equal emphasis on the financial support provided through the APCP Demonstration.

“Our director of Clinical Quality and Training, my teammate, and I really wanted to make this a meaningful thing and not just get the point. So we’ve looked at it as a real practice transformation opportunity to build these things into our practice, not just do it for the sake of getting the recognition.”

“When [the Executive Director and Board] made the decision, they didn’t exactly know what it meant for us and all the changes that needed to be made. But the overall concept of patient-centered medical home was going to be better for our patients. And they really, initially, with all of the material that they read and the presentations that they heard, they really believed in that concept and they continue to believe that.”

“I think there [were] two parts about it. And one was a recognition that we needed to be involved in some sort of big-picture quality improvement collaborative and that there was some financial support associated with it. You know, the support, as opposed to, let’s say, getting Joint Commission accreditation, which is just all money going out and nothing coming back to help support us.”

For one rural, under-resourced site, the demonstration was viewed as an important opportunity to rejuvenate their entire QI effort.

“[W]e are so rural . . . We had a quality improvement nurse many years back who did a great job, but when she left there was a huge void. We tried getting a QI coordinator who wasn’t licensed. We tried different things and frankly, none of it had been working. And so the PCMH project has really made us take a look—as well as like the meaningful use test, has really brought the QI efforts forefront to administration. So we’re trying to get in a line and back in the groove with QI efforts.”

#### **IV.3B.3. Demonstration-Enhanced Payments**

Regardless of whether other motivations were given, the enhanced-care management payments provided by CMS were frequently cited. Most demonstration FQHCs in our interview sample that mentioned the payments considered them to be a relatively small but not insignificant amount, which helped tip the decision to participate in the demonstration.

“I think many of us had already heard about patient-centered medical home and thought it was an excellent program. And . . . the Demonstration Project was just a good way to go about it . . . I don’t think, going into it, we knew that there was going to be so many resources. So it was a pleasant surprise. Just having the additional dollars per patient per month was enough enticement, but we’re very pleased with the current resources that we have available.”

“And, plus, we’re getting subsidized. We’re getting some money, not a lot, to help us in this transition.”

For a few demonstration FQHCs, the financial support provided by the demonstration represented a more prominent motivation.

“This has been a costly decision and an expense for our organization. Being an FQHC means we provide care to patients who don’t have money. So therefore, we operate on a lean budget. So, opportunities for us to be able to become a patient-centered medical home as a standard of care to demonstrate standards of care that we provide for our patients and to be able to have that item funded by CMS, we saw that as being a great opportunity for our organization, as well as something great for our patients because we had been planning to do patient-centered medical home, but cost was an issue.”

One respondent leading his FQHC’s PCMH effort candidly described the predominance of the financial support in the decision to join the demonstration—he “chased a little bit of money,” even though he believed the organization had not been properly prepared to embark on a major a change initiative such as the PCMH initiative.

“To be candid, I think it was more of a reactive approach in seeing what others were doing . . . [I]n hindsight, we should have been better prepared to embrace it and embrace it system-wide . . . Again I’m just being candid, I think we were a little quick to jump on board with it without ensuring that we had the foundation in place and we really as an organization bought into the concept. Doesn’t mean we’re not getting there now, but we chased a little bit of money and I think we jumped on the bandwagon.”

#### ***IV.3B.4. Demonstration Technical Assistance***

As referenced in a number of the quotations above, the technical assistance provided by the ACPD Demonstration was frequently cited by FQHCs as a factor for participating (typically not distinguishing among any particular types of support). While many of the previously quoted respondents considered the technical assistance to be “helpful”—even a “pleasant surprise”—if not the “driver” of their participation decision, several demonstration sites did describe the offer of technical support as one of their primary motivations for joining.

“I think probably having the assistance, the technical assistance and guidance helping us get through the process. When we first were approached with information on [the demonstration], it’s like, ‘Oh wow, this is gonna be a huge thing, are we gonna be able to do it?’ So when there was the opportunity to join and have assistance and be part of that, that was definitely a plus.”

“We had heard about [PCMH recognition] even prior to the demo. And we had sat down with some of the health plans that were offering it, but just didn’t feel equipped or ready yet to take that step. But the demo project was more enticing in the sense of support and more organized and better communication, I think.”

“Well, it’s—the offer of more [technical] support. So, [the quarterly payment] was certainly . . . part of it . . . but it’s not the biggest driver. I think that the bigger driver is that . . . as an organization, we made the decision that we wanted to move forward toward the medical home model and all of these things happened at once over the last two and a half years.”

This was the case, as well, for a site that had obtained NCQA recognition under the 2008 standards prior to the APCP Demonstration and valued the support for understanding the “more difficult” 2011 standards.

“Well, I think the standards and guidelines for 2011 is much more difficult than the guidelines for 2008. And I think through the Demonstration Project, we get a better understanding of the requirements. I found the webinars very helpful, helping clarify some of the factors of the standards and guidelines for 2011.”

#### ***IV.3B.5. Implementation Structure and Accountability***

Related to the TA, a specific theme emerged on the value of the demonstration in affording a “mechanism” to structure the PCMH effort, provide feedback on progress, and introduce accountability for meeting recognition objectives. Respondents citing this theme described wanting to approach PCMH change “not flying solo, but rather in a more controlled environment” and how the demonstration has helped establish a “set-in-stone date” for achieving recognition.

“I mean, definitely [the demonstration technical assistance] is helpful, but that wasn’t a key aspect of it. It was mainly having a mechanism for someone to—well, I would say it has been helpful to kind of have a check-and-balance point to where every six months you’re reporting your data to CMS and then they’re evaluating where you stand as far as your progress towards recognition. So, that has been helpful. And then, some of the feedback that they give you regarding what you can do to move along your progress towards patient-centered medical home status.”

“We’ve been talking about patient-centered medical home recognition since 2009 and we identified quickly in 2009 that we wanted to go the NCQA . . . but it wasn’t until this particular August when we came onboard that we really put a set-in-stone date for when we wanted to achieve our accreditation, partly driven by the demonstration project and then just our own internal goal.”

“We had certainly heard about [PCMH]. And I guess this is the first opportunity we had to participate in a project that we would get technical assistance on. That was very important to us, that we wanted to participate in something that would give us feedback so we know how we’re doing. We’re not just kind of trying these new things and being out there flying solo, but rather in a more controlled environment and getting feedback. Like, ‘We think this is the right way to go. Is it the right way to go? Is it the kind of thing they’re looking for, etc.?’”

“I think there is no doubt that we wanted to increase our quality as a community health center to try to get support and to help in jumping into a large project like this. That was helpful to know, that we would have somebody helping us, guiding us, holding our hand and holding us accountable as we worked through it.”

#### ***IV.3B.6. Orientation Toward Early Adoption***

A small number of demonstration FQHCs also self-described their organizations as “early adopters” that “push excellence” and are prone to joining interventions for change and innovation. Two of these sites looked to the ACP Demonstration to support their PCMH change efforts and help keep them at the forefront of “innovation” and “enhanced models of care.”

“We've had to be early adopters with innovation and improvement. The opportunity to have the additional support, technical support, and best practices, was attractive to us. Although I do have to say that, because our time frame was a little bit ahead of the APCP time frame on what we learned, we learned after we submitted our applications, our corporate application. Yeah, the ability to focus and obviously some additional resources to help put things into place was attractive to us.”

“We want to be a player at the table of the new—the enhanced models of care that are kind of . . . permeating the system of health care in this country. We . . . wanted to both be able to show what we know and also enhance what we do.”

For another “early adopter,” the attractiveness of the APCP Demonstration was in sharing with the wider FQHC community in improvement and using the demonstration as a vehicle to sustain PCMH transformation and maintain recognition.

“This is an organization that just really pushes itself to the limits about excellence, truly. We really do. Our CEO is committed to it . . . that comes from the top. I mean, I don't think we really thought that we were going to learn a lot more from it, because we had just gotten certified on the 2008 [standards] a year before. But we thought, here's an opportunity and our CEO also is really big on sharing. She's like . . . we have an obligation to bring our sister organizations along. So that's just the way we are. We participate in everything.”

“We already had patient-centered medical home Level 3 before . . . under the 2008 standards. And we got certified again this year on the 2011 standards . . . So what it did for us was made us go through the application more frequently than once every three years. It made us go through it . . . every three to six months, to see, ‘Well, are we really hanging in there to the standard?’ . . . And that's what this project has done. It's not like we can just say, ‘Okay we passed.’ Three more years and we'll do it again.”

#### **IV.3C. When FQHC Obtained or Plans to Obtain NCQA Recognition**

According to the self-reports of respondents in our baseline interview sample, eight demonstration FQHCs had attained some form of NCQA PCMH recognition or had applied for it.

- One FQHC site had entered the demonstration with NCQA Level 3 recognition under the 2008 standards and obtained Level 3 recognition in early 2012 under the 2011 standards.
- Another four sites had entered the demonstration with NCQA Level 3 recognition under the 2008 standards, but had not yet applied for recognition under the 2011 standards (all planning to apply in the fourth quarter [Q4] 2103).

- Three FQHC sites had applied for recognition in Q3 2013—one site for Level 1 and two sites for Level 2—but had not yet heard results as of the time of the interview.

The remaining 12 sites had not yet obtained or applied for any form of NCQA PCMH recognition. Of these, two sites specifically stated they were planning on applying for Level 3 recognition in Q4 2013. One additional site indicated it would be applying in Q4 2013, but did not specify the level. Five more sites indicated they were planning on applying in 2014, but were not specific about the level and two did not provide any details.

In addition, five of the demonstration FQHCs interviewed were planning to submit a multisite corporate application to obtain NCQA recognition for all sites within their organization. Three of these FQHCs had at least one site with Level 3 recognition under the 2008 standards but had not yet applied under the 2011 NCQA standards. The remaining two demonstration FQHCs planning to submit a multisite corporate application, had a few sites with individual Level 3 PCMH recognition under the 2011 NCQA standards, but wanted to obtain umbrella corporate recognition that could include all their primary care service sites.

#### **IV.3D. Focus on Medicare or Other Types of Clients**

We specifically asked respondents in our demonstration FQHC interview sample about the degree to which they are targeting or expect their PCMH efforts to affect Medicare, Medicaid, or other specific patient populations, or to affect their general patient population equally. All demonstration FQHCs noted that their PCMH change efforts were not focused on any particular payer group, such as beneficiaries of Medicare, Medicaid, or specific private health plans. As one typical respondent described, the demonstration sites tended to view the PCMH as a fundamental change to their general practice model that works best by standardizing the various components across their network or system of care.



“We are not focusing particularly on Medicare patients. Everything that we’re doing is for our entire patient population, if it’s applicable and also network-wide. We may have a certain focus, but we’re applying everything we’re learning, everything we’re doing, network-wide. We want to standardize how we’re operating, to the degree possible, to the degree that makes sense.”

Other sites indicated that even though their PCMH efforts are not differentiated by payer groups, they have targeted patients in specific chronic-condition and high-risk groups “across the board.”

“The changes that we’re making, we’re not making payer distinction. They’re across the board. For example, the targeted ones are for the three important conditions plus high risk. So it could be sliding fee patients, or it could be MediCal patients. We don’t discriminate. It’s just across the board.”

Two sites indicated that while “everyone’s benefitting” from the ACP Demonstration, Medicare beneficiaries are likely to be one of the groups that benefit more from the PCMH changes, given the high proportion of beneficiaries with multiple chronic conditions or the heightened visibility afforded by the demonstration to Medicare beneficiaries in an FQHC where they are a relatively small proportion of the clientele.

“I think everyone’s benefitting. And I think that’s the greater good of this demonstration program . . . I think that our focusing on a diabetic population or focusing on certain conditions and preventive services; I think it’s benefitting everyone, but I will say we’re focusing a lot more on getting that Medicare population in for that important annual visit, or for that first visit. So I think we’ve undertaken more outreach for that population as well, for the Medicare population. So they’re benefitting from our focus on preventive services and on chronic care and then a little bit more on. . . ‘Gee, we really need to just get them in the door because once we get them in the door, we do a good job,’ but we have to get them here. But overall, I think everyone’s benefitting.”

“Our Medicare population at the site that’s participating in the project is fairly small, so it’s not as if. . . changes are bottom-line significant, but it’s interesting because one thing that it has shown is that we’re getting a greater participation of our Medicare patients. They seem to be showing up more, in terms of the reports we’re getting. And that could be as a result of that we’re working more closely with them.”

One site indicated that because Medicare patients do not have issues accessing specialty care, the demonstration was not likely to produce any noticeable change in that area of their care, but it would for the non-Medicare population.

### **IV.3E. Challenges with PCMH Implementation**

We present qualitative findings on challenges that demonstration FQHC sites reported by theme. These themes are organized into sections on

- General Change Management Challenges
- NCQA Application Process and Documentation Challenges
- Specific PCMH Component Challenges.

We also present preliminary findings of similarities and differences in challenges that the comparison FQHCs in our sample reported with implementing a PCMH model of care.

#### ***IV.3E.1. Change Management Challenges***

PCMH transformation is closely linked to general practice improvement and redesign efforts in primary care sharing many core processes of organizational innovation and change management. According to the Agency for Healthcare Research and Quality, a critical element of the PCMH is an overall commitment to quality reflected in a strong culture and mindset of continuous quality improvement that supports, tracks, and maintains activities such as using evidence-based medicine and clinical decision support tools to guide shared decisionmaking with patients and families, engaging in performance measurement and improvement, measuring and responding to patient experiences and patient satisfaction, and practicing population health management.<sup>10</sup>

Respondents in all but two of the demonstration FQHCs in our baseline interview sample reflected on challenges with PCMH implementation related to such general-change management issues. These change management challenges centered on creating buy-in across the staff, attempting to integrate or embed new tasks into current processes to reduce burden, provider reluctance to changing practice behavior, and the axiom that “*just a lot of change is required to become a PCMH.*”

*Staff buy-in.* FQHC respondents commonly reported challenges in creating buy-in across all the staff and essentially changing the culture of the clinic as part of the PCMH transformation process. A few respondents specifically mentioned the challenges of changing culture around teamwork, but the majority discussed how hard it is to gain buy-in to change across the whole organization.

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<sup>10</sup> Erin Fries Taylor, Deborah Peikes, Janice Genevro, and David Meyers. *Creating Capacity for Improvement in Primary Care: The Case for Developing a Quality Improvement Infrastructure*. Decisionmaker Brief: Primary Care Quality Improvement No. 1. Rockville, MD: Agency for Healthcare Research and Quality, Document No. PP13-82, April 2013.

“You can’t have one PCMH expert. You have to have everybody, everybody has to come along and be PCMH experts all at the same time, and I think that’s been a challenge for us. Because it’s great that you have an administrative person who knows all of this PCMH lingo and, I don’t know, the right steps to take, but that one or two administrative people can’t do, you can’t do the PCMH stuff without involving everybody and having everybody be educated and on the same page.”

This was expressed concisely by another respondent when asked if there are any downsides to becoming a PCMH:

“Getting buy-in when they’re tired, exhausted, and we’re throwing more and more things at them.”

A few of the FQHCs addressed the issue of staff buy-in by “holding full team meetings and involving all staff in the process of thinking through how a change could be implemented.” In one practice, they reported “the full turnover of all practice staff except the physicians” was needed to change the culture and allow for the changes necessary to become a PCMH.

*Integrating and embedding tasks into routine processes.* Another general change challenge discussed in depth by some demonstration respondents involved efforts to reduce burden on staff by integrating and embedding the required tasks for the many aspects of PCMH—previsit preparation, chart review, documenting medications, care plans, patient education, etc.—into general practice operation without having physicians or other clinical staff feel like more work was being added.

“Our providers are already busy with taking care of patients, documenting, a lot of paperwork. So if we continue to add more tasks [with PCMH], it may be very difficult for them.”

One respondent described the necessity of embedding tasks and how difficult that can be, using the example of team huddles.

“The challenge is how you really integrate the providers’ assessment of the patient and their input into the process without making it that the team has got to be there at 8:00 in the morning, . . . So it’s kind of trying to figure out creative ways that [team huddles] are working and this is how we make it work without making it feel like it’s additional work. I mean, you can only really accomplish that if you make it integrated into the work such that it just is getting done versus that it’s an extra activity that we’re trying to accomplish.”

*Provider reluctance to change.* Another common issue was providers’ reluctance or resistance to change, a widespread issue in health care improvement and redesign. “Provider reluctance” was described as foot-dragging, or hesitancy to change, rather than outright opposition or resistance. Some respondents perceived generational differences in

the reluctance or dissatisfaction with taking part in the initiatives to document quality or use of the EHR to document processes of care. Others attributed reluctance more to the comfort with change of individual providers.

“The providers, most of them are committed. But since they have a lot of demands, some providers find it difficult to like meet the requirements and do the steps needed.”

Two strategies for addressing this challenge included introducing changes with an “incremental approach to change, using baby steps” and framing the PCMH effort as a solution to common frustrations such as managing hospital referrals and poor coordination of care: PCMH will solve the frustration of physicians with access to specialty care.

Many FQHCs also stated as a main challenge the fact that “a lot of change is required for PCMH.” Approaches to this challenge included “standardize, routinize, change process so they are more predictable,” “hire [more] back-office staff for chart review, documentation, so doctor can focus on patient main visit,” and to gain “organizational commitment from senior leadership to the staff.”

*EHR implementation.* EHR implementation in general was also raised as a challenge. In our interview sample, demonstration respondents acknowledged the increased efficiencies that could be gained by EHRs in concept, and discussed how central EHR systems were or how specific EHR features facilitated PCMH transformation and the recognition process because of their better ability to remotely access patient information and track improvements in quality of care, as well as their functionalities in coordinating care management and population management. But for many respondents, the state of EHR technology or the actual process of implementing an EHR was a challenge as they pursued becoming a PCMH. In some cases, EHR implementation occurred concurrently with participation in the FQHC APCP Demonstration, which proved a distraction to the organization and staff in attempting to implement PCMH changes. One respondent described concisely how the EHR changes were a distraction to PCMH changes.

“Because EMR and PCMH came all at the same time—which is, unfortunately, sort of the rollout that’s going to happen with the other clinics—the providers were really much more focused on the EHR implementation.”

Another respondent described the reaction to implementing EHR with PCMH:

“I think [PCMH changes] just felt like another burden to them. And as I say, they still are kind of ‘deer in the headlights’ over the EHR. And now that they’re done with their first three months of EHR, now I’m going to really start going in and beefing up some of these PCMH concepts. Mostly what I’ve been working with them on is patient education and the handouts that are available in the EHR to make that easier for them. And so they’re just starting to learn all of that, how it’s related to the EHR. But it does feel burdensome to them.”

Problems with EHR systems were also reported for specific components of the PCMH model, including poor usability, time-consuming data entry, interference with face-to-face patient care, inability to exchange health information with EHR systems of other facilities and providers, and degradation of clinical documentation. We discuss these EHR issues related to specific PCMH components further in Section IV.3G.1.

#### ***IV.3E.2. NCQA Application Process and Documentation Challenges***

The problem of documentation in general for the NCQA application process was mentioned as an overarching concern for a majority of the FQHC respondents. Not only was there a concern about documenting the specifics of the six NCQA PCMH standards, the respondents also described the demanding nature of documenting every task that a clinician or provider engages in during a patient encounter.

“The biggest thing is the quality of things that NCQA looks at and documenting each thing . . . in terms of education of patients . . . Are we giving them handouts? Are we really talking to them about their medications? Are we even checking to see whether or not they understand what we’re saying to them? And these are things that we think we do? And, again, when I say we, I’m talking about providers asking and documenting these things.”

“With the NCQA, it’s all on the documentation. And so if you have left out something that they were really looking for in the documentation, you’re not going to pass that element or factor. And that’s really, really difficult is telling this story strictly on paper.”

One physician team at a site approached the documentation of the NCQA application process successfully by having all providers compile “very comprehensive progress notes that document any and all audit components of the application.”

The majority of demonstration respondents we interviewed mentioned one or another aspect of the NCQA recognition process that was a challenge. The respondents reported in general that the application process is costly and requires lots of documentation, especially for the patient education and coordination of care processes. Several respondents also indicated that PCMH demands large changes in staffing models to be sustainable and systemwide, especially as they tried to move from NCQA Level 2 to Level 3. One FQHC respondent discussed issue of hiring additional staff:

“[With PCMH] there has to be more emphasis put on staffing, being able to have the appropriate staff that you need to really function as a patient-centered medical home, because we try to do more work with the same amount of staff and I think that’s where you get the burnout and the frustration. So, we’ve added positions, but it’s still a matter of figuring out what is the ratio that you’ll need to have to achieve patient-centered medical home. And I’m speaking specifically for FQHC role who does not have a—you know, hospitals have it, or private people have an unlimited budget, but you’re more restrictive in your budget than you would be maybe in a private setting.”

A few FQHCs mentioned the difficulties they were having with their patient experience survey tools as they moved from a few questions to a more standardized set of patient experience specific questions, such as using the CAHPS survey.

#### ***IV.3E.3. Specific PCMH Component Challenges***

We also asked and probed FQHC representatives about challenges in implementing specific components of the PCMH model of care. Here we organize responses by the six major categories of the 2011 NCQA standards for PCMH recognition.

NCQA’s goal is for the six PCMH standards to move transformation of primary care practices forward while ensuring the standards are within reasonable reach for a range of primary care practice sizes, configurations, electronic capabilities, populations served and locations.<sup>11</sup> The PCMH standards align with the core components of primary care. Exhibit IV.1 provides a summary of the content of each standard.

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<sup>11</sup> NCQA, 2011.

### Exhibit IV.1: Summary of NCQA PCMH 2011 Standards

Standard	Content Summary
1. Enhance Access and Continuity	<ul style="list-style-type: none"> <li>• Patients have access to culturally and linguistically appropriate routine/urgent care and clinical advice during and after office hours</li> <li>• The practice provides electronic access</li> <li>• Patients may select a clinician</li> <li>• The focus is on team-based care with trained staff</li> </ul>
2. Identify and Manage Patient Populations	<ul style="list-style-type: none"> <li>• The practice collects demographic and clinical data for population management</li> <li>• The practice assesses and documents patient risk factors</li> <li>• The practice identifies patients for proactive and point-of-care reminders</li> </ul>
3. Plan and Manage Care	<ul style="list-style-type: none"> <li>• The practice identifies patients with specific conditions, including high-risk or complex care needs and conditions related to health behaviors, mental health, or substance abuse problems</li> <li>• Care management emphasizes:               <ul style="list-style-type: none"> <li>– Previsit planning</li> <li>– Assessing patient progress toward treatment goals</li> <li>– Addressing patient barriers to treatment goals</li> </ul> </li> <li>• The practice reconciles patient medications at visits and after hospitalization</li> <li>• The practice uses e-prescribing</li> </ul>
4. Providing Self-Care and Community Support	<ul style="list-style-type: none"> <li>• The practice assesses patient/family self-management abilities</li> <li>• The practice works with patient/family to develop a self-care plan and provide tools and resources, including community resources</li> <li>• Practice clinicians counsel patients on healthy behaviors</li> <li>• The practice assesses and provides or arranges for mental health/substance abuse treatment</li> </ul>
5. Track and Coordinate Care	<ul style="list-style-type: none"> <li>• The practice tracks, follows up on, and coordinates tests, referrals, and care at other facilities (e.g., hospitals)</li> <li>• The practice follows up with discharged patients</li> </ul>
6. Measure and Improve Performance	<ul style="list-style-type: none"> <li>• The practice uses performance and patient experience data to continuously improve</li> <li>• The practice tracks utilization measures such as rates of hospitalizations and ER visits</li> <li>• The practice identifies vulnerable patient populations</li> <li>• The practice demonstrates improved performance</li> </ul>

SOURCE: Adapted from NCQA, Standards for Patient-Centered Medical Home (PCMH): 2011 Standards and Guidelines. February 2011. See: <http://www.iafp.com/pcmh/ncqa2011.pdf>

#### *IV.3E.3a. Challenges with 'Enhance Access and Continuity' (PCMH Standard 1)*

A majority of issues reported by FQHC respondents related to PCMH Standard 1—access to care and scheduling. All but two of the demonstration FQHCs we interviewed discussed issues they were having in implementing and achieving this PCMH standard to enhance access and continuity.

Many respondents raised a broad range of issues related to improving access to care. One of the major challenges concerned the impact of moving to same-day access, which

necessarily resulted in shifting control for patient appointments away from clinic staff to central schedulers and managers.

“We’ve instituted same-day appointments. That was challenging, in the sense that we really needed to look at all our templates and see how we could do it. And I think there was a certain amount of resistance: ‘What does it mean, same-day appointment?’ We had to do a whole education process across the teams and our site.”

A related issue was the amount of effort it takes to create and establish a consistent flow of information for the team to use about the patients being seen in a given day, including the limitations and difficulties of having an EHR support the creation of such information. Difficulties included creating templates in the EHR that could pull together information for treatment plans, hiring additional medical assistants to review and prepare information for patient visits, and creating the templates and interfaces needed within an EHR to track any chronic disease patients that were being seen on a given day. These demands on automated workflow of information were highlighted as increasingly important, given the shifts to same day scheduling.

“[It was a challenge] to create a flow of information about a patient who’s coming in so that we just get things done.”

Most of the demonstration FQHC respondents also discussed the need for hiring more midlevel and other staff such as registered nurses, licensed practical nurses, and clinical social workers to improve access—and the associated issues with covering the additional costs and figuring out the appropriate staff mix.

The process of assigning a patient to a given clinical team, known as empanelment, was raised as an issue by several respondents, who indicated it was very difficult to achieve empanelment because the patient base for their FQHC site is inconsistent due to the low-income, uninsured population served and a high rate of canceled appointments. At an FQHC site, providers may see four or five different people because patients need to be seen and the patient’s specifically assigned provider is booked. Other respondents discussed how empanelment required the hiring of back-office staff, such as medical assistants and registered nurses for chart review and documentation, to allow the doctor to focus on the main reason for the patient’s visit and to allow the other members of the clinical team to provide patient education as well as the required care management and coordination.

In revamping their work flows and teams, FQHC respondents discussed the challenges in setting up automated reports for huddles and previsit planning. Creating the automated templates are costly and require information technology (IT) efforts to figure



out the best method to operationalize the needed reports. Respondent at two different sites with two different EHRs expressed it this way:

“The templates that are required for the Next Gen or any EHR—they have to be developed especially for this, and that adds cost. It adds time. Next Gen right now has told it to stop modifying templates because they're having a hard time keeping up and there's going to be changes they're going to be implementing in their next version that will take care of some of that. So that involves a lot more of my IT staff, my operations people, and it puts a bigger administrative load on working that model through.”

“We were on Medical Manager prior to going on to Intergrity or Vitera, and as with anything, when it's a major change, it's a matter of getting everybody familiar with the product, learning the shortcuts, which is a big thing, and just being able to navigate through both ends of the system. There's a lot of really, really neat things that come with an effective EHR. Prescription checks, checking for alternates, checking for allergies—doctors are infamous for their horrible handwriting, and doing everything electronically, and all of our providers are now 100 percent.”

Several demonstration respondents discussed the challenges with engaging patients to use a patient portal and communicating with patients electronically, especially given lower levels of computer and linguistic literacy and technological access typically found in FQHC patient populations. As one respondent described:

“Our main challenge is the patient portal, just the whole process of, ‘how do you engage [patients]?’ And I don't feel like anyone's really given us a good example [of how to engage patients in using a patient portal] for the type of people that typically come to an FQHC. How do you engage them to utilize the patient portal?”

Two demonstration FQHCs mentioned how the physical space limited their ability to support teamwork and team huddles. Ideally, members of the team are collocated to increase the interaction and interface time of all members of the team. Two other FQHCs described the difficulty in making sure providers have the time to be present at the huddles.

“There's still always challenges of getting providers there early to do it, making sure staff are all present. And they get pulled in several different directions at one time. So that is a challenge, but we still try.”

#### *IV.3E.3b. Challenges with ‘Identify and Manage Patient Populations’ (PCMH Standard 2)*

Only a few challenges were raised related to identifying and managing patient populations. One respondent mentioned the difficulty in reeducating providers from a focus on urgent care to managing all the medical needs for their panel of patients.

“We have urgent care mixed with primary care. So transitioning providers from ‘the only point to see you is for this acute condition’ to ‘you are now part of my panel, I need to take care of your whole health,’ has been a shift.”

Another respondent raised the challenge of establishing and maintaining patient registries using their current EHR:

“I think one of the biggest challenges with the information technology is actually having patient registries now. Our previous management system was very ancient and not capable of this.”

#### *IV.3E.3c. Challenges with ‘Plan and Manage Care’ (PCMH Standard 3)*

Many FQHC respondents discussed the difficulty in reaching the “must pass” goals with their patients with chronic diseases. Sites have hired health educators and established case management; but the challenge then becomes being consistent and focusing on the necessary changes to reach the self-management goals. In some cases, the challenge is having the EHR being capable of documenting treatment goals and assisting in medication reconciliation.

“And then one of the other things that we did for our staff is we implemented templates per chronic disease within our EHR. So if an MA is working with a patient that comes in and they're diabetic, there's a diabetic template in the EHRs that they go through and fill out and make sure that they've hit on all of them so that we make sure our diabetics get their eye exams as best as we have control. Their dental exams. You know, did they get their foot exam? Have they had their LDL checked? And their micro albumens, and all the other things that they check with that as well.”

Another respondent described the difficulties of managing all aspects of patient care for patients and the broadening of responsibility to assist patients:

“The patient-centered medical home is forcing us now to say, ‘okay, I order a medication for a patient, how is the patient going to get that medicine?’ I have to help them with finances. I have to help with transportation. I have to help with the specialist. So it’s getting case managers, getting what we call patient navigators, to help them with the insurance issues that they may have. Specialists, getting specialists to be part of that team.”

Another respondent described how they have reorganized to be aware of when their at-risk patients are coming in to enable the team to address the patient’s specific issues.

“In managed care, we now can run reports to see which ones are diabetes patients that haven’t had a Hemoglobin A1C in the last six months, so that can bring it down below a nine. I think those are the hardest, but since we moved our outreach workers into the medical site where they’re looking at appointments in advance and taking them to the team huddle, and . . . these patients are coming in, and we make sure they come into my office before they leave to see if there’s anything we can do. We can address the issues head on.”

A respondent from another demonstration FQHC indicated the frustration in having patient reminders for patients with chronic conditions in their EHR.

“One of the issues that we have, and was frustrating to me, were the patient reminders for specific chronic conditions. But we have that sorted out now. We went through some system conversions and upgrades and all that. We had trouble getting some of the data out of the system.”

#### *IV.3E.3d. Challenges with ‘Providing Self-Care and Community Support’ (PCMH Standard 4)*

After access and continuity (PMCH Standard 1), the most challenges raised by respondents concerned PCMH Standard 4—providing self-care and community support. Several respondents raised challenges related to documenting the activities taking place in the care plan or in documenting medication.

“We’ve changed the way we document, because of the NCQA chart audit component of the application, where they say, is there documentation that all new medications were reviewed with the patient or is there documentation of self-management? Or is there documentation of a patient centered care plan? Or was the patient given a visit summary? . . . This is where I’m getting pushback from my providers. We had to really make providers document in a way to meet that standard. We had to pretty much give them the words. And to say, in order to make it easier to do the audit, or in order to really pull the information out, they couldn’t just talk to the patient about the new medication. They had to actually chart that they talked to the patient about the new medication. And we have very, very, very comprehensive progress notes now.”

Others raised general issues about engaging patients in their own self-care.

”The self-management is probably one of the bigger challenges at that site in particular. Getting those patients engaged in their self-care plan is tough. We’re talking a large migrant population. We’re talking about people that might not have—they may be illiterate in any language. So we’re doing it, but that’s a challenge and that takes a lot of time.”

“The other [activity we are working on] is setting self-management goals. I think in their practice, that’s one of their biggest shifts. Most of the providers were not setting self-management goals with patients. I think, where we’ve been focusing, making sure that the tools are available and that the team is actually working with the patient to develop self-management goals and then following up on them and supporting them in their goals.”

But the majority of challenges related to Standard 4 involved producing automated EHR reports that are used in care management and care plans; half of the FQHCs raised issues related to automating information flow needed for providing self-care support.

In particular, several FQHCs discussed aspects of working with their EHR vendors or system developers to integrate the types of templates and reports need for managing and documenting PCMH-related processes of care.

“We’ve been trying in our EHR to assign the high-risk level to them. One of the struggles that we have, once again, is that in our reporting mechanism, we can set the high-risk level but . . . we’re not able to pull it out, which is just ridiculous. So there’s been trouble with the EHR vendor and anyway, so that’s one element that . . . we still have work to do around.”

“Through our software, we have the capability of printing out a visit summary sheet, but our IT department is developing a written plan of care. So until they have that ready, we can’t get that one “must-have” because that element requires a written plan of care. And we don’t have that capability. The only capability we would have is if we went back to our paper record. And we can’t go back to a paper record, but they’re working on it now and that should be ready in July. And there’s a couple other things that IT is building for us that are requirements.”

#### *IV.3E.3e. Challenges with ‘Track and Coordinate Care’ (PCMH Standard 5)*

Demonstration respondents mentioned several issues encountered by their FQHCs in tracking referrals and coordinating follow-up care. A number of respondents talked about overcoming problems tracking information on their patients with hospitals. For example, one FQHC site had obtained inpatient agreements with their hospitalist groups; another had held regular meetings with care managers from the FQHC site and the hospitals. A third recalled that they had open and frank discussion with the leadership of their area hospitals about emergency room (ER) diversion.

Many of the respondents that reported continued challenges with tracking and coordinated care referred to the fact that they were not able to exchange information electronically with local hospitals and specialists through their EHR systems.

“The challenge is exchanging information with other places, being able to electronically provide a summary of care to another provider when other providers are all using different kinds of electronic health records.”

“PCMH wants us to be able to share information both ways with people outside our organization; we’re struggling with that. We have access to the hospital system because all of our providers are on staff at the hospital, but we cannot get communication backwards and forwards. If we send [patients] into their specialty groups, they cannot access our information electronically.”

Another challenge with interfacing with hospitals and specialists was the number of relationships with other health care facilities and organizations that the FQHC site needs to manage. In some cases, the FQHC site had one hospital in which they did not have a relationship.

“We don’t have a relationship with the hospital. We’re working with our local consortia to see if there’s a project going on locally to connect hospitals and community health centers. So we have high hopes on that project because, many times, we don’t know if our patients are in the hospital or not.”

On the other hand, another FQHC site had numerous hospitals with which they needed to coordinate care.

“Some of it’s challenging because we work with so many different hospitals who don’t necessarily have robust reporting abilities to know our patients, and our patients then have the ability to give us reports on which of our patients were admitted or came to the ED.”

A few FQHC respondents mentioned the costs of creating and managing electronic interfaces across multiple systems; e.g., “Interfaces are never free. Making the systems talk to each other is going to require investment. Such interfaces end up costing us money.”

Other respondents recalled times when their EHR assisted in coordinating care and the key role these systems play in enabling the PCMH model, despite the numerous technology-related challenges.

“The EHR has definitely improved the coordination-of-care process. You have one medical record for a single patient and in the past you had a separate record in mental health . . . reconciliation was a great tool. The lab conciliation’s a great tool. They have so much information on the screens now in the EHR that it’s easier to coordinate the care of each patient.”

#### *IV.3E.3f. Challenges with ‘Measure and Improve Performance’ (PCMH Standard 6)*

One demonstration FQHC respondent specifically mentioned a challenge with PCMH Standard 6 related to measuring and reporting performance for improvement. The respondent noted a struggle with being able to generate provider versus clinic-level reports:

“ . . . we’re struggling with our reporting system because we have good reports that come out clinic-wide, but we’re not able to separate them out by individual clinic or by provider, and so we have been running some subsequent reports on that.”

#### **IV.3E.4. Comparison Site Challenges with PCMH Implementation**

##### *IV.3E.4a. Change Management Challenges of Comparison Sites*

Among the ten comparison sites, we found that three had obtained NCQA Level 3 recognition, one was in the process of obtaining it, two were deciding whether to pursue NCQA or another type of medical home recognition, three already had another type of PCMH recognition (e.g., from Joint Commission), and one was not pursuing recognition. When these ten comparison sites were queried about challenges related to becoming a PCMH, we found that half of the ten comparison FQHCs in our baseline interview sample reported general-change management issues, compared to nearly all of the

demonstration FQHCs. This difference may stem from the comparison FQHCs not all being actively engaged in a PCMH change effort. Nonetheless, these change management challenges were similar to those mentioned by the demonstration sites. The only additional type of challenge came from one comparison site that indicated a “weak” QI infrastructure for implementing changes such as the PCMH model of care: “We, I think, have minimal processes in place in terms of quality improvement from a formal perspective. I think it’s an area of weakness within our organization.”

#### **IV.3F. Specific PCMH Component Challenges of Comparison Sites**

##### ***IV.3F.1. Challenges with ‘Enhance Access and Continuity’ (PCMH Standard 1)***

The majority of issues related to a specific PCMH component reported by comparison FQHCs concerned PCMH Standard 1—access and continuity of care. Similar to the demonstration sites, all but two comparison sites discussed at least one issue they were facing in implementing this PCMH standard.

The types of issues raised by comparison sites were also very similar, including challenges with assigning patients to a team, engaging patients to use the patient portals (especially for transient populations), hiring additional midlevel clinical staff such as registered nurses, working as a team, limited physical space, and the work that is required to document processes of care and patient visits into the EHR. However, comparison sites in our interview sample did not mention other challenges, such as creating automated reports for huddles and previsit planning, managing the flow of information for patients being seen in a given day, or general issues with changes in scheduling appointments.

##### ***IV.3F.2. Challenges with ‘Identify and Manage Patient Populations’ (PCMH Standard 2)***

Similar to the demonstration respondents, the comparison respondents raised only a few challenges related to identifying and managing patient populations. One comparison respondent mentioned the difficulty in reeducating providers away from a focus on urgent care to one on managing all the medical needs for their panel of patients. Two other comparison respondents mentioned the challenges in establishing and maintaining patient registries using their current EHR.

##### ***IV.3F.3. Challenges with ‘Plan and Manage Care’ (PCMH Standard 3)***

Comparison respondents mentioned similar types of challenges as demonstration respondents with implementing changes in care management. Several comparison

respondents discussed challenges with hiring care managers and health educators, as well as establishing the care management process, including training both current and newly hired staff for these roles.

#### ***IV.3F.4. Challenges with ‘Providing Self-Care and Community Support’ (PCMH Standard 4)***

The comparison respondents discussed several challenges related to PCMH Standard 4 – providing self-care and community support similar to those reported by demonstration respondents. These challenges included problems documenting completion of care plans and medication prescribing, general issues with engaging patients in their own self-care, difficulties producing automated EHR reports for care management, care plans, and automating information flow for providing self-care support.

#### ***IV.3F.5. Challenges with ‘Track and Coordinate Care’ (PCMH Standard 5)***

Next to access and continuity (PMCH Standard 1), the next most common area for challenge in the comparison FQHCs involved PCMH Standard 5—tracking and coordinating care. Similar to demonstration FQHCs, the main issues concerned inability to exchange or access information electronically through EHR systems with local hospitals and specialists (e.g., discharge summaries or other medical records).

One new challenge raised by a comparison site was the linguistic challenge of finding and engaging specialists able to converse with non-English speaking patients, and the related cultural issues of encouraging non-English speaking patients of different backgrounds to attend a needed specialist appointment. They also raised the concern that patient portals and patient experience surveys tend to be translated only into Spanish, which excludes many of their patients whose primary language is neither English nor Spanish.

#### ***IV.3F.6. Challenges with ‘Measure and Improve Performance’ (PCMH Standard 6)***

Only two comparison sites mentioned specific challenges related to PCMH Standard 6—measuring performance improvement. One respondent indicated that their FQHC’s biggest struggle was generating provider-level reports and using provider-level data to monitor physicians’ tracking and monitoring of individual patients’ clinical and patient-experience needs. Another respondent raised the issues, as mentioned before, that CAHPS surveys are only in English and Spanish, and they need CAHPS surveys to be available in Chinese for their patient population.



### **IV.3G. Facilitators of Implementing PCMH**

We now present qualitative findings on facilitators FQHC sites reported by theme. These themes are organized into sections on:

- General Change Management Facilitators
- Specific PCMH Component Facilitators

In addition, we present preliminary findings of similarities and differences in facilitators that the comparison FQHCs in our sample reported with implementing a PCMH model of care.

#### ***IV.3G.1. Change Management Facilitators***

Three-quarters of the demonstration FQHCs reported facilitators related to general-change management issues. These included supportive leadership for change among the executive provider physician ranks, use of an incremental approach to change as a way to standardize practices, and breaking down the change process into feasibly implementable steps.

*Leadership throughout the organization and physician champions.* FQHC respondents commonly reported both the need for organizational commitment from senior leadership as well as the presence of physicians' champions supportive of PCMH-related changes. As one demonstration respondent described:

“Our medical directors have shown great leadership and commitment—so we have site administrators, and then we have a medical director at each clinic, at each health center—and the medical directors really need to be the leaders. And they are, in our case . . . I think the medical directors are all engaged in this [demonstration and PCMH transformation]. And then we also have a vice president of clinical affairs, who is, of course, the medical director over all of the clinicians. And then we have another position that was developed almost a year ago . . . it is a physician, a primary practitioner who has moved from being a medical director at one clinic—in fact, one of our FQHC, one of our CMS sites—and she's moved into the role of director of primary care and information. She's really, really taken the lead on driving the medical home model. She is a champion of not only the EHR, but of the population management system and a real champion of understanding the medical home criteria and standards and helping to operationalize that.”

*Incremental and Standardized Approach to Change.* Many demonstration respondents described that approaching PCMH in a systematic and incremental manner assisted in both the PCMH and EHR roll out, particularly because of the number of

changes needed and because of the transformative nature of most of the changes. As one respondent put it: “Baby steps, and the incremental approach.”

Many demonstration FQHCs also discussed how having physicians actively engaged in the change effort facilitated the change process. As one respondent explained, the generally competitive nature of physicians to want “to excel at any task given to them” helps motivate physicians with new PCMH-related tasks if they have been engaged and bought into the process. Respondents mentioned that facilitators to address the large number of tasks required in a PCMH change effort included working to “standardize, routinize change process so they are more predictable”, and to “hire [more] back-office staff for chart review, documentation, so doctors can focus on the patient visit.”

*EHR implementation.* This was also mentioned as a facilitator for creating change. A majority of the sites mentioned that having an EHR system that had been in place and fully functioning for two years prior to PCMH changes assisted in the uptake of providers to the new processes of care coordination, referrals, population management and scheduling. Having the EHR in place laid a foundation for providers to have a stable interface and to be comfortable with the variety of screens and how to manipulate the EHR for PCMH documentation. A few respondents also mentioned that their EHR vendors had customized reports they could use as documentation to submit for the NCQA recognition application, and templates, tools, and workflows to help meet the requirements. Several other demonstration-site respondents mentioned that their pursuit of the Medicare and Medicaid EHR Incentive Program, which provides financial incentives for the “meaningful use” of certified EHR technology to improve patient care, was a facilitator to the needed EHR changes that support PCMH. To receive an EHR “meaningful use” incentive payment, providers have to show that they are “meaningfully using” their EHRs by meeting thresholds for a number of objectives. CMS has established the objectives for “meaningful use” that eligible professionals, eligible hospitals, and critical-access hospitals must meet to receive an incentive payment. The respondent indicated that pursuing “meaningful use” incentives provided synergy with EHR implementation and, hence, PCMH changes.

#### ***IV.3G.2. Specific PCMH Component Facilitators***

In the interviews, we also asked and probed FQHC representatives about facilitators in implementing specific components of the PCMH model of care.

As above, we organize responses on facilitators related to specific PCMH components into the six major categories of the 2011 NCQA standards for PCMH recognition (see also Exhibit IV.1).

*IV.3G.2a. Facilitators with ‘Enhance Access and Continuity’ (PCMH Standard 1)*

Demonstration respondents mentioned a variety of facilitators for teamwork and communication among teams that support the goal of enhancing access and continuity of care. A few respondents discussed how having teams collocated (i.e., sitting together) assisted in building relationships across teams and also in terms of enhancing trust and communication among teams. A few other respondents mentioned that new locations with dedicated office and meeting spaces enhanced team members’ ability to work together and conduct team huddles. Another demonstration respondent pointed to the benefit of instituting consistent team meetings involving all staff, which served to increase the continuity and communication across provider teams.

“The interaction, the communication, was just brought to a whole new level because the team sat together. So if someone was talking about a specific patient’s needs or whatever that was, the rest of the team might have picked up that they were talking to such-and-such patient, they could then add whatever they might know about that patient, maybe that behavioral health person knows something to add to the care.”

*IV.3G.2b. Facilitators with ‘Identify and Manage Patient Populations’ (PCMH Standard 2)*

When asked about anything that helped in their PCMH implementation, several demonstration respondents mentioned investing in additional EHR functionality for population management. As described at one demonstration site:

“An additional change that we made, and really also driven by the medical home model, is that we also invested in a population management system that integrates with our electronic health record. And we did that because there was a realization that even though you pull a lot of data out of the electronic health record, it’s not always actionable the way that it comes out. And so, with this population management system we put in place, we’re now able to really focus in on clinical conditions, or focus in on certain populations and segregate out populations, and so that’s been very exciting for the organization. It’s been very exciting for our providers. It’s made the medical home model, perhaps, make more sense, because we might have talked about population management or care coordination within the medical home model and certainly care coordination as addressed.”

*IV.3G.2c. Facilitators with ‘Plan and Manage Care’ (PCMH Standard 3)*

Demonstration respondents in our baseline interview sample did not mention any specific facilitators related to planning and managing care.

*IV.3G.2d. Facilitators with ‘Providing Self-Care and Community Support’ (PCMH Standard 4)*

Demonstration respondents in our baseline interview sample did not mention any specific facilitators related to providing self-care and community support.

*IV.3G.2e. Facilitators with ‘Track and Coordinate Care’ (PCMH Standard 5)*

Next to access and continuity (PMCH Standard 1), the area with the most facilitators for demonstration sites were related to PCMH Standard 5—tracking and coordinating care. A few respondents pointed to facilitators relating to customized IT solutions for seamlessly sharing discharge summaries, or referral information or details of a specialist visits. Other respondents discussed how data sharing of patient charts and encounters in the ER with providers greatly facilitated being able to coordinate care. As one described, “Coordinating is no longer a paper trail and is automatically seen within the patient chart.”

Other facilitators mentioned by demonstration respondents included hiring a referral coordinator to be a team member and signing inpatient agreements with hospitalist groups as facilitators to care coordination.

Based on the current analysis, technical assistance on Tracking and Coordinating Care (Standard 5) can be of great help to sites in providing strategies, templates, and models on several issues, including:

- strategies for building relationships and engaging hospital and specialty providers in a site’s local area
  - distinguishing these strategies for different types of providers (e.g., hospitalists, care managers, behavioral health agencies)
  - distinguishing these strategies different types of local health systems, particularly for sites with patients utilizing multiple hospital and specialty providers (e.g., how to coordinate or consolidate these wider referral networks)
- templates and strategies for customized IT solutions for managing referral process internally and with external providers
  - in particular, solutions for receiving referral follow-up information back from external providers
- understanding the issues and costs in maintaining electronic systems to exchange referral information

- templates and strategies for efficiently managing referral processes and information when IT solutions are not available
- models of assigning responsibility of the referral coordination function to specific staff (either full-time referral coordinators or as part of their roles) and incorporating these individuals as part of the clinical care team
- strategies for integrating referral tracking and flows of information into routine process of care rather than perceived as an add-on, overly burdensome, paper-trail process
- strategies for meeting needs of patients when necessary services are not readily available or accessible (linguistically, transportation, etc.) in the local area.

#### *IV.3G.2f. Facilitators with ‘Measure and Improve Performance’ (PCMH Standard 6)*

Several demonstration respondents mentioned the importance of using a PCMH survey for their patient-experience surveys.

“We’ve been doing patient surveys forever. We just switched to the patient-centered survey last year. So you have some historical data you can compare things to . . . We’ll be able to tell, for example, if the portal improves communication. Hopefully, that’ll be reflected in the patient satisfaction survey. It should help us pinpoint changes and successes.”

### **IV.3H. Comparison Site Facilitators with PCMH Implementation**

#### ***IV.3H.1. Change Management Facilitators of Comparison Sites***

More than half of the comparison FQHCs reported facilitators related to general-change management. Change management facilitators similar to those reported by demonstration FQHCs included administrative and provider leadership supportive of PCMH changes, having a designated QI coordinator or other leader for the PCMH effort, and using an incremental approach to standardizing and breaking down the change process into feasibly implementable steps.

Additional change management facilitators reported by comparison FQHCs included stability of provider staff within clinics, and the need to educate patients about PCMH and new care processes. Another comparison FQHC described the Joint Commission as a key facilitator during their recognition process: “They were so helpful in information and best practices, information and examples, and how to get past the barrier of notifying a patient of what we’re doing. They were a great resource.” Similarly, four comparison FQHCs in our interview sample pointed to the Medicare and Medicaid EHR Incentive

Program as facilitating needed EHR changes for the PCMH effort, and two comparison FQHCs indicated the importance of HRSA’s financial support covering their NCQA PCMH recognition and patient experience surveys.

#### ***IV.3H.2. Specific PCMH Component Facilitators of Comparison Sites***

Similar to demonstration FQHCs, the majority of specific PCMH component facilitators cited by comparison FQHCs were related to Standard 5—tracking and coordinating care. Other facilitators similar to those reported by demonstration FQHCs included customized IT solutions for exchanging data with hospitals and specialists (e.g., discharge summaries, referral information, details of specialist visits), gaining access to patient ER charts and encounter data in particular for coordinating care, and the value of having designated referral coordinators on staff.

Only one comparison FQHC mentioned a facilitator related to PCMH Standard 1—access and continuity. Similar to the demonstration FQHC results, this facilitator concerned the importance of collocating teams near each other.

Comparison FQHCs in our baseline interview sample did not mention any specific facilitators related to PCMH Standards 2 (identifying and managing patient populations), 3 (care management), 4 (providing self care and community support), or 6 (measuring and improving performance).

### **IV.3I. Expected Visibility of PCMH Changes to Patients and Caregivers**

In the interviews, we asked about the changes that patients, their families, and other caregivers would perceive from any PCMH changes that FQHCs in our sample had made or were in the process of making. Respondents mentioned a variety of changes that would be perceived by patients; we have organized their responses by the six major categories of the 2011 NCQA standards for PCMH recognition. Refer to Exhibit IV.1 for a summary of the content of each standard.

#### ***IV.3I.1. ‘Enhance Access and Continuity’ (PCMH Standard 1)***

Half of the changes that demonstration FQHC respondents expected patients to notice related to PCMH Standard 1—access to care and scheduling.

Most respondents discussed how patients would experience better continuity in care from having access to care from a consistent and familiar provider or team of providers. This was also expected to improve patients’ experience of care coordination and provide quicker responses to questions. Respondents also discussed how the team approach to care would improve patients’ relationships with all the providers in a clinic.

Patients frequently see the person they selected or who was otherwise assigned to them as their primary care physician, so there would be more continuity.

“I think, hopefully, they [patients] see a better coordination and better opportunity to really relate better with providers and all staff and getting things answered and accomplished.”

Another demonstration respondent talked about how care is managed differently and how the team approach results in a different care experience for patients.

“Very often, the patient navigator or the case manager, to a good percentage, ends up participating in the visit with the practitioner because they're working with the patient also and it doesn't have to be, like, the doctor over here and the patient navigator, case manager—rather, that's, again, part of the team concept. . . . And they like it. You know, very often their relationship with the patient navigator is different than their relationship with the practitioner. I think it makes them feel like somebody's there for them.”

Several respondents commented on the visit summary as the most noticeable difference a patient would experience.

“I think that probably the immediate thing that they would notice is getting the information in real time, such as the medical summary at the end of the visit, which actually lists what was discussed in a visit and follow-up appointment, as well as the medication list, and getting that in real time at the end of the visit and having the provider discuss what occurred in a visit and actually having a written record of that. I think that would be probably the first thing that the patients would say.”

#### ***IV.3I.2. 'Identify and Manage Patient Populations' (PCMH Standard 2)***

Only a few demonstration respondents discussed how patients may notice that the FQHC is managing their patient populations differently. Most of these changes consist of instances in which population management results in new or different contacts with patients.

“The other thing that's very different for them is that we're performing outreach that we didn't do in the past. And we identified . . . some preventive services and some opportunities with our women's health and also with our child immunizations. So, really, it had a big effort where we identified that population and then sent out reminder letters . . . and we're doing follow-up calls for some of our diabetic patients who haven't been in for a while. That's very different and . . . that's new for patients.”

#### ***IV.3I.3. 'Plan and Manage Care' (PCMH Standard 3)***

Many demonstration respondents reflected on how patients would experience differences in how their care is planned or managed. One of the frequently mentioned changes patients

noticed was that their care was coordinated better because they were receiving their test results, or talking with a provider about a care plan or receiving a treatment summary.

“For instance, they now receive . . . a clinical summary of their care and we combine that with what we call the patient plan, so that they’re getting information with every encounter that they never received before. And including some self—a self-management tool that helps them when they’re not with us. This is very different now, and I think initially, patients didn’t know what to do with it. And actually, at the clinical sites, the comment was, ‘This will never work, we can’t possibly do this. We can’t give a patient plan out . . . we can’t give a summary and patient plan to every patient. We don’t have the time, we won’t remember, patients will throw it in the parking lot.’ Well, really, all that got worked through and what we find is patients do like getting it. And if some of the sites forget to give it to them, we have patients who are asking for their plan, for their summary. And so, there’s a level of patient engagement that we never thought we would have. And it’s still early, but I think that’s very different. And it’s very different for our patients.”

Another respondent described how the largest impacts on patient experience of care would be for those patients requiring management of complex sets of conditions.

“The care management piece is a big area where a patient will feel a difference, especially the more complex patients who are involved, because not all our patients touch a care manager, but for those patients that are the sickest and utilize our system the most, having a person to contact frequently and easily was noticed right away.”

#### ***IV.31.4. ‘Providing Self-Care and Community Support’ (PCMH Standard 4)***

Half of the demonstration FQHCs described how patients would notice more accountability and communication around establishing and following up on goals. They discussed how patients would experience more support in managing their health, not just with goals but also in terms of outreach, reminder phone calls and letters, and targeted patient education. One respondent described how pursuing a PCMH model of care changes the quality and frequency of communication around a person’s health and condition(s).

“I would hope that once we get everything set, that they’ll see that there is more communication with regard to the patient on his or her medical condition. And when I say that, [I mean] in terms of follow-up calls to see how the patients are doing, focusing more on difficulties or obstacles that they may face, in trying to assist them in terms of those barriers that they may face in terms of their health care. I think that that would be a major thing that they would see. And going with that, hopefully, in terms of the indicators that we may be looking at, whatever it may be, A1C or whatever, that we see an improvement in their health condition. So I would say more contact with the patient, being more responsive to them . . . especially as we get the other staff on board, like the navigators and the case managers.”



Another respondent described how patients are experiencing the frequent contact and attention by medical assistants who are managing care.

“But the patients—as I said, we’re calling in some patients who hadn’t come into the clinic for six months and other patients who are being referred to our medical assistant who’s doing the care management. There has been tremendous response about that, about the fact that somebody’s calling them for an appointment, rather than them having to call again and again and again. But also lots of comments about how they feel that they’re being—there’s someone reaching out to them. She calls them. Say, their goal is to start walking 15 minutes a day. She’ll call them every couple of weeks to see how they’re doing about that. When she anecdotally tells me what the patients say, but I’m also seeing it in her documentation in the chart, the patients are making progress, and they say to her it’s because they know she’s going to call. And so these are patients who are starting to learn portion control and exercise. And some of them wouldn’t bother to pick up their medications when they ran out, and now they are. And that’s what we hope to spread across. So, yeah, I think in three months’ time, it’s a big difference.”

#### ***IV.3I.5. ‘Track and Coordinate Care’ (PCMH Standard 5)***

Several sites described the differences that patients would notice when specialists and hospitals were able to track and coordinate care with their primary care physician.

“They’ll notice that when they go to see the primary care that he or she will already know what their specialist said. Yeah. ‘Oh, I see you saw the urologist already and it looks like they have this plan and they talked to a care manager and we’ve got this set up for you.’”

#### ***IV.3I.6. ‘Measure and Improve Performance’ (PCMH Standard 6)***

Demonstration respondents in our baseline interview sample did not mention any specific changes that would be perceived by patients, their families, and other caregivers related to measuring and improving performance.

Respondents in a few demonstration FQHCs indicated that patients would likely not notice much difference in care because the FQHC already provided the type of care that the PCMH model calls for: “[T]he main change [in PCMH] is in all the documentation of the things we already did.”

# V. Experiences of Primary Care Associations with CMS' and Other APCP Transformation Activities

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## V.1. PCA Site Interviews (Activity 4) Preliminary Analysis

As described in RAND's Evaluation Design Report, we also conducted a set of baseline interviews with leaders of PCAs in each of the six states selected for the qualitative TA evaluation sample, which included three PCAs serving as cluster regional leads and three PCAs that are not. The purpose of these semistructured qualitative interviews with state PCA leaders was to learn how TA is being planned and implemented for demonstration sites. The subset of interviews with PCA cluster leads was intended to inform us about TA at both the regional and state levels. The key informants for these interviews were PCA executives and other leaders responsible for managing programs delivering TA to demonstration sites, who provided perspectives on how the demonstration-related TA within the state is organized and supplemented perspectives from the PCA focus groups with practice facilitators and coaches who interact directly with demonstration sites.

Interview topics for the PCA leader interviews included

- the types of support the PCA provides to demonstration sites
- how the PCA is organizing TA to demonstration sites
- types of staff who interact directly with demonstration sites (e.g., their own staff, other PCAs, subcontractors)
- the response of demonstration sites to the TA and any issues with site participation
- the kinds of support that seem more and less helpful to sites
- main challenges that sites are having with PCMH transformation and NCQA recognition
- how the types of TA provided and experiences of demonstration sites compare with other FQHCs the PCA is supporting
- plans the PCA has for TA to demonstration sites going forward.

Interviews with lead PCAs of regional clusters included questions on coordinating TA across PCAs within their region, and perspectives on the support the cluster lead

receives from CMS and the national demonstration partners. Interviews with the other three PCAs included questions on the kinds and usefulness of support they receive from their regional cluster lead and national demonstration partners.

Here, we present summaries of the interview methods and preliminary results of the PCA leader interviews.

## V.2. Methods

### **V.2A. Sampling and Recruitment**

Per our initial sampling plan described in the Evaluation Design Report, we invited the PCA contact provided by AIR in each of the six PCAs in our state sample, after CMS' email to the contact requesting their participation in the interview. All six states agreed to participate. The AIR-provided contact, or a designate deemed more appropriate, participated in the interview.

### **V.2B. Data Collection**

The demonstration site interviews were conducted between August and October 2013. All interviews were conducted by telephone by a lead investigator (Dr. Mendel), with a research assistant taking notes. The interviews were digitally audiorecorded and transcribed for the analysis.

### **V.2C. Analysis**

We used a variation of content analysis similar to the approach described for the analysis of the FQHC site interviews described in Section IV. We first developed an initial codebook based on the items in the interview protocol. A team of two coders led by Dr. Mendel analyzed the set of six PCA leader baseline interviews. Given the small number of interviews and the experience of both coders with the site interview analysis, which covered similar themes, we initiated the analysis of the PCA leader interviews using the initial codebook without a test-coding phase. As with the site interviews, the transcripts of the PCA leader interviews were coded in a two-stage process: first coding text to all major themes in the codebook, then coding these categories for subthemes if necessary, from which summaries of the qualitative findings were written.

The revised codebook is shown in Appendix B. Due to time constraints, this preliminary analysis focused on the following priority themes:

- differences in PCA support to demonstration versus nondemonstration sites
- barriers to providing technical assistance to demonstration sites

- PCA suggestions for the demonstration moving forward.

Analysis will continue on the other themes in the codebook.

*Qualitative inference and interpretation.* The qualitative sampling of state PCAs was designed to maximize variation of experience to our sampling criteria (geographic region, and leading a regional cluster of other state PCAs), and thus reported themes provide a range of possible themes rather than the most common or representative themes within the six PCAs we interviewed. We present all themes identified by interview respondents for a particular topic, organized by major themes, with discussion of subthemes within those major categories. Given the small sample of state PCA leader interviews, we do not differentiate results on the above three topics based on state PCA characteristics.

### V.3. Preliminary Findings

#### **V.3A. Differences in PCA Support to Demonstration Versus Nondemonstration Sites**

All six PCAs we interviewed were careful to acknowledge the need to expend demonstration funds specifically for participating sites, but also with an eye toward their role to serve all FQHCs in their state. Thus the PCAs tended to offer similar services to demonstration and nondemonstration sites, and advocated for sharing of information and lessons learned from the demonstration to other FQHCs in their state.

“When we started this work as a PCA last year—and I know we weren’t the only PCA to really try to make this distinction—we wanted CMS to understand that while we understood any funds expended needed to be specifically for the CMS demonstration sites, we felt very strongly that we wanted to be able to have avenues to share the lessons learned with the entire FQHC population and not just the demonstration sites. And we received support from CMS to do that.”

However, the PCAs did appear to vary to the extent that support services were created or developed specifically for the FQHC APCP Demonstration sites. One PCA discussed how they provided a similar “menu of services” to all FQHCs in their state, but that APCP Demonstration sites may differ in which of these services they use due to the requirements and timing of the demonstration.

“[Our PCA] approach in itself is kind of a menu of [three types of] services, and that’s the same for everyone in the state whether you’re a demonstration site or not. I think the difference becomes, with the CMS demonstration population, they’re all in the getting-ready-to-submit stage just as a result of their grant deliverables and have passed the assessment

phases and aren't ready for the transformation phases. So, they may differ in that.”

Three other PCAs emphasized cross-inviting demonstration and nondemonstration sites to sharing and learning opportunities, such as training sessions and monthly calls. One of these PCAs discussed how it both “certainly shared information” and “encouraged [other] health centers to join” demonstration-sponsored events, but also opened up events of its separate PCMH learning community in the state to all demonstration sites. In addition, they mentioned the “select communication” the PCA conducted with demonstration sites.

“The last four months of the Learning Community, we expanded and started inviting the APCP sites, as soon as we knew where they were. But there was pretty select communication, and ‘how are you guys doing’ type emails, and reaching out, making offers to these folks throughout the year—again, once we found out where everybody stood.”

Another of the PCAs explained how it made sure to invite other FQHCs to demonstration-sponsored events if there was space.

“Our role as a PCA is to ensure that every single FQHC in this state has information, good information. So if we have a program, for example, the one that is coming up next week, this is for our CMS FQHCs, as long as there is space available, for example, at a meeting, and all of our [demonstration] centers in [the state] that were eligible to be there from this project were there, and there was room available, we would definitely not turn away another FQHC to get that information.

Moving along the continuum, the last of these PCAs that discussed opening up demonstration events to other FQHCs emphasized that their PCMH program was explicitly focused on the demonstration and the topics guided by the needs of the demonstration sites.

“I would say that [our PCMH coordinator] is more focused on the health centers that are involved in this particular [demonstration] project, knowing that their timeline for receiving Level 3 is a little more aggressive and defined than it is for the other health centers. Now, we may open up training programs and make it accessible to other health centers. Some of the topics or the focus areas are guided more by the needs of those that are in this demonstration.”

The final PCA in our sample candidly recounted how, until recently, their PCMH programs were virtually the same for all FQHCs in their state, but now they have begun more-focused efforts and activities on the demonstration sites.

“Up until about a month ago, I would say that it was all the same. We have been trying to treat everyone the same and give everyone the same

information and the same opportunities. Right now, we're having to do a little bit more focused training and engagement with just the APCP sites. So, I'm doing more emailing directly to them. I have developed a newsletter that will go out monthly with points and information and news and that sort of thing that'll go just to the APCP sites. And I have already been to one now—I'm setting up times to go and do training with [demonstration FQHC] staff on site, so that they're getting more directed for their own business model."

A few sites also mentioned the difficulty in delineating technical support between demonstration and nondemonstration sites, especially in multisite FQHCs that contain both types of sites. As one site explained, this requires being careful and clearly communicating expectations with FQHCs being served.

"But it's still very difficult to delineate those resources. So, when we say to clinic [X], for example, our very large organization with multiple sites in the demonstration, 'you have a coach for two hours per site,' there are nine sites that are in the demonstration, so you have close to 20 hours per month. But half of these are specifically for those demonstration sites. However, if you want to invite other folks from the other FQHCs you certainly can, but we can only use these resources for these sites. So, we continually have to make sure that the clinic leadership understands, and delineate how their resources are expended, but we make every effort to try to share those lessons across the board [with all FQHCs in the state]."

### **V.3B. Barriers to Providing Technical Assistance to Demonstration Sites**

Our preliminary analysis of the baseline interviews yielded several challenges that PCA leaders discussed with providing or engaging demonstration sites in technical assistance. These challenges included:

- lack of site interest in TA offered by the PCA, for a variety of reasons
- unintended consequences of the PCMH recognition process
- multiple competing priorities and activities of sites
- developing relationship and familiarity with sites
- reduced PCA capacity due to staff turnover

#### ***V.3B.1. Lack of Site Interest in TA Offered by the PCA***

Several PCAs discussed in detail the challenge stemming from a proportion of the demonstration sites within their state that are not interested in receiving TA from the PCMH. Possible reasons offered by PCA leaders included sites that believed they were progressing on their own without help from the PCA, a general inclination—or even

strategy—to wait until closer to the October 2014 recognition deadline before fully engaging in the PCMH effort, as well as barriers of distance or independent-mindedness.

“We know that some of these health centers just simply don’t have a desire to engage, or think they’ve got it under control, or for a variety of other reasons do not want support from the PCA . . . when [CMS] says an October 2014 grant deliverable, that’s what all of [the demonstration sites] really have been working under and they don’t necessarily have intention of applying any sooner than that and they don’t necessarily need our help until they get to the application, which won’t be until next April, May, or June.”

We’ve tried, and we’ve invited, and we’ve offered, and we’ve done lots of things over the past two years to try to get them involved in what we were already doing, and they just chose not to. And you know, whether it’s because of the distance . . . there’s just different motivations.”

Yet there was also a sense that these uninterested sites would become more inclined to engage with the PCA as the final year of the demonstration ensues and the sites begin to realize the complexity of the PCMH change and recognition processes.

“We have about three other sites that have been kind of [thanks but no thanks because we’re doing fine], but I see a movement now that . . . they’re being held with their face to the fire with the benchmarks and everything. So, I think that we’re getting a little bit more push in that area.”

“And a lot of the health centers think that they’re doing just fine. ‘Thank you, and we don’t need your help,’ and that’s just how it is. I think, like I said before, since they’ve all—or most of them—have made a submission now to NCQA, and either have heard back directly that they didn’t make it and you have to do this over again, or they’re in the process, you know, they haven’t heard yet back from NCQA, they’re now seeing the benefit of having some extra help and getting the rest of their team on board.”

### ***V.3B.2. Unintended Consequences of the PCMH Recognition Process***

Another challenge, related more to providing TA than engaging sites per se, concerned an unintended effect of the recognition process in focusing attention of sites (and PCAs) on the process of documentation over practice transformation.

“The only other one I would offer is the unintended consequence of the very nature of the PCMH recognition application, which is to say, we built our coaching program and our technical assistance program on supporting transformative change and helping the health centers to change their health care delivery systems. But what happens is that, rather than rising to that, we sink a step or two below and we’re simply focusing on documentation, on getting those points, on creating a policy that gets us this point. But it’s hard

to then translate that into true transformative change, and so there's a disconnect. That's a challenge, because the coaches really want to help our health centers move the needle, and instead they're proofreading policy. I know that's not what NCQA or any other accrediting body wants, but it is just the nature of the work."

This was viewed as especially problematic for sites that have assigned the PCMH effort to single individuals as a side project, "an NP or a QI coordinator or even an MA who's kind of leading this charge . . . and . . . successful in getting the day-to-day documentation work done" —which characterizes the majority of sites. This was considered less an issue for the "very small set of health centers with a long-term culture to be very forward thinking [for whom] something like PCMH is very natural . . . and the change truly is happening."

One strategy to mitigate this challenge was to train practice coaches to address specific site questions on recognition documentation, but then to press them further on the practice change required to implement and sustain the policy or procedure.

"The coaches have all been trained that whatever question they may get, which is typically around, 'does this policy meet this standard,' the follow-up question is always, 'yes or no, it would or would not meet the standard, but then how do you really intend to implement it and what change do you have to support to ensure that this is something that you can sustain long-term for the benefit of the patient?' That's a conversation that our coaches have been trained to continually go back to. Because it's heartbreaking, some of the questions we get are, 'well, if I just put this piece of paper together, will it meet this standard?' You just want to kind of shake folks and, 'no, it's not about the paper, it's about what you're doing.' Our coaches—it's just a matter of answering the question and then asking a question back to the health center about the change required to sustain this particular—whatever's written on that piece of paper."

### ***V.3B.3. Multiple Competing Priorities and Activities of Sites***

PCA leaders also noted the multiple priorities and improvement activities vying for the attention of FQHCs, including the demonstration sites, which limited the ability of many sites to focus sufficient attention on the demonstration, as well as to coordinate participation across sites. Regarding the latter, one PCA leader wondered whether web or Internet tools might be used to reduce some of the less necessary real-time interactions.

"Health centers are juggling multiple priorities. And they participate when they can. Some health centers are just better at attending."

"And their time is being chewed up by so many things that I can tell you, there are no less than probably five or six calls monthly for different groups that these people are all involved with."



“They've got so many things on their plate . . . we do have a challenge when we set up these monthly calls and stuff like that. We get a big turnout, but we don't get everybody, and that's just never going to happen. That is the challenge with these things. And frankly . . . if we can do all this through online and web, that's the way to get the data done and all this other stuff, because trying to meet phone call meetings is really, really, really a challenge.”

#### ***V.3B.4. Developing Relationships and Familiarity with Sites***

PCA leaders also emphasized that many demonstrations are doing well when engaged. Although some may have enough resources and know-how on their own, others have shown consistent participation, been very responsive and held “two-way conversation” with the PCA, and have progressed to the point where they may require briefer, less-intensive interactions with the PCA to keep them on track.

“You have some that say they don't really need that much technical assistance. They've got enough resources in their own organization that they can do it on their own. But then others who have not missed a call or a webinar are very, very engaged and they've done really well as well.”

“Overall, I would say that our sites are great. They're really—you know, if we ask them for something, they're usually really responsive.”

“So with those that we've been able to help and those that have been more engaged, it's much more of a two-way conversation, versus some of these others where it's just been us trying to reach out to them.”

“The ones that have been engaged all the way through are the ones that have been coming to all of our meetings of the past two years, that have gained the information that was presented at those meetings. We haven't had to have nearly as much one-on-one with them. I mean, we do communicate by phone and by email and they've invited us . . . But they're just farther along in this process because they've taken advantage of the information that's been given out all along.”

However, it was also noted that achieving that level of participation and engagement is often initially dependent on building a relationship and level of familiarity between the sites and the PCA. Sites that have a relationship with the PCA were considered more likely to engage in the PCA's TA programs, and greater familiarity allows PCA staff to engage sites at a higher level. Another PCA leader described their experience that engaging sites was easier in smaller groups.

“I think having that relationship with them also helped them to understand, you know, what backup I had, and I knew how their system works and we could troubleshoot areas. I could give them advice on where to put things or how to build things in certain areas. I think that

that kind of kept them engaged at a higher level than some of the other health centers . . . So, it's difficult to have that same level of engagement when I don't know personally their health record setup that well.”

“We tried for a couple of months having a coaching call with the entire group—so, not just the APCP sites, not just the demonstration sites, but everyone who was working on PCMH. And it wasn't very effective. We just didn't get the participation. So, it seems to be better if it's a smaller group of folks as far as a conference call. They're more engaged in a smaller group. The webinars were well received. And then the follow-up, just having calls to talk about you know, what we had learned and see if anyone had questions, that was good.”

### ***V.3B.5. Reduced PCA Capacity Due to Staff Turnover***

Two PCAs cited internal issues with reduced capacity to provide TA due to turnover among PCA staff. One PCA that is also a regional cluster lead mentioned this occurred in another state within its region, for which its staff were filling in. Another PCA reported that it “had turnover and so capacity’s been difficult internally. I had to slow down on a lot of the work that I was doing. But we’re slowly going to pick back up.”

### **V.3C. PCA Suggestions for the Demonstration Moving Forward**

In general, PCA leaders in our baseline interviews offered few suggested changes to the demonstration for CMS or its national partners. The preliminary analysis yielded the following three main suggestions and one minor issue.

- resume training to practice coaches
- improve access and information available through NCQA’s electronic portal
- disappointed in benchmark funding change
- reduce conference call burden.

The specific question on suggestions for the demonstration also yielded two positive notes of feedback. We report them here, even though other related question codes that have yet to be analyzed (e.g., “What has gone well with the demonstration”) are likely to generate additional points on this topic.

- National partner resources have been “outstanding.”
- Reducing the number of national partners reduced confusion.

### ***V.3C.1. Resume Training to Practice Coaches***

One PCA noted the value of the training for practice coaches, which had stopped at the time of the interview, and requested that AIR provide that training in lieu of other national partners no longer involved in the demonstration.

“I think with AIR, if they can start providing more training for the coaches, that would be helpful. Kind of, it stopped, the training that we had through NACHC. There was the PCMHI meetings, where everybody came together. But I would love to see real, continued training for the coaches at a coach level.”

### ***V.3C.2. Improve Access and Information Available Through NCQA's System***

Another PCA suggested greater access to NCQA systems to track the submission process of their demonstration sites, as well as improvements to the timeliness and accuracy of the information. This suggestion also involved greater communication between NCQA and the PCAs.

“It would be nice to be able to see a timeline of submission where the application is in the NCQA process. As it moves to the different stages, if we could have access, just to see where it's sitting. That's been a struggle, because we know it might be sitting there. We don't know if it's entered yet. We don't know if it is entered and it's maybe now at Stage Two and it needs to go all the way to Stage Five. Some [sites] have actually started the process of downloading their proof and scoring themselves, and that was another black hole for us . . . We have some PCAs whose health centers have actually given them their password so they can go in and look for themselves what the status of their health centers are. We have not asked that of our health centers, though some are offering that.”

“But we're finding that [information] is not even up to date. So we don't think NCQA is doing a great job of managing what I know is many, many applications. And their website is not up to date with where they are in the status. We just had one that if you looked at their status it said they were at Stage 3, which they've actually completed, for instance . . . As we're getting into this home stretch, that would be helpful, to have a report from NCQA so we can weight that real time, the same way that AIR was reporting on RAS and stuff like that. That NCQA communication with us would help us to prop them up and help them with where they're struggling.”

### ***V.3C.3. Disappointed in Benchmark Funding Change***

A third PCA expressed a disappointment in the change that conditioned 20 percent of PCA funding on meeting certain performance benchmarks. Although the PCA did not

make any specific requests to reverse or amend the change, they noted that they needed to budget their effort on 80 percent of the funding since the remaining amount could not be guaranteed.

“We were disappointed in the way the funding came down; we didn't get as much funding in year two. We didn't know that they were going to do an 80/20, where if you don't achieve certain benchmarks, then you don't get the entire funding. So basically then we do our budget on the 80 percent because you can't guarantee that you're going to get anything else. None of that was identified upfront. And so that was disappointing.”

#### ***V.3C.4. Reduce Conference Call Burden***

Two PCAs also noted a more minor issue: that the number of conference calls in which PCAs and others in the demonstration could be productively reduced.

“I just think the phone calls are hard. It's hard to get people on board when there seems to be a phone call every other week. I could be wrong with the time, but it seems to me like there's a lot of calling and I'm not sure it's necessary to call in that much . . . It may be because we're lead PCA, we get lead calls and PCA calls and then we have calls . . . when the ancillary people are supposedly on the call, we're on that call. So it's a lot more.”

“Frequency is one thing—if it would be possible to maybe cut it from an hour to half an hour. Some of the calls necessitate an hour, maybe even longer. But, if there's an opportunity to shorten the call, I know that our sites, in particular, the demands on their time, they would appreciate that.”

“Sometimes I feel a little overwhelmed with all of the phone calls that we're expected to . . . I would appreciate, you know, maybe the monthly coaching call; I think that that would be good. I understand why they want us to be on Office Hours calls, but we have two Office Hours calls per month. I know it's done because some people can't meet at a certain time, but they have them recorded, I believe, and . . . somebody could go back and listen to it afterwards. I think sometimes we're so caught up in all of these different requirements to be in our phone calls or webinars or whatever, and nobody has any time left to do the work that needs to be done. And I think that that's kind of what the health centers are feeling, too. So now we have to have a phone call with them on a monthly basis, and it's just adding more stuff to it.”

The specific question on suggestions for the demonstration also yielded two positive notes of feedback.

***V.3C.5. National Partner Resources Have Been “Outstanding”***

“To be honest, [the national partners] have been outstanding in terms of developing and sharing resources. So nothing just off the top of my head right now on the national partners.”

***V.3C.6. Reducing Number of National Partners Reduced Confusion***

“We like that we’re down to one portal instead of four. And we like the idea that there is actually a warehouse or a clearinghouse for all that information instead of the four that we had, which [meant] nobody went to any of them then. And that’s part of the confusion, too many national partners. So we like that aspect of streamlining for everybody’s sake.”

## VI. Interventions to Motivate Transformation to PCMH Attributes

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This section includes a brief description of five components of the intervention central to CMS's demonstration interventions. We describe the intervention components and how uptake of the intervention is measured, present preliminary results, and describe future efforts.

### VI.1. Overview of the Five Activities and Incentives that Comprise the CMS ACP Demonstration Intervention

#### **VI.1A. Approach to the Analysis of Key Policy Question 1A: Intervention Exposure for Intervention and Comparison Sites**

The demonstration interventions are composed of five activities and incentives that are designed to support practices' transformation into ACPs. For all demonstration FQHCs, exposure to all five components of the intervention is expected, though participating FQHCs will vary in their uptake of the activities. To best characterize intervention uptake within and across the intervention sites compared with comparison sites, we begin with a description of RAND's approach to measurement and analysis of variability for each of these components.

Exhibit VI.1 lists the specific research questions related to key policy question 1A, intervention uptake. The main research question associated with each of the five intervention components is listed first; ancillary research questions follow the main question in italic text. A brief discussion of the approach to each of these questions follows.

**Exhibit VI.1: Specific Research Questions Associated with RAND Key Policy Question 1A,  
Intervention Uptake**

<b>First Annual Report Section</b>	<b>RAND Research Question Number</b>	<b>Research Question</b>
VI.2B.	1.1A	How variable is the distribution of the financial incentives and the all-inclusive per-visit payments that FQHCs receive for Medicare beneficiaries?
VI.2C.	1.1A.1	<i>How do the FQHCs use their APC payments?</i>
VI.5B.1.	1.1B	To what extent do the FQHCs participate in TA from NCQA to facilitate the NCQA application and advancement process?
VI.3A.2.	1.1B.1	<i>How does level of exposure to NCQA TA vary by FQHC characteristics and by PCA?</i>
VI.3A.2.	1.1B.2	<i>How do FQHCs apply and use the NCQA TA they receive?</i>
VI.4.	1.1C	To what extent do the FQHCs participate in TA from AIR to support continuous QI in FQHCs? (How variable is TA uptake from AIR?)
VI.4B,C.	1.1C.1	<i>How does level of exposure to TA vary by FQHC characteristics and by PCA?</i>
VI.4D,E.	1.1C.2	<i>How do FQHCs apply and use the AIR TA they receive?</i>
VI.4E.	1.1C.3	<i>What is the relationship between level of exposure to AIR TA and key outcomes?</i>
VI.5B.	1.1D	How variable is uptake of quarterly feedback reports?
VI.5B.	1.1D.1	<i>How does level of exposure to the feedback reports vary by FQHC characteristics and by PCA?</i>
VI.5C,D.	1.1D.2	<i>How do FQHCs apply and use the feedback reports they receive?</i>
VI.5C,D.	1.1D.3	<i>What is the relationship between level of exposure to feedback reports and key outcomes?</i>
VI.D.6.	1.1E	What is the extent of participation in other initiatives and demonstrations that redesign care delivery or provide supplemental funding to support PCMH transformation?
VI.6A,B,C.	1.1E.1	<i>How do FQHCs apply and use other funding and resources they receive?</i>

NOTE: Italics indicate ancillary research questions.

It is hypothesized that the CMS APCP intervention components, individually or in aggregate, can motivate changes in structures more supportive of transformation to PCMHs. The mechanisms by which interventions can change structures have some commonalities across intervention components, at least in terms of measurement strategies.

For key, higher-order structural changes, we focus on outcomes of higher overall RAS scores, better NCQA recognition status (meaning a change to a higher NCQA

recognition status than the status reported previously), and time to NCQA Level 3 recognition status. All of these analyses use quantitative data.

For more intermediate structural changes, we focus on outcomes defined by both quantitative and qualitative data. Quantitative data are derived from individual RAS standards and from CASE. Qualitative data sources addressing outcomes are derived from interviews, focus groups, direct observations, and site visits.

The following sections discuss each of the five components of the intervention individually. This annual report focuses on measures of the uptake of these intervention components. Future reports will focus on the impact of intervention components on RAS, time to NCQA application, NCQA recognition and a host of other constructs identified with the qualitative interviews.

## VI.2. Intervention Component #1: Quarterly Financial Incentives

This section describes the analysis of the research question:

- How Variable Is the Distribution of the Financial Incentives and the All-Inclusive Per-Visit Payments that FQHCs Currently Receive for Medicare Beneficiaries? (Research Question 1.1A)

### **VI.2A. Overview**

On a quarterly basis, CMS will determine the number of beneficiaries for which the intervention FQHCs receive a per-beneficiary-per-quarter (PBPQ) payment, and this count will be shared with the evaluation team. This number of beneficiaries is defined by the attribution of beneficiaries to individual FQHCs (see “Attribution,” Section II.4A). Thus, the financial incentive will always be a multiple of the number of Medicare beneficiaries. This financial incentive is specified as an \$18-PBPQ care management fee that is provided to participating FQHCs in addition to the all-inclusive per-visit payments that FQHCs receive.

Despite the incentive being fixed for each beneficiary and quarter, the number of Medicare beneficiaries that are attributed to the site will be the determinant of the distributed financial incentives. With the possibility that a resource threshold may be required before FQHCs can take advantage of interventions designed to enhance APCP attributes, the *total* PBPQ payment to an FQHC may be an important determinant of how well the FQHC can leverage available incentives.



## **VI.2B. Payment Variability**

Exhibit VI.2 shows several quarterly metrics for intervention FQHCs, including the median payment per FQHC, the 25th and 75th percentile payment per FQHC, and the minimum and maximum payment per FQHC across. Looking down each column, we see a fairly stable pattern across the seven demonstration quarters for which we have payment data.

**Exhibit VI.2: Distribution of FQHC Quarterly Payments Across Seven Quarters Overall**

<b>ALL PCA Clusters</b>	<b>Median Payment per FQHC</b>	<b>25<sup>th</sup> Percentile, Payment per FQHC</b>	<b>75<sup>th</sup> Percentile, Payment per FQHC</b>	<b>Minimum Payment per FQHC</b>	<b>Maximum Payment per FQHC</b>	<b>Percent of sites with &lt; \$3,600 payment*</b>
Quarter 1	\$6,318	\$5,009	\$8,190	\$756	\$52,686	3.64
Quarter 2	\$6,462	\$5,085	\$8,424	\$216	\$71,604	3.41
Quarter 3	\$6,417	\$5,076	\$8,510	\$1,692	\$55,332	3.24
Quarter 4	\$6,624	\$5,144	\$8,640	\$1,566	\$56,430	3.66
Quarter 5	\$6,534	\$5,171	\$8,690	\$1,116	\$55,836	4.66
Quarter 6	\$6,570	\$5,247	\$8,631	\$684	\$53,766	4.28
Quarter 7	\$6,552	\$5,148	\$8,586	\$630	\$56,790	4.74

\* Percent of sites with < \$3,600 payment fall below the CMS threshold set at the time of FQHC enrollment in the demonstration of >= 200 Medicare beneficiaries attributed to the FQHC during the prior year.

Exhibit VI.3 aggregates the payments across the seven quarters and stratifies results by regional cluster. While the quarterly payments are made to each site in proportion to the number of Medicare beneficiaries that are attributed to each site, the demonstration's technical assistance has been organized to be delivered by cluster. With substantial variation in aggregate payment to sites by cluster, it is conceivable that high payment sites will have more enthusiasm for responding to TA delivered to them by regional PCAs. This could affect the intensity of site-level TA uptake by cluster. RAND intends to explore this potential relationship further.

Overall, across all six PCA clusters spanning all intervention sites, we see total payment across seven quarters of \$26,883,486. We see substantial variability in total payment by cluster, ranging from a low of \$2,810,538 in the Mid-Atlantic cluster to a high of \$7,006,518 in the Central cluster. The total payment to the Central cluster is 2.5 times that of the Mid-Atlantic cluster.

**Exhibit VI.3: Distribution of FQHC Quarterly Payments Across Seven Quarters Overall**

<b>Clusters</b>	<b>Number of sites per Cluster</b>	<b>Total Payments by Cluster, Over 7 Quarters</b>	<b>Proportion of Total Payments</b>
Central region (1)	120	\$7,006,518	0.26
Mid-Atlantic (2)	52	\$2,810,538	0.10
Northeast (3)	64	\$4,082,688	0.15
Southeast (4)	75	\$3,506,562	0.13
West (5)	84	\$4,499,136	0.17
West-Central (6)	86	\$4,978,044	0.19
<b>Total over all regions</b>	<b>481</b>	<b>\$26,883,486</b>	<b>1.00</b>

No comparable data about quarterly payments are available for comparison sites.

**VI.2C. How Do the FQHCs Use Their APC Payments? (Research Question 1.1A.1)**

***VI.2C.1. Approach to the Question***

We used semi-structured interviews with FQHC site leaders to learn how demonstration sites use demonstration payments. The interview protocol queries informants about how their clinics use demonstration payments. *“Will the payments be used to generally support the FQHC, or do you plan to use them for any specific types of changes or activities (e.g., EHR or HIT systems, care coordinators)? How large an effect do you foresee the payments having—to what extent will the payments enable the clinic to do things it otherwise wouldn’t be able to do? How do the FQHC APCP payments compare with other enhanced payments and funding for medical home transformation that sites may be receiving from other sources (e.g., state Medicaid programs, HRSA)?”*

***VI.2C.2. Analysis Findings from Site Leader Interviews.***

As expected, all six site leader interview participants reported receiving supplemental funding. Of those, five reported also receiving some additional funding through HRSA.

*Payments were valued by sites:* Most of the demonstration respondents described the enhanced payments as a helpful and valued support for PCMH-related changes in tightly budgeted organizations such as FQHCs. Few interview participants were aware of the exact amount or uses of the funding.

Many interview participants did not know how the payments were used: More than half of the demonstration site respondents stated outright they were unaware of the details surrounding the use of the demonstration enhanced payments. Only two respondents claimed to know the exact amount of funding received. This is consistent with the fact that all respondents noted that their payments were being directed to the parent organization. Most of the respondents were located at the parent organization level. However, most of these respondents did serve in a clinical oversight and/or quality improvement position rather than only an administrative role which might explain why they were not completely aware of the amount of payment or about how the payments were used. Most respondents believed these funds were used for general support of clinic operations or for changes necessary to implement the PCMH model of care. A few informants cited funding being directed to additional staffing. Overall, clinician respondents indicated they believed the financial officer for their organization could provide additional information.

The value of the enhanced payments to FQHCs was described as probably more significant for smaller FQHCs, but still not likely enough to sustain changes across FQHC organizations in the long term. No respondents mentioned any specific amount of payment as adequate for their purposes even when they were specifically queried about this. However, respondents did note that the following costs associated with transformation did need to be covered: staff for new roles (e.g., care manager, referral manager, patient educator); additional clinical staff for some sites for extended hours; maintaining IT functions and reporting for clinical process, QI, and documentation; and recognition fees for recertification in the future.

One respondent, although uncertain about the amount of the payments, reported that they were being directed to the FQHC sites within the FQHC participating in the demonstration “because our finance department will ask us which facilities are these for and then we just look at the PTAN to know.” Interview participants, who were primarily clinical or operational leaders for their FQHC’s PCMH efforts, typically identified the FQHC financial officer or department as the source that could best answer details on the amount and accounting of demonstration funding.

“I could say what I think we’ve been using it for, but I really don’t know . . . I’m not privy to it. I just know that they’re letting me hire extra staff, so that’s good enough for me.”

*Payments were likely valued more highly by smaller FQHCs:* As mentioned, respondents valued the additional funding afforded by the enhanced payments for health centers like their own that must “run tight ships.” However, a respondent from a larger

FQHC noted the belief that the value of the enhanced payments to FQHCs was described as probably more significant for smaller FQHCs.

“I think they're helpful. When you have the size of our organization, it's not as significant as it would be in a smaller organization. But they're helpful because, again, we run very efficiently already anyway, so any little bit helps.”

“I mean it's definitely helpful. [But our] Medicare population at the site that's participating in the project is fairly small, so it's not as if it changes our bottom line significantly.”

For other demonstration FQHCs, the “additional revenue stream . . . is really not that significant,” and in some cases was considered not sufficient to fully cover the changes required of the PCMH model:

“One of the biggest challenges: We're probably going to have to hire more nonclinical staff, more in the way of medical assistants, case manager–type of roles, possibly another referrals specialist or two. And there's really not that much extra money coming in through the demonstration project to support those salaries, so we're going to have to fight a little bit to get some of that money.”

None of the smaller FQHCs mentioned that payments would be more valuable for them compared to larger FQHCs, just that they valued the payments.

An FQHC that was part of a group with other sites not in the demonstration noted that for the PCMH model to be sustainable within the organization, that transformation changes would have to be disseminated across all sites. Furthermore they suggested that if the demonstration payments are not enough to support the PCMH model in one site, they are certainly not enough for spread across all of the group's sites.

“The project is for one of our smaller sites, but any meaningful changes that we make in the practice really have to be rolled out to all of our sites for them to be sustainable . . . otherwise it all sort of falls apart.”

This informant suggested that a payment model would be needed that could support the changes throughout all grouped FQHC-sites to be sustainable.

## VI.3. Intervention Component #2: Technical Assistance Delivered by NCQA

### **VI.3A. TA Delivered by NCQA**

#### ***VI.3A.1. Interviews and Discussions with NCQA***

One important source of TA being offered to demonstration FQHCs is the NCQA, with support from Truven. RAND has had two check-in calls with NCQA staff, the first in November 2011 and the last in September 2013. Representatives from Truven were also on both calls because Truven has been the liaison to deliver NCQA data to RAND for the evaluation.

An important topic during both meetings was the discussion of the types of data that NCQA could share with RAND for inclusion in the evaluation. This included discussion about possible information on FQHCs that were eligible for the demonstration but either not invited to apply for the demonstration or not selected, information on the set of FQHCs that provided RAS data, and FQHC technical assistance participation.<sup>12</sup>

The second meeting explored further details about the specifics of the technical assistance offered by NCQA. As of September 2013, NCQA is offering several different TA resources to sites, though the funding for this comes from HRSA rather than CMS.

#### ***VI.3A.2. Intervention Site Participation in NCQA Webinars***

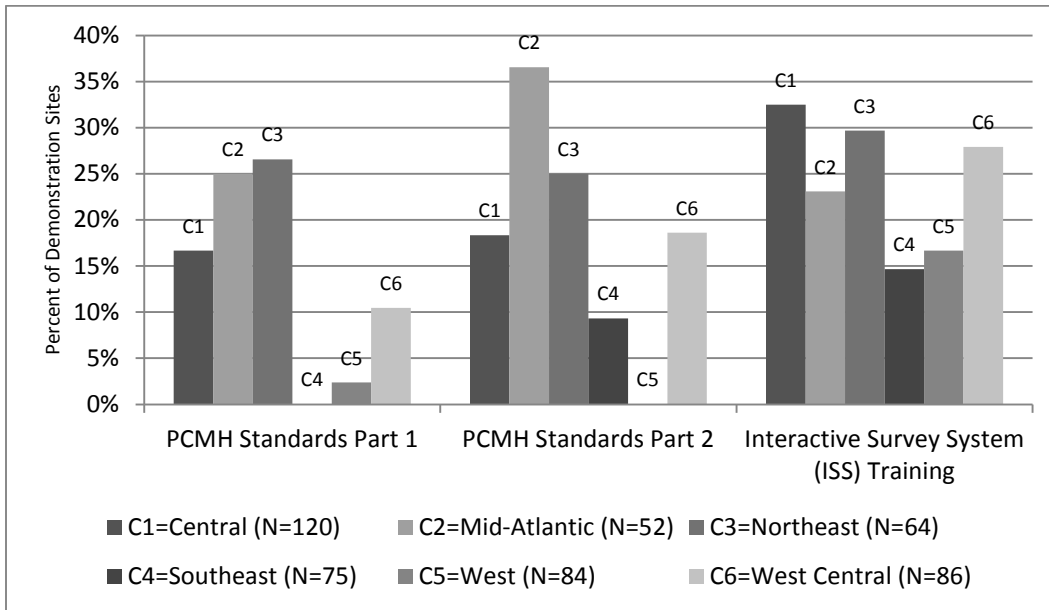
Among the different TA resources NCQA offers to sites is a series of three webinars that are repeated on multiple occasions. This includes a two-part webinar on the NCQA standards and a third on the technical aspects of the application and software used to apply for recognition. RAND receives information through Truven on participation in these webinars. Participation has remained relatively low during the demonstration. However, NCQA staff believe that success in achieving recognition is strongly correlated to attendance at these webinars.<sup>13</sup>

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<sup>12</sup> Meeting with William Tulloch of NCQA, November 18, 2011.

<sup>13</sup> Meeting with William Tulloch of NCQA, September 27, 2013.

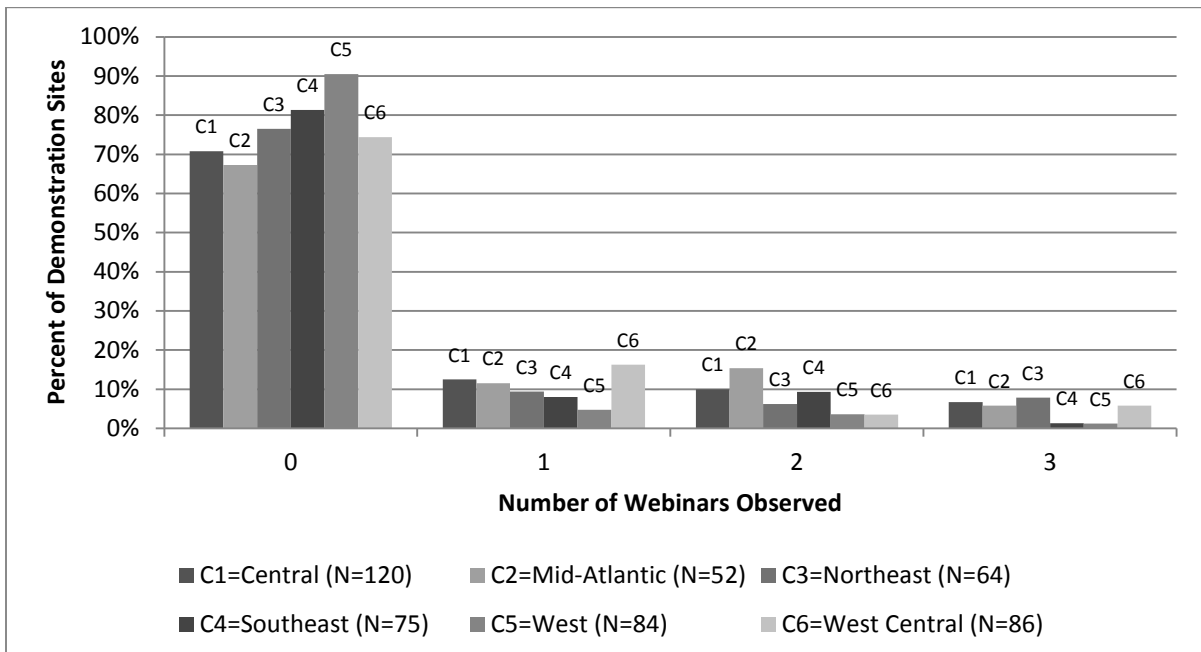
**Exhibit VI.4: Percent Participation in NCQA Webinars by Cluster**



SOURCE: NCQA Technical Assistance Participation Lists, Provided to RAND by Truven, June 6, 2013.

Exhibit VI.5 shows the proportion of sites in each cluster that participated in these NCQA webinars from zero times to three times.

**Exhibit VI.5: Number of NCQA Webinars Observed by Cluster**



SOURCE: NCQA Technical Assistance Participation Lists, Provided to RAND by Truven, June 6, 2013.

With respect to the three NCQA webinars, we note the Northeast cluster has the highest participation rate, while neither the West nor Southwest clusters participated at all. The two clusters with the highest participation in each webinar are shown in white in Exhibit VI.6; the two with the lowest participation are shown in dark grey, and those in the middle are shown in light gray. The first column shows ranking for participation in any of the three NCQA webinars, while the other columns show the rankings for each of the individual webinars.

**Exhibit VI.6: Cluster Ranking of Participation in any NCQA Webinar**

<b>Cluster</b>	<b>Any NCQA</b>	<b>PCMH Standards Part 1</b>	<b>PCMH Standards Part 2</b>	<b>Interactive Survey System (ISS) Training</b>
Central (N=120)	2	3	4	1
Mid-Atlantic (N=52)	4	2	1	4
Northeast (N=64)	1	1	2	2
Southeast (N=75)	5	6	5	6
West (N=84)	6	5	6	5
West Central (N=86)	3	4	3	3

SOURCE: NCQA Technical Assistance Participation Lists, Provided to RAND by Truven, June 6, 2013.  
 NOTE: A ranking of 1 indicates the cluster with the highest webinar participation rates.

#### ***VI.3A.4. Other Technical Assistance Offered to FQHCs by NCQA***

The second type of TA offered by NCQA is the option for sites to participate in a mock survey. This option is supported as a component of the contract that NCQA has with HRSA, as opposed to being part of the FQHC APCP Demonstration. These contracts were not linked, so the original funding for mock surveys was limited to 60 per year. Although RAND does not have any record of the exact number of request for mock survey participation, we have been advised by NCQA that the volume of requests increased significantly during the summer of 2013. In response, HRSA increased the funding to accommodate several hundred additional surveys. Sites are required to have a notice of intent filed with HRSA, then they may email NCQA to request a mock survey. The mock surveys are conducted on a first-come, first-served basis with no cost to the site. Sites complete the entire application for NCQA recognition and then must refrain from accessing the tool for two weeks while NCQA staff review the file. The reviewer leaves feedback in the tool itself and then has a two-hour conference call to provide additional feedback. While only one site per grantee may apply for and complete a mock

survey, if a grantee has multiple sites, all sites may attend the conference call. For many sites, the state or lead PCA may also participate.<sup>14</sup>

NCQA also has funding for consultant visits to bring one-on-one TA to the sites. However, the funding for this is limited to about 20. Therefore, most of the consultant visits have been completed through the PCAs to allow for further dissemination.

The final source of NCQA TA is the RAS audits for demonstration sites. These are conducted by NCQA but provided to RAND by Truven.<sup>15</sup>

Participation in NCQA webinars will not be available for comparison sites.

#### **VI.3A.5. Truven**

Truven, the implementation contractor for this demonstration, is providing support for answering questions submitted by sites to the Truven FQHC e-mail box ([fqhc.medicalhome@truvenhealth.com](mailto:fqhc.medicalhome@truvenhealth.com)). Sites can submit questions to this mailbox at any time and Truven either answers or triages them. Truven does not offer any TA directly toward recognition. Truven also sends email communications to the FQHCs on behalf of CMS regarding demonstration requirements.

At the start of the TA, Truven responded to up to 50 questions per day that they received through the Truven mailbox, but at this point in the demonstration, they receive about five questions per day. Throughout the demonstration, questions have tended to be about process (e.g., how to change contact information for the site, due dates), rather than transformation. When transformation questions do come in, they are triaged to AIR and when questions about RAS come in, they are triaged to NCQA.<sup>16</sup>

#### **VI.3B. Planned Future Quantitative Analyses Pertinent to NCQA Interventions**

We hypothesize that sites with more webinar participation will be more likely to advance with higher RAS scores, better NCQA recognition status, evidence for more physician and staff satisfaction, and qualitative evidence for site leaders' reports of more advancement toward ACP attributes with time.

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<sup>14</sup> Meeting with William Tulloch of NCQA, September 27, 2013.

<sup>15</sup> Meeting with William Tulloch of NCQA, September 27, 2013.

<sup>16</sup> Meeting with Rachel Henke of Truven, September 27, 2013 followed by email communications with Rachel Henke and Jayne Johann, December 12, 2013.



Webinar participation will be used to predict higher RAS scores, better NCQA recognition status, evidence for site leaders' reports of more advancement toward APCP attributes, and site-visit reports of more medical homeness. Section III.5B (Preliminary Results from CASE Survey) describes the CASE survey and Section VI.3C.1 illustrates how CASE survey data will contribute to these analyses.

### **VI.3C. CASE Survey Preliminary Results Regarding Participation in the NCQA Application and Advancement Process**

All demonstration sites receive biannual reports of their RAS scores with a comparison of the site-specific scores to other demonstration site scores. The CASE survey queried clinicians and staff about their awareness of participation in medical home projects, and about reports associated with their involvement. This section addresses the RAND research question:

- “To what extent do the FQHCs participate in TA from NCQA to facilitate the NCQA application and advancement process?” (Question 1.1B)

To support research question 1.1B, Exhibit VI.7 presents the following distribution of data responses about participation as a demonstration site from the baseline CASE survey (items 18). When asked if their practice was participating in any projects to become a medical home or APCP, most respondents reported being aware that their FQHC was participating in such a project. However, only the minority of respondents who were aware of being in a medical home project were also aware that the project was being run by Medicare.

While a minority had seen a feedback report about practice medical home recognition, the majority who had seen at least one feedback report reported that it was clear and that it led to changes in work performed.

**Exhibit VI.7: CASE Survey Responses Pertinent to Site Awareness of Participation as a Demonstration Site**

**Q18A. To your knowledge, is your practice participating in any projects to become a medical home or advanced primary care practice?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes—All respondents	84.7
Yes—Central region	88.4
Yes—Mid-Atlantic region	81.5
Yes—Northeast region	94.4
Yes—Southeast region	80.8
Yes—West region	87.2
Yes—West-Central region	75.8
Yes—Rural site	84.2
Yes—Non-rural site	85.4

**Q18B. [if YES to Q18A] Are any of these projects run by Medicare or called the Advanced Primary Care Practice demonstration?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes—All respondents	31.9
Yes—Central region	30.7
Yes—Mid-Atlantic region	41.3
Yes—Northeast region	34.8
Yes—Southeast region	30.2
Yes—West region	32.1
Yes—West-Central region	28.1
Yes—Rural site	33.2
Yes—Non-rural site	29.7

Exhibit VI.8 presents the following distribution of data responses about feedback reports pertinent to participation as a demonstration site from the baseline CASE survey (item 21). While a minority had seen a feedback report about practice medical home recognition, the majority who had seen at least one feedback report reported that it was clear and that it led to changes in work performed.

**Exhibit VI.8: CASE Survey Responses Pertinent to Participation as a Demonstration Site**

**Q21A. Have you seen any feedback reports that give your practice recognition or a score for being a medical home?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes—All respondents	38.1
Yes—Central region	42.9
Yes—Mid-Atlantic region	22.2
Yes—Northeast region	50.7
Yes—Southeast region	30.1
Yes—West region	37.2
Yes—West-Central region	37.5
Yes—Rural site	37.3
Yes—Non-rural site	39.5

**Q21B. [if YES to Q21A] In these recognition reports, how clear was the presentation of information?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat clear—All respondents	87.0
Extremely or Somewhat clear —Central region	91.0
Extremely or Somewhat clear —Mid-Atlantic region	85.7
Extremely or Somewhat clear —Northeast region	79.5
Extremely or Somewhat clear —Southeast region	96.0
Extremely or Somewhat clear —West region	84.2
Extremely or Somewhat clear —West-Central region	85.4
Extremely or Somewhat clear —Rural site	90.2
Extremely or Somewhat clear —Non-rural site	81.8

**Q21B\_2. [if YES to Q21A] In these recognition reports, how useful was the information?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat useful—All respondents	78.8
Extremely or Somewhat useful —Central region	76.1
Extremely or Somewhat useful —Mid-Atlantic region	71.4
Extremely or Somewhat useful —Northeast region	74.4
Extremely or Somewhat useful —Southeast region	92.0
Extremely or Somewhat useful —West region	81.6

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat useful —West-Central region	79.2
Extremely or Somewhat useful —Rural site	79.0
Extremely or Somewhat useful —Non-rural site	78.4

**Q21C. [if YES to Q21A] In response to these recognition reports, have there been any changes to the work you perform?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes —All respondents	81.4
Yes, major or minor changes —Central region	77.6
Yes, major or minor changes —Mid-Atlantic region	85.7
Yes, major or minor changes —Northeast region	79.5
Yes, major or minor changes —Southeast region	88.0
Yes, major or minor changes —West region	84.2
Yes, major or minor changes —West-Central region	81.3
Yes, major or minor changes —Rural site	81.1
Yes, major or minor changes —Non-rural site	81.8

**Q21C\_2: [if YES to Q21A] In response to these recognition reports, have there been any changes to the work performed by others in the practice?**

<b>Survey Responses</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes — All respondents	83.6
Yes, major or minor changes —Central region	79.1
Yes, major or minor changes —Mid-Atlantic region	85.7
Yes, major or minor changes —Northeast region	87.2
Yes, major or minor changes —Southeast region	92.0
Yes, major or minor changes —West region	81.6
Yes, major or minor changes —West-Central region	83.3
Yes, major or minor changes —Rural site	83.9
Yes, major or minor changes —Non-rural site	83.0

**VI.3D. Qualitative Analyses Pertinent to TA Delivered by NCQA**

Qualitative analyses of site leader interviews provided important insights into their experiences with TA from NCQA and AIR. We first present analyses from site leader interviews pertinent to TA, regardless of the organization providing the TA. Next we

present analyses of the NCQA TA. Section VI.4D (Qualitative Analyses of Site Leader Interviews Pertinent to AIR Technical Assistance) documents analyses of TA provided by AIR.

### **VI.3D.1. General Themes Pertinent to Technical Assistance for FQHCs**

Many sites do not notice the provider of the TA; they focus on the content, not the organization sponsoring it: Many participating FQHC site leaders did not differentiate TA provided by NCQA as distinct from AIR (the two major groups providing TA as a component of the intervention). Neither did they distinguish TA offered by organizations external to the demonstration from TA delivered as a component.

“[T]here are so many things that come through, it’s hard to know what comes through from the demonstration and what comes through from others.”

This was particularly true for the two webinar series conducted by NCQA and AIR. Broadly speaking, there was general satisfaction with the webinars, even if it was not clear which organization sponsored particular sessions, as described in a typical example:

“I found the webinars very helpful . . . I don’t remember which ones [were NCQA or AIR]. But in general, most of the webinars are quite helpful. Especially those going into details about each factor.”

Webinars were particularly valued by FQHC sites with remote locations: Smaller and more distant sites appreciated how the webinars allowed them to participate in regular training opportunities.

“The reason they're so good for us here is because we're so far away, so for us to have to go somewhere to go to a class, we're talking a big chunk of time and travel. It's too hard when we're such a small clinic to get away for those opportunities. So we are big fans of the webinars.”

Ambivalent responses to the technically focused webinar content: A number of respondents also perceived a strong emphasis in the webinars, and TA more generally, on navigating and producing documentation for the PCMH recognition process, tending to view this in one of two ways. To some, this reflected a practical form of assistance with this key demonstration requirement:

“They gave examples of how to highlight certain text within your policies and your procedures, or different ways of how you can meet some of the standards. I thought that was helpful, when it came to more so the policy and procedure aspect of it.”

To others, it neglected a more holistic approach to supporting PCMH transformation:

“And most of the technical support has largely been towards documenting, and not so much towards how you actually make the changes in your practice that need to happen. That’s what’s between us and Level 3 recognition right now, is that there really are those meaningful changes to processes that from the inside we have a little bit trouble seeing, and it’s hard to come by good examples. And so most of these technical assistance programs really seem to be more about, well, how do you answer question 3b4?”

### ***VI.3D.2. Technical Assistance Provided by NCQA***

The demonstration FQHC respondents described three forms of technical assistance provided by NCQA: webinars, in-person training opportunities, and mock surveys. Although, as mentioned above, many respondents did not differentiate between the webinars conducted by NCQA and AIR, a few noted particular difficulties they had with the NCQA webinars. One respondent found the NCQA webinars insufficiently tailored to the context of an FQHC:

“[T]he webinars weren’t necessarily geared towards operating on a FQHC because there’s the ideal world or the product world where you have a different set of resources. So, some of the things that they talked about in being the standards weren’t always applicable to FQHC studies. So, I think it would just be more helpful if the content was specific to achieving it in an FQHC setting.”

Another was frustrated with the format of the NCQA webinars and not having (or knowing how) to access archived sessions:

“I have participated in NCQA’s webinars since January. And I did not . . . find them to be helpful, because for one thing, they’re not archived. So if I think I hear something, and I think about it later, I can’t go back and say—listen to an archived video, did I hear that right? They also go very fast, and they usually only take questions at the end of each segment.”

A third respondent noted somewhat differing advice or approaches between the NCQA and AIR webinars:

“Actually, the contradictions were between NCQA’s webinars and the AIR webinars . . . [I]n a lot of ways, the AIR webinars recommend more extensive documentation than NCQA does. And so I’m erring on the side of ‘more documentation is better.’”

In contrast, demonstration respondents familiar with NCQA’s in-person training and upcoming mock survey opportunities had generally positive comments. One respondent described a training session conducted by an NCQA representative sponsored by the PCA

in their state, noting that, “I felt a lot more comfortable with the information we were getting directly from NCQA and the representative that was presenting information.”

Another demonstration respondent reported attending national NCQA conferences. Although not sponsored by the FQHC APCP Demonstration, these were described as “just as helpful as the webinars and the Q&A . . . I take our PCMH team, our medical director, QI person and myself. We go once a year . . . and we’re going [again] in September this year.”

Most of the interviews we conducted occurred before the NCQA’s mock survey opportunity was made more generally available to FQHC APCP Demonstration sites. However a respondent from one of the later interviews reported planning to participate in the near future in a mock survey and the technical assistance provided in preparing for it with great enthusiasm:

We have the opportunity to have a mock survey . . . at the end of this month so that will be really helpful . . . The technical assistance that’s been offered as we prepare for this mock survey has been extremely helpful. I know that my project leader has been really, really looking forward to this, has learned a lot. It’s really helped us make sure we have our ducks in a row.”

## **VI.4. Intervention Component #3: Technical Assistance Delivered by AIR**

This section addresses research questions pertinent to TA delivered by AIR: To What Extent Do the FQHCs Participate in TA from AIR to Support Continuous Quality Improvement in FQHCs? (How Variable Is FQHC Participation in TA from AIR to Support Continuous Quality Improvement in FQHCs?) (Research Question 1.1C). We begin with an overview of AIR TA (IV.4A.), report on demonstration FQHC participation in AIR webinars (IV.4B.), and present qualitative analyses from site leader interviews about AIR TA (IV.4C).

### **VI.4A. Overview of AIR TA**

#### ***VI.4A.1. AIR TA-Phase I***

CMS first contracted with AIR at the start of the demonstration, and the Phase I work plan was finalized in August 2012. AIR, in turn, subcontracted with a consortium of national partners that included the NACHC, Qualis Health, and the MacColl Center. AIR also began a subcontracting relationship with the six clusters’ lead PCAs in August 2012, and they collaborated with the state PCAs within those clusters. AIR, the national partners, and the PCAs were tasked with:

- delivering webinars on practice transformation to support the sites in updating their RAS every six months
- designing and implementing a local support network for the sites
- creating reminders and tips for complying with RAS requirements
- reviewing RAS results with the FQHCs
- developing new TA support in response to RAS audit results

With the exception of three PCAs that work across two states and two states with no PCAs, each state has its own PCA.<sup>17</sup> As shown in Exhibit VI.9, these state PCAs are aggregated into six regions, each with a designated lead PCA. The PCA staff function as local coaches and work closely with participating demonstration sites and AIR to effectively deliver TA and practice transformation training, NCQA documentation learning modules, and any other tools and resources that will guide sites toward meeting the aims of the demonstration, particularly achieving NCQA Level 3 PCMH recognition. Each cluster was assigned a liaison within the AIR/national partners team to ensure that local work plans were put in place in every cluster. The lead PCAs were also required to share data with AIR about the successes and challenges from the FQHCs in their clusters and help develop lessons learned to be used in future webinars. In addition, AIR convened an advisory panel composed of outside experts and stakeholders to oversee their TA efforts and suggest changes as necessary to ensure that the TA is meeting the needs of the demonstration. Finally, through Qualis Health, sites were offered the opportunity to voluntarily complete the PCMH-A assessment (co-developed by the MacColl Center for Health Care Innovation and Qualis Health) and receive feedback on the results of this assessment every six months.<sup>18</sup>

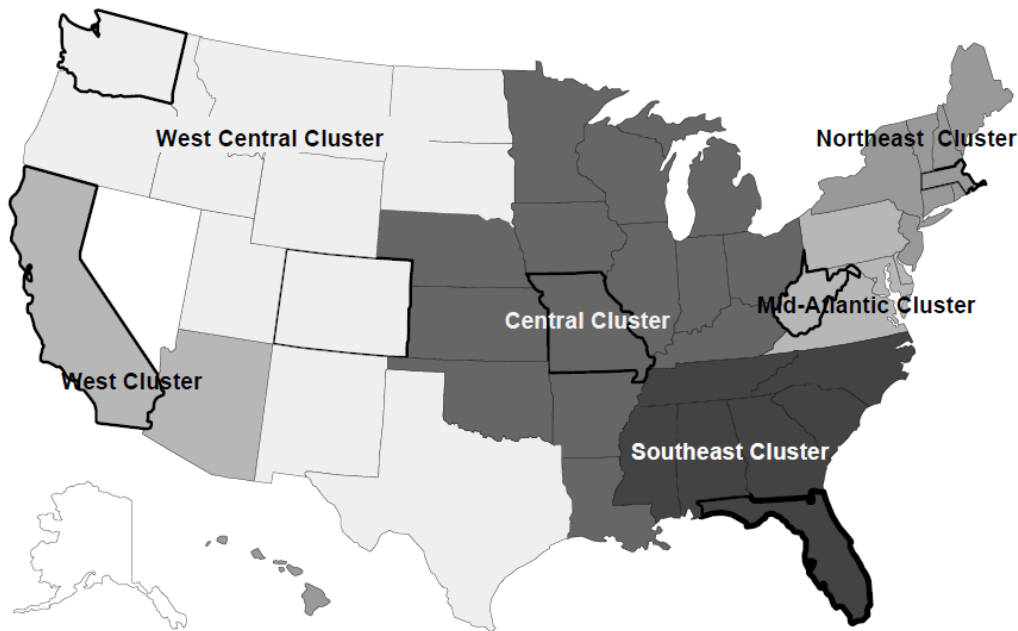
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<sup>17</sup> Bistate PCA covers Vermont and New Hampshire; Mid-Atlantic PCA covers Maryland and Delaware; and the Dakotas PCA covers North and South Dakota. Nevada and Alaska have no PCA contracted with AIR.

<sup>18</sup> FQHC Workplan Phase I, AIR, August 27, 2012.



### Exhibit VI.9: States by PCA Cluster



SOURCE: AIR PCA Contact Lists, Provided to RAND by AIR, October 2, 2013.  
NOTE: Cluster leads are outlined in darker lines.

#### **VI.4A.2. AIR TA-Phase II**

Phase II of the AIR TA spanned February to June 2013. This phase of the TA offered a series of nine prerecorded webinars that sites could download on demand, as well as “live” webinars on PCMH transformation and other aspects of the demonstration, email and phone contact with experts on PCMH transformation, and online tools through the FQHC portal.

#### **VI.4A.3. AIR TA-Phase III**

Beginning June 2013, AIR launched Phase III of the TA program. One important change with this new phase was the launching of a new collaboration website in July 2013. This website initiated a more formal relationship with the PCAs and created a new workplan for them as well. Since the initiation of Phase III, the lead cluster PCAs are instructed to offer the demonstration sites periodic check-in calls, at a minimum. Weekly calls are made to sites planning to submit applications to NCQA either within one to three months or in more than six months; sites planning to submit in three to six months receive monthly calls. Sites planning to submit in the near future need additional help with the

applications, while sites not planning to submit for at least six months require some prodding to show progress toward demonstration goals.<sup>19</sup>

PCAs must be responsive to the deadlines of the demonstration. The first benchmark, for sites to achieve at least 35 points on the RAS and meet at least four of the must-pass elements, was in November 2013; the second benchmark, for sites to achieve at least 60 points on the RAS and meet all six of the must-pass elements, is in May 2014. As of September 2013, 89 percent of sites had met the first benchmark and 48 percent have met the second.<sup>20</sup>

While the state PCAs are the first source for TA through AIR, there are several other TA options as well. AIR currently offers bimonthly “office hours” webinars, where content experts from AIR, Qualis, and NCQA are available to answer questions from sites and PCAs. Additionally, sites and PCAs can submit questions to Qualis directly via email and receive a personalized response within five business days. If PCAs believe sites are having problems, they may also refer those sites to Qualis for one-on-one TA. AIR is also maintaining the CMS collaboration website described earlier and all materials available to the sites are archived there. The last two TA resources available to sites are the NCQA mock surveys (described in the NCQA section), which can be done when sites are approaching the four to six weeks prior to their application submission deadline. Sites also have the opportunity to participate in Qualis “presubmission” reviews of their applications, which can be accomplished on a shorter timeline and offer feedback from Qualis staff on the content and completeness of the application.<sup>21</sup>

Exhibit VI.10 shows the list of AIR webinars that have been offered since the start of the demonstration and the corresponding exhibits in this document that show participation in those webinars.

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<sup>19</sup> FQHC Work Plan—Phase III, AIR, June 1, 2012.

<sup>20</sup> State PCA Coaching Call, September 26, 2013.

<sup>21</sup> AIR CMS FQHC APCP Fact Sheet, September 2013.

### Exhibit VI.10: AIR Webinars

Webinar	Date	Title	Corresponding Exhibit
1	November 17, 2011	Federally Qualified Health Center (FQHC) Advanced Primary Care Practice (APCP) Demonstration	NA
2	February 22, 2012	The CMS Innovation Center Technical Assistance Program for the FQHC APCP demonstration.	NA
3	March 7, 2012	How Community Health Centers Can Become Patient-Centered Medical Homes	NA
4	March 14, 2012	Preparing for the Readiness Assessment Survey Update Webinar	NA
5	April 11, 2012	Health Center Practice Transformation Part 1 of 4	Exhibit VI.13
6	April 18, 2012	Health Center Practice Transformation Part 2 of 4	Exhibit VI.13
7	April 26, 2012	Health Center Practice Transformation Part 3 of 4	Exhibit VI.13
8	May 3, 2012	Health Center Practice Transformation Part 4 of 4	Exhibit VI.13
9	July 18, 2012	Readiness Assessment Survey (RAS) Update	Exhibit VI. 14
10	September 13, 2012	Evaluation of the FQHC Advanced Primary Care Practice Demonstration (RAND)	Exhibit VI.15
11	September 20, 2012	Part 1: Application Overview, Project Management, What to Expect	Exhibit VI.16
12	October 8, 2012	Part 2: Standard #2 (Identify & Manage Patient Populations) and Standard #6 (Measure & Improve Performance)	Exhibit VI.16
13	October 17, 2012	Part 3: PCMH 1-Access & Continuity; PCMH 5-Track & Coordinate Care	Exhibit VI.16
14	November 15, 2012	Part 4: Standard #3 (Plan & Manage Care) and Standard #4 (Provide Self-Care Support and Community Resources)	Exhibit VI.16
15	February 5, 2013	Achieving NCQA Level 3 PCMH Recognition	Exhibit VI.20
16	March 27, 2013	Achieving NCQA Level 3 PCMH Recognition	Exhibit VI.20
17	April 18, 2013	FQHC Data Use Agreement Webinar	Exhibit VI.20
18	August 28, 2013	Demo Improvement Benchmarks Webinar	Exhibit VI.20

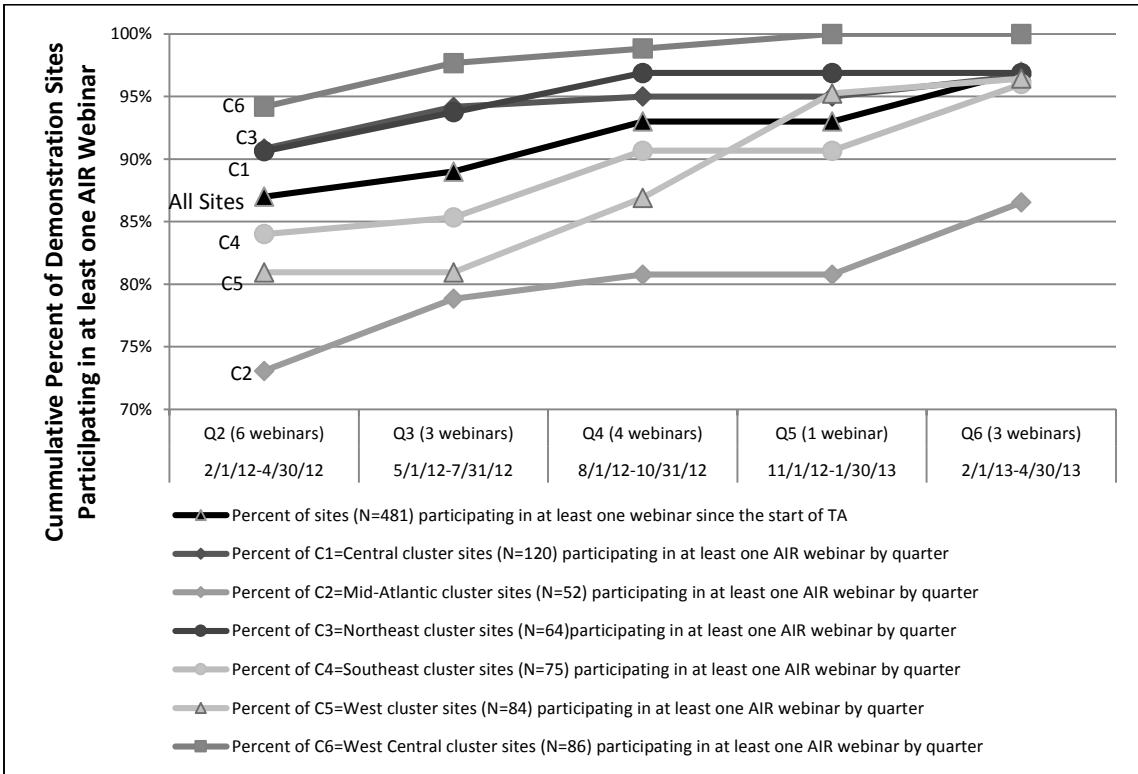
SOURCE: Review of CMS collaboration site, <https://collaboration.cms.gov>

## **VI.4B. Participation in AIR Technical Assistance Webinars**

### ***VI.4B.1. Overview of AIR Participation***

Participation in AIR webinars has fluctuated over time. While 97 percent of demonstration sites have participated in at least one AIR webinar as of April 30, 2013, which was the end of the sixth quarter (Q6), participation has varied across clusters. All showed participation over 85 percent by that time, but about 10 percent fewer sites in the Mid-Atlantic cluster have participated compared with sites in the Northeast cluster. Exhibit VI.11 shows the trend in cumulative participation over time by cluster. Sites were considered to have participated in a webinar if they listened to the live webinar or downloaded the recording after the fact. However, starting with Q8, AIR is no longer tracking downloads of webinars. Very few sites are recorded as participating through download, so this should not affect future participation rates much. While the demonstration had 500 sites to begin with, there were 481 demonstration sites remaining at the end of Q7 (July 31, 2013), so the exhibits in this section present data for those remaining sites.

**Exhibit VI.11: Cumulative Percent of Demonstration Sites Participating in at Least One AIR Webinar by Quarter by Cluster**

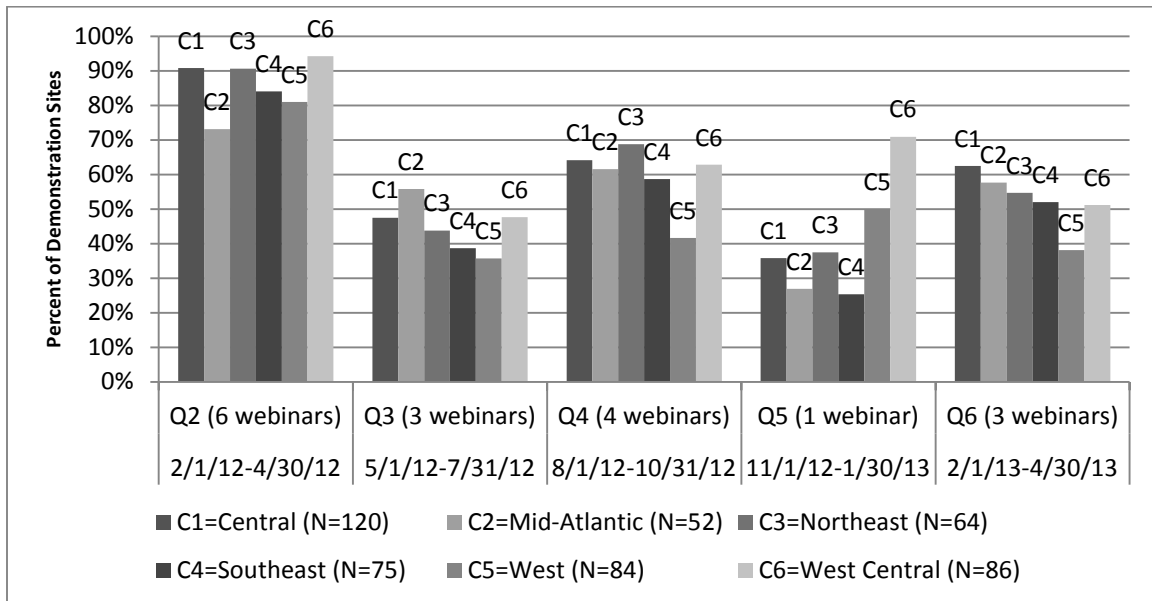


SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

While nearly all sites have participated in at least one AIR webinar by Q7, participation was higher in Q2 than during any subsequent quarter. Additionally, AIR offered six webinars during Q2, but none during Q7. This is likely due to contract negotiations that AIR and CMS were undergoing during Q7. By the end of Q6, participation among all clusters except Mid-Atlantic was up to 95 percent. Participation in the Mid-Atlantic cluster started lower than any other cluster, at only 72 percent in Q2, and only reached 87 percent by Q6. Participation increased the fastest in the West cluster: They started out lower than all other clusters except Mid-Atlantic in Q2, but had caught up to the other clusters by Q5. The Northeast cluster has consistently had the most participation across quarters.

Exhibit VI.12 shows the percentage of sites participating in at least one AIR webinar by quarter by cluster. Within each quarter, the West Central cluster (C6) has the highest participation rates of its demonstration sites.

**Exhibit VI.12: Percentage of Demonstration Sites Participating in at Least One AIR Webinar by Quarter by Cluster**



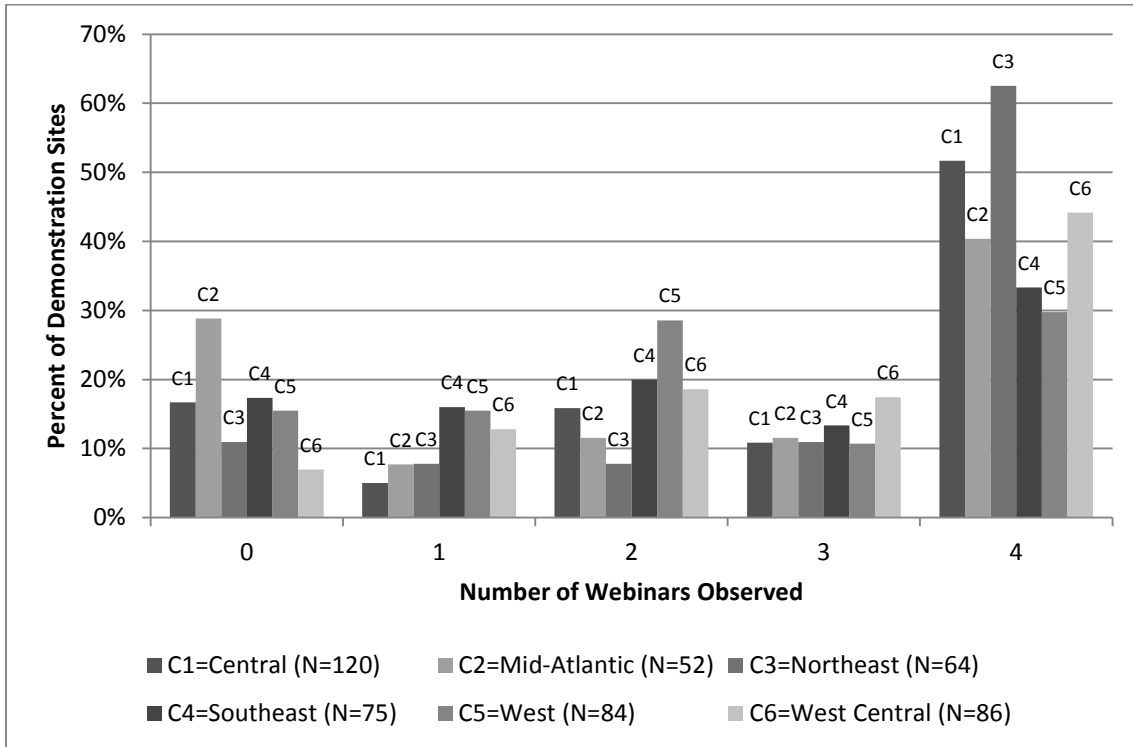
SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

**VI.4B.2. Participation in AIR Webinars by Content Area**

The previous section described the overall participation in AIR webinars. This section describes participation by topic areas. The exhibits described are all included in the overall summary in Exhibit VI.12.

In April 2012, AIR hosted a four-part series of webinars on Health Center Practice Transformation. These webinars provided an overview of PCMH and documentation examples for the various standards included in the PCMH 2011 scoring, which all demonstration sites are required to complete. For five of the six clusters, fewer than 20 percent of the sites observed none of these webinars. However, 30 percent of the Mid-Atlantic cluster (C2) sites observed none of these four webinars. On the other end of the scale, 30 to 60 percent of sites in each cluster observed all four webinars. Exhibit VI.13 shows the percentage of sites within clusters that participated in all four of the Practice Transformation webinars. The Northeast cluster (C3) participated at a higher rate than other clusters—more than 60 percent, compared with 51 percent or lower for other clusters.

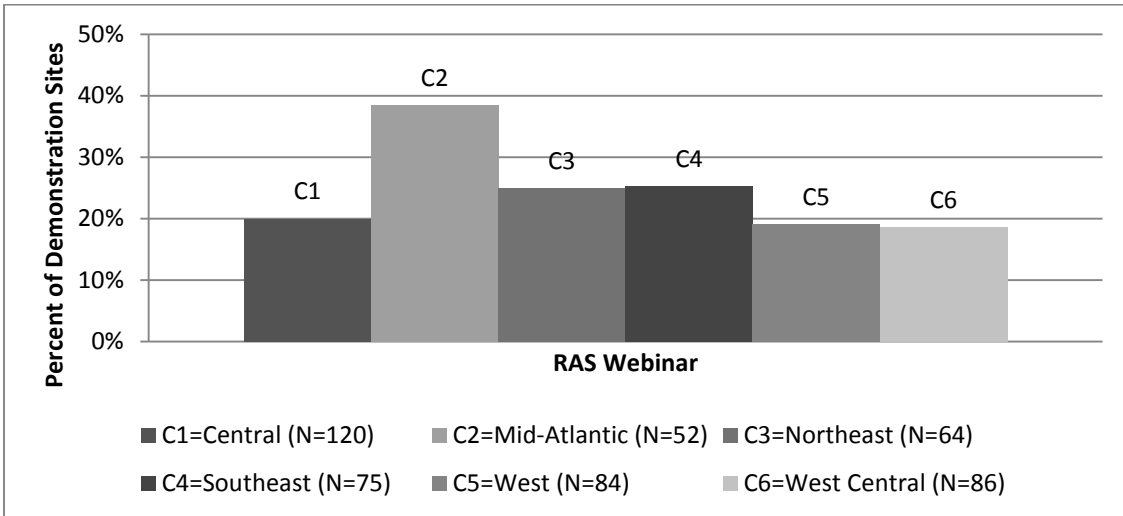
**Exhibit VI.13: Percentage of Webinars Observed by Cluster: Health Center Practice Transformation**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

In July 2012, AIR hosted a webinar on preparing for the RAS. All sites were required to complete the RAS when applying for the demonstration, and also must update their RAS every six months. This webinar provided specific instructions on accessing and responding to the survey. As shown in Exhibit VI.14, nearly 40 percent of sites in the Mid-Atlantic cluster (C2) and fewer than 30 percent of sites in the other clusters attended this webinar. Despite the importance of RAS data in preparing sites for NCQA recognition, most sites from all clusters did not participate in this webinar.

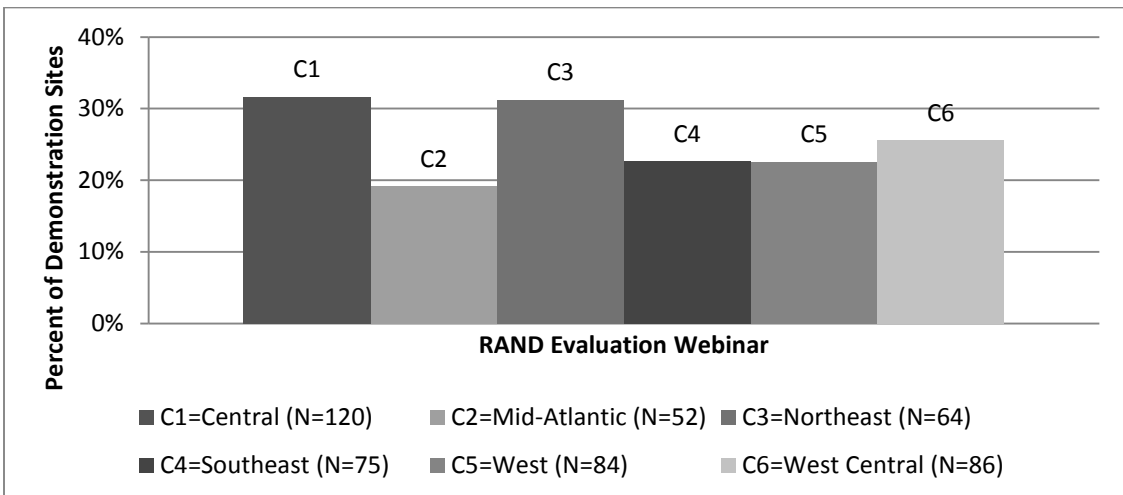
**Exhibit VI.14: Percent of Sites Participating in the Readiness Assessment Survey Webinar by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, September 11, 2013.

In September 2012, RAND offered a webinar through the AIR webinar series to explain to the demonstration sites what would be involved in the evaluation. Sites were invited by AIR and this was part of the regular set of TA webinars offered during the demonstration. Exhibit VI.15 shows that slightly more than 30 percent of sites in the Central and Northeast clusters attended this webinar, while the total was closer to 20 percent for the other clusters.

**Exhibit VI.15: Percent of Sites Participating in the RAND Evaluation Webinar by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

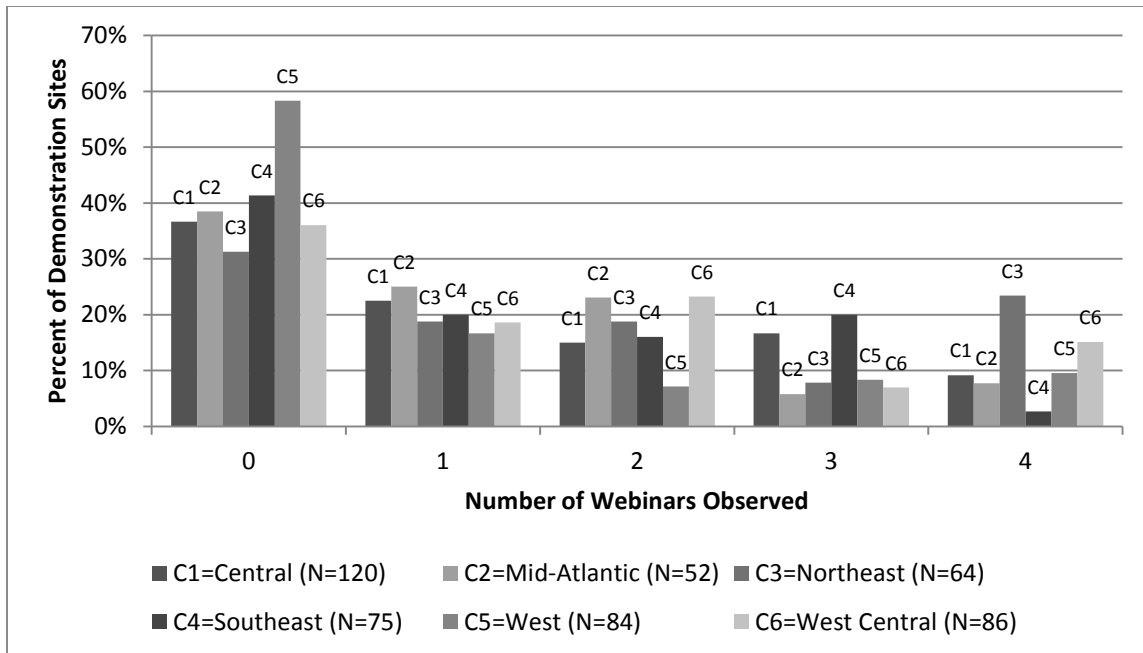


During September and November 2012, AIR offered four webinars on PCMH standards that addressed the history of PCMH and strategies for managing the application process.

- **Part 1** was an overview of the application and what to expect.
- **Part 2** was on Standard #2 (Identify and Manage Patient Populations), and Standard #6 (Measure and Improve Performance).
- **Part 3** was on Standard #1 (Access and Continuity), and Standard #5 (Track and Coordinate Care).
- **Part 4** was on Standard #3 (Plan & Manage Care), and Standard #4 (Provide Self-Care Support and Community Resources).

Sites in the West cluster (C5) were least likely to attend these webinars, with nearly 60 percent not attending any, as shown in Exhibit VI.16.

**Exhibit VI.16: Participation of Sites in PCMH Standards Webinars by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

In July 2012, AIR launched Phase II of their TA and offered a series of “on demand” webinars on the AIR web portal. This consisted of an orientation webinar, four webinars on documentation preparation for NCQA recognition, and four webinars on foundational changes. Exhibit VI.17 shows the list of “on-demand” webinars.

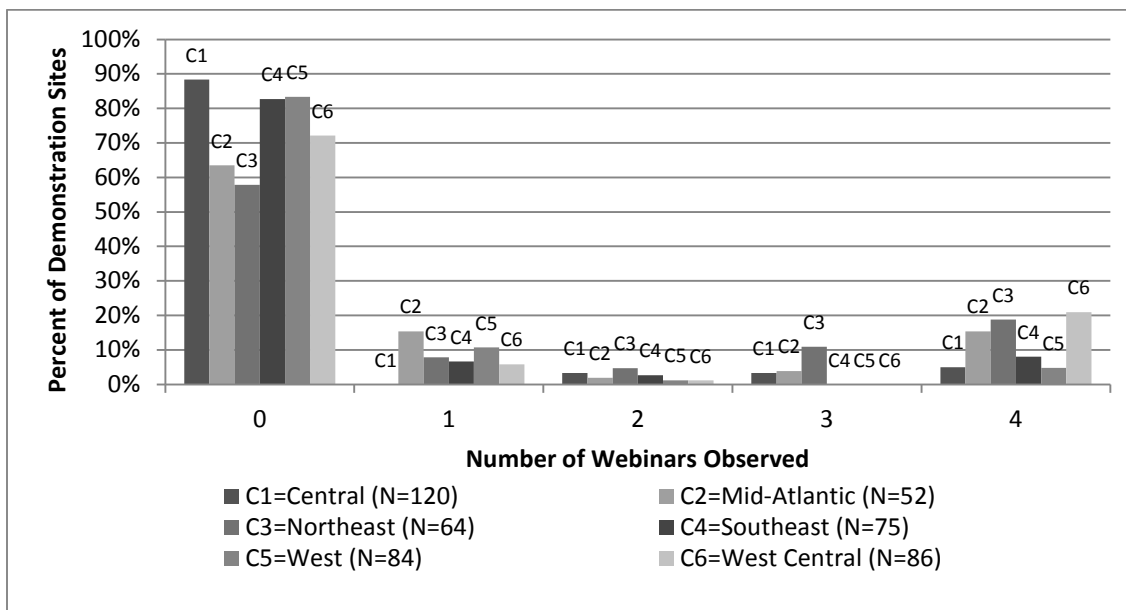
**Exhibit VI.17: On-Demand Learning Available on the CMS Collaboration Site**

<b>Date</b>	<b>Title</b>
Available starting February 13, 2013	Orientation to Phase 2 ACP Transformation Series
Available starting February 13, 2013	Topic 1A: Foundational Changes: Focus on Q)
Available starting February 13, 2013	Topic 1B: Documentation prep for NCQA Recognition: Focus on Standard 6
Available starting February 13, 2013	Topic 2A: Foundational Changes: Building Relationships with Patients
Available starting February 13, 2013	Topic 2B: Documentation Prep for NCQA Recognition: Focus on Standards 2 and 1D, 1G
Available starting February 13, 2013	Topic 3A: Foundational Changes: Changing Care Delivery
Available starting February 13, 2013	Topic 3B: Documentation prep for NCQA Recognition: Focus on Standards 3, 4, and 1F
Available starting February 13, 2013	Topic 4A: Foundational Changes: Reducing Barriers to Care
Available starting February 13, 2013	Topic 4B: Documentation prep for NCQA Recognition: Focus on Standards 1A, 1B, 1C, 1E, & 5

SOURCE: Review of CMS collaboration site, <https://collaboration.cms.gov>, October 10, 2013.

Each webinar on documentation preparation concentrated on one or more specific standards from the application for NCQA recognition. Most sites participated in none of these webinars. As shown in Exhibit VI.18, participation in these webinars was low (less than 22 percent) across all clusters, but sites in the Mid-Atlantic (C2) and Northeast (C3) clusters were most likely to attend at least some of them.

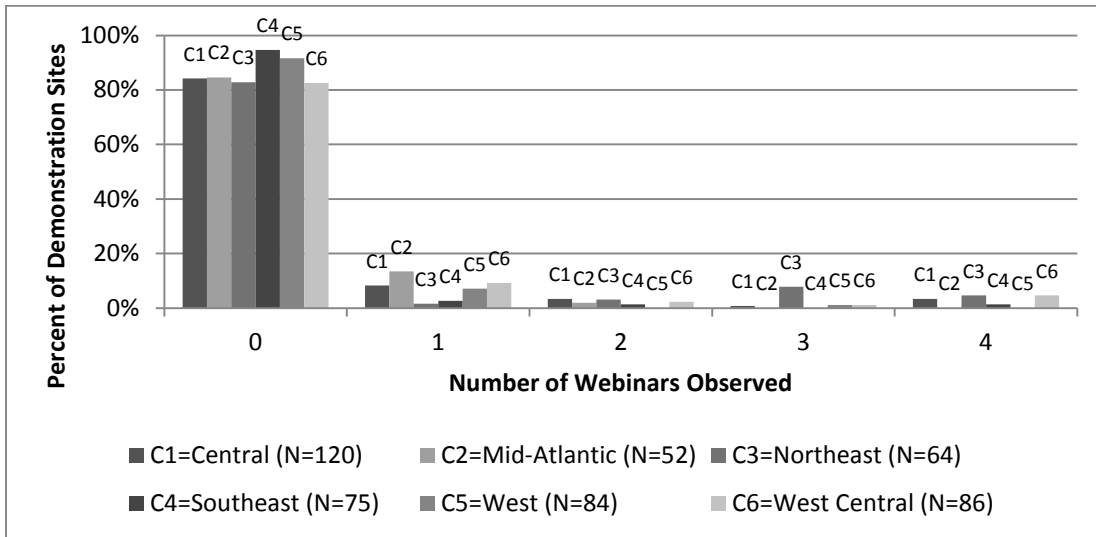
**Exhibit VI.18: Participation of Sites in Documentation Preparation Webinars by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

The four webinars on foundational changes reviewed building relationships with patients, QI, changing care delivery, and reducing barriers to care. Participation in this series was even lower than participation in the documentation preparation series, as shown in Exhibit VI.19. Across all clusters, more than 80 percent of sites did not participate in any of these webinars.

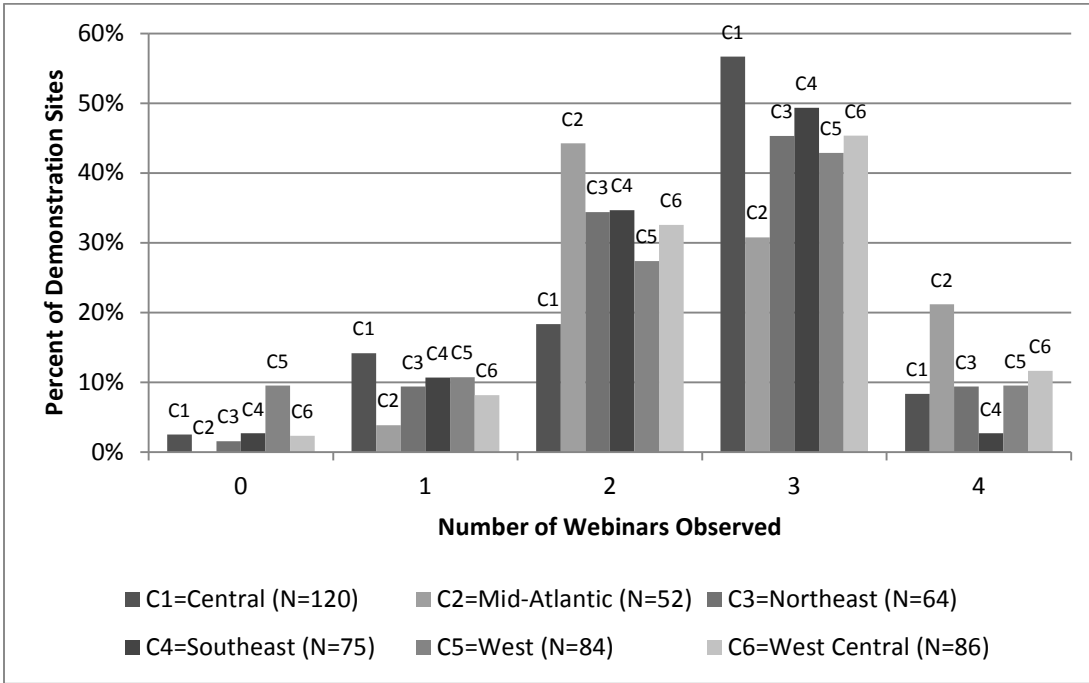
**Exhibit VI.19: Participation of Sites in Foundational Changes Webinars by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

AIR hosted a series of four webinars during 2013, with the first in February and the last in August, in which CMS personnel addressed achieving Level 3 NCQA recognition, completing the data use agreement required by CMS, and attaining the CMS improvement benchmarks. These webinars were more heavily attended than any other set of AIR webinars, as shown in Exhibit VI.20. Fewer than 10 percent of sites skipped all four webinars and every site in the Northeast cluster attended at least one.

**Exhibit VI.20: Participation of Sites in CMS and Partner Webinars by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

Exhibit VI.21 shows the cluster ranking of participation in AIR webinars using three metrics: participation in any AIR webinar, participation in at least half of AIR webinars, and participation in all AIR webinars on a particular topic. White cells indicate the highest-ranking; dark grey the lowest-ranking. The Northeast (C3) cluster consistently has the highest participation across all types of webinars. The West (C5) cluster consistently has the lowest. The other clusters vary their placement in the middle.

**Exhibit VI.21: Cluster Ranking of Participation in AIR Webinars**

	Health Center Transformation	RAS	RAND Webinar	PCMH Standards	Documentation prep	Foundational Changes	CMS and Partner Webinars
<b>Any AIR Webinar</b>							
Central (N=120)	4	4	1	3	6	3	4
Mid-Atlantic (N=52)	6	1	6	4	2	4	1
Northeast (N=64)	2	3	2	1	1	2	2
Southeast (N=75)	5	2	4	5	4	6	5
West (N=84)	3	5	5	6	5	5	6
West Central (N=86)	1	6	3	2	3	1	3
<b>Half of AIR Webinars</b>							
Central (N=120)	2	4	1	2	4	3	1
Mid-Atlantic (N=52)	4	1	6	6	3	6	6
Northeast (N=64)	1	3	2	1	1	1	3
Southeast (N=75)	5	2	4	3	5	4	5
West (N=84)	6	5	5	5	6	5	4
West Central (N=86)	3	6	3	4	2	2	2
<b>All AIR Webinars</b>							
Central (N=120)	2	4	1	4	5	3	5
Mid-Atlantic (N=52)	4	1	6	5	3	5	1
Northeast (N=64)	1	3	2	1	2	1	4
Southeast (N=75)	5	2	4	6	4	4	6
West (N=84)	6	5	5	3	6	6	3
West Central (N=86)	3	6	3	2	1	2	2
SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.							

Exhibit VI.22 shows a summary of the cluster rankings based on the percentage of sites participating in at least one AIR webinar, at least half of the AIR webinars, and all of the AIR webinars. As already mentioned, the Northeast (C3) cluster has the highest participation based on all three criteria, while the West (C5) cluster has the lowest.

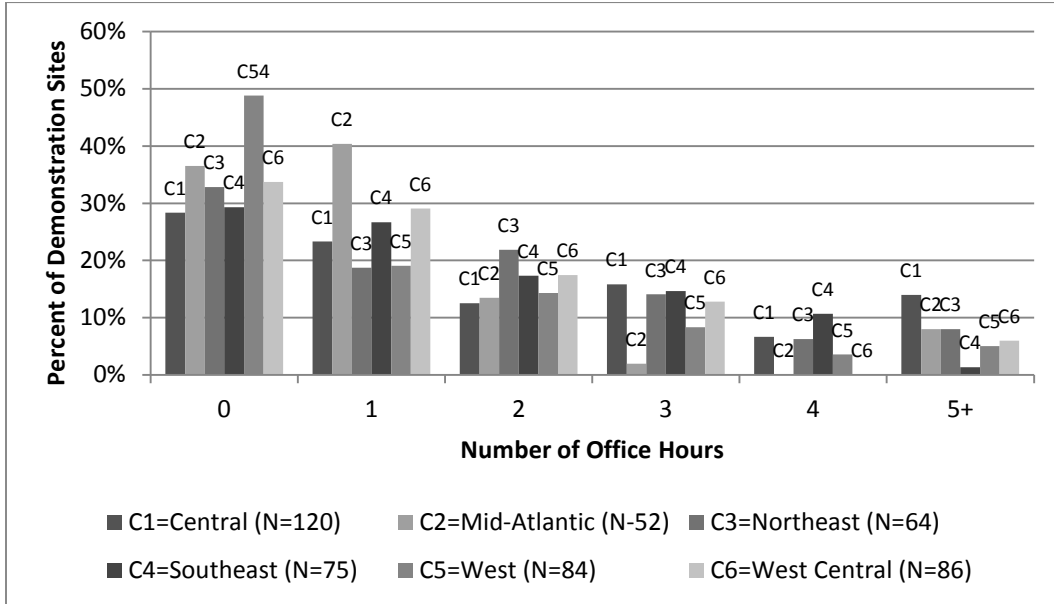
**Exhibit VI.22: Summary Cluster Rankings of Percentage of Demonstration Sites Participating in AIR Webinars Using Three Different Criteria for Participation**

	Number of Best Rankings	Number of Worst Rankings
<b>Rankings Documenting Percentage of Sites Participating in One or Fewer Webinars per Topic (criteria 1)</b>		
Central (N=120)	1	1
Mid-Atlantic (N=52)	2	2
Northeast (N=64)	6 (Best)	0 (Best)
Southeast (N=75)	2	4
West (N=84)	0 (Worst)	6 (Worst)
West Central (N=86)	3 (2 <sup>nd</sup> worst)	1
<b>Rankings Documenting Percentage of Sites Participating in At Least Half of the Webinars per Topic (criteria 2)</b>		
Central (N=120)	1	1
Mid-Atlantic (N=52)	3	2
Northeast (N=64)	6 (Best)	0 (Best)
Southeast (N=75)	1	4
West (N=84)	0 (Worst)	6 (Worst)
West Central (N=86)	3	1
<b>Rankings Documenting Percentage of Sites Participating in All of the Webinars per Topic (criteria 3)</b>		
Central (N=120)	2	2
Mid-Atlantic (N=52)	2	3
Northeast (N=64)	5 (Best)	0 (Best)
Southeast (N=75)	1	3
West (N=84)	0 (Worst)	5 (Worst)
West Central (N=86)	4 (2 <sup>nd</sup> best)	1

Starting in the fall of 2012, AIR offered “office hours” webinars that were an opportunity for demonstration sites to ask specific questions of TA experts. Sites could submit questions prior to the webinars or use the chat function or telephone to ask questions that arose during the webinar. There have been 15 “office hours” since September 2012, but very few sites have participated in more than a couple. Sites in the

West (C5) cluster were the least likely to participate in any office hours, with nearly 50 percent of sites not participating as shown in Exhibit VI.23.

**Exhibit VI.23: Participation in Office Hours by Cluster**



SOURCE: AIR Technical Assistance Participation Lists, Provided to RAND by AIR, September 11, 2013.

Exhibit VI.24 shows the list of office hours that have been offered. Each had a specific topic area, but there were no presentations during these webinars. Instead, content-specific TA experts from AIR, NCQA, Qualis or CMS were available as needed for the given topic.



## Exhibit VI.24: AIR Office Hours

Title and Date	Example Questions
General Questions on NCQA Recognition—Part 1: Application Overview, Project Management, What to Expect -September 24, 2012	Can we submit our survey for formal recognition multiple times, or can we formally submit only one?
	Is there a way to submit a multisite application when only one site is in the demo project?
	Do the documentation papers need to include information on all of the providers for the practice?
General Questions on NCQA Recognition—Part 1: Application Overview, Project Management, What to Expect – September 25, 2012	When should we expect an on-site review to confirm the level of NCQA for which we have achieved and self-attested?
	Can you say anything about any specific software assurances and certification by NCQA?
	Is it better to combine documents on our own server or on the NCQA site?
General Questions on PCMH Standard #6: Measure and Improve Performance – October 12, 2012	Do we receive partial credit if we get 50 percent on a standard?
	Should we lay out the methodology used for random sampling for the surveyor?
	Where do we find the improvement worksheets?
Questions Related to PCMH 1 – October 22, 2012	Do nursing two-way hotlines apply to standard 1C1 (electronic access to records)?
	Do provider names need to be redacted when submitting reports?
	What is the most effective way to involve staff in quality improvement?
Questions Related to PCMH 5 – October 26, 2012	Can a care plan also be a discharge plan?
	Should a care plan be specific for each problem?
	Does pre-visit planning need to be documented?
Questions Related to PCMH 4 – December 7, 2012	We don't need to track whether a patient actually went to a community health partner, just track that we made the referral, correct?
	How have EMRs been customized to document provision of self-management counseling or patient materials?
Questions from sites submitting an application for NCQA PCMH Recognition in 1-3 months – February 20, 2013	When providing screen shots for documentation, should there always be three different samples?
	Can screen shots of the available and field same-day slots on the schedule be used for documentation or is a five-day spot check report preferred?
	What is the best way to make sure all our patients who need them are getting self-management goals set?

Title and Date	Example Questions
<p>Questions from sites submitting an application for NCQA PCMH Recognition in 1-3 months – March 6, 2013</p>	<p>We are very close to the 85 point cutoff for the Level III, is there an average number of points you might expect to lose during the review process so that I can set up expectations on our end more realistically?</p> <p>Are there any obvious pitfalls regarding documentations submission to avoid or to lessen the likelihood of losing points?</p> <p>Are there any recommended ways to strength the documentation submission to help the review process?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition in 4+ months – March 6, 2013</p>	<p>How do clinical teams set goals with patients for self-management support and how do we document them?</p> <p>Why is it important to include narrative descriptions with the documentation?</p> <p>What is the required number of medical records required for the record review book?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition – April 5, 2013</p>	<p>When we do our final submission of documentation, do we delete the old record review workbooks that are on the survey for readiness assessments, or do we need to include all workbook submissions for the submission of the application?"</p> <p>Do you have to provide a report that shows same-day access for five consecutive days, or can the days be spread out throughout the month?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition – July 26, 2013</p>	<p>The NCQA PCMH factor 4(a)-2 which assesses whether practices use an EHR to identify patient-specific educational resources, does this include our electronic referrals to nutritionists, podiatry or optometry, for example or does this refer to something else?</p> <p>How long does it usually take to get the results back?</p> <p>If we found errors with the quality reporting, like missing A(1)-c and lipid testing, as well as misdiagnosed diabetics, how do we get that information corrected?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition – August 14, 2013</p>	<p>We did the CAHPS in August of 2012 but didn't do it this year. Can we use the 2012 survey for corporate submission if we plan to submit in November of this year?</p> <p>With chart review, do you answer all of the questions only in relation to the condition of interest?</p> <p>We have three sites; two are already NCQA Level 3. Is there a way to upload the documents since they are the same?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition – August 30, 2013</p>	<p>Is it okay if we identify our high risk patients by those who see the social worker?</p> <p>If we don't have same-day appointments for every provider, every day, in our system, will we not get PCMH recognition?</p> <p>Which elements does a care plan need to contain in order to qualify as a care plan?</p>

Title and Date	Example Questions
<p>Questions from sites submitting an application for NCQA PCMH Recognition – September 11, 2013</p>	<p>When submitting the corporate survey tools, we were informed that we have the option to complete all 16 eligible elements and a minimum of 11. At submission, do we have to worry about submitting information on the other elements not included in the 16 eligible elements list? Will the tool only allow those 16 on the list?</p> <p>What is supposed to be included in a clinical summary?</p> <p>Can a site get credit for CAHPS if they used the survey but administer it to patients in person in the health center instead of mailing it out?</p>
<p>Questions from sites submitting an application for NCQA PCMH Recognition – September 27, 2013</p>	<p>We recently received notice that our application for PCMH recognition was denied. We have received the comments, but have not been able to access our score. I understand the results are to be posted on the welcome page of the website. Is there a timeframe for this posting?</p> <p>What type of documentation is needed to demonstrate we educate our patients that we use evidence-based care?</p>

SOURCE: Review of CMS collaboration site, <https://collaboration.cms.gov>, October 10, 2013.

In addition to the webinars and office hours described above, the CMS collaboration website includes resources that the TA experts have identified as potentially helpful to the demonstration sites. These include basic resources such as the PCMH-A assessment tool and the NCQA standards, the lessons-learned and questions-and-answers documents developed by AIR based on questions submitted by the demonstration sites, and recommended articles. Exhibit VI.25 lists these additional resources.

## Exhibit VI.25: Resource Documents Available on the CMS Collaboration Site

<b>Resource Documents</b>	
Available starting July 17, 2013	PCMH-A Assessment Tool
Available starting July 17, 2013	NCQA Standards and Guidelines
Available starting July 17, 2013	NCQA Patient Centered Medical Home Application
Available starting July 17, 2013	Technical Assistance Survey Summary Report
Available starting July 17, 2013	FQHC Alignment Tool
Available starting October 22, 2012	External Resource Links
<b>Questions &amp; Answers and Lessons Learned Documents</b>	
Available starting March 1, 2013	Phase 2 Lessons Learned
Available starting March 27, 2013	Questions & Answers
Available starting April 1, 2013	Phase 2 Lessons Learned
Available starting April 18, 2013	Questions & Answers
Available starting May 1, 2013	Phase 2 Lessons Learned
Available starting October 22, 2013	Questions & Answers
<b>Recommended Articles</b>	
Available starting November 13, 2012	Lessons Learned from Implementing the Patient-Centered Medical Home
Available starting November 13, 2012	Defining the Medical Home: The Oregon Experience
Available starting January 3, 2013	Impact of Medical Homes on Quality, Healthcare Utilization, and Costs

SOURCE: Review of CMS collaboration site, <https://collaboration.cms.gov>

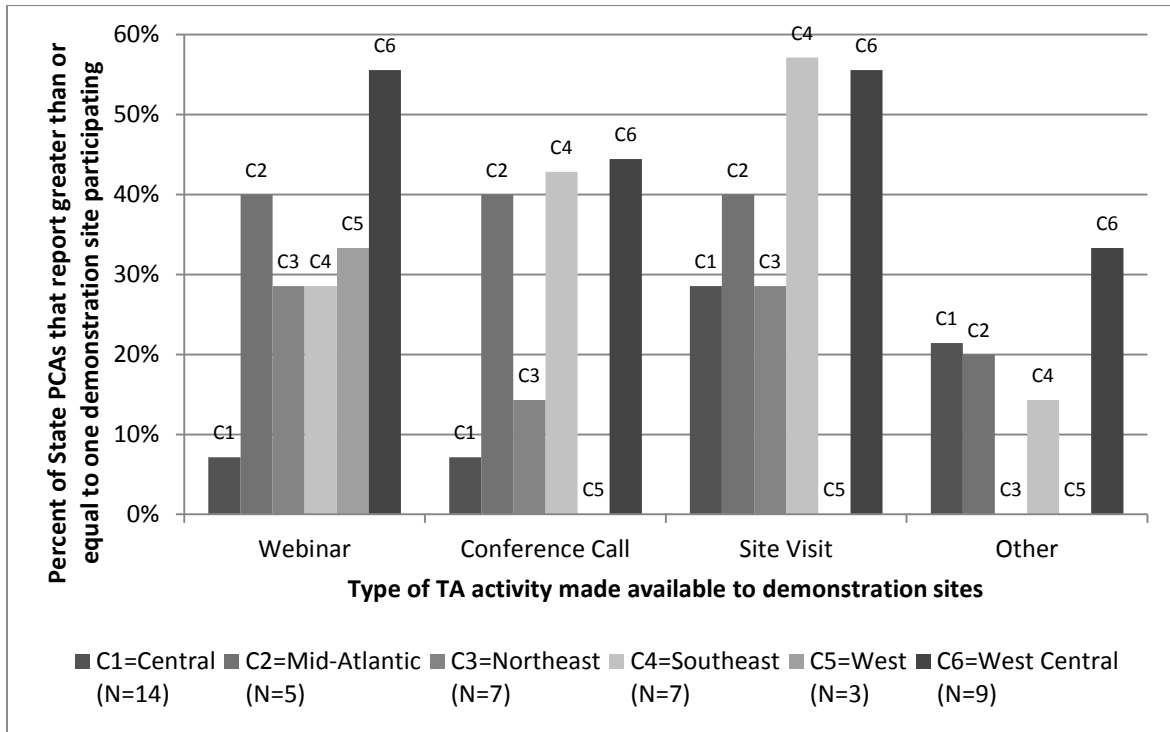
### **VI.4C. Intervention Component #3B: Technical Assistance Offered and Delivered by State PCAs**

#### ***VI.4C.1. Training Activities***

Starting in August 2013, the PCAs have been required to submit monthly reports counting the types of TA they offered to demonstration FQHCs within their state. These reports will be due monthly to AIR. They indicate the number of webinars, conference calls, site visits, or other type of TA offered by each state PCA in the prior month. Exhibit VI.26 shows the percentage of state PCAs that report each type of TA activity during August 2013, the first month of reporting. The West Central (C5) cluster reported delivering the most TA across all sources and had the highest percentage of state PCAs delivering all sources of TA except site visits, where they were only slightly behind the

Southeast cluster. The Northeast (C3) cluster was the least likely to deliver any sort of TA in August 2013.

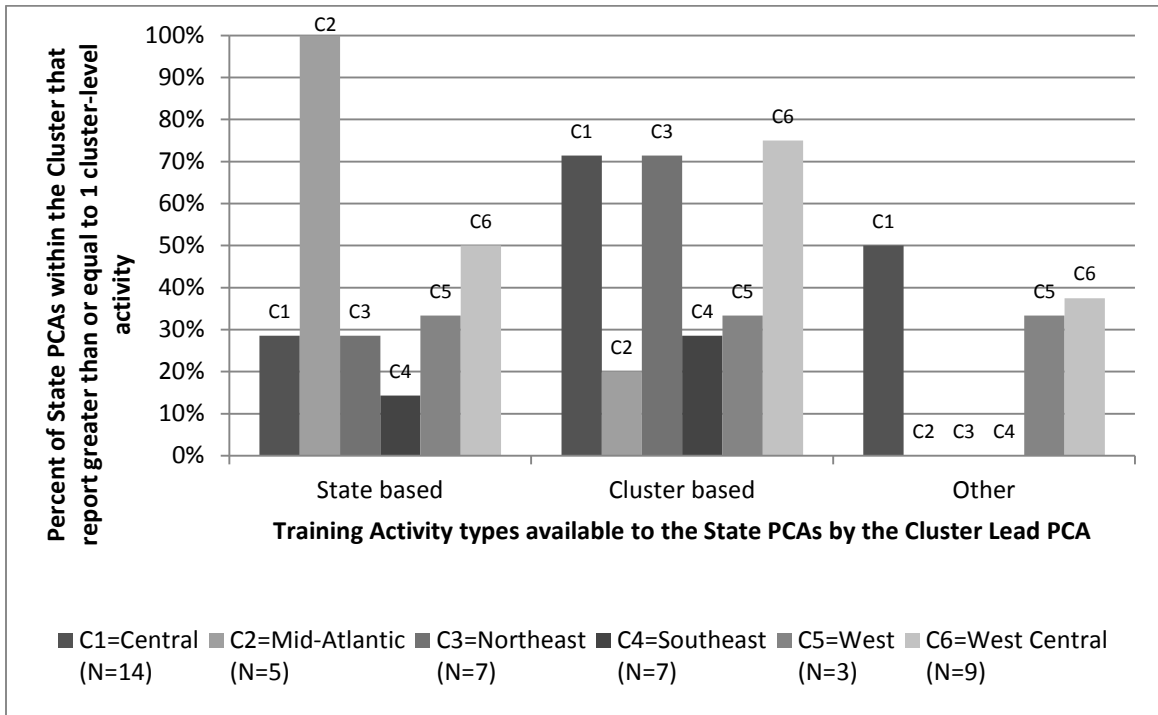
**Exhibit VI.26: Percent of State PCAs that Report Any Training Activity, August 2013**



SOURCE: Monthly PCA Reports, Provided to RAND by AIR, August 2013.

In addition to reporting on TA delivered to the sites, PCAs reported on TA received at the state level, the cluster level, or from any other source. The Mid-Atlantic cluster PCAs were most likely to have received state-based training, with 100 percent of states reporting receiving state-based assistance, while the West Central cluster reported the most cluster-based TA. The Northeast cluster reported the most other TA. The Southeast cluster states were least likely to report receiving TA in August 2013, as shown in Exhibit VI.27.

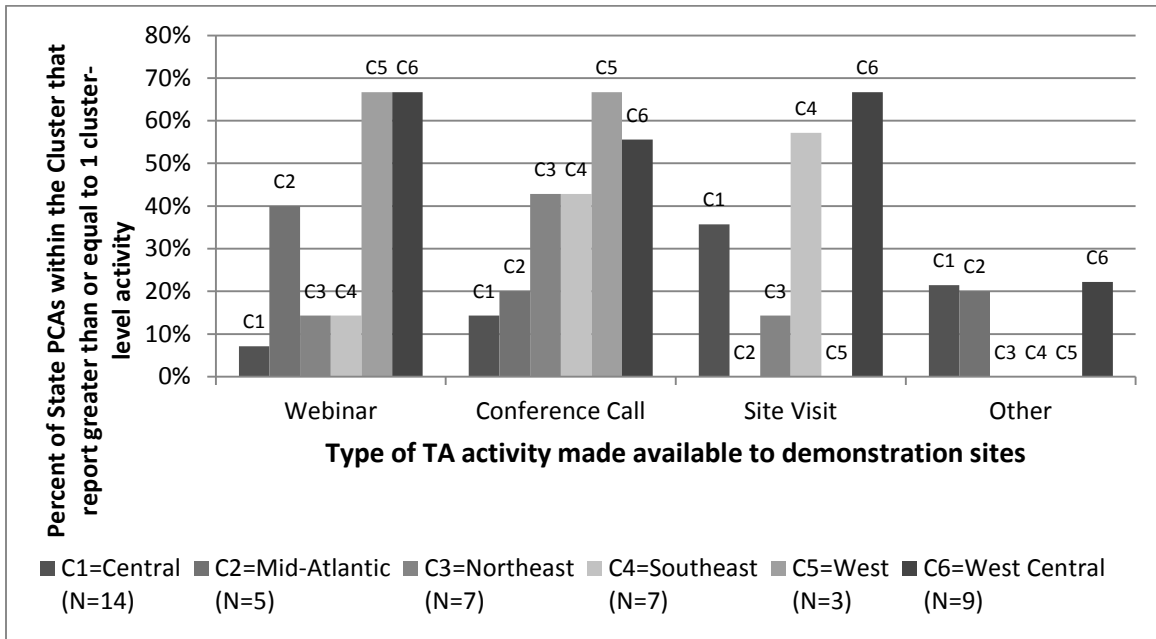
**Exhibit VI.27: Percent of State PCAs that Report Receiving Any Training, August 2013**



SOURCE: Monthly PCA Reports, Provided to RAND by AIR, August 2013.

In the September 2013 monthly reports, states in the West and West Central clusters were most likely to provide webinars, the West cluster states were most likely to provide conference calls, and the West Central cluster was most likely to provide site visits. Fewer than 10 percent of states in the Northeast cluster offered webinars and only 12 percent offered conference calls. However, about 35 percent of states in the Northeast offered site visits, and 21 percent offered other types of TA as shown in Exhibit VI.28.

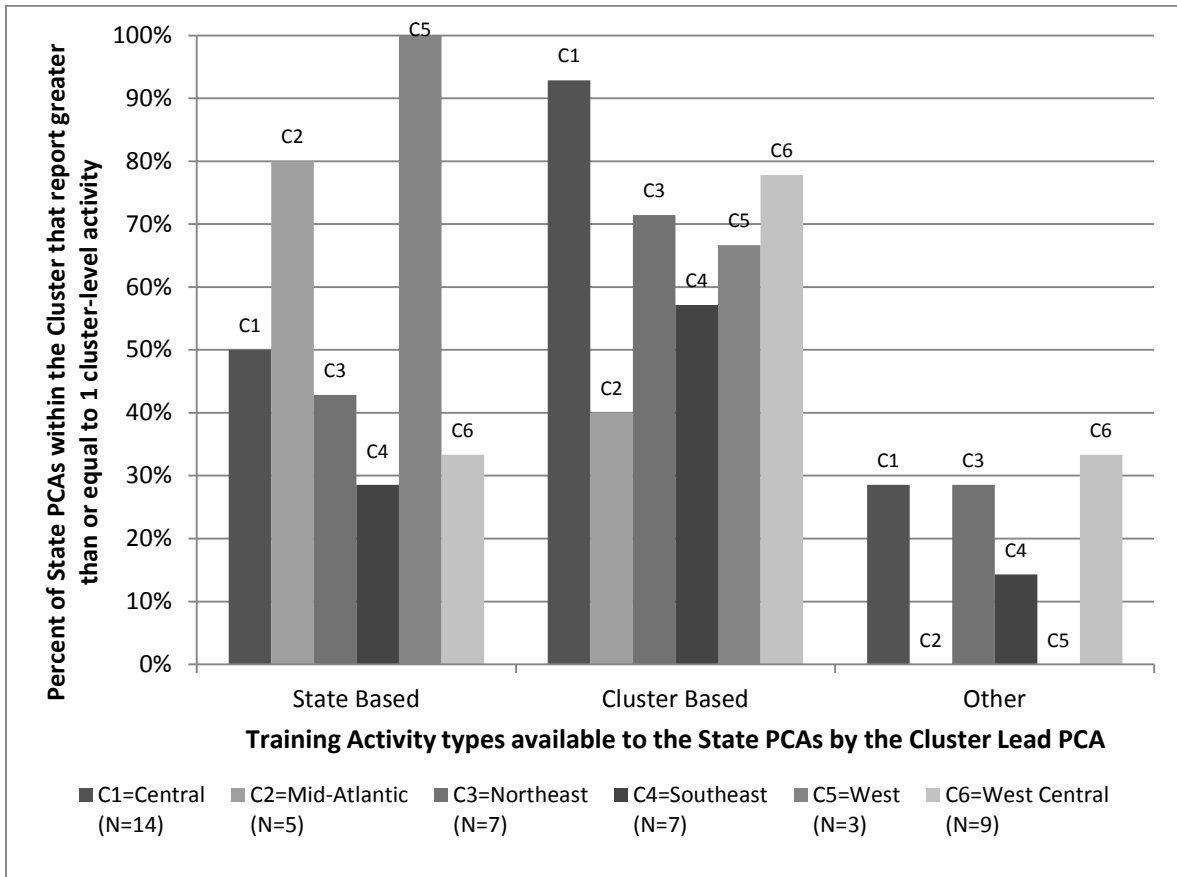
**Exhibit VI.28: Percent of State PCAs that Report Any Training, September 2013**



SOURCE: Monthly PCA Reports, Provided to RAND by AIR, September 2013.

In September 2013, the West cluster states were most likely to have received state-based assistance, with 100 percent indicating that they received this, followed by the Mid-Atlantic (C2) cluster at 80 percent. Cluster-based assistance was reported most often among states in the Northeast (C3). The Southeast (C4) cluster states were least likely to have received state-based assistance, while the mid-Atlantic (C2) states were least likely to have reported receiving cluster-based assistance, as shown in Exhibit VI.29.

**Exhibit VI.29: Percent of State PCAs that Report Receiving Any Training, September 2013**



SOURCE: Monthly PCA Reports, Provided to RAND by AIR, September 2013.

Exhibit VI.30 shows the change in TA offered by the states in each cluster from August to September 2013. Light grey cells indicate an increase in TA in a given category and dark grey indicates a decrease in TA in a given category. The West (C5) and West Central (C6) states had the most increase in TA while the Mid-Atlantic (C2) states had the largest decrease.



**Exhibit VI.30: Percentage Change in TA Offerings Between August and September 2013 by Cluster**

	<b>Webinar</b>	<b>Phone Call</b>	<b>Conference Call</b>	<b>Site Visit</b>	<b>Other</b>
Central (N=14)	0	0	7	7	0
Mid-Atlantic (N=5)	0	20	-20	-40	0
Northeast (N=7)	-14	0	29	-14	0
Southeast (N=7)	-14	0	0	0	-14
West (N=3)	33	33	67	0	0
West Central (N=9)	11	11	11	11	-11

SOURCE: Monthly PCA Reports, Provided to RAND by AIR, September 2013.

**VI.4C.2. AIR “Site Readiness” Categories Applied by State PCAs**

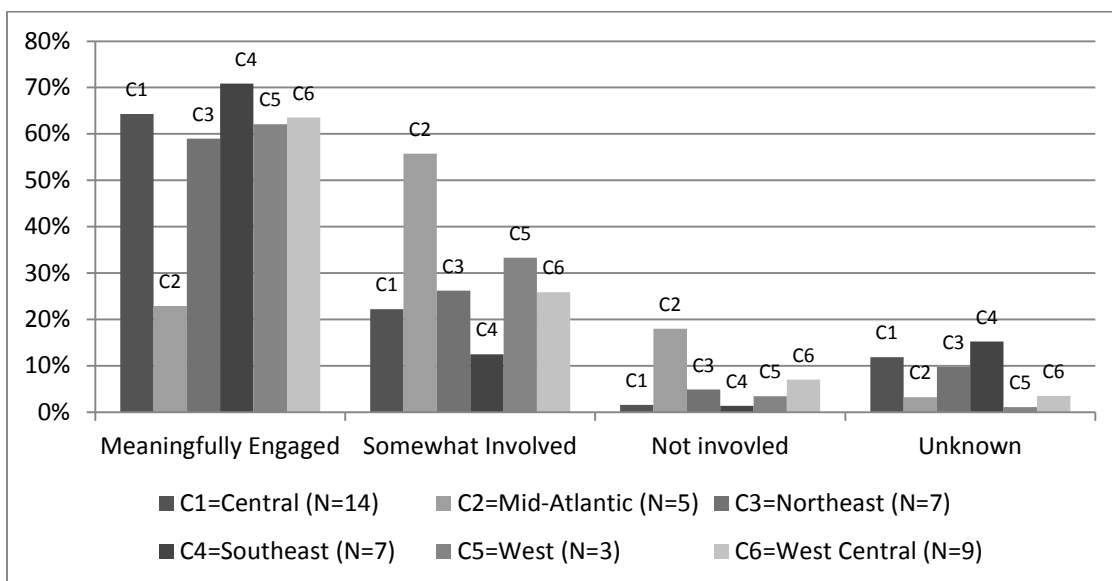
AIR has developed *site readiness* categories, applied by state PCAs according to their aggregate experience with a site’s engagement in activities designed to support improvement efforts related to NCQA standards. As of summer 2013, this aggregate report is the only metric available to RAND for each site, other than site-level participation in webinars.

Exhibit VI.31 shows the distribution of “Site Readiness” categories to demonstration FQHCs by cluster.

- A site that is meaningfully engaged with the demonstration exhibits: “Leadership and points of contact (POCs) engaged; site actively engaged in improvement work related to NCQA standards; strong, consistent progress.”
- A site that is somewhat involved with the demonstration exhibits: “Leadership and POC not consistently engaged; working on improvement around NCQA standards, though some stumbling blocks; achieving progress, though not consistently.”
- A site that is not involved with the demonstration exhibits: “Leadership and/or POC either not engaged or obstructing efforts; little to no progress on NCQA standards; little to no progress overall.”

The Southeast cluster was praised by its PCA with an assignment of the “meaningfully engaged” category for 71 percent of its FQHC sites and the lowest rate of “not involved” assignments. In contrast, the Mid-Atlantic cluster was assigned the “meaningfully engaged” category for only 55 percent of its sites and a “not involved” category for 18 percent.

**Exhibit VI.31: Distribution of “Site Readiness” Categories to Demonstration FQHCs by Cluster**



SOURCE: Monthly PCA Reports, Provided to RAND by AIR, September 2013.

**VI.4D. CASE Survey Analyses Pertinent to AIR Technical Assistance and Transformation**

As noted in Section III.5B, the CASE survey documents reports by clinicians and staff members about their attendance at webinars or training sessions focusing on improving their patients’ access to care or about improving coordination of care for patients. Participation in these webinars or training sessions are most likely to represent efforts associated with AIR’s TA program. CASE also informs us about the clinician and staff experiences of the clarity, utility, and accuracy of these TA sessions. We will first describe the site-level reports of prevalence of participation in these webinars overall, by cluster, and by state. We will look for evidence of participation in webinars about access, coordination, both, or neither.

Following report of participation in TA sessions pertinent to access, the CASE survey reports on whether clinicians and staff believe that there have been any changes in the way patients schedule appointments with the practice, or the ways patients can contact providers in the practice (e.g., via phone or email).

This section addresses four research questions:

- To what extent do the FQHCs participate in TA from AIR to support continuous QI in FQHCs? How variable is TA uptake from AIR? (RAND Research Question 1.1C)
- What is the extent of participation in other initiatives and demonstrations that redesign care delivery or provide supplemental funding to support PCMH transformation? (Research Question s1.1E)
- How do practices change as FQHCs transform their practices? (Research Question 1.2A)
- Does the TA help them transform their practices? Does it help them overcome challenges they face? Which features are most useful? Which features are not as helpful or need improvement? (Research Question: 1.2 B).
- Do FQHCs participating in the demonstration provide better coordination of care for Medicare beneficiaries? If so, what features make health care delivery better coordinated and what outcomes result from this better coordinated care? (Research question 2.1D)

Exhibit VI.32 shows that fewer than half of respondents attended TA related to access, but those who did rated it highly, and the majority reported that their clinics made changes to enhance access (either via scheduling appointments differently or by offering non-visit access options).

**Exhibit VI.32: CASE Survey Responses Pertinent to Webinar Participation as a Form of Technical Assistance**

**Q19A. In the past year, have you attended any webinars or training sessions about improving your patients' access to care?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes—All respondents	539	44.7
Yes—Central region	142	42.2
Yes—Mid-Atlantic region	52	44.4
Yes—Northeast region	66	39.4
Yes—Southeast region	67	47.9
Yes—West region	94	48.9
Yes—West-Central region	118	45.8
Yes—Rural site	58	46.3
Yes—Non-rural site	481	42.0

**Q19B. [if YES to Q19A] In these training sessions about improving access, how clear was the presentation of information?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat clear—All respondents	270	93.4
Extremely or Somewhat clear —Central region	69	92.8
Extremely or Somewhat clear —Mid-Atlantic region	25	96.0
Extremely or Somewhat clear —Northeast region	28	96.6
Extremely or Somewhat clear —Southeast region	39	94.9
Extremely or Somewhat clear —West region	51	94.1
Extremely or Somewhat clear —West-Central region	58	90.0
Extremely or Somewhat clear —Rural site	32	95.5
Extremely or Somewhat clear —Non-rural site	238	89.7

**Q19B\_2. [if YES to Q19A] In these training sessions about improving access, how useful was the information?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat useful—All respondents	269	85.0
Extremely or Somewhat useful —Central region	69	82.6
Extremely or Somewhat useful —Mid-Atlantic region	25	88.0
Extremely or Somewhat useful —Northeast region	28	79.3
Extremely or Somewhat useful —Southeast region	38	84.6
Extremely or Somewhat useful —West region	51	86.3
Extremely or Somewhat useful —West-Central region	58	88.3
Extremely or Somewhat useful —Rural site	32	84.7
Extremely or Somewhat useful —Non-rural site	237	85.6

**Q19C. [if YES to Q19A] Have these training sessions changed the way patients schedule appointments with the practice?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes —All respondents	270	66.8
Yes, major or minor changes —Central region	69	61.4
Yes, major or minor changes —Mid-Atlantic region	25	72.0
Yes, major or minor changes —Northeast region	28	48.3
Yes, major or minor changes —Southeast region	39	71.8
Yes, major or minor changes —West region	51	82.4
Yes, major or minor changes —West-Central region	58	63.3
Yes, major or minor changes —Rural site	32	67.0
Yes, major or minor changes —Non-rural site	238	66.3

**Q19C\_2: [if YES to Q19A] Have these training sessions changed the ways patients can contact providers in the practice (e.g., via phone or email)?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes — All respondents	268	53.7
Yes, major or minor changes —Central region	69	50.0
Yes, major or minor changes —Mid-Atlantic region	24	52.0
Yes, major or minor changes —Northeast region	28	48.3
Yes, major or minor changes —Southeast region	38	64.1
Yes, major or minor changes —West region	51	54.9
Yes, major or minor changes —West-Central region	58	53.3
Yes, major or minor changes —Rural site	32	54.5
Yes, major or minor changes —Non-rural site	236	52.0

Exhibit VI.33 shows fewer than half of respondents attended TA related to coordination of care, but those who did rated it highly and the majority reported that their clinics made changes to enhance access (either by changing communication within the clinic or with outside providers).

**Exhibit VI.33: CASE Survey Responses Pertinent to Coordination of Care**

**Q20A. In the past year, have you attended any webinars or training sessions about improving care coordination for your patients?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes—All respondents	539	37.9
Yes—Central region	142	38.8
Yes—Mid-Atlantic region	52	44.4
Yes—Northeast region	66	33.8
Yes—Southeast region	67	46.6
Yes—West region	94	33.0
Yes—West-Central region	118	35.0
Yes—Rural site	58	38.7
Yes—Non-rural site	481	36.6

**Q20B. [if YES to Q20A] In these training sessions about improving care coordination, how clear was the presentation of information?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat clear—All respondents	237	93.3
Extremely or Somewhat clear —Central region	62	92.1
Extremely or Somewhat clear —Mid-Atlantic region	24	84.0
Extremely or Somewhat clear —Northeast region	26	96.2
Extremely or Somewhat clear —Southeast region	36	94.6
Extremely or Somewhat clear —West region	39	100
Extremely or Somewhat clear —West-Central region	50	92.0
Extremely or Somewhat clear —Rural site	27	92.1
Extremely or Somewhat clear —Non-rural site	210	95.5

**Q20B\_2. [if YES to Q20A] In these training sessions about improving care coordination, how useful was the information?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Extremely or Somewhat useful—All respondents	233	88.2
Extremely or Somewhat useful —Central region	60	88.5
Extremely or Somewhat useful —Mid-Atlantic region	23	80.0
Extremely or Somewhat useful —Northeast region	26	80.8
Extremely or Somewhat useful —Southeast region	35	86.5
Extremely or Somewhat useful —West region	39	84.9
Extremely or Somewhat useful —West-Central region	50	92.0
Extremely or Somewhat useful —Rural site	26	87.3
Extremely or Somewhat useful —Nonrural site	207	89.8

**Q20C. [if YES to Q20A] Have these training sessions changed the way providers in the practice communicate with each other?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes —All respondents	235	65.7
Yes, major or minor changes —Central region	61	64.5
Yes, major or minor changes —Mid-Atlantic region	24	68.0
Yes, major or minor changes —Northeast region	26	65.4
Yes, major or minor changes —Southeast region	35	51.4
Yes, major or minor changes —West region	39	76.9
Yes, major or minor changes —West-Central region	50	68.0
Yes, major or minor changes —Rural site	26	62.0
Yes, major or minor changes —Non-rural site	209	71.9

**Q20C\_2: [if YES to Q20A] Have these training sessions changed the way providers in the practice communicate with specialists, hospitals, or emergency departments?**

<b>Survey Questions and Responses</b>	<b>Number of Respondents to Question</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Yes, major or minor changes — All respondents	237	63.3
Yes, major or minor changes —Central region	62	61.9
Yes, major or minor changes —Mid-Atlantic region	24	64.0
Yes, major or minor changes —Northeast region	26	65.4
Yes, major or minor changes —Southeast region	36	54.1
Yes, major or minor changes —West region	39	66.7
Yes, major or minor changes —West-Central region	50	68.0
Yes, major or minor changes —Rural site	27	62.3
Yes, major or minor changes —Non-rural site	210	65.2



## **VI.4E. Qualitative Analyses of Site Leader Interviews Pertinent to AIR Technical Assistance**

This section addresses the question: How Do FQHCs Apply and Use the AIR TA They Receive? (Research Question 1.1C.2) by describing results of analyses from site leader interviews focusing on reports about how PCAs provide TA.

The analyses that follow are a supplement to site leader analyses reported in Section VI.3D.1 (General Themes Pertinent to Technical Assistance for FQHCs).

*Webinars were a valuable resource.* Comments on technical assistance provided by AIR centered on the series of webinars that AIR has hosted, with largely positive responses. While the initial AIR webinars reviewed general PCMH principles and features, a number of demonstration FQHC respondents also appreciated the information provided on preparation of documentation, policies, and procedures required for the PCMH recognition process.

“The ones that I found the most helpful were the AIR webinars . . . because they have actual slides of real documents that have come through, and they are archived. I’ve gone over and over and over them getting my documentation together.”

Another common theme was the value that demonstration respondents placed on interacting, sharing, and learning from other demonstration participants, especially through AIR’s “Q&A” webinars.

“It’s . . . nice to see that other people struggle with the same things we are—or, at least, we may have an idea or something but we’re really not sure. So, I know a lot of calls and webinars and things have been, ‘OK, we are going in the right direction.’ [It’s] kind of encouraging us that we’re not necessarily falling behind.”

“I’m always on those because what I’m finding out is other people’s questions are my own questions.”

“I depend on those Q&A things. It’s easier to do it that way than if I put in a question—it takes a couple days to get a response. So I make a list of all my questions for the next Q&A session.”

“It’s always good to hear other people’s struggles or successes. And one of the things that we liked is that it was tough for us to come up with three diagnoses because there were a couple that we wanted to do and we were like, ‘OK, we gotta narrow this down.’”

At the same time, other respondents found some content to become repetitious, if helpful, suggesting further differentiation of sessions for sites at different levels.

“The [webinars], those have been—it depended where we were at. I sometimes felt that we were further ahead than some of the other participants, and a little bit of it was repetitious. But for the most part we’d get something positive out of all of those.”

“I think what I found really helpful was when they went through each standard and provided examples of what constitutes appropriate documentation. I think those are very helpful. I think once they went through all the standards in depth . . . after that, it was just very redundant. Some of these webinars, I don't know if there's a possibility to section off those who are more familiar with the process versus those who are just beginning.”

*Multiple types of TA from PCAs:* The FQHC interview respondents described a range of TA received from their state PCA through the demonstration, including (1) regular webinars and conference call meetings, (2) in-person training events sponsored by the PCA, including presentations by NCQA technical assistance staff, (3) practice coaches, and (4) mock surveys.

Of note, none of the demonstration FQHCs in our sample reported site visits by PCA staff. The interview respondents were the main persons responsible for interfacing with the demonstration, meaning it is unlikely that a site would have received a PCA visit without their knowing. However, it is notable that PCAs seemed to be beginning to accelerate their site visit frequency starting in summer 2013 and beyond, though the bulk of these interviews occurred spring and summer 2013.

*PCA TA support is helpful, but later than would have been ideal.* The majority of respondents spoke positively about the support that PCAs have provided to demonstration sites, though some indicated a wish for their state PCA to have been involved earlier in the initiative.

“Well [the PCA] was a little late getting into the game, but I think they're very good at finding consultants and trainers and putting webinars or sessions together to do it.”

“That part of it [the PCA] has been good. I just feel like we found out about it maybe too late, though . . . but then their site didn't come up for a while. So, that help would have been more helpful earlier in the process.”

*Specific PCA helpful strategies:* A common theme on the PCA technical assistance was its value in helping to share best practices, interacting with sites that had successfully attained recognition, and teaching successful solutions to PCMH implementation and documentation in both deeper and practical terms.

“The [state] Primary Care Association has hosted some two-day events where you can go and do nothing except go through the standards with

the specialists from NCQA. That's really invaluable, because it's different when you read it on paper than when you have somebody there to really bring it to life."

"We had a webinar, I think it was probably three months ago, where we had the ability to conference call with other health centers, and just to go through and see exactly where they were in their stages, and problems that we had and how they had solved similar problems or approach similar problems. So I think that was of great assistance."

"We had some work within our PCA that allowed us to be able to really see someone who had actually done a successful application, which is kind of important."

A few respondents also commented on the ability of their state PCA to help tailor technical assistance to the needs of sites struggling with PCMH concepts and flexibility in using PCA resources.

"The engagement of the local PCAs has been very helpful. Initially, provider groups were really struggling trying to figure out what this all means. And so, the PCAs have been breaking this up into smaller parts and helping people understand—well, the survey process . . . and helpful in demystifying . . . the challenges that go with moving towards the medical home model. They're also helping deliver it in smaller bites, so that again, it's just not so overwhelming."

"We have a coach. We thought we were going to have all these dedicated hours but in the last minute, we decided that we would rather [have] her do a mock survey and go for our must-pass elements and review our documentation . . . It's really going to show up helpful when we go to submit to fix them before we submit for the full recognition."

A quarter of the demonstration FQHCs in our sample specifically described working with a PCA practice coach. In all cases, the coach was perceived as a valuable resource and key conduit of PCA technical assistance, ranging from answering questions, providing tools and templates, connecting sites to peer FQHCs with expertise, and reviewing recognition applications and conducting mock surveys (as mentioned above), to reminding sites of upcoming events and deadlines.

"I think the coach is very helpful. We had questions about our particular factors and I emailed her, and she helped us to clarify the requirements of these factors. And she also sends email reminders of the webinars."

"I email and the coach sends all kinds of tools, and [the state PCA] has a resource PCMH that we can go to. The tools that other people are using . . . You can ask our coach anything and she'll find out."

*Sites Want Even More PCA Assistance:* In three states, however, one of the interviewed demonstration FQHCs perceived the PCA technical assistance to be

relatively unhelpful or stretched. For instance, in one state in which other demonstration sites described the PCA technical as helpful—even as a “great assistance”—another FQHC sensed “[the PCA] hasn’t provided much assistance. . . . They have some conference calls and things like that. To be honest with you, the participation is pretty low.”

Some of these divergent perspectives may stem from sites being at different levels or points in their PCMH change and recognition process. For instance, in one state in which the PCA was lauded as “a huge resource” and “helping deliver [the medical home model] in smaller bites,” another demonstration site described the PCA’s review of two standards per meeting as “a really slow process, and they’ve been learning right along with us. So I really can’t say it’s been that helpful.”

Likewise in another state, one demonstration site that was more positive on the PCA’s efforts still perceived the assistance to be of less use given their level of progress. “They have done some things, but, again, we’re kind of ahead of their curve as well. So I tend not to dial into those because we’ve already done the work that they’re working on.”

## **VI.5. Intervention Component #4: Feedback Reports to Motivate Transformation**

This section focuses on the experiences of demonstration sites with quarterly feedback reports. We address the study question: How Variable Is Uptake of Feedback Reports? (Research Question 1.1D.).

### **VI.5A. Overview**

This question addresses variability in Intervention Component 4, uptake of feedback reports by intervention FQHCs. Intervention FQHCs will receive three different periodic feedback reports from the Research Triangle Institute (RTI): (1) the semi-annual RAS report; (2) the quarterly report from RTI documenting quality, costs, and utilization; and (3) a quarterly beneficiary-level file summarizing all key study outcomes for beneficiaries attributed to the FQHC. These reports will help FQHCs track their progress toward achieving CMS’s Three-Part Aim of better care for individuals, better health for populations, and reduced expenditures for Medicare, Medicaid, and Children’s Health Insurance Program beneficiaries and to identify areas needing attention at the site level.

For each participating FQHC, both the semiannual RAS and the quarterly report from RTI provide structured feedback to sites illustrating whether their performance has become more or less compatible with CMS goals, or has not changed. Additionally, sites receive a quarterly list documenting beneficiary-level data, such as 30-day unplanned

hospital readmission rates. All of these data elements are provided to sites through a secure web portal. RAND will measure site-level log-in and viewing of this intervention component by assessing monthly, quarterly, and annual portal log-in by sites.

### **VI.5B. Quantitative Assessment of Site-Level Uptake of Feedback Reports**

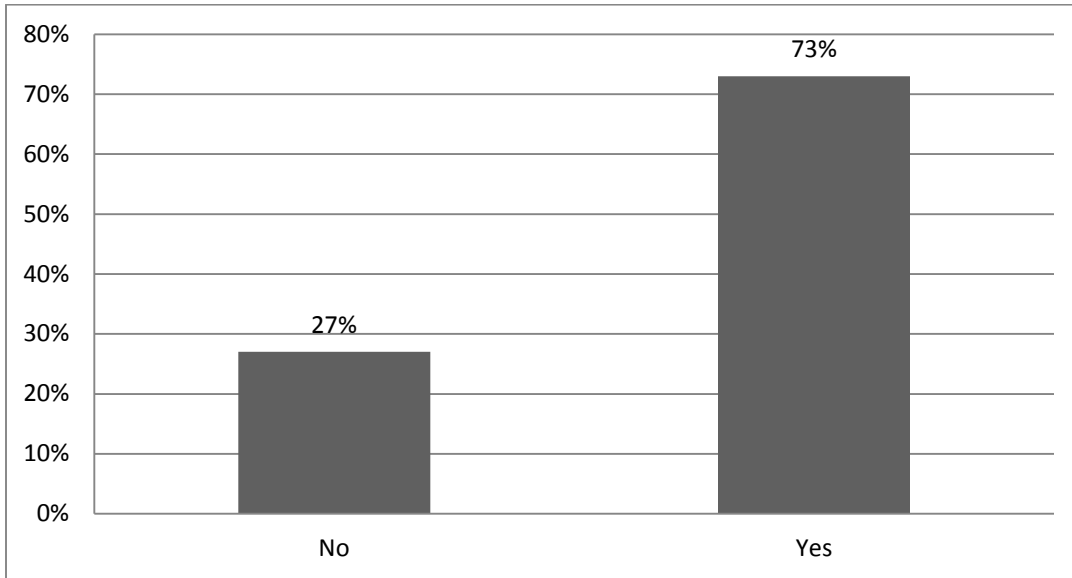
RAND has used reports of site-level log-ins to the data portal as a measure of intervention exposure. CMS included these feedback reports as a component of the demonstration with the expectation that sites would access the feedback reports, review the data, and identify potential areas for improvement. If sites delay accessing these reports, they are not being used to motivate QI interventions that could facilitate PCMH transformation and achievement of NCQA recognition.

We have tried to focus on one metric for each of the three types of feedback reports. However, we have only had access to data describing site use of any of the three reports. Since we cannot isolate the dates that sites accessed each of the three individual reports, we present data about sites ever accessing any feedback report through the feedback report portal, and data about the most recent access.

#### ***VI.5B.1. Proportion of Demonstration Sites that Log On During the One Month***

Across all demonstration FQHCs, 73 percent of the sites have logged in at least once (Exhibit VI.34). While some sites within each cluster access the portal soon after feedback reports become available, a substantial proportion of all FQHC sites wait more than 30 days after a report is available or have never accessed the report portal.

**Exhibit VI.34: Percentage of Demonstration FQHCs Ever Logging into the Feedback Website to Access Reports**



SOURCE: RTI Monthly Portal Login Files, Provided to RAND by RTI, September 3, 2013

Exhibit VI.35 shows the number of days between a demonstration FQHC logging into the feedback report portal and doing so again. RAND has access to data documenting the date that each demonstration FQHC logs into the feedback report portal. While we cannot know whether the site reads or uses the feedback data from these counts, we can determine the minimum number of days between site log-ins.

Since the two quarterly reports (site-level and beneficiary-level) documenting quality, costs, and utilization are available to sites every 90 days, sites examining the data promptly after it becomes available would log in about every 90 days. Sites logging in within 120 days after their most recent prior log-in waited at least 30 days, and possibly more than 120 days after the data were available to examine the feedback reports.

**Exhibit VI.35: Days Since Demonstration FQHCs Last Logged Into Feedback Report Portal (%)**

Days since last log in	PCA Cluster					
	C1 Central (N=120)	C2 Mid-Atlantic (N=52)	C3 Northeast (N=64)	C4 Southeast (N=75)	C5 West (N=84)	C6 West Central (N=86)
<30 days	11.7	26.4	43.8	21.3	10.7	18.4
31-60 days	31.7	26.4	23.4	12.0	34.5	24.1
61-90 days	0.0	0.0	0.0	1.3	6.0	0.0
91-120 days	0.8	1.9	0.0	2.7	0.0	0.0
>120 days	17.5	17.0	18.8	30.7	32.1	31.0
Never	38.3	28.3	14.1	32.0	16.7	26.4
	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: RTI Monthly Portal Login Files, Provided to RAND by RTI, September 3, 2013

### **VI.5C. Clinician and Staff Experience (CASE) Analyses Pertinent to Site-Level Experiences with Feedback Reports**

As described in Section III.35, the CASE survey preliminary results provide valuable information about clinician and staff experiences with transformation. In particular, the CASE survey reported specifically about experiences with the three types of feedback reports that comprise Intervention Component 3. The CASE survey documents clinician and staff member reports about their awareness of or exposure to (1) feedback reports comparing their practices with those of PCMHs (as measured by the biannual site-level RAS) (Section VI.3C.1); (2) measures of health care utilization, costs, and quality (as measured by RTI’s site-level quarterly report, Section VI.5C.1.); or (3) feedback reports documenting beneficiary lists of specific Medicare patients who have recently been hospitalized or visited an ED (Section VI.5C.2). CASE also informs us about the clinician and staff experience of the clarity, utility, and accuracy of these reports.

In terms of outcomes, the CASE survey indicates whether clinicians and staff report any changes to the work they or others in their practice perform. With respect to reports listing which specific Medicare patients have been hospitalized or visited an ED, CASE lists whether clinicians and staff perceive that their practices use these reports to contact patients after a hospitalization or ED visit or to make more global changes to the way their patients are cared for.

The following two sections provide top-line results of the baseline CASE survey. These analyses are responsive to the research question asking: How Variable Is Uptake of Quarterly Feedback Reports? (RAND Research Question 1.1D)

**VI.5C.1. CASE Survey Preliminary Results Regarding Feedback Reports on Measures of Utilization, Costs, or Quality**

These reports describe clinician and staff experiences with the quarterly feedback reports pertinent to utilization, costs, or quality.

Exhibit VI.36 shows that fewer than one-third of respondents reported having seen a feedback report on measures of utilization, costs, or quality, but those who did rated it highly and the majority reported that their clinics made changes to their work based on it.

**Exhibit VI.36: CASE Survey responses Pertinent to Quarterly Site-Level Feedback Reports on Utilization, Costs, or Quality**

Survey Questions and Responses	Number of CASE Respondents	% of Physicians, Nurse Practitioners, Physician Assistants
CASE Q22: Have you seen any feedback reports that compare your practice to other practices on measures of health care utilization, costs, and quality?	539	
Yes		30.1
No		56.4
Don't know		8.0
Missing		5.5
CASE Q22_B: In these comparison reports how clear was the presentation of information?	188	
Extremely		10.6
Somewhat		20.6
Not very		1.8
Not at all		0.7
Didn't see report ("No" or "Don't know" to Q22)		64.1
Missing		1.5
CASE Q22_B_2: In these comparison reports how useful was the information?	186	
Extremely		7.3
Somewhat		19.9
Not very		5.5
Not at all		0.7
Didn't see report ("No" or "Don't know" to Q22)		64.2



<b>Survey Questions and Responses</b>	<b>Number of CASE Respondents</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Missing		1.6
CASE Q22_C: In response to these comparison reports have there been any changes to the work you perform?	185	
Yes, major		5.5
Yes, minor		17.5
No changes		8.9
Don't know		1.3
Didn't see report ("No" or "Don't know" to Q22)		63.7
Missing		1.6
CASE Q22_C_2: In response to these comparison reports have there been any changes to the work performed by others in the practice?	185	
Yes, major		6.0
Yes, minor		17.0
No changes		7.3
Don't know		2.9
Didn't see report ("No" or "Don't know" to Q22)		63.9
Missing		1.6

### ***VI.5C.2. CASE Survey Preliminary Results Regarding Quarterly Feedback Reports Pertinent to Specific Medicare Beneficiaries***

These reports describe clinician and staff experiences with the quarterly feedback reports pertinent to specific Medicare beneficiaries. These reports provide specific listings of beneficiaries who have recently been hospitalized or visited an ED.

Exhibit VI.37 shows that fewer than one-fifth of respondents reported having seen a report of specific Medicare beneficiaries who had been hospitalized or visited an ED. Among those who did see such a list, the majority rated it very or somewhat accurate, and most reported that their clinics had used the reports to contact patients recently seen in these settings or to make changes to their communications protocols for such patients.

**Exhibit VI.37: CASE Survey Responses Pertinent to Quarterly Site-Level Feedback Reports  
on Specific Medicare Beneficiaries**

<b>Survey Questions and Responses</b>	<b>Number of CASE Respondents</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
CASE Q23: Have you seen any reports that give you a list of Medicare patients at your practice or tell you which specific Medicare patients have been hospitalized or visited an emergency department?	539	
Yes		19.7
No		67.5
Don't know		8.8
Missing		4.0
CASE Q23_B: In these reports, how accurate were the lists of your patients?	121	
Very accurate		6.8
Somewhat accurate		9.1
Not very accurate		3.3
Don't know		3.1
Didn't see report ("No" or "Don't know" to Q23)		74.8
Missing		1.3
CASE Q23_B2: In these reports, how accurate was the listing of your patients who visited the hospital or emergency department?	121	
Very accurate		7.9
Somewhat accurate		8.8
Not very accurate		2.6
Don't know		3.1
Didn't see report ("No" or "Don't know" to Q23)		75.0
Missing		1.3
CASE Q23_C: To your knowledge, has your practice used these reports to contact patients after a hospitalization?	122	
Yes		16.2
No		3.3
Don't know		2.9
Didn't see report ("No" or "Don't know" to Q23)		75.0

<b>Survey Questions and Responses</b>	<b>Number of CASE Respondents</b>	<b>% of Physicians, Nurse Practitioners, Physician Assistants</b>
Missing		1.3
CASE Q23_C_2: To your knowledge, has your practice used these reports to contact patients after an emergency department visit?	122	
Yes		15.2
No		4.0
Don't know		3.3
Didn't see report ("No" or "Don't know" to Q23)		75.0
Missing		1.3
CASE Q23_C_3: To your knowledge, has your practice used these reports to make any changes to the way all patients in the practice receive care?	127	
Yes		11.9
No		5.3
Don't know		6.2
Didn't see report ("No" or "Don't know" to Q23) or missing		76.7

The three CMS demonstration–associated feedback reports will not be available for comparison sites. However, it is anticipated that comparison sites may be exposed to other feedback about their APCP attributes and performance. Site-leader interviews specifically query ten comparison sites (and 20 intervention sites) about this topic.

#### **VI.5D. Site Leader Qualitative Interview Analyses Pertinent to Site-Level Experiences with Feedback Reports**

The vast majority of the FQHCs indicated that the biannual RAS results were readily available and helpful to one degree or another in monitoring progress toward PCMH recognition. As described by a representative of one demonstration site:

“I would say it has been helpful to kind of have a check-and-balance point to where every six months you’re reporting your data to CMS and then they’re evaluating where you stand as far as your progress towards recognition. So, that has been helpful. And then, some of the feedback that they give you regarding what you can do to move along your progress towards Patient-Centered Medical Home status.”

Nearly half the demonstration FQHCs interviewed, however, were not aware of the quarterly Medicare beneficiary utilization and cost report being prepared for individual sites by RTI. A quarter of the demonstration FQHCs acknowledged receiving the report, and approximately another quarter had heard of the report but were not aware if they had received it. Of those who had seen the report, several were unclear about the best way to use the data. Two respondents commented that the single baseline report they had received to date was of limited usefulness without future trend data. Another considered the data helpful in comparing sites within their FQHC to show “where you stand,” but limited in that “Medicare is just not a big part of our business.”

Other site leaders acknowledged that the Medicare data were of potential interest but they still struggled with how to use them, suggesting this as a future topic for technical assistance:

“Yeah, ‘the how’ is a big question. I mean, [the Medicare information] is very interesting and I think it’s useful data, I’m just not sure how to make use of it.”

“I’m not sure if they’re going to have future webinars or something like that on what other health centers are doing with the data or how to affect it. It would be beneficial for us.”

None of the demonstration sites in our interview sample reported taking the PCMH-A self-assessment survey offered by Qualis.

## **VI.6. Intervention Component #5: Participation in Other Initiatives That Redesign Care Delivery or Provide Supplemental Funding to Support PCMH Transformation**

This section focuses on the extent to which FQHCs participate in initiatives that redesign care delivery or provide supplementary funding to support PCMH transformation.

### **VI.6A. Overview**

This section addresses the research question: What Is the Extent of Participation in Other Initiatives and Demonstrations That Redesign Care Delivery or Provide Supplemental Funding to Support PCMH Transformation? (Research Question 1.1E).

In addition to participation in the FQHC ACP Demonstration, FQHCs may participate in other initiatives and demonstrations that redesign care delivery or provide supplemental funding to support PCMH transformation. For example, FQHCs may simultaneously participate in other demonstrations funded by HRSA, states, and insurers. While demonstration FQHCs are precluded from participating in CMS payment

demonstrations (including MAPCP and CPC), comparison FQHCs are eligible to participate in these initiatives. Some of these initiatives seek to facilitate PCMH transformation directly, while others are limited to the provision of financial incentives to promote the development of structures that lead to higher quality of care. Moreover, HRSA provides yearly supplemental funding opportunities to cover a site's costs of applying for both PCMH recognition and quality accreditation. HRSA's PCMH supplemental funding grants are linked to a requirement to achieve improvements in NCQA recognition levels over a 12-month period, suggesting that these funding opportunities might be highly motivating.

In summary, we have information from a variety of data sources about practice participation in each of the following activities:

- From CMS's Master Data Management system, we learn about practice participation in (1) the Independence at Home Practice, (2) the Physician Group Practice (PGP) Transition Demonstration, (3) the Multi-Payer Advanced Primary Care Demonstrations, (4) the Medicare Shared Savings Program, (5) the Pioneer Medicare Health Care Quality Demonstration, (6) the Health Quality Partners, (7) the Medicare-Medicaid Coordination Office (MMCO) Financial Alignment Demonstration (Duals), (8) the Comprehensive Primary Care (CPC) Initiative, and (9) the Community-Based Care Transitions (CBCT) Program.
- From HRSA, we learn about practice participation in the following: (1) HRSA Patient-Centered Medical/ Health Home Initiative (PCMHH), (2) the HRSA Health Center Controlled Networks (HCCN), (3) the Beacon Community Program, (4) HRSA PCMH supplemental funding recipient (FY 2011), (5) HRSA PCMH supplemental funding recipient (FY 2012), (6) ACA-Building Capacity grantee status, (7) ACA-Immediate Facility Improvement grantee status, and (8) ACA-New Access Point grantee status.
- From the Safety Net Medical Home Initiative, we learn about participation in that initiative.

#### **VI.6B. Measures of Participation in Additional Initiatives and Demonstrations**

RAND has categorized sites according to participation in additional initiatives and demonstrations focused on redesigning care delivery or providing supplemental funding to support PCMH transformation. We count participation in each of three domains: CMS-funded activities, HRSA-funded PCMH-related activities, and other externally funded PCMH-related activities.

Exhibit VI.38 shows that many demonstration and comparison FQHCs participate in PCMH or QI initiatives pertinent to transformation. While 20 percent of demonstration FQHCs participate in a CMS PCMH transformation demonstration beyond the APCP Demonstration, 15 percent of comparison FQHCs participate in a CMS transformation initiative. More than 90 percent of both demonstration and comparison FQHCs participate in at least one HRSA transformation initiative; most participate in several.

**Exhibit VI.38: Counts of FQHC Participation in Other CMS, HRSA, or Other PCMH or QI Initiatives Pertinent to Transformation**

	<b>Demonstration Sites</b>		<b>Comparison Sites</b>	
	<b>N</b>	<b>Percentage</b>	<b>N</b>	<b>Percentage</b>
<b>Participation in CMS Demonstrations<sup>a</sup></b>				
None	402	79.9	703	85
Any	101	20.1	124	15
<b>Participation in HRSA Initiatives<sup>b</sup></b>				
None	20	4	74	8.9
1	84	16.7	191	23.1
2	147	29.2	226	27.3
3	136	27	230	27.8
4	85	16.9	83	10
5	15	3	20	2.4
6	16	3.2	3	0.4
<b>Participation in Other Initiatives<sup>c</sup></b>				
None	491	97.6	818	98.9
Any	12	2.4	9	1.1

<sup>a</sup> CMS demonstrations indicate site-level participation in any of three CMS initiatives: Pioneer, Medicare Shared Savings Plan, and the North Carolina 646 Demonstration.

<sup>b</sup> HRSA initiatives indicate site-level participation in any of the following programs: Beacon, ACA Building Capacity, ACA Immediate Facility Improvement, ARRA, or the HRSA PCMH Initiative.

<sup>c</sup> Other initiatives indicate site-level participation in the Safety Net Initiative.

Exhibit VI.39 shows the frequency of participation of demonstration and comparison sites in specific PCMH or QI initiatives providing additional details beyond those shown in Exhibit VI.37. For each specific initiative listed, we noted examples of participation by both demonstration and comparison sites.

**Exhibit VI.39: Frequency of Participation of Demonstration and Comparison FQHCs in Specified PCMH or QI Initiatives Pertinent to Transformation**

	Demonstration Sites		Comparison Sites	
	N	Percentage	N	Percentage
<b>CMS Initiatives</b>				
Pioneer				
No	467	92.8	796	96.3
Yes	36	7.2	31	3.7
Medicare SSP				
No	447	88.9	741	89.6
Yes	56	11.1	86	10.4
North Carolina 646 Demo				
No	494	98.2	820	99.2
Yes	9	1.8	7	0.8
<b>HRSA Initiatives</b>				
Beacon supplemental funding recipient				
No	457	90.9	754	91.2
Yes	46	9.1	73	8.8
ACA Building Capacity grantee				
No	403	80.1	710	85.9
Yes	100	19.9	117	14.1
ACA Immediate Facility Improvement grantee				
No	321	63.8	683	82.6
Yes	182	36.2	144	17.4
ACA New Access Point grantee				
No	432	85.9	705	85.2
Yes	71	14.1	122	14.8
ARRA grantee				
No	183	36.4	240	29
Yes	320	63.6	587	71
HCCN grantee				
No	217	43.1	370	44.7
Yes	286	56.9	457	55.3
HRSA PCMH Initiative participant				
No	211	41.9	544	65.8
Yes	292	58.1	283	34.2
<b>Other Initiatives</b>				
SNMH Initiative participant				
No	491	97.6	818	98.9
Yes	12	2.4	9	1.1
<b>Total</b>	<b>503</b>	<b>100</b>	<b>827</b>	<b>100</b>

## **VI.6C. Qualitative Analyses of Site Leader Interviews Report of the Use of Technical Assistance and Funding to Support ACP Transformation from Non-Demonstration Sources**

This section addresses the research question: How Do FQHCs Apply and Use Other Funding and Resources They Receive? (Research Question 1.1E.1) This section separately reports analyses informed by demonstration and by comparison sites.

### ***VI.6C.1. PCMH Technical Assistance Utilized by Demonstration FQHCs from Sources External to the Demonstration***

Approximately half the demonstration FQHCs in our interview sample reported receiving at least some technical assistance for PCMH transformation from nondemonstration sources. The most prominent of these sources consisted of local consortia and regional health center networks that provide PCMH support, and also may draw on some of the same national resources as the FQHC ACP Demonstration.

“Many of the other health centers in the area are also applying for a Patient Centered Medical Home recognition . . . So we've been very fortunate to work with our [local] consortia, get some training from Qualis, for example, out here . . . Aside from the resources from CMS, we've gotten other resources from other areas, which have been extremely helpful . . . And just to hear what others are doing, and challenges.”

Other sources mentioned include information and webinars from NACHC, other accrediting organizations (Accreditation Association for Ambulatory Health Care [AAAHC]), private payer initiatives (Blue Cross/Blue Shield), and conferences, including the annual NCQA conference.

Similarly, a number of sites reported receiving PCMH support from PCAs, though interview participants noted that in some instances, this PCA support was independent of the demonstration. In these instances, respondents usually indicated a strong relationship with the PCA existed prior to their participation in the demonstration. During at least one interview, site leaders were not aware of the relationship between the PCA and demonstration sites. During another interview, several respondents described participation in a PCMH learning collaborative initiated by the PCA prior to and continued concurrent with the demonstration. This collaborative sponsored training sessions by NCQA staff; it also engaged a private consulting firm specializing in PCMH transformation.



“We participated—this is kind of coming to a close—in the [state] Primary Care Association’s patient center medical home learning community. They had partnered with [a private, out-of-state PCMH consulting firm] . . . going through the NCQA guidelines. It kind of was duplicate work, in tandem with the APCP Demonstration and the information that was presented through NCQA.”

### ***VI.6C.2. PCMH and Transformation Funding Utilized by Demonstration FQHCs from Sources External to the Demonstration***

HRSA was the main source of PCMH funding from a source external to the demonstration as reported by FQHCs in our interview sample. Several commented explicitly on the support from HRSA in paying the NCQA recognition fees. In addition, several demonstration sites also mentioned supplemental funding from HRSA’s cervical cancer screening and IT grants that provided specific supports for PCMH-related investments.

“Through the 330 grant, we have received \$55,000 focusing on cervical cancer. And so it allowed us to hire one [full-time equivalent] care coordinator in the Quality Department to focus on gaps in care, which include working with cervical cancer initiatives.”

“[W]hat was written for was an additional [IT] analyst who was able to help us do [QI] on what we were seeing the providers documenting wrong stuff. This [analyst] keeps track of the core measures [to] know where we’re lacking and where we need to improve.”

### ***VI.6C.3. Comparison Sites’ Use of PCHM Technical Assistance***

All comparison FQHCs in our interview sample described receipt or availability of some form of PCMH-related technical assistance. This support was highly similar in content to the technical assistance utilized by the demonstration sites, often provided by the same organizations.

More than half of the comparison sites reported collaboration with their local PCA, or identified the benefits of their PCA even if not working with them on PCMH changes.

“I just feel like I’ve got great resources with our PCA and when I get to the right point, I can jump in with those guys and I feel like I’ll be in good shape.”

The comparison sites also utilized a similar set of PCA services, including PCA conferences, meetings and presentations, and mock surveys by a practice coach.

“I attended the [state PCA] conference this past year. And they presented a lot of information on the Patient-Centered Medical Home.”

“We went to some presentations, [the state PCA] and others, that focus on primary care medical homes and what are the pieces? And then we had a PCA person come and do a mock review, so [we] got some outside eyes on how well she thought we were doing, and some weaknesses.”

Another comparison FQHC reported participating in the same PCMH learning community collaborative described by several demonstration sites, including working with the private external consulting firm engaged by the PCA to assist collaborative participants with PCMH transformation.

“We worked with a consulting group from [out of state] that assists health centers become a PCMH organization. They would explain what NCQA is looking for, like how to meet a factor and how other organizations are doing it. We had [the] opportunity to share our experiences and receive feedback from other organizations.”

Likewise, two comparison FQHCs spoke highly of hands-on support and feedback from other accrediting organizations, namely the AAAHC and the Joint Commission, as part of their PCMH recognition process.

“AAAHC is wonderful in that way, in that they give you the standards. And on each page of the standards, it’ll go from patient rights, to quality of care, to governance, administration, pharmacy, X-ray, lab, all areas of care that we provide here. They will say, ‘These are the standards and you’re either compliant, noncompliant, or partially compliant,’ those are the three grades that they give us. And if they come in and they find that we aren’t doing something, then they will make recommendations. Or if we are doing it and they think that we can do it better, they will make a recommendation. Rather than just saying, ‘you’re not doing it the right way,’ they’ll say, ‘well, how about trying it this way?’”

“[T]hey were so helpful in information and best practices, information and examples and how to get past the barrier of, you know, notifying a patient of what we’re doing. They were a great resource . . . Very superb, readily available resource, great access.”

Lastly, one comparison site shared a similar concern noted by a demonstration site that NCQA’s PCMH recognition was not sufficiently tailored to health care providers such as FQHCs in public health safety net settings.

“I’ve been talking to a couple of consulting groups in terms of how does this message get to NCQA, that I understand in the universe of these indicators they want you to meet, but they weren’t thinking in terms of what it means in public health settings.”

#### **VI.6C.4. Comparison Sites' Use of PCHM Funding Support**

As with the demonstration FQHCs in our interview sample, half of the comparison sites discussed receiving external funding for PCMH changes. HRSA again was the predominant source of this funding, including the importance of covering PCMH recognition fees (although not always from NCQA), and supporting medical home changes related to specific disease registries and care.

“[W]e have requested HRSA to pay for our survey as they did the last time three years ago. And I understand that the funds are being set aside. They granted us a six-month extension with AAAHC, so we'll apply for our survey next year.”

“Originally [we] got the cancer screening grant to improve the PCMH model . . . Our program officer has been supportive. Also, HRSA is paying for our NCQA recognition. Recognition is not cheap. So I would say [the payment] was a big deal.”

Another comparison site respondent described a HRSA grant focusing on PCMH-related changes to the disease process of care.

“[W]e had a couple of grants . . . and it was to pick a disease process and sort of begin to establish the care pathways of patient-centered medical home around the disease registry and the monitoring of care and access to care around that disease process. And I think diabetes was the first one, and then the second one followed it, and it was on the condition that we would achieve certification at the end of that year. And so . . . both those funding things helped us.”

One comparison FQHC also reported receiving modest funding from a local county health care fund to support access to hospital and specialist providers.

### **VI.7. Summary of Qualitative Lessons Learned for Improving Technical Assistance**

Based on the qualitative results related to site perspectives on intervention components in Sections VI.1 through VI.6 above, the following are several lessons learned for improving technical assistance in the future.

- Demonstration sites generally focus on the content of TA, not the organization sponsoring it. However, this also may make it difficult for sites to identify whom to contact for different TA needs—especially in initiatives such as the APCP Demonstration, with multiple TA contractors providing many similar types of services (e.g., webinars, review of procedures or policy documentation).

- Demonstration sites generally value the availability of webinar-based TA. At the same time, it is important to differentiate content based on preferences and needs of different participants (including preferences for focus on specific recognition standards and policies versus practice transformation issues), in addition to needs based on level of site experience and implementation with PCMH changes.
- In-person training and direct assistance is highly valued, and needs to start as early as possible in the demonstration.
  - NCQA in-person trainings (sponsored by state PCA or attended by sites outside the ACP Demonstration), and mock surveys were considered the most helpful NCQA-provided technical assistance.
  - Likewise, PCA-provided in-person group trainings, one-on-one practice coaching, and mock surveys were highly valued by sites. However, it was noted that PCA support would have been much more helpful if provided sooner in the ACP Demonstration.
- Feedback reports related to progress on specific near-term intervention goals (e.g., the RAS reports on self-assessed readiness on different NCQA standards for PCMH PCMH recognition) was considered more useful by sites than those related to longer term outcomes (e.g., the quarterly reports on healthcare costs and utilizations of sites' Medicare and Medicaid beneficiaries).
- Site contacts generally value the enhanced payments provided by the ACP Demonstration and noted the perceived importance of the payments for motivating participation and implementing changes. However, most site implementation contacts were not aware of how the payments were used within the FQHC (e.g., whether to support general operations, or for specific PCMH changes), making it difficult to assess the impact of the enhanced payments and their sufficiency to sustain changes if continued.

## VII. Claims-Based Quantitative Measures Reported

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The quantitative claims-based measures included in this annual report reflect those that have been agreed upon in collaboration with CMS as a common set reported across multiple demonstration evaluations. These measures are presented serially as a component of our quarterly report.

### VII.1. Claims-Based Quantitative Measure Specifications

These measures exactly match those reported in the “Evaluation of the Multi-Payer Advanced Primary Care Practice Demonstration: Quarterly State Report: Number 1.” The descriptions of each measure below are based largely on the Technical Appendix of that report.

#### **VII.1A. Quarterly Medicare Expenditures**

Average Medicare payments are estimated on a quarterly basis. However, to facilitate interpretation, we report per-beneficiary-per-month (PBPM) Medicare payments in the figures that follow. We estimate a beneficiary’s PBPM payments to be one-third of a beneficiary’s quarterly payments. Adjustments are made for beneficiaries who remain alive at the end of each quarter but who have less than a full quarter of Medicare eligibility by “quarterizing” the observed costs for these beneficiaries. This entails dividing the observed cost by the fraction of days in the quarter the beneficiary was eligible for Part A and Part B coverage. This adjustment assumes the beneficiary would have experienced the same rate of spending had he or she been eligible for the full quarter. Because this assumption is not likely to be valid for beneficiaries who die during the quarter (because end-of-life spending is likely to exceed a beneficiary’s average rate of spending), we make no adjustments of payments for beneficiaries who die during a quarter.

PBPM payment calculations include Medicare payments only, excluding third-party and beneficiary liability payments. Medicare payment calculations are inclusive of disproportionate share and indirect medical education payments. Payments are not price-standardized across geographic areas. Claims are included in these calculations if the discharge date (inpatient hospital or skilled nursing facility) or the “thru date” (all other types of service) on the claim was on a day during the reporting period.

Payments are reported in six categories that are described below.

### **VII.1A.1. Total Medicare Payments**

This includes overall payment amounts from the physician, inpatient, skilled nursing facility, outpatient, home health, hospice, and durable medical equipment files.

### **VII.1A.2. Acute Care Inpatient Hospital**

This category includes critical-access hospitals and excludes ESRD clinics. Hospitals are identified using the following provider numbers: 0001-0879 (traditional acute care hospitals) and 1300-1399 (critical-access hospitals).

### **VII.1A.3. Post-Acute Care Providers**

This category includes combined payments for long-term care hospitals, rehabilitation hospitals, and skilled nursing facilities—both hospital-based and free-standing facilities. Skilled nursing facility payments come from the skilled nursing facility claims file and are also identified using the third digit of the provider number (U, W, Y or Z) to capture swing beds on the inpatient file. Long-term care hospitals are identified on the inpatient file when the provider number is 2000–2299. Payments to rehabilitation facilities (both rehabilitation hospitals and distinct part units) are found on the inpatient file when the provider number is 3025–3099 (rehabilitation hospitals) or 4500–4599 (comprehensive outpatient rehabilitation facilities) or the third digit of the provider number is R or T (distinct part unit).

### **VII.1A.4. Hospital Outpatient Department**

This category includes payments from the outpatient file, excluding FQHC and rural health centers and ED/observation unit beds, and including ESRD clinics (type of bill = 72x) from the inpatient file. Laboratory and imaging payments are excluded.

*FQHCs and Rural Health Clinics:* This category includes outpatient file claims with provider numbers in the ranges 1000–1199, 1800–1989, 3400–3499, 3800–3999, and 8500–8999.

### **VII.1A.5. Primary Care Providers**

This category includes services rendered by primary care providers (exclusive of laboratory/imaging and ED services) from the physician file. We identified claims for primary care providers using the specialty codes listed in Exhibit VII.1.

### Exhibit VII.1: List of Primary Care Provider Specialty Codes

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01 = General practice	08 = Family practice
11 = Internal medicine	37 = Pediatric medicine
38 = Geriatric medicine	84 = Preventive medicine
50 = Nurse practitioner	97 = Physician assistant
89 = Certified clinical nurse specialist	

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#### **VII.1A.6. Specialty Providers**

This category includes services rendered by specialty providers (exclusive of laboratory/imaging and ED services) from the physician file. We identified claims for primary care providers using the specialty codes listed in Exhibit VII.2.

### Exhibit VII.2: List of Specialty Care Provider Specialty Codes

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02 = General surgery	03 = Allergy/immunology
04 = Otolaryngology	05 = Anesthesiology
06 = Cardiology	07 = Dermatology
10 = Gastroenterology	13 = Neurology
14 = Neurosurgery	16 = Obstetrics/gynecology
18 = Ophthalmology	19 = Oral surgery (dentists only)
20 = Orthopedic surgery	22 = Pathology
24 = Plastic and reconstructive surgery	25 = Physical medicine and rehabilitation
26 = Psychiatry	28 = Colorectal surgery
29 = Pulmonary disease	30 = Diagnostic radiology
33 = Thoracic surgery	34 = Urology
39 = Nephrology	40 = Hand surgery
41 = Optometry	44 = Infectious disease
46 = Endocrinology	48 = Podiatry
66 = Rheumatology	70 = Multispecialty clinic or group practice
76 = Peripheral vascular disease	77 = Vascular surgery
78 = Cardiac surgery	81 = Critical care (intensivists)
82 = Hematology	83 = Hematology/oncology
85 = Maxillofacial surgery	86 = Neuropsychiatry
90 = Medical oncology	91 = Surgical oncology
92 = Radiation oncology	93 = Emergency Medicine
98 = Gynecologist/oncologist	

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#### **VII.1B. Utilization**

##### **VII.1B.1. Hospitalizations**

We report quarterly all-cause hospitalizations as a rate per 1,000 beneficiaries. This measure includes all admissions from the inpatient file for each quarter. For beneficiaries who survive to the end of a quarter but who have less than a full quarter of Medicare eligibility, we “quarterize” the observed count of hospitalizations using an approach identical to the one

described above for cost outcomes. Any admission resulting in a transfer to another acute care hospital (e.g., from acute care hospital A to acute care hospital B) is considered a single hospitalization. Observation unit stays are not included as hospital stays.

### ***VII.1B.2. ED Visits***

We report quarterly ED visits as a rate per 1,000 beneficiaries and incorporate a quarterizing adjustment for beneficiaries who survive to the end of a quarter but have less than a full quarter of Medicare eligibility. ED visits that do not lead to a hospitalization are identified on the outpatient claims file using revenue center line item equal to 045X or 0981 (emergency room care) or 0762 (treatment or observation room). We exclude claims with the procedure code on the line item of the ED claims listed as 70000–79999 or 80000–89999, thus excluding claims where only radiological or pathology/laboratory services were provided. This is only applicable for outpatient claims. ED visits that led to a hospitalization are identified on the inpatient claims file using revenue center code values of 0450–0459, 0981, or 0762. The reported rate includes both ED visits that led to a hospitalization and those that did not. ED visits include observation unit stays.

### ***VII.1B.3. 30-Day Unplanned Readmissions***

In this report, we calculate an all-cause readmission measure that is confined only to “unplanned” admissions. To discriminate between planned and unplanned admissions, researchers at Yale compiled a list of inpatient procedures that may be considered “potentially planned.” Using the Agency for Healthcare Research and Quality (AHRQ) Clinical Classification Software (CCS), International Classification of Diseases, Ninth Revision (ICD-9) codes were collapsed into 231 mutually exclusive procedure categories. Next, a list of 33 CCS procedure code categories (plus five additional ICD-9 procedure codes) were identified as indicative of an admission that may have been planned and two procedure categories and groups of related ICD-9 procedure codes were also added as planned admissions. The ICD-9 procedure categories were radical laryngectomy, revision of tracheostomy, scarification of pleura (ICD-9 Codes 30.4, 31.74, 34.6) and electroshock therapy (ICD-9 Codes 94.26, 94.27). Some of the more common procedures included on the list were percutaneous transluminal coronary angioplasty, rehabilitation, cholecystectomy and common duct exploration, and amputation of a lower extremity. The full procedure list is displayed in Exhibit VII.3.



**Exhibit VII.3: List of Potentially Planned Procedures Used to Create the Yale ‘Unplanned’  
Readmissions Measure**

<b>Procedure CCS</b>	<b>Description</b>
1	Incision and excision of CNS
3	Laminectomy; excision intervertebral disc
10	Thyroidectomy; partial or complete
36	Lobectomy or pneumonectomy
43	Heart valve procedures
44	Coronary artery bypass graft
45	Percutaneous transluminal coronary angioplasty
48	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator
51	Enderterectomy; vessel of head and neck
52	Aortic resection; replacement or anastomosis
55	Peripheral vascular bypass
60	Embolectomy and endarterectomy of lower limbs
64	Bone marrow transplant
74	Gastrectomy; partial and total
78	Colorectal resection
84	Cholecystectomy and common duct exploration
85	Inguinal and femoral hernia repair
99	Other OR gastrointestinal therapeutic procedures
104	Nephrectomy; partial or complete
105	Kidney transplant
113	Transurethral resection of prostate
114	Open prostatectomy
119	Oophorectomy; unilateral and bilateral
124	Hysterectomy; abdominal and vaginal
152	Arthroplasty knee
153	Hip replacement; total and partial
154	Arthroplasty other than hip or knee
157	Amputation of lower extremity
158	Spinal fusion
166	Lumpectomy; quadrantectomy of breast
167	Mastectomy
176	Other organ transplantation
211	Therapeutic radiology for cancer treatment
NA	Radical laryngectomy, revision of tracheostomy, scarification of pleura (ICD-9 Codes 30.4, 31.74, 34.6)
NA	Electroshock therapy (ICD-9 Codes 94.26, 94.27)

To determine which of these potentially planned readmissions were actually planned, information regarding the principal diagnosis was used. A potentially planned readmission was defined as planned unless it was for an acute condition or for a complication of care; then it was defined as unplanned. To identify those readmissions that were for acute conditions or for complications of care, the Yale researchers again used the AHRQ CCS to collapse ICD-9 codes into 285 mutually exclusive condition categories. Next, they reviewed the ten most frequent condition categories associated with each of the potentially planned procedures identified earlier. Finally, they created a list of conditions that would be considered acute or indicative of complications with care.

The most common conditions included on the list were complications with devices, implants, or grafts; cardiac dysrhythmias, fractures, acute myocardial infarction, and complications of surgical procedures and medical care. The full list of conditions is in Exhibit VII.4.

**Exhibit VII.4: List of Acute Conditions and Complications of Care Used to Create the Yale "Unplanned" Readmissions Measure**

<b>Condition CCS</b>	<b>Definition</b>
2	Septicemia (except in labor)
55	Fluid and electrolyte disorders
97	Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease)
100	Acute myocardial infarction
105	Conduction disorders
106	Cardiac dysrhythmias
108	Congestive heart failure; nonhypertensive
109	Acute cerebrovascular disease
112	Transient cerebral ischemia
116	Aortic and peripheral arterial embolism or thrombosis
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)
127	Chronic obstructive pulmonary disease and bronchiectasis
130	Pleurisy; pneumothorax; pulmonary collapse
131	Respiratory failure; insufficiency; arrest (adult)
139	Gastroduodenal ulcer (except hemorrhage)
145	Intestinal obstruction without hernia
146	Diverticulosis and diverticulitis
153	Gastrointestinal hemorrhage
157	Acute and unspecified renal failure
159	Urinary tract infections
160	Calculus of urinary tract
201	Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)
207	Pathological fracture
225	Joint disorders and dislocations; trauma-related
226	Fracture of neck of femur (hip)
227	Spinal cord injury
229	Fracture of upper limb
230	Fracture of lower limb
231	Other fractures
232	Sprains and strains
233	Intracranial injury
237	Complication of device; implant or graft
238	Complications of surgical procedures or medical care
245	Syncope

Planned readmissions were thus identified using the following algorithm. A readmission would be considered planned if:

- The readmission was for maintenance chemotherapy or rehabilitation.

- The readmission included a procedure identified as being potentially planned (see Exhibit VII.3), AND did not have a principal diagnosis identified as either acute or indicative of a complication of care (see Exhibit VII.4).

We applied this algorithm to the all-cause readmissions we had identified and dropped all planned readmissions from further analysis, leaving just those readmissions that had been unplanned. Discharges for beneficiaries without 30 days of Medicare eligibility post-discharge (including those occurring within 30 days of the end of the measurement period) are excluded.

#### **VII.1B.4. Hospitalizations for Chronic Ambulatory Care Sensitive Conditions (ACSCs)**

We report quarterly hospitalizations for chronic ACSCs as a rate per 1,000 beneficiaries adjusted for beneficiary eligibility to estimate full utilization for the quarter. ACSCs are based on AHRQ’s Prevention Quality Indicators (PQIs), and are conditions for which good outpatient care may prevent the need for hospitalization. Chronic ACSC hospitalizations were defined as hospitalizations in which the primary diagnosis was one of the nine chronic ACSCs. (Exhibit VII.5.)

#### **Exhibit VII.5. List of Chronic Ambulatory Care Sensitive Conditions**

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Diabetes short-term complications (ketoacidosis, hyperosmolarity, coma)  
 Diabetes long-term complications (renal, eye, neurological, or circulatory)  
 Chronic obstructive pulmonary disease (copd) or asthma in older adults  
 Hypertension  
 Congestive heart failure  
 Angina without procedure  
 Uncontrolled diabetes  
 Asthma in younger adults  
 Lower-extremity amputation among patients with diabetes

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Analyses on rates of clinical follow-up after hospital discharge were excluded from this report based on conversations with CMS regarding the limited usefulness of this outcome measure. We will continue to monitor the utility of this outcome measure in future analyses.

#### **VII.1C. Process-of-Care Measures**

Six process-of-care measures were used to assess site adherence to evidence-based guidelines (Exhibit VII.6). These measures, part of the Healthcare Effectiveness Data and

Information Set (HEDIS) were determined in conjunction with CMS and are also being used in the MAPCP demonstration. Adherence to these measures are assessed over a two-year measurement period. For patients with diabetes, adherence was defined as any utilization of HbA1c testing, LDL-C testing, eye exams, and nephropathy monitoring individually over the two-year period, as well as the use of all four tests. For patients with ischemic vascular disease, adherence was defined as any utilization of a blood lipid panel over this time period. These measures are also adjusted for beneficiaries' comorbidities, FQHC characteristics, and area-level characteristics.

#### **Exhibit VII.6: Process of Care Measures**

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Utilization of four recommended annual screening tests (HbA1C testing, LDL-C testing, eye exams, and nephropathy monitoring) for Medicare beneficiaries with diabetes: all four tests

Utilization of HbA1C testing for Medicare beneficiaries with diabetes

Utilization of LDL-C testing for Medicare beneficiaries with diabetes

Utilization of eye exams for Medicare beneficiaries with diabetes

Utilization of nephropathy monitoring for Medicare beneficiaries with diabetes

Utilization of blood lipid panel for patients with ischemic vascular disease

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## **VII.2. Trends in Medicare Payments Per Beneficiary**

This section presents the trends in Medicare payments per beneficiary. We first present the unadjusted trends. These are followed by regression-based models, in which we describe the statistical significance of any difference between demonstration FQHCs and comparison FQHCs.

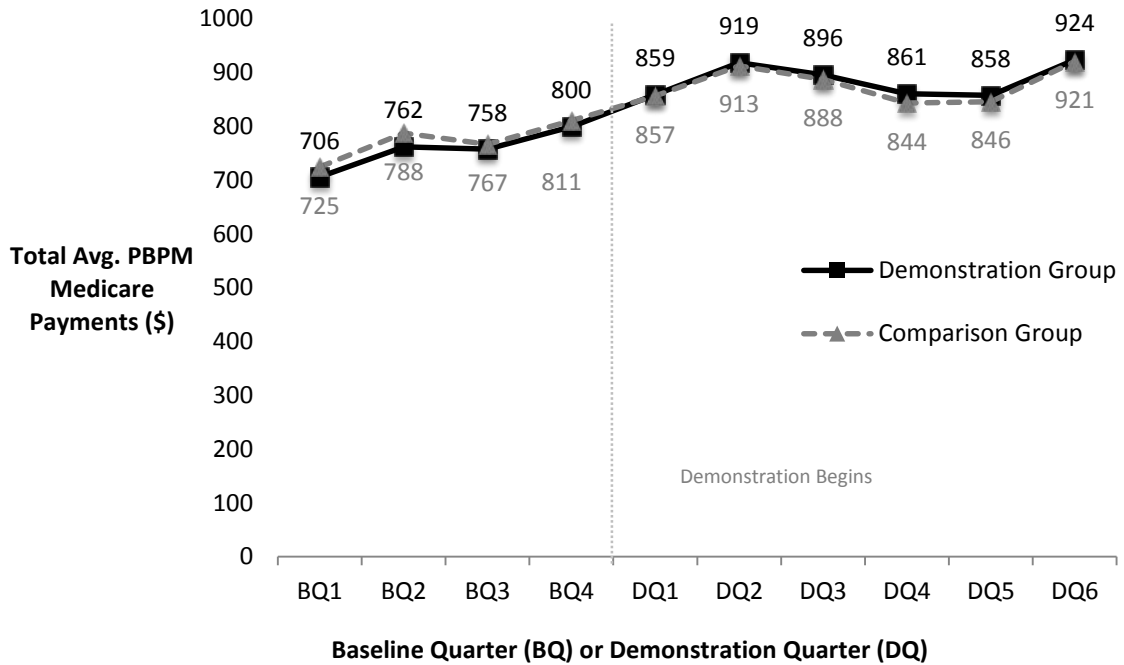
### **VII.2A. Unadjusted Trends in Medicare Payments Per Beneficiary**

Exhibits VII.7 through VII.12 present unadjusted trends in PBPM Medicare payments for demonstration periods Q1 through Q6 using the following metrics:

- total average PBPM Medicare payments (Exhibit VII.7)
- payments to short-stay, acute care hospitals, including critical-access hospitals (Exhibit VII.8)
- payments to post-acute care providers: skilled nursing facilities, long-term care hospitals, and rehabilitation hospitals and distinct-part units (Exhibit VII.9)
- payments to FQHCs and rural health clinics (Exhibit VII.10)
- payments to hospital outpatient departments (Exhibit VII.11), and
- payments to primary care and specialty providers (Exhibit VII.12).

Exhibit VII.7. shows that total average PBPM Medicare payments increased in both groups over the baseline and demonstration periods.

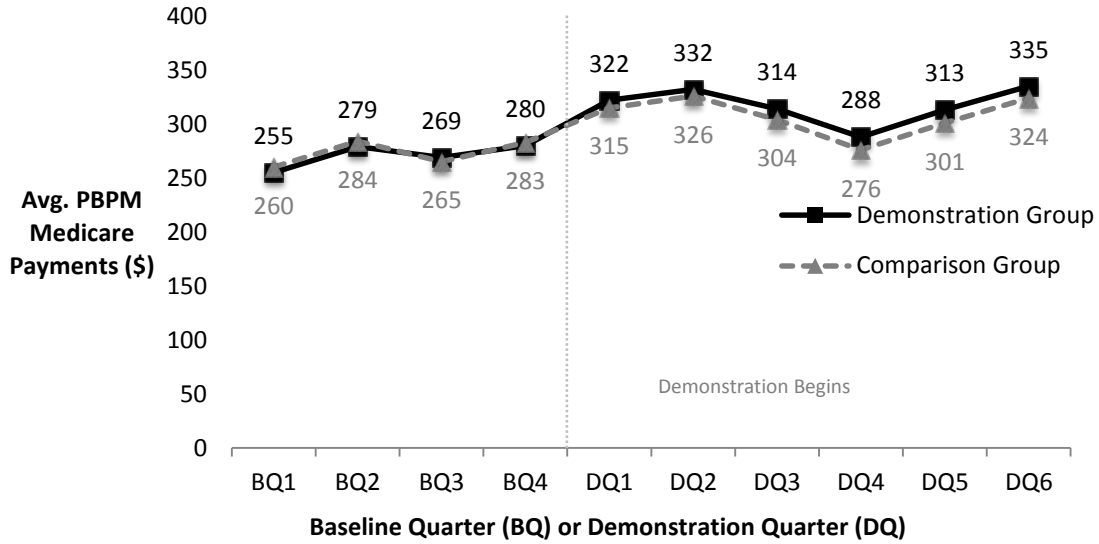
**Exhibit VII.7: Unadjusted Trends in Total Average PBPM Medicare Payments, Baseline Q1– Demonstration Q6**



SOURCE: RAND analysis of Medicare claims

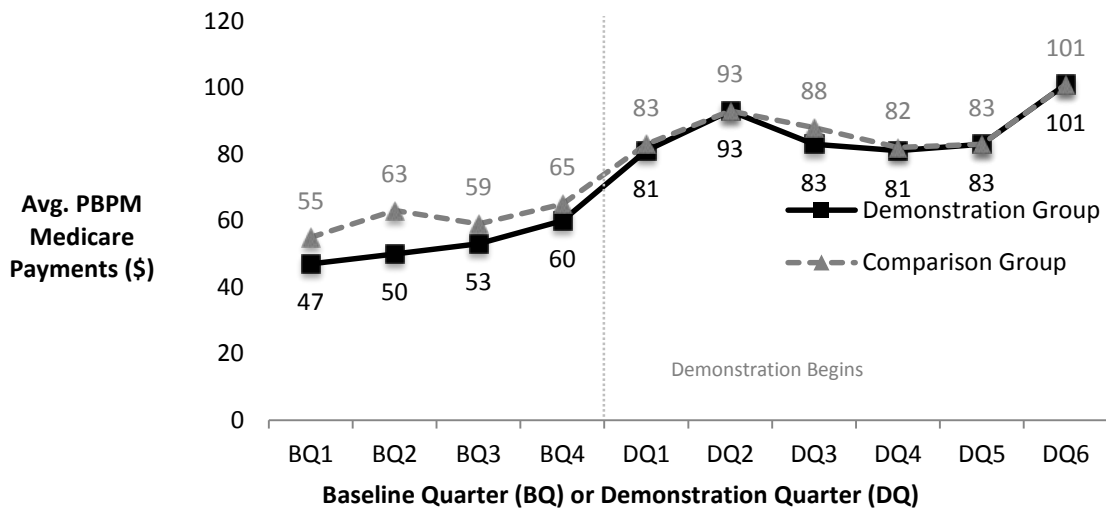
Exhibits VII.8 and VII.9 respectively show Medicare payments for acute hospital care and post-acute care increased in both groups over the baseline and demonstration periods.

**Exhibit VII.8: Unadjusted Trends in Average PBPM Medicare Payments to Short-Stay, Acute Care Hospitals, Including Critical-Access Hospitals, Baseline Q1–Demonstration Q6**



SOURCE: RAND analysis of Medicare claims.

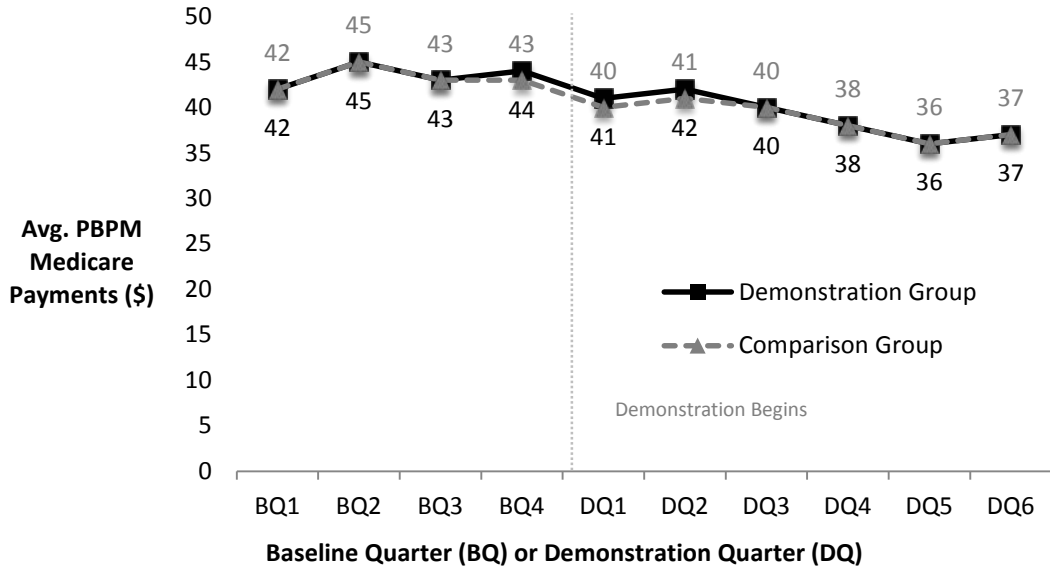
**Exhibit VII.9: Unadjusted Trends in Average PBPM Medicare Payments to Post-Acute Care Providers: Skilled Nursing Facilities, Long-Term Care Hospitals, and Rehabilitation Hospitals and Distinct-Part Units, Baseline Q1–Demonstration Q6**



SOURCE: RAND analysis of Medicare claims.

Exhibit VII.10 shows Medicare payments for FQHC and rural health center (RHC) visits decreased in both groups over the baseline and demonstration periods.

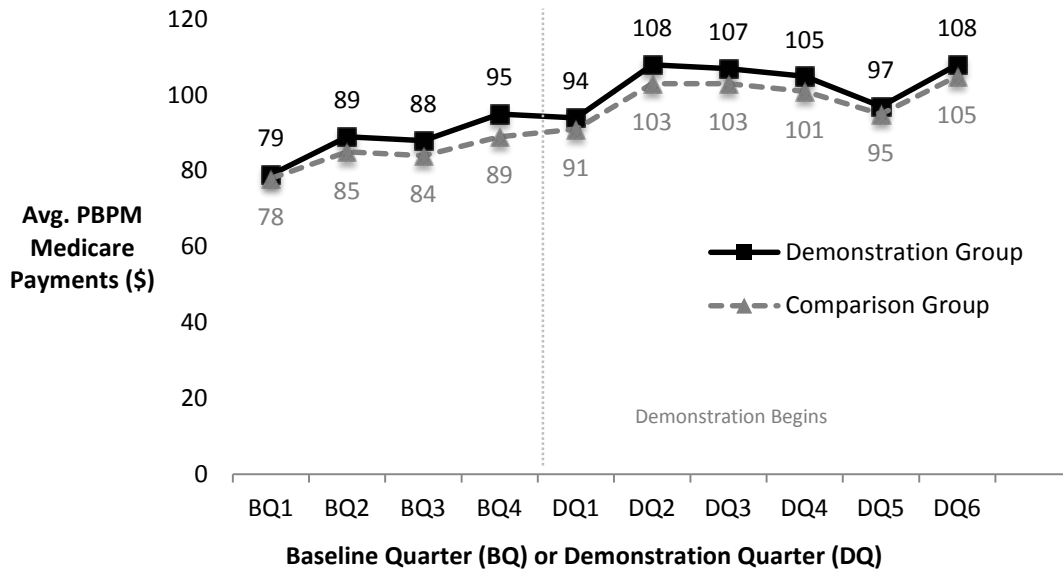
**Exhibit VII.10: Unadjusted Trends in Average PBPM Medicare Payments to FQHCs and Rural Health Centers, Baseline Q1–Demonstration Q6**



SOURCE: RAND analysis of Medicare claims.

Exhibit VII.11 shows Medicare payments to hospital outpatient departments increased over the baseline and beginning of the demonstration period, and then leveled out in both groups.

**Exhibit VII.11: Unadjusted Trends in Average PBPM Medicare Payments to Hospital Outpatient Departments, Baseline Q1–Demonstration Q6**

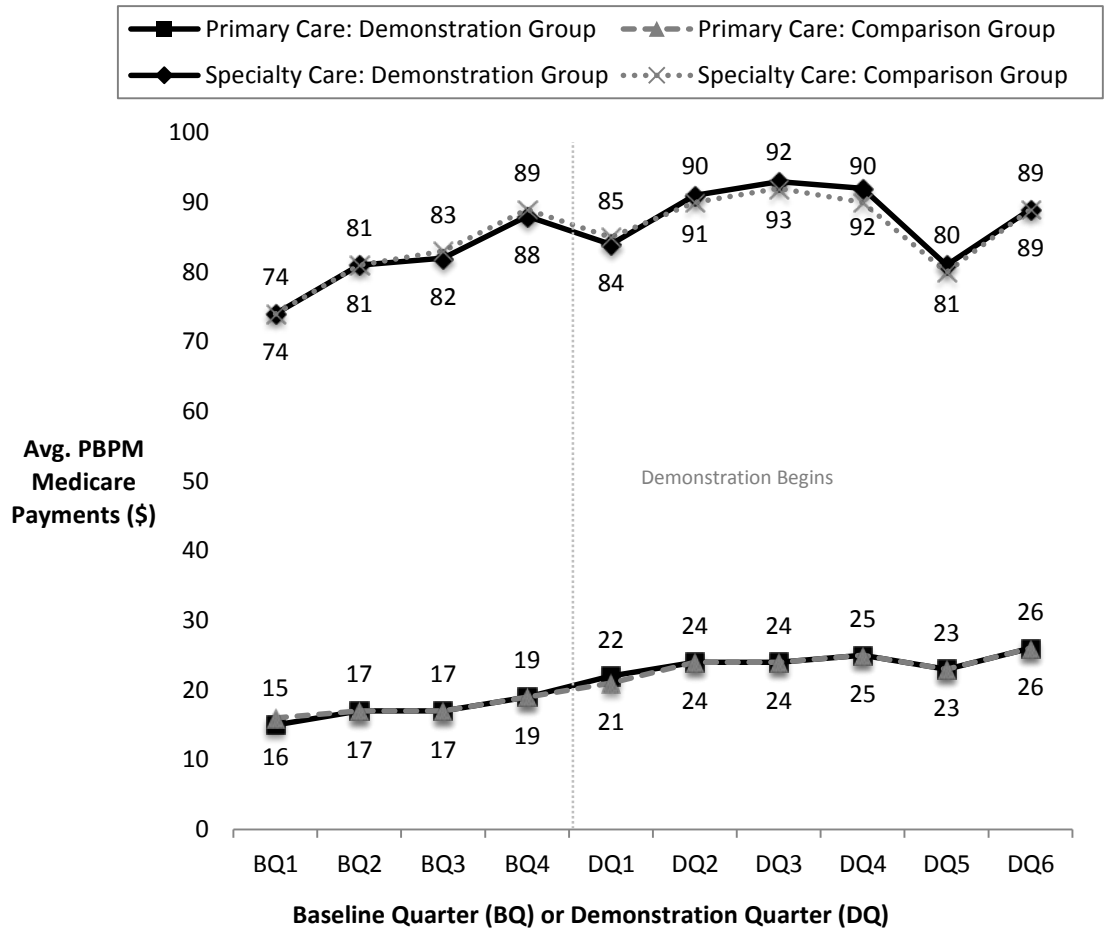


SOURCE: RAND analysis of Medicare claims.

Exhibit VII.12 shows payments for specialty care services increased over the baseline period in both groups, then leveled out over the demonstration period—except for a brief drop in DQ5. Payments for primary care services increased over the baseline and demonstration period in both groups.



**Exhibit VII.12: Unadjusted Trends in Average PBPM Medicare Payments to Primary Care and Specialty Providers, Baseline Q1–Demonstration Q6**



SOURCE: RAND analysis of Medicare claims.

**VII.2B. Unadjusted Trends in Utilization**

Exhibits VII.13 through VII.16 present unadjusted trends in utilization rates for baseline periods Q1 through Q4 and demonstration periods Q1 through Q6 using the following metrics:

- hospitalization rates
- emergency department rates
- hospital readmission rates
- hospitalization rates for chronic ACSCs

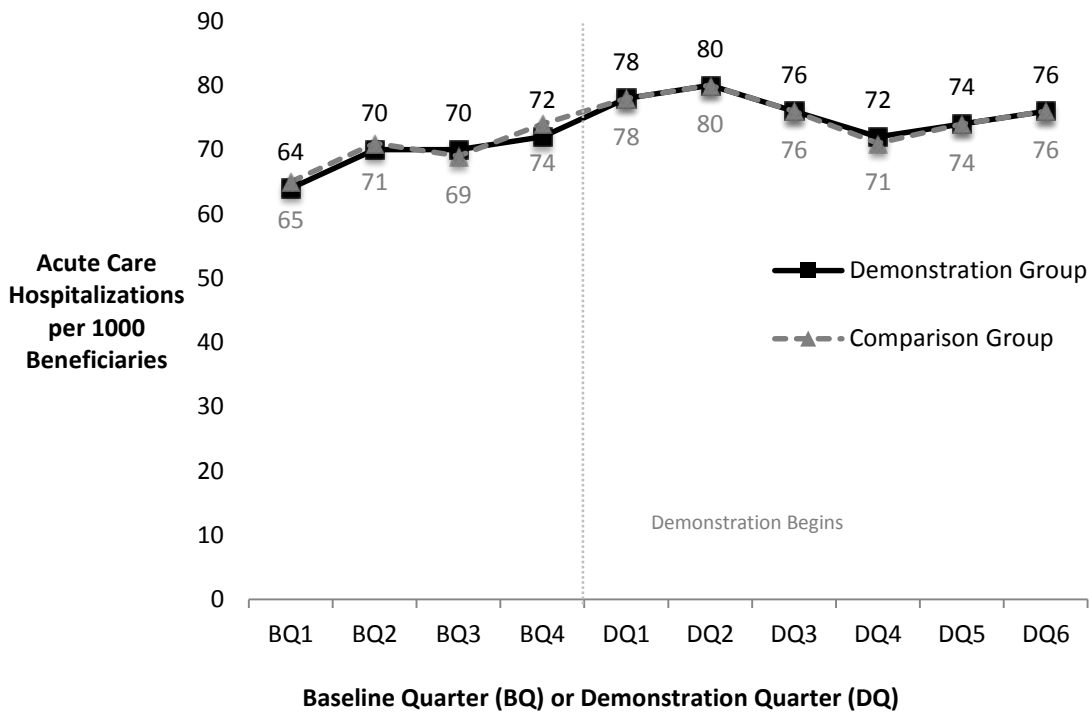
Exhibit VII.13 shows hospitalization rates increased over the baseline period in both groups, but then leveled out in the demonstration period.

Exhibit VII.14 shows the ED visit rates remained fairly stable in both groups over the baseline and demonstration periods.

Exhibit VII.15 shows hospital readmission rates increased during the baseline period, but have been roughly stable in the demonstration period in both groups.

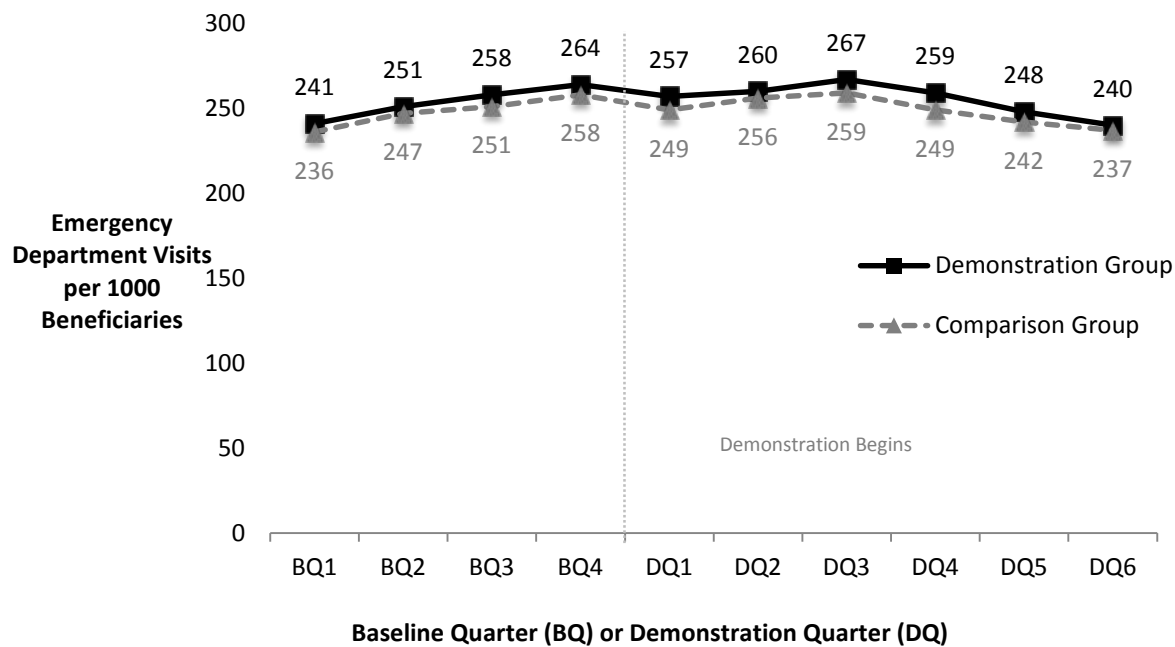
Exhibit VII.16 shows the hospitalization rates for chronic ACSCs have varied over time in both groups, but have not followed a trend over the baseline or demonstration periods.

**Exhibit VII.13: Unadjusted Trends in Hospitalization Rates for Medicare Beneficiaries, All Causes, Baseline Q1–Demonstration Q6**



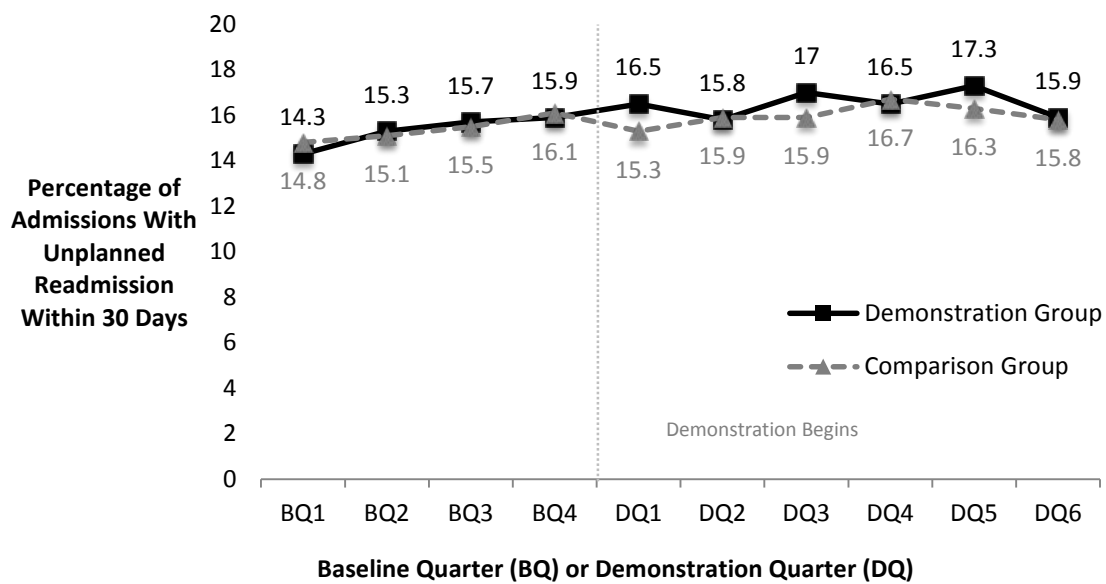
SOURCE: RAND analysis of Medicare claims.

**Exhibit VII.14: Unadjusted Trends in Emergency Department Visit Rates for Medicare Beneficiaries, Baseline Q1–Demonstration Q6**



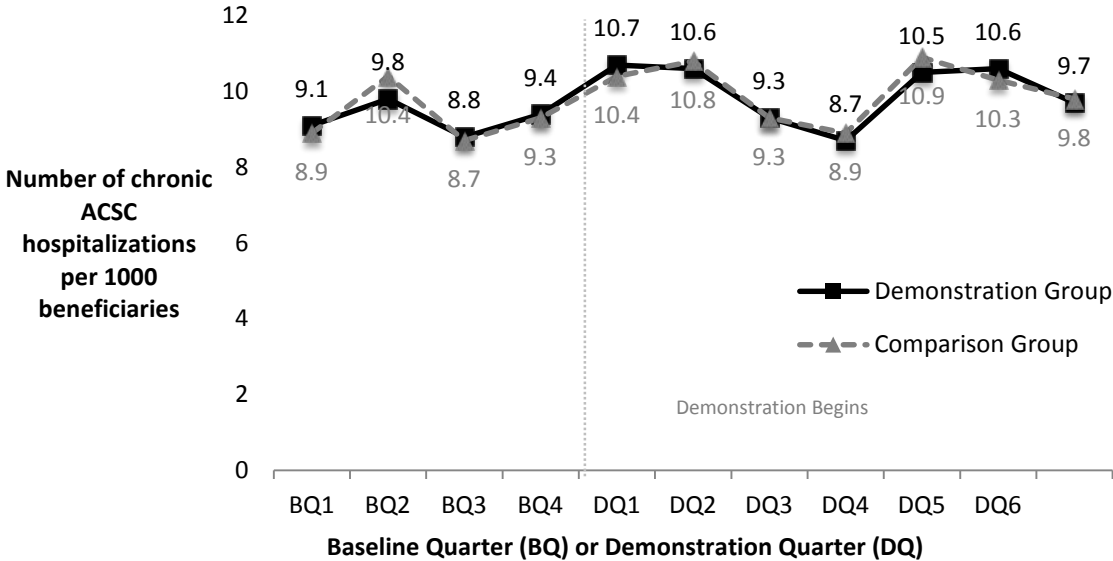
SOURCE: RAND analysis of Medicare claims.

**Exhibit VII.15: Unadjusted Trends in 30-Day Unplanned Hospital Readmission Rates for Medicare Beneficiaries, Baseline Q1–Demonstration Q6**



SOURCE: RAND analysis of Medicare claims.

**Exhibit VII.16: Unadjusted Trends in Hospitalizations for Chronic ACSCs for Medicare Beneficiaries, Baseline Q1–Demonstration Q6**



## **VII.2C. Regression Methodology**

### ***VII.2C.1. Regression Analysis Approach***

Regression analysis was used to examine whether there were statistically significant differences in beneficiary-level cost, utilization, and process measures of quality between comparison and demonstration FQHCs after controlling for covariates.

Models used beneficiary cost, utilization, and process measures as dependent variables and beneficiary, site, grantee, and area characteristics as covariates. Longitudinal models were used with repeated quarterly observations for each beneficiary.

We modeled the impact of the demonstration on outcomes using a difference-in-differences model where the difference between the demonstration and comparison groups for each measure is assumed to be constant during the baseline period, and is allowed to vary quarter-by-quarter in the demonstration period. This model is defined as:

$$(1) Y = \alpha_0 + \alpha_1 I + \alpha_2 Q_2 + \alpha_3 Q_3 + \alpha_4 Q_4 + \alpha_5 Q_5 + \alpha_6 Q_6 + \alpha_7 Q_7 + \alpha_8 Q_8 + \alpha_9 Q_9 + \alpha_{10} Q_{10} + \alpha_{11} (I * Q_5) + \alpha_{12} (I * Q_6) + \alpha_{13} (I * Q_7) + \alpha_{14} (I * Q_8) + \alpha_{15} (I * Q_9) + \alpha_{16} (I * Q_{10}) + \gamma X + \epsilon$$

Where,

- $Y$  is the beneficiary cost, utilization, or process measure of quality;
- $\alpha_0$  is the intercept, an estimate of the mean adjusted level of  $Y$  in the comparison group in the first baseline quarter;
- $I$  is an indicator for the intervention, defined here as attribution to a demonstration FQHC (=0,1). Its parameter estimate  $\alpha_1$  is an estimate of the difference in levels of cost/utilization/quality associated with the demonstration group relative to the comparison group in the baseline period;
- $Q_t$  for time periods  $t=2-10$  is a binary indicator variable of the quarter of observation. For example,  $Q_2=1$  for the second quarter and 0 for all other quarters. Parameters  $\alpha_2$  through  $\alpha_{10}$  are estimates of the difference in beneficiary cost/utilization between the quarter of the indicator  $Q_t$  and quarter 1, in the comparison group;
- $I*Q_t$  for time periods  $t=5-10$  is an interaction term that permits the impact of the demonstration to differ for demonstration sites in quarters 5-10, compared with the baseline period. **Parameters  $\alpha_{11}$  through  $\alpha_{16}$  are the estimates of interest in this model.** These parameters convey the impact of the demonstration on a quarter-by-quarter basis in the demonstration period in relation to the baseline

period. For example,  $\alpha_{11}$  is an estimate of how the difference between the demonstration and comparison groups in quarter 5 differs from the difference between the demonstration and comparison groups in the baseline period.  $\alpha_{12}$  is an estimate of how the difference between the demonstration and comparison groups in quarter 6 differs from the difference between the demonstration and comparison groups in the baseline period.

- $X$  is a vector of covariates. Its parameter estimates  $\gamma$  represent the difference in beneficiary cost/utilization/quality associated with a one unit change in  $X$ ;
- $\epsilon$  is a random error term that is assumed to follow an auto-regressive process where the error in one quarter is correlated with the error at the next quarter. The coefficient of auto-correlation is estimated through the model.

This model outlined in Equation 1, allows the impact of the demonstration to vary in a non-linear fashion from quarter to quarter in the demonstration period. The model makes use of multiple quarters of a baseline period in which both the demonstration and comparison sites were observed without exposure to the intervention, as well as multiple quarters of an intervention period in which only demonstration sites are exposed to the intervention.

We used additional analytic techniques to further minimize the potential for bias caused by differences in characteristics between the demonstration and comparison groups. First, the model adjusts for differences in beneficiary, site, geographic, and other observed characteristics between demonstration and comparison FQHCs directly through vector  $X$ . Second, propensity score weights were used in conjunction with Equation 1 to differentially weight observations in the comparison group so that the mean characteristics of demonstration and comparison FQHCs and their attributed beneficiaries were comparable. Propensity scores were derived for each beneficiary using a logistic regression model that predicted participation in the demonstration as a function of beneficiary, site, grantee, and area characteristics:

$$(2) p = \Pr(I = 1) = \frac{1}{1 + \exp(-\beta_0 - \beta_1 X - \sum_{k=1}^K \beta_2 Y_k)}$$

where  $Y_k, k=1, 2, \dots, K$  are beneficiary outcomes in the baseline period and the vector of covariates  $X$  is identical to the vector from Equation 1 with one exception. The propensity score model included 4 quarterly baseline measurements for each cost and utilization outcome and a single measurement for each process measure over the one-year baseline

period. The rationale for doing so was the need to balance demonstration and comparison groups on all baseline outcomes. (Exhibit II.11 displays results indicating that the propensity score weights successfully balanced baseline outcomes between the two groups).

The propensity scores were derived from the fitted values of the regression model in Equation 2 and used as beneficiary-level weights in Equation 1. This “doubly robust” method provides unbiased estimates if the *propensity score model* fully captures the selection biases in the data. Additionally, a key advantage is that even if such an assumption is incorrect, estimates would remain unbiased as long as the *difference-in-differences model* in Equation 1 fully captures the impact of the demonstration. Our difference in differences model controls for potential differences in baseline mean outcomes between the demonstration and comparison groups, with model variable  $I$ . Model coefficient  $\alpha_1$  indicates the strength and significance of these baseline differences.

After controlling for these baseline differences, the effect of the intervention is estimated as the difference between the demonstration and comparison groups in each quarter of the demonstration period, compared to the difference between the demonstration and comparison groups in the baseline period. As noted above, these incremental changes for quarters 5-10 are indicated through parameters  $\alpha_{11}$  through  $\alpha_{16}$  in the models.

The regression model described in Equations 1 was estimated using Generalized Estimating Equations (GEE) extension of the generalized linear model (GLM), with the family and link function varying by dependent variable. The family of the GLM specifies the distribution of the outcome variable, while the link function specifies the relationship between the mean of this distribution and the linear combination of predictor variables. Binary outcome data are modeled with a GLM model that uses a binomial distribution with a logit link function. Hospital admissions and ER visits are modeled using the negative binomial distribution with a log link, which is appropriate for right-skewed count data such as these. And finally, our cost data were modeled using a gamma distribution with a log link, which is appropriate for continuous data that is bounded at zero and right skewed. Model form specifications, including the family and link function used for each model, are summarized in Exhibit VII.17.

The specifications in the GEE model account for the autocorrelation structure in the errors due to repeated quarterly observations per beneficiary. Robust estimates of standard errors were used. These estimates provide unbiased indicators of the sample-to-sample variability of model parameter estimates, even in cases where there may be misspecification of the correlation structure of the model.



In addition to correlation between repeated observations per beneficiary, beneficiary cost and utilization measures could be correlated within FQHCs. For example, clinicians at certain FQHCs may be more likely to order high-cost diagnostic studies, resulting in higher average costs for beneficiaries attributed to those FQHCs compared with beneficiaries attributed to other FQHCs. We accounted for clustering of observations at the FQHC level using the Huber-White “sandwich” estimator, a method of estimating robust standard errors. This method should produce more conservative (higher) estimates of standard errors, but does not result in different point estimates compared with typical estimation methods.

The models also included adjustments for changes in a beneficiary’s eligibility for Medicare Parts A and B (and therefore the extent to which we observe the beneficiary’s utilization and costs of health care services) within each quarter. The method of eligibility adjustment varied by model, as described in Exhibit VII.17.

**Exhibit VII.17: Dependent Variables and Family, Link Function, and Eligibility Adjustment  
Used in Quarterly Report Regression Model Specifications**

Y variable	Y variable type	Family	Link	Eligibility Adjustment
Total cost	Continuous, skewed right	Gamma	Log	Divide Y by eligibility weight for beneficiaries that lose eligibility but remain alive during a quarter. No adjustment for beneficiaries that die during a quarter.
Admissions (all and chronic ACSCs)	Count	Negative binomial	Log	Number of months of eligibility included as offset
ER visits	Count	Negative binomial	Log	Number of months of eligibility included as offset
Readmission within 30 days	Binary	Binomial	Logit	Not needed – measure requires eligibility during full 30-day observation period
HbA1C testing among diabetics	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period
Eye exams among diabetics	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period
Nephropathy monitoring among diabetics	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period
LDL-C testing among diabetics	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period
All four tests among diabetics	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period
Annual blood lipid profile among those with ischemic vascular disease	Binary	Binomial	Logit	Not needed – measure requires eligibility during the two-year observation period

Parameter estimates from GLM models are not always readily interpretable. For example, we modeled total health care cost outcomes using a log-transformation because cost was highly skewed with a large proportion of beneficiaries having relatively low cost (Median: \$2,000 per year) while a small number of beneficiaries had extremely large costs, on the order of \$200,000 to \$2,500,000 per year. The GLM parameter estimates can only be expressed in the transformed outcome scale (log dollars). Similarly, with binary outcomes such as readmission, the binomial distribution and the logit-transformation allow the parameter estimates to be expressed on the log-odds or odds ratio scales. In order to make the model estimates reliably comparable on the untransformed outcome scale, we used an estimator by Puhani (2012)<sup>22</sup> that provides an analogue to a traditional difference-in-differences estimator but is appropriate for nonlinear models. This method transforms our model coefficients of interest, namely the

<sup>22</sup> Puhani PA. The treatment effect, the cross difference, and the interaction term in nonlinear “difference-in-differences” models. *Economics Letters*, 115 (2012) 85–87.

difference-in-difference estimates for each quarter in the demonstration period, back to their original scale for ease of interpretation.

In Exhibit VII.18 we summarize refinements we have made to our methodology for estimating demonstration impacts since the submission of our Final Evaluation Design Report.

### Exhibit VII.18: Summary of Recent Methodological Changes

Topic	Original approach	New Approach	Rationale
Attribution rule	Beneficiaries were eligible for attribution in our main analysis if each of the following 5 criteria held for the 12-month period preceding the start of the demonstration: (1) enrolled in the Medicare Part A and Part B program; (2) not enrolled in the end-stage renal disease program; (3) not enrolled in Medicare Advantage; (4) survived to the end of the 12-month period; and (5) not enrolled in hospice care.	We retained the first three criteria but eliminated the survival and hospice use criteria.	The original attribution rule resulted in large discontinuities in both cost and utilization outcomes between the quarter preceding the start of the demonstration and the first quarter of the demonstration (for both demonstration and comparison FQHCs) because the first quarter of the demonstration period represented the first quarter in which beneficiaries began using hospice care and/or dying.
Graphical displays of unadjusted trends in outcomes	We used graphical displays of all outcome variables without “quarterizing” outcomes (adjusting outcome measures to account for incomplete claims data due to loss of Part A/B eligibility)	We accounted for Part A/B eligibility by “quarterizing” all cost and count utilization outcomes (hospitalizations and ER visits)	Eligibility adjusted outcomes provide more accurate estimates of trends in each outcome.
Demonstration impact estimator	Using an interrupted time series model we estimated intercept and slope shifts for the demonstration sites relative to the comparison sites in the demonstration period relative to the baseline period.	We used a more traditional difference-in-differences methodology in which we estimated demonstration impacts for each quarter of the demonstration period. We used an estimator by Puhani (2012) that is appropriate for non-linear models.	The interrupted time series model was associated with widening confidence intervals over time. The model also made stronger assumptions about linear trends that might not be justified.
Graphical displays of impact estimates	These were omitted from Draft Annual Report #1.	These are now included in the Final Annual Report #1.	

Puhani PA. The treatment effect, the cross difference, and the interaction term in nonlinear “difference-in-differences” models. *Economics Letters*, 115 (2012) 85–87.

### **VII.2D. Regression Analysis Results**

Exhibits VII.19–VII.28. show the adjusted results from our difference-in-difference regression analyses that model time with quarterly indicator variables. All exhibits show difference-in-difference estimates for each quarter of the demonstration period, in their

original outcome scale. For each exhibit, a value greater than 0 on the y-axis indicates higher payments, utilization, or quality for the demonstration group versus the comparison group for that quarter of the demonstration period, relative to the baseline period. A value less than 0 indicates lower payments, utilization, or quality for the demonstration group versus the comparison group for that quarter, relative to the baseline period. All statistically significant differences ( $p < 0.05$ ) between demonstration and comparison FQHCs are indicated in these exhibits with an asterisk alongside each point estimate. Exhibits C.1.a.–C.3.b. in Appendix C contain parameter estimates from all regression models in their transformed scale, including:

- the model's intercept
- the difference in levels of cost/utilization/quality between quarter 1 and each subsequent quarter, in the comparison group
- the difference in levels of cost/utilization/quality associated with the demonstration group relative to the comparison group
- the difference-in-difference estimates of cost/utilization/quality for each quarter of the demonstration period

Exhibit VII.19 shows the impact of the demonstration on Medicare payments per beneficiary per quarter. Regression results indicate that there were no differences between the groups in demonstration quarters 1-6 that were statistically different from the difference observed between the groups in the baseline period (all p-values  $> 0.05$ ; see full regression results in Exhibit C.1.a. of Appendix C).

**Exhibit VII.19: Difference in Total Medicare Payments per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

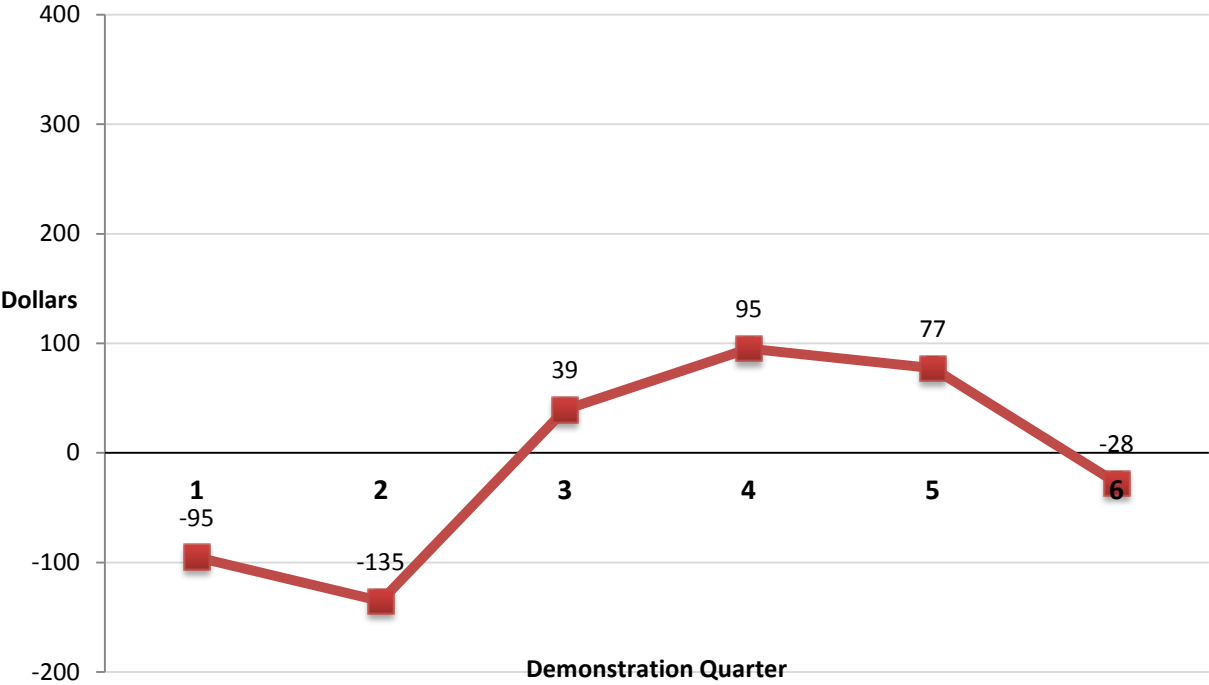


Exhibit VII.20 shows the impact of the demonstration on acute care hospitalization rates. Regression results indicate that there were no differences between the groups in demonstration quarters 1-6 that were statistically different from the difference observed between the groups in the baseline period (all p-values >0.05; see regression results in Exhibit C.2 of Appendix C).

**Exhibit VII.20: Difference in Inpatient Admission Rate per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

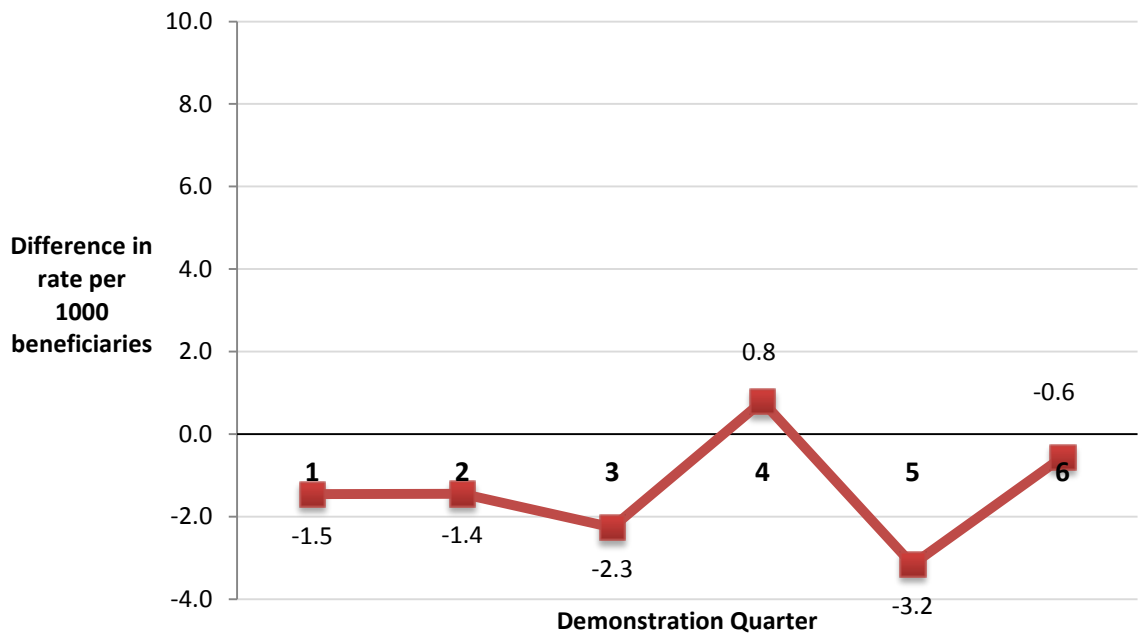


Exhibit VII.21 shows the impact of the demonstration on hospitalization rates for chronic ambulatory care sensitive conditions. Regression results indicate that there were no differences between the groups in demonstration quarters 1-6 that were statistically different from the difference observed between the groups in the baseline period (all p-values >0.05; see regression results in Exhibit C.2 of Appendix C).

**Exhibit VII.21: Difference in Hospitalization Rates for ACSCs per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

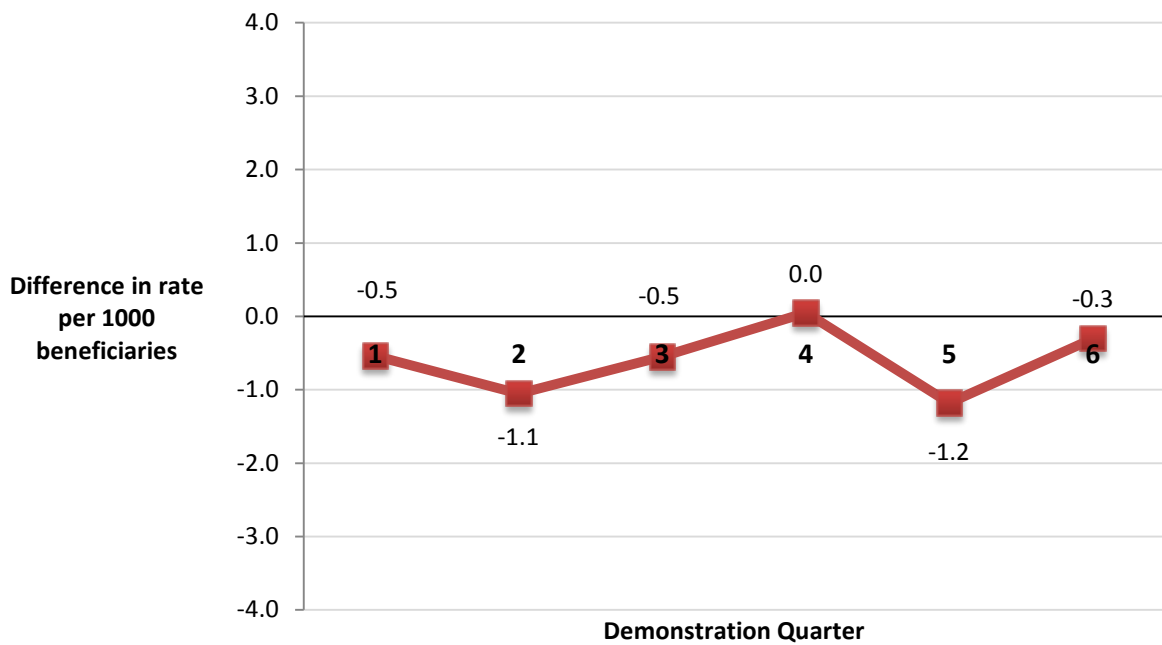




Exhibit VII.22 shows the impact of the demonstration on ER visit rates. Regression results indicate that there were no differences between demonstration and comparison FQHCs that were statistically significant except in demonstration quarter 4 which showed that the demonstration sites had 10 more ER visits per 1000 beneficiaries, on average, compared to comparison sites ( $p = 0.047$ ). (See regression results in Exhibit C.2 of Appendix C).

**Exhibit VII.22: Difference in ER Visit Rate per 1000 Beneficiaries per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

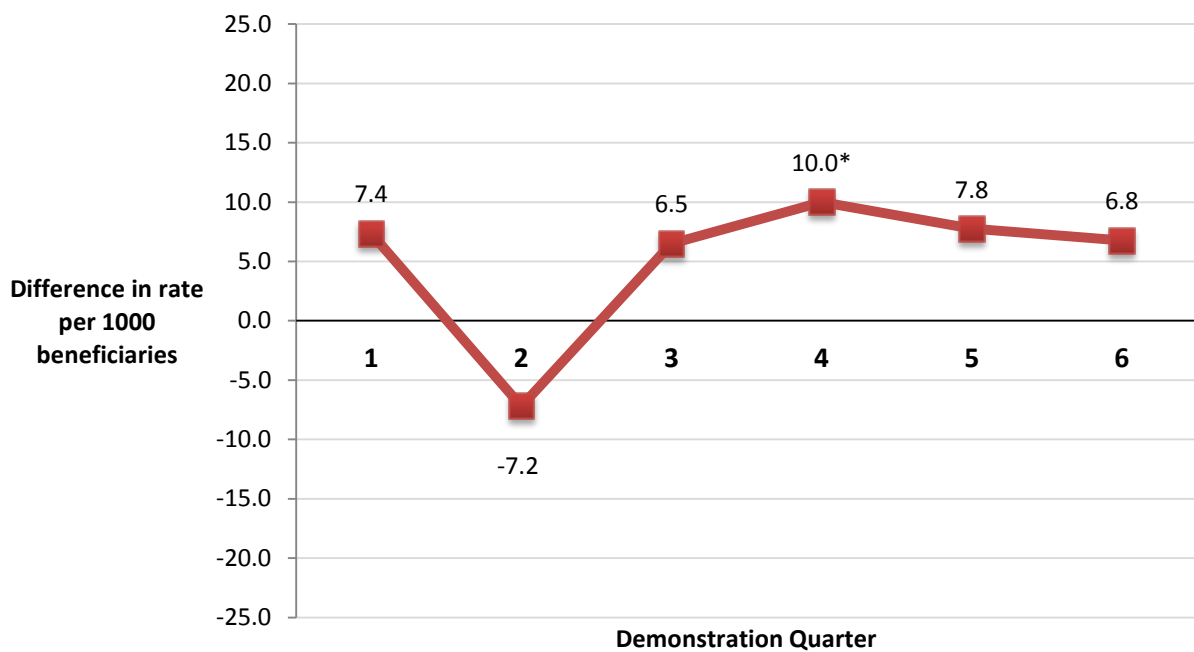


Exhibit VII.23 shows the impact of the demonstration on unplanned readmission rates. Regression results indicate that there were no differences between the groups in demonstration quarters 1-6 that were statistically different from the difference observed between the groups in the baseline period (all p-values >0.05; see regression results in Exhibit C.2 of Appendix C).

**Exhibit VII.23: Difference in Percentage of Unplanned Readmissions within 30 Days per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

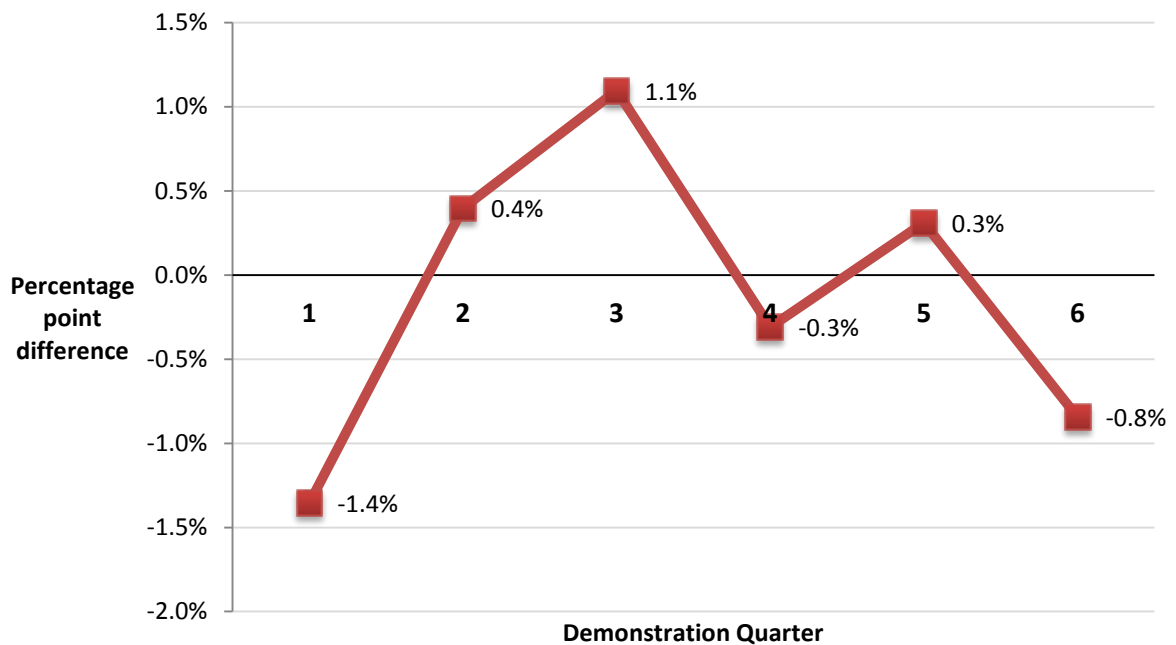


Exhibit VII.24 shows the impact of the demonstration on the percentage of Medicare beneficiaries with diabetes receiving an HbA1c test in the past two years. Regression results indicate that in demonstration quarters 1-6, the difference between the demonstration sites and the comparison sites was significantly greater than the difference observed between these two groups in the baseline period. Over the six quarters, demonstration FQHCs consistently provided HbA1c tests at a rate between 1.0 and 1.2 percentage points higher than comparison FQHCs relative to the baseline period. (See regression results in Exhibit C.3a of Appendix C).

**Exhibit VII.24: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving an HbA1c Test in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

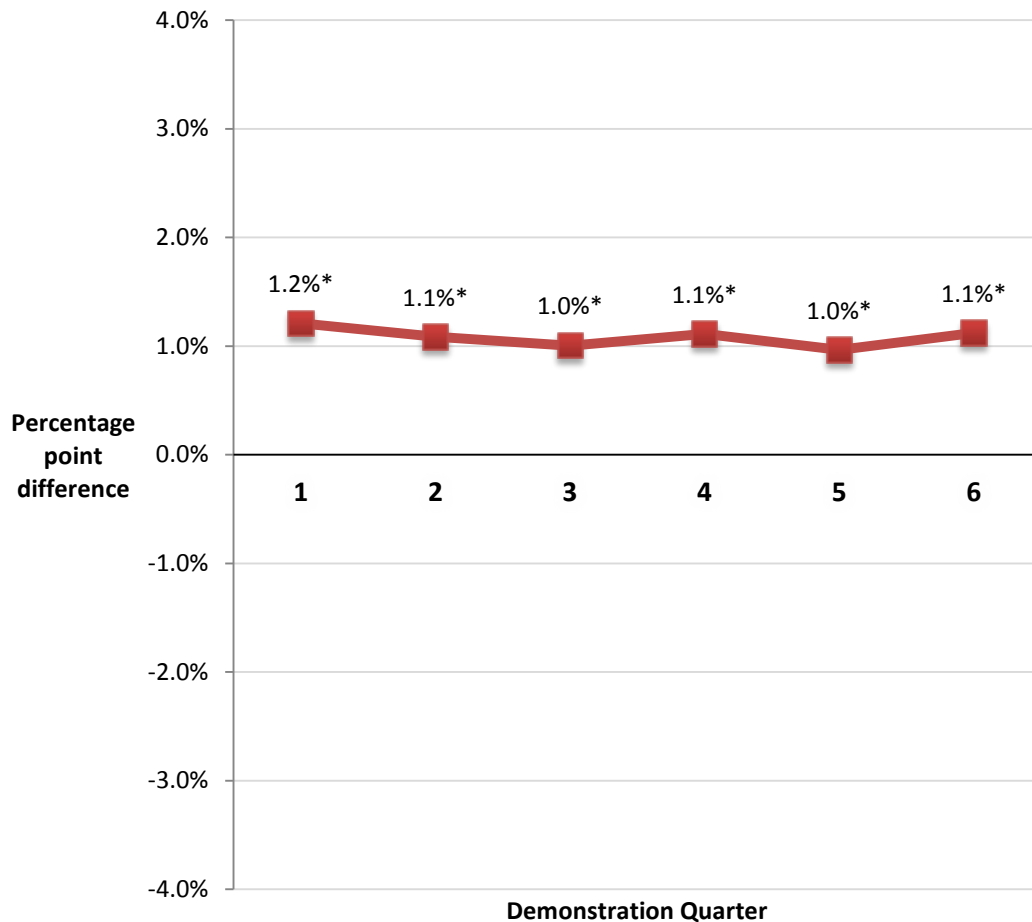


Exhibit VII.25 shows the impact of the demonstration on the percentage of Medicare beneficiaries with diabetes receiving retinal eye exams in the past two years. Regression results indicate that, beginning in demonstration quarter 3, demonstration sites began outperforming comparison sites relative to the difference observed between the two groups in the baseline period. Demonstration sites had rates of eye exams 1.6 percentage points higher in quarter 3, which increased to 2.3 percentage points in quarter 4 before falling to 1.4 percentage points in demonstration quarter 6. (See regression results in Exhibit C.3a of Appendix C).

**Exhibit VII.25: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving a Retinal Eye Exam in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

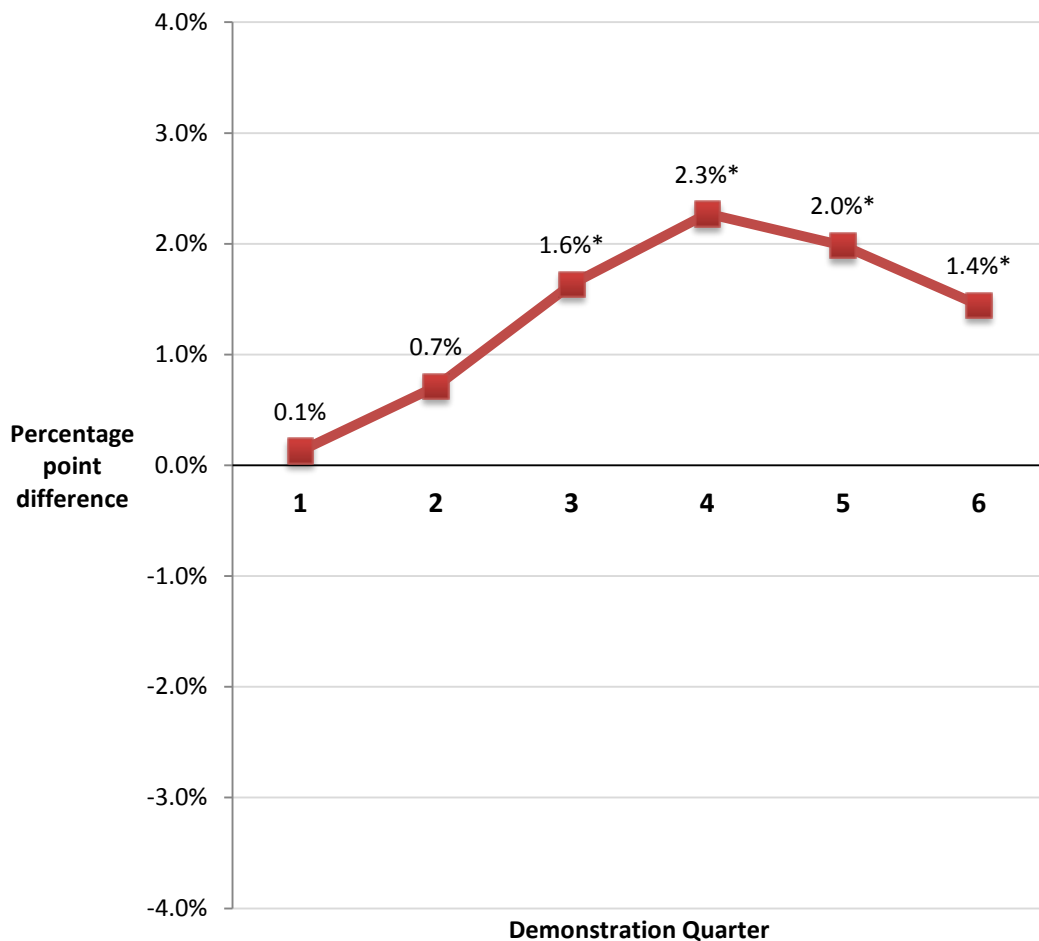


Exhibit VII.26 shows the impact of the demonstration on the percentage of Medicare beneficiaries with diabetes receiving LDL cholesterol testing in the past two years. Regression results indicate that there were no statistically significant differences between the groups in demonstration quarters 1-6 that were significantly different from the difference observed between the groups in the baseline period. (See regression results in Exhibit C.3a of Appendix C).

**Exhibit VII.26: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving LDL Cholesterol Testing in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

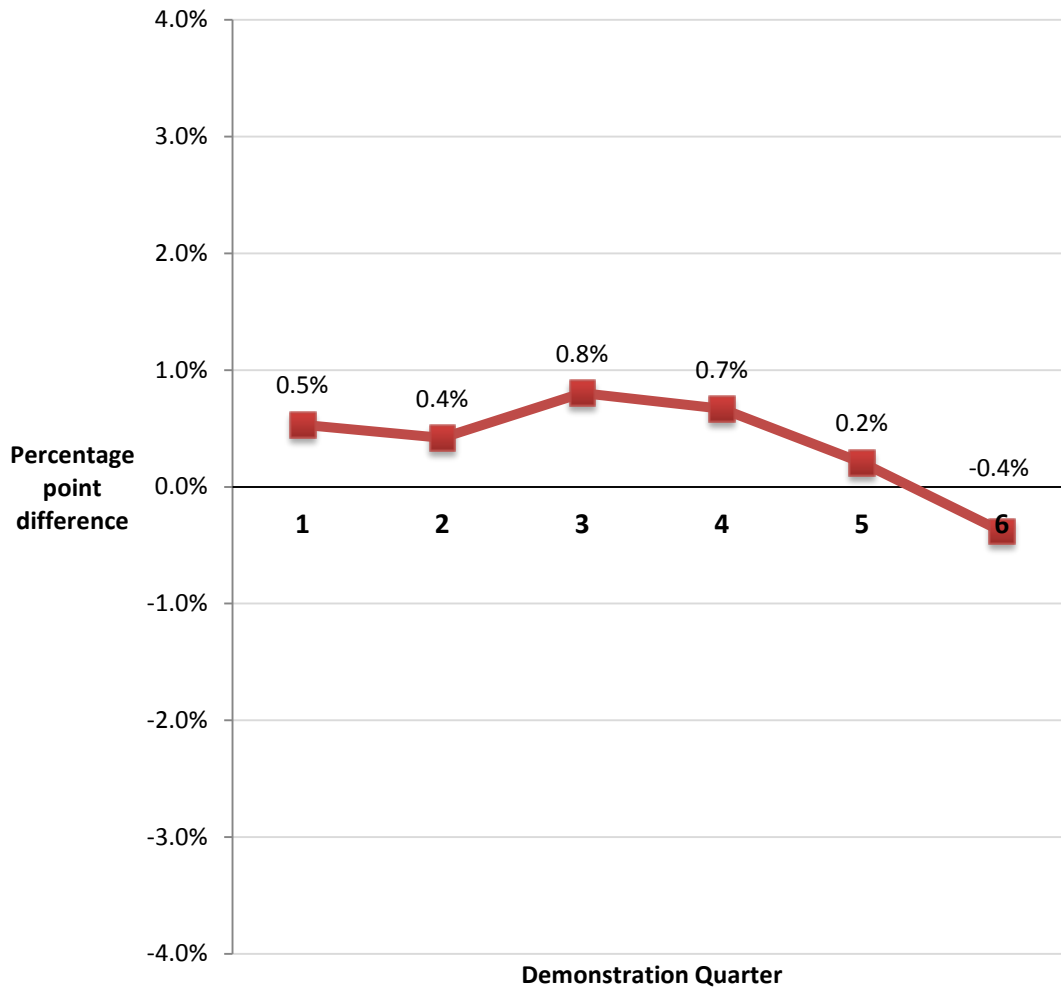


Exhibit VII.27 shows the impact of the demonstration on the percentage of diabetics receiving nephropathy testing in the past two years. Regression results indicate that in

each of the six demonstration quarters, the difference between the demonstration sites and the comparison sites was significantly greater than the difference observed between the two groups in the baseline period. In demonstration quarter 1, demonstration sites had testing rates that were 1.1 percentage points higher than comparison sites. By demonstration quarter 2, screening tests were approximately 2 percentage points higher—a difference that remained consistent over the next four quarters. (See regression results in Exhibit C.3b of Appendix C).

**Exhibit VII.27: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving Nephropathy Monitoring in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

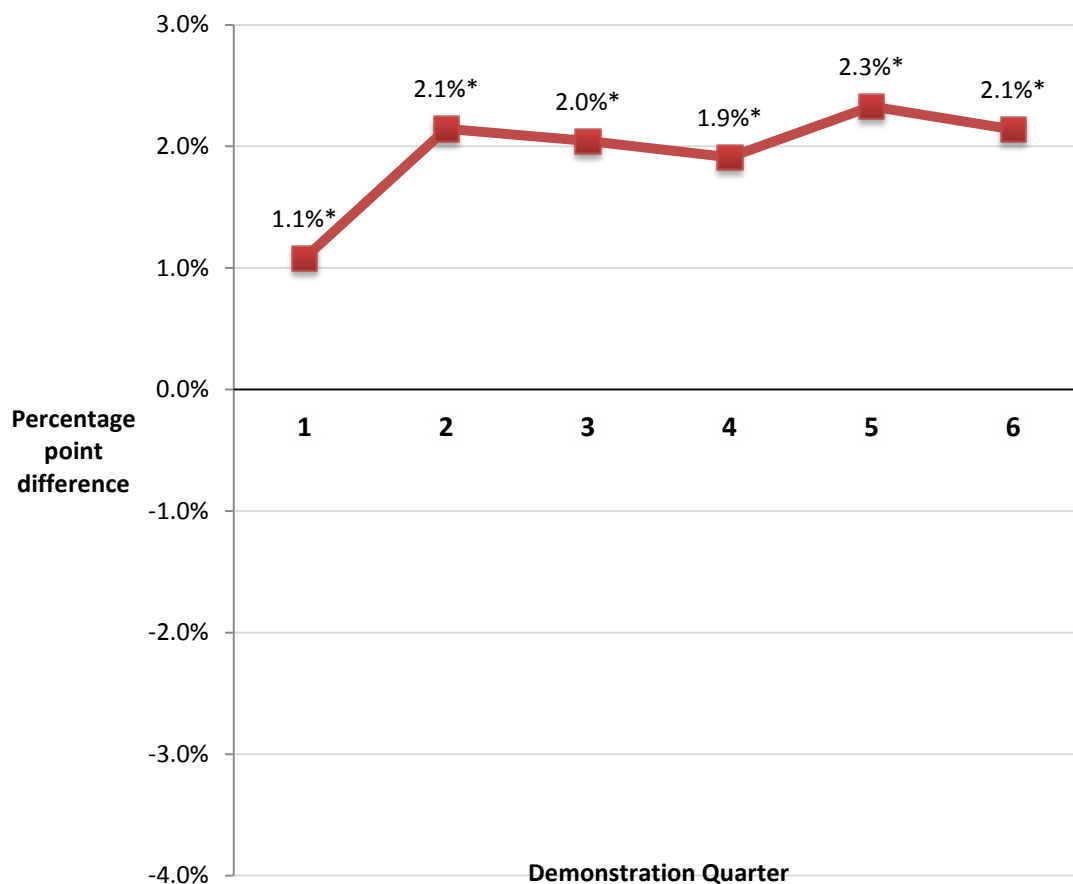


Exhibit VII.28 shows the impact of the demonstration on the percentage of Medicare patients with diabetes who received all four screening tests (HbA1C tests, LDL-C tests, retinal eye exams, and nephropathy monitoring) in the past two years. Regression results show that in demonstration quarters 2-6, demonstration FQHCs had screening rates

between 1.4 and 2.4 percentage points higher than comparison FQHCs compared to the differences between the two groups in the baseline period. (See regression results in Exhibit C.3b of Appendix C). There were no statistically significant differences between the groups in demonstration quarter 1.

**Exhibit VII.28: Difference in Percentage of Medicare Beneficiaries with Diabetes Receiving All Four Tests (HbA1C testing, LDL-C Testing, Eye Exams, and Nephropathy Monitoring) in the Past Two Years per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

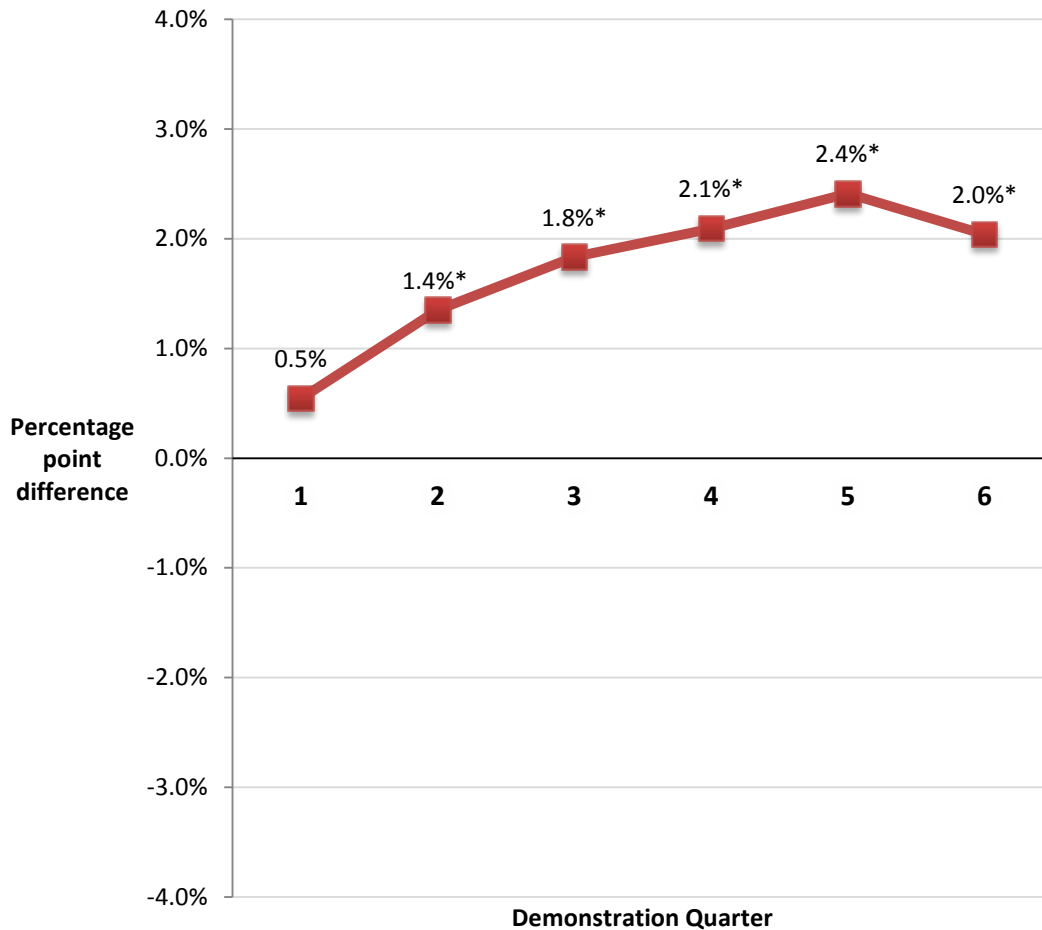


Exhibit VII.29 shows the impact of the demonstration on the percentage of beneficiaries with ischemic vascular disease receiving a blood lipid profile in the past two years. Regression results indicate that there were no differences between the groups in demonstration quarters 1-6 that were statistically different from the difference observed between the groups in the baseline period (all p-values >0.05; See regression results in Exhibit C.3b of Appendix C).

**Exhibit VII.29: Difference in Percentage of Medicare Beneficiaries with Ischemic Vascular Disease Receiving a Blood Lipid Profile in the Past Two Years, per Demonstration Quarter (Demonstration FQHCs vs. Comparison FQHCs) Based on Regression Analysis**

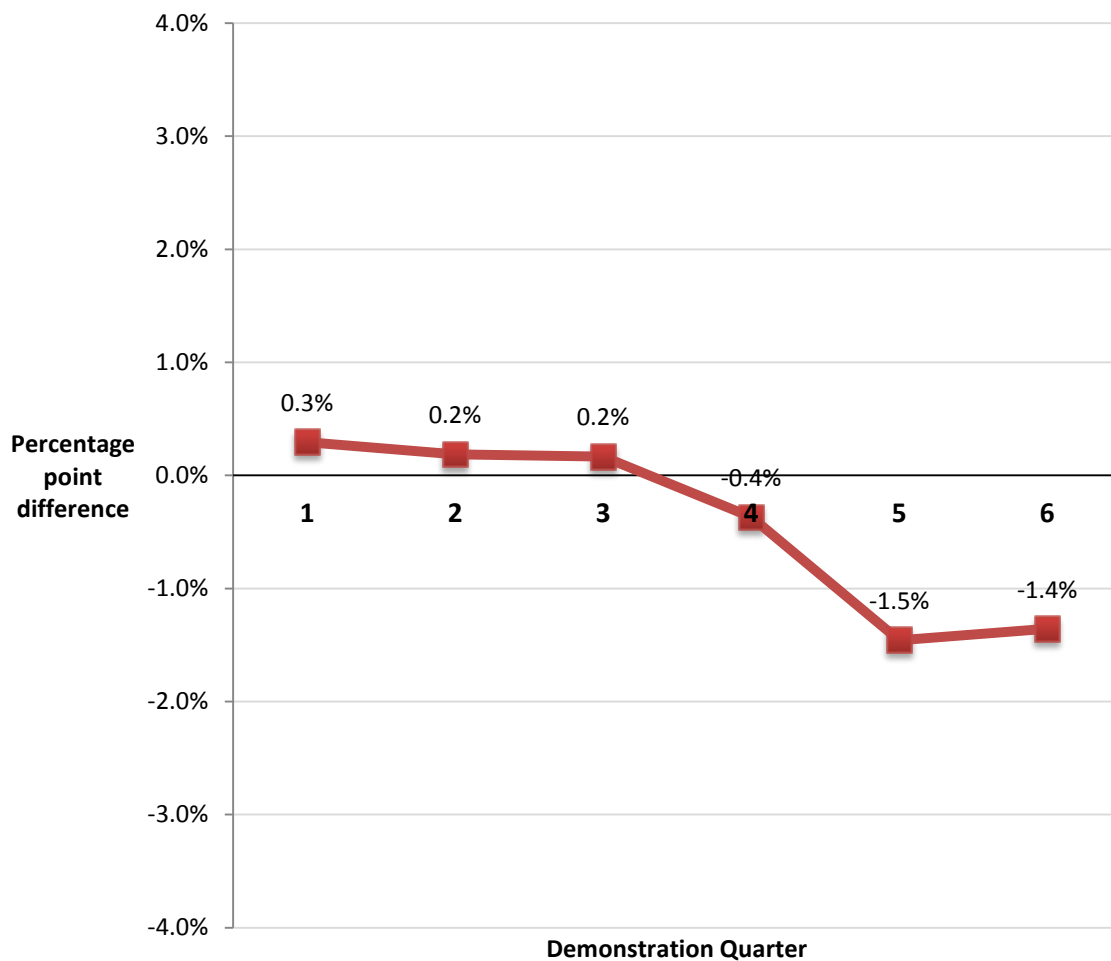


Exhibit VII.30 provides a tabular summary of the demonstration impact on each of the 11 study outcomes we presented graphically in this chapter. Among the cost and



utilization measures, the only statistically significant impact was an increase in ER visits for demonstration FQHCs during the fourth quarter of the demonstration. Among process measures, four of the six measures improved at higher rates for demonstration FQHCs compared to comparison FQHCs—all were diabetes process measures.

**Exhibit VII.30: Summary of Difference-in-difference Estimates (Demonstration FQHCs—Comparison FQHCs) by Demonstration Quarter**

	Demonstration Quarter					
	1	2	3	4	5	6
<b>Cost and Utilization Measures</b>						
Total Medicare payments per beneficiary	-95.19	-135.37	39.42	95.24	77.31	-27.60
Inpatient admission rate per 1000 beneficiaries	-1.5	-1.4	-2.3	0.8	-3.2	-0.6
Hospitalization rate for chronic ACSCs per 1000 beneficiaries	-0.5	-1.1	-0.5	0.0	-1.2	-0.3
ER visit rate per 1000 beneficiaries	7.4	-7.2	6.5	10.0	7.8	6.8
Readmission within 30 days (percentage)	-1.4	0.4	1.1	-0.3	0.3	-0.8
<b>Process Measures</b>						
HbA1C testing for patients with diabetes (%)	1.2	1.1	1.0	1.1	1.0	1.1
Eye exams for patients with diabetes (%)	0.1	0.7	1.6	2.3	2.0	1.4
LDL-C testing for patients with diabetes (%)	0.5	0.4	0.8	0.7	0.2	-0.4
Nephropathy monitoring for patients with diabetes (%)	1.1	2.1	2.0	1.9	2.3	2.1
All four tests for patients with diabetes (%)	0.5	1.4	1.8	2.1	2.4	2.0
Annual blood lipid profile for patients with ischemic vascular disease (%)	0.3	0.2	0.2	-0.4	-1.5	-1.4

NOTE: Each cell contains a difference-in-differences estimate for each demonstration quarter relative to baseline. Shading indicates statistically significant differences between demonstration FQHCs and comparison FQHCs.

## **VII.2E. Budget Neutrality Approach and Results**

The budget neutrality results presented below build upon our complete regression methodology that is detailed in section VII.2C. Specifically, the budget neutrality results are derived from our primary regression analysis of the association between total per beneficiary per quarter Medicare payments and treatment at FQHCs participating in the demonstration. Case management fees are not included in total payments for this analysis.

Briefly, our regression approach modeled the impact of the demonstration on cost using a difference-in-differences model where the difference between the demonstration and comparison groups was compared in each quarter of the demonstration period to the difference between these groups in the baseline period. Regression models controlled for

differences in beneficiary, site, and other characteristics between demonstration and comparison FQHCs, and used propensity scores to balance residual differences between groups. Difference-in-difference model parameter estimates (shown in Appendix Exhibit C.1a: Total Cost) have been transformed to dollar amounts to aid interpretation, using an estimator by Puhani (2012) that is appropriate for nonlinear models. These estimates represent the difference in payments between the demonstration and comparison groups for each quarter of the demonstration period, relative to the baseline period: a value greater than 0 indicates higher payments for the demonstration group versus the comparison group for that quarter of the demonstration period, relative to the baseline period. A value less than 0 indicates lower payments. That statistical significance of all quarterly difference-in-difference estimates is shown with the p-value that corresponds to the p-value of the model parameter for that quarter.

Budget neutrality results are based on our adjusted analyses of total costs (Appendix C; Exhibit C.1a.). These analyses show that for each quarter of the demonstration period, there is no statistically significant impact of the demonstration on costs ( $p > 0.05$ ). Exhibit VII.31 shows our retransformed difference-in-difference estimates of total Medicare payments per demonstration quarter (in dollars), and their associated p-value. These estimates represent the incremental change in the difference between demonstration and comparison groups for each quarter in the demonstration period, compared to the baseline period.

**Exhibit VII.31: Difference-in-Difference Estimates of Total Medicare Payments per  
Demonstration Quarter**

<b>Demonstration Quarter</b>	<b>Difference-in-Difference Estimates (\$)</b>	<b>p-value</b>
Demonstration quarter 1	-95.19	0.1596
Demonstration quarter 2	-135.37	0.1058
Demonstration quarter 3	39.42	0.6074
Demonstration quarter 4	95.24	0.1198
Demonstration quarter 5	77.31	0.3008
Demonstration quarter 6	-27.60	0.7432

**Note:** See Appendix C; Exhibit C.1a for full model results.

## VIII. Medicaid Claims Analyses

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We used eligibility and claims files from the Medicaid and Children’s Health Insurance Program Statistical Information System (MSIS) to conduct a parallel set of analyses evaluating the impact of the APCP Demonstration on the quality, cost, and utilization of services among Medicaid enrollees receiving care from demonstration and comparison FQHCs.

### VIII.1. Approach to Medicaid Beneficiaries

#### **VIII.1A. Overview of Medicaid Files**

RAND’s evaluation included beneficiaries with Medicaid-only insurance. This required access to state-level Medicaid files. Since 1997, states have been submitting eligibility and claim program data to CMS through MSIS. The five files, submitted quarterly, include one file that contains eligibility and demographic characteristics for each person enrolled in Medicaid at any time during the quarter, and four separate files of claims adjudicated for payment during the quarter for long-term care services, drugs, inpatient hospital stays, and all other types of services. State-submitted data include more than 65 million eligibility records and more than 3 billion claim records per year. Validation edits test whether individual data fields are within appropriate ranges, and then distributional quality checks evaluate the reasonableness of the information across data elements and quarters. While more highly processed versions of MSIS files (known as Medicaid Analytic eXtract (MAX) files) are also available, the time lag after which they become available to researchers rendered them unsuitable for RAND’s evaluation.

#### **VIII.1B. MSIS State Selection**

RAND is evaluating the impact of the demonstration for Medicaid enrollees living in three states because of the extensive data processing required for these analyses. RAND has developed five criteria to inform the selection of states:

- (1) quality and completeness of Medicaid encounter data
- (2) volume of demonstration sites and comparison FQHC sites
- (3) geographic diversity
- (4) representation of states with a high percentage of Spanish-speaking residents
- (5) volume of claims per site among eligible enrollees.

Eligible states can be determined using the first four criteria relatively easily. However, because states vary considerably in their eligibility rules, we must determine empirically whether the volume of Medicaid enrollees per site within a state are adequate to support our Medicaid claim analyses. We will also determine whether the Medicaid claim volumes for our 1,330 demonstration and comparison FQHCs have face validity by comparing them with counts of Medicare claim volumes for the same 1,330 sites.

Ensuring the quality and completeness of managed care encounter data is critical for our analyses because of the large proportion of Medicaid patients who are enrolled in managed care plans. In addition, the reporting of encounter data has been historically poor, although CMS's enforcement of reporting has increased in recent years. Mathematica Policy Research recently published the results of a study that analyzed the completeness and quality of encounter reporting in the MAX files (2007–2009), which are derived from MSIS.<sup>23</sup> Their approach included developing completeness and quality metrics for inpatient, outpatient, and pharmacy encounter files, and comparing each state's performance with scores from a sample of FFS claims from states that had high percentages of FFS enrollees. For example, the outpatient-encounter data analysis included two measures of "data completeness" (percentage of enrollees with outpatient-encounter claims and average number of outpatient claims per enrollee) and five measures of "data quality" (percentage of claims with place-of-service code, primary-diagnosis code, primary-diagnosis code with length greater than three characters, procedure code, and procedure codes in CPT-4 or HCPCS format).

States with "acceptable" encounter data were considered those that had scores on completeness and quality measures within two standard deviations of the FFS score for each measure. States with "usable" encounter data were considered those that had "acceptable" data on a predetermined number of measures for each file.

Exhibit VIII.1 summarizes the characteristics of states according to three of the selection criteria. The top three states we are considering are indicated in bold. Taken together, these three states represent different regions of the country. In the coming weeks, RAND will address the fifth selection criterion by assessing the volume of claims for qualifying services per FQHC to assist in the selection of the remaining two states.

RAND and CMS agreed to conduct the Medicaid analyses initially for a single state before selecting the two remaining states. This strategy allowed us to become more

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<sup>23</sup> V. Byrd and A. Dodd. "Assessing the Usability of Encounter Data for Enrollees in Comprehensive Managed Care Across MAX 2007–2009," *Medicaid Policy Brief*, Mathematica Policy Research, 2012.

familiar with the limitations of MSIS and to help us identify key data issues that might influence the selection of the remaining states. Thus, we began our analyses using data from California, which has the largest share of demonstration FQHCs among ACP participants.

**Exhibit VIII.1: Three Criteria for Selecting Medicaid States Among States with the Highest Volumes of Demonstration and Comparison Sites, by Total Number of Sites**

State	Number of Sites			Encounter Data Quality		Large Spanish-Speaking Population
	Demonstration FQHCs	Comparison FQHCs	Total	Outpatient Files “Usable for Research”	Inpatient Files “Usable for Research”	
<b>California</b>	<b>70</b>	<b>97</b>	<b>167</b>	X	X	X
Texas	11	46	57	X		X
Pennsylvania	21	35	56			
Washington	16	37	53	X	X	
Illinois	25	26	51			
Florida	19	29	48	X	X	X
Tennessee	12	36	48	X	X	
West Virginia	16	29	45			
North Carolina	18	23	41			
Missouri	20	18	38			
<b>Virginia</b>	<b>9</b>	<b>29</b>	<b>38</b>	X	X	
Ohio	20	17	37			
<b>New Mexico</b>	<b>25</b>	<b>10</b>	<b>35</b>	X	X	X
Mississippi	6	28	34			
Alabama	7	26	33			
Kentucky	7	24	31	X	X	
Massachusetts	13	17	30			
New York	14	15	29	X	X	X
Colorado	11	17	28			
Oregon	9	19	28	X	X	
South Carolina	4	24	28			
Arizona	11	16	27	X	X	X
Georgia	10	15	25	X	X	
Michigan	16	9	25	X	X	

NOTE: RAND acquired detailed, state-level quality and completeness metrics and determined that although MSIS data submitted by Florida had scores that met criteria for being “usable for research,” the volume of both inpatient and outpatient claims per enrollee appeared to be considerably lower than that of other states. Thus, we are reluctant to consider Florida for these analyses.

### **VIII.1C. Challenges with Medicaid Claims Data**

In general, our Medicaid claim analyses use similar methods to those described in the previous chapter for our Medicare claim analyses. However, in the course of working with the MSIS files, we encountered numerous challenges unique to Medicaid claims:

1. *Use of legacy (Medicaid) identifiers rather than National Provider Identifiers (NPIs).* Unlike our Medicare claims analyses that use PTAN as a site-level identifier, our Medicaid analyses use NPI because it is the only provider identifier available in MSIS. In many cases, particularly for older claims, legacy (Medicaid) identifiers are commonly reported rather than NPIs. Thus, we crosswalked legacy identifiers to NPIs using the most recent version of the National Plan & Provider Enumeration System (NPPES) database (which contains both fields) to ensure that we captured all claims for qualifying services rendered by our demonstration and comparison FQHCs. However, for many providers, we were unable to crosswalk a legacy identifier to an NPI. We have requested a comprehensive crosswalk file from Medi-Cal to be able to capture all claims from our demonstration and comparison FQHCs, even if these providers use their legacy identifiers at some point during our study period. Once we obtain this crosswalk, we will update our attribution results and performance measures.
2. *Completeness of managed care “encounter” data.* Although analyses conducted by Mathematica Policy Research suggest that California’s data are usable for research purposes, Medi-Cal’s Chief Medical Information Officer who oversees MSIS reporting cautioned RAND about the completeness of California’s encounter data. RAND plans to continue interacting with Medi-Cal to better understand the limitations of encounter reporting.
3. *Accounting for billing adjustments.* Unlike the TAP files RAND receives from ARC, which are refreshed on an ongoing basis, MSIS data include both original claims and adjustments to original claims as separate records. In California, there is no straightforward way to link original claims and adjustments at the level of individual procedures because there are no unique line-level identifiers in California’s MSIS data. Medi-Cal representatives have confirmed that the lack of line numbers to designate unique line items on a claim is a limitation of their data. This limitation did not affect our ability to measure quality or utilization (for which RAND uses original claims only) but it did require us to develop an alternative approach to measure payments by aggregating all original claims and



- adjustment records and estimating the net payment per enrollee per quarter across both sets of records.
4. *Lack of payment data for managed care encounters.* Encounter records that capture services provided to managed care enrollees in all settings except acute care hospitals do not include paid amounts because individual providers do not bill managed care plans for many of these services. To address this issue, RAND developed a method to impute payments for outpatient services (described below). We then applied these imputed payments for all non-acute services for both managed care and fee for service enrollees. Medi-Cal has agreed to provide feedback on RAND’s approach for estimating payments.
  5. *Different coding systems.* Medicaid programs often make use of local coding systems that differ from national systems like HCPCS. These services are very difficult to characterize without a crosswalk file that identifies the meaning of these local codes. RAND has requested such a file from Medi-Cal but, at the time of the writing of this report, we have not received this file. RAND will update our utilization and cost estimates after we receive the crosswalk file.
  6. *Challenges measuring the costs of dual eligibles.* We weighed the pros and cons of linking Medicaid claims for the same service (otherwise known as “crossover” claims) for dual-eligible Medicare beneficiaries. Doing so has two main advantages. First, it would provide a better estimate of the total cost of care for the dual-eligible population (because it would include the cost-sharing borne by state Medicaid programs on behalf of dual-eligibles). Second, matching claims allows us to better summarize utilization of services that are not covered by Medicare but are covered by Medicaid. The most notable example of such a service is nursing home coverage, for which Medicare covers only short-term stays in skilled nursing facilities. However, there are two main challenges associated with linking Medicare and Medicaid claims. First, MSIS lacks certain data elements (e.g., Medicare-paid amount) that have been used by other organizations to match Medicare and Medicaid claims for the same beneficiary. Inaccuracies in coding between Medicare and Medicaid claims, such as dates of service, also have been shown to produce low matching rates.<sup>24</sup> Second, the lack of data on payment amounts for Medicaid managed care enrollees (which

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<sup>24</sup> C. Prella, G. Baumgardner, et al., “Challenges in Merging Medicaid and Medicare Databases to Obtain Healthcare Costs for Dual-Eligible Beneficiaries: Using Diabetes as an Example,” *Pharmacoeconomics*, Vol. 27, No. 2, 2009, pp. 167–177

includes a substantial number of duals) raises some concerns about the validity of the resulting cost estimates for duals.

We determined that the advantages of linking Medicare and Medicaid claims did not outweigh the expected costs. First, linking Medicare and Medicaid claims presupposes that doing so will provide an estimate of total costs. However, even if we were to successfully link claims, we still would not capture the full cost of care for either dual or nondual enrollees because we do not account for costs borne by beneficiaries that are covered by Medigap policies. Second, as discussed below, our need to impute payment amounts for services provided to Medicaid managed care enrollees suggests that our cost-related analyses already face significant shortcomings. We recognize that our methods for estimating Medicaid payments differs substantially from our method for estimating Medicare payments; and we will continue to refine our methodology for estimating Medicaid payments.

Furthermore, we do not hypothesize any impact of the APCP intervention on utilization of long-term care—the main service covered by Medicaid that we would not be capturing by using Medicare data only. Part of this belief is based on the fact that the Medicare population represents, in general, only a small percentage of an FQHC’s total patient population. Moreover, only 2 percent of Medicare beneficiaries attributed to FQHCs have two or more skilled nursing facility (SNF) visits in the year preceding the demonstration. Thus, we do not believe that the APCP intervention will have a significant impact on long-term care utilization.

#### **VIII.D. Methods for Medicaid Analyses**

Our Medicaid analyses used an ITT design that followed a single cohort for a 2-year period of follow-up (at the time of the writing of this report) comprising a 12-month baseline period and an 12-month demonstration period. Enrollees were included in the ITT analysis if they were eligible for attribution and were ultimately attributed to a demonstration FQHC or comparison FQHC using the criteria described below.

To be eligible for attribution, enrollees were required to meet four criteria for the 12-month period before the start of the demonstration. The four criteria included: (1) survival to the end of the 12-month period, (2) continuous eligibility for full Medicaid benefits, (3) age 18 and older, and (4) not enrolled in Medicare (i.e., non-dual enrollee).

We required enrollees to have full benefits to ensure that our measurement of quality, cost, and utilization are not biased by the absence of claims for services for which an enrollee lacks coverage. For example, certain Medicaid enrollees are eligible for only pregnancy-related services or family planning services, while other enrollees may be

eligible for a restricted benefits package due to their citizenship status. We excluded children because we expect medical home transformation to affect adults—particularly those with one or more chronic conditions. Finally, we excluded duals because Medicare is the primary payor for duals and thus both cost and utilization are more accurately captured by Medicare claims. **A total of 1,221,164 Medicaid enrollees from California met these criteria and were eligible for attribution.**

We then attributed eligible enrollees to FQHCs or other primary care providers using methods similar to those used in our Medicare analyses. In California, FQHCs use service code 01 to bill Medicaid for each all-inclusive visit and service code 18 for managed care enrollees. We used HCPCS code ranges identical to those for our Medicare analyses to identify services provided by non-FQHC primary care providers. **A total of 28,442 enrollees were attributed to demonstration FQHCs while 68,015 enrollees were attributed to comparison FQHCs.** Among demonstration FQHCs, an average of 508 enrollees were attributed per site, while among comparison FQHCs, an average of 727 enrollees were attributed per site.

We examined quality, cost, and utilization measures using methods analogous to those used for our Medicare cohort. The only exceptions are noted below.

To derive Medicaid payments, we used Medi-Cal fee schedule reimbursement rates associated with individual HCPCS codes to impute payment rates for each type of service. These imputed payments were used for both FFS and managed care enrollees. Because the Medi-Cal fee schedule does not include the all-inclusive rates paid to FQHCs, we used a rate of \$155/visit, which was the average payment to FQHCs for an all-inclusive visit in 2009.<sup>25</sup> We then aggregated payments within specific categories of services using service category indicators available in MSIS. We used this approach (rather than matching our Medicare payment categories, which were based on specific HCPCS code ranges) because of the large number of service codes appearing in MSIS that used a coding system other than HCPCS. We estimated Medicaid payments within each of five categories: 1) total payments, 2) acute care hospital payments, 3) outpatient hospital payments, 4) outpatient clinic payments, and 5) physician payments. We may modify our approach after receiving additional service code information from Medi-Cal.

To derive ED utilization rates, we used HCPCS code ranges in conjunction with place of service code 23 (“emergency department”), rather than revenue center codes, because Medi-Cal does not use revenue codes to reimburse providers for services rendered in

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<sup>25</sup> RAND has requested FQHC prospective payment reimbursement rates from Medi-Cal to refine our approach to estimating payments to FQHCs.

outpatient hospital settings. To derive inpatient admission rates, we included all records appearing in the inpatient data file, which contains only admissions to acute care hospitals.

## VIII.2. Results of Medicaid Analyses

All regression analyses are included in Appendix D: Medicaid Claims Analyses. As of the writing of this annual report, all results are unadjusted for beneficiary, site, grantee, or area-level characteristics, and all results are limited to California. In our preliminary cost analyses, total costs were lower over time for both demonstration and comparison FQHCs, with even lower costs noted for demonstration than for comparison FQHCs. The same pattern held for physician costs. We found no statistically significant differences between demonstration sites and comparison sites for the other three cost measures (acute care hospital costs, outpatient hospital costs, and outpatient clinic costs).

For the two utilization measures we have analyzed at this point, we found no statistically significant impact of the demonstration. Of note, inpatient admission rates have declined consistently over the baseline and one-year intervention periods whereas ED visit rates exhibit no consistent patterns in unadjusted analyses.

## VIII.3. Next Steps for Medicaid Analyses

In the coming weeks, our plans to complete Medicaid analyses for the state of California will include three main steps. First, we will work with Medi-Cal to enhance our MSIS files with the supplemental crosswalk files described above. These enhancements may suggest ways of improving one or more performance measures—particularly our method for measuring payments. We will then vet our proposed methodology for estimating Medicaid payments with Medi-Cal officials. Second, we will finish generating additional measures to match our Medicare analyses, including (1) preventable admissions, (2) unplanned readmissions, and (3) five process measures for enrollees with diabetes and one process measure for enrollees with ischemic heart disease. We also plan to add three other screening measures, for breast cancer, cervical cancer, and chlamydia. Third, we will integrate comorbidity adjustment into these analyses and then generate adjusted estimates of the demonstration impact. We will then begin analyses for our next two highest priority states, New Mexico and Virginia.

## IX. Beneficiary Survey

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To collect information on patient experience of care at FQHCs, we have conducted a patient survey using items from validated instruments and focusing on aspects of patient experience especially pertinent to FQHCs. The survey will be fielded twice, near the beginning and end of the intervention, allowing analyses of changes in responses over the course of the demonstration.

Collecting information on the impact of the demonstration on patient experience of care is a critical component of the evaluation. Patients are the best source of this information. Patient-experience-of-care data collected with the expanded Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS PCMH) Survey will be used to evaluate whether FQHCs participating in the demonstration provide

- more timely delivery of health services to Medicare beneficiaries
- better coordination of care for Medicare beneficiaries
- improved coordination of care for Medicare beneficiaries
- better experiences with the health care system, including more effective participation in decisions about health care for Medicare beneficiaries.

Details of the Medicare beneficiary survey are described below.

### IX.1. Development of the Beneficiary Survey

We have used the expanded CG-CAHPS with the PCMH Item Set. CAHPS surveys are known for their blend of standardization and scientific rigor, and have become the industry standard for assessing patient experience of care. Results of the surveys are used for quality improvement, public reporting, accreditation, and quality monitoring at the federal and state levels.

The CG-CAHPS survey asks patients to report on their experiences with health care providers and staff in doctors' offices over the past 12 months. The survey produces the following measures of patient experience in

- getting timely appointments, care, and information
- how well providers (or doctors) communicate with patients
- helpful, courteous, and respectful office staff
- patients' ratings of the provider (or doctor).

The PCMH Item Set is a set of supplemental items that—when used in conjunction with CG-CAHPS—assesses patients’ experience with the domains of the medical home. The items address the following six topic areas:

- access to care
- comprehensiveness
- self-management support
- shared decisionmaking
- coordination of care
- information about care and appointments.

We supplement the CG-CAHPS PCMH Survey to encompass a much wider range of health outcomes, patient reports of quality of care, and other factors that may modify the impact of the FQHC ACP Demonstration at the individual beneficiary level. The beneficiary survey contains the CG-CAHPS 12-Month Survey with PCMH Items,<sup>26</sup> six CG-CAHPS Health Literacy items,<sup>27</sup> nine CG-CAHPS Cultural Competence items,<sup>28</sup> the modified Social Functioning—12 item scale (SF-12),<sup>29</sup> the Four-Item Patient Health Questionnaire (PHQ-4) for Anxiety and Depression,<sup>30</sup> two body mass index (BMI) assessment items (height and weight),<sup>31</sup> a battery of 30 comorbidity items derived from the self-report version of the Charlson Index and specifically developed to pertain to safety-net populations,<sup>32</sup> and an item assessing ten aspects of “stress associated with indigence.”<sup>33</sup>

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<sup>26</sup> Agency for Healthcare Research and Quality, “About CAHPS,” 2012a. Retrieved December 10, 2012, from <http://www.cahps.ahrq.gov/about.htm>

<sup>27</sup> Agency for Healthcare Research and Quality *About the CAHPS Item Set for Addressing Health Literacy*, U.S. Department of Health and Human Services. Rockville, Md. 20850: 11, 2012c.

<sup>28</sup> Agency for Healthcare Research and Quality, *About the CAHPS Cultural Competence Item Set*, U.S. Department of Health and Human Services. Rockville, Md. 20850: 11, 2012b.

<sup>29</sup> Litwin, M. S. and K. A. McGuigan, “Accuracy of Recall in Health-Related Quality-of-Life Assessment Among Men Treated for Prostate Cancer,” *Journal of Clinical Oncology* Vol. 17, No. 9, 1999, pp. 2882–2888.

<sup>30</sup> R.L. Spitzer, J. B. W. Williams, et al., *Patient Health Questionnaire (PHQ-4)*, New York, Pfizer Inc., 1999; K. Kroenke, R. L. Spitzer, et al., “An Ultra-Brief Screening Scale for Anxiety and Depression: The PHQ-4,” *Psychosomatics*, Vol. 50, No. 6, 2009, pp. 613–621.

<sup>31</sup> National Heart, Lung, and Blood Institute (NHLBI), “Calculate Your Body Mass Index,” 2012. As of December 10, 2012: <http://nhlbisupport.com/bmi/>

<sup>32</sup> J. N. Katz, L. C. Chang, et al., “Can Comorbidity Be Measured by Questionnaire Rather Than Medical Record Review?” *Medical Care*, Vol. 34, No. 1, 1996, pp. 73–84; M. E. Charlson, P. Pompei, et al., “A

RAND has fielded four different versions of the beneficiary survey. Each survey version contains the “core” items documented above (common across all versions) and a set of “rotation” items (unique to each version). Fielding each of the four different versions to a randomly selected set of 25 percent of the beneficiary survey sample allows us to gather data on the constructs measured by the rotation items while reducing the overall length of the survey instrument, versus fielding all rotation items to all sampled beneficiaries. The rotation items are as follows:

- *Rotation 1 (Preventive Care)* contains everything in the core survey, plus ten prevention items about immunizations, colorectal cancer screening, and prophylactic aspirin. We selected these prevention items because their assessment via claims is problematic, either due to performance falling outside the available claim look-back period (e.g., colonoscopy occurring more than five years in the past) or services being commonly obtained from providers that do not bill Medicare (e.g., flu vaccines from community drives, over-the-counter baby aspirin).
- *Rotation 2 (Counseling and Continuity)* contains everything in the core survey plus eight counseling items and three interpersonal continuity-of-care items. The counseling items are about weight loss and smoking. We included the interpersonal continuity-of-care items because they are concordant with the PCMH/APCP theoretical model and because the TA has emphasized empanelment.
- *Rotation 3 (“Specialists and Access”)* contains everything in the core survey plus three items about access to home and community resources, six items about access to specialists, and three items about transportation. We included items about access to home and community resources because they are concordant with the PCMH/APCP theoretical model. We included items about specialists and transportation because we have learned from FQHC subject-area experts from HRSA and other organizations that beneficiary access to good specialists and

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New Method of Classifying Prognostic Co-Morbidity in Longitudinal-Studies: Development and Validation,” *Journal of Chronic Diseases*, Vol. 40, No. 5, 1987, pp. 373–383.

33 J. S. Jackson, C. Caldwell, et al., *National Survey of American Life Self-Administered Questionnaire (NSAL-SAQ), February 2001–June 2003*, Inter-University Consortium for Political and Social Research (ICPSR), 2010; J. S. Jackson, M. Torres, et al., “The National Survey of American Life: A Study of Racial, Ethnic and Cultural Influences on Mental Disorders and Mental Health.” *International Journal of Methods In Psychiatric Research*, Vol. 13, No. 4, 2004, pp. 196–207.

- “enabling factors,” such as transportation, are key determinants of the overall quality of care that FQHC patients receive.
- *Rotation 4 (“Hospital and Comprehensiveness”)* contains everything in the core survey plus six items about comprehensiveness and four items about coordination with hospital care. We included items about comprehensiveness and coordination with hospital care because they are concordant with the PCMH/APCP theoretical model.

## IX.2. Fielding the Beneficiary Survey

### **IX.2A. Mode of Administration**

In fielding the survey, we have followed the CAHPS guidelines for data collection. The survey was fielded concurrently in both English and Spanish, using a mixed-mode data-collection approach (mail with telephone follow-up to nonrespondents). To maximize response rates, all survey materials, in addition to the survey instruments, have been written using simple, lay language and translated into Spanish. In addition to the survey, CMS-approved support materials include an advance notification letter, survey cover letters, a telephone script, frequently asked questions, and a thank-you letter with an address update card. Beneficiaries designated as having a high probability of being Spanish-speaking (based on a RAND-developed algorithm that predicts Spanish preference), were mailed both an English and a Spanish version of the survey. We used bilingual interviewers to conduct the telephone follow-up with nonrespondents. We offered a \$10 post-paid incentive for completing the survey: Each beneficiary received a check for \$10 with a thank-you letter and an address update card after we received his or her completed survey (or after they completed the survey by telephone).

### **IX.2B. Population to be Surveyed**

We selected the beneficiary survey sample by selecting Medicare beneficiaries from practices attributed to demonstration and comparison sites, including both FQHC and PCC comparison sites. As with the larger evaluation, the inclusion of PCC sites provides the opportunity to include a comparison group of practices not contaminated by exposure to the CMS FQHC APCP, even though the PCC practice sites are likely to differ somewhat from FQHCs. To select the beneficiary survey sample, we first matched demonstration sites to comparison sites using propensity score methods. Then, within each site, we selected participants randomly (estimating a completion of 14 surveys per site) while stratifying on the characteristics we planned to oversample:



- age (i.e., less than 65 versus age 65 or older)
- dual Medicare eligibility (i.e., Medicare with Medicaid eligibility versus Medicare without Medicaid eligibility)
- HCC scores (in the 75th percentile versus below the 75th percentile)
- probability of Spanish-language preference (high versus low).

In order to be eligible for the survey, beneficiaries had to have been attributed to either a demonstration FQHC intervention site or a comparison site according to the plurality rule.<sup>34</sup> For the baseline survey, we created a sample file of 28,235 beneficiaries attributed to demonstration or comparison FQHCs and listing first and last name, date of birth, aged or disabled eligibility status, Medicare only or dual eligibility, HCC scores, probability of Spanish-speaking preference, and mailing address. A similar file has been created for 2,412 beneficiaries attributed to comparison PCCs. We stratified our analyses according to beneficiary characteristics in order to have enough of a sample to conduct subgroup analyses in different groups.

### IX.3. Fielding the Baseline Survey

The baseline survey main sample included 30,647 Medicare beneficiaries, 28,235 of whom were attributed to the demonstration or comparison FQHC sites, and 2,412 of whom were attributed to PCCs. The survey protocol included a mailing of a prenotification letter printed on CMS letterhead on May 15, 2013, a mailing of the first survey approximately one week later on May 23, 2013, a mailing of a reminder letter printed front and back in both English and Spanish, and an automated reminder call two weeks later (on June 6, 2013). A second survey mailing went out three weeks after the reminder (on June 27, 2013). Telephone follow-up with beneficiaries who failed to respond to the survey by mail commenced almost four weeks after the second survey mailing, on July 22, 2013, and continued through October 7, 2013.

Prior to the start of data collection, the sample file was processed using address standardization software to ensure that all addresses were complete and valid, and we

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<sup>34</sup> RAND's plurality rule assigns a beneficiary to the provider who offers the greatest number of primary care services over a 12-month period. RAND's attribution rule allows beneficiaries to be attributed to one of four types of providers: demonstration FQHCs or one of three types of comparison sites (FQHCs not participating in the demonstration, rural health clinics, or primary care clinics). By contrast, the attribution rule used by CMS (that ultimately determines the allocation of care management fees to demonstration FQHCs) restricts the sample of providers eligible for attribution to demonstration FQHCs alone. See Section II.4A for further discussion of attribution rules.

obtained address updates using the National Change of Address file. In addition to the sample file with beneficiary addresses, we obtained telephone numbers from the Social Security Administration and ran the sample with telephone numbers through a data processing service (Relevate, formerly known as Telematch) to obtain updated telephone numbers for the sample. Exhibit IX.1 provides an overview of outcome of the telephone update process.

**Exhibit IX.1: Overview of the Telephone Sample**

<b>Telephone Sample</b>	<b>Number of FQHCs (%)</b>	<b>Number of PCCs (%)</b>
Usable numbers provided by SSA	23,919 (84.71%)	1,988 (82.42%)
Missing/unusable/duplicate numbers provided by SSA	4,316 (15.29%)	424 (17.58%)
Missing/unusable numbers updated by Relevate	1,485 (5.26%)	161 (6.67%)
<b>Total usable numbers</b>	<b>25,404 (89.97%)</b>	<b>2,149 (89.10%)</b>
<b>Total flagged duplicates</b>	<b>314 (1.11%)</b>	<b>10 (0.41%)</b>
<b>Total missing/unusable numbers</b>	<b>2,517 (8.91%)</b>	<b>253 (10.49%)</b>

As noted in Exhibit IX.1, we were able to obtain a potentially usable number for 90 percent of the sample. In order to evaluate the validity of the telephone numbers in our sample, we used an automated reminder call deployed at the same time as the reminder letter. The reminder call served two purposes: 1) to provide a telephone reminder to respondents, and 2) to identify how many of the telephone numbers in our sample were actually valid, working numbers. Out of the approximately 90 percent of usable numbers we started with, we found that approximately 62 percent of them were verified as working numbers, while ~11 percent were verified as nonworking numbers, and ~27 percent were unverifiable. A telephone number was verified as a working number when a call went through and was answered with either a Spanish or English speaker (this could include both a live person or an answering machine, voice mail, etc.), although these numbers were not verified as belonging to the target respondent. A telephone number was verified as nonworking when it had the standard “number disconnected”/ “number nonworking” message with the three tones preceding it. Telephone numbers we were unable to verify through the automated reminder call included cases where the telephone number rang but there was no answer, or there was a pickup followed by silence.

We completed the mail portion of the data collection protocol with a 30 percent response rate (attained three weeks after the second survey mailing). Approximately 6 percent of the sample had an undeliverable address. We implemented telephone follow-up with 20,825 cases that had failed to complete a mail survey, including cases that had been identified as having a “bad number” by the automated dialer used in making the

reminder phone call. Cases identified as having a high probability of preferring to speak in Spanish were routed to a bilingual interviewer. Telephone follow-up was conducted over a period of 11 weeks and yielded a 15 percent increase in the response rate. Of the cases routed to the phone center for follow-up, 45 percent were found to have a “bad number,” including cases with nonworking numbers, cases where the household had never heard of the respondent, and cases where the number was disconnected and we were unable to find a new number or the number was listed as unpublished. In addition, about 5 percent of the phone sample was identified as having a working number but using caller ID/privacy screening to block calls. We modified the caller ID used in our phone center about halfway through the phone follow-up effort, and this seemed to help improve our ability to communicate with households (changed the caller ID from “blocked” to the name of the survey). Halfway through the telephone follow-up field period, we again attempted to obtain updated telephone numbers for the sample through the Relevate database and were able to obtain 200 updated landline telephone numbers, as well as approximately 2,000 cell phone numbers. In addition, we used Lexis-Nexis to attempt to track approximately 500 cases where we had unable to obtain a valid telephone number from Relevate.

We completed the baseline survey with an overall response rate of 45 percent (12,903 completed and partial interviews) and a refusal rate of 5 percent. Less than 1 percent of the completed interviews were completed with a proxy respondent (n=167). Out of 12,903 completed and partial interviews, 10,141 (~79 percent of all completes) interviews were completed by mail and 2762 (21 percent) were completed by phone. Of the surveys completed by mail, 9,078 were completed in English (90 percent of all completes) while 1,063 (10 percent) were completed in Spanish. Approximately 6 percent of the sample had an undeliverable address and another 6 percent was deemed ineligible (deceased at the time of data collection, language barrier, or incapacitated and unable to complete the interview). Exhibit IX.2 provides an overview of the survey results.

**Exhibit IX.2: Final Beneficiary Survey Status Report**

Sample Type	Return Rate**	Refusal Rate**	Sample Size	Total Returns	M1 - English	M1 - Spanish	M2 - English	M2 - Spanish	Tele English	Tele Spanish	Undeliverables	Total Ineligibles	Blank/Refusal	Removed from follow-up
Answer type	%	%	N	N	N	N	N	N	N	N	N	N	N	N
Age (<65)	45	5	17,972	7,389	4,082	343	1,237	145	1,109	473	1,015	770	757	6,005
Age (65+)	44	6	13,575	5,514	2,874	420	885	155	613	567	728	1,174	732	4,752
Dual eligible	44	4	16,058	6,627	3,471	460	1,083	193	821	599	1,016	1,064	599	5,922
High HCC	45	5	12,973	5,388	2,944	245	902	98	839	360	867	1,065	556	4,548
Low HCC	45	6	17,674	7,515	4,012	518	1,220	202	883	680	876	879	933	62,099
High Spanish preference	41	4	12,838	4,983	2,070	690	662	269	325	967	796	770	440	4,741
<b>Total</b>	45	5	30,647	12,903	6,956	763	2,122	300	1,722	1,040	1,743	1,944	1,489	9,268

**NOTES:**

Return Rate=Total returns/(Sample size-ineligibles)

Refusal Rate=Blank or Refused/(Sample size-ineligibles)

SOURCE: RAND Survey Group, 10/08/2013

Of the 1,489 refusals, 92 percent were obtained from the phone follow-up, with 7 percent received from surveys marked as refused and returned or from calls to the 800 line. About 1 percent of the refusals are attributed to surveys that were returned blank. Refusal conversion was attempted on soft refusals and we were able to convert 10 percent of these into completes.

Response rates across survey rotation and strata were very similar across all strata at 45 percent, with the exception of the dual-eligibility stratum, which had a response rate of 44 percent, and the Spanish preference stratum, which had a response rate of 41 percent. Of note, the dual-eligibility stratum had the largest proportion of bad telephone numbers, at 54 percent, compared with a 52 percent average for the other strata.

There is also a difference in response rate by sample type (FQHC vs. PCC), with a 4-percentage point difference between FQHC beneficiaries (whose response rate was 45 percent) and the 2,412 Medicare beneficiaries attributed to PCCs, as PCC beneficiaries showed an overall response rate of 41 percent. The difference in response rate between beneficiaries attributed to FQHCs and to PCCs can probably be attributed to a higher refusal rate for PCC respondents, at 8 percent compared with 5 percent for FQHC

beneficiaries, and to a higher ineligible rate of 8 percent for PCC beneficiaries, percent compared with 6 percent for FQHC beneficiaries.. The proportion of “bad telephone numbers” across the sample type was 42 percent for both and the proportion of undeliverable addresses across sample types was 5 percent for both.

The average telephone interview length was 33 minutes, with 90 percent of the interviews conducted by phone completed between 15 and 45 minutes. Cases routed to phone follow-up required multiple attempts (attempts to reach a respondent by phone had to be made on different days of the week and different times of day in order to count as a separate attempt). Exhibit IX.3 provides an overview of the number of attempts required to complete a telephone interview.

**Exhibit IX.3: Overview of Number of Call Attempts to Complete a Telephone Interview**

<b>Number of Telephone Attempts</b>	<b>Percent of the Sample</b>
1	21.10
2	14.60
3	11.10
4	9.20
5	6.80
6	6.60
7+	30.60

## IX.4. Beneficiary Survey Items That Will Inform Evaluation Research Questions

This section summarizes the key survey domains and shows how items associated with survey domains will inform evaluation research questions.

### **IX.4A. Visits to the Attributed Provider**

Beneficiary Survey Section 1, *Visits to the Attributed Provider*, verifies beneficiaries have received care from the provider to whom they were attributed using claims data. It also documents the types of providers the beneficiary sees within the attributed practice, and whether this is the provider whom the beneficiary sees when wanting advice about a health problem, or when sick. Beneficiaries have the opportunity to describe key roles played by the provider they see in the attributed practice. This section also documents the duration of the beneficiaries' relationship with this provider and the frequency of visits to this provider.

These survey items support our understanding of the beneficiaries' experiences with their attributed practice/FQHC. This analysis supports the research question:

- Do Medicare beneficiaries become more loyal to participating FQHCs—and if so, does this increased loyalty cause unintended consequences (e.g., decreased access) for other non-Medicare patients? (Research question 1.3D)

**Exhibit IX.4: Beneficiary Survey Section—Visits to the Attributed Provider**

**Beneficiary Survey Section 1—Visits to the Attributed Provider**

1, 1, 1, 1 <sup>35</sup> Rotation: All	Our records show that you got care from the clinic named below. Is that right? †					No valid response <sup>36</sup>
	n	Yes	No			
Demonstration	6113	91.07	5.73			3.21
Comparison	6213	91.58	5.42			2.99
	p-value: 0.4922					
2, 2, 2, 2 Rotation: All	Is the provider you saw on your most recent visit to this clinic or practice a...? Conditional on passing gate items 1, 1, 1, 1					No valid response
	n	Primary care doctor?	Specialist doctor?	Nurse or nurse practitioner?	Another type of health provider?	
Demonstration	5763	63.16	5.83	13.15	3.75	14.11
Comparison	5876	62.7	5.72	14.19	4.12	13.27
	p-value: 0.5771					
3, 3, 3, 3 Rotation: All	Is this the provider you usually see if you need a check-up, want advice about a health problem, or get sick or hurt? Conditional on passing gate items 1, 1, 1, 1					No valid response
	n	Yes	No			
Demonstration	5763	78.05	11.04			10.91
Comparison	5876	76.58	12.59			10.82
	p-value: 0.0159					

<sup>35</sup> Within Exhibits IX.4 through IX.16, we present the survey item, and for demonstration and comparison FQHC survey respondents, we present survey data. Within the upper left corner of each cell of the exhibits, we present a four digit number. For example, within the first row in Exhibit IX.4, “1,1,1,1” is presented indicating that this survey item represents survey item 1 within each of the four survey rotations. This four-digit number sequence allows the evaluation team to link the survey data with the rotation-specific survey items. Within these exhibits, nonvalid responses have been omitted from statistical testing.

<sup>36</sup> Footnote 36 notes that we have omitted the nonvalid responses from statistical testing.

4, 4, 4, 4 Who do you usually see if you need a check-up, want advice about a health problem, or get sick or hurt? Conditional on passing gate items 1, 1, 1, 1 and 3, 3, 3, 3  
Rotation: All

	n	Another doctor in this office	Another nurse in this office	A doctor or nurse in another site	Emergency room	Not a doctor or nurse	Other	No valid response
Demonstration	764	27.88	4.84	33.12	12.3	2.09	1.18	18.59
Comparison	887	31	5.75	33.71	10.82	1.69	1.35	15.67
p-value: 0.7439								

5, 5, 5, 5 Is this provider the one who has been most helpful during the last 12 months in helping you decide whether or not to have tests or treatments, or to change your health habits? Conditional on passing gate items 1, 1, 1, 1

Rotation: All

	n	Yes	No	No valid response
Demonstration	5763	78.1	12.15	9.75
Comparison	5876	77.6	13.26	9.14
p-value: 0.1231				

6, 6, 6, 6 Is this provider the one who is most likely to help you with your most important medical problems? Conditional on passing gate items 1, 1, 1, 1

Rotation: All

	n	Yes	No	No valid response
Demonstration	5763	77.7	12.63	9.67
Comparison	5876	77.01	13.82	9.17
p-value: 0.1095				

7, 7, 7, 7 Is this provider the one who is in charge of following up on your health and medical conditions if you need help? Conditional on passing gate items 1, 1, 1, 1

Rotation: All

	n	Yes	No	No valid response
Demonstration	5763	81.26	9.35	9.39
Comparison	5876	80.53	10.25	9.22
p-value: 0.1371				

8, 8, 8, 8 How long have you been going to this provider? Conditional on passing gate items 1, 1, 1, 1

Rotation: All

	n	<6 months	6-12 months	1-3 years	3-5 years	>=5 years	No valid response
Demonstration	5763	6.51	5.12	16.88	17.96	43.05	10.48
Comparison	5876	7.3	5.53	17.04	17.24	43.16	9.73
p-value: 0.5320							

9, 9, 9, 9 In the last 12 months, how many times did you visit this provider to get care for yourself? Conditional on passing gate items 1, 1, 1, 1

Rotation: All

	n	0	1 time	2 times	3 times	4 times	5-9 times	10+ times	No valid response
Demonstration	5763	6.75	7.53	11.76	13.53	17.07	19.61	10.12	13.62
Comparison	5876	6.88	7.62	12.3	14.47	16.3	19.54	10.3	12.59
p-value: 0.7996									



#### ***IX.4A.1. Use of a Personal Provider***

Beneficiary Survey Section 2, *Personal Doctor or Nurse*, documents whether the beneficiary has a personal doctor or nurse, and the frequency with which this personal provider is seen.

These survey items also support our understanding of the beneficiaries' experiences with a personal provider again asking the research question:

- Do Medicare beneficiaries become more loyal to participating FQHCs and if so, does this increased loyalty cause unintended consequences (e.g., decreased access) for other non-Medicare patients? (Research question 1.3D)

**Exhibit IX.5: Beneficiary Survey—Personal Doctor or Nurse**

**Beneficiary Survey Section 2—Personal Doctor or Nurse**

NA, 72, NA, NA A personal doctor or nurse is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor or nurse at the clinic named in item #1? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 2

	n	Yes	No	No valid response
Demonstration	1453	65.04	22.64	12.32
Comparison	1504	63.23	24.73	12.03
p-value: 0.2273				

NA, 73, NA, NA Do you have a personal doctor or a personal nurse? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 72, NA, NA

Rotation: 2

	n	Personal doctor	Personal nurse	DK whether personal doctor or nurse	No valid response
Demonstration	1124	0	67.24	9.91	12.44
Comparison	1132	0	66.7	10.63	13.46
p-value: 0.6568					

NA, 74, NA, NA In the last 12 months, when you had a visit at your personal doctor or nurse's office, how often did you see your personal doctor or nurse (not another provider from the office)? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 72, NA, NA

Rotation: 2

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	1124	0	7.97	10.19	13.93	9.49
Comparison	1132	0	7.89	10.72	16.48	9.61
p-value: 0.3875						

#### **IX.4A.2. Access and Timeliness at the Attributed Practice**

Beneficiary Survey Section 3, *Access and Timeliness at the Attributed Practice*, reports the beneficiaries' access to the provider's office and providers under routine and urgent conditions, and during routine daytime versus evening and weekend hours.

These survey items pertain to the research questions:

- Do FQHCs participating in the demonstration provide better or enhanced access to Medicare beneficiaries' PCMH providers? If so, what features facilitate better or enhanced access and what outcomes result from these improvements? (Research question 2.1E)
- Do FQHCs participating in the demonstration provide more timely delivery of health services to Medicare beneficiaries? If so, what features facilitate more timely health care delivery and what outcomes result from these improvements? (Research question 2.1F).

**Exhibit IX.6: Beneficiary Survey—Access and Timeliness at the Attributed Practice**

**Beneficiary Survey Section 3—Access and Timeliness at the Attributed Practice**

10, 10, 10, 10	In the last 12 months, did you phone this provider's office to get an appointment for an illness, injury or condition that needed care right away? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Yes	No				No valid response
Demonstration	5374	48.96	35.62				15.43
Comparison	5472	47.2	38.47				14.33
	p-value: 0.0124						
11, 11, 11, 11	In the last 12 months, when you phoned this provider's office to get an appointment for care you needed right away, how often did you get an appointment as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 10, 10, 10, 10						
Rotation: All							
	n	Never	Sometimes	Usually	Always	No valid response	
Demonstration	2725	4.37	15.08	23.78	50.46	6.31	
Comparison	2674	3.63	14.1	25.77	50.49	6.02	
	p-value: 0.2277						
12, 12, 12, 12	In the last 12 months, how many days did you usually have to wait for an appointment when you needed care right away? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 10, 10, 10, 10						
Rotation: All							
	n	Same day	1 day	2 to 3 days	4 to 7 days	More than 7 days	No valid response
Demonstration	2730	28.39	20.07	22.05	11.79	10	7.69
Comparison	2677	30	21.14	22.34	9.94	8.89	7.7
	p-value: 0.1493						
13, 13, 13, 13	In the last 12 months, did you make any appointments for a check-up or routine care with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Yes	No				No valid response
Demonstration	5374	71.6	14.05				14.35
Comparison	5472	71.22	15.24				13.54
	p-value: 0.1400						

14, 14, 14, 14 In the last 12 months, when you made an appointment for a check-up or routine care with this provider, how often did you get an appointment as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 13, 13, 13, 13

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3904	2.66	11.32	24.97	54.12	6.92
Comparison	3959	2.17	11.01	26.22	54.26	6.34
		p-value: 0.4393				

15, 15, 15, 15 Did this provider's office give you information about what to do if you needed care during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	64.05	21.81	14.14
Comparison	5472	63.8	22.92	13.29
		p-value: 0.3352		

16, 16, 16, 16 In the last 12 months, did you need care for yourself during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	25.55	59.34	15.11
Comparison	5472	25.44	60.14	14.42
		p-value: 0.6920		

17, 17, 17, 17 In the last 12 months, how often were you able to get the care you needed from this provider's office during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 16, 16, 16, 16

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	1480	44.66	15.88	12.3	19.46	7.7
Comparison	1534	42.05	15.19	12.32	22.49	7.95
		p-value: 0.2367				

18, 18, 18, 18 In the last 12 months, did you phone this provider's office with a medical question during regular office hours? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	42.04	43.1	14.87
Comparison	5472	41.32	45.19	13.49
		p-value: 0.1485		

19, 19, 19, 19 In the last 12 months, when you phoned this provider's office during regular office hours, how often did you get an answer to your medical question that same day? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 18, 18, 18, 18

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	2314	7.61	17.24	24.76	44.99	5.4
Comparison	2317	7.68	17	27.1	43.33	4.88
p-value: 0.4138						

20, 20, 20, 20 In the last 12 months, did you phone this provider's office with a medical question after regular office hours? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	8.54	76.55	14.91
Comparison	5472	8.21	77.87	13.93
p-value: 0.4141				

21, 21, 21, 21 In the last 12 months, when you phoned this provider's office after regular office hours, how often did you get an answer to your medical question as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 20, 20, 20, 20

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	602	22.26	15.45	23.09	33.22	5.98
Comparison	604	22.68	15.73	17.72	38.08	5.79
p-value: 0.0968						

23, 23, 23, 23 Wait time includes time spent in the waiting room and exam room. In the last 12 months, how often did you see this provider within 15 minutes of your appointment time? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	17.98	22.74	26	17.92	15.37
Comparison	5472	19.1	22.88	25.55	18.37	14.11
p-value: 0.7263						

### ***IX.4A.3. Processes and Outcomes Associated with the Attributed Practice and Provider***

Beneficiary Survey Section 4, *Processes and Outcomes Associated with the Attributed Practice and Provider*, reports the beneficiaries' experience with the practice reminding them about appointments, with the provider, and with office clerks and receptionists.

These survey items pertain to research question:

- Do FQHCs participating in the demonstration provide better experiences with the health care system for Medicare beneficiaries and their families and caregivers? If so, what features facilitate improved care experiences and what outcomes result from these better experiences? (Research question 2.4A)

**Exhibit IX.7: Beneficiary Survey—Processes and Outcomes Associated with the Attributed Practice and Provider**

**Beneficiary Survey Section 4—Processes and Outcomes Associated with the Attributed Practice and Provider**

22, 22, 22, 22	Some offices remind patients between visits about tests, treatment or appointments. In the last 12 months, did you get any reminders from this provider's office between visits? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Yes	No				No valid response
Demonstration	5374	64.59	20.82				14.59
Comparison	5472	63.25	23.12				13.63
	p-value: 0.0296						
43, 43, 43, 43	Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Worst possible	1 to 3	4 to 6	7 to 9	Best possible	No valid response
Demonstration	5374	0.99	2.47	7.16	31.28	42.71	15.39
Comparison	5472	0.95	2.76	8.11	32.22	41.56	14.4
	p-value: 0.2846						
54, 57, 63, 54	In the last 12 months, how often were clerks and receptionists at this provider's office as helpful as you thought they should be? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Never	Sometimes	Usually	Always		No valid response
Demonstration	5374	3.11	10.96	20.66	51.27		14.01
Comparison	5472	3.02	9.92	21.91	52.32		12.83
	p-value: 0.2167						
55, 58, 64, 55	In the last 12 months, how often did clerks and receptionists at this provider's office treat you with courtesy and respect? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9						
Rotation: All							
	n	Never	Sometimes	Usually	Always		No valid response
Demonstration	5374	1.77	6.68	13.06	64.79		13.7
Comparison	5472	1.3	6.45	14.07	65.48		12.7
	p-value: 0.1362						



#### **IX.4A.4. Access and Experiences with Specialists (Access)**

Beneficiary Survey Section 5, *Visits to and Experiences with Specialists (Access)*, documents beneficiaries' visits, access to, and experiences with specialists. These survey items also pertain to the research question:

- Do FQHCs participating in the demonstration provide better or enhanced access to Medicare beneficiaries' PCMH providers? If so, what features facilitate better or enhanced access and what outcomes result from these improvements? (Research question 2.1E)

**Exhibit IX.8: Beneficiary Survey—Visits to and Experiences with Specialists (Access)**

**Beneficiary Survey Section 5—Visits to and Experiences with Specialists (Access)**

45, 45, 45, 45 Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you see a specialist for a particular health problem? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	54.19	30.29	15.52
Comparison	5472	53.64	31.2	15.17
p-value: 0.3713				

NA, NA, 46, NA In the last 12 months, how often was it easy to get appointments with specialists? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45

Rotation: 3

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	711	2.95	9	27.43	55.7	4.92
Comparison	737	4.88	10.85	29.44	51.29	3.53
p-value: 0.0980						

NA, NA, 47, NA In the last 12 months, did you and this provider talk about the cost of seeing a specialist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45

Rotation: 3

	n	Yes	No	No valid response
Demonstration	711	25.46	69.48	5.06
Comparison	739	24.22	71.45	4.33
p-value: 0.5077				

NA, NA, 48, NA In the last 12 months, were you ever worried or concerned about the cost of seeing a specialist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45

Rotation: 3

	n	Yes	No	No valid response
Demonstration	711	39.1	56.12	4.78
Comparison	741	43.99	51.55	4.45
p-value: 0.0603				

NA, NA, 50, NA How many specialists have you seen in the last 12 months? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45  
 Rotation: 3

	n	None	1 specialist	2 specialists	3 specialists	4 specialists	5 or more specialists	No valid response
Demonstration	709	3.1	32.72	28.21	15.94	7.48	7.33	5.22
Comparison	736	1.77	33.7	28.53	19.02	7.88	3.94	5.16
		p-value: 0.0324						

NA, NA, 51, NA Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate that specialist?  
 Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45

Rotation: 3

	n	Worst Possible	1 to 3	4 to 6	7 to 9	Best Possible	No valid response
Demonstration	666	0.45	2.25	7.66	34.38	53	2.25
Comparison	708	0.56	2.12	9.18	39.12	46.33	2.68
		p-value: 0.1809					

#### **IX.4A.5. Quality and Evidence-Based Care**

Beneficiary Survey Section 6A, *Quality/Evidence-Based Care: Mental Health*, documents beneficiaries' report of the extent to which their providers' gathered data about the possibility of mental health problems.

Beneficiary Survey Section 6B, *Quality/Evidence-Based Care: Immunizations*, documents the beneficiaries' report of the receipt of evidence-based immunization therapies.

Beneficiary Survey Section 6C, *Quality/Evidence-Based Care: Colorectal Cancer Screening*, reports beneficiaries' use of evidence-based colorectal cancer screening.

Beneficiary Survey Section 6D, *Quality/Evidence-Based Care: Aspirin Use*, documents beneficiaries' experience using or being advised to use aspirin.

Beneficiary Survey Section 6E, *Quality/Evidence-Based Care: Smoking Cessation*, documents the receipt of evidence-based smoking cessation treatments by beneficiaries who still smoke or remain at high risk for smoking.

Note that evidence-based measures are reported here for all respondents. Future analyses will stratify results for subgroups associated with previously published data documented improved outcomes for patients receiving the care being evaluated. . These survey items pertain to the research questions:

- Do FQHCs participating in the demonstration provide improved adherence to evidence-based guidelines? If so, what features facilitate improved compliance and what outcomes result from these improvements? (Research question 2.1A) and
- Do FQHCs participating in the demonstration provide better quality of care to Medicare beneficiaries? If so, what features facilitate better quality of care and what outcomes result from these quality improvements? (Research question 2.2B)



**Exhibit IX.9: Beneficiary Survey—Quality/Evidence-Based Care**

**Beneficiary Survey Section 6A—Quality/Evidence-Based Care: Mental Health**

51, 51, 57, 51 In the last 12 months, did anyone in this provider's office ask you if there was a period of time when you felt sad, empty, or depressed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	46.54	38.69	14.77
Comparison	5472	43.97	42.31	13.72
	p-value: 0.0049			

52, 52, 58, 52 In the last 12 months, did you and anyone in this provider's office talk about things in your life that worry you or cause you stress? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	40.62	44.64	14.74
Comparison	5472	39	47.22	13.78
	p-value: 0.0197			

53, 53, 59, 53 In the last 12 months, did you and anyone in this provider's office talk about a personal problem, family problem, alcohol use, drug use, or a mental or emotional illness? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	33.12	52.03	14.85
Comparison	5472	31.65	54.5	13.85
	p-value: 0.0635			

**Beneficiary Survey Section 6B—Quality/Evidence-Based Care: Immunizations**

64, NA, NA, NA Have you had a flu shot since summer 2012?  
Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	64.99	30.84	4.18
Comparison	1576	63.77	31.79	4.44
p-value: 0.5554				

65, NA, NA, NA Have you ever had a pneumonia shot? This shot is usually given only once or twice in a person's lifetime and is different from a flu shot. It is also called the pneumococcal vaccine.

Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	56.03	36.54	7.43
Comparison	1576	59.45	33.76	6.79
p-value: 0.0776				

66, NA, NA, NA Have you ever had a shot to prevent shingles? Shingles is a painful skin rash caused by the Varicella Zoster virus. The shot to prevent shingles is sometimes called the "shingles vaccine," "Varicella Zoster vaccine," or "Zostavax."

Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	10.88	82.69	6.43
Comparison	1576	12.56	81.03	6.41
p-value: 0.1512				

**Beneficiary Survey Section 6C—Quality/Evidence-Based Care: Colorectal Cancer Screening**

67, NA, NA, NA A blood stool or bowel movement test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?

Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	38.26	55.57	6.17
Comparison	1576	34.39	59.14	6.47
p-value: 0.0350				

68, NA, NA, NA How long has it been since you had a test to check your stool or bowel movement for blood using a home kit? Conditional on passing gate items 67, NA, NA, NA

Rotation: 1

	n	Within the past year?	Within the past 2 years?	Within the past 5 years?	5 or more years ago?	Never?	No valid response
Demonstration	617	30.31	26.26	15.88	16.05	1.62	9.89
Comparison	578	26.99	25.43	17.99	17.65	2.6	9.34
p-value: 0.4474							

69, NA, NA, NA Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	55.64	39.06	5.31
Comparison	1576	56.98	37.18	5.84
p-value: 0.3509				

70, NA, NA, NA Was your most recent exam a sigmoidoscopy or a colonoscopy? Conditional on passing gate items 69, NA, NA, NA

Rotation: 1

	n	Sigmoidoscopy	Colonoscopy	No valid response
Demonstration	858	4.31	77.27	18.41
Comparison	923	6.07	75.95	17.98
p-value: 0.0950				

71, NA, NA, NA How long has it been since you had your last sigmoidoscopy or colonoscopy? Conditional on passing gate items 69, NA, NA, NA

Rotation: 1

	n	Within the past year?	Within the past 2 years?	Within the past 3 years?	Within the past 5 years?	10 or more years ago?	Never?	No valid response
Demonstration	866	20.67	19.4	14.78	21.36	10.28	1.62	11.89
Comparison	932	22.32	19.21	16.2	19.31	9.55	2.04	11.37
p-value: 0.7266								



**Beneficiary Survey Section 6D—Quality/Evidence-Based Care: Aspirin Use**

72, NA, NA, NA Do you take aspirin daily or every other day  
Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	47.81	46.95	5.24
Comparison	1576	47.08	47.27	5.65
p-value: 0.7706				

73, NA, NA, NA Has a doctor or health provider ever discussed with you the risks and benefits of aspirin to prevent heart attack or stroke?  
Rotation: 1

	n	Yes	No	No valid response
Demonstration	1508	66.84	28.18	4.97
Comparison	1576	65.42	28.68	5.9
p-value: 0.6338				

**Beneficiary Survey Section 6E—Quality/Evidence-Based Care: Smoking Cessation**

NA, 67, NA, NA Six months ago, did you smoke cigarettes or use tobacco every day, some days, or not at all? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
Rotation: 2

	n	Every day	Some days	Not At All	No valid response
Demonstration	1453	16.66	7.3	66.55	9.5
Comparison	1504	16.89	6.45	66.49	10.17
p-value: 0.6886					

NA, 68, NA, NA Do you now smoke cigarettes or use tobacco every day, some days, or not at all? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
Rotation: 2

	n	Every day	Some days	Not At All	No valid response
Demonstration	1453	14.52	7.78	67.45	10.25
Comparison	1504	14.89	6.85	67.89	10.37
p-value: 0.6261					

NA, 69, NA, NA In the last 12 months, how often did this provider advise you to quit smoking or using tobacco? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA  
Rotation: 2

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	473	0	19.77	13.95	11.05	5.81
Comparison	483	0	16.23	15.07	12.46	5.22
p-value: 0.6496						

NA, 70, NA, NA In the last 12 months, how often did this provider recommend or discuss medication to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication. Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA  
Rotation: 2

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	473	0	40.29	18.55	11.3	5.8
Comparison	483	0	37.39	20.87	14.49	5.8
p-value: 0.4517						

NA, 71, NA, NA In the last 12 months, how often did this provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counselor. Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA  
Rotation: 2

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	473	0	46.72	20.23	9.97	7.69
Comparison	483	0	47.38	19.19	11.34	7.85
p-value: 0.9114						

#### **IX.4A.6. Quality/ Coordination of Care**

Beneficiary Survey Section 7A, *Quality/Coordination of Care: Overview*, documents beneficiaries' report of their usual providers and of specialists knowing the important information about the beneficiaries' medical history.

Beneficiary Survey Section 7B, *Quality/Coordination of Care: Hospital Follow-Up*, documents coordination of care between the attributed practice (i.e., the FQHC) and the hospital stay among beneficiaries who were hospitalized.

These survey items pertain to the research question:

- Do FQHCs participating in the demonstration provide better coordination of care for Medicare beneficiaries? If so, what features make health care delivery better coordinated and what outcomes result from this better coordinated care? (Research question 2.1D)

**Exhibit IX.10: Beneficiary Survey Section—Coordination of Care**

**Beneficiary Survey Section 7A—Coordination of Care: Overview**

28, 28, 28, 28	In the last 12 months, how often did this provider seem to know the important information about your medical history? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
Rotation: All						
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	2.9	7.96	19.26	55.79	14.09
Comparison	5472	3.23	8.39	19.46	55.68	13.23
	p-value: 0.7429					
NA, NA, 49, NA	In the last 12 months, how often did the specialists you saw seem to know the important information about your medical history? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
Rotation: 3						
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	711	5.91	8.72	25.32	55.56	4.5
Comparison	737	2.99	14.11	27	51.02	4.88
	p-value: 0.0005					
46, 46, 52, 46	In the last 12 months, how often did the provider named in Question 1 seem informed and up-to-date about the care you got from specialists? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
Rotation: All						
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	2913	7.42	10.54	22.18	54.82	5.05
Comparison	2954	6.84	11.14	23.93	52.34	5.75
	p-value: 0.1981					
50, 50, 56, 50	In the last 12 months, did you and anyone in this provider's office talk at each visit about all the prescription medicines you were taking? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 49, 49, 55, 49					
Rotation: All						
	n	Yes	No			No valid response
Demonstration	4441	79.1	17.25			3.65
Comparison	4576	78.1	17.59			4.31
	p-value: 0.6013					

**Beneficiary Survey Section 7B—Quality/Coordination of Care: Hospital Follow-Up**

NA, NA, NA, 64 In the past 12 months, were you admitted to a hospital? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
Rotation: 4

	n	Yes	No	No valid response
Demonstration	1471	27.26	63.09	9.65
Comparison	1440	27.64	61.18	11.18
p-value: 0.6188				

NA, NA, NA, 65 Did you see doctor, nurse, or other person from this provider's office during your most recent hospital stay? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64

Rotation: 4

	n	Yes	No	No valid response
Demonstration	415	31.33	63.37	5.3
Comparison	424	34.2	57.78	8.02
p-value: 0.2267				

NA, NA, NA, 66 Within the two weeks after your most recent hospital stay, did you see a doctor, nurse, or other person in this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64

Rotation: 4

	n	Yes	No	No valid response
Demonstration	414	55.31	39.13	5.56
Comparison	424	53.3	39.39	7.31
p-value: 0.7688				

NA, NA, NA, 67 Within the two weeks after your most recent hospital stay, did you have a telephone call with a doctor, nurse, or other person in this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64

Rotation: 4

	n	Yes	No	No valid response
Demonstration	414	34.06	58.94	7
Comparison	423	35.22	56.5	8.27
p-value: 0.6113				

NA, NA, NA, 68 After your most recent hospital stay, how often did this provider seem to know the important information about this hospital stay? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 4

	n	Yes	No	No valid response
Demonstration	414	62.32	30.43	7.25
Comparison	424	65.09	24.76	10.14
p-value: 0.1181				

#### **IX.4A.7. Participation in Decisionmaking**

Beneficiary Survey Section 8A, *Participation in Decision Making: Overview*, presents beneficiary report of communication strategies necessary for adequate decisionmaking.

Beneficiary Survey Section 8B, *Participation in Decision Making/Self-Management: Prescription Medications*, reports on beneficiary involvement with decisionmaking about prescription medication use.

Beneficiary Survey Section 8C, *Participation in Decision Making/Self-Management: Care for a Specific Illness*, documents beneficiaries' involvement in self-management pertinent to a specific illness.

Beneficiary Survey Section 8D, *Prevention Involvement*, documents the extent to which beneficiaries are engaged by their provider in prevention strategies such as goal setting, weight loss, and nutrition.

Beneficiary Survey Section 8E, *Participation in Decision Making/Self-Management: Follow-Up*, reports on provider's reporting results to beneficiaries following testing.

These survey items pertain to the research questions:

- Are Medicare beneficiaries who are served by the participating FQHCs better able to self-manage their health conditions or more likely to engage in healthy behaviors? How does the ACP model facilitate this and what impacts are seen as a result? (Research question 2.1H)
- Are Medicare beneficiaries who are served by the participating FQHCs better able to self-manage their health conditions or more likely to engage in healthy behaviors? How does the ACP model facilitate this and what impacts are seen as a result? (Research question 2.1H).

**Exhibit IX.11: Beneficiary Survey Section—Participation in Decision Making**

**Beneficiary Survey Section 8A—Participation in Decision Making: Overview**

24, 24, 24, 24 Rotation: All	In the last 12 months, how often did this provider explain things in a way that was easy to understand? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	2.42	6.74	15.31	61.33	14.2
Comparison	5472	2.36	7.53	14.91	62.17	13.03
	p-value: 0.5073					
25, 25, 25, 25 Rotation: All	In the last 12 months, how often did this provider listen carefully to you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	1.97	6.29	13.32	64.4	14.01
Comparison	5472	1.99	6.52	13.58	65.1	12.81
	p-value: 0.9909					
26, 26, 26, 26 Rotation: All	In the last 12 months, did you talk with this provider about any health questions or concerns? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Yes	No			No valid response
Demonstration	5374	70.49	14.92			14.59
Comparison	5472	70.87	15.35			13.78
	p-value: 0.6870					
27, 27, 27, 27 Rotation: All	In the last 12 months, how often did this provider give you easy to understand information about these health questions or concerns? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 26, 26, 26, 26					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3841	2.34	7.42	19.06	67.85	3.33
Comparison	3938	2.23	7.34	20.34	66.05	4.04
	p-value: 0.4940					

35, 35, 35, 35 In the last 12 months, how often did this provider show respect for what you had to say? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
 Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	4665	2.74	6.15	12.24	77.92	0.94
Comparison	4815	2.62	6.71	12.69	77.24	0.75
	p-value: 0.6445					

36, 36, 36, 36 In the last 12 months, how often did this provider spend enough time with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
 Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	3.39	8.17	18.63	54.67	15.15
Comparison	5472	3	8.55	19.81	54.44	14.2
	p-value: 0.3716					



**Beneficiary Survey Section 8B—Participation in Decision Making/Self-Management: Prescription Medications**

49, 49, 55, 49 Rotation: All	In the last 12 months, did you take any prescription medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Yes	No		No valid response	
Demonstration	5374	81.52	3.29		15.18	
Comparison	5472	82.55	3.05		14.4	
	p-value: 0.4394					
39, 39, 39, 39 Rotation: All	In the last 12 months, did you and this provider talk about starting or stopping a prescription medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Yes	No		No valid response	
Demonstration	5374	49.94	34.2		15.85	
Comparison	5472	49.4	35.38		15.22	
	p-value: 0.2981					
40, 40, 40, 40 Rotation: All	When you talked about starting or stopping a prescription medicine, how much did this provider talk about the reasons you might want to take a medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39					
	n	Not at All	A Little	Some	A Lot	No valid response
Demonstration	2740	3.65	10	29.85	51.9	4.6
Comparison	2770	3.1	10.61	27.94	53	5.34
	p-value: 0.3160					
41, 41, 41, 41 Rotation: All	When you talked about starting or stopping a prescription medicine, how much did this provider talk about the reasons you might not want to take a medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	2740	11.82	12.04	30.77	40.26	5.11
Comparison	2772	11.47	11.51	29.73	41.16	6.13
	p-value: 0.7885					
42, 42, 42, 42 Rotation: All	When you talked about starting or stopping a prescription medicine, did this provider ask you what you thought was best for you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39					
	n	Yes	No		No valid response	
Demonstration	2742	75.6	20.02		4.38	
Comparison	2770	73.65	20.29		6.06	
	p-value: 0.5674					

**Beneficiary Survey Section 8C—Participation in Decision Making/ Self-Management: Care for a Specific Illness**

29, 29, 29, 29 Rotation: All	In the last 12 months, did you see this provider for a specific illness or for any health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
	n	Yes	No			No valid response
Demonstration	5374	64.61	20.06			15.33
Comparison	5472	66.15	19.72			14.13
	p-value: 0.4285					
30, 30, 30, 30 Rotation: All	In the last 12 months, did this provider give you instructions about what to do to take care of this illness or health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29					
	n	Yes	No			No valid response
Demonstration	3541	92.54	3.95			3.5
Comparison	3674	91.18	4.49			4.33
	p-value: 0.2364					
31, 31, 31, 31 Rotation: All	In the last 12 months, how often were these instructions easy to understand? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3323	0.78	6.26	19.74	71.59	1.63
Comparison	3411	0.5	6.07	20.84	70.8	1.79
	p-value: 0.3608					
32, 32, 32, 32 Rotation: All	In the last 12 months, how often did this provider ask you to describe how you were going to follow these instructions? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30					
	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3327	14.97	14.55	23.26	44.94	2.28
Comparison	3416	16.16	14.02	23.21	43.88	2.72
	p-value: 0.5480					

33, 33, 33, 33 Sometimes providers give instructions that are hard to follow. In the last 12 months, how often did this provider ask you whether you would have any problems doing what you need to do to take care of this illness or health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3327	16.92	13.53	21.49	45.48	2.58
Comparison	3418	17.38	13.4	20.51	45.73	2.98
p-value: 0.8081						

34, 34, 34, 34 In the last 12 months, how often did this provider explain what to do if this illness or health condition got worse or came back? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	3486	8.32	9.12	18.96	61.9	1.69
Comparison	3616	8.24	9.46	18.36	61.89	2.05
p-value: 0.9137						

**Beneficiary Survey Section 8D—Prevention Involvement**

47, 47, 53, 47 In the last 12 months, did anyone in this provider's office talk with you about specific goals for your health? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	52.62	32.15	15.22
Comparison	5472	51.61	34.25	14.14
p-value: 0.0793				

48, 48, 54, 48 In the last 12 months, did anyone in this provider's office ask you if there are things that make it hard for you to take care of your health? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	36.6	48.18	15.22
Comparison	5472	34.74	50.58	14.67
p-value: 0.0294				

NA, 54, NA, NA In the last 12 months, has anyone in this provider's office discussed weight loss with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
Rotation: 2

	n	Yes	No	No valid response
Demonstration	1360	38.24	47.06	14.71
Comparison	1400	39	46.64	14.36
p-value: 0.7306				

NA, 55, NA, NA In the last 12 months, has anyone in this provider's office discussed exercising regularly with you to keep your heart healthy, to keep your blood pressure controlled, or to lose weight? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 2

	n	Yes	No	No valid response
Demonstration	1360	56.4	29.12	14.49
Comparison	1400	55.43	31.29	13.29
p-value: 0.3019				

NA, 56, NA, NA In the last 12 months, has anyone in this provider's office discussed eating right with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
Rotation: 2

	n	Yes	No	No valid response
Demonstration	1360	55.15	30.15	14.71
Comparison	1400	56.5	30.14	13.36
p-value: 0.7825				

**Beneficiary Survey Section 8E—Participation in Decision Making/Self-Management: Follow-Up**

37, 37, 37, 37 In the last 12 months, did this provider order a blood test, x-ray, or other test for you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9  
 Rotation: All

	n	Yes	No	No valid response
Demonstration	5374	75.79	9.12	15.09
Comparison	5472	75.77	9.45	14.78

p-value: 0.6060

38, 38, 38, 38 In the last 12 months, when this provider ordered a blood test, x-ray, or other test for you, how often did someone from this provider's office follow up to give you those results? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 37, 37, 37, 37  
 Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	4115	10.16	8.7	16.45	59.73	4.96
Comparison	4201	10.12	9.9	15.42	59.34	5.21

p-value: 0.2676

#### **IX.4A.8. Use of Ancillary Services**

Beneficiary Survey Section 9A, *Ancillary Services: Clinical*, reports on beneficiaries' use of ancillary clinical services such as dentists, eye care providers, mental health providers, and hearing experts.

Beneficiary Survey Section 9B, *Ancillary Services: Interpreter*, reports on interpreter use stratified by the beneficiaries' report of fluency with the English language.

Beneficiary Survey Section 9C, *Ancillary Services: Transportation*, reports on beneficiaries' needs for and assistance with transportation services.

Beneficiary Survey Section 9D, *Ancillary Services: Home Health*, reports on beneficiaries' needs for and assistance with home health services. These survey items pertain to the research question:

- Do FQHCs participating in the demonstration provide better experiences with the health care system for Medicare beneficiaries and their families and caregivers? If so, what features facilitate improved care experiences and what outcomes result from these better experiences? (Research question 2.4A)



**Exhibit IX.12: Beneficiary Survey—Ancillary Services**

**Beneficiary Survey Section 9A—Ancillary Services: Clinical**

NA, NA, NA, 69 Rotation: 4	During the past 12 months, have you gone to see a dentist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				
	n	No	Yes, in this provider's office	Yes, somewhere other than this provider's office	No valid response
Demonstration	1471	60.91	8.77	20.46	9.86
Comparison	1440	60	7.64	21.88	10.49
	p-value: 0.4342				
NA, NA, NA, 70 Rotation: 4	During the past 12 months, have you gone to see an optometrist or ophthalmologist or eye doctor? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				
	n	No	Yes, in this provider's office	Yes, somewhere other than this provider's office	No valid response
Demonstration	1471	44.73	6.46	37.46	11.35
Comparison	1440	40.97	6.74	40.35	11.94
	p-value: 0.1636				
NA, NA, NA, 71 Rotation: 4	During the past 12 months, have you gone to see a psychiatrist, psychologist, or a mental health counselor? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				
	n	No	Yes, in this provider's office	Yes, somewhere other than this provider's office	No valid response
Demonstration	1471	74.1	4.83	10.81	10.27
Comparison	1440	75.69	4.24	10	10.07
	p-value: 0.5492				
NA, NA, NA, 72 Rotation: 4	During the past 12 months, have you gone to see an audiologist or a doctor or nurse for your hearing? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				
	n	No	Yes, in this provider's office	Yes, somewhere other than this provider's office	No valid response
Demonstration	1471	80.63	2.72	6.8	9.86
Comparison	1440	79.72	2.92	6.81	10.56
	p-value: 0.9370				



**Beneficiary Survey Section 9B.—Ancillary Services: Interpreter**

57, 60, 69, 57 How well do you speak English? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56  
Rotation: All

	n	Very well	Well	Not well	Not at all well	No valid response
Demonstration	1095	4.93	10.68	40.82	33.79	9.77
Comparison	933	6	10.61	37.3	35.26	10.83
p-value: 0.4602						

59, 62, 71, 59 An interpreter is someone who helps you talk with others who do not speak your language. Interpreters can include staff from the provider's office or telephone interpreters. In the last 12 months, was there any time when you needed an interpreter at this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57  
Rotation: All

	n	Yes	No	No valid response
Demonstration	971	48.61	47.17	4.22
Comparison	810	48.15	46.17	5.68
p-value: 0.9271				

60, 63, 72, 60 In the last 12 months, how often did you use an interpreter provided by this office to help you talk with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 59, 62, 71, 59  
Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	487	10.06	25.26	14.99	46.41	3.29
Comparison	409	8.56	29.1	16.63	42.79	2.93
p-value: 0.4663						

61, 64, 73, 61 In the last 12 months, when you used an interpreter provided by this office who was the interpreter you used most often? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 59, 62, 71, 59 and 60, 63, 72, 60  
Rotation: All

	n	A nurse, clerk, or receptionist from this office	An interpreter provided in-person by this office	A telephone interpreter provided by this office	Someone else provided by this office	No valid response
Demonstration	435	68.28	12.41	3.68	8.28	7.36
Comparison	365	65.21	18.36	2.74	7.12	6.58
p-value: 0.1968						

62, 65, 74, 62 In the last 12 months, how often did you use a friend or family member as an interpreter when you talked with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	950	60.84	18.84	5.16	13.68	1.47
Comparison	788	55.46	20.81	6.85	15.23	1.65
		p-value: 0.1494				

63, 66, 75, 63 In the last 12 months, did you use friends or family members as interpreters because that was what you preferred? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 62, 65, 74, 62

Rotation: All

	n	Yes	No	No valid response
Demonstration	411	61.8	26.52	11.68
Comparison	386	69.17	19.69	11.14
		p-value: 0.0204		

**Beneficiary Survey Section 9C—Ancillary Services: Transportation**

NA, NA, 65, NA Some clinics and offices arrange transportation for patients. This help can be a shuttle bus or van or tokens or vouchers for a bus or taxi. In the last 3 months, did you need help with transportation to visits at your provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 3

	n	Yes	No	No valid response
Demonstration	1341	12.98	70.02	17
Comparison	1354	13.29	72.53	14.18
p-value: 0.9295				

NA, NA, 66, NA Did this provider's office help you with transportation? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, 65, NA

Rotation: 3

	n	Yes	No	No valid response
Demonstration	191	35.6	57.07	7.33
Comparison	192	31.77	59.38	8.85
p-value: 0.5232				

NA, NA, 67, NA In the last 12 months, how often did the help you received with transportation meet your needs? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, 65, NA and NA, NA, 66, NA

Rotation: 3

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	81	7.41	12.35	11.11	58.02	11.11
Comparison	80	3.75	18.75	13.75	50	13.75
p-value: 0.4245						

**Beneficiary Survey Section 9D—Ancillary Services: Home Health**

NA, NA, 60, NA In the last 12 months, did you need home health services to manage a health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 3

	n	Yes	No	No valid response
Demonstration	1341	16.78	66.96	16.26
Comparison	1354	14.99	71.79	13.22
p-value: 0.0929				

NA, NA, 61, NA In the last 12 months, did anyone in this provider's office ask if you needed more services at home to manage your health conditions? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 3

	n	Yes	No	No valid response
Demonstration	1341	14.99	68.68	16.33
Comparison	1354	15.81	71.27	12.92
p-value: 0.8817				

NA, NA, 62, NA In the last 12 months, did anyone in this provider's office help you get the services you need at home to manage your health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: 3

	n	Yes	No	No valid response
Demonstration	1341	17.38	65.32	17.3
Comparison	1354	16.91	69.2	13.88
p-value: 0.4305				

#### **IX.4A.9. Outcomes**

Beneficiary Survey Section 10, *Outcomes*, documents beneficiary reported outcomes, including functional status.

These survey items pertain to the research question:

- How does FQHC participation in the demonstration affect health outcomes of Medicare beneficiaries? If changes occurred, for which health outcomes were these effects seen? (Research question 2.2A)

**Exhibit IX.13: Beneficiary Survey Section—Outcomes**

**Beneficiary Survey Section 10—Outcomes**

74, 75, 76, 73 Rotation: All	In general, how would you rate your overall health?						
	n	Excellent	Very good	Good	Fair	Poor	No valid response
Demonstration	6113	3.96	10.53	29.82	36.53	14.18	4.97
Comparison	6213	4.27	12.01	28.41	36.71	14.04	4.57
	p-value: 0.0893						
75, 76, 77, 74 Rotation: All	In general, how would you rate your overall mental or emotional health?						
	n	Excellent	Very good	Good	Fair	Poor	No valid response
Demonstration	6113	11.61	18.16	31.13	27.09	7.36	4.65
Comparison	6213	12.47	19.44	31.03	25.9	6.84	4.31
	p-value: 0.1387						
76, 77, 78, 75 Rotation: All	Does your health now limit you in moderate activities such as pushing a vacuum cleaner, bowling, or playing golf?						
	n	Yes, limited a lot	Yes, limited a little	No, not limited at all	No valid response		
Demonstration	6113	36.09	32.19	25.67	6.05		
Comparison	6213	36.76	32.06	25.69	5.49		
	p-value: 0.8672						
77, 78, 79, 76 Rotation: All	Does your health now limit you in climbing several flights of stairs?						
	n	Yes, limited a lot	Yes, limited a little	No, not limited at all	No valid response		
Demonstration	6113	41.55	31.03	21.72	5.69		
Comparison	6213	42.59	30.11	22.36	4.94		
	p-value: 0.4103						

78a, 79a, 80a, 77a During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? a. Accomplished less than you would like

Rotation: All	n	Yes	No	No valid response
Demonstration	5419	62.45	30.39	9.37
Comparison	5527	62.58	30.23	8.87
p-value: 0.8641				

78b, 79b, 80b, 77b During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? b. Were limited in the kind of work or other activities?

Rotation: All	n	Yes	No	No valid response
Demonstration	6113	62.21	28.38	9.41
Comparison	6213	61.9	28.42	9.67
p-value: 0.8805				

79a, 80a, 81a, 78a During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)? a. Accomplished less than you would like?

Rotation: All	n	Yes	No	No valid response
Demonstration	6113	38.1	53.9	8
Comparison	6213	36.79	55.64	7.56
p-value: 0.0944				

79b, 80b, 81b, 78b During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)? a. b. Did work or other activities less carefully than usual

Rotation: All	n	Yes	No	No valid response
Demonstration	6113	31.33	57.45	11.22
Comparison	6213	30.66	58.17	11.17
p-value: 0.4036				

80, 81, 82, 79 During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Rotation: All	n	Not at all	A little bit	Moderately	Quite a bit	Extremely	No valid response
Demonstration	6113	16.7	18.81	16.93	25.9	14.53	7.13
Comparison	6213	16.08	19.86	17.14	25.62	14.97	6.33
p-value: 0.5968							

81, 82, 83, 80 Rotation: All		How much of the time during the past 4 weeks have you felt calm and peaceful?						
	n	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time	No valid response
Demonstration	6113	10.83	26.17	14.54	23.43	14.48	5.33	5.22
Comparison	6213	10.32	27.83	13.89	24.5	13.46	4.91	5.1
		p-value: 0.0979						
82, 83, 84, 81 Rotation: All		How much of the time during the past 4 weeks did you have a lot of energy?						
	n	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time	No valid response
Demonstration	6113	4.38	14	12.35	28.22	24.06	11.96	5.02
Comparison	6213	4.35	13.73	12.51	27.78	24.43	12.44	4.76
		p-value: 0.9493						
83, 84, 85, 82 Rotation: All		How much of the time during the past 4 weeks have you felt downhearted and blue?						
	n	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time	No valid response
Demonstration	6113	4.42	8.42	8.16	26.01	25.21	22.57	5.2
Comparison	6213	4.33	7.81	8.79	24.43	24.84	24.55	5.26
		p-value: 0.0573						
84, 85, 86, 83 Rotation: All		During the past 4 weeks, how much of the time have your physical and emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?						
	n	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time	No valid response
Demonstration	6113	8.34	11.94	9.5	20.51	15.39	28.12	6.18
Comparison	6213	8.34	11.81	9.22	19.7	14.79	30.16	5.97
		p-value: 0.2538						



85a, 86a, 87a, 84a Over the last 2 weeks, how often have you been bothered by the following problem? a. Feeling nervous, anxious or on edge?  
Rotation: All

	n	Nearly every day	More than half of the days	Several days	Not at all	No valid response
Demonstration	6113	12.84	10.49	23.43	44.09	9.16
Comparison	6213	12.97	10.41	23.08	44.83	8.71
		p-value: 0.9176				

85b, 86b, 87b, 84b Over the last 2 weeks, how often have you been bothered by the following problem? b. Not being able to stop or control worrying?  
Rotation: All

	n	Nearly every day	More than half of the days	Several days	Not at all	No valid response
Demonstration	6113	15	10.44	22.23	42.97	9.36
Comparison	6213	15.05	10.83	21.68	43.33	9.11
		p-value: 0.8203				

85c, 86c, 87c, 84c Over the last 2 weeks, how often have you been bothered by the following problem? c. Little interest or pleasure in doing things?  
Rotation: All

	n	Nearly every day	More than half of the days	Several days	Not at all	No valid response
Demonstration	6113	14.13	11.97	23.64	40.81	9.44
Comparison	6213	14.37	12.59	22.79	41.72	8.53
		p-value: 0.5091				

85d, 86d, 87d, 84d Over the last 2 weeks, how often have you been bothered by the following problem? d. Feeling down, depressed, or hopeless?  
Rotation: All

	n	Nearly every day	More than half of the days	Several days	Not at all	No valid response
Demonstration	6113	11.99	10.26	21.87	46.83	9.05
Comparison	6213	12.23	10.53	21.15	47.58	8.51
		p-value: 0.7128				

#### ***IX.4A.10. Observed or Perceived Disparities of Social Stressors***

Beneficiary Survey Section 11, *Observed or Perceived Disparities*, documents beneficiaries' concerns about observed or perceived disparities, and with some examples of social stressors that can be associated with health and health care.

These survey items pertain to the research question:

- Do FQHCs participating in the demonstration provide reductions in or elimination of health care disparities among Medicare 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 the impacts on these populations? (Research question 2.5A)

**Exhibit IX.14: Beneficiary Survey—Observed/ Perceived Disparities or Social Stressors**

**Beneficiary Survey Section 11—Observed/ Perceived Disparities or Social Stressors**

44, 44, 44, 44      In the last 12 months, how often have you been treated unfairly at this provider's office because of your race or ethnicity? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	5374	78.47	2.9	0.87	2.61	15.15
Comparison	5472	80.21	2.78	0.86	2.07	14.09
p-value: 0.2236						

58, 61, 70, 58      In the last 12 months were you treated unfairly because you did not speak English very well? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57

Rotation: All

	n	Never	Sometimes	Usually	Always	No valid response
Demonstration	981	83.59	8.15	1.53	2.34	4.38
Comparison	816	81.62	8.58	2.21	3.43	4.17
p-value: 0.3704						

97a, 98a, 99a, 96a      Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Money problems?

Rotation: All

	n	Not selected	Selected
Demonstration	6113	50.53	49.47
Comparison	6213	51.33	48.67
p-value: 0.4004			

97b, 98b, 99b, 96b      Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Job problems?

Rotation: All

	n	Not selected	Selected
Demonstration	6113	92.23	7.77
Comparison	6213	92.6	7.4
p-value: 0.4601			

97c, 98c, 99c, 96c Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Problems with the police?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	98.81	1.19
Comparison	6213	99.02	0.98
	p-value: 0.2668		

97d, 98d, 99d, 96d Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Been the victim of a crime?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	97.32	2.68
Comparison	6213	97.31	2.69
	p-value: 0.9861		

97e, 98e, 99e, 96e Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Family or marriage problems?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	88.37	11.63
Comparison	6213	88.81	11.19
	p-value: 0.4529		

97f, 98f, 99f, 96f Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Been the victim of violence in your home?

	n	Not selected	Selected
Demonstration	6113	98.1	1.9
Comparison	6213	97.81	2.19
	p-value: 0.2598		

97g, 98g, 99g, 96g Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Witnessed violence in your home?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	98.33	1.67
Comparison	6213	98.36	1.64
	p-value: 0.9079		

97h, 98h, 99h, 96h Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Problems with your children?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	90.54	9.46
Comparison	6213	90.89	9.11
	p-value: 0.5171		

97i, 98i, 99i, 96i Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Problems with your grandchildren?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	94.95	5.05
Comparison	6213	95.14	4.86
	p-value: 0.6059		

97j, 98j, 99j, 96j Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Problems with someone else's children in your home?  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	97.87	2.13
Comparison	6213	97.83	2.17
	p-value: 0.8555		

100, 101, 102, 99 What is the highest grade or level of school that you have completed?  
Rotation: All

	n	8th grade or less	Some high school, but did not graduate	High school graduate or GED	Some college or 2-year degree	4-year college graduate	More than 4-year college degree	No valid response
Demonstration	6113	22.2	16.95	28.5	17.86	3.16	3.09	8.24
Comparison	6213	20.75	16.11	28.39	19.99	3.51	3.54	7.71
	p-value: 0.0611							

101, 102, 103, 100 Are you of Hispanic or Latino origin or descent?  
Rotation: All

	n	Yes	No	No valid response
Demonstration	6113	35.78	52.22	12.01
Comparison	6213	28.01	58.86	13.13
	p-value: 0.001			

102a, 103a, 104a, 101a      What is your race? Mark one or more White  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	43.07	56.93
Comparison	6213	40.69	59.31

p-value: 0.1405

102b, 103b, 104b, 101b      What is your race? Mark one or more Black or African American  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	86.16	13.84
Comparison	6213	83.28	16.72

p-value: 0.0556

102c, 103c, 104c, 101c      What is your race? Mark one or more Asian  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	97.86	2.14
Comparison	6213	98	2

p-value: 0.7816

102d, 103d, 104d, 101d      What is your race? Mark one or more Native Hawaiian or Other Pacific Islander  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	99.31	0.69
Comparison	6213	99.16	0.84

p-value: 0.4976

102e, 103e, 104e, 101e      What is your race? Mark one or more American Indian or Alaskan Native  
Rotation: All

	n	Not selected	Selected
Demonstration	6113	94.81	5.19
Comparison	6213	94.61	5.39

p-value: 0.6837

102f, 103f, 104f, 101f  
Rotation: All

What is your race? Mark one or more Other

	n	Not selected	Selected
Demonstration	6113	85.26	14.74
Comparison	6213	88.22	11.78

p-value: 0.0005

#### **IX.4A.11. Demographics**

Beneficiary Survey Section 12, *Demographics*, documents respondent age, gender, and preferred language.

These survey items will be used as covariates for many of the analyses described above.



### Exhibit IX.15: Beneficiary Survey—Demographics

#### Beneficiary Survey Section 12—Demographics

98, 99, 100, 97	What is your age?							
Rotation: All								
	n	18 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	No valid response
Demonstration	4954	0.34	2.85	5.57	15.08	26.3	42.57	7.29
Comparison	4897	0.31	2.82	5.92	15.27	26.71	42.25	6.72
	p-value: 0.9770							
99, 100, 101, 98	Are you male or female?							
Rotation: All								
	n	Male	Female					No valid response
Demonstration	6113	40.57	54.02					5.41
Comparison	6213	39.66	55.29					5.05
	p-value: 0.2311							
56, 59, 68, 56	What is your preferred language?							
Rotation: All								
	n	English	Spanish	Some other language				No valid response
Demonstration	1095	4.93	10.68	40.82				9.77
Comparison	933	6	10.61	37.3				10.83
	p-value: 0.4602							

#### ***IX.4A.12. Help Completing Survey***

Beneficiary Survey Section 13, *Help Completing Survey*, documents beneficiaries' reports of help they may have received completing this survey.

These survey items facilitate our understanding of functional characteristics of the respondent and may influence longitudinal analyses when these survey responses are compared with those obtained at follow-up.

**Exhibit IX.16: Beneficiary Survey—Help Completing Survey**

**Beneficiary Survey Section 13—Help Completing Survey**

103, 104, 105, 102		Did someone help you complete this survey?		
Rotation: All				
	n	Yes	No	No valid response
Demonstration	6113	19.43	53	27.56
Comparison	6213	18.57	53.77	27.65
	p-value: 0.2859			

104a, 105a, 106a, 103a		How did that person help you? Mark one or more. Read the questions to me Conditional on 103, 104, 105, 102		
Rotation: All				
	n	Not selected	Selected	
Demonstration	2873	74.49	25.51	
Comparison	2872	75.45	24.55	
	p-value: 0.4401			

104b, 105b, 106b, 103b		How did that person help you? Mark one or more. Wrote down the answers I gave Conditional on 103, 104, 105, 102		
Rotation: All				
	n	Not selected	Selected	
Demonstration	2873	79.39	20.61	
Comparison	2872	80.85	19.15	
	p-value: 0.1910			

104c, 105c, 106c, 103c		How did that person help you? Mark one or more. Answered the questions for me Conditional on 103, 104, 105, 102		
Rotation: All				
	n	Not selected	Selected	
Demonstration	2873	92.27	7.73	
Comparison	2872	92.1	7.9	
	p-value: 0.8109			

104d, 105d, 106d, 103d      How did that person help you? Mark one or more. Translated the questions into my language Conditional on 103, 104, 105, 102  
Rotation: All

	n	Not selected	Selected
Demonstration	2873	93.35	6.65
Comparison	2872	94.81	5.19

p-value: 0.0453

104e, 105e, 106e, 103e      How did that person help you? Mark one or more. Helped in some other way Conditional on 103, 104, 105, 102  
Rotation: All

	n	Not Selected	Selected
Demonstration	2873	97.88	2.12
Comparison	2872	98.19	1.81

p-value: 0.3819

## IX.5. Subgroup Analyses

This section presents the results of the beneficiary survey organized according to the following domains noted in the prior section.

### **IX.5A. Overview of Beneficiaries Attributed to Demonstration vs. Comparison Sites**

The prior section presents baseline item-level responses comparing Medicare beneficiaries attributed to demonstration and comparison sites. In this section, we report on the low frequency of differences between demonstration and comparison sites using chi-square tests updated with the Bonferroni multiple comparison adjustments. We tested for differences between demonstration and comparison sites for all 148 survey items, with each survey item being tested for significant differences between demonstration and comparison sites across each of the following survey respondent cohorts.

- Full survey respondent cohort
- Beneficiaries  $\geq 65$  years
- Beneficiaries  $< 65$  years
- Beneficiaries with high comorbidity
- Beneficiaries without high comorbidity
- Beneficiaries who are dual eligible for both Medicare and Medicaid
- Beneficiaries who are not Medicaid eligible
- Beneficiaries with high Spanish language preference
- Beneficiaries without high Spanish language preference
- Beneficiaries attributed to a rural practice site
- Beneficiaries attributed to a non-rural practice site.

From all of these comparisons, we note no consistent pattern of significant differences at baseline between demonstration and comparison site reports of care, outcomes, or burden of illness.

### **IX.5B. Subgroup Comparisons**

We examined two ways of testing for differential responses by the beneficiaries in our surveys. We tested for differences in the response to each item by type of site (demonstration vs. comparison) as well as by key demographic factors.

### ***IX.5B.1. Comparing Demonstration and Comparison Subgroups***

The first analysis, testing for differences between demonstration FQHC and comparison FQHC beneficiary responses overall and by key demographic factors (not shown) showed very little evidence of a significant difference in the survey responses between demonstration and comparison beneficiaries. Only three of 148 items showed a significant difference between demonstration and comparison sites overall.

The limited number of items showing evidence for different responses in the first analysis is reassuring because it suggests that the survey sampling strategy yielded demonstration and comparison groups that are comparable at baseline. If there were more significant differences between the demonstration and comparison populations in the responses to these items, then we would be concerned that our sampling strategy had not addressed the observed differences between the demonstration and comparison sites.

### ***IX.5B.2. Comparing Subgroups Regardless of Demonstration or Comparison Site***

Using the Bonferroni multiple comparison adjustments, we also compared the distribution of responses for subgroup pairs regardless of whether a beneficiary was attributed to the demonstration or comparison site. For example, we compared responses for older and younger beneficiaries, for those with high and not high comorbidity, with and without Medicaid eligibility, with and without Spanish language preference, and for those attributed to a rural vs. a not rural practice site. We found many significant item-level differences across all of the comparison pairs as shown in Exhibit IX.17. This exhibit does not test for differences between respondents from demonstration versus comparison sites. Instead, with this second analysis, we compare different subgroups noting that beneficiaries from one subgroup often respond differently from those in another subgroup.

Exhibit IX.17, column 2 summarizes the significance levels for differences by age comparing beneficiaries aged 65 years or older with beneficiaries who are less than 65 years old. There are significant differences in the responses to many of the survey items. Of the 148 survey items summarized, there is strong evidence ( $p < .01$  after correction with Bonferroni) for a significant difference by age for 72 items and moderate ( $p < .05$ ) or strong ( $p < .01$ ) evidence of a difference for 74 items. In summary, there is evidence for a difference in the responses by age group for half of the items. Exhibit IX.17, column 3 contains the summary of evidence for differences between beneficiaries with high and those with low HCC scores. Column 4 summarizes the evidence for those who are eligible for Medicaid and those who are not; column 5 summarizes the evidence by preference for the Spanish language, and column 6 summarizes the evidence for rural

versus nonrural beneficiaries. There is strong evidence of differences in the responses for all of these comparison groups.

The differences summarized in Exhibit IX.17 are not entirely surprising and serve to reinforce the approach of controlling for these factors in our sampling strategy. They also suggest that we need to be careful when we look closely at individual items, especially if we look at small subsets of the overall population.

**Exhibit IX.17: Test of Significant Difference in Responses Between Key Demographic Populations**

<b>Question</b>	<b>Age &gt;=65 vs &lt; 65</b>	<b>HCC Score High vs Low/Moderate</b>	<b>Medicaid Eligibility Yes vs No</b>	<b>Spanish Preference High vs Low/Moderate</b>	<b>Rural Yes vs No</b>
(1)	(2)	(3)	(4)	(5)	(6)
In general, how would you rate your overall health?	**	**	**	**	**
In general, how would you rate your overall mental or emotional health?	**	**	**	**	
Does your health now limit you in moderate activities such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?	**	**	**	**	**
Does your health now limit you in climbing several flights of stairs?	**	**	**	**	**
During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?					
a. Accomplished less than you would like?	**	**	**	**	
b. Were limited in the kind of work or other activities?	**	**	**	**	
During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?					
a. Accomplished less than you would like?	**	**	**		
b. Did work or other activities less carefully than usual	**	**	**	**	
During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	**	**	**	**	**
How much of the time during the past 4 weeks have you felt calm and peaceful?	**	**	**	**	
How much of the time during the past 4 weeks did you have a lot of energy?	**	**	**	**	**
How much of the time during the past 4 weeks have you felt downhearted and blue?	**	**	**	**	



<b>Question</b>	<b>Age &gt;=65 vs &lt; 65</b>	<b>HCC Score High vs Low/Moderate</b>	<b>Medicaid Eligibility Yes vs No</b>	<b>Spanish Preference High vs Low/Moderate</b>	<b>Rural Yes vs No</b>
During the past 4 weeks, how much of the time have your physical and emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?	**	**	**	**	
Over the last 2 weeks, how often have you been bothered by the following problem?					
a. Feeling nervous, anxious or on edge?	**	**	**		
b. Not being able to stop or control worrying?	**	**	**	**	
c. Little interest or pleasure in doing things?	**	**	**	**	
d. Feeling down, depressed, or hopeless?	**	**	**	**	
What is the highest grade or level of school that you have completed?	**		**	**	
Are you of Hispanic or Latino origin or descent?	**	**	**	**	**
What is your race? Mark one or more:					
White		**	**	**	**
Black or African American	**	*		**	**
Asian	**				**
Native Hawaiian or Other Pacific Islander					
American Indian or Alaskan Native	**			**	
Other		**	**	**	**
In the last 12 months, how often have you been treated unfairly at this provider's office because of your race or ethnicity? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**		*	**	*
In the last 12 months were you treated unfairly because you did not speak English very well? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57					
Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)					
Money problems?	**	**	**		*

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
Job problems?	**	**		**	**
Problems with the police?	**				
Been the victim of a crime?	**				
Family or marriage problems?	**				
Been the victim of violence in your home?	**				
Witnessed violence in your home?	**				
Problems with your children?	**				
Problems with your grandchildren?				**	
Problems with someone else's children in your home?	**				
What is your preferred language? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**	**	**	**
What is your age?	**	**	**		
Are you male or female?			**	**	
Did someone help you complete this survey?	**		**	**	
How did that person help you? Mark one or more.					
Read the questions to me			**		
Wrote down the answers I gave	**				
Answered the questions for me			**		
Translated the questions into my language	**	**		**	
Helped in some other way					
Our records show that you got care from the clinic named below. Is that right?					
Is the provider you saw on your most recent visit to this clinic or practice Conditional on passing gate items 1, 1, 1, 1			*	**	**
Is this the provider you usually see if you need a check-up, want advice about a health problem, or get sick or hurt? Conditional on passing gate items 1, 1, 1, 1					
Who do you usually see if you need a check-up, want advice about a health problem, or get sick or hurt? Conditional on passing gate items 1, 1, 1, 1 and 3, 3, 3, 3					

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
Is this provider the one who has been most helpful during the last 12 months in helping you decide whether or not to have tests or treatments, or to change your health habits? Conditional on passing gate items 1, 1, 1, 1					
Is this provider the one who is most likely to help you with your most important medical problems? Conditional on passing gate items 1, 1, 1, 1	**	**	**	**	**
Is this provider the one who is in charge of following up on your health and medical conditions if you need help? Conditional on passing gate items 1, 1, 1, 1			**	**	
How long have you been going to this provider? Conditional on passing gate items 1, 1, 1, 1					
In the last 12 months, how many times did you visit this provider to get care for yourself? Conditional on passing gate items 1, 1, 1, 1	**	**	**		
Over the past month or so, have you had any of the following kinds of problems? (Mark all that apply)†Problems with someone else's children in your home?	**				
A personal doctor or nurse is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor or nurse at the clinic named in item #1? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				*	
Do you have a personal doctor or a personal nurse? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 72, NA, NA	**		**		
In the last 12 months, when you had a visit at your personal doctor or nurse's office, how often did you see your personal doctor or nurse (not another provider from the office)? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 72, NA, NA					
In the last 12 months, did you phone this provider's office to get an appointment for an illness, injury or condition that needed care right away? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**	**		**

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, when you phoned this provider's office to get an appointment for care you needed right away, how often did you get an appointment as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 10, 10, 10, 10					**
In the last 12 months, how many days did you usually have to wait for an appointment when you needed care right away? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 10, 10, 10, 10				**	**
In the last 12 months, did you make any appointments for a check-up or routine care with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
In the last 12 months, when you made an appointment for a check-up or routine care with this provider, how often did you get an appointment as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 13, 13, 13, 13				**	**
Did this provider's office give you information about what to do if you needed care during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**		**	
In the last 12 months, did you need care for yourself during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**	**		
In the last 12 months, how often were you able to get the care you needed from this provider's office during evenings, weekends, or holidays? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 16, 16, 16, 16					
In the last 12 months, did you phone this provider's office with a medical question during regular office hours? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**		**	
In the last 12 months, when you phoned this provider's office during regular office hours, how often did you get an answer to your medical question that same day? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 18, 18, 18, 18	*			*	**

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, did you phone this provider's office with a medical question after regular office hours? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**	*	**	
In the last 12 months, when you phoned this provider's office after regular office hours, how often did you get an answer to your medical question as soon as you needed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 20, 20, 20, 20					
Wait time includes time spent in the waiting room and exam room. In the last 12 months, how often did you see this provider within 15 minutes of your appointment time? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**		*	**	**
Some offices remind patients between visits about tests, treatment or appointments. In the last 12 months, did you get any reminders from this provider's office between visits? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				**	**
Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best possible, what number would you use to rate this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**		**		
In the last 12 months, how often were clerks and receptionists at this provider's office as helpful as you thought they should be? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	**
In the last 12 months, how often did clerks and receptionists at this provider's office treat you with courtesy and respect? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	**
Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you see a specialist for a particular health problem? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**			
In the last 12 months, how often was it easy to get appointments with specialists? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, did you and this provider talk about the cost of seeing a specialist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
In the last 12 months, were you ever worried or concerned about the cost of seeing a specialist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
How many specialists have you seen in the last 12 months? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45		**			
Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate that specialist? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
In the last 12 months, did anyone in this provider's office ask you if there was a period of time when you felt sad, empty, or depressed? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**			
In the last 12 months, did you and anyone in this provider's office talk about things in your life that worry you or cause you stress? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**			
In the last 12 months, did you and anyone in this provider's office talk about a personal problem, family problem, alcohol use, drug use, or a mental or emotional illness? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**			*
Have you had a flu shot since summer 2012?	**	**		**	
Have you ever had a pneumonia shot? This shot is usually given only once or twice in a person's lifetime and is different from a flu shot. It is also called the pneumococcal vaccine.	**	**		**	

<b>Question</b>	<b>Age &gt;=65 vs &lt; 65</b>	<b>HCC Score High vs Low/Moderate</b>	<b>Medicaid Eligibility Yes vs No</b>	<b>Spanish Preference High vs Low/Moderate</b>	<b>Rural Yes vs No</b>
Have you ever had a shot to prevent shingles? Shingles is a painful skin rash caused by the Varicella Zoster virus. The shot to prevent shingles is sometimes called the shingles vaccine, Varicella Zoster vaccine, or Zostavax.	**				
A blood stool or bowel movement test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?	**				
How long has it been since you had a test to check your stool or bowel movement for blood using a home kit? Conditional on passing gate items 67, NA, NA, NA					
Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?	**	**			
Was your most recent exam a sigmoidoscopy or a colonoscopy? Conditional on passing gate items 69, NA, NA, NA					
How long has it been since you had your last sigmoidoscopy or colonoscopy? Conditional on passing gate items 69, NA, NA, NA					
Do you take aspirin daily or every other day?	**				
Has a doctor or health provider ever discussed with you the risks and benefits of aspirin to prevent heart attack or stroke?	**	**			
Six months ago, did you smoke cigarettes or use tobacco every day, some days, or not at all? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	
Do you now smoke cigarettes or use tobacco every day, some days, or not at all? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	
In the last 12 months, how often did this provider advise you to quit smoking or using tobacco? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA					

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, how often did this provider recommend or discuss medication to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication. Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA					
In the last 12 months, how often did this provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counselor. Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, 68, NA, NA					
In the last 12 months, how often did this provider seem to know the important information about your medical history? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**				
In the last 12 months, how often did the provider named in Question 1 seem informed and up-to-date about the care you got from specialists? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
In the last 12 months, did you and anyone in this provider's office talk at each visit about all your prescription medicines? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 49, 49, 55, 49					
In the last 12 months, how often did the specialists you saw seem to know the important information about your medical history? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 45, 45, 45, 45					
In the past 12 months, were you admitted to a hospital? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**			
Did you see doctor, nurse, or other person from this provider's office during your most recent hospital stay? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64				**	



<b>Question</b>	<b>Age &gt;=65 vs &lt; 65</b>	<b>HCC Score High vs Low/Moderate</b>	<b>Medicaid Eligibility Yes vs No</b>	<b>Spanish Preference High vs Low/Moderate</b>	<b>Rural Yes vs No</b>
Within the two weeks after your most recent hospital stay, did you see a doctor, nurse, or other person in this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64					
Within the two weeks after your most recent hospital stay, did you have a telephone call with a doctor, nurse, or other person in this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, NA, 64					
After your most recent hospital stay, how often did this provider seem to know the important information about this hospital stay? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	NA	NA	NA	NA	NA
In the last 12 months, how often did this provider explain things in a way that was easy to understand? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9			*		**
In the last 12 months, how often did this provider listen carefully to you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**				
In the last 12 months, did you talk with this provider about any health questions or concerns? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**		*	
In the last 12 months, how often did this provider give you easy to understand information about these health questions or concerns? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 26, 26, 26, 26	**				
In the last 12 months, how often did this provider show respect for what you had to say? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**				
In the last 12 months, how often did this provider spend enough time with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	**
In the last 12 months, did you take any prescription medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**			

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, did you and this provider talk about starting or stopping a prescription medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**			
When you talked about starting or stopping a prescription medicine, how much did this provider talk about the reasons you might want to take a medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39		**	*	**	**
When you talked about starting or stopping a prescription medicine, how much did this provider talk about the reasons you might not want to take a medicine? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39		**		**	
When you talked about starting or stopping a prescription medicine, did this provider ask you what you thought was best for you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 39, 39, 39, 39				**	
In the last 12 months, did you see this provider for a specific illness or for any health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**	**			
In the last 12 months, did this provider give you instructions about what to do to take care of this illness or health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29	**				
In the last 12 months, how often were these instructions easy to understand? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30					**
In the last 12 months, how often did this provider ask you to describe how you were going to follow these instructions? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30				**	

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
Sometimes providers give instructions that are hard to follow. In the last 12 months, how often did this provider ask you whether you would have any problems doing what you need to do to take care of this illness or health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29 and 30, 30, 30, 30					
In the last 12 months, how often did this provider explain what to do if this illness or health condition got worse or came back? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 29, 29, 29, 29					
In the last 12 months, did anyone in this provider's office talk with you about specific goals for your health? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**			
In the last 12 months, did anyone in this provider's office ask you if there are things that make it hard for you to take care of your health? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**		**	
In the last 12 months, has anyone in this provider's office discussed weight loss with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
In the last 12 months, has anyone in this provider's office discussed exercising regularly with you to keep your heart healthy, to keep your blood pressure controlled, or to lose weight? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
In the last 12 months, has anyone in this provider's office discussed eating right with you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9					
In the last 12 months, did this provider order a blood test, x-ray, or other test for you? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9				*	
In the last 12 months, when this provider ordered a blood test, x-ray, or other test for you, how often did someone from this provider's office follow up to give you those results? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 37, 37, 37, 37				**	**

Question	Age >=65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
During the past 12 months, have you gone to see a dentist Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9			**		
During the past 12 months, have you gone to see an optometrist or ophthalmologist or eye doctor? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**			**	
During the past 12 months, have you gone to see a psychiatrist, psychologist, or a mental health counselor? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	**		**		
During the past 12 months, have you gone to see an audiologist or a doctor or nurse for your hearing? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9	*				
How well do you speak English? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56	**		**		
An interpreter is someone who helps you talk with others who do not speak your language. Interpreters can include staff from the provider's office or telephone interpreters. In the last 12 months, was there any time when you needed an interpreter at this provider's office? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57					
In the last 12 months, how often did you use an interpreter provided by this office to help you talk with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 59, 62, 71, 59					
In the last 12 months, when you used an interpreter provided by this office who was the interpreter you used most often? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 59, 62, 71, 59 and 60, 63, 72, 60					
In the last 12 months, how often did you use a friend or family member as an interpreter when you talked with this provider? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57	**				

Question	Age ≥65 vs < 65	HCC Score High vs Low/Moderate	Medicaid Eligibility Yes vs No	Spanish Preference High vs Low/Moderate	Rural Yes vs No
In the last 12 months, did you use friends or family members as interpreters because that was what you preferred? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and 56, 59, 68, 56 and 57, 60, 69, 57 and 62, 65, 74, 62					
Some clinics and offices arrange transportation for patients. This help can be a shuttle bus or van or tokens or vouchers for a bus or taxi. In the last 3 months, did you need help with transportation to visits at your provider's office Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**	**		
Did this provider's office help you with transportation? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, 65, NA				**	
In the last 12 months, how often did the help you received with transportation meet your needs? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9 and NA, NA, 65, NA and NA, NA, 66, NA					
In the last 12 months, did you need home health services to manage a health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**	**		
In the last 12 months, did anyone in this provider's office ask if you needed more services at home to manage your health conditions? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**	**		
In the last 12 months, did anyone in this provider's office help you get the services you need at home to manage your health condition? Conditional on passing gate items 1, 1, 1, 1 and 9, 9, 9, 9		**	**		

\* Significant at Bonferroni-adjusted 0.10 level of significance

\*\* Significant at Bonferroni-adjusted 0.05 level of significance

NA Adjusted chi-square statistic cannot be computed because zero values of at least one cell.

## Appendix A: FQHC Site Interviews

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### Appendix Exhibit A.1: FQHC Site Interview—Baseline Codebook

Code ID	Code/theme	Related Questions on Demonstration Site Interview Protocol*	Comments
<i>* Note: we will code passages related to the theme wherever they occurs in the interview</i>			
C01	PCMH perspectives	Q8 & 9 (your understanding/definition of PCMH model; its components)	
C02	Reasons for participating in the demo	Q10 (why you applied to demo, what wanted to get from it)	
C03	Previous QI/QA initiatives and experience	Q6 (6) have you been involved in other QI/practice change initiatives now or in the past)	
C04	Value (or not) of PCMH recognition		<i>Parent code</i>
C04.1	NCQA recognition	Q11 & 12 (value of NCQA recognition, benefits/downsides); Q13 (prior reasons to pursue recognition)	
C04.2	Other types of PCMH recognition	Q12 & 13 (prior consideration of any types of PCMH recognition)	
C05	How sites organized their QI/QA function (in general)	Q5 In general, how does your clinic try to ensure or improve quality of care (people, teams, etc.)?	<i>Inclusion:</i> structures/roles/processes for monitoring and implementing quality & safety within the FQHC may overlap with C06; how organized is PCMH change and recognition efforts if there is overlap.

Code ID	Code/theme	Related Questions on Demonstration Site Interview Protocol*	Comments
C06	How sites organized their work on PCMH change and recognition	Q25 (how organizing work of practice transformation, task-oriented work groups, etc.)	<i>Inclusion:</i> specific structures/roles/processes for implementing the demo/PCMH changes. <i>Exclusion:</i> changes to clinic operations and processes related to delivery of care go into C09-PCMH changes FQHC made during demo.
C07	Extent site operated as medical home prior to demo	Q15 (extent clinic already operating as medical home)	<i>Inclusion:</i> Pertains specifically to PCMH characteristics. <i>Exclusion:</i> prior QI/QA initiatives and experience go in C03.
C08	Current organization and process for care delivery		<i>Parent code</i>
C08.1	Current internal-Team model	Q4 (does clinic use "team-based" approach, and if so, what does it look like?)	<i>Inclusion:</i> mentions of "current" team model. <i>Exclusion:</i> team model implemented since start of demo go in C09.1-Internal PCMH changes.
C08.2	Current internal-EHR/EMR		<i>Inclusion:</i> mentions of "current" EHR/EMR systems <i>Exclusion:</i> EHR/EMR systems or changes implemented since start of demo go in C09.1-Internal PCMH changes.
C08.3	Current external relationships	Q9 PCMH components (Coordination of care with other providers and facilities outside the clinic)	<i>Inclusion:</i> mentions of "current" external relationships, and any clinic processes to manage those. <i>Exclusion:</i> external relationship processes implemented since start of demo go in C09.2-Internal PCMH changes.
C09	PCMH changes FQHC made during demo		<i>Parent code</i>
C09.1	Internal PCMH changes to organization and delivery of care	Q20 (what clinic done so far toward PCMH); Q24 (steps currently undertaking)	
C09.2	External PCMH changes (i.e., relations with hospitals, specialists, etc.)	Ditto	
C09.2.1	External changes-hospital relations	Ditto	

Code ID	Code/theme	Related Questions on Demonstration Site Interview Protocol*	Comments
C09.2.2	External changes-specialists	Ditto	
C09.2.3	External changes-mental health	Ditto	
C09.2.4	External changes-others	Ditto	<i>Inclusion:</i> other providers or community organizations
C09.3	When/if obtain NCQA recognition	Q21 (attained PCMH recognition since start of demo?)	<i>Inclusion:</i> for Demo sites, includes whether planning to obtain NCQA recognition
C09.4	PCMH changes left to do	Q22 change still required to become PCHM	
C10	Clientele focus of PCMH changes		<i>Parent code</i>
C10.1	Focus (or not) on Medicare clients	Q30 (extent changes affect general patient population vs Medicare, Medicaid, other pops)	
C10.2	Focus (or not) on other types of clients	Q30 (extent changes affect general patient population vs Medicare, Medicaid, other pops)	
C10.3	Perspectives of clients/care-givers on PCMH changes	Q19 (biggest changes from PCMH that patients, family and other caregivers would see)	
C11	Challenges implementing changes		<i>Parent code</i>
C11.1	PCMH change challenges	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges); Q16 (practice leader commitment), Q17 (practitioner commitment), Q18 (compatibility to culture/work process); Q6 (involvement in other QI initiatives)	Includes things that have been barriers to or made implementing PCMH changes harder. ALSO includes strategies for overcoming a challenge (if mentioned).
C11.2	NCQA recognition process challenges	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges)	Includes things that have been barriers to or made NCQA recognition process harder. ALSO includes strategies for overcoming a challenge (if mentioned).
C11.3	Demo-specific challenges	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges)	Includes things that have been barriers to or have made interacting with CMS/contractors or understanding demo harder. ALSO includes strategies for overcoming a challenge (if mentioned).
C12	Facilitators implementing changes		<i>Parent code</i>



<b>Code ID</b>	<b>Code/theme</b>	<b>Related Questions on Demonstration Site Interview Protocol*</b>	<b>Comments</b>
C12.1	PCMH change facilitators	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges); Q16 (practice leader commitment), Q17 (practitioner commitment), Q18 (compatibility to culture/work process); Q6 (involvement in other QI initiatives)	Includes things that made implementing PCMH changes easier, as well as typical challenges that have turned out not to be for the respondent's FQHC.
C12.2	NCQA recognition facilitators	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges)	Includes things that made NCQA recognition process easier, as well as typical challenges that have turned out not to be for the respondent's FQHC.
C12.3	Demo-specific facilitators	Q 26 (challenges encountered in becoming PCHM & attaining NCQA recognition); Q27 (how overcome challenges)	Includes things that made interacting with CMS/contractors or understanding demo easier, as well as typical challenges that have turned out not to be for the respondent's FQHC.
C13	Perspectives on PCMH support received by demo sites		<i>Parent code</i>
C13.1	Demo enhanced medical home payments (PBPM)	Q33 (use and visibility of demo enhanced payments within FQHC)	Intervention Component 1
C13.2	Demo NCQA/Truven support	Q31a (participation in TA from demo-related contractors)	Intervention Component 2
C13.3	Demo AIR support	Q31a (participation in TA from demo-related contractors)	Intervention Component 3 (includes national webinars, Qualis PCMH-A self-assessment, etc.)
C13.4	Demo PCA support (AIR-related)	Q31a (participation in TA from demo-related contractors)	Intervention Component 3 (code all PCA whether recognized as part of demo by sites)
C13.5	Demo-provided feedback reports	Q31c & d (receipt of quarterly feedback report; any feedback reports)	Intervention Component 4 (RAS, RTI, Qualis PCMH-A, etc.)
C13.6	Other (non-demo) financial support	Q34 (receipt of funding support for PCMH from other sources during the demo)	Intervention Component 5

Code ID	Code/theme	Related Questions on Demonstration Site Interview Protocol*	Comments
C13.7	Other (non-demo) TA support	Q31b (receipt of TA on PCMH from other sources), Q14 (past sources of PCMH info/tools)	Intervention Component 5. Includes consortia/ associations, and consultants (paid or unpaid), as well as other TA sources (improvement orgs and other entities, websites, guides/materials, etc.)
C20	Site feedback/suggestions to demo	Q35 (questions, concerns, feedback about the demo for CMS or its demo partners)	

## Appendix B: PCA Interviews

### Appendix Exhibit B.1: PCA Leader Interview—Baseline Codebook

Code ID	Code/theme	Comments
P01	Background on PCAs role in Demo	When and how PCA became involved.
P02	Background on PCAs PCMH efforts	Development of PCA's PCMH-related efforts, including those not directly related to the Demo.
P03	Types of support PCA provides to Demo sites	<i>Parent code</i>
P03.1	Webinars or group conference calls	
P03.2	In-person group meetings	
P03.3	One-on-one coaching	
P03.4	Site visit consults	
P03.5	Phone or email questions	
P03.6	Listserv, blog or discussion board	
P03.7	Other types of TA support	
P04	PCA personnel/resources for PCMH support	
P05	Comparison between support to Demo vs. non-Demo sites	
P06	Working with Demo sites	<i>Parent code</i>
P06.1	Number of Demo sites work with	
P06.2	Frequency & method of contact	
P06.3	How track progress of Demo sites	Re: both PCMH transformation & NCQA recognition
P07	Progress of Demo sites	How far along are Demo sites in State
P08	Challenges Demo sites having	<i>Parent code</i>
P08.1	PCMH transformation challenges	
P08.2	Recognition process challenges	
P08.3	PCA strategies for site challenges	
P09	Demo vs. Non-Demo sites	<i>Parent code</i>
P09.1	Progress vs. non-Demo sites	
P09.2	Challenges vs. non-Demo sites	
P10	Barriers to providing TA support	<i>Parent code</i>
P10.1	Barriers engaging sites in TA	

<b>Code ID</b>	<b>Code/theme</b>	<b>Comments</b>
P10.2	PCA strategies for engaging sites	
P11	Which TA support most useful to sites	
P12	Demo site use of other Intervention Components	<i>Parent code</i>
P12.1	Enhanced PBPM payment	
P12.2	Feedback reports	
P12.3	PCMH-A self-assessment	
P12.4	NCQA TA support	
P12.5	AIR webinars	
P12.6	Other support	
P13	Working within PCA Clusters	<i>Parent code</i>
P13.1	Kinds of support from Regional Cluster leads	Only for PCAs that are NOT Cluster leads.
P13.2	Effectiveness of Regional Cluster lead support	Only for PCAs that are NOT Cluster leads.
P13.3	Challenges managing Cluster	Only for Cluster Lead PCAs.
P13.4	Strategies for managing Cluster	Only for Cluster Lead PCAs.
P13.5	Satisfaction with support from Demo national partners	Only for Cluster Lead PCAs.
P14	What's working with Demo	
P15	What's NOT working with Demo	
P16	Suggestions for improving Demo	
P17	PCA plans for TA going forward	

## Appendix C: Medicare Claims Analyses

**Appendix Exhibit C.1a: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes**

	Total Cost Coefficient	Total Cost t-statistic	Acute Care Cost Coefficient	Acute Care Cost t-statistic	Post-Acute Care Cost Coefficient	Post-Acute Care Cost t-statistic	FQHC/RHC Cost Coefficient	FQHC/RHC Cost t-statistic
Intercept	8.3002***	38.1541	9.674***	37.33	10.67***	20.91	4.916***	70.17
Incremental level for demonstration sites	0.00499	0.5964	0.00613	0.48	0.0294	0.84	0.00763**	2.64
Quarter 2 (incremental for comparison sites)	0.02976**	2.9546	0.0292*	1.98	-0.0767	-1.67	0.0109***	4.46
Quarter 3 (incremental for comparison sites)	0.03709***	3.6201	0.0258	1.79	0.0113	0.25	-0.00793**	-3.22
Quarter 4 (incremental for comparison sites)	0.10026***	9.8736	0.115***	6.9	-0.0363	-0.82	0.0216***	8.72
Quarter 5 (incremental for comparison sites)	0.46227***	20.1552	0.304***	11.00	0.117	1.85	0.00542	1.33
Quarter 6 (incremental for comparison sites)	0.61698***	24.8141	0.329***	9.87	0.103	1.43	0.0345***	8.14
Quarter 7 (incremental for comparison sites)	0.57839***	25.5092	0.301***	11.8	-0.00575	-0.09	0.0303***	6.95
Quarter 8 (incremental for comparison sites)	0.54542***	30.1693	0.285***	11.83	-0.0318	-0.53	0.0275***	6.28
Quarter 9 (incremental for comparison sites)	0.53778***	23.7731	0.302***	10.48	-0.00157	-0.03	-0.00487	-1.07
Quarter 10 (incremental for comparison sites)	0.67565***	29.4308	0.297***	11.36	0.00446	0.07	0.0291***	5.79
Quarter 5 (difference-in-difference estimate)	-0.03388	-1.4065	-0.0359	-1.18	-0.138*	-2.16	0.00988*	2.2
Quarter 6 (difference-in-difference estimate)	-0.0422	-1.6175	-0.0302	-0.84	-0.0602	-0.83	0.00721	1.58
Quarter 7 (difference-in-difference estimate)	0.01241	0.5138	0.0144	0.5	-0.0369	-0.55	0.00237	0.5
Quarter 8 (difference-in-difference estimate)	0.03062	1.5555	0.0391	1.41	0.0189	0.31	0.00126	0.26
Quarter 9 (difference-in-difference estimate)	0.02509	1.0348	0.0243	0.76	-0.049	-0.82	0.00607	1.2
Quarter 10 (difference-in-difference estimate)	-0.00805	-0.3277	0.00616	0.21	-0.0346	-0.56	-0.0129*	-2.34

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

All models control for beneficiary, site, organizational, and area level characteristics. Coefficients have not been transformed to their original scale of measurement. For estimates of total cost, see Exhibit VII.19.

**Appendix Exhibit C.1b: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes**

	<b>Outpatient Cost Coefficient</b>	<b>Outpatient Cost t-statistic</b>	<b>Primary care Physician Cost Coefficient</b>	<b>Primary care Physician Cost t-statistic</b>	<b>Specialty Physician Cost Coefficient</b>	<b>Specialty Physician Cost t-statistic</b>
Intercept	7.656***	19.82	5.809***	15.86	6.822***	28.87
Incremental level for demonstration sites	0.0203	1.26	-0.017	-1.31	0.00829	0.73
Quarter 2 (incremental for comparison sites)	0.0408**	3.1	0.0685***	4.74	0.0556***	5.15
Quarter 3 (incremental for comparison sites)	0.0385**	2.87	0.0677***	5.07	0.0290**	3.13
Quarter 4 (incremental for comparison sites)	0.110***	6.43	0.123***	8.95	0.0840***	8.59
Quarter 5 (incremental for comparison sites)	0.159***	7.37	0.301***	12.86	0.172***	10.29
Quarter 6 (incremental for comparison sites)	0.286***	12.14	0.390***	16.94	0.264***	14.03
Quarter 7 (incremental for comparison sites)	0.292***	11.24	0.379***	17.93	0.245***	14.72
Quarter 8 (incremental for comparison sites)	0.302***	11.17	0.369***	17.14	0.243***	14.51
Quarter 9 (incremental for comparison sites)	0.238***	9.89	0.313***	11.31	0.197***	7.97
Quarter 10 (incremental for comparison sites)	0.335***	13.97	0.403***	19.2	0.300***	14
Quarter 5 (difference-in-difference estimate)	0.00701	0.29	0.00853	0.34	-0.0431*	-2.45
Quarter 6 (difference-in-difference estimate)	0.0117	0.45	0.0344	1.45	-0.0183	-0.90
Quarter 7 (difference-in-difference estimate)	0.0108	0.39	0.0217	1.00	0.000204	0.01
Quarter 8 (difference-in-difference estimate)	-0.0123	-0.42	0.0304	1.39	-0.00417	-0.23
Quarter 9 (difference-in-difference estimate)	-0.00663	-0.24	0.0379	1.34	-0.0417	-1.58
Quarter 10 (difference-in-difference estimate)	0.00381	0.14	0.0520*	2.36	-0.0164	-0.70

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

Coefficients have not been transformed to their original scale of measurement.

All models control for beneficiary, site, organizational, and area level characteristics.

**Appendix Exhibit C.2: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Utilization Outcomes**

	<b>Inpatient Admission Rate Coefficient</b>	<b>Inpatient Admission Rate t-statistic</b>	<b>Emergency Department Visit Rate Coefficient</b>	<b>Emergency Department Visit Rate t-statistic</b>	<b>ACSC Hospitalization Rate Coefficient</b>	<b>ACSC Hospitalization Rate t-statistic</b>	<b>Hospital Readmission Rate Coefficient</b>	<b>Hospital Readmission Rate t-statistic</b>
Intercept	-3.66569***	-12.9091	-2.61678***	-9.613	-7.16012***	-10.0931	-2.6478***	-3.8098
Incremental level for demonstration sites	0.03263*	2.711	0.0079	0.731	0.06402	1.9349	0.0337	1.0412
Quarter 2 (incremental for comparison sites)	0.10647***	7.2488	0.04122***	3.8919	0.11681***	3.4602	0.0610	1.5731
Quarter 3 (incremental for comparison sites)	0.13987***	8.4889	0.07834***	7.4051	0.05995	1.5211	0.0843	1.9466
Quarter 4 (incremental for comparison sites)	0.17593***	11.3732	0.10625***	9.6559	0.09812**	2.6781	0.1248**	3.1253
Quarter 5 (incremental for comparison sites)	0.32539***	12.5171	0.09549***	6.1158	0.35819***	6.9484	0.4976***	7.5081
Quarter 6 (incremental for comparison sites)	0.36853***	13.1256	0.18235***	8.8887	0.41654***	6.4566	0.3602***	3.9912
Quarter 7 (incremental for comparison sites)	0.3487***	12.1678	0.16429***	8.5221	0.25307**	3.206	0.4314***	6.0002
Quarter 8 (incremental for comparison sites)	0.25671***	10.3429	0.11608***	6.4276	0.15286*	2.5082	0.5131***	8.0637
Quarter 9 (incremental for comparison sites)	0.29843***	10.6326	0.05485***	2.9729	0.40612***	5.8136	0.5263***	7.3477
Quarter 10 (incremental for comparison sites)	0.30157***	11.2493	0.02698**	1.3512	0.36976***	5.125	0.5424***	6.6302
Quarter 5 (difference-in-difference estimate)	-0.01828	-0.6738	0.0284	1.7192	-0.04832	-0.8466	-0.0962	-1.3454
Quarter 6 (difference-in-difference estimate)	-0.01739	-0.6053	-0.02621	-1.2746	-0.09051	-1.3286	0.0295	0.3073
Quarter 7 (difference-in-difference estimate)	-0.02788	-0.9491	0.02351	1.2159	-0.05463	-0.6725	0.0770	0.9824
Quarter 8 (difference-in-difference estimate)	0.01049	0.395	0.0377*	1.9838	0.00516	0.0775	-0.0213	-0.3043
Quarter 9 (difference-in-difference estimate)	-0.0411	-1.3921	0.03112	1.6402	-0.10318	-1.3808	0.0210	0.2757
Quarter 10 (difference-in-difference estimate)	-0.00712	-0.2489	0.02792	1.3605	-0.02641	-0.3435	-0.0578	-0.6389

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

Coefficients have not been transformed to their original scale of measurement. All models control for beneficiary, site, organizational, and area level characteristics. For these estimates see Exhibits VII.20-23.

**Appendix Exhibit C.3a: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Process Measures**

**For patients with diabetes**

	<b>HbA1c test Coefficient</b>	<b>HbA1c test t-statistic</b>	<b>Eye exam Coefficient</b>	<b>Eye exam t-statistic</b>	<b>LDL-C test Coefficient</b>	<b>LDL-C test t-statistic</b>
Intercept	1.3743***	60.3540	-0.3326***	-19.2619	1.2736***	64.4091
Incremental level for demonstration sites	0.0582*	2.2861	0.0282	1.5238	0.0527*	2.5194
Quarter 2 (incremental for comparison sites)	0.0823***	7.0401	-0.0270**	-3.1821	-0.0216	-1.7199
Quarter 3 (incremental for comparison sites)	0.1621***	11.0813	-0.0294**	-2.7230	-0.0190	-1.2203
Quarter 4 (incremental for comparison sites)	0.2234***	12.9975	-0.0151	-1.2289	0.0013	0.0759
Quarter 5 (incremental for comparison sites)	0.1775***	7.1760	-0.0154	-0.9298	-0.0438	-1.7512
Quarter 6 (incremental for comparison sites)	0.2028***	7.4549	-0.0434*	-2.2719	-0.0640*	-2.3595
Quarter 7 (incremental for comparison sites)	0.2102***	7.2525	-0.0640**	-3.2199	-0.0956**	-3.2386
Quarter 8 (incremental for comparison sites)	0.1705***	5.9809	-0.0968***	-4.6843	-0.1085***	-3.6695
Quarter 9 (incremental for comparison sites)	0.1468***	5.0075	-0.1021***	-4.9178	-0.1120***	-3.7127
Quarter 10 (incremental for comparison sites)	0.0743*	2.3543	-0.1026***	-4.6668	-0.1558***	-5.2100
Quarter 5 (difference-in-difference estimate)	0.0898***	4.2135	0.0053	0.3913	0.0316	1.4438
Quarter 6 (difference-in-difference estimate)	0.0817**	3.0492	0.0293	1.5542	0.0245	0.9073
Quarter 7 (difference-in-difference estimate)	0.0759*	2.5011	0.0673**	3.1359	0.0465	1.4910
Quarter 8 (difference-in-difference estimate)	0.0819**	2.6367	0.0937***	3.9599	0.0383	1.1968
Quarter 9 (difference-in-difference estimate)	0.0697*	2.1613	0.0821***	3.4861	0.0118	0.3635
Quarter 10 (difference-in-difference estimate)	0.0775*	2.2587	0.0599*	2.4401	-0.0209	-0.6413

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

Coefficients have not been transformed to their original scale of measurement. For these estimates see Exhibits VII.24-26.



**Appendix Exhibit C.3b: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Process Measures**

	<b>Nephropathy test for patients with diabetes Coefficient</b>	<b>Nephropathy test for patients with diabetes t-statistic</b>	<b>All diabetes process measures Coefficient</b>	<b>All diabetes process measures t-statistic</b>	<b>Lipid test for patients with IVD Coefficient</b>	<b>Lipid test for patients with IVD t-statistic</b>
Intercept	0.2616***	15.7807	-1.2744***	-59.9854	1.0494***	39.6502
Incremental level for demonstration sites	-0.0445*	-2.5685	0.0291	1.3147	0.0775**	2.8327
Quarter 2 (incremental for comparison sites)	0.0141	1.5251	0.0017	0.1420	-0.0200	-1.2379
Quarter 3 (incremental for comparison sites)	0.0568***	5.0085	0.0454**	2.9869	-0.0263	-1.2782
Quarter 4 (incremental for comparison sites)	0.0996***	7.4471	0.0829***	5.3464	0.0098	0.4621
Quarter 5 (incremental for comparison sites)	0.0741***	3.9097	0.0613**	2.7050	-0.0148	-0.5202
Quarter 6 (incremental for comparison sites)	0.0502*	2.4001	0.0309	1.2688	-0.0525	-1.6469
Quarter 7 (incremental for comparison sites)	0.0495*	2.2108	0.0094	0.3551	-0.0714*	-1.9953*
Quarter 8 (incremental for comparison sites)	0.0367	1.5568	-0.0070	-0.2604	-0.0553	-1.5158
Quarter 9 (incremental for comparison sites)	0.0089	0.3568	-0.0391	-1.4413	-0.0746	-1.9176
Quarter 10 (incremental for comparison sites)	-0.0021	-0.0835	-0.0488	-1.7131	-0.1453***	-3.6911
Quarter 5 (difference-in-difference estimate)	0.0443**	2.6939	0.0301	1.4510	0.0159	0.6506
Quarter 6 (difference-in-difference estimate)	0.0879***	4.2192	0.0751**	2.9468	0.0098	0.3048
Quarter 7 (difference-in-difference estimate)	0.0838***	3.6404	0.1023***	3.6423	0.0087	0.2345
Quarter 8 (difference-in-difference estimate)	0.0781**	3.0980	0.1172***	4.0124	-0.0193	-0.4911
Quarter 9 (difference-in-difference estimate)	0.0950***	3.6200	0.1368***	4.6554	-0.0747	-1.8049
Quarter 10 (difference-in-difference estimate)	0.0871**	3.2665	0.1169***	3.7816	-0.0674	-1.6166

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

Coefficients have not been transformed to their original scale of measurement. For these estimates see Exhibits VII.27-29.

## Appendix D: Medicaid Claims Analyses

**Appendix Exhibit D.1: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Cost Outcomes**

	Total Cost Coefficient	Total Cost t-statistic	Acute Care Hospital Cost Coefficient	Acute Care Hospital Cost t-statistic	Outpatient Hospital Cost Coefficient	Outpatient Hospital Cost t-statistic	Outpatient Clinic Cost Coefficient	Outpatient Clinic Cost t-statistic	Physician Cost Coefficient	Physician Cost t-statistic
Intercept	6.801***	421.33	9.396***	205.61	4.559***	53.52	5.912***	1339.26	5.391***	460.21
Incremental level for demonstration sites	0.00859	0.44	0.0207	0.38	-0.0875	-0.80	-0.0105	-1.80	0.0104	0.73
Quarter 2 (incremental for comparison sites)	-0.0275	-1.51	-0.0531	-1.00	0.00770	0.11	-0.00455	-0.99	-0.00911	-0.67
Quarter 3 (incremental for comparison sites)	-0.0555**	-2.96	0.0554	1.01	-0.0263	-0.46	-0.0550***	-11.84	-0.0385**	-2.99
Quarter 4 (incremental for comparison sites)	-0.138***	-7.36	0.00497	0.09	0.0109	0.15	-0.0629***	-12.98	-0.0786***	-5.79
Quarter 5 (incremental for comparison sites)	-0.167***	-7.50	0.0443	0.67	-0.192	-1.69	-0.0895***	-15.64	-0.0639***	-3.89
Quarter 6 (incremental for comparison sites)	-0.206***	-9.06	-0.0246	-0.34	-0.199*	-2.42	-0.0913***	-15.72	-0.0639***	-3.69
Quarter 7 (incremental for comparison sites)	-0.263***	-11.32	-0.0359	-0.49	-0.0897	-0.68	-0.139***	-22.68	-0.0699***	-4.05
Quarter 8 (incremental for comparison sites)	-0.200***	-8.64	0.0751	1.03	0.154	1.33	-0.101***	-16.36	-0.0313	-1.90
Quarter 5 (difference-in-difference estimate)	-0.0299	-0.87	-0.0276	-0.26	0.0288	0.12	0.00310	0.33	-0.0857***	-3.46
Quarter 6 (difference-in-difference estimate)	-0.0979**	-2.91	0.0578	0.47	0.0109	0.09	0.00335	0.35	-0.0734**	-2.89
Quarter 7 (difference-in-difference estimate)	-0.0864*	-2.57	-0.230	-1.69	-0.0790	-0.48	0.0297**	2.74	-0.0377	-1.53
Quarter 8 (difference-in-difference estimate)	-0.0759*	-2.01	-0.0711	-0.45	-0.168	-1.43	-0.00779	-0.74	-0.0133	-0.47

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p < 0.001.

Coefficients have not been transformed to their original scale of measurement.

**Appendix Exhibit D.2: Difference-in-Difference Model Coefficients (Quarter-by-Quarter Specification)—Utilization Outcomes**

	<b>Inpatient Admission Rate Coefficient</b>	<b>Inpatient Admission Rate t-statistic</b>	<b>Emergency Department Visit Rate Coefficient</b>	<b>Emergency Department Visit Rate t-statistic</b>
Intercept	-2.826***	-159.52	-1.961***	-133.33
Incremental level for demonstration sites	-0.0747**	-3.16	0.0121	0.56
Quarter 2 (incremental for comparison sites)	-0.0492*	-2.42	0.00846	0.60
Quarter 3 (incremental for comparison sites)	-0.0537*	-2.56	0.0506***	3.39
Quarter 4 (incremental for comparison sites)	-0.148***	-6.75	0.0228	1.42
Quarter 5 (incremental for comparison sites)	-0.157***	-6.31	-0.0462*	-2.50
Quarter 6 (incremental for comparison sites)	-0.172***	-6.54	0.00448	0.24
Quarter 7 (incremental for comparison sites)	-0.211***	-7.96	0.0283	1.49
Quarter 8 (incremental for comparison sites)	-0.204***	-7.50	0.0252	1.28
Quarter 5 (difference-in-difference estimate)	0.0544	1.38	-0.0329	-1.17
Quarter 6 (difference-in-difference estimate)	0.0170	0.41	0.0156	0.54
Quarter 7 (difference-in-difference estimate)	0.0292	0.68	-0.0236	-0.79
Quarter 8 (difference-in-difference estimate)	0.0742	1.65	-0.0124	-0.39

NOTE: \*p < 0.05;

\*\* p < 0.01;

\*\*\* p<0.001.

Coefficients have not been transformed to their original scale of measurement.